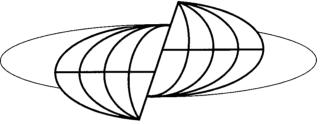
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# THE TREATY ON OPEN SKIES **COMPENDIUM**



Department of Foreign Affairs and International Trade · Ottawa, Canada 2003

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#### EDITOR'S NOTE

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Prepared by the International Security Research and Outreach Program (ISROP) of the Canadian Department of Foreign Affairs and International Trade (DFAIT), this compendium provides a collection of documents related to the Treaty on Open Skies covering the period 1992 through 07 April 2003, end of the 30<sup>th</sup> Session of the OSCC. These include the **Treaty on Open Skies (Section I)**; those adopted **Open Skies Consultative Commission (OSCC) Decisions to the Treaty on Open Skies (Section II)**; the **Chairperson's Statements (Section III)**; and, **Additional Documents (Section IV)**. Each Section has its own Table of Contents.

The original concept for the Treaty - mutual and cooperative aerial observation - was proposed by President Eisenhower in 1955, and the Treaty itself was an initiative of former Prime Minister Mulroney and former President Bush in 1989. The Treaty was negotiated between the members of NATO and the former Warsaw Pact, with the latter dissolving during the course of the talks. Canada hosted the initial negotiations in Ottawa in 1991, and is, with Hungary, a Co-Depositary of the Treaty. The Treaty was signed in Helsinki, Finland, on 24 March 1992, and elements have been applied provisionally since then, with more than 350 trial flights taking place between 1996 and 2001. On I January 2002, The Treaty entered into force and the OSCC Working Groups were re-activated.

#### As of 07 April 2003, under the Treaty:

- there were 29 States Parties (the original signatory States plus Sweden, Finland and Latvia);
- Kyrgyzstan remained a Signatory State to the Treaty; and
- 6 OSCE Participating States (Bosnia-Herzegovina, Croatia, Cyprus, Estonia, Lithuania and Slovenia) had already deposited their letters of intent to accede to the Treaty but had not deposited their instruments of accession.

This publication contains the original text of the Treaty Articles and Annexes as signed in 1992. It also contains the original text of subsequent Open Skies Consultative Commission's Decisions and Chairman's Statements. The Treaty on Open Skies must be read in conjunction with these Decisions and Statements, as well as Open Skies Formatted Notifications issued by State Parties, as these latter documents interpret and modify the original Treaty text.

Canada recognizes the perseverance of all who worked to bring the Treaty on Open Skies into force, and is pleased to provide this reference source. The compilation is not based on any legal considerations nor does it have any legal alterations due to practical limitations. Production of this compendium is the sole responsibility of ISROP.

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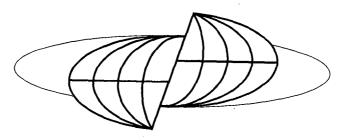
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### **SECTION I**

# THE TREATY ON OPEN SKIES



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#### TREATY ON OPEN SKIES

#### PREAMBLE

The States concluding this Treaty, hereinafter referred to collectively as the States Parties or individually as a State Party,

Recalling the commitments they have made in the Conference on Security and Co-operation in Europe to promoting greater openness and transparency in their military activities and to enhancing security by means of confidence- and security-building measures,

Welcoming the historic events in Europe which have transformed the security situation from Vancouver to Vladivostok,

Wishing to contribute to the further development and strengthening of peace, stability and co-operative security in that area by the creation of an Open Skies regime for aerial observation,

Recognizing the potential contribution which an aerial observation regime of this type could make to security and stability in other regions as well,

Noting the possibility of employing such a regime to improve openness and transparency, to facilitate the monitoring of compliance with existing or future arms control agreements and to strengthen the capacity for conflict prevention and crisis management in the framework of the Conference on Security and Co-operation in Europe and in other relevant international institutions,

Envisaging the possible extension of the Open Skies regime into additional fields, such as the protection of the environment,

Seeking to establish agreed procedures to provide for aerial observation of all the territories of States Parties, with the intent of observing a single State Party or groups of States Parties, on the basis of equity and effectiveness while maintaining flight safety,

Noting that the operation of such an Open Skies regime will be without prejudice to States not participating in it,

Have agreed as follows:

#### -Article I

#### **GENERAL PROVISIONS**

1. This Treaty establishes the regime, to be known as the Open Skies regime, for the conduct of observation flights by States Parties over the territories of other States Parties, and sets forth the rights and obligations of the States Parties relating thereto.

2. Each of the Annexes and their related Appendices constitutes an integral part of this Treaty.

#### Article II

#### DEFINITIONS

For the purposes of this Treaty:

1. The term "observed Party" means the State Party or group of States Parties over whose territory an observation flight is conducted or is intended to be conducted, from the time it has received notification thereof from an observing Party until completion of the procedures relating to that flight, or personnel acting on behalf of that State Party or group of States Parties.

2. The term "observing Party" means the State Party or group of States Parties that intends to conduct or conducts an observation flight over the territory of another State Party or group of States Parties, from the time that it has provided notification of its intention to conduct an observation flight until completion of the procedures relating to that flight, or personnel acting on behalf of that State Party or group of States Parties.

3. • The term "group of States Parties" means two or more States Parties that have agreed to form a group for the purposes of this Treaty.

4. The term "observation aircraft" means an unarmed, fixed wing aircraft designated to make observation flights, registered by the relevant authorities of a State Party and equipped with agreed sensors. The term "unarmed" means that the observation aircraft used for the purposes of this Treaty is not equipped to carry and employ weapons.

5. The term "observation flight" means the flight of the observation aircraft conducted by an observing Party over the territory of an observed Party, as provided in the flight plan, from the point of entry or Open Skies airfield to the point of exit or Open Skies airfield.

6. The term "transit flight" means a flight of an observation aircraft or transport aircraft conducted by or on behalf of an observing Party over the territory of a third State Party en route to or from the territory of the observed Party.

7. The term "transport aircraft" means an aircraft other than an observation aircraft that, on behalf of the observing Party, conducts flights to or from the territory of the observed Party exclusively for the purposes of this Treaty.

8. The term "territory" means the land, including islands, and internal and territorial waters, over which a State Party exercises sovereignty.

9. The term "passive quota" means the number of observation flights that each State Party is obliged to accept as an observed Party.

10. The term "active quota" means the number of observation flights that each State Party has the right to conduct as an observing Party.

11. The term "maximum flight distance" means the maximum distance over the territory of the observed Party from the point at which the observation flight may commence to the point at which that flight may terminate, as specified in Annex A to this Treaty.

12. The term "sensor" means equipment of a category specified in Article IV, paragraph 1 that is installed on an observation aircraft for use during the conduct of observation flights.

13. The term "ground resolution" means the minimum distance on the ground between two closely located objects distinguishable as separate objects.

14. The term "infra-red line-scanning device" means a sensor capable of receiving and visualizing thermal electro-magnetic radiation emitted in the invisible infra-red part of the optical spectrum by objects due to their temperature and in the absence of artificial illumination.

15. The term "observation period" means a specified period of time during an observation flight when a particular sensor installed on the observation aircraft is operating.

16. The term "flight crew" means individuals from any State Party who may include, if the State Party so decides, interpreters and who perform duties associated with the operation or servicing of an observation aircraft or transport aircraft.

17. The term "pilot-in-command" means the pilot on board the observation aircraft who is responsible for the operation of the observation aircraft, the execution of the flight plan, and the safety of the observation aircraft.

18. The term "flight monitor" means an individual who, on behalf of the observed Party, is on board an observation aircraft provided by the observing Party during the observation flight and who performs duties in accordance with Annex G to this Treaty.

19. The term "flight representative" means an individual who, on behalf of the observing Party, is on board an observation aircraft provided by the observed Party during an observation flight and who performs duties in accordance with Annex G to this Treaty.

20. The term "representative" means an individual who has been designated by the observing Party and who performs activities on behalf of the observing Party in accordance with Annex G during an observation flight on an observation aircraft designated by a State Party other than the observing Party or the observed Party.

21. The term "sensor operator" means an individual from any State Party who performs duties associated with the functioning, operation and maintenance of the sensors of an observation aircraft.

22. The term "inspector" means an individual from any State Party who conducts an inspection of sensors or observation aircraft of another State Party.

23. The term "escort" means an individual from any State Party who accompanies the inspectors of another State Party.

24. The term "mission plan" means a document, which is in a format established by the Open Skies Consultative Commission, presented by the observing Party that contains the route, profile, order of execution and support required to conduct the observation flight, which is to be agreed upon with the observed Party and which will form the basis for the elaboration of the flight plan.

25. The term "flight plan" means a document elaborated on the basis of the agreed mission plan in the format and with the content specified by the International Civil Aviation Organization, hereinafter referred to as the ICAO, which is presented to the air traffic control authorities and on the basis of which the observation flight will be conducted.

26. The term "mission report" means a document describing an observation flight completed after its termination by the observing Party and signed by both the observing and observed Parties, which is in a format established by the Open Skies Consultative Commission.

27. The term "Open Skies airfield" means an airfield designated by the observed Party as a point where an observation flight may commence or terminate.

28. The term "point of entry" means a point designated by the observed Party for the arrival of personnel of the observing Party on the territory of the observed Party.

29. The term "point of exit" means a point designated by the observed Party for the departure of personnel of the observing Party from the territory of the observed Party.

30. The term "refuelling airfield" means an airfield designated by the observed Party used for fuelling and servicing of observation aircraft and transport aircraft.

31. The term "alternate airfield" means an airfield specified in the flight plan to which an observation aircraft or transport aircraft may proceed when it becomes inadvisable to land at the airfield of intended landing.

32. The term "hazardous airspace" means the prohibited areas, restricted areas and danger areas, defined on the basis of Annex 2 to the Convention on International Civil Aviation, that are established in accordance with Annex 15 to the Convention on International Civil Aviation in the interests of flight safety, public safety and environmental protection and about which information is provided in accordance with ICAO provisions.

33. The term "prohibited area" means an airspace of defined dimensions, above the territory of a State Party, within which the flight of aircraft is prohibited.

34. The term "restricted area" means an airspace of defined dimensions, above the territory of a State Party, within which the flight of aircraft is restricted in accordance with specified conditions.

35. The term "danger area" means an airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

#### Article III

#### QUOTAS

SECTION I. GENERAL PROVISIONS

1. Each State Party shall have the right to conduct observation flights in accordance with the provisions of this Treaty.

2. Each State Party shall be obliged to accept observation flights over its territory in accordance with the provisions of this Treaty.

3. Each State Party shall have the right to conduct a number of observation flights over the territory of any other State Party equal to the number of observation flights which that other State Party has the right to conduct over it.

4. The total number of observation flights that each State Party is obliged to accept over its territory is the total passive quota for that State Party. The allocation of the total passive quota to the States Parties is set forth in Annex A, Section I to this Treaty.

5. The number of observation flights that a State Party shall have the right to conduct each year over the territory of each of the other States Parties is the individual active quota of that State Party with respect to that other State Party. The sum of the individual active quotas is the

total active quota of that State Party. The total active quota of a State Party shall not exceed its total passive quota.

6. The first distribution of active quotas is set forth in Annex A, Section II to this Treaty.

7. After entry into force of this Treaty, the distribution of active quotas shall be subject to an annual review for the following calendar year within the framework of the Open Skies Consultative Commission. In the event that it is not possible during the annual review to arrive within three weeks at agreement on the distribution of active quotas with respect to a particular State Party, the previous year's distribution of active quotas with respect to that State Party shall remain unchanged.

8. Except as provided for by the provisions of Article VIII, each observation flight conducted by a State Party shall be counted against the individual and total active quotas of that State Party.

9. Notwithstanding the provisions of paragraphs 3 and 5 of this Section, a State Party to which an active quota has been distributed may, by agreement with the State Party to be overflown, transfer a part or all of its total active quota to other States Parties and shall promptly notify all other States Parties and the Open Skies Consultative Commission thereof. Paragraph 10 of this Section shall apply.

10. No State Party shall conduct more observation flights over the territory of another State Party than a number equal to 50 per cent, rounded up to the nearest whole number, of its own total active quota, or of the total passive quota of that other State Party, whichever is less.

11. The maximum flight distances of observation flights over the territories of the States Parties are set forth in Annex A, Section III to this Treaty.

#### SECTION II. PROVISIONS FOR A GROUP OF STATES PARTIES

- (A) Without prejudice to their rights and obligations under this Treaty, two or more States Parties which hold quotas may form a group of States Parties at signature of this Treaty and thereafter. For a group of States Parties formed after signature of this Treaty, the provisions of this Section shall apply no earlier than six months after giving notice to all other States Parties, and subject to the provisions of paragraph 6 of this Section.
  - (B) A group of States Parties shall co-operate with regard to active and passive quotas in accordance with the provisions of either paragraph 2 or 3 of this Section.
- 2. (A) The members of a group of States Parties shall have the right to redistribute amongst themselves their active quotas for the current year, while retaining their

individual passive quotas. Notification of the redistribution shall be made immediately to all third States Parties concerned.

(B) An observation flight shall count as many observation flights against the individual and total active quotas of the observing Party as observed Parties belonging to the group are overflown. It shall count one observation flight against the total passive quota of each observed Party.

3.

- (C) Each State Party in respect of which one or more members of a group of States Parties hold active quotas shall have the right to conduct over the territory of any member of the group 50 per cent more observation flights, rounded up to the nearest whole number, than its individual active quota in respect of that member of the group or to conduct two such overflights if it holds no active quota in respect of that member of the group.
- (D) In the event that it exercises this right the State Party concerned shall reduce its active quotas in respect of other members of the group in such a way that the total sum of observation flights it conducts over their territories shall not exceed the sum of the individual active quotas that the State Party holds in respect of all the members of the group in the current year.
- (E) The maximum flight distances of observation flights over the territories of each member of the group shall apply. In case of an observation flight conducted over several members, after completion of the maximum flight distance for one member all sensors shall be switched off until the observation aircraft reaches the point over the territory of the next member of the group of States Parties where the observation flight is planned to begin. For such follow-on observation flight the maximum flight distance related to the Open Skies airfield nearest to this point shall apply.
- (A) A group of States Parties shall, at its request, be entitled to a common total passive quota which shall be allocated to it and common individual and total active quotas shall be distributed in respect of it.
  - (B) In this case, the total passive quota is the total number of observation flights that the group of States Parties is obliged to accept each year. The total active quota is the sum of the number of observation flights that the group of States Parties has the right to conduct each year. Its total active quota shall not exceed the total passive quota.
  - (C) An observation flight resulting from the total active quota of the group of States Parties shall be carried out on behalf of the group.
  - (D) Observation flights that a group of States Parties is obliged to accept may be conducted over the territory of one or more of its members.

- (E) The maximum flight distances of each group of States Parties shall be specified pursuant to Annex A, Section III and Open Skies airfields shall be designated pursuant to Annex E to this Treaty.

4. In accordance with the general principles set out in Article X, paragraph 3, any third State Party that considers its rights under the provisions of Section I, paragraph 3 of this Article to be unduly restricted by the operation of a group of States Parties may raise this problem before the Open Skies Consultative Commission.

5. The group of States Parties shall ensure that procedures are established allowing for the conduct of observation flights over the territories of its members during one single mission, including refuelling if necessary. In the case of a group of States Parties established pursuant to paragraph 3 of this Section, such observation flights shall not exceed the maximum flight distance applicable to the Open Skies airfields at which the observation flights commence.

6. No earlier than six months after notification of the decision has been provided to all other States Parties:

- (A) a group of States Parties established pursuant to the provisions of paragraph 2 of this Section may be transformed into a group of States Parties pursuant to the provisions of paragraph 3 of this Section;
- (B) a group of States Parties established pursuant to the provisions of paragraph 3 of this Section may be transformed into a group of States Parties pursuant to the provisions of paragraph 2 of this Section;
- (C) a State Party may withdraw from a group of States Parties; or
- (D) a group of States Parties may admit further States Parties which hold quotas.

7. Following entry into force of this Treaty, changes in the allocation or distribution of quotas resulting from the establishment of or an admission to or a withdrawal from a group of States Parties according to paragraph 3 of this Section shall become effective on I January following the first annual review within the Open Skies Consultative Commission occurring after the six-month notification period. When necessary, new Open Skies airfields shall be designated and maximum flight distances established accordingly.

#### Article IV

#### SENSORS

1. Except as otherwise provided for in paragraph 3 of this Article, observation aircraft shall be equipped with sensors only from amongst the following categories:

- (A) optical panoramic and framing cameras;
- (B) video cameras with real-time display;
- (C) infra-red line-scanning devices; and
- (D) sideways-looking synthetic aperture radar.

2. A State Party may use, for the purposes of conducting observation flights, any of the sensors specified in paragraph 1 above, provided that such sensors are commercially available to all States Parties, subject to the following performance limits:

- (A) in the case of optical panoramic and framing cameras, a ground resolution of no better than 30 centimetres at the minimum height above ground level determined in accordance with the provisions of Annex D. Appendix 1, obtained from no more than one panoramic camera, one vertically-mounted framing camera and two obliquely-mounted framing cameras, one on each side of the aircraft, providing coverage, which need not be continuous, of the ground up to 50 kilometres of each side of the flight path of the aircraft;
- (B) in the case of video cameras, a ground resolution of no better than 30 centimetres determined in accordance with the provisions of Annex D, Appendix 1;
- (C) in the case of infra-red line-scanning devices, a ground resolution of no better than 50 centimetres at the minimum height above ground level determined in accordance with the provisions of Annex D, Appendix 1, obtained from a single device; and
- (D) in the case of sideways-looking synthetic aperture radar, a ground resolution of no better than three metres calculated by the impulse response method, which, using the object separation method, corresponds to the ability to distinguish on a radar image two corner reflectors, the distance between the centres of which is no less than five metres, over a swath width of no more than 25 kilometres, obtained from a single radar unit capable of looking from either side of the aircraft, but not both simultaneously.

3. The introduction of additional categories and improvements to the capabilities of existing categories of sensors provided for in this Article shall be addressed by the Open Skies Consultative Commission pursuant to Article X of this Treaty.

4. All sensors shall be provided with aperture covers or other devices which inhibit the operation of sensors so as to prevent collection of data during transit flights or flights to points of entry or from points of exit over the territory of the observed Party. Such covers or such other devices shall be removable or operable only from outside the observation aircraft.

5. Equipment that is capable of annotating data collected by sensors in accordance with Annex B, Section II shall be allowed on observation aircraft. The State Party providing the observation aircraft for an observation flight shall annotate the data collected by sensors with the information provided for in Annex B, Section II to this Treaty.

6. Equipment that is capable of displaying data collected by sensors in real-time shall be allowed on observation aircraft for the purposes of monitoring the functioning and operation of the sensors during the conduct of an observation flight.

7. Except as required for the operation of the agreed sensors, or as required for the operation of the observation aircraft, or as provided for in paragraphs 5 and 6 of this Article, the collection, processing, retransmission or recording of electronic signals from electro-magnetic waves are prohibited on board the observation aircraft and equipment for such operations shall not be on that observation aircraft.

8. In the event that the observation aircraft is provided by the observing Party, the observing Party shall have the right to use an observation aircraft equipped with sensors in each sensor category that do not exceed the capability specified in paragraph 2 of this Article.

9. In the event that the observation aircraft used for an observation flight is provided by the observed Party, the observed Party shall be obliged to provide an observation aircraft equipped with sensors from each sensor category specified in paragraph 1 of this Article, at the maximum capability and in the numbers specified in paragraph 2 of this Article, subject to the provisions of Article XVIII, Section II, unless otherwise agreed by the observing and observed Parties. The package and configuration of such sensors shall be installed in such a way so as to provide coverage of the ground provided for in paragraph 2 of this Article. In the event that the observation aircraft is provided by the observed Party, the latter shall provide a sideways-looking synthetic aperture radar with a ground resolution of no worse than six metres, determined by the object separation method.

10. When designating an aircraft as an observation aircraft pursuant to Article V of this Treaty, each State Party shall inform all other States Parties of the technical information on each sensor installed on such aircraft as provided for in Annex B to this Treaty.

11. Each State Party shall have the right to take part in the certification of sensors installed on observation aircraft in accordance with the provisions of Annex D. No observation aircraft of a given type shall be used for observation flights until such type of observation aircraft and its sensors has been certified in accordance with the provisions of Annex D to this Treaty.

12. A State Party designating an aircraft as an observation aircraft shall, upon 90-day prior notice to all other States Parties and subject to the provisions of Annex D to this Treaty, have the right to remove, replace or add sensors, or amend the technical information it has provided in accordance with the provisions of paragraph 10 of this Article and Annex B to this Treaty. Replacement and additional sensors shall be subject to certification in accordance with the provisions of Annex D to this Treaty prior to their use during an observation flight.

13. In the event that a State Party or group of States Parties, based on experience with using a particular observation aircraft, considers that any sensor or its associated equipment installed on an aircraft does not correspond to those certified in accordance with the provisions of Annex D, the interested States Parties shall notify all other States Parties of their concern. The State Party that designated the aircraft shall:

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(A) take the steps necessary to ensure that the sensor and its associated equipment installed on the observation aircraft correspond to those certified in accordance with the provisions of Annex D, including, as necessary, repair, adjustment or replacement of the particular sensor or its associated equipment; and

(B) at the request of an interested State Party, by means of a demonstration flight set up in connection with the next time that the aforementioned observation aircraft is used, in accordance with the provisions of Annex F, demonstrate that the sensor and its associated equipment installed on the observation aircraft correspond to those certified in accordance with the provisions of Annex D. Other States Parties that express concern regarding a sensor and its associated equipment installed on an observation aircraft shall have the right to send personnel to participate in such a demonstration flight.

14. In the event that, after the steps referred to in paragraph 13 of this Article have been taken, the States Parties remain concerned as to whether a sensor or its associated equipment installed on an observation aircraft correspond to those certified in accordance with the provisions of Annex D, the issue may be referred to the Open Skies Consultative Commission.

#### Article V

#### AIRCRAFT DESIGNATION

1. Each State Party shall have the right to designate as observation aircraft one or more types or models of aircraft registered by the relevant authorities of a State Party.

2. Each State Party shall have the right to designate types or models of aircraft as observation aircraft or add new types or models of aircraft to those designated earlier by it, provided that it notifies all other States Parties 30 days in advance thereof. The notification of the designation of aircraft of a type or model shall contain the information specified in Annex C to this Treaty.

3. Each State Party shall have the right to delete types or models of aircraft designated earlier by it, provided that it notifies all other States Parties 90 days in advance thereof.

4. Only one exemplar of a particular type and model of aircraft with an identical set of associated sensors shall be required to be offered for certification in accordance with the provisions of Annex D to this Treaty.

5. Each observation aircraft shall be capable of carrying the flight crew and the personnel specified in Article VI, Section III.

#### Article VI

#### CHOICE OF OBSERVATION AIRCRAFT, GENERAL PROVISIONS FOR THE CONDUCTOF OBSERVATION FLIGHTS, AND REQUIREMENTS FOR MISSION PLANNING

#### SECTION I. CHOICE OF OBSERVATION AIRCRAFT AND GENERAL PROVISIONS FOR THE CONDUCT OF OBSERVATION FLIGHTS

1. Observation flights shall be conducted using observation aircraft that have been designated by a State Party pursuant to Article V. Unless the observed Party exercises its right to provide an observation aircraft that it has itself designated, the observing Party shall have the right to provide the observation aircraft. In the event that the observing Party provides the observation aircraft, it shall have the right to provide an aircraft that it has itself designated or an aircraft designated by another State Party. In the event that the observed Party provides the observation aircraft, the observing Party shall have the right to be provided with an aircraft capable of achieving a minimum unrefuelled range, including the necessary fuel reserves, equivalent to one-half of the flight distance, as notified in accordance with paragraph 5, subparagraph (G) of this Section.

2. Each State Party shall have the right, pursuant to paragraph 1 of this Section, to use an observation aircraft designated by another State Party for observation flights. Arrangements for the use of such aircraft shall be worked out by the States Parties involved to allow for active participation in the Open Skies regime.

3. States Parties having the right to conduct observation flights may co-ordinate their plans for conducting observation flights in accordance with Annex H to this Treaty. No State Party shall be obliged to accept more than one observation flight at any one time during the 96-hour period specified in paragraph 9 of this Section, unless that State Party has requested a demonstration flight pursuant to Annex F to this Treaty. In that case, the observed Party shall be obliged to accept an overlap for the observation flights of up to 24 hours. After having been notified of the results of the co-ordination of plans to conduct observation flights, each State Party over whose territory observation flights are to be conducted shall inform other States Parties, in accordance with the provisions of Annex H, whether it will exercise, with regard to each specific observation flight, its right to provide its own observation aircraft.

4. No later than 90 days after signature of this Treaty, each State Party shall provide notification to all other States Parties:

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- (A) of the standing diplomatic clearance number for Open Skies observation flights, flights of transport aircraft and transit flights; and
- (B) of which language or languages of the Open Skies Consultative Commission specified in Annex L, Section I, paragraph 7 to this Treaty shall be used by personnel for all activities associated with the conduct of observation flights over its territory, and for completing the mission plan and mission report, unless the language to be used is the one recommended in Annex 10 to the Convention on International Civil Aviation, Volume II, paragraph 5.2.1.1.2.

5. The observing Party shall notify the observed Party of its intention to conduct an observation flight, no less than 72 hours prior to the estimated time of arrival of the observing Party at the point of entry of the observed Party. States Parties providing such notifications shall make every effort to avoid using the minimum pre-notification period over weekends. Such notification shall include:

- (A) the desired point of entry and, if applicable, Open Skies airfield where the observation flight shall commence;
- (B) the date and estimated time of arrival of the observing Party at the point of entry and the date and estimated time of departure for the flight from the point of entry to the Open Skies airfield, if applicable, indicating specific accommodation needs;
- (C) the location, specified in Annex E, Appendix I, where the conduct of the pre-flight inspection is desired and the date and start time of such pre-flight inspection in accordance with the provisions of Annex F;
- (D) the mode of transport and, if applicable, type and model of the transport aircraft used to travel to the point of entry in the event that the observation aircraft used for the observation flight is provided by the observed Party;
- (E) the diplomatic clearance number for the observation flight or for the flight of the transport aircraft used to bring the personnel in and out of the territory of the observed Party to conduct an observation flight;
- (F) the identification of the observation aircraft, as specified in Annex C;
- (G) the approximate observation flight distance; and
- (H) the names of the personnel, their gender, date and place of birth, passport number and issuing State Party, and their function.

6. The observed Party that is notified in accordance with paragraph 5 of this Section shall acknowledge receipt of the notification within 24 hours. In the event that the observed Party exercises its right to provide the observation aircraft, the acknowledgement shall include the information about the observation aircraft specified in paragraph 5, subparagraph (F) of this Section. The observing Party shall be permitted to arrive at the point of entry at the estimated time of arrival as notified in accordance with paragraph 5 of this Section. The estimated time of departure for the flight from the point of entry to the Open Skies airfield where the observation flight shall commence and the location, the date and the start time of the pre-flight inspection shall be subject to confirmation by the observed Party.

7. Personnel of the observing Party may include personnel designated pursuant to Article XIII by other States Parties.

8. The observing Party, when notifying the observed Party in accordance with paragraph 5 of this Section, shall simultaneously notify all other States Parties of its intention to conduct the observation flight.

9. The period from the estimated time of arrival at the point of entry until completion of the observation flight shall not exceed 96 hours, unless otherwise agreed. In the event that the observed Party requests a demonstration flight pursuant to Annex F to the Treaty, it shall extend the 96-hour period pursuant to Annex F, Section III, paragraph 4, if additional time is required by the observing Party for the unrestricted execution of the mission plan.

10. Upon arrival of the observation aircraft at the point of entry, the observed Party shall inspect the covers for sensor apertures or other devices that inhibit the operation of sensors to confirm that they are in their proper position pursuant to Annex E, unless otherwise agreed by all States Parties involved.

11. In the event that the observation aircraft is provided by the observing Party, upon the arrival of the observation aircraft at the point of entry or at the Open Skies airfield where the observation flight commences, the observed Party shall have the right to carry out the pre-flight inspection pursuant to Annex F, Section I. In the event that, in accordance with paragraph 1 of this Section, an observation aircraft is provided by the observed Party, the observing Party shall have the right to carry out the pre-flight inspection of sensors pursuant to Annex F, Section II. Unless otherwise agreed, such inspections shall terminate no less than four hours prior to the scheduled commencement of the observation flight set forth in the flight plan.

12. The observing Party shall ensure that its flight crew includes at least one individual who has the necessary linguistic ability to communicate freely with the personnel of the observed Party and its air traffic control authorities in the language or languages notified by the observed Party in accordance with paragraph 4 of this Section.

13. The observed Party shall provide the flight crew, upon its arrival at the point of entry or at the Open Skies airfield where the observation flight commences, with the most recent weather forecast and air navigation information and information on flight safety, including Notices to Airmen. Updates of such information shall be provided as requested. Instrument procedures,

and information about alternate airfields along the flight route, shall be provided upon approval of the mission plan in accordance with the requirements of Section II of this Article.

14. While conducting observation flights pursuant to this Treaty, all observation aircraft shall be operated in accordance with the provisions of this Treaty and in accordance with the approved flight plan. Without prejudice to the provisions of Section II, paragraph 2 of this Article, observation flights shall also be conducted in compliance with:

- (A) published ICAO standards and recommended practices; and
- (B) published national air traffic control rules, procedures and guidelines on flight safety of the State Party whose territory is being overflown.

15. Observation flights shall take priority over any regular air traffic. The observed Party shall ensure that its air traffic control authorities facilitate the conduct of observation flights in accordance with this Treaty.

16. On board the aircraft the pilot-in-command shall be the sole authority for the safe conduct of the flight and shall be responsible for the execution of the flight plan.

17. The observed Party shall provide:

- (A) a calibration target suitable for confirming the capability of sensors in accordance with the procedures set forth in Annex D, Section III to this Treaty, to be overflown during the demonstration flight or the observation flight upon the request of either Party, for each sensor that is to be used during the observation flight. The calibration target shall be located in the vicinity of the airfield at which the pre-flight inspection is conducted pursuant to Annex F to this Treaty;
- (B) customary commercial aircraft fuelling and servicing for the observation aircraft or transport aircraft at the point of entry, at the Open Skies airfield, at any refuelling airfield, and at the point of exit specified in the flight plan, according to the specifications that are published about the designated airfield;
- (C) meals and the use of accommodation for the personnel of the observing Party; and
- (D) upon the request of the observing Party, further services, as may be agreed upon between the observing and observed Parties, to facilitate the conduct of the observation flight.

18. All costs involved in the conduct of the observation flight, including the costs of the recording media and the processing of the data collected by sensors, shall be reimbursed in accordance with Annex L, Section I, paragraph 9 to this Treaty.

19. Prior to the departure of the observation aircraft from the point of exit, the observed Party shall confirm that the covers for sensor apertures or other devices that inhibit the operation of sensors are in their proper position pursuant to Annex E to this Treaty.

20. Unless otherwise agreed, the observing Party shall depart from the point of exit no later than 24 hours following completion of the observation flight, unless weather conditions or the airworthiness of the observation aircraft or transport aircraft do not permit, in which case the flight shall commence as soon as practicable.

21. The observing Party shall compile a mission report of the observation flight using the appropriate format developed by the Open Skies Consultative Commission. The mission report shall contain pertinent data on the date and time of the observation flight, its route and profile, weather conditions, time and location of each observation period for each sensor, the approximate amount of data collected by sensors, and the result of inspection of covers for sensor apertures or other devices that inhibit the operation of sensors in accordance with Article VII and Annex E. The mission report shall be signed by the observing and observed Parties at the point of exit and shall be provided by the observing Party to all other States Parties within seven days after departure of the observing Party from the point of exit.

#### SECTION II. REQUIREMENTS FOR MISSION PLANNING

1. Unless otherwise agreed, the observing Party shall, after arrival at the Open Skies airfield, submit to the observed Party a mission plan for the proposed observation flight that meets the requirements of paragraphs 2 and 4 of this Section.

2. The mission plan may provide for an observation flight that allows for the observation of any point on the entire territory of the observed Party, including areas designated by the observed Party as hazardous airspace in the source specified in Annex I. The flight path of an observation aircraft shall not be closer than, but shall be allowed up to, ten kilometres from the border with an adjacent State that is not a State Party.

3. The mission plan may provide that the Open Skies airfield where the observation flight terminates, as well as the point of exit, may be different from the Open Skies airfield where the observation flight commences or the point of entry. The mission plan shall specify, if applicable, the commencement time of the observation flight, the desired time and place of planned refuelling stops or rest periods, and the time of continuation of the observation flight after a refuelling stop or rest period within the 96-hour period specified in Section I, paragraph 9 of this Article.

4. The mission plan shall include all information necessary to file the flight plan and shall provide that:

 (A) the observation flight does not exceed the relevant maximum flight distance as set forth in Annex A, Section I;

- (B) the route and profile of the observation flight satisfies observation flight safety conditions in conformity with ICAO standards and recommended practices, taking into account existing differences in national flight rules, without prejudice to the provisions of paragraph 2 of this Section;
- (C) the mission plan takes into account information on hazardous airspace, as provided in accordance with Annex I;
- (D) the height above ground level of the observation aircraft does not permit the observing Party to exceed the limitation on ground resolution for each sensor, as set forth in Article IV, paragraph 2;
- (E) the estimated time of commencement of the observation flight shall be no less than 24 hours after the submission of the mission plan, unless otherwise agreed;
- (F) the observation aircraft flies a direct route between the co-ordinates or navigation fixes designated in the mission plan in the declared sequence; and
- (G) the flight path does not intersect at the same point more than once, unless otherwise agreed, and the observation aircraft does not circle around a single point, unless otherwise agreed. The provisions of this subparagraph do not apply for the purposes of taking off, flying over calibration targets, or landing by the observation aircraft.

5. In the event that the mission plan filed by the observing Party provides for flights through hazardous airspace, the observed Party shall:

(A) specify the hazard to the observation aircraft;

- (B) facilitate the conduct of the observation flight by co-ordination or suppression of the activity specified pursuant to subparagraph (A) of this paragraph; or
- (C) propose an alternative flight altitude, route, or time.

6. No later than four hours after submission of the mission plan, the observed Party shall accept the mission plan or propose changes to it in accordance with Article VIII, Section I, paragraph 4 and paragraph 5 of this Section. Such changes shall not preclude observation of any point on the entire territory of the observed Party, including areas designated by the observed Party as hazardous airspace in the source specified in Annex I to this Treaty. Upon agreement, the mission plan shall be signed by the observing and observed Parties. In the event that the Parties do not reach agreement on the mission plan within eight hours of the submission of the original mission plan, the observing Party shall have the right to decline to conduct the observation flight in accordance with the provisions of Article VIII of this Treaty.

7. If the planned route of the observation flight approaches the border of other States Parties or other States, the observed Party may notify that State or those States of the estimated route, date and time of the observation flight.

8. On the basis of the agreed mission plan the State Party providing the observation aircraft shall, in co-ordination with the other State Party, file the flight plan immediately, which shall have the content specified in Annex 2 to the Convention on International Civil Aviation and shall be in the format specified by ICAO Document No. 4444-RAC/501/12, "Rules of the Air and Air Traffic Services", as revised or amended.

#### SECTION III. SPECIAL PROVISIONS

1. In the event that the observation aircraft is provided by the observing Party, the observed Party shall have the right to have on board the observation aircraft two flight monitors and one interpreter, in addition to one flight monitor for each sensor control station on board the observation aircraft, unless otherwise agreed. Flight monitors and interpreters shall have the rights and obligations specified in Annex G to this Treaty.

2. Notwithstanding paragraph 1 of this Section, in the event that an observing Party uses an observation aircraft which has a maximum take-off gross weight of no more than 35,000 kilograms for an observation flight distance of no more than 1,500 kilometres as notified in accordance with Section 1, paragraph 5, subparagraph (G) of this Article, it shall be obliged to accept only two flight monitors and one interpreter on board the observation aircraft, unless otherwise agreed.

3. In the event that the observation aircraft is provided by the observed Party, the observed Party shall permit the personnel of the observing Party to travel to the point of entry of the observed Party in the most expeditious manner. The personnel of the observing Party may elect to travel to the point of entry using ground, sea, or air transportation, including transportation by an aircraft owned by any State Party. Procedures regarding such travel are set forth in Annex E to this Treaty.

4. In the event that the observation aircraft is provided by the observed Party, the observing Party shall have the right to have on board the observation aircraft two flight representatives and one interpreter, in addition to one flight representative for each sensor control station on the aircraft, unless otherwise agreed. Flight representatives and interpreters shall have the rights and obligations set forth in Annex G to this Treaty.

5. In the event that the observing State Party provides an observation aircraft designated by a State Party other than the observing or observed Party, the observing Party shall have the right to have on board the observation aircraft two representatives and one interpreter, in addition to one representative for each sensor control station on the aircraft, unless otherwise agreed. In this case, the provisions on flight monitors set forth in paragraph 1 of this Section shall also apply. Representatives and interpreters shall have the rights and obligations set forth in Annex G to this Treaty.

#### Article VII

#### TRANSIT FLIGHTS

1. Transit flights conducted by an observing Party to and from the territory of an observed Party for the purposes of this Treaty shall originate on the territory of the observing Party or of another State Party.

2. Each State Party shall accept transit flights. Such transit flights shall be conducted along internationally recognized Air Traffic Services routes, unless otherwise agreed by the States Parties involved, and in accordance with the instructions of the national air traffic control authorities of each State Party whose airspace is transited. The observing Party shall notify each State Party whose airspace is to be transited at the same time that it notifies the observed Party in accordance with Article VI.

3. The operation of sensors on an observation aircraft during transit flights is prohibited. In the event that, during the transit flight, the observation aircraft lands on the territory of a State Party, that State Party shall, upon landing and prior to departure, inspect the covers of sensor apertures or other devices that inhibit the operation of sensors to confirm that they are in their proper position.

#### Article VIII

#### PROHIBITIONS, DEVIATIONS FROM FLIGHT PLANS AND EMERGENCY SITUATIONS

#### SECTION I. PROHIBITION OF OBSERVATION FLIGHTS AND CHANGES TO MISSION PLANS

1. The observed Party shall have the right to prohibit an observation flight that is not in compliance with the provisions of this Treaty.

2. The observed Party shall have the right to prohibit an observation flight prior to its commencement in the event that the observing Party fails to arrive at the point of entry within 24 hours after the estimated time of arrival specified in the notification provided in accordance with Article VI, Section I, paragraph 5, unless otherwise agreed between the States Parties involved.

3. In the event that an observed State Party prohibits an observation flight pursuant to this Article or Annex F, it shall immediately state the facts for the prohibition in the mission plan. Within seven days the observed Party shall provide to all States Parties, through diplomatic channels, a written explanation for this prohibition in the mission report provided pursuant to

Article VI, Section I, paragraph 21. An observation flight that has been prohibited shall not be counted against the quota of either State Party.

4. The observed Party shall have the right to propose changes to the mission plan as a result of any of the following circumstances:

- (A) the weather conditions affect flight safety;
- (B) the status of the Open Skies airfield to be used, alternate airfields, or refuelling airfields prevents their use; or
- (C) the mission plan is inconsistent with Article VI, Section II, paragraphs 2 and 4.

5. In the event that the observing Party disagrees with the proposed changes to the mission plan, it shall have the right to submit alternatives to the proposed changes. In the event that agreement on a mission plan is not reached within eight hours of the submission of the original mission plan, and if the observing Party considers the changes to the mission plan to be prejudicial to its rights under this Treaty with respect to the conduct of the observation flight, the observing Party shall have the right to decline to conduct the observation flight, which shall not be recorded against the quota of either State Party.

6. In the event that an observing Party declines to conduct an observation flight pursuant to this Article or Annex F, it shall immediately provide an explanation of its decision in the mission plan prior to the departure of the observing Party. Within seven days after departure of the observing Party. Within seven days after departure of the observing Party, the observing Party shall provide to all other States Parties, through diplomatic channels, a written explanation for this decision in the mission report provided pursuant to Article VI, Section I, paragraph 21.

#### SECTION II. DEVIATIONS FROM THE FLIGHT PLAN

1 Deviations from the flight plan shall be permitted during the observation flight if necessitated by:

- (A) weather conditions affecting flight safety;
- (B) technical difficulties relating to the observation aircraft;
- (C) a medical emergency of any person on board; or
- (D) air traffic control instructions related to circumstances brought about by <u>force</u> <u>majeure</u>.

2. In addition, if weather conditions prevent effective use of optical sensors and infra-red line-scanning devices, deviations shall be permitted, provided that:

(A) flight safety requirements are met;

- (B) in cases where national rules so require, permission is granted by air traffic control authorities; and
- (C) the performance of the sensors does not exceed the capabilities specified in Article IV, paragraph 2, unless otherwise agreed.

3. The observed Party shall have the right to prohibit the use of a particular sensor during a deviation that brings the observation aircraft below the minimum height above ground level for operating that particular sensor, in accordance with the limitation on ground resolution specified in Article IV, paragraph 2. In the event that a deviation requires the observation aircraft to alter its flight path by more than 50 kilometres from the flight path specified in the flight plan, the observed Party shall have the right to prohibit the use of all the sensors installed on the observation aircraft beyond that 50-kilometre limit.

4. The observing Party shall have the right to curtail an observation flight during its execution in the event of sensor malfunction. The pilot-in-command shall have the right to curtail an observation flight in the event of technical difficulties affecting the safety of the observation aircraft.

5. In the event that a deviation from the flight plan permitted by paragraph 1 of this Section results in curtailment of the observation flight, or a curtailment occurs in accordance with paragraph 4 of this Section, an observation flight shall be counted against the quotas of both States Parties, unless the curtailment is due to:

- (A) sensor malfunction on an observation aircraft provided by the observed Party;
- (B) technical difficulties relating to the observation aircraft provided by the observed Party;
- (C) a medical emergency of a member of the flight crew of the observed Party or of flight monitors; or
- (D) air traffic control instructions related to circumstances brought about by <u>force</u> <u>majeure</u>.

In such cases the observing Party shall have the right to decide whether to count it against the quotas of both States Parties.

6. The data collected by the sensors shall be retained by the observing Party only if the observation flight is counted against the quotas of both States Parties.

7. In the event that a deviation is made from the flight plan, the pilot-in-command shall take action in accordance with the published national flight regulations of the observed Party. Once the factors leading to the deviation have ceased to exist, the observation aircraft may, with the

permission of the air traffic control authorities, continue the observation flight in accordance with the flight plan. The additional flight distance of the observation aircraft due to the deviation shall not count against the maximum flight distance.

8. Personnel of both States Parties on board the observation aircraft shall be immediately informed of all deviations from the flight plan.

9. Additional expenses resulting from provisions of this Article shall be reimbursed in accordance with Annex L, Section I, paragraph 9 to this Treaty.

#### SECTION III. EMERGENCY SITUATIONS

1. In the event that an emergency situation arises, the pilot-in-command shall be guided by "Procedures for Air Navigation Services - Rules of the Air and Air Traffic Services", ICAO Document No. 4444-RAC/501/12, as revised or amended, the national flight regulations of the observed Party, and the flight operation manual of the observation aircraft.

2. Each observation aircraft declaring an emergency shall be accorded the full range of distress and navigational facilities of the observed Party in order to ensure the most expeditious recovery of the aircraft to the nearest suitable airfield.

3. In the event of an aviation accident involving the observation aircraft on the territory of the observed Party, search and rescue operations shall be conducted by the observed Party in accordance with its own regulations and procedures for such operations.

4. Investigation of an aviation accident or incident involving an observation aircraft shall be conducted by the observed Party, with the participation of the observing Party, in accordance with the ICAO recommendations set forth in Annex 13 to the Convention on International Civil Aviation ("Investigation of Aviation Accidents") as revised or amended and in accordance with the national regulations of the observed Party.

5. In the event that the observation aircraft is not registered with the observed Party, at the conclusion of the investigation all wreckage and debris of the observation aircraft and sensors, if found and recovered, shall be returned to the observing Party or to the Party to which the aircraft belongs, if so requested.

#### Article IX

#### SENSOR OUTPUT FROM OBSERVATION FLIGHTS

#### SECTION I. GENERAL PROVISIONS

1. For the purposes of recording data collected by sensors during observation flights, the following recording media shall be used:

- (A) in the case of optical panoramic and framing cameras, black and white photographic film;
- (B) in the case of video cameras, magnetic tape;
- (C) in the case of infra-red line-scanning devices, black and white photographic film or magnetic tape; and
- (D) in the case of sideways-looking synthetic aperture radar, magnetic tape.

The agreed format in which such data is to be recorded and exchanged on other recording media shall be decided within the Open Skies Consultative Commission during the period of provisional application of this Treaty.

2. Data collected by sensors during observation flights shall remain on board the observation aircraft until completion of the observation flight. The transmission of data collected by sensors from the observation aircraft during the observation flight is prohibited.

3. Each roll of photographic film and cassette or reel of magnetic tape used to collect data by a sensor during an observation flight shall be placed in a container and sealed in the presence of the States Parties as soon as is practicable after it has been removed from the sensor.

4. Data collected by sensors during observation flights shall be made available to States Parties in accordance with the provisions of this Article and shall be used exclusively for the attainment of the purposes of this Treaty.

5. In the event that, on the basis of data provided pursuant to Annex B, Section I to this Treaty, a data recording medium to be used by a State Party during an observation flight is incompatible with the equipment of another State Party for handling that data recording medium, the States Parties involved shall establish procedures to ensure that all data collected during observation flights can be handled, in terms of processing, duplication and storage, by them.

#### SECTION II. OUTPUT FROM SENSORS THAT USE PHOTOGRAPHIC FILM

1. In the event that output from duplicate optical cameras is to be exchanged, the cameras, film and film processing shall be of an identical type.

2. Provided that the data collected by a single optical camera is subject to exchange, the States Parties shall consider, within the Open Skies Consultative Commission during the period of provisional application of this Treaty, the issue of whether the responsibility for the development of the original film negative shall be borne by the observing Party or by the State Party providing the observation aircraft. The State Party developing the original film negative shall be responsible for the quality of processing the original negative film and producing the duplicate positive or negative. In the event that States Parties agree that the film used during the observation flight conducted on an observation aircraft provided by the observed Party shall be processed by the observing Party, the observed Party shall be are no responsibility for the quality of the processing of the original negative film.

3. All the film used during the observation flight shall be developed:

- (A) in the event that the original film negative is developed at a film processing facility arranged for by the observed Party, no later than three days, unless otherwise agreed, after the arrival of the observation aircraft at the point of exit; or
- (B) in the event that the original film negative is developed at a film processing facility arranged for by the observing Party, no later than ten days after the departure of the observation aircraft from the territory of the observed Party.

4. The State Party that is developing the original film negative shall be obliged to accept at the film processing facility up to two officials from the other State Party to monitor the unsealing of the film cassette or container and each step in the storage, processing, duplication and handling of the original film negative, in accordance with the provisions of Annex K, Section II to this Treaty. The State Party monitoring the film processing and duplication shall have the right to designate such officials from among its nationals present on the territory on which the film processing facility arranged for by the other State Party is located, provided that such individuals are on the list of designated personnel in accordance with Article XIII, Section I of this Treaty. The State Party developing the film shall assist the officials of the other State Party in their functions provided for in this paragraph to the maximum extent possible.

5. Upon completion of an observation flight, the State Party that is to develop the original film negative shall attach a 21-step sensitometric test strip of the same film type used during the observation flight or shall expose a 21-step optical wedge onto the leader or trailer of each roll of original film negative used during the observation flight. After the original film negative has been processed and duplicate film negative or positive has been produced, the States Parties shall assess the image quality of the 21-step sensitometric test strips or images of the 21-step optical wedge against the characteristics provided for that type of original film negative or duplicate film negative or positive in accordance with the provisions of Annex K, Section I to this Treaty.

- In the event that only one original film negative is developed:
  - (A) the observing Party shall have the right to retain or receive the original film negative; and
  - (B) the observed Party shall have the right to select and receive a complete first generation duplicate or part thereof, either positive or negative, of the original film negative. Unless otherwise agreed, such duplicate shall be:
    - (1) of the same format and film size as the original film negative;
    - (2) produced immediately after development of the original film negative; and
    - (3) provided to the officials of the observed Party immediately after the duplicate has been produced.
- 7. In the event that two original film negatives are developed:

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- (A) if the observation aircraft is provided by the observing Party, the observed Party shall have the right, at the completion of the observation flight, to select either of the two original film negatives, and the original film negative not selected shall be retained by the observing Party; or
- (B) if the observation aircraft is provided by the observed Party, the observing Party shall have the right to select either of the original film negatives, and the original film negative not selected shall be retained by the observed Party.

SECTION III. OUTPUT FROM SENSORS THAT USE OTHER RECORDING MEDIA

1. The State Party that provides the observation aircraft shall record at least one original set of data collected by sensors using other recording media.

- 2. In the event that only one original set is made:
  - (A) if the observation aircraft is provided by the observing Party, the observing Party shall have the right to retain the original set and the observed Party shall have the right to receive a first generation duplicate copy; or
  - (B) if the observation aircraft is provided by the observed Party, the observing Party shall have the right to receive the original set and the observed Party shall have the right to receive a first generation duplicate copy.
- In the event that two original sets are made:

- (A) if the observation aircraft is provided by the observing Party, the observed Party shall have the right, at the completion of the observation flight, to select either of the two sets of recording media, and the set not selected shall be retained by the observing Party; or
- (B) if the observation aircraft is provided by the observed Party, the observing Party shall have the right to select either of the two sets of recording media, and the set not selected shall be retained by the observed Party.

4. In the event that the observation aircraft is provided by the observing Party, the observed Party shall have the right to receive the data collected by a sideways-looking synthetic aperture radar in the form of either initial phase information or a radar image, at its choice.

5. In the event that the observation aircraft is provided by the observed Party, the observing Party shall have the right to receive the data collected by a sideways-looking synthetic aperture radar in the form of either initial phase information or a radar image, at its choice.

#### SECTION IV. ACCESS TO SENSOR OUTPUT.

Each State Party shall have the right to request and receive from the observing Party copies of data collected by sensors during an observation flight. Such copies shall be in the form of first generation duplicates produced from the original data collected by sensors during an observation flight. The State Party requesting copies shall also notify the observed Party. A request for duplicates of data shall include the following information:

(A) the observing Party;

(B) the observed Party;

(C) the date of the observation flight;

(D) the sensor by which the data was collected;

- (E) the portion or portions of the observation period during which the data was collected; and
- (F) the type and format of duplicate recording medium, either negative or positive film, or magnetic tape.

#### Article X

#### **OPEN SKIES CONSULTATIVE COMMISSION**

1. In order to promote the objectives and facilitate the implementation of the provisions of this Treaty, the States Parties hereby establish an Open Skies Consultative Commission.

2. The Open Skies Consultative Commission shall take decisions or make recommendations by consensus. Consensus shall be understood to mean the absence of any objection by any State Party to the taking of a decision or the making of a recommendation.

3. Each State Party shall have the right to raise before the Open Skies Consultative Commission, and have placed on its agenda, any issue relating to this Treaty, including any issue related to the case when the observed Party provides an observation aircraft.

4. Within the framework of the Open Skies Consultative Commission the States Parties to this Treaty shall:

- (A) consider questions relating to compliance with the provisions of this Treaty;
- (B) seek to resolve ambiguities and differences of interpretation that may become apparent in the way this Treaty is implemented;
- (C) consider and take decisions on applications for accession to this Treaty; and
- (D) agree as to those technical and administrative measures, pursuant to the provisions of this Treaty, deemed necessary following the accession to this Treaty by other States.

5. The Open Skies Consultative Commission may propose amendments to this Treaty for consideration and approval in accordance with Article XVI. The Open Skies Consultative Commission may also agree on improvements to the viability and effectiveness of this Treaty, consistent with its provisions. Improvements relating only to modification of the annual distribution of active quotas pursuant to Article III and Annex A, to updates and additions to the categories or capabilities of sensors pursuant to Article IV, to revision of the share of costs pursuant to Article IX, Section I, paragraph 9, to arrangements for the sharing and availability of Article VI, Section I, paragraph 21, as well as to minor matters of an administrative or technical nature, shall be agreed upon within the Open Skies Consultative Commission and shall not be deemed to be amendments to this Treaty.

6. The Open Skies Consultative Commission shall request the use of the facilities and administrative support of the Conflict Prevention Centre of the Conference on Security and Co-operation in Europe, or other existing facilities in Vienna, unless it decides otherwise.

7. Provisions for the operation of the Open Skies Consultative Commission are set forth in Annex L to this Treaty.

#### Article XI

#### NOTIFICATIONS AND REPORTS

The States Parties shall transmit notifications and reports required by this Treaty in written form. The States Parties shall transmit such notifications and reports through diplomatic channels or, at their choice, through other official channels, such as the communications network of the Conference on Security and Co-operation in Europe.

#### Article XII

#### LIABILITY

A State Party shall, in accordance with international law and practice, be liable to pay compensation for damage to other States Parties, or to their natural or juridical persons or their property, caused by it in the course of the implementation of this Treaty.

#### Article XIII

#### DESIGNATION OF PERSONNEL AND PRIVILEGES AND IMMUNITIES

#### SECTION I. DESIGNATION OF PERSONNEL

1. Each State Party shall, at the same time that it deposits its instrument of ratification to either of the Depositaries, provide to all other States Parties, for their review, a list of designated personnel who will carry out all duties relating to the conduct of observation flights for that State Party, including monitoring the processing of the sensor output. No such list of designated personnel shall include more than 400 individuals at any time. It shall contain the name, gender, date of birth, place of birth, passport number, and function for each individual included. Each State Party shall have the right to amend its list of designated personnel until 30 days after entry into force of this Treaty and once every six months thereafter.

2. In the event that any individual included on the original or any amended list is unacceptable to a State Party reviewing the list, that State Party shall, no later than 30 days after receipt of each list, notify the State Party providing that list that such individual shall not be accepted with respect to the objecting State Party. Individuals not declared unacceptable within that 30-day period shall be deemed accepted. In the event that a State Party subsequently determines that an individual is unacceptable, that State Party shall so notify the State Party that designated such individual. Individuals who are declared unacceptable shall be removed from the list previously submitted to the objecting State Party.

3. The observed Party shall provide visas and any other documents as required to ensure that each accepted individual may enter and remain on the territory of that State Party for the purpose of carrying out duties relating to the conduct of observation flights, including monitoring the processing of the sensor output. Such visas and any other necessary documents shall be provided either:

- (A) no later than 30 days after the individual is deemed to be accepted, in which case the visa shall be valid for a period of no less than 24 months; or
- (B) no later than one hour after the arrival of the individual at the point of entry, in which case the visa shall be valid for the duration of that individual's duties; or
- (C) at any other time, by mutual agreement of the States Parties involved.

#### SECTION II. PRIVILEGES AND IMMUNITIES

1. In order to exercise their functions effectively, for the purpose of implementing this Treaty and not for their personal benefit, personnel designated in accordance with the provisions of Section I, paragraph I of this Article shall be accorded the privileges and immunities enjoyed by diplomatic agents pursuant to Article 29; Article 30, paragraph 2; Article 31, paragraphs 1, 2 and 3; and Articles 34 and 35 of the Vienna Convention on Diplomatic Relations of 18 April 1961, hereinafter referred to as the Vienna Convention. In addition, designated personnel shall be accorded the privileges enjoyed by diplomatic agents pursuant to Article 36, paragraph 1, subparagraph (b) of the Vienna Convention, except in relation to articles, the import or export of which is prohibited by law or controlled by quarantine regulations.

2. Such privileges and immunities shall be accorded to designated personnel for the entire period between arrival on and departure from the territory of the observed Party, and thereafter with respect to acts previously performed in the exercise of their official functions. Such personnel shall also, when transiting the territory of other States Parties, be accorded the privileges and immunities enjoyed by diplomatic agents pursuant to Article 40, paragraph 1 of the Vienna Convention.

The immunity from jurisdiction may be waived by the observing Party in those cases when it would impede the course of justice and can be waived without prejudice to this Treaty.

The immunity of personnel who are not nationals of the observing Party may be waived only by the States Parties of which such personnel are nationals. Waiver must always be express.

4. Without prejudice to their privileges and immunities or the rights of the observing Party set forth in this Treaty, it is the duty of designated personnel to respect the laws and regulations of the observed Party.

5. The transportation means of the personnel shall be accorded the same immunities from search, requisition, attachment or execution as those of a diplomatic mission pursuant to Article 22, paragraph 3 of the Vienna Convention, except as otherwise provided for in this Treaty.

### Article XIV

### BENELUX

1. Solely for the purposes of Articles II to IX and Article XI, and of Annexes A to I and Annex K to this Treaty, the Kingdom of Belgium, the Grand Duchy of Luxembourg, and the Kingdom of the Netherlands shall be deemed a single State Party, hereinafter referred to as the Benelux.

2. Without prejudice to the provisions of Article XV, the above-mentioned States Parties may terminate this arrangement by notifying all other States Parties thereof. This arrangement shall be deemed to be terminated on the next 31 December following the 60-day period after such notification.

## Article XV

#### DURATION AND WITHDRAWAL

1. This Treaty shall be of unlimited duration.

2. A State Party shall have the right to withdraw from this Treaty. A State Party intending to withdraw shall provide notice of its decision to withdraw to either Depositary at least six months in advance of the date of its intended withdrawal and to all other States Parties. The Depositaries shall promptly inform all other States Parties of such notice.

3. In the event that a State Party provides notice of its decision to withdraw from this Treaty in accordance with paragraph 2 of this Article, the Depositaries shall convene a conference of the States Parties no less than 30 days and no more than 60 days after they have received such notice, in order to consider the effect of the withdrawal on this Treaty.

## Article XVI

## AMENDMENTS AND PERIODIC REVIEW

1. Each State Party shall have the right to propose amendments to this Treaty. The text of each proposed amendment shall be submitted to either Depositary, which shall circulate it to all States Parties for consideration. If so requested by no less than three States Parties within a period of 90 days after circulation of the proposed amendment, the Depositaries shall convene a conference of the States Parties to consider the proposed amendment. Such a conference shall open no earlier than 30 days and no later than 60 days after receipt of the third of such requests.

2. An amendment to this Treaty shall be subject to the approval of all States Parties, either by providing notification, in writing, of their approval to a Depositary within a period of 90 days after circulation of the proposed amendment, or by expressing their approval at a conference convened in accordance with paragraph 1 of this Article. An amendment so approved shall be subject to ratification in accordance with the provisions of Article XVII, paragraph 1, and shall enter into force 60 days after the deposit of instruments of ratification by the States Parties.

3. Unless requested to do so earlier by no less than three States Parties, the Depositaries shall convene a conference of the States Parties to review the implementation of this Treaty three years after entry into force of this Treaty and at five-year intervals thereafter.

### Article XVII

## DEPOSITARIES, ENTRY INTO FORCE AND ACCESSION

1. This Treaty shall be subject to ratification by each State Party in accordance with its constitutional procedures. Instruments of ratification and instruments of accession shall be deposited with the Government of Canada or the Government of the Republic of Hungary or both, hereby designated the Depositaries. This Treaty shall be registered by the Depositaries pursuant to Article 102 of the Charter of the United Nations.

2. This Treaty shall enter into force 60 days after the deposit of 20 instruments of ratification, including those of the Depositaries, and of States Parties whose individual allocation of passive quotas as set forth in Annex A is eight or more.

3. This Treaty shall be open for signature by Armenia, Azerbaijan, Georgia, Kazakhstan, Kirgistan, Moldova, Tajikistan, Turkmenistan and Uzbekistan and shall be subject to ratification by them. Any of these States which do not sign this Treaty before it enters into force in accordance with the provisions of paragraph 2 of this Article may accede to it at any time by depositing an instrument of accession with one of the Depositaries.

4. For six months after entry into force of this Treaty, any other State participating in the Conference on Security and Co-operation in Europe may apply for accession by submitting a written request to one of the Depositaries. The Depositary receiving such a request shall circulate it promptly to all States Parties. The States applying for accession to this Treaty may also, if they so wish, request an allocation of a passive quota and the level of this quota.

The matter shall be considered at the next regular meeting of the Open Skies Consultative Commission and decided in due course.

5. Following six months after entry into force of this Treaty, the Open Skies Consultative Commission may consider the accession to this Treaty of any State which, in the judgement of the Commission, is able and willing to contribute to the objectives of this Treaty.

6. For any State which has not deposited an instrument of ratification by the time of entry into force, but which subsequently ratifies or accedes to this Treaty, this Treaty shall enter into force 60 days after the date of deposit of its instrument of ratification or accession.

- 7. The Depositaries shall promptly inform all States Parties of:
  - (A) the date of deposit of each instrument of ratification and the date of entry into force of this Treaty;
  - (B) the date of an application for accession, the name of the requesting State and the result of the procedure;
  - (C) the date of deposit of each instrument of accession and the date of entry into force of this Treaty for each State that subsequently accedes to it;
  - (D) the convening of a conference pursuant to Articles XV and XVI;
  - (E) any withdrawal in accordance with Article XV and its effective date;
  - (F) the date of entry into force of any amendments to this Treaty; and
  - (G) any other matters of which the Depositaries are required by this Treaty to inform the States Parties.

### Article XVIII

## PROVISIONAL APPLICATION AND PHASING OF IMPLEMENTATION OF THE TREATY

In order to facilitate the implementation of this Treaty, certain of its provisions shall be provisionally applied and others shall be implemented in phases.

SECTION I. PROVISIONAL APPLICATION

1. Without detriment to Article XVII, the signatory States shall provisionally apply the following provisions of this Treaty:

- (A) Article VI, Section I, paragraph 4;
- (B) Article X, paragraphs 1, 2, 3, 6 and 7;
- (C) Article XI;

- (D) Article XIII, Section I, paragraphs 1 and 2;
- (E) Article XIV; and
- (F) Annex L, Section I.

2. This provisional application shall be effective for a period of 12 months from the date when this Treaty is opened for signature. In the event that this Treaty does not enter into force before the period of provisional application expires, that period may be extended if all the signatory States so decide. The period of provisional application shall in any event terminate when this Treaty enters into force. However, the States Parties may then decide to extend the period of provisional application in respect of signatory States that have not ratified this Treaty.

## SECTION II. PHASING OF IMPLEMENTATION

1. After entry into force, this Treaty shall be implemented in phases in accordance with the provisions set forth in this Section. The provisions of paragraphs 2 to 6 of this Section shall apply during the period from entry into force of this Treaty until 31 December of the third year following the year during which entry into force takes place.

2. Notwithstanding the provisions of Article IV, paragraph 1, no State Party shall during the period specified in paragraph 1 above use an infra-red line-scanning device if one is installed on an observation aircraft, unless otherwise agreed between the observing and observed Parties. Such sensors shall not be subject to certification in accordance with Annex D. If it is difficult to

remove such sensor from the observation aircraft, then it shall have covers or other devices that inhibit its operation in accordance with the provisions of Article IV, paragraph 4 during the conduct of observation flights.

3. Notwithstanding the provisions of Article IV, paragraph 9, no State Party shall, during the period specified in paragraph 1 of this Section, be obliged to provide an observation aircraft equipped with sensors from each sensor category, at the maximum capability and in the numbers specified in Article IV, paragraph 2, provided that the observation aircraft is equipped with:

(A) a single optical panoramic camera; or

(B) not less than a pair of optical framing cameras.

4. Notwithstanding the provisions of Annex B, Section II, paragraph 2, subparagraph (A) to this Treaty, data recording media shall be annotated with data in accordance with existing practice of States Parties during the period specified in paragraph 1 of this Section.

5. Notwithstanding the provisions of Article VI, Section I, paragraph I, no State Party during the period specified in paragraph 1 of this Section shall have the right to be provided with an aircraft capable of achieving any specified unrefuelled range.

6. During the period specified in paragraph 1 of this Section, the distribution of active quotas shall be established in accordance with the provisions of Annex A, Section II, paragraph 2 to this Treaty.

7. Further phasing in respect of the introduction of additional categories of sensors or improvements to the capabilities of existing categories of sensors shall be addressed by the Open Skies Consultative Commission in accordance with the provisions of Article IV, paragraph 3 concerning such introduction or improvement.

## Article XIX

### AUTHENTIC TEXTS

The originals of this Treaty, of which the English, French, German, Italian, Russian and Spanish texts are equally authentic, shall be deposited in the archives of the Depositaries. Duly certified copies of this Treaty shall be transmitted by the Depositaries to all the States Parties.

## ANNEX A

## QUOTAS AND MAXIMUM FLIGHT DISTANCES

## SECTION I. ALLOCATION OF PASSIVE QUOTAS

1. The allocation of individual passive quotas is set forth as follows and shall be effective only for those States Parties having ratified the Treaty:

For the Federal Republic of Germany	12
For the United States of America	
For the Republic of Belarus and the Russian	
Federation group of States Parties	42
For Benelux	6
For the Republic of Bulgaria	4
For Canada	12
For the Kingdom of Denmark	6
For the Kingdom of Spain	4
For the French Republic	12
For the United Kingdom of Great Britain	
and Northern Ireland	12
For the Hellenic Republic	4
For the Republic of Hungary	4
For the Republic of Iceland	4
For the Italian Republic	12
For the Kingdom of Norway	7
For the Republic of Poland	6
For the Portuguese Republic	2
For Romania	6
For the Czech and Slovak Federal Republic	4
For the Republic of Turkey	12
For Ukraine	12

2. In the event that an additional State ratifies or accedes to the Treaty in accordance with the provisions of Article XVII and Article X, paragraph 4, subparagraph (C), and taking into account Article X, paragraph 4, subparagraph (D), an allocation of passive quotas to such a State shall be considered during the regular session of the Open Skies Consultative Commission following the date of deposit of its instrument of ratification or accession.

1. The first distribution of active quotas pursuant to Article III, Section I, paragraph 6 of the Treaty shall be such that each State Party shall be obliged to accept over its territory a number of observation flights no greater than 75 per cent, rounded down to the nearest whole number, of the individual passive quota allocated as set forth in Section I, paragraph 1 of this Annex. On this basis, and for those States Parties which have conducted negotiations in the framework of the Open Skies Conference in Vienna, the first distribution in respect of each other shall be valid from the date of entry into force of the Treaty until 31 December following the year during which the Treaty has entered into force and shall be effective only for those States Parties having ratified the Treaty. This first distribution is set forth as follows:

The Federal Republic of Germany shall have the right to conduct three observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties, and one observation flight over the territory of Ukraine;

The United States of America shall have the right to conduct eight observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties, and one observation flight, shared with Canada, over the territory of Ukraine;

The Republic of Belarus and the Russian Federation group of States Parties shall have the right to conduct two observation flights over the territory of Benelux, as referred to in Article XIV of the Treaty, two observation flights over the territory of Canada, two observation flights over the territory of the Kingdom of Denmark, three observation flights over the territory of the French Republic, three observation flights over the territory of the Federal Republic of Germany, one observation flight over the territory of the Hellenic Republic, two observation flights over the territory of the Italian Republic, two observation flights over the territory of the Kingdom of Norway, two observation flights over the territory of the Republic of Turkey, three observation flights over the territory of the United Kingdom of Great Britain and Northern Ireland, and four observation flights over the territory of the United States of America;

The Kingdom of Belgium, the Grand Duchy of Luxembourg and the Kingdom of the Netherlands, referred to as the Benelux, shall have the right to conduct one observation flight over the territory of the Republic of Belarus and the Russian Federation group of States Parties, and one observation flight over the territory of the Republic of Poland;

The Republic of Bulgaria shall have the right to conduct one observation flight over the territory of the Hellenic Republic, one observation flight over the territory of the Italian Republic, and one observation flight over the territory of the Republic of Turkey;

Canada shall have the right to conduct two observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties, one observation flight over the territory of the Czech and Slovak Federal Republic, one observation flight over the territory of the Republic of Poland, and one observation flight, shared with the United States of America, over the territory of Ukraine;

The Kingdom of Denmark shall have the right to conduct one observation flight over the territory of the Republic of Belarus and the Russian Federation group of States Parties, and one observation flight over the territory of the Republic of Poland;

The Kingdom of Spain shall have the right to conduct one observation flight over the territory of the Czech and Slovak Federal Republic;

The French Republic shall have the right to conduct three observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties, and one observation flight over the territory of Romania;

The United Kingdom of Great Britain and Northern Ireland shall have the right to conduct three observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties, and one observation flight over the territory of Ukraine;

The Hellenic Republic shall have the right to conduct one observation flight over the territory of the Republic of Bulgaria, and one observation flight over the territory of Romania;

The Republic of Hungary shall have the right to conduct one observation flight over the territory of Romania, and one observation flight over the territory of Ukraine;

The Italian Republic shall have the right to conduct two observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties, one observation flight over the territory of the Republic of Hungary, and one observation flight, shared with the Republic of Turkey, over the territory of Ukraine;

The Kingdom of Norway shall have the right to conduct two observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties and one observation flight over the territory of the Republic of Poland;

The Republic of Poland shall have the right to conduct one observation flight over the territory of the Federal Republic of Germany, one observation flight over the territory of the Republic of Belarus and the Russian Federation group of States Parties, and one observation flight over the territory of Ukraine;

Romania shall have the right to conduct one observation flight over the territory of the Republic of Bulgaria, one observation flight over the territory of the Hellenic Republic, one observation flight over the territory of the Republic of Hungary, and one observation flight over the territory of Ukraine;

The Czech and Slovak Federal Republic shall have the right to conduct one observation flight over the territory of the Federal Republic of Germany, and one observation flight over the territory of Ukraine;

The Republic of Turkey shall have the right to conduct two observation flights over the territory of the Republic of Belarus and the Russian Federation group of States Parties, one observation

flight over the territory of the Republic of Bulgaria and two observation flights, one of which is shared with the Italian Republic, over the territory of Ukraine;

Ukraine shall have the right to conduct one observation flight over the territory of the Czech and Slovak Federal Republic, one observation flight over the territory of the Republic of Hungary, one observation flight over the territory of the Republic of Poland, one observation flight over the territory of Romania, and two observation flights over the territory of the Republic of Turkey.

2. Following this first distribution and until the date of full implementation of the Treaty specified in Article XVIII to that effect for the use of active quotas, annual distributions shall be based on the 75 per cent rule established in paragraph 1 of this Section in relation to the allocation of individual passive quotas.

3. From the date of full implementation of the Treaty each State Party shall accept during subsequent distributions of active quotas over its territory, if so requested, a number of observation flights up to the full amount of its individual passive quota. Whenever possible or requested and unless otherwise agreed, those distributions shall be based on a proportionate increase of the active quotas distributed in the first distribution.

4. In the event that an additional State ratifies or accedes to the Treaty in accordance with the provisions of Article XVII, the distribution of active quotas to such State shall be considered during the regular session of the Open Skies Consultative Commission following the date of the deposit of its instrument of ratification or accession, subject to the following provisions:

- (A) the ratifying or acceding State shall have the right to request observation flights over the territories of States Parties within the passive quota allocated to that State in accordance with the provisions of Section I, paragraph 3 of this Annex, and within the passive quotas of the States Parties requested for observation flights, unless otherwise agreed by the States Parties involved; and
- (B) all States Parties shall have at the same time the right to request observation flights over the territory of that signing or acceding State within their active quotas and within the passive quota allocated to that State.

## SECTION III. MAXIMUM FLIGHT DISTANCES OF OBSERVATION FLIGHTS

The maximum flight distances of observation flights over the territories of observed Parties commencing from each Open Skies airfield are as follows:

The Federat Republic of Germany WUNSTORF LANDSBERG-LECH

1,200 kilometres 1,200 kilometres

· · · · ·	
The United States of America WASHINGTON-DULLES	4,900 kilometr
TRAVIS AFB	4.000 kilometr
ELMENDORF AFB	3,000 kilometr
LINCOLN-MUNICIPAL	4,800 kilometr
The Republic of Belarus and the Russian Federation group	of States Parties
KÜBINKA	5,000 kilomet
ULAN UDE VORKUTA	5,000 kilometa 6,500 kilometa
MAGADAN	6,500 kilomet
Benelux ZAVENTEM/MELSBROEK	945 kilometr
	715 KHOINCU
The Republic of Bulgaria	660 kilometi
SOFIA BURGAS	660 kilometi
Canada	5,000 kilomet
OTTAWA IOALUIT	6,000 kilomet
YELLOWKNIFE	5,000 kilomet
The Kingdom of Donmonly	
The Kingdom of Denmark METROPOLITAN	800 kilomet
FAROE ISLANDS	250 kilomet
GREENLAND	5,600 kilomet
The Kingdom of Spain	
GEŤAFE	1,300 kilomet
GANDO VALENCIA	750 kilomet 1,300 kilomet
VALENCIA	1,300 kilomet
MORON	1,300 kilomet
The French Republic	
ORLEANS-BRICY	1,400 kilomet
NICE-COTE D'AZUR	800 kilomet 700 kilomet
TOULOUSE-BLAGNAC	700 kilomet
The United Kingdom of Great Britain and Northern Ireland	d
BRIZE NORTON	1,150 kilomet 1,150 kilomet
SCAMPTON LEUCHARS	1,150 kilome
with SCILLY ISLANDS	1,500 kilome
with SHETLAND ISLANDS	1,500 kilome
The Hellenic Republic	
THESSALONIKI	900 kilome
ELEFSIS	900 kilome
with CRETE, KARPATHOS, RHODES, KOS ISLANDS	1,100 kilome
KIODES, KOS ISEANDS	.,
20.02	
39/96	
, ,	

The Republic of Hungary BUDAPEST-FERIHEGY

## The Republic of Iceland

- The Italian Republic MILANO-MALPENSA PALERMO-PUNTA RAISI
- The Kingdom of Norway OSLO-GARDERMOEN TROMSOE-LANGNES
- The Republic of Poland WARSZAWA-OKECIE
- The Portuguese Republic LISBOA Sta. MARIA PORTO SANTO
- Romania BUCHAREST-OTOPENI TIMISOARA BACAU
- The Czech and Slovak Federal Republic PRAHA BRATISLAVA KOSICE
- The Republic of Turkey ESKISEHIR DIYARBAKIR

Ukraine BORISPOL 860 kilometres

1,500 kilometres

1,130 kilometres 1,400 kilometres

1,700 kilometres 1,700 kilometres

1,400 kilometres

1,200 kilometres 1,700 kilometres 1,030 kilometres

900 kilometres 900 kilometres 900 kilometres

600 kilometres 700 kilometres 400 kilometres

1,500 kilometres 1,500 kilometres

2,100 kilometres

### ANNEX B

#### INFORMATION ON SENSORS

## SECTION I. TECHNICAL INFORMATION

1. Pursuant to Article IV, paragraph 10, each State Party shall inform all other States Parties of the applicable technical information listed in this Section on each sensor installed on the observation aircraft designated by that State Party pursuant to Article V of the Treaty.

2. The following technical information shall be provided for optical panoramic and framing cameras:

- (A) type and model;
- (B) field of view along and across the flight path, or scan angles, in degrees;
- (C) frame size, in millimetres by millimetres;
- (D) exposure times, in seconds;
- (E) types and colours of optical filters used and their filter factor;
- (F) for each lens:

- (1) name;
- (2) focal length, in millimetres;
- (3) maximum relative aperture of the lens;
- (4) resolving power at a contrast ratio of 1000 to 1 or the equivalent modulation of 1.0, at the maximum relative aperture, in lines per millimetre;
- (G) minimum and maximum photographic time intervals, in seconds, or cycle rates, in frames per second, if applicable;
- (H) maximum velocity over height ratio, if applicable;
- (1) for optical framing cameras, the maximum angle measured from the horizontal, or the minimum angle measured from the vertical, in degrees; and
- (J) maximum altitude for operation in metres, if applicable.
- 3. The following technical information shall be provided for video cameras:
  - (A) type and model;
  - (B), field of view, along and across the flight path, in degrees;
  - (C) for the lens:
    - (1) focal length, in millimetres;
    - (2) maximum relative aperture;

(3) resolving power at a contrast ratio of 1000 to 1 or the equivalent modulation of 1.0, at the maximum relative aperture, in lines per millimetre; 

- (D) detector element size, in micrometres, or equivalent information on the tube;
- (E) number of detector elements;
- (F) system light sensitivity, in lux or watts per square centimetre; and
- (G) spectral bandwidth, in nanometres.
- 4. The following technical information shall be provided for infra-red line-scanning devices:
  - (A) type and model;
  - (B) field of view or scan angles, in degrees;
  - (C) minimum instantaneous field of view, along and across the flight path, in milliradians;
  - (D) spectral bandwidth, in micrometres;
  - (E) minimum resolvable temperature difference, in degrees Celsius;
  - (F) temperature of detector during operation, in degrees Celsius;
  - (G) time required from switch-on for the system to start up and cool down to its normal operating temperature, in minutes;
  - (H) maximum operating time, if applicable;
  - (I) · maximum velocity over height ratio; and
  - (J) maximum altitude for operation in metres, if applicable.

5. The following technical information shall be provided for sideways-looking synthetic aperture radar:

- (A) type and model;
- (B) radar frequency bands, and specific operating frequency, in megahertz;
- (C) polarisations;
- (D) number of radar pulses, per metre or second;

- (E) near range angular limit of operation, in degrees from vertical;
- (F) swath width, in kilometres;
- (G) ground resolution in range and azimuth, in the slant plane, in metres;
- (H) maximum altitude for operation in metres, if applicable; and
- (I) transmitter output power, in watts.

6. The following technical information shall be provided for sensors that record data on photographic film:

- (A) the types of film that may be used with each sensor;
- (B) width of film, in millimetres;
- (C) film resolution at a contrast ratio of 1000 to 1 or the equivalent modulation of 1.0, in lines per millimetre; and
- (D) capacity of magazine for each type of film, in metres.

7. The following technical information shall be provided for sensors that record data on other recording media:

- (A) type and model of the data recording equipment;
- (B) type and format of data recording media;
- (C) bandwidth, in hertz, if applicable;
- (D) data recording rate, in megabits per second, if applicable;
- (E) capacity of recording media, in minutes or megabits; and
- (F) format for storage of data collected by sensors and data annotation.

### SECTION II. ANNOTATION OF DATA

1. The following items of information shall be annotated on data collected by sensors during an observation period on the leader of each roll of the original film negative or at the beginning of each other recording medium in accordance with the provisions of Appendix 1 to this Annex:

(A) observation flight reference number;

- (B) date of observation flight;
- (C) sensor description;
- (D) sensor configuration; and
- (E) focal length, if applicable.

2. The following items of information shall be recorded manually or electronically from the navigation and avionics systems of the observation aircraft and annotated on data collected by sensors during an observation period in a manner that does not obscure detail, in accordance with the provisions of Appendix 1 to this Annex:

- (A) for optical cameras:
  - at the start of the observation period and at any intermediate location during the observation period where there is a significant change of height above ground level, heading or

groundspeed, and at intervals to be determined by the Open Skies Consultative Commission within the period of provisional application: 

- (a) height above ground level;
- (b) location;
- (c) true heading; and
- (d) scan angle;
- (2) on every frame of photographic film:
  - (a) frame number;
  - (b) time; and
  - (c) roll angle;
- (B) for video cameras and infra-red line-scanning devices, at the start of the observation period and at any intermediate location during the observation period where there is a significant change of height above ground level, heading or groundspeed, and at intervals to be determined by the Open Skies Consultative Commission within the period of provisional application:
  - (1) date and time;
  - (2) height above ground level;

- (3) location;
- (4) true heading; and
- (5) scan angle;
- (C) for sideways-looking synthetic aperture radar:
  - (1) at the start of the observation period and at any intermediate location during the observation period where there is a significant change of height above ground level, heading or groundspeed, and at intervals to be determined by the Open Skies Consultative Commission within the period of provisional application:
    - (a) date and time;
    - (b) height above ground level;
    - (c) location;

- (d) true heading;
- (e) look down angle to the nearest point of the swath width;
- (f) swath width; and
- (g) polarisations;
- (2) each time they are measured in order to ensure correct processing of the image:
  - (a) groundspeed;
  - (b) drift;
  - (c) pitch angle; and
  - (d) roll angle.

3. For copies of single frames or strips of imagery produced from the original film negative or other recording media, the items of information listed in paragraphs 1 and 2 of this Section shall be annotated on each positive print.

4. States Parties shall have the right to annotate data collected during an observation flight using either alphanumeric values, or codes to be agreed by the Open Skies Consultative Commission during the period of provisional application.

## APPENDIX 1 TO ANNEX B

## ANNOTATION OF DATA COLLECTED DURING AN OBSERVATION FLIGHT

1. The reference number of the observation flight shall be indicated by a single group of six alphanumeric characters in accordance with the following convention:

- (A) the letters "OS";
- (B) the last digit of the calendar year for which the individual active quota applies; and
- (C) a three-digit number to represent each individual observation flight comprising the active quota distributed during the annual review within the framework of the Open Skies Consultative Commission for a calendar year to a State Party over the territory of another State Party.

2. The sensor description shall be indicated by a single block of up to six alphanumeric characters comprising two groups in accordance with the following convention:

- (A) a group of up to four characters to represent the category of the sensor in accordance with the following convention:
  - (1) "OP" optical panoramic camera;
  - (2) "OF" optical framing camera;
  - (3) "TV" video camera;
  - (4) "IRLS" infra-red line-scanning device; or
  - (5) "SAR" sideways-looking synthetic aperture radar;
- (B) a group of two characters to represent the type of the recording medium in accordance with the following convention:
  - (1) "BI" black and white, iso-panchromatic;
  - (2) "BM" black and white, monochromatic;

- (3) "BP" black and white, panchromatic;
- (4) "BR" black and white, reversal;
- (5) "TA" tape, analogue; or
- (6) "TD" tape, digital.

3. The sensor configuration shall be indicated by a single block of up to nine alphanumeric characters comprising three groups in accordance with the following convention:

- (A) a group of four alphanumeric characters to represent the installation of the sensor on the observation aircraft either as:
  - an internal installation, which shall be denoted by the code "INT", followed by a number to indicate the relative location of the installation of the sensor on the observation aircraft in sequence from nose to tail of the observation aircraft; or
  - (2) a podded installation, which shall be denoted by the code "POD", followed by one of the following three letters:
    - (a) "L" mounted under left wing;
    - (b) "R" mounted under right wing; or
    - (c) "C" mounted on the aircraft centre line;
- (B) a group of up to three alphanumeric characters to represent the type of installation in accordance with the following convention:
  - (1) a vertical installation in which the sensor is not tilted more than five degrees from the vertical shall be denoted by the letter "V";
  - (2) an oblique installation in which the sensor is tilted more than five degrees from the vertical shall be denoted by one of the following two letters, followed by the depression angle in degrees:
    - (a) "L" left pointing;
    - (b) "R" right pointing;
  - (3) a fan installation of two or more sensors shall be denoted by the letter "F";
- (C) for a fan installation, a group of up to two numbers to indicate the number and position of the sensors as follows:

- (1) the first number to indicate the total number of sensors in that installation; and
- (2) the second number to indicate the individual sensor position, in sequence from left to right relative to the direction of flight of the observation aircraft.

4. The focal length of a lens shall be provided in millimetres.

5. The date and time shall be provided to the nearest minute of Co-ordinated Universal Time.

6. The average height above ground level of the observation aircraft shall be denoted by a five-digit number, followed by a code to represent the units of measurement in either feet, by the letter "F", or metres, by the letter "M".

7. The latitude and longitude of the location of the observation aircraft shall be provided in degrees to the nearest one-hundredth of a degree, in the format "dd.dd(N or S) ddd.dd(E or W)", or in degrees and minutes to the nearest minute, in the format "dd mm(N or S) ddd mm(E or W)".

8. The true heading of the observation aircraft shall be provided in degrees to the nearest degree.

9. The roll angle of the observation aircraft shall be provided in degrees followed by a code to indicate whether the roll is to the left, by the letter "L", or to the right, by the letter "R".

10. The pitch angle of the observation aircraft shall be provided in degrees followed by a code to indicate whether the pitch is up, by the letter "U", or down, by the letter "D", relative to the horizontal.

11. The drift angle of the observation aircraft shall be provided in degrees followed by a code to indicate whether the drift is to the left, by the letter "L", or to the right, by the letter "R", relative to the flight path of the observation aircraft.

12. The groundspeed of the observation aircraft shall be denoted by a three-digit number followed by a two-letter code to indicate the units of measurement in either nautical miles, by the letters "NM", or kilometres, by the letters "KM", per hour.

13. The nearest point of the swath width shall be provided in kilometres.

14. The look down angle shall be provided in degrees measured from the vertical.

15. The swath width shall be provided in kilometres.

16. For photographic film, each magazine used during an observation flight from the same sensor shall be numbered in sequence starting from one. Each frame on the original film

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negative exposed by each sensor shall be individually numbered in sequence, from the first frame to the last frame of that magazine of that sensor. In each case when the film is numbered using one or two numbers per frame, a single frame shall be defined without ambiguity by specifying either the number closest to the centre of the frame, or, in the event that the numbers are equidistant from the centre, the smaller whole number.

### ANNEX C

### INFORMATION ON OBSERVATION AIRCRAFT

Pursuant to the provisions of Article V, paragraph 2 of the Treaty, States Parties, when designating aircraft as observation aircraft, shall notify all other States Parties of the information specified below.

- Identification:
  - (A) type and model; and
  - (B) number, category, type and configuration of each sensor installed on the observation aircraft, as provided in accordance with the provisions of Annex B to the Treaty;
- Mission Planning:
  - (A) for each type and configuration of sensor installed on the observation aircraft:
    - (1) for which ground resolution is dependent upon height above ground level, the height above ground level in metres at which that sensor achieves the ground resolution for that category of sensor specified in Article IV, paragraph 2 of the Treaty;
    - (2) for which ground resolution is not dependent upon height above ground level, the altitude for maximum range;
  - (B) optimum cruising speed in kilometres per hour at each altitude specified in accordance with subparagraph (A) of this paragraph;
  - (C) fuel consumption in kilograms per hour at optimum cruising speed at each altitude specified in accordance with subparagraph (A) of this paragraph.
- Navigation, Communications and Landing Aids:

- (A) each type of navigation equipment installed on the observation aircraft, including its positional accuracy, in metres; and
- (B) radio communications, approach and landing aid equipment installed on the observation aircraft, in accordance with standard ICAO practice.
- 4. Ground Handling:
  - (A) length, wingspan, maximum height, wheel base, and turning radius;
  - (B) maximum take-off weight and maximum landing weight;
  - (C) airfield runway length and pavement strength required at maximum take-off and landing weights, including any capability for landing on unpaved strips;
  - (D) types and capacities of fuel, oils, hydraulic fluid and oxygen;
  - (E) types of electrical servicing and starting units; and
  - (F) any special requirements.

## 5. Accommodation facilities:

- (A) number of flight crew;
- (B) number of sensor operators;
- (C) number of flight representatives, flight monitors or representatives who could be seated on board; and
- (D) sleeping berths.

## ANNEX D

### CERTIFICATION OF OBSERVATION AIRCRAFT AND SENSORS

## SECTION I. GENERAL PROVISIONS

1. Each State Party shall have the right to participate in the certification of an observation aircraft of each type and model and its associated set of sensors designated by another State Party pursuant to Article V of the Treaty, during which the observation aircraft and its sensors shall be examined both on the ground and in-flight.

Each certification shall be conducted in order to establish:

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- (A) that the aircraft is of a type and model designated pursuant to Article V of the Treaty;
- (B) that the sensors installed on the observation aircraft are of a category specified in Article IV, paragraph 1 of the Treaty and satisfy the requirements specified in Article IV, paragraph 2 of the Treaty;
- (C) that the technical information has been provided in accordance with the provisions of Annex B, Section I to the Treaty;
- (D) in the event that the ground resolution of a sensor is dependent upon height above ground level, the minimum height above ground level from which each such sensor installed on an observation aircraft of that type and model may be operated during an observation flight, pursuant to the limitation on ground resolution specified in Article IV, paragraph 2 of the Treaty;
- (E) in the event that the ground resolution is not dependent upon height above ground level, the ground resolution of each such sensor installed on an observation aircraft of that type and model, pursuant to the limitation on ground resolution specified in Article IV, paragraph 2 of the Treaty; and
- (F) that the covers for sensor apertures or other devices that inhibit the operation of sensors are in their proper position in accordance with the provisions of Article IV, paragraph 4 of the Treaty.

3. Each State Party conducting a certification shall notify all other States Parties, no less than 60 days in advance, of the period of seven days during which the certification of that observation aircraft and its sensors will take place. Such notification shall specify:

- (A) the State Party conducting the certification of the observation aircraft and its sensors;
- (B) the point of entry at which personnel of the States Parties taking part in the certification should arrive;
- (C) the location at which the certification is to be conducted;
- (D) the dates on which the certification is to begin and end;
- (E) the number, type and model of each observation aircraft to be certified; and
- (F) the type and model, description and configuration of each sensor installed on the observation aircraft to be certified, in accordance with the format specified in Annex B, Appendix 1 to the Treaty.

4. No later than ten days after receipt of the notification pursuant to the provisions of paragraph 3 of this Section, each State Party shall notify all other States Parties of its intention to participate in the certification of such aircraft and its sensors pursuant to the provisions of Article IV, paragraph 11. The number of individuals that shall participate in the certification from amongst those States Parties that notified their intention to participate shall be decided upon within the Open Skies Consultative Commission. Unless otherwise agreed, the number of individuals shall total no more than 40 and include no more than four from any one State Party. In the event that two or more States Parties notify their intention to conduct a certification during the same period, it shall be decided within the Open Skies Consultative Commission which of them shall conduct the certification in this period.

5. Each State Party taking part in the certification shall notify the State Party conducting the certification no less than 30 days prior to the date on which the certification of the observation aircraft is to begin, as notified in accordance with paragraph 3 of this Section, of the following:

- (A) the names of the individuals taking part in the certification and, in the event that a non-commercial transport aircraft is used to travel to the point of entry, a list of the names of the crew members, in each case specifying gender, date of birth, place of birth and passport number. All such individuals shall be on the list of individuals designated pursuant to Article XIII, Section I of the Treaty;
- (B) the date and the estimated time of arrival of such individuals at the point of entry; and
- (C) the mode of transport used to arrive at the point of entry.

6. No less than 14 days prior to the date on which the certification of the observation aircraft is to begin, as notified in accordance with paragraph 3 of this Section, the State Party conducting the certification shall provide the States Parties which are taking part in the certification with the following information for each sensor installed on the observation aircraft, and for associated equipment used for the annotation of data collected by sensors:

- (A) a description of each constituent part of the sensor, including its purpose, and any connection to associated equipment used for the annotation of data;
- (B) photographs taken of each sensor separate from the observation aircraft, in accordance with the following specifications:
  - (1) each sensor shall fill at least 80 per cent of the photograph either horizontally or vertically;
  - (2) such photographs may be either colour or black and white and shall measure 18 centimetres by 24 centimetres, excluding the border; and

- (3) each photograph shall be annotated with the category of the sensor, its type and model, and the name of the State Party that is presenting the sensor for certification;
- (C) instructions on the in-flight operation of each sensor.

7. In the event that no State Party notifies its intention to take part in the certification in accordance with the provisions of paragraph 5 of this Section, the State Party shall conduct by itself an in-flight examination in accordance with the provisions of Section III of this Annex and complete a certification report in accordance with the provisions of Section IV of this Annex.

8. The provisions of Article XIII, Section II of the Treaty shall apply to the personnel of each State Party taking part in the certification during the entire period of their stay on the territory of the State Party conducting the certification.

9. The personnel of each State Party taking part in the certification shall leave the territory of the State Party conducting the certification promptly after signing the certification report.

## SECTION II. GROUND EXAMINATION

1. With the approval of the State Party conducting the certification, ground examinations by more than one State Party may be conducted simultaneously. States Parties shall have the right jointly to conduct a ground examination of the observation aircraft and its sensors. The State Party conducting the certification shall have the right to determine the number of personnel engaged at any one time in the ground examination of an observation aircraft and its sensors.

2. Unless otherwise agreed, the ground examination shall not exceed three eight-hour periods for each observation aircraft and its sensors.

3. Prior to the commencement of the ground examination, the State Party conducting the certification shall provide the States Parties taking part in the certification with the following information:

- (A) for optical panoramic and framing cameras:
  - the modulation transfer curve of the response of the lens to spatial frequency (frequency/contrast characteristic) at the maximum relative aperture of that lens, in lines per millimetre;
  - (2) specifications of the black and white aerial film that will be used to collect data during an observation flight, or for the duplication of such data, in accordance with the provisions of Annex K, Section I, paragraph 2 to the Treaty;

- (3) specifications of the film processors which will be used to develop original film negatives and duplicators that will be used to produce film positives or negatives, in accordance with the provisions of Annex K, Section I, paragraph 1 to the Treaty; and
- (4) flight test data showing ground resolution as a function of height above ground level for each type of aerial film that will be used with the optical camera;
- (B) for video cameras, flight test data from all output devices showing ground resolution as a function of height above ground level;
- (C) for infra-red line-scanning devices, flight test data from all output devices showing ground resolution as a function of height above ground level; and
- (D) for sideways-looking synthetic aperture radar, flight test data from all output devices showing ground resolution as a function of slant range from the aircraft.

4. Prior to the commencement of the ground examination, the State Party conducting the certification shall provide a briefing to the State Party or States Parties taking part in the certification on:

- (A) its plan for the conduct of the ground examination of the observation aircraft and its sensors;
- (B) the observation aircraft, as well as its sensors, associated equipment and covers for sensor apertures or other devices that inhibit the operation of sensors, indicating their location on the observation aircraft with the help of diagrams, photographs, slides and other visual materials;
- (C) all necessary safety precautions that shall be observed during the ground examination of the observation aircraft and its sensors; and
- (D) the inventory procedures that escorts of the State Party conducting the certification intend to use pursuant to paragraph 6 of this Section.

5. Prior to the commencement of the ground examination, each State Party taking part in the certification shall deliver to the State Party conducting the certification a list of each item of equipment to be used during the ground examination or in-flight examination. The States Parties conducting the examination shall be permitted to take on board the observation aircraft and use video cameras, hand-held audio recorders and hand-held electronic computers. The States Parties taking part in the certification shall be permitted to use other items of equipment, subject to the approval of the State Party conducting the certification.

6. The States Parties taking part in the certification shall, together with the State Party conducting the certification, conduct an inventory of each item of equipment provided for in

paragraph 5 of this Section, and review the inventory procedures which shall be followed to confirm that each item of equipment brought on board the observation aircraft by the States Parties taking part in the certification has been removed from the observation aircraft upon conclusion of the examination.

7. Personnel of each State Party taking part in the certification shall have the right to conduct the following activities during the ground examination on the observation aircraft and of each sensor installed on the observation aircraft:

- (A) confirm that the number and configuration of each sensor installed on the observation aircraft correspond to the information provided in accordance with the provisions of Section I, paragraph 6 of this Annex, Annex C and Annex B, Section I;
- (B) familiarize themselves with the installation of each sensor on the observation aircraft, including the constituent parts thereof and their connections to each other and to any associated equipment used for the annotation of data;
- (C) obtain a demonstration of the control and operation of each sensor; and
- (D) familiarize themselves with the flight test data provided in accordance with the provisions of paragraph 3 of this Section.

8. At the request of any State Party taking part in the certification, the State Party conducting the certification shall photograph any sensor installed on the observation aircraft, the associated equipment on the observation aircraft, or the sensor apertures with their covers or devices which inhibit the operation of sensors. Such photographs shall fulfil the requirements specified in Section I, paragraph 6, subparagraphs (B)(1), (2) and (3) of this Annex.

9. The State Party conducting the certification shall have the right to designate personnel to accompany throughout the ground examination the personnel of the States Parties taking part in the certification to confirm compliance with the provisions of this Section. The personnel of the State Party conducting the certification shall not interfere with the activities of the States Parties taking part in the certification, unless such activities conflict with the safety precautions provided for in paragraph 4, subparagraph (C) of this Section.

<sup>6</sup> 10. The State Party conducting the certification shall provide the States Parties taking part in the certification access to the entire observation aircraft, its sensors and associated equipment and sufficient power to operate its sensors and associated equipment. The State Party conducting the certification shall open such compartments or remove panels or barriers, to the extent necessary to permit examination of any sensor and associated equipment subject to certification.

11. Notwithstanding the provisions of this Section, the ground examination shall be conducted in a manner that does not:

- (A) degrade, damage, or prevent subsequent operation of the observation aircraft or its sensors;
- (B) alter the electrical or mechanical structure of the observation aircraft or its sensors; or
- (C) impair the airworthiness of the observation aircraft.

12. The States Parties taking part in the certification shall have the right to take measurements, and make notes, sketches, similar records and recordings using the items of equipment listed in paragraph 5 of this Section, relating to the observation aircraft, its sensors and their associated equipment. Such working materials may be retained by the State Party taking part in the certification and shall not be subject to any review or examination by the State Party conducting the certification.

13. The State Party conducting the certification shall make every effort to answer questions of the States Parties taking part in the certification that pertain to the ground examination.

14. Upon completion of the ground examination, the States Parties taking part in the certification shall leave the observation aircraft, and the State Party conducting the certification shall have the right to use its own inventory procedures set forth in accordance with paragraph 6 of this Section to confirm that all the equipment used during the ground examination in accordance with paragraph 5 of this Section has been removed from the observation aircraft.

## SECTION III. IN-FLIGHT EXAMINATION

1. In addition to conducting a ground examination of the observation aircraft and its sensors, the State Party conducting the certification shall conduct one in-flight examination of its sensors which shall be sufficient to:

- (A) permit observation of the operation of all the sensors installed on the observation aircraft;
- (B) in the event that the ground resolution of a sensor is dependent upon height above ground level, establish the minimum height above ground level from which each such sensor installed on an observation aircraft of that type and model shall be operated for any observation flight, in accordance with the limitation on ground resolution specified in Article IV, paragraph 2 of the Treaty; and
- (C) in the event that the ground resolution of a sensor is not dependent upon height above ground level, establish the ground resolution of each such sensor installed on an observation aircraft of that type and model is in accordance with the limitation on ground resolution specified in Article IV, paragraph 2 of the Treaty.

2. Prior to the commencement of the in-flight examination of the sensors, the State Party conducting the certification shall brief the States Participating in the certification on its plan for the conduct of the in-flight examination. This briefing shall include the following information:

- (A) a diagram of the calibration targets that it intends to use for the in-flight examination in accordance with the provisions of Appendix 1, Section I, paragraph 5 to this Annex;
- (B) the estimated time, meteorological conditions, number, direction and height above ground level of each pass over the calibration target appropriate to each sensor to be certified; and
- (C) all necessary safety precautions that shall be observed during the in-flight examination of the observation aircraft and its sensors.

3. Prior to and during the conduct of the in-flight examination, States Parties taking part in the certification shall have the right to visit the location of the calibration targets. The State Party conducting the certification shall provide such items of equipment as required to confirm that the calibration targets meet the specifications set forth in Appendix 1, Section I to this Annex.

4. The in-flight examination shall be conducted during clear atmospheric daytime conditions, unless otherwise agreed, over the calibration targets appropriate to each category of sensor installed on the observation aircraft in accordance with the provisions of Appendix 1, Section II to this Annex, to determine the ground resolution of each sensor.

5. The State Party conducting the certification shall provide such data on the meteorological conditions at the location of the calibration targets during the in-flight examination of the sensors as are necessary to make the calculations in accordance with the methodologies specified in Appendix 1, Section III to this Annex.

6. Each State Party shall have the right to designate personnel to take part in the in-flight examination. In the event that the number of individuals so designated exceeds the passenger capacity of the observation aircraft, the States Parties participating in the certification shall agree which of its personnel shall participate in the in-flight examination.

7. Personnel of the States Parties designated pursuant to paragraph 6 of this Section shall have the right to observe the operation of the sensors by personnel of the State Party conducting the certification.

8. Personnel of the States Parties taking part in the certification shall have the right to monitor the unsealing of the film cassette and the storage, processing and handling of the original film negative exposed during the in-flight examination, in accordance with the provisions of Annex K. Section II to the Treaty.

## SECTION IV. CERTIFICATION REPORT

1. Upon completion of the ground and in-flight examinations, data collected by sensors and from the calibration targets shall be examined jointly by the State Party conducting the certification and the States Parties taking part in the certification. These States Parties shall prepare a certification report which shall establish:

- (A) that the observation aircraft is of a type and model designated pursuant to Article V of the Treaty;
- (B) that the sensors installed on the observation aircraft are of a category provided for in Article IV, paragraph 1 of the Treaty and satisfy the requirements of Article IV, paragraph 2 of the Treaty;
- (C) that the technical information on sensors has been provided in accordance with Annex B, Section I to the Treaty;
- (D) in the event that the ground resolution of a sensor is dependent upon height above ground level, the minimum height above ground level at which each such sensor on an observation aircraft of that type and model may be operated during an observation flight pursuant to the limitation on ground resolution specified in Article IV, paragraph 2 of the Treaty;
- (E) in the event that the ground resolution is not dependent upon height above ground level, the ground resolution of each such sensor installed on an observation aircraft of that type and model, pursuant to the limitations on ground resolution specified in Article IV, paragraph 2 of the Treaty; and

(F) that the covers for sensor apertures or other devices that inhibit the operation of sensors are in accordance with the provisions of Article IV, paragraph 4 of the Treaty.

2. A copy of the information for each sensor provided pursuant to Section I, paragraph 6 and Section II, paragraphs 3 and 8 of this Annex shall be attached to the certification report.

3. Copies of the certification report shall be provided to all other States Parties by the State Party conducting the certification. States Parties that did not take part in the certification shall not have the right to reject the conclusions contained in the certification report.

4. An observation aircraft and its associated set of sensors shall be deemed to be certified unless the States Parties taking part in the certification are unable to reach agreement on the contents of the certification report.

5. In the event that the State Party conducting the certification and States Parties taking part in the certification are unable to reach agreement on the contents of the certification report, the observation aircraft shall not be used for observation flights until the issue is resolved.

## APPENDIX 1 TO ANNEX D

## **METHODOLOGIES FOR THE VERIFICATION OF THE PERFORMANCE OF** SENSORS INSTALLED ON AN OBSERVATION AIRCRAFT

The ground resolution of each sensor installed on the observation aircraft, and, where its performance depends on height above ground level, the minimum height above ground level at which this sensor may be operated during an observation flight, shall be determined and confirmed on the basis of data collected over calibration targets appropriate to each category of sensor in accordance with the specifications in Section I and calculated in accordance with the methodologies to be determined within the Open Skies Consultative Commission.

#### SECTION I. SPECIFICATIONS FOR CALIBRATION TARGETS

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1. Calibration targets shall be provided by the State Party conducting the certification in accordance with the provisions of Annex D to the Treaty. Such calibration targets shall be used to establish the ground resolution of sensors, of a type appropriate to each sensor category, and designed in accordance with characteristics specified below.

2. Calibration targets for establishing the ground resolution of optical cameras shall consist of a series of groups of alternating black and white bars. Each group of bars shall consist of a minimum of two black bars separated by a white bar. The width of black and white bars within a group shall remain constant. The width of the bars in groups of bars in the calibration target shall change in steps sufficient to ensure accurate measurement of the ground resolution. The length of the bars shall remain constant within each group. The contrast ratio of the black to white bars shall be consistent throughout the target and shall be at least 5 to 1 (equivalent to a modulation of 0.66).

3. Calibration targets for establishing the ground resolution of infra-red line-scanning devices shall be determined within the Open Skies Consultative Commission during the period of provisional application.

4. Calibration targets for establishing the ground resolution of sideways-looking synthetic aperture radar shall consist of arrays of trihedral corner reflectors whose configuration shall be in accordance with the methodologies determined within the Open Skies Consultative Commission during the period of provisional application.

5. Each State Party shall provide all other States Parties with a diagram of the calibration targets that it intends to use for the purpose of in-flight examination. Such diagrams shall be annotated with the overall dimensions of the calibration targets, their locations and the type of terrain on which they are deployed, as well as the information appropriate to each type of calibration target as determined within the Open Skies Consultative Commission during the period of provisional application.

## SECTION II. CONDUCT OF IN-FLIGHT EXAMINATION

1. In order to establish the ground resolution of panoramic or vertically-installed framing cameras, the line of flight of the observation aircraft shall be directly over and parallel to the calibration target. In order to establish the ground resolution of obliquely-installed framing cameras, the line of flight of the observation aircraft shall be parallel to the calibration target at a range such that the image of the calibration target appears in the foreground of the field of view of the optical camera set at its maximum angle measured from the horizontal or minimum angle measured from the vertical.

2. In order to establish the ground resolution of an infra-red line-scanning device, the line of flight of the observation aircraft shall be directly over and parallel to the calibration target at an agreed range of heights above ground level.

3. In order to establish the ground resolution of a sideways-looking synthetic aperture radar, the line of flight of the observation aircraft shall be to the side of the array of the corner reflectors.

## SECTION III. ANALYSIS OF DATA COLLECTED DURING THE IN-FLIGHT EXAMINATION

1. Following the in-flight examination, the State Party conducting the certification and the States Parties taking part in the certification shall jointly analyse the data collected during the in-flight examination pursuant to Annex D, Section IV, paragraph 1 to the Treaty.

2. The methodology for calculating the minimum height above ground level at which each optical camera installed on the observation aircraft may be operated during an observation flight, including the value of the contrast ratio or the equivalent modulation to be used in this calculation, which shall be not less than 1.6:1 (correspondingly 0.23) and not greater than 4:1 (correspondingly 0.6), shall be determined within the Open Skies Consultative Commission during the period of provisional application and prior to 30 June 1992. The ground resolution of optical cameras shall be determined from a visual analysis of the image of the calibration target on the original film negative. The numerical value of ground resolution shall be equal to the width of the smallest bar of the calibration target that is distinguishable as a separate bar.

3. The methodology for calculating the minimum height above ground level at which each video camera installed on the observation aircraft may be operated during an observation flight

shall be determined within the Open Skies Consultative Commission during the period of provisional application.

4. The methodology for calculating the minimum height above ground level at which an infra-red line-scanning device installed on the observation aircraft may be operated during an observation flight, including the value of the minimum resolvable temperature difference to be used in this calculation, shall be determined within the Open Skies Consultative Commission during the period of provisional application.

5. The methodology for calculating the ground resolution of a sideways-looking synthetic aperture radar, including the determination of the relationship between the impulse response method and the object separation method, shall be determined within the Open Skies Consultative Commission during the period of provisional application.

### ANNEX E

## PROCEDURES FOR ARRIVALS AND DEPARTURES

1. Each State Party shall designate one or more points of entry, one or more points of exit, and one or more Open Skies airfields on its territory. Points of entry and points of exit may or may not be the same as the Open Skies airfields. Unless otherwise agreed, if an Open Skies airfield is different from a point of entry, the Open Skies airfield shall be designated so that the observing Party can reach the Open Skies airfield within five hours from the point of entry either in its own observation aircraft or in transportation provided by the observed Party. The observing Party, after arriving at a point of entry or an Open Skies airfield, shall have the right to a rest period, subject to the provisions of Article VI of the Treaty.

2. Each State Party shall have the right to designate entry fixes and exit fixes. If a State Party elects to designate entry fixes and exit fixes, such fixes shall facilitate flight from the territory of the observing Party to the point of entry of the observed Party. Planned flights between entry fixes and points of entry and between points of exit and exit fixes shall be conducted in accordance with published ICAO standards and recommended practices and national regulations. In the event that portions of the flights between entry fixes and points of entry or between points of exit and exit fixes lie in international airspace, the flight through international airspace shall be conducted in accordance with published international regulations.

3. Information on points of entry and points of exit, Open Skies airfields, entry fixes and exit fixes, refuelling airfields, and calibration targets shall initially be as specified in Appendix 1 to this Annex.

4. A State Party shall have the right to introduce changes to Appendix 1 to this Annex by notifying all other States Parties of such changes, in writing, no less than 90 days before such changes become effective.

- 5. Each State Party shall ensure effective observation of its entire territory as follows:
  - (A) for its mainland territory, Open Skies airfields shall be designated in such a way that no point on its territory is farther from one or more such airfields than 35 per cent of the maximum flight distance or distances established for that State Party in accordance with Annex A to the Treaty;
  - (B) for portions of its territory that are separated from the mainland territory:
    - (1) that State Party shall apply the provisions of subparagraph (A) of this paragraph; or
    - (2) in the event that the portion or portions of the territory are separated from the mainland territory by more than 600 kilometres, or if agreed between that State Party and the observing Party, or if otherwise provided for in Annex A, that State Party shall provide special procedures, including the possible use of refuelling airfields; or
    - (3) in the event that a portion or portions of the territory are separated from the mainland territory by less than 600 kilometres, and such portion or portions of the territory are not covered by the provisions of subparagraph (A) of this paragraph, that State Party may specify a separate maximum flight distance in Annex A to cover such portion or portions of its territory.

6. Immediately upon the arrival of an observation aircraft at the point of entry, and immediately prior to the departure of an observation aircraft from the point of exit, both the observed and observing Parties shall inspect the covers for sensor apertures or other devices that inhibit the operation of sensors installed in accordance with Article IV, paragraph 4. In the event that the point of entry is different from the Open Skies airfield from which the observation flight commences, both the observed and observing Parties shall inspect the covers for sensor apertures or other devices that inhibit the operation of sensors immediately prior to departure of the observation aircraft from the open Skies airfield from which the observation flight commences. In the event that the point of exit is different from the open Skies airfield at which the observation flight terminates, both the observed and observing Parties shall inspect the covers for sensor apertures or other devices that inhibit the open Skies airfield at which the observation flight terminates, both the observed and observing Parties shall inspect the covers for sensor apertures or other devices that inhibit the operation of sensors immediately prior to departure of the observation flight terminates, both the observed and observing Parties shall inspect the covers for sensor apertures or other devices that inhibit the operation of sensors immediately prior to departure of the observation aircraft from such airfield en route to the point of exit.

7. A State Party shall have the right to conduct an examination and inventory of the items of equipment that the other State Party intends to use for the purpose of conducting a pre-flight inspection of sensors and, if applicable, the observation aircraft, as well as items that the flight representatives intend to bring on board the observation aircraft. This examination and inventory:

- (A) shall begin no later than one hour after arrival of such items at the point of entry or the Open Skies airfield, at the choice of the State Party conducting the inventory, and shall be completed within one hour; and
- (B) shall be carried out in the presence of one or more designated individuals of the other State Party.

8. If, during the examination and inventory of the items of equipment to be used in the sensor inspection and, if applicable, observation aircraft inspection, as well as the items that the flight representatives intend to bring on board the observation aircraft, the State Party conducting the examination and inventory determines that the items do not conform to the list of authorized equipment contained in Annex D, Section II, paragraph 5, or to the items described in Annex G, Section I, paragraph 4, it shall have the right to deny permission for the use of such items. Items so identified that are brought into the territory of the observed Party by the observing Party shall be, unless otherwise agreed:

- (A) placed in a sealed container for safekeeping; and
- (B) subsequently removed from the territory of the observed Party at the earliest opportunity, but not later than the departure of the observing Party from the territory of the observed Party.

9. In the event that the observing Party travels to the point of entry specified in the notification provided in accordance with Article VI, Section I, paragraph 5 of this Treaty, using a transport aircraft registered with the observing Party or with another State Party, the transport aircraft shall be permitted:

(A) to depart from the territory of the observed Party;

ł

- (B) in the event that the point of entry is the same as the point of exit, to remain at the point of entry until departure of the observing Party from the territory of the observed Party; or
- (C) in the event that the point of entry is not the same as the point of exit, to fly to the point of exit in sufficient time for further crew rest prior to departure of all the personnel of the observing Party from the territory of the observed Party.

10. In the event that the observation aircraft is provided by the observed Party and the observing Party does not use its own transport aircraft for transporting its personnel from the point of entry to the Open Skies airfield, the observed Party shall ensure that the personnel of the observing Party are transported from the point of entry to the Open Skies airfield and from the Open Skies airfield to the point of exit.

## APPENDIX 1 TO ANNEX E

## SECTION I. DESIGNATION OF SITES

The sites to be used as points of entry, points of exit, Open Skies airfields, refuelling airfields, calibration targets, and, if applicable, entry fixes and exit fixes are initially as specified in Section II of this Appendix. The designation includes:

- (A) Site: name of point of entry, point of exit, Open Skies airfield, entry fix, exit fix, refuelling airfield, and calibration target;
- (B) Location: latitude and longitude of the respective site, to the nearest second; and
- (C) Inspection: whether or not the pre-flight inspection of the aircraft or the sensors can be conducted at this site.

## SECTION II. POINTS OF ENTRY, POINTS OF EXIT, OPEN SKIES AIRFIELDS, ENTRY FIXES, EXIT FIXES, REFUELLING AIRFIELDS, AND CALIBRATION TARGETS

#### State Party: The Federal Republic of Germany

## POINT OF ENTRY/EXIT

#### LOCATION

N 50-52-02

E 007-08-37

INSPECTION OF AIRCRAFT/SENSORS

Yes

Köln/Bonn (EDDK)

SITE

SITE

## OPEN SKIES AIRFIELDS

## LOCATION

Wunstorf (EDNW)

Landsberg/Lech (EDSA)

N 52-27-48 E 009-25-70

N 48-04-28 E 010-54-42

## ENTRY/EXIT FIXES

To be determined

## **REFUELLING AIRFIELDS**

INSPECTION OF AIRCRAFT/SENSORS

No

No

## CALIBRATION TARGETS

## LOCATION

Köln/Bonn

SITE

SITE

To be determined

### State Party: The United States of America

## POINTS OF ENTRY/EXIT

## LOCATION

Washington Dulles International, DC

Travis AFB California

### SITE

Washington Dulles International, DC

Travis AFB California

Elmendorf AFB Alaska

Lincoln Municipal Nebraska

Honolulu International Hawaii

Malmstrom AFB Montana

Phoenix-Sky Harbor International Arizona

General Mitchell International Wisconsin N 38-56-36 W 077-27-24

N 38-15-48 W 121-55-48

# OPEN SKIES AIRFIELDS

LOCATION

N 38-56-36 W 077-27-24

N 38-15-48 W 121-55-48

N 61-15-12 W 149-47-30

N 40-51-00 W 096-45-30

## ENTRY/EXIT FIXES

To be determined

### REFUELLING AIRFIELDS

N:	21-19-06	
W	157-55-24	

N 47-30-18 W 111-11-00

N 33-26-12 W 112-00-24

N 42-56-48 W 087-53-36 Yes

INSPECTION OF

AIRCRAFT/SENSORS

Yes

# INSPECTION OF AIRCRAFT/SENSORS

Yes

Yes

Yes

No

N 35-48-48 W 083-59-36
CALIBRATION TARGETS
LOCATION
To be determined
To be determined
To be determined

#### State Party: Republic of Belarus and the Russian Federation group of States Parties

	POINTS OF ENTRY/EXIT	
<u>SITE</u>	LOCATION	INSPECTION OF AIRCRAFT/SENSORS
Kubinka	N 55-36-30 E 036-39-10	Yes
Ulan-Ude	N 51-48-00 E 107-27-00	Yes
	OPEN SKIES AIRFIELDS	INSPECTION OF
SITE	LOCATION	AIRCRAFT/SENSORS
Kubinka	N 55-36-30 E 036-39-10	Yes
Ulan-Ude	N 51-48-00 E 107-27-00	Yes
Magadan	N 59-54-06 E 150-03-01	Ňo
Vorkuta	N 67-29-00 E 063-59-00	No
	ENTRY/EXIT FIXES	
	To be determined	
	REFUELLING AIRFIELDS	
	CALIBRATION TARGETS	
SITE	LOCATION	

#### State Party: Benelux

#### SITE

Zaventem/ Melsbroek

<u>SITE</u>

Zaventem/ Melsbroek

#### POINT OF ENTRY/EXIT

#### LOCATION

N 50-54-01 E 004-59-09\*

#### **OPEN SKIES AIRFIELD**

#### LOCATION

N 50-54-01 E 004-59-09\*

#### ENTRY/EXIT FIXES

#### To be determined

#### REFUELLING AIRFIELDS

#### CALIBRATION TARGETS

#### LOCATION

N 54-39-03 E 005-42-02\*

\* editor's correction

**INSPECTION OF** 

AIRCRAFT/SENSORS

**INSPECTION OF** 

AIRCRAFT/SENSORS

Yes

Yes

#### State Party: Republic of Bulgaria

<u>SITE</u> Sofia

SITE

Sofia

Burgas

SITE

Volkel

LOCATION

N 42-41-07

E 023-24-05

LOCATION

N 42-41-07

E 023-24-05

POINT OF ENTRY/EXIT

**OPEN SKIES AIRFIELDS** 

4

INSPECTION OF AIRCRAFT/SENSORS

Yes

INSPECTION OF AIRCRAFT/SENSORS

Yes

No

N 42-34-00 E 027-30-00

#### ENTRY/EXIT FIXES

#### To be determined

67/96

#### **REFUELLING AIRFIELDS**

<u>SITE</u>

Sofia

Burgas

E 023-24-05 N 42-34-00 E 027-30-00

LOCATION

LOCATION

N 42-41-07

#### **CALIBRATION TARGETS**

#### <u>SITE</u>

State Party: Canada

<u>SITE</u>

Ottawa (CYOW)

SITE

Ottawa

Iqaluit

Yellowknife

POINT OF ENTRY/EXIT

#### **LOCATION**

N 45-19-21 W 075-40-10

#### **OPEN SKIES AIRFIELDS**

#### LOCATION

N 45-19-21 W 075-40-10

N 63-45-22 W 068-33-25

#### N 62-27-45 W 114-26-20

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

#### **LOCATION**

N 53-18-35 W 113-34-43

N 44-52-51 W 063-30-33

N 49-54-39 W 097-14-35

68/96

INSPECTION OF AIRCRAFT/SENSORS

INSPECTION OF

AIRCRAFT/SENSORS

Yes

Yes

No

No

#### SITE

Edmonton

Halifax

Winnipeg

Churchill

#### N 58-44-13 W 094-03-26

#### CALIBRATION TARGETS

POINTS OF ENTRY/EXIT

#### LOCATION

Ottawa area

SITE

### To be determined

#### State Party: The Kingdom of Denmark

#### <u>SITE</u>

#### Copenhagen International Airport (EKCH)

Military Airfield Vaerloese (EKVL)

SITE

Military

Airfield

Vaerloese

#### N 55-46-09 E 012-19-34

LOCATION

N 55-37-07

E 012-39-26

#### **OPEN SKIES AIRFIELD**

#### LOCATION

N 55-46-09 E 012-19-34

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

#### **LOCATION**

N 62-03-51 W 007-16-26

N 67-01-05 W 050-41-39

69/96

INSPECTION OF AIRCRAFT/SENSORS

INSPECTION OF

AIRCRAFT/SENSORS

No

Yes

Yes

#### SITE

Vagar Airport (EKVG)

Soendre Stroemfjord International Airport (BGSF)

#### **CALIBRATION TARGETS**

# SITELOCATIONMilitaryN 55-46-09AirfieldE 012-19-34

#### State Party: The Kingdom of Spain

### POINT OF ENTRY/EXIT

<u>SITE</u> Getafe

Vaerloese

#### LOCATION N 40-17-43 W 003-43-21

AIRCRAFT/SENSORS Yes

INSPECTION OF

AIRCRAFT/SENSORS

Yes

#### POINT OF ENTRY/EXIT FOR CANARY ISLANDS INSPECTION OF

OPEN SKIES AIRFIELDS

<u>SITE</u>

Gando

#### SITE

Getafe

Valencia

Valladolid

Moron

### <u>LOCATION</u> N 40-17-43 W 003-43-21

LOCATION

N 27-55-49

W 015-23-05

N 39-29-26 W 000-28-50

#### N 41-42-26 W 004-51-02

N 37-10-34 W 005-36-53

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

#### Nil

#### CALIBRATION TARGETS

#### LOCATION

SITE

70/96

#### INSPECTION OF AIRCRAFT/SENSORS

Yes

No

No

No

0 1)

	POINT OF ENTRY/EXIT	BURDECTIONOE
<u>SITE</u>	LOCATION	INSPECTION OF AIRCRAFT/SENSORS
Orleans-Bricy	N 47-59-12 E 001-45-43	Yes
	<b>OPEN SKIES AIRFIELDS</b>	NERECTION OF
<u>SITE</u>	LOCATION	INSPECTION OF AIRCRAFT/SENSORS
Orleans-Bricy	N 47-59-12 E 001-45-43	Yes
Toulouse-Blagnac	N 43-37-26 E 001-22-53	No
Nice-Côte d'Azur	N 43-39-47 E 007-12-09	No
	ENTRY/EXIT FIXES	
	To be determined	
	<b>REFUELLING AIRFIELDS</b>	
	Nil	
	<b>CALIBRATION TARGETS</b>	
<u>SITE</u>	LOCATION	

#### State Party: The United Kingdom of Great Britain and Northern Ireland

	POINTS OF ENTRY/EXIT	
SITE	LOCATION	INSPECTION OF AIRCRAFT/SENSORS
Brize Norton	N 51-44-97 W 001-34-93	Yes
Heathrow	N 51-28-72 W 000-27-47	No

NOTE: Heathrow is for arrival of personnel on scheduled passenger services only. Not for observation or transport aircraft.

#### **OPEN SKIES AIRFIELDS**

SITE

Brize Norton

Scampton

Leuchars

LOCATION N 51-44-97 W 001-34-93

N 53-18-45 W 000-32-95

N 55-22-38 W 000-52-03

#### ENTRY/EXIT FIXES

To be determined by FAA

#### **REFUELLING AIRFIELDS**

Nil

#### CALIBRATION TARGETS

SITE .

Boscombe Down

LOCATION N 51-09-10

W 001-44-76

#### State Party: The Hellenic Republic

#### POINT OF ENTRY/EXIT

<u>SITE</u> Thessaloniki International LOCATION N 40-27-22 E 022-59-21

#### **OPEN SKIES AIRFIELDS**

<u>SITE</u> Thessaloniki International

Elefsis

Chouchouligovo

LOCATION N 40-27-22 E 022-59-21

N 38-04-00 E 023-33-38

#### ENTRY/EXIT FIX

N 41-24-40 E 023-22-02

#### **REFUELLING AIRFIELDS**

72/96

INSPECTION OF AIRCRAFT/SENSORS Yes

AIRCRAFT/SENSORS

Yes

SINSPECTION OF

Yes

Yes Yes

Yes

INSPECTION OF

AIRCRAFT/SENSORS

#### CALIBRATION TARGETS

SITE

SITE

#### LOCATION

#### State Party: The Republic of Hungary

#### POINTS OF ENTRY/EXIT

Budapest/Ferihegy (LHBP)

Tokol (LHTL)

SITE

Budapest/Ferihegy (LHBP)

Tokol (LHTL) LOCATION N 47-26-18 E 019-15-48

N 47-2I-14 E 018-58-08

#### **OPEN SKIES AIRFIELDS**

LOCATION

N 47-26-18

E 019-15-48

N 47-21-14 E 018-58-08

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

None

**CALIBRATION TARGETS** 

#### <u>SITE</u>

### LOCATION To be determined

LOCATION

W 022-36-30

#### State Party: The Republic of Iceland

#### POINT OF ENTRY/EXIT

<u>SITE</u> Keflavik

N 63-59-48

INSPECTION OF AIRCRAFT/SENSORS

Yes

73/96

Yes

INSPECTION OF AIRCRAFT/SENSORS

Yes

#### INSPECTION OF AIRCRAFT/SENSORS

Yes

Yes

#### OPEN SKIES AIRFIELD

#### LOCATION

63-59-07 W 022-36-20

#### ENTRY/EXIT FIXES

#### To be determined

#### **REFUELLING AIRFIELDS**

#### LOCATION

LOCATION

LOCATION

N 45-38-00 E 008-44-00

N 38-10-40

E 013-05-20

#### CALIBRATION TARGETS

POINTS OF ENTRY/EXIT

#### State Party: The Republic of Italy

#### SITE

SITE

Raisi

Milano-Malpensa

Palermo-Punta Raisi

Milano-Malpensa

Palermo-Punta

#### **OPEN SKIES AIRFIELDS**

#### LOCATION

N 45-38-00 E 008-44-00

N 38-10-40 E 013-05-20

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

The above-mentioned Open Skies airfields

#### CALIBRATION TARGETS

#### SITE -

#### LOCATION

#### 74/96

INSPECTION OF AIRCRAFT/SENSORS

INSPECTION OF

AIRCRAFT/SENSORS Yes

Yes

Yes

Yes

INSPECTION OF AIRCRAFT/SENSORS SITE

SITE

SITE

#### POINT OF ENTRY/EXIT

SITE

Oslo-Gardermoen (ENGM)

<u>SITE</u>

Oslo-Gardermoen (ENGM)

Tromsoe-Langnes (ENTC) LOCATION

N 60-12-10 E 011-05-08

#### **OPEN SKIES AIRFIELDS**

LOCATION

N 60-12-10 E 011-05-08

N 69-40-53 E 018-55-10

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELD**

SITE

SITE

SITE

Trondheim-Vaernes (ENVA) LOCATION N 63-27-29 E 010-55-33

LOCATION

#### **CALIBRATION TARGETS**

#### State Party: The Republic of Poland

#### POINT OF ENTRY/EXIT

#### LOCATION 1

Warszawa-Okecie

N 52-13-10 E 021-01-10

#### **OPEN SKIES AIRFIELD**

<u>SITE</u>

Warszawa-Okecie

LOCATION N 52-13-10 E 021-01-10 INSPECTION OF AIRCRAFT/SENSORS

Yes

#### INSPECTION OF AIRCRAFT/SENSORS

Yes

75/96

Yes

INSPECTION OF AIRCRAFT/SENSORS

INSPECTION OF AIRCRAFT/SENSORS

Yes

No

#### ENTRY/EXIT FIXES

#### To be determined

#### **REFUELLING AIRFIELDS**

#### CALIBRATION TARGETS

#### LOCATION

- LOCATION

N 38-46-22 ·

W 009-07-58

LOCATION

N 36-58-22

W 025-10-17

### <u>SITE</u>

#### State Party: The Portuguese Republic

#### POINT OF ENTRY/EXIT

**OPEN SKIES AIRFIELDS** 

#### <u>SITE</u>

Lisboa International

#### <u>SITE</u>

Sta. Mária

Porto Santo

N 33-04-01 W 016-20-44

#### ENTRY/EXIT FIXES

To be determined

#### REFUELLING AIRFIELDS

N 38-46-22 W 009-07-58

N 36-58-22 W 025-10-17

N 33-04-01 W 016-20-44

#### CALIBRATION TARGETS

#### LOCATION

#### To be determined

International Sta. Maria

Lisboa

International

Porto Santo

#### SITE

Lisboa International

76/96

INSPECTION OF AIRCRAFT/SENSORS

Yes

#### INSPECTION OF AIRCRAFT/SENSORS

No

No

#### State Party: Romania

#### POINTS OF ENTRY/EXIT

· • . :

<u>SITE</u> Bucharest-Otopeni International Airport

Timisoara Airport

## N 44-34-30 E 026-05-10

LOCATION

#### N 45-48-37 E 021-20-22

#### OPEN SKIES AIRFIELDS

#### LOCATION

N 44-34-30 E 026-05-10

N 45-48-37 E 021-20-22

Yes

#### INSPECTION OF AIRCRAFT/SENSORS

**INSPECTION OF** 

AIRCRAFT/SENSORS

Yes

Yes

Yes

No

### <u>SITE</u>

Bucharest-Otopeni International Airport

Timisoara Airport

Bacau Airport

N 46-31-19 E 026-54-41

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

LOCATION

N 44-34-30 E 026-05-10

N 45-48-37 E 021-20-22

#### CALIBRATION TARGETS

#### LOCATION

N 45-55-45 E 026-05-11

N 45-02-10 E 029-13-20

77/96

<u>SITE</u>

Bucharest-Otopeni International Airport

Timisoara Airport

SITE

Urlati

Dunavat Nord Murighiol

#### POINT OF ENTRY/EXIT

#### LOCATION

N 50-06-10 E 014-15-40

#### OPEN SKIES AIRFIELDS

#### LOCATION

N 50-06-10 E 014-15-40

N 49-10-10 E 017-12-50

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

N 49-10-10 E 017-12-50

#### N 48-40-10 E 021-14-40

#### CALIBRATION TARGETS

#### LOCATION

To be determined

#### State Party: The Republic of Turkey

#### POINTS OF ENTRY/EXIT

78/96

#### **INSPECTION OF** AIRCRAFT/SENSORS

SITE Eskisehir LOCATION N 39-47-00 E 030-35-00

Yes

SITE

SITE

Praha

SITE

Praha

International

International

International

International

Bratislava

Kosice

Bratislava International

Kosice International

SITE

Praha International

AIRCRAFT/SENSORS Yes

**INSPECTION OF** 

AIRCRAFT/SENSORS

Yes

No

No

#### **LOCATION**

N 48-40-10 E 021-14-40

INSPECTION OF

Diyarbakir

SITE

Eskisehir

Diyarbakir

N 30-50-00 E 040-05-00

#### **OPEN SKIES AIRFIELDS**

#### LOCATION

N 39-47-00 E 030-35-00

N 30-50-00 E 040-05-00

#### ENTRY/EXIT FIXES

To be determined

#### **REFUELLING AIRFIELDS**

To be determined

#### CALIBRATION TARGETS

#### LOCATION

To be determined

#### To be determined

#### State Party: Ukraine

<u>SITE</u>

SITE

Eskisehir Diyarbakir

Borispol/Kiev

<u>SITE</u> Borispol/Kiev POINT OF ENTRY/EXIT

#### LOCATION

N 50-20-07 E 030-53-07

#### **OPEN SKIES AIRFIELD**

#### LOCATION

N 50-20-07 E 030-53-07

#### ENTRY/EXIT FIXES

To be determined

#### INSPECTION OF AIRCRAFT/SENSORS

Yes

INSPECTION OF AIRCRAFT/SENSORS

Yes

<u>AIRCRAFT/SENSORS</u> Yes

INSPECTION OF

Yes

Yes

79/96

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#### **REFUELLING AIRFIELDS**

#### LOCATION

N 49-48-07 E 023-57-03

#### N 46-25-06 E 030-40-07

#### CALIBRATION TARGETS

#### LOCATION

#### ANNEX F

#### PRE-FLIGHT INSPECTIONS AND DEMONSTRATION FLIGHTS

## SECTION I. PRE-FLIGHT INSPECTION OF OBSERVATION AIRCRAFT AND SENSORS OF THE OBSERVING PARTY

1. The purpose of the pre-flight inspection of observation aircraft and sensors provided by the observing Party is to confirm that the observation aircraft, its sensors and associated equipment correspond to those certified in accordance with the provisions of Annex D to the Treaty. The observed Party shall have the right to conduct a pre-flight inspection of an observation aircraft and its sensors provided by the observing Party to confirm that:

- (A) the observation aircraft, its sensors and associated equipment including, where applicable, lens and photographic film, correspond to those certified in accordance with the provisions of Annex D to the Treaty; and
- (B) there are no items of equipment on board the observation aircraft other than those permitted by Article IV of the Treaty.
- 2. Upon arrival of the observation aircraft at the point of entry the observed Party shall:
  - (A) provide a list of the inspectors, the number of whom shall not exceed ten persons, unless otherwise agreed, including the general function of each of the inspectors;
  - (B) provide a list of the items of equipment that they intend to use during the pre-flight inspection provided for in Annex D, Section II, paragraph 5 to the Treaty; and

<u>SITE</u> Lvov

Odessa

SITE

(C) inform the observing Party of its plan for the pre-flight inspection of the observation aircraft and its sensors.

3. Prior to the commencement of the pre-flight inspection, a designated individual from the observing Party shall:

- (A) brief the observed Party on the inventory procedures which shall be followed to confirm that all inspection equipment, as well as any non-destructive-testing equipment as provided for in paragraph 7 of this Section, brought on board the observation aircraft by the inspectors has been removed from the observation aircraft upon conclusion of the pre-flight inspection;
- (B) together with the inspectors, conduct an examination and inventory of each item of equipment to be used during the pre-flight inspection; and
- (C) brief the inspectors on all safety precautions that they shall observe during the pre-flight inspection of the observation aircraft and its sensors.

4. The pre-flight inspection shall not begin until the completion of the formal arrival procedures and shall take no longer than eight hours.

5. The observing Party shall have the right to provide its own escorts to accompany the inspectors throughout the pre-flight inspection of the observation aircraft and its sensors to confirm that the inspection is conducted in accordance with the provisions of this Section. The observing Party shall facilitate the inspection in accordance with the procedures specified in Annex D, Section II, paragraphs 7 and 8 to the Treaty.

6. In conducting the pre-flight inspection, the inspectors shall have the right of access to the observation aircraft, its sensors and associated equipment, in the same manner as provided for in Annex D, Section II, paragraph 10, and shall comply with the provisions of Annex D, Section II, paragraphs 11 and 12 to the Treaty.

7. For the purposes of this inspection, the observed Party shall have the right to take on board and use the following non-destructive-testing equipment:

- (A) video probe (borescope on video camera);
- (B) X-ray and backscatter X-ray imaging equipment;
- (C) ultrasonic imaging equipment;
- (D) logic/data analyser;

- (E) passive infra-red sensors; and
- (F) 35 millimetre camera.

In addition, the observed Party shall have the right to take on board and use such other non-destructive-testing equipment as may be necessary to establish that no items of equipment are on board the observation aircraft other than those permitted by Article IV of the Treaty, as may be agreed by the Open Skies Consultative Commission prior to 30 June 1992.

8. Upon completion of the pre-flight inspection, the inspectors shall leave the observation aircraft, and the observing Party shall have the right to use its own inventory procedures to confirm that all inspection equipment used during the pre-flight inspection has been removed from the observation aircraft. If the observed Party is unable to demonstrate this to the satisfaction of the observing Party, the observing Party shall have the right to proceed with the observation flight or to cancel it, and when the observing Party is satisfied that it is safe to do so, depart from the territory of the observed Party. In the latter case, no observation flight shall be recorded against the quota of either State Party.

9. The inspectors shall immediately inform the observing Party if they establish that the observation aircraft, its sensors or associated equipment do not correspond to those certified in accordance with the provisions of Annex D to the Treaty, or that there are items of equipment on board the observation aircraft other than those permitted by Article IV of the Treaty. If the observing Party is unable to demonstrate that the observation aircraft, its sensors and associated equipment correspond to those certified in accordance with the provisions of Annex D to the Treaty and that there are no items of equipment on board the observation aircraft other than those permitted by Article IV of the Treaty. If the Treaty and that there are no items of equipment on board the observation aircraft other than those permitted by Article IV of the Treaty, and if the observing and observed Parties do not agree otherwise, the observed Party shall have the right to prohibit the observation flight pursuant to Article VIII of the Treaty. If the observation flight is prohibited, the observation aircraft shall promptly depart from the territory of the observed Party and no observation flight shall be recorded against the quota of either State Party.

10. Upon completion of the pre-flight inspection of the observation aircraft and its sensors, the observed and observing Parties shall prepare a pre-flight inspection report which shall state that:

- (A) the observation aircraft, its sensors and associated equipment correspond to those certified in accordance with the provisions of Annex D to the Treaty; and
- (B) there are no items of equipment on board the observation aircraft other than those permitted by Article IV of the Treaty.

11. Signature of the pre-flight inspection report by the observed Party shall signify its agreement for the observing Party to use that observation aircraft to conduct an observation flight over the territory of the observed Party.

#### SECTION II. PRE-FLIGHT INSPECTION OF SENSORS OF THE OBSERVED PARTY

1. The purpose of the pre-flight inspection of the sensors on an observation aircraft provided by the observed Party is to confirm that the sensors and associated equipment correspond to those certified in accordance with the provisions of Annex D to the Treaty. The observing Party shall have the right to conduct a pre-flight inspection of the sensors and associated equipment installed on an observation aircraft provided by the observed Party to confirm that its sensors and associated equipment correspond to those certified in accordance with the provisions of Annex D to the Treaty.

2. Upon arrival of the inspectors of the observing Party at the location of the pre-flight inspection, the observing Party shall:

- (A) provide a list of the inspectors, the number of whom shall not exceed five persons, unless otherwise agreed, including the general function of each inspector;
- (B) provide a list of the items of equipment that the inspectors intend to use during the pre-flight inspection; and
- (C) inform the observed Party of its plan for the pre-flight inspection of the sensors and associated equipment on board the observation aircraft.

3. Prior to the commencement of the pre-flight inspection, a designated individual from the observed Party shall:

- (A) brief the observing Party on the inventory procedures that shall be followed to confirm that each item of equipment brought on board the observation aircraft by the inspectors has been removed from the observation aircraft upon conclusion of the pre-flight inspection;
- (B) together with the inspectors, conduct an examination and inventory of each item of equipment to be used during the pre-flight inspection; and
- (C) brief the inspectors on all necessary safety precautions that they must observe during the pre-flight inspection of the sensors and associated equipment installed on the observation aircraft.

4. The pre-flight inspection shall not begin until the completion of the formal arrival procedures and shall take no longer than eight hours.

5. The observed Party shall have the right to provide its own escorts to accompany the inspectors throughout the pre-flight inspection of the sensors and associated equipment on board the observation aircraft to confirm that the inspection is conducted in accordance with the provisions of this Section. The observed Party shall facilitate the inspection of the sensors and

associated equipment on board the observation aircraft by the inspectors in accordance with the procedures specified in Annex D, Section II, paragraph 7 to the Treaty.

6. In conducting the pre-flight inspection, the inspectors shall have the right of access to the sensors and associated equipment on board the observation aircraft in the same manner as provided for in Annex D, Section II, paragraph 10 and shall comply with the provisions of Annex D, Section II, paragraphs 11 and 12 to the Treaty.

7. Upon completion of the pre-flight inspection, the inspectors shall leave the observation aircraft and the observed Party shall have the right to use its own inventory procedures to confirm that all items of equipment have been removed from the observation aircraft. If the observing Party is unable to demonstrate this to the satisfaction of the observed Party, the observed Party shall have the right to prohibit the observation flight in accordance with Article VIII of the Treaty, and no observation flight shall be recorded against the quota of either State Party.

8. The inspectors shall immediately inform the observed Party if they establish that any of the sensors or associated equipment on board the observation aircraft do not correspond to those certified in accordance with the provisions of Annex D to the Treaty. If the observed Party is unable to demonstrate that the sensors or associated equipment on board the observation aircraft correspond to those certified in accordance with Annex D to the Treaty, the observing Party shall have the right to:

- (A) agree to use an alternative package of sensor types or capabilities proposed by the observed Party;
- (B) proceed according to the original mission plan;
- (C) accept a delay in the commencement of the observation flight to permit the observed Party to rectify the problem determined to exist by the observing Party pursuant to this paragraph. In the event that the problem is resolved to the satisfaction of the observing Party, the flight shall proceed according to the mission plan, revised as necessary due to any delay. In the event that the problem is not rectified to the satisfaction of the observing Party, the observing Party shall depart the territory of the observed Party; or
- (D) cancel the observation flight, and immediately depart the territory of the observed Party.

9. If the observing Party leaves the territory of the observed Party not having conducted an observation flight, as provided for in paragraph 8, subparagraphs (C) and (D) of this Section, no observation flight shall be counted against the quota of either State Party.

10. Upon completion of the pre-flight inspection of the sensors and associated equipment installed on the observation aircraft, the observed Party and the observing Party shall prepare a pre-flight inspection report that shall state that the sensors correspond to those certified in accordance with the provisions of Annex D to the Treaty. Signature of the pre-flight inspection

report by the observing Party shall signify its agreement to use that observation aircraft to conduct an observation flight over the territory of the observed Party.

#### SECTION III. DEMONSTRATION FLIGHTS

1. In the event that the aircraft is provided by the observing Party, at the request of the observed Party, the observing Party shall, following the pre-flight inspection, conduct a demonstration flight to allow the inspectors to observe the functioning of the sensors that are to be used during the observation flight and to collect sufficient data to allow them to confirm that the capability of those sensors is in accordance with the provisions of Article IV, paragraph 8 of the Treaty.

2. In the event that the aircraft is provided by the observed Party, at the request of the observing Party, the observed Party shall, following the pre-flight inspection, conduct a demonstration flight to allow the inspectors to observe the functioning of the sensors that are to be used during the observation flight and to collect sufficient data to allow them to confirm that the capability of those sensors is in accordance with the provisions of Article IV, paragraph 9 of the Treaty.

3. In the event that either the observed or observing Party exercises its right to request a demonstration flight:

- (A) the demonstration flight shall be performed in accordance with the requirements of Annex D, Section III;
- (B) the demonstration flight shall last for no more than two hours;
- (C) the observed Party shall provide calibration targets in accordance with the specifications in Appendix 1 to Annex D to the Treaty in the vicinity of the airfield at which the pre-flight inspection is to be conducted;
- (D) any delay in carrying out a request for a demonstration flight caused by weather conditions or problems with the aircraft or sensors of the observed Party shall not count against the time allocated for such flights, unless otherwise agreed;
- (E) the observed Party shall process the data collected by sensors at a facility in the vicinity of the airfield at which the pre-flight inspection is to be conducted, in the presence of personnel of the observing Party, in accordance with the provisions of Article IX, Sections II and III of the Treaty; and
- (F) the cost of the demonstration flight, including the provision of data recording media and the processing of data, shall be distributed in accordance with the provisions of Annex L, Section I, paragraph 9 to the Treaty.

4. In the event that the observed Party exercises its right to request a demonstration flight, the observing Party shall have the right to add a period of up to 24 hours to the 96 hours allowed for the conduct of the observation flight, pursuant to Article VI, Section I, paragraph 9. This shall not affect the right of other States Parties to conduct observation flights after the original period of 96 hours as provided for in Article VI, Section I, paragraph 3 of the Treaty.

5. In the event that the observing Party exercises its right to request a demonstration flight, this shall be accomplished within the period of 96 hours allowed for the conduct of the observation flight, pursuant to Article VI, Section 1, paragraph 9 of the Treaty.

6. In the event that the observed Party is not satisfied that the capability of any sensor installed on the observation aircraft provided by the observing Party is in accordance with the provisions of Article IV, paragraph 8 of the Treaty, the observed Party shall have the right to:

- (A) in the case of a sensor for which ground resolution is dependent upon height above ground level, propose an alternative minimum height above ground level at which that sensor shall be permitted to be operated during the observation flight;
- (B) in the case of sensors for which ground resolution is not dependent upon height above ground level, prohibit the operation of that sensor during the observation flight; or
- (C) prohibit the observation flight pursuant to the provisions of Article VIII of the Treaty.

7. In the event that the observing Party is not satisfied that the capability of any sensor installed on the observation aircraft provided by the observed Party is in accordance with the provisions of Article IV, paragraph 9 of the Treaty, the observing Party shall have the right to:

- (A) agree to use an alternative package of sensor types or capabilities proposed by the observed Party;
- (B) in the case of a sensor for which ground resolution is dependent upon height above ground level, propose an alternative minimum height above ground level at which that sensor shall be permitted to be operated during the observation flight;
- (C) in the case of sensors for which ground resolution is not dependent upon height above ground level, conduct the observation flight as planned, and the cost of the data recording media for that sensor shall be borne by the observed Party;
- (D) accept a delay in the commencement of the observation flight to permit the observed Party to rectify the problem determined to exist by the observing Party. In the event that the problem is resolved to the satisfaction of the observing Party, the flight shall proceed according to the mission plan, revised as necessary due to any delay. In the event that the problem is not rectified to the satisfaction of the

observing Party, the observing Party shall depart the territory of the observed Party; or

(E) cancel the observation flight pursuant to Article VIII of the Treaty, and immediately depart the territory of the observed Party.

8. In the event that the observation flight is prohibited or cancelled by the State Party requesting the demonstration flight, no observation flight shall be counted against the quota of either State Party, and the State Party requesting the demonstration flight shall convey the matter to the Open Skies Consultative Commission.

#### ANNEX G

#### FLIGHT MONITORS, FLIGHT REPRESENTATIVES, AND REPRESENTATIVES

#### SECTION I. FLIGHT MONITORS AND FLIGHT REPRESENTATIVES

1. The provisions set forth in this Annex shall apply to personnel designated in accordance with Article XIII. Each State Party shall have the right to have at any one time the number of flight monitors and flight representatives on board the observation aircraft as set forth in Article VI, Section III. The provisions of that Section shall govern their activities with respect to the organization and conduct of observation flights. Each State Party shall facilitate the activities of the flight monitors and flight representatives pursuant to this Annex.

2. The observed Party shall appoint one of the flight monitors as chief flight monitor. The chief flight monitor shall be a national of the observed Party. The observing Party shall appoint one of the flight representatives as chief flight representative. The chief flight representative shall be a national of the observing Party.

3. In preparing for the observation flight, flight monitors and flight representatives shall have the right:

- (A) to acquaint themselves with the technical literature relating to the functioning and operation of the sensors and the flight operation manual of the observation aircraft; and
- (B) to acquaint themselves with the equipment of the observation aircraft relating to the control of the flight regime and the functioning and operation of the sensors installed on the observation aircraft.
- 4. Flight monitors and flight representatives shall have the right:

- (A) to remain on board the observation aircraft throughout the observation flight, including any stops for refuelling or emergencies;
- (B) to bring on board the observation aircraft and use maps, flight charts, publications, and operations manuals;
- (C) to move unencumbered about the observation aircraft, including the flight deck, during the observation flight, except for flight safety reasons. In exercising their rights, the flight monitors or flight representatives shall not interfere with the activities of the flight crew;
- (D) to monitor compliance with the flight plan and to observe the flight regime of the observation aircraft and the functioning and operation of the sensors;
- (E) to listen to internal and external radio communications on board the aircraft and to make internal radio communications; and
- (F) to record the parameters of the flight regime and the functioning and operation of the sensors on maps, charts, and notepads.

5. In addition to those rights specified in paragraph 4 of this Section, the chief flight monitor shall have the right:

- (A) to consult the flight crew regarding compliance with national flight rules and the provisions of the Treaty;
- (B) to observe the activities of the flight crew, including activities on the flight deck, during the observation flight, as well as to monitor the functioning and operation of the flight and navigation instruments of the observation aircraft;
- (C) to provide recommendations to the flight crew regarding compliance with the flight plan;
- (D) to ask the flight crew, without interfering with their activities, for information on the flight regime; and
- (E) to communicate with air traffic control authorities, as appropriate, and to help relay and interpret communications from air traffic control authorities to flight crew and from the flight crew to the air traffic control authorities about the conduct of the observation flight; for this purpose, the chief flight monitor shall be permitted to make external radio communications using the radio equipment of the observation aircraft.

6. In the event that the chief flight monitor believes that the observation aircraft is deviating from its flight plan, the chief flight monitor shall advise the flight crew and may inform the air

traffic control authorities of any deviations of the observation aircraft from the flight plan that the chief flight monitor believes could threaten flight safety.

7. In addition to the rights specified in paragraph 4 \* of this Section, the chief flight representative shall have:

- (A) the rights as described in paragraph 5, subparagraphs (A), (B) and (D) of this Section with regard to the flight crew; and
- (B) the right, in case of deviation from the flight plan, to receive an explanation from the flight crew as to the reasons for such a deviation.

8. Flight representatives shall have the right to direct the operation of the sensors during the observation flight. In addition, upon notification to the observed Party prior to the commencement of the observation flight, flight representatives shall have the right to operate the sensors during the observation flight. In the event that the flight representatives exercise their right to operate the sensors pursuant to this paragraph, the observed Party shall not be responsible for any failure or inadequacy in the quality of the data collected by the sensors due to the operation of the sensors by the flight representatives.

#### SECTION II. REPRESENTATIVES

1. An observing Party using an observation aircraft designated by a third State Party shall have the right to have at any one time the number of representatives on board the observation aircraft set forth in Article VI, Section III of the Treaty.

2. The observing Party shall appoint one of its representatives as chief representative. The chief representative shall have the rights of the chief flight representative as specified in Section 1 of this Annex. In addition, the chief representative shall:

- (A) advise the pilot-in-command regarding compliance with the provisions of the Treaty;
- (B) have the right to monitor compliance by the observed Party with the provisions of the Treaty; and
- (C) have the right, in case of deviations from the flight plan, to receive an explanation from the pilot-in-command as to the reasons for such a deviation.

3. Representatives shall have the rights of flight representatives as specified in Section I of this Annex.

\* Correction - OSCC Dec. 04/03 24 February 2003

#### ANNEX H

#### **CO-ORDINATION OF PLANNED OBSERVATION FLIGHTS**

1. In order to avoid potential time conflict regarding the conduct of observation flights over the same State Party, each State Party having the right to conduct observation flights following the annual distribution of active quotas may notify all other States Parties, no later than 1 November of each year, of its plans to utilize all or part of its active quota during the following year. The notification shall indicate the number of observation flights that the notifying State Party plans to conduct over the territory of other States Parties during each quarter of that year.

2. In no case shall the total number of observation flights planned and notified in accordance with paragraph 1 of this Annex over the territory of any one State Party during a given quarter exceed 16. Except as provided for in Article VI, Section I, paragraph 3, no State Party shall be obliged to accept more than one observation flight at any time during the period specified in Article VI, Section I, paragraph 9 of the Treaty.

3. States Parties that have notified, in accordance with paragraph 1 of this Annex, their plans to utilize one or more active quotas for observation flights over the territory of the same State Party during a given quarter or quarters shall hold consultations, if necessary, to avoid any conflict in their planned observation flights. In the event that agreement on avoidance of conflict cannot be reached through consultation among the States Parties involved, the issue shall be resolved by the drawing of lots by such States Parties. The first of those consultations, regarding observation flights in the quarter beginning 1 January of the following year, shall begin promptly following receipt of the notification provided for in paragraph 1 of this Annex. Subsequent consultations among the States Parties involved shall be conducted between 1 February and 15 February for the quarter beginning 1 April; between 1 May and 15 May for the quarter beginning 1 January of the quarter beginning 1 October. The States Parties involved shall notify the resulting sequence of observation flights established in these consultations to all States Parties no later than 15 November, 15 February, 15 May and 15 August, respectively.

4. No later than seven days after the notification of the sequence of observation flights established pursuant to paragraph 3 of this Annex, each State Party shall notify all States Parties planning to conduct observation flights over its territory during that quarter of each flight for which it intends to exercise the right to provide its own observation aircraft.

5. Each State Party that has not provided a notification pursuant to paragraph 1 of this Annex or has not notified its plans to utilize all of its active quotas, or has not conducted an observation flight during the quarter for which it had notified such planned flight, shall have the right to utilize such remaining active quotas, provided that such observation flights have been accommodated within the existing agreement reached pursuant to paragraph 3 of this Annex.

#### ANNEX I

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#### INFORMATION ON AIRSPACE AND FLIGHTS IN HAZARDOUS AIRSPACE

1. No earlier than 90 days after entry into force of the Treaty, at the request of any other State Party, a State Party shall provide, no later than 30 days after the receipt of such a request, the following information in accordance with ICAO provisions:

- (A) its airspace structure, as published in the Aeronautical Information Publication (AIP) series;
- (B) detailed information on all hazardous airspace; and
- (C) airfield information and arrival and departure procedures for each of its:
  - (1) points of entry and points of exit;
  - (2) Open Skies airfields; and

(3) alternate airfields and refuelling airfields for its points of entry, points of exit, and Open Skies airfields.

2. Each State Party shall promptly notify States Parties that have requested information in accordance with the provisions of paragraph 1 of this Annex of any changes to the information provided in accordance with paragraph 1 of this Annex. Notwithstanding the provisions of this paragraph, Notices to Airmen (NOTAMs) need not be provided.

3. No later than 90 days after entry into force of the Treaty, each State Party shall notify all other States Parties of the source of the information to be provided in accordance with paragraph 1 of this Annex.

#### ANNEX J

#### MONTREUX CONVENTION

1. Observation flights conducted under the provisions of the Treaty providing for the observation of the entire territory of States Parties shall not prejudice the Montreux Convention of 20 July 1936.

2. The routing and notification of transit flights of aircraft for the purpose of the Treaty falling within the scope of Article 23 of the Montreux Convention shall be governed by the provisions of that Article.

#### ANNEX K

#### INFORMATION ON FILM PROCESSORS, DUPLICATORS AND PHOTOGRAPHIC FILMS, AND PROCEDURES FOR MONITORING THE PROCESSING OFPHOTOGRAPHIC FILM

## SECTION I. INFORMATION ON FILM PROCESSORS, DUPLICATORS AND PHOTOGRAPHIC FILMS

1. Pursuant to Annex D, Section II, paragraph 3, subparagraph (A) (3) to the Treaty, each State Party, when notifying other States Parties of film processors or duplicators that it intends to use to develop original film negatives or produce duplicate film positives or negatives, shall provide the following manufacturer's information:

- (A) the processor or duplicator name;
- (B) the maximum and minimum width and length, if applicable, of film which may be processed or duplicated;
- (C) each type of film that may be processed or duplicated in that film processor; and
- (D) each step in the process, including the range of exposure, temperature, duration, recommended film transport speed, chemicals and chemical mixes, for each type of film.

2. Pursuant to Annex D, Section II, paragraph 3, subparagraph (A) (2) to the Treaty, each State Party, when providing information on the types of black and white aerial film that it intends to use to collect data during the in-flight examination or an observation flight, or to duplicate such data, shall provide the following manufacturer's information, for each type of aerial film that may be processed or duplicated by means of the film processors or duplicators referred to in paragraph 1 of this Section, as necessary to confirm the capabilities of the film. Depending upon national practices of the film manufacturer, such information may include:

- (A) effective film speed;
- (B) resolution/modulation
- (C) spectral sensitivity; and

(D) optical specular density or sensitometric characteristics.

3. For the purposes of determining the sensitometric characteristics of aerial film materials in accordance with its own national methodology, each State Party shall have the right to receive, upon request, unexposed samples of all types of photographic film to be used as data recording media, the chemicals for processing them, and to receive instructions for processing and duplication of such photographic films. Such samples and instructions shall be provided no later than 30 days after receipt of such a request.

#### SECTION II. MONITORING OF FILM PROCESSING AND DUPLICATION

1. States Parties taking part in the certification of an observation aircraft and its sensors shall have the right to monitor the processing and duplication of the aerial film used during the in-flight examination. Personnel of the observed and observing Party shall have the right to monitor the processing and duplication of the aerial film used during a demonstration and observation flight.

2. While monitoring the processing and duplication of aerial film, the States Parties shall have the right to bring with them and use, in a manner that does not disrupt the processing or duplication of the film, the following equipment:

- (A) litmus papers;
- (B) thermometers;

(C) chemical test equipment, including pH meters and hydrometers;

(D) stopwatches;

- (E) sensitometers;
- (F) densitometers; and
- (G) 21-step sensitometric test strips and optical wedges.

3. Prior to the processing of the films exposed during the in-flight examination, demonstration flight and observation flight, States Parties shall check the film processing equipment and chemicals by processing a 21-step sensitometric test strip or exposing and processing a 21-step optical wedge to confirm that the sensitometric data for the processing of that type of film using that film process meets the specifications provided pursuant to Section I of this Annex. Unless otherwise agreed, the original or duplicate aerial film negatives or positives shall not be processing of the 21-step optical wedge meets the characteristics provided in accordance with the provisions of Section I of this Annex for that type of aerial film and film processor or duplicator.

4. Prior to the processing of the films exposed during the in-flight examination, demonstration flight and observation flight, States Parties shall have the right to check the film processing equipment and chemicals by exposing and processing a test film of the same type used during the in-flight examination, demonstration flight and observation flight to confirm that the washing and fixing process is suitable for the purposes of permanent archive storage.

#### ANNEX L

#### **OPEN SKIES CONSULTATIVE COMMISSION**

#### SECTION I. GENERAL PROVISIONS

Procedures and other provisions relating to the Open Skies Consultative Commission are established in this Annex pursuant to Article X of the Treaty.

1. The Open Skies Consultative Commission shall be composed of representatives designated by each State Party. Alternates, advisers and experts of a State Party may take part in the proceedings of the Open Skies Consultative Commission as deemed necessary by that State Party.

2. The initial session of the Open Skies Consultative Commission shall open within 60 days of the signature of the Treaty. The Chairman of the opening meeting shall be the representative of Canada.

3. The Open Skies Consultative Commission shall meet for no fewer than four regular sessions per calendar year unless it decides otherwise. Extraordinary sessions shall be convened at the request of one or more States Parties by the Chairman of the Open Skies Consultative Commission, who shall promptly inform all other States Parties of the request. Such sessions shall open no later than 15 days after receipt of such a request by the Chairman.

 Sessions of the Open Skies Consultative Commission shall last no longer than four weeks, unless it decides otherwise.

5. States Parties shall assume in rotation, determined by alphabetical order in the French language, the chairmanship of the Open Skies Consultative Commission. Each Chairman shall serve from the opening of a session until the opening of the following session, unless otherwise agreed.

6. Representatives at meetings shall be seated in alphabetical order of the States Parties in the French language.

French, German, Italian, Russian and Spanish. The proceedings of the Open Skies Consultative Commission shall be confidential, unless 8. otherwise agreed. The Open Skies Consultative Commission may agree to make its proceedings or decisions public. 9. During the period of provisional application, and prior to 30 June 1992, the Open Skies Consultative Commission shall settle the distribution of costs arising under the Treaty. It shall also settle as soon as possible the scale of distribution for the common expenses associated with the operation of the Open Skies Consultative Commission. 10. During the period of provisional application of the Treaty the Open Skies Consultative

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Commission shall develop a document relating to notifications and reports required by the Treaty. Such document shall list all such notifications and reports and shall include appropriate formats as necessary.

The working languages of the Open Skies Consultative Commission shall be English,

The Open Skies Consultative Commission shall work out or revise, as necessary, its rules 11. of procedure and working methods.

#### SECTION II. ANNUAL REVIEW OF ACTIVE QUOTAS

Procedures for the annual review of active quotas as foreseen in Article III, Section I, paragraph 7 of the Treaty shall be as follows:

States Parties wishing to modify all or part of the past year's distribution with respect to 1 their active quota shall notify all other States Parties and the Open Skies Consultative Commission, by 1 October of each year, of those States Parties over which they wish to conduct their observation flights during the next calendar year. Such proposed modifications shall be considered by the States Parties during this review, according to the rules set forth in the following paragraphs of this Section.

2. If the requests for observation flights over the territory of any given State Party do not exceed its passive quota, then the distribution shall be established as requested, and presented to the Open Skies Consultative Commission for approval.

If the requests for observation flights over the territory of any given State Party exceed its 3. passive quota, then the distribution shall be established by general agreement among the interested States Parties, and presented to the Open Skies Consultative Commission for approval.

#### SECTION III. EXTRAORDINARY OBSERVATION FLIGHTS

1. The Open Skies Consultative Commission shall consider requests from the bodies of the Conference on Security and Co-operation in Europe authorized to deal with respect to conflict prevention and crisis management and from other relevant international organizations to facilitate the organization and conduct of extraordinary observation flights over the territory of a State Party with its consent.

2. The data resulting from such observation flights shall be made available to the bodies and organizations concerned.

3. Notwithstanding any other provision of the Treaty, States Parties may agree on a bilateral and voluntary basis to conduct observation flights over the territory of each other following the procedures regarding the conduct of observation flights. Unless otherwise agreed by the States Parties concerned, the data resulting from such observation flights shall be made available to the Open Skies Consultative Commission.

4. Observation flights conducted under the provisions of this Section shall not be counted against the active or passive quotas of the States Parties involved.

SECTION IV. ADDITIONAL FIELDS FOR THE USE OF THE OPEN SKIES REGIME

I. States Parties may raise for consideration in the Open Skies Consultative Commission proposals for the use of the Open Skies regime in additional specific fields, such as the environment.

2. The Open Skies Consultative Commission may take decisions on such proposals or, if necessary, may refer them to the first and subsequent conferences called to review the implementation of the Treaty, in accordance with the provisions of Article XVI, paragraph 3 of the Treaty.

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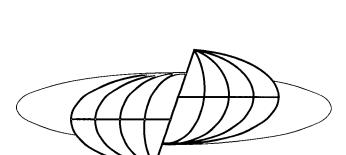
IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE at Helsinki, this twenty-fourth day of March, one thousand nine hundred and ninety-two.

### **SECTION II**

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## OPEN SKIES CONSULTATIVE COMMISSION (OSCC) DECISIONS TO THE TREATY ON OPEN SKIES



#### SECTION II

#### **OSCC DECISIONS TO THE TREATY ON OPEN SKIES**

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- 28. DECISION NUMBER 2/02 OSCC/XXVII/Dec/2/02 21 January 2002 ACCESSION OF THE REPUBLIC OF FINLAND TO THE TREATY ON OPEN SKIES

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- 29. DECISION NUMBER 3/02 OSCC/XXVII/Dec/3/02 21 January 2002 ACCESSION OF THE KINGDOM OF SWEDEN TO THE TREATY ON OPEN SKIES
- 30.
   DECISION NUMBER 4/02
   OSCC/XXVII/Dec/4/02 18 February 2002

   PROVISIONS FOR THE USE OF A STANDARD "SIGNATURE PAGE TO THE
   CERTIFICATION REPORT"
- 31. DECISION NUMBER 5/02 OSCC/XXVII/Dec/5/02 18 February 2002 PROVISIONS FOR THE USE OF "PG" AS A UNIQUE IDENTIFIER FOR POD GROUP SENSOR CONFIGURATIONS
- 32. DECISION NUMBER 6/02 OSCC/XXVII/Dec/6/02 18 February 2002 PROCEDURES FOR ALLOCATION OF OBSERVATION FLIGHT REFERENCE NUMBERS
- 33. DECISION NUMBER 7/02 OSCC/XXVII/Dec/7/02 18 March 2002 REVISION 1 OF DECISION NUMBER ONE TO THE TREATY ON OPEN SKIES
- 34.
   DECISION NUMBER 8/02
   OSCC/XXVIII/Dec/8/02 22 April 2002

   GUIDELINES FOR ACCESSION TO THE TREATY ON OPEN SKIES
- 35. DECISION NUMBER 9/02 OSCC/XXVIII/Dec/9/02 13 May 2002 PROTECTION OF DATA COLLECTED DURING OBSERVATION FLIGHTS AND TRANSFER OF RECORDING MEDIA CONTAINING THIS DATA
- 36. DECISION NUMBER 10/02 OSCC/XXVIII/Dec/10/02 10 June 2002 REVISION 1 OF DECISION NUMBER EIGHTEEN TO THE TREATY ON OPEN SKIES
- 37.
   DECISION NUMBER 11/02
   OSCC/XXVIII/Dec/11/02 10 June 2002

   REVISION 2 OF DECISION NUMBER ONE TO THE TREATY ON OPEN SKIES

38. **DECISION NUMBER 12/02** OSCC/XXVIII/Dec/12/02 22 July 2002 ALLOCATION OF A PASSIVE QUOTA TO SWEDEN DECISION NUMBER 13/02 . 39. OSCC/XXVIII/Dec/13/02 22 July 2002 ALLOCATION OF OBSERVATION FLIGHT REFERENCE NUMBERS 40. DECISION NUMBER 14/02 OSCC/XXVIII/Dec/14/02 22 July 2002 **REVISION 1 OF DECISION NUMBER TWENTY TO THE TREATY ON OPEN** SKIES 41. **DECISION NUMBER 15/02** OSCC/XXVIII/Dec/15/02 22 July 2002 PROVISION ON CALIBRATION TARGETS 42. **DECISION NUMBER 16/02** OSCC/XXVIII/Dec/16/02 22 July 2002 MISSION PLAN SUBMISSION AND REVIEW 43. **DECISION NUMBER 17/02** OSCC/XXVIII/Dec/17/02 22 July 2002 -ACCESSION OF THE REPUBLIC OF LITHUANIA TO THE TREATY ON OPEN SKIES 44. DECISION NUMBER 18/02 OSCC/XXVIII/Dec/18/02 22 July 2002 ACCESSION OF THE REPUBLIC OF CROATIA TO THE TREATY ON OPEN SKIES 45. DECISION NUMBER 19/02 OSCC/XXVIII/Dec/19/02 22 July 2002 ACCESSION OF BOSNIA AND HERZEGOVINA TO THE TREATY ON OPEN SKIES 46. DECISION NUMBER 20/02 OSCC/XXVIII/Dec/20/02 22 July 2002 ACCESSION OF THE REPUBLIC OF LATVIA TO THE TREATY ON OPEN SKIES 47. DECISION NUMBER 21/02 OSCC/XXIX/Dec/21/02 9September 2002 SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION 48. DECISION NUMBER 22/02 OSCC/XXIX/Dec/22/02 16 December 2002 PROCEDURES FOR TRANSIT NECESSARY DURING A SEGMENT OF AN OPEN SKIES OBSERVATION FLIGHT 49. DECISION NUMBER 23/02 OSCC/XXIX/Dec/23/02 16 December 2002 ALLOCATION OF A PASSIVE QUOTA TO FINLAND v

- 50. DECISION NUMBER 24/02 OSCC/XXIX/Dec/24/02 16 December 2002 REVISION 2 OF OSCC DECISION TWENTY TO THE TREATY ON OPEN SKIES
- 51. DECISION NUMBER 25/02 OSCC/XXIX/Dec/25/02 16 December 2002 REVISION 1 OF OSCC DECISION 06/02 TO THE TREATY ON OPEN SKIES
- 52. DECISION NUMBER 1/03 OSCC/XXX/Dec/1/03 27 January 2003 REVISION 3 OF OSCC DECISION TWENTY TO THE TREATY ON OPEN SKIES
- 53. DECISION NUMBER 2/03 OSCC/XXX/Dec/2/03 24 February 2003 AMENDMENT 1 TO OSCC DECISION NUMBER SIX TO THE TREATY ON OPEN SKIES
- 54. DECISION NUMBER 3/03 OPEN SKIES AIRCRAFT STATUS

OSCC/XXX/Dec/3/03 24 February 2003

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- 55. DECISION NUMBER 4/03 OSCC/XXX/Dec/4/03 24 February 2003 CORRECTION TO ANNEX G, SECTION I, PARAGRAPH 7 TO THE TREATY ON OPEN SKIES
- 56. DECISION NUMBER 5/03 OSCC/XXX/Dec/5/03 24 February 2003 ACCESSION OF THE REPUBLIC OF SLOVENIA TO THE TREATY ON OPEN SKIES
- 57. DECISION NUMBER 6/03 OSCC/XXX/Dec/6/03 24 March 2003 SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION
- 58. DECISION NUMBER 7/03 OSCC/XXX/Dec/7/03 24 March 2003 SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION

59 DECISION NUMBER 8/03 OSCC/XXX/Dec/8/03 07 APRIL 2003 ALLOCATION OF A PASSIVE QUOTA TO GEORGIA

#### DECISION NUMBER ONE TO THE TREATY ON OPEN SKIES\*

#### DISTRIBUTION OF COSTS ARISING UNDER THE TREATY ON OPEN SKIES

The States Parties to the Treaty on Open Skies, pursuant to the provisions of Annex L, Section I, paragraph 9 of the Treaty on Open Skies, have agreed as follows:

The following provisions shall govern the distribution of costs arising under the Treaty on Open Skies, hereinafter referred to as the Treaty:

#### SECTION I. DISTRIBUTION OF COSTS OF OBSERVATION FLIGHTS CONDUCTED ON AN OBSERVATION AIRCRAFT OF THE OBSERVING PARTY

1. Unless otherwise specified in this Decision, or agreed between the states Parties involved, an observing Party using its own observation aircraft shall reimburse the observed Party for the costs of only the following goods and services related to the observation aircraft:

- (A) Fuel, oil, hydraulic fluid, oxygen, de-icing fluid and water requested in the course of the observation mission;
- (B) Ground technical and commercial servicing requested by the flight crew of the observing Party; and
- (C) Additional services provided by the observed Party pursuant to Article VI, Section I, paragraph 17 (D) of the Treaty.

2. The costs for the goods defined in paragraph 1 (A) of this Section and Section II, paragraph 4 of this Decision, and consumed during a demonstration flight requested by the observed Party pursuant to Annex F, Section III of the Treaty shall be met by the observed Party unless the demonstration flight results in the cancellation of the observation flight in accordance with the provisions of Article VIII and Annex F of the Treaty. In this case the Observing Party shall meet such costs of the demonstration flight.

3. In the event that the observing Party takes the original film negative on its own observation aircraft or transport aircraft to the processing location, it shall upon request of the observed Party, and provided the availability of seats, transport free of charge personnel of the observed Party verifying the film processing to the film developing location. In such case the observing Party assumes no liability for transporting such passengers.

As supplemented by an Annex dated 15 March 1999.

4. Costs resulting from a deviation or curtailment of an observation flight in accordance with Article VIII, Section II, paragraph 5 (C) of the Treaty, shall be met by the observed Party. All other costs connected with a deviation from the flight plan of the observation flight, as defined in Section I, paragraph 1 (A) of this Decision, shall be paid by the observing Party.

5. The costs of recording media, transportation of the media to the location of their processing, chemicals expended in processing, and duplication for the observed Party shall be borne by the observing Party.

#### SECTION II. DISTRIBUTION OF COSTS OF OBSERVATION FLIGHTS CONDUCTED ON OBSERVATION AIRCRAFT PROVIDED BY THE OBSERVED PARTY PURSUANT TO ARTICLE VI, SECTION I, PARAGRAPH 1 OF THE TREATY

1. In the event that the observing Party uses its own transport aircraft as a means of transport, it shall pay for the goods and services defined in Section I, paragraph 1 of this Decision that the observing Party requests for its transport aircraft during the period of its presence on the territory of the observed Party.

2. Unless otherwise specified in this Decision, or agreed between the States Parties involved, an observed Party exercising its right to provide an observation aircraft shall be reimbursed by the observing Party for the costs of only the following goods and services related to the observation aircraft:

- (A) Fuel, oil, hydraulic fluid, oxygen, de-icing fluid and water consumed in the course of the observation mission; and
- (B) Additional services provided by the observed Party Pursuant to Article VI, Section I, paragraph 17 (D) of the Treaty.

3. The costs for the goods defined in Paragraphs 2 (A) and paragraph 4 of this Section, and consumed during a demonstration flight requested by the observing Party pursuant to Annex F, Section III of the Treaty shall be met by the observing Party unless the demonstration flight results in the cancellation of the flight in accordance with the provisions of Article VIII and Annex F of the Treaty. In this event, the observed Party shall not charge the observing Party for the demonstration flight.

4. The costs of recording media used in the observation flight and for producing duplicates for the observed Party as well as the costs of the chemicals expended in processing and duplication for the observed Party shall be borne by the observing Party.

5. If the observing Party exercises its right to process the recording media, it shall pay the costs of transporting them to its processing facility. If the observing Party waives its right to process the recording media, and they are thus processed by the observed Party, the observed Party shall pay for their transportation to its processing facility and to the point of exit used by the observing Party.

6. Costs connected with a deviation or curtailment of an observation flight in accordance with Article VIII, Section II, paragraph 5 (A), 5 (B), or 5 (C) of the Treaty shall be met by the observed Party. All other costs as defined in paragraph 2 (A) of this Section, connected with a deviation from the flight plan of the observation flight, shall be paid by the observing Party.

7. The observed Party shall cover the costs connected with the travel, if applicable, of flight representatives from the nearest point of entry to the Open Skies airfield where the observation flight begins and from the Open Skies airfield where the observation flight ends to the nearest point of exit, unless the transport aircraft of the observing Party is used for that purpose.

## SECTION III. REIMBURSEMENT OF COSTS FOR USE OF OBSERVATION AIRCRAFT DESIGNATED BY A THIRD STATE PARTY

Reimbursement for the use by an observing Party of an observation aircraft designated by a third State Party shall be fair and reasonable and be established in accordance with the arrangements of the States Parties concerned.

#### SECTION IV. COSTS ARISING FROM CERTIFICATION OF OBSERVATION AIRCRAFT AND SENSORS AND ADDITIONAL FLIGHTS

1. Except for the provisions of Section V, paragraph 2 of this Decision, the costs arising from the certification of an observation aircraft and sensors pursuant to the provisions of Annex D of the Treaty, including the costs of one valid in-flight examination, shall be met by the State Party or Group of States Parties designating the observation aircraft.

2. If additional flights are agreed among the States Parties involved, the costs shall be met by those States Parties requesting such flights. These additional flights shall not interfere with the certification process and shall be without prejudice to the provisions of Annex D of the Treaty.

#### SECTION V. GENERAL RULES

1. Travel expenses of flight crew and flight representatives of the observing Party to the point of entry and from the point of exit shall be borne by the observing Party with the exception of travel expenses specified in Section II, paragraph 7 of this Decision.

2. The arrangements agreed to in the following subparagraphs A and B regarding the payment by the observing Party for meals and accommodation shall not be a precedent for other existing or future arms control agreements.

(A) Travel expenses for representatives of the States Parties at the certification process, as well as costs for their meals and accommodation up to the equivalent of 75 ECUs per person per day, shall be met by the State Party which they represent.

(B) Unless otherwise agreed, the observed Party shall not charge more than the equivalent of 75 ECUs in a convertible currency per person per day for meals and accommodation provided to the personnel of the observing Party.

3. Costs of additional services provided by the observed Party pursuant to Article VI, Section I, paragraph 17 (D) of the Treaty shall be met by the observing Party regardless of which State Party provides the observation aircraft.

4. Fees shall not be charged either to a transiting State Party or to an observing State Party for the use of navigational aids and for air traffic control services, airport landing, takeoff, ground handling, parking and security for all open Skies transit, transport, and observation flights. This provision shall be re-examined on the basis of practical experience if so requested by a State Party one year after entry into force of the Treaty.

5. The observed Party shall cover the costs of its personnel participating in the preparation and conduct of an observation flight over its territory.

6. Unless otherwise agreed, the observed Party shall charge for the goods and services defined in Section I, paragraph 1, and Section II, paragraphs 1 and 2 of this Decision, using prices set at the lowest available commercial rate, not including taxes, at Cologne Airport in the - Federal Republic of Germany, as of 1 January of the current year and of every year thereafter. A price list for such items shall be distributed to all States Parties by the depositaries no later than 31 January each year.

7. Unless otherwise agreed, an observed Party exercising its right to provide an observation aircraft shall charge the observing Party for goods defined in Section II, paragraph 4 of this Decision, a price not exceeding that for such goods at the lowest available commercial rate, not including taxes, existing in Canada, as of I January of each year, from any company whose products are used by a certified Canadian observation aircraft, or, if there be no such aircraft, by an observation aircraft certified by the United States. A price list for such goods shall be distributed to all States Parties by the Depositaries no later than 31 January each year.

8. States Parties shall cover the costs of emergency medical treatment on their territory provided to personnel of other States Parties performing activities in accordance with the provisions of the Treaty.

9. No later than 30 days after completion of an observation flight the observed Party shall transmit a bill in a convertible currency to the observing Party clearly itemising the costs incurred during that observation flight. For all costs not mentioned in paragraphs 2, 3, 7 and 8 of this Section which are customarily charged in the local currency, this bill shall also identify the price in the currency of the observed Party as well as the exchange rate prevailing at the date the expense was incurred. For the purposes of this Section the personnel of a third State Party participating in the conduct of an observation flight shall be considered as personnel of the observed Party.

#### OSCC/I/Dec.1 -10 December 1992

10. Unless otherwise agreed, at the end of each calendar year the States Parties will exchange requests for payment in a convertible currency. Following this exchange, the total costs of goods and services provided by the States Parties shall be compared by the States Parties to determine if actual reimbursement is required. Following this review, any State Party that is in debt to any other State Party shall pay its debt to that State Party no later than 1 March of the following year - unless the debt is still under discussion - in a convertible currency at the rate of exchange between the convertible currency used for billing and the one used for actual payment prevailing on the date of exchange of accounts. This rule shall also apply to observing Parties using an observation aircraft of a third State Party.

#### SECTION VI. COSTS ARISING FROM DATA SHARING

Duplicates of sensor output collected during an observation flight shall be provided by the observing Party at a fair and reasonable price, which will be determined on a bilateral basis. After one year of practical implementation of the Treaty, the Open Skies Consultative Commission shall review the necessity for new provisions to calculate such costs.

#### \* \* \* \* \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 10 December 1992, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

Annex 15 March 1999

#### ANNEX TO DECISION NUMBER ONE TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission, due to the substitution of the currency unit denomination "euro" for the currency unit denomination "ECU" effective 1 January 1999, has decided to modify Decision Number One to the Treaty on Open Skies of 10 December 1992, Section V, paragraph 2, subparagraphs (A) and (B), to read as follows:

(A) Travel expenses for representatives of the States Parties at the certification process, as well as costs for their meals and accommodation up to the equivalent of 75 euro per person per day, shall be met by the State Party which they represent.

(B) Unless otherwise agreed, the observed Party shall not charge more than the equivalent of 75 euro in a convertible currency per person per day for meals and accommodation provided to the personnel of the observing Party.

OSCC/I/Dec.2 29 June 1992

#### DECISION NUMBER TWO TO THE TREATY ON OPEN SKIES

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### ADDITIONAL NON-DESTRUCTIVE-TESTING EQUIPMENT

The States Parties to the Treaty on Open Skies, pursuant to the provisions of Annex F, Section I, paragraph 7 of the Treaty on Open Skies, have agreed as follows:

In addition to the items of non-destructive-testing equipment which the observed Party shall have the right to take on board and use on the observation aircraft, the observed Party shall also have the right to take on board and use a volt-ohm meter.

In addition to the item of equipment specified above, the Open Skies Consultative Commission may agree, after 30 June 1992, within the framework of consideration of technical measures, on additional items of non-destructive-testing equipment.

#### \*\*\*\*\*\*\*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 29 June 1992, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/I/Dec.3 29 June 1992

#### DECISION NUMBER THREE TO THE TREATY ON OPEN SKIES

### METHODOLOGY FOR CALCULATING THE MINIMUM HEIGHT ABOVE GROUND LEVEL AT WHICH EACH OPTICAL CAMERA INSTALLED ON AN OBSERVATION AIRCRAFT MAY BE OPERATED DURING AN OBSERVATION FLIGHT

The States Parties to the Treaty on Open Skies, pursuant to the provisions of Annex D, Appendix I, Section III, paragraph 2 of the Treaty on Open Skies, have agreed as follows:

The methodology for calculating the minimum height above ground level at which each optical camera installed on the observation aircraft may be operated during an observation flight, shall be as follows:

(A) determine the ground resolution of the optical camera (lens/filter/film combination) at the altitude from which the calibration target was photographed, from a visual analysis of the image of the calibration target (across track and along track) on the original film negative. The value of the ground resolution shall be equal to the width of a single bar in the smallest group of bars which can be distinguished as separate bars, in centimetres;

(B) produce a D logE curve for the film using a densitometer to measure the densities of a 21-step sensitometric strip exposed on the film by a sensitometer prior to the flight;

(C) determine the effective modulation of the calibration target from an analysis of the image of the calibration target on the original film negative by electronic means or, if that is not possible, by comparison with a calibrated sensitometric strip on the film;

(D) calculate the height above ground level at which the optical camera would achieve a ground resolution of 30 centimetres against a target which has the agreed modulation of 0.4, or equivalent contrast ratio of 2.3 to 1, against its background; and

(E) determine the mean value of the height above ground level obtained from paragraph (D) from at least five passes over the calibration target, as follows:

$$H_{\min} = \frac{1}{n} \sum_{i}^{n} H_{i} \left[ \frac{L_{a}}{L_{2}} \right] \left[ \frac{K_{i}}{K_{2}} \right]^{m}$$

where:

H<sub>min</sub> is the mean value of the minimum height above ground level, in metres;

n is the total number of passes over the calibration target;

H; is the height of the aircraft, in metres, at the moment the calibration target was photographed;

L<sub>a</sub> is the agreed ground resolution of 30 centimetres;

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L<sub>2</sub> is the ground resolution, in centimetres, obtained from paragraph (A);
 K<sub>1</sub> is the agreed modulation of 0.4 at which ground resolution is defined;
 K<sub>2</sub> is the effective modulation obtained from paragraph (C) as follows:

$$K_2 = \frac{C-1}{C+1}$$
 where  $C = 10^{\text{AlogE}}$ 

where:

m

 $\Delta \log E$  is the difference in the logarithm of the exposures between the black and white bars on the calibration target;

is the agreed corrected exponent value of 0.45.

This value shall represent the certified minimum height above ground level, in metres, at which the optical camera (lens/filter/film combination) may be operated during an observation flight.

#### \* \* \* \* \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 29 June 1992, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/I/Dec.4 29 June 1992

#### DECISION NUMBER FOUR TO THE TREATY ON OPEN SKIES

#### MINIMUM CAMERA SPECIFICATION FOR AN OBSERVATION AIRCRAFT OF AN OBSERVED PARTY EXERCISING ITS RIGHT TO PROVIDE AN OBSERVATION AIRCRAFT FOR AN OBSERVATION FLIGHT

The States Parties to the Treaty on Open Skies have agreed as follows:

Unless otherwise agreed, in the event that an observed Party exercises its right to provide the observation aircraft for an observation flight, with respect to optical cameras, the observed Party shall provide for such an observation flight an observation aircraft with the following specifications:

(A) The observation aircraft shall be equipped with a panoramic camera certified in accordance with the methodology set out in Decision Number Three as capable of achieving a ground resolution of 30 centimetres at a minimum height above ground level of no less than 8,000 metres and with a field of view of no less than 93 degrees; and

(B) The observation aircraft shall be equipped with a suite of three framing cameras certified in accordance with the methodology set out in Decision Number Three as capable of achieving a ground resolution of 30 centimetres in the range of 1,000 to 2,600 metres height above ground level and with an aggregate field of view of no less than 70 degrees.

Observed Parties exercising their right to provide an observation aircraft for an observation flight shall provide observation aircraft meeting the above requirements no later than 1 January of the fourth year following the year in which the Treaty enters into force.

\* \* \* \* \* \* \* \* \* \*

States Parties shall have the right to agree in the future on changes to this Decision.

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 29 June 1992, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/I/Dec.5 29 June 1992

#### DECISION NUMBER FIVE TO THE TREATY ON OPEN SKIES

#### RESPONSIBILITY FOR THE PROCESSING OF FILM USED DURING AN OBSERVATION FLIGHT

The States Parties to the Treaty on Open Skies, pursuant to the provisions of Article IX, Section II, paragraph 2 of the Treaty on Open Skies, have agreed as follows:

The observing Party shall have the right to determine whether the observing Party, or the observed Party providing the observation aircraft, shall process the film used during the observation flight. In the event that the observing Party exercises its right to process the film used during the observed Party shall bear no responsibility for the quality of the processing of that original film negative. If the quality of the processed film is inadequate and the States Parties involved are unable, after making every effort, to resolve a dispute over whether failure or inadequacy in the quality of the data collected during the observation flight was due to sensor operation, to processing, or to some other factor, the observing Party shall assume responsibility and the observation flight shall count against the quotas of both States Parties.

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This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 29 June 1992, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/I/Dec.6 16 July 1993

#### DECISION NUMBER SIX TO THE TREATY ON OPEN SKIES\*

## RULES OF PROCEDURES AND WORKING METHODS OF THE OPEN SKIES CONSULTATIVE COMMISSION

The following rules of procedure and working methods, including Annexes, have been worked out in accordance with Article X and Annex L of the Treaty on Open Skies.

#### I. CHAIRMANSHIP

1. States Parties shall assume in rotation, determined by alphabetical order in the French language, the chairmanship of the Commission. Each Chairman shall serve from the opening of a session until the opening of the following session, unless otherwise agreed.

2. The responsibilities of the Chairman shall include the following:

- (a) to inform all States Parties of the date, time and location of meetings, as well as of proposals made by States Parties concerning the programme of the sessions;
- (b) to chair the meetings;
- (c) to keep a list of speakers and maintain a Journal, which shall be handed from Chairman to Chairman and which shall be available only to the States Parties;
- (d) to distribute to all States Parties copies of the Journal and attached texts;
- (e) to propose to the Commission the suspension or adjournment of the meeting, and the adjourning or closure of the debate on the item under discussion;
- (f) to seek resolution of administrative questions relating to the organisation of the work of the Commission;
- (g) to circulate to all States Parties a list of contact points of States Parties valid for the period between sessions; and
- (h) to fulfil other duties, as agreed by the Commission.

#### II. MEETINGS

1. While in session, meetings shall be held at least once a week unless the Commission decides otherwise.

2. Statements in any of the six working languages referred to in Annex L, Section I, paragraph 7 of the Treaty shall be interpreted into the other working languages.

As modified by Decision OSCC/III/Dec.11 dated 16 July 1993

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3. The Chairman may declare the list of speakers closed with the consent of the Commission. The Chairman shall, however, accord the right of reply to any representative if, following closure of the list, so requested.

4. If any representative raises a point of order in the course of a meeting, the Chairman shall give that representative the floor immediately.

A representative raising a point of order shall not speak on the substance of the matter under discussion.

III. WORK PROGRAMME FOR THE SESSIONS

1. Before the end of each session, the Commission shall seek to establish a provisional work programme and the starting date for the next regular session.

2. If a State Party requests an extraordinary session, the Chairman shall promptly inform all other States Parties of that request and of any questions raised by that State Party. This question or questions shall be included as the first item in the work programme of the extraordinary session.

3. Each State Party shall have the right to include additional items in the work programme of any session. The State Party requesting such an inclusion should inform the Chairman of those items, where possible no later than 30 days before the beginning of a regular session or seven days before the beginning of an extraordinary session.

#### IV. AGENDA OF THE MEETINGS

1. The Commission shall, as the first item of the agenda of the first meeting of a session, consider and approve the work programme of that session and the agenda of that meeting.

2. Before the end of each meeting, the Chairman shall propose a provisional agenda for review by the Commission at the start of the next meeting of the session.

3. The provisions of paragraphs 1 and 2 of this Section are without prejudice to the right of each State Party to raise before the Commission, and have placed on its agenda, any issue relating to the Treaty.

#### V. JOURNAL

1. The Journal, in the format specified in Annex II to this Document, shall record the sequential number, the date, the time of opening and the time of closing and the location of cach meeting; the State Party in the chair; the agenda of the meeting; the States Parties whose representatives took the floor; and the date, time and location of the next meeting.

2. Decisions and recommendations shall also be recorded in the Journal by the Chairman. Any text of such decisions and recommendations shall be attached to the Journal.

OSCC/I/Dec.6 16 July 1993

3. Interpretative statements, formal proposals and related documents on matters of substance shall be recorded in the Journal and their texts attached to it at the request of the originator when submitted in writing to the Chairman. The Chairman shall arrange, upon the request by any representative, for the translation of such texts into all other working languages and for their distribution with the Journal.

#### VI. FINANCIAL AND ADMINISTRATIVE ISSUES

1.1 The scale of distribution for the common expenses associated with the operation of the Open Skies Consultative Commission (hereafter referred to as the "scale of distribution of the Open Skies Consultative Commission") is based on the scale of distribution adopted in Helsinki on 10 July 1992, by the participating States to the CSCE (hereafter referred to as the "Helsinki scale"). The special regime established by this Decision takes into account present economic conditions and is limited in scope and in time. It does not constitute a precedent for any other CSCE or CSCE related body.

1.2 Taking into account the fact that not all participating States to the CSCE are Parties to the Treaty, States Parties have to make an additional contribution to their contribution to the "Helsinki scale", in order to cover the existing shortfall.

- (A) As a rule, this additional contribution will be proportional to the "Helsinki scale". Nevertheless, any State Party may provide a higher additional contribution.
- (B) However, taking into account their present economic situation, those countries listed in Annex A to this Decision will be exempted from the proportional contribution mentioned in subparagraph (A) and will only make an ad hoc additional contribution, agreed by the States Parties.
- (C) The special regime established in subparagraph (B) will last as long as the economic situation of the countries listed in Annex A to this Decision so requires. The special regime will thus be subject to review every year.

1.3 As long as only participating States to the CSCE are Parties to the Treaty, and provided that there remains a shortfall to be covered, the financial contribution to the scale of distribution of the Open Skies Consultative Commission of any State Party will have to be superior to its contribution to the "Helsinki scale".

1.4 In case of accession to the Treaty of participating States to the CSCE, their financial contributions to the scale of distribution of the Open Skies Consultative Commission will be calculated according to the principles established in paragraphs 1 and 2. In that case, the financial contributions to the scale of distribution of the Open Skies Consultative Commission of the other States Parties will be reduced in due proportion. This provision does not apply to those countries listed in Annex A to this Decision, as long as the special regime established in paragraph 2, subparagraph (B) grants them the benefit of financial contributions to the scale of distribution of the Open Skies Consultative States Parties which bear an identical contribution to the "Helsinki scale".

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1.5 In case of accession to the Treaty of non-participating States to the CSCE, their financial contributions to the scale of distribution of the Open Skies Consultative Commission as well as the scale of distribution of the Open Skies Consultative Commission will be agreed on an ad hoc basis by the Open Skies Consultative Commission.

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1.6 As of 1 January 1993, the scale of distribution of the Open Skies Consultative Commission is agreed as follows (in percentages):

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France Germany Italy United Kingdom United States of America	10.82 10.82 10.82 10.82 10.82
Russian Federation	9.05
Canada	6.55
Spain	5.10 (*)
Belgium Netherlands	4.27 4.27
Denmark Norway	2.465 2.465
Ukraine	1.77
Poland	1.685
Turkey	1.20
Greece Hungary Romania	0.84 0.84 0.84
Czech Republic	0.805
Belarus	0.71
Bulgaria Luxembourg Portugal	0.66 0.66 0.66
Slovak Republic	0.40
Iceland Georgia Kyrgyzstan	0.24 0.21 0.21

(\*) This percentage reflects the agreement of Spain to provide a higher additional contribution.

2. The practical arrangements for the payment of financial contributions by States Parties shall be the same as those agreed for other fora using the common services of the Joint Executive Secretariat.

3. The modalities for the administrative organization of the Commission will be in accordance with arrangements already established in connection with the use of the common services of the Joint Executive Secretariat.

Accordingly, the tasks of a secretariat to the Commission shall include the following services:

(a) arrangement of accreditation;

- (b) management of facilities and equipment;
- (c) security of, and control of access to, facilities and meetings;
- (d) employment and management of appropriate technical staff;
- (e) availability of appropriate technical equipment;
- (f) availability of interpretation and translation services in all working languages; and
- (g) administration of financial matters.

In fulfilling these tasks special attention shall be given to the principle of cost-effectiveness.

#### ANNEX I

#### STATES ENJOYING OBSERVER STATUS

Building upon the CSCE Declaration on the Treaty on Open Skies, given in Helsinki, on 24 March 1992, States participating in the Conference on Security and Cooperation in Europe, but not signatories to the Treaty on Open Skies, shall be entitled to enjoy observer status in the Commission, in accordance with the following provisions, until they sign or accede to the Treaty.

1. Bearing in mind the technical objectives of the Commission, States enjoying observer status shall be entitled to:

- (a) attend all meetings of the Commission and its informal contact groups;
- (b) speak at such meetings;

- (c) receive all official documents and working papers of the Commission;
- (d) receive, through established financial arrangements, duplicates of sensor output with the written consent of the observed Party and with due respect to the sensitive nature of the information;
- (e) present papers;
- (f) receive copies of the Journal and attached texts; and
- (g) receive lists of contact points of the States Parties.

2. States enjoying observer status shall not have the right to participate in the taking of decisions or in the adoption of recommendations.

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OSCC/I/Dec.6 16 July 1993

#### ANNEX II

## Beratungskommission "Offener Himmel" Journal

## Open Skies Consultative Commission Journal

## Comisión Consultiva Cielos Abiertos Journal

## Commission consultative pour le régime "Ciel ouvert" Journal

## Commissione Consultiva Cieli Aperti Giornale

Консультативная комиссия по открытому чебу журнал

Sitzung, Meeting, Reunión, Réunion, Riunione, Заседиел

 Datum, Date, Fecha, Date, Data, Дата: Beginn, Opened, Apertura, Ouverture, Inizio, Начало: Schluss, Closed, Clausura, Clôture, Chiusura, Закрытие: Ort, Location, Lugar, Lieu, Luogo, Mecro:

2. Vorsitz, Chairman, Presidencia, Présidence, Presidenza, Председатель:

3. Tagesordnung, Agenda, Orden del día, Ordre du jour, Ordine del giorno, Повеста дня:

4. Wortmeldungen, Interventions, Interventions, Interventi, Выступления:

5. Beshlüsse und Emphehlungen, Decisions and Recommendations, Decisiones y Recomendaciones, Décisions et Recommandations, Decisioni e Raccomandazioni, Решения и рскомсндации:

6. Interpretative Erklärungen, Interpretative Statements, Declarationes interpretativas, Déclarations interprétatives, Dichiarazioni interpretative, Интерпретипующие заявления:

7. Formelle Vorschläge, Formal proposals, Propuestas formales, Propositions formelles, Proposte formali, Официльные предложения:

Nächste Sitzung	Datum: Zeit: Ort:
Next meeting	date: time: location:
Próxima reunión	fecha: hora: lugar:
Prochaine réunion	date: heure: lieu:
Prossima riunione	data: ora: luogo:
Следующее зеседание	дата: время: место:

8.

OSCC/I/Dec.6 16 July 1993

## ANNEX III

List of countries to which the special regime established in paragraph 2, subparagraph (B) of the Decision on the scale of distribution of the Open Skies Consultative Commission may apply:

Armenia Azerbaijan Belarus Georgia Kazakhstan Kyrgyzstan Moldova Russian Federation Tajikistan Turkmenistan Ukraine Uzbekistan

#### ANNEX IV

#### OPEN SKIES CONSULTATIVE COMMISSION CHAIRMAN'S STATEMENT ON THE DECISION ON THE SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION.

1. The financial contribution to the scale of distribution of the OSCC of each State Party to the Treaty, except those which benefit from the special regime established in paragraph 2, subparagraph (B) of the above-mentioned Decision, those that provide higher additional contributions and those which are not participating States to the CSCE, is calculated as follows (in percentages):

$$OS_i = K \times H_i$$

i

Hi

Κ

m

where:

 State Party to which the present paragraph applies OS<sub>i</sub> = financial contribution of State Party i

contribution to the "Helsinki scale" of State Party i =

correction coefficient

2. The financial contribution to the scale of distribution of the OSCC of a State Party that provides a higher additional contribution is calculated as follows (in percentages):

$$OS_m = H_m + E_m$$

=

where:

State Party to which the present paragraph applies = financial contribution of State Party m OS<sub>m</sub>

Hm = contribution to the "Helsinki scale" of State Party m

 $E_m$ = additional contribution of State Party m

3. The financial contribution to the scale of distribution of the OSCC of a State Party to which the special regime established in paragraph 2, subparagraph (B) of the above-mentioned Decision applies is calculated as follows (in percentages):

$$OS_i = H_i + A$$

where:

- State Party to which the present paragraph applies =
- **OS**<sub>i</sub> = financial contribution of State Party j

Hi Ai

i

= contribution to the "Helsinki scale" of State Party j = ad hoc additional contribution of State Party j

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OSCC/l/Dec.6 16 July 1993

### 4. Coefficient K is determined from the formula:

$$(K \cdot x \Sigma H_i) + \Sigma OS_m + \Sigma OS_j = 100\%$$
$$or: K = \frac{100\% - \Sigma OS_m - \Sigma OS_j}{\Sigma H_i}$$

where:  $\Sigma H_i$  = sum of contributions to "Helsinki scale" of States Parties i - see paragraph l above.

- $\sum OS_m$  = sum of contributions to the scale of distribution of the OSCC of States Parties m - see paragraph 2 above.
- $\Sigma OS_j$  = sum of contributions to the scale of distribution of the OSCC of States Parties j - see paragraph 3 above.

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#### DECISION NUMBER SEVEN TO THE TREATY ON OPEN SKIES

#### METHODOLOGY FOR DETERMINING THE GROUND RESOLUTION OF SYNTHETIC APERTURE RADAR (SAR)

The States Parties to the Treaty on Open Skies, pursuant to the provisions of Appendix 1 to Annex D, Section I, paragraph 4 and Annex D, Appendix 1, Section III, paragraph 5 of the Treaty on Open Skies, have agreed as follows:

#### SECTION I DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision:

1. The term "azimuth" shall mean the direction parallel to the aircraft track.

2. The term "slant range" shall mean a distance perpendicular to the aircraft track in the slant plane.

3. The term "image" shall mean a two-dimensional (slant range and azimuth) array of processed radar amplitude samples.

4. The term "initial phase data", also known as "complex raw data" or "radioholograms", shall mean the data recorded by the SAR on magnetic media before the data are processed to form an image.

5. The "radar cross section" (RCS) of a corner reflector shall be calculated using the formula:

$$RCS = \frac{4}{3}\pi \left(\frac{a^4}{\lambda^2}\right)$$

where:

RCS is the radar cross section in square metres  $(m^2)$ ;

a is the length of each inside edge of the corner reflector in metres; and

 $\lambda$  is the operating wavelength of the SAR in metres;

RCS may be expressed in decibels (dB) using the following formula:

$$RCS_{dB} = 10 \log_{10} \left( \frac{RCS_{m^2}}{l_{m^2}} \right)$$

where:

0 dB is referenced to  $1 \text{ m}^2$ .

6. The term "impulse response" shall mean the response of a SAR to the radar signal reflected from a trihedral corner reflector.

7. The term "amplitude" also known as "the value of the signal of the output of the SAR", shall mean the square root of the power or intensity of a radar sample.

8. The term "spatial resolution" shall mean the widths in slant range and azimuth at 0.707 times the peak value of the two-dimensional Gaussian surface which is determined by five radar samples extracted from or close to the main lobe of an impulse response.

9. The term "ground resolution" shall mean the spatial resolution in slant range and azimuth, stated in metres.

10. The term "sensitivity level" shall mean the radar signal giving the same amplitude as the average amplitude of the output noise from the SAR.

11. The term "saturation level" shall mean the largest radar signal whose amplitude is reduced to no less than 0.707 of the amplitude of the ideal linear response for a given RCS.

12. The term "dynamic range" shall mean the ratio of the saturation level to the sensitivity level of the radar samples taking into account all SAR system and recording system limitations. The value may be specified in terms of decibels using the formula:

$$20 \operatorname{Log}_{10}\left(\frac{A_{\max}}{A_{\min}}\right)$$

Where:

 $A_{max}$  is the amplitude of the saturation level;

A<sub>min</sub> is the amplitude of the sensitivity level.

13. The term "spatial scaling factor in azimuth" shall mean the distance in metres in azimuth on the ground between consecutive radar samples.

14. The term "spatial scaling factor in slant range" shall mean the distance in metres in the slant plane between consecutive radar samples.

15. The term "sidelobe" shall mean any value of the radar return found in an impulse response which lies at a distance greater than 1.4 times the spatial resolution from the position of the peak amplitude of the main lobe.

16. The term "peak sidelobe" shall mean the largest sidelobe found in the impulse response.

1

17. The term "integrated sidelobe power" shall mean the total power in all sidelobes of an impulse response out to the extent of the uncompressed radar pulse in both range and azimuth.

18. The term "integrated sidelobe level" shall mean the square root of the ratio of the integrated sidelobe power of an impulse response to the power in the main lobe of that impulse response.

19. The term "ambiguity level" shall mean the square root of the ratio of the peak power of the brightest false target found in a radar image to the peak power of the true image of the that [sic] target.

#### SECTION II. SPECIFICATIONS FOR CALIBRATION TARGET ARRAYS

The following specifications for calibration target arrays for measuring the ground resolution of a SAR during certification or demonstration flights are established pursuant to Appendix 1 to Annex D, Section I, paragraph 4 to the Treaty on Open Skies.

1. Each corner reflector shall be made of radar reflecting material. The three inside surfaces of the trihedral shall be perpendicular to each other. Each corner reflector shall be constructed to an accuracy of two millimetres in the length of each inside edge, and the better of half a degree in angle between the inside surfaces or 0.1 times the operating wavelength of the SAR across any portion of the aperture. Each corner reflector shall be aligned within plus or minus three degrees of the perpendicular to the flight direction and the optimum elevation angle from the horizontal for the SAR whose resolution is being determined.

2. Each calibration target array shall consist of a number of trihedral corner reflectors of various RCS arranged on a flat surface, for example, short grass, concrete and asphalt, which provides a mean background RCS of between -25 and -30 dB per square metre. Each corner reflector shall be positioned to reduce the effect of multipath propagation of radar signals on the RCS of the corner reflector to a reasonable level. Each corner reflector shall be adjustable in azimuth and elevation to enable the imaging aspect to be optimised. Each corner reflector shall be located with respect to other corner reflectors in the array so as to ensure that its radar shadow does not interfere with the radar return from other corner reflectors. Each array shall be located with respect to any other array so as to ensure that there is no interference with the radar returns from any corner reflector within an array.

3. The calibration target array to measure the linearity of the amplitude response of a SAR to a series of corner reflectors whose RCS in dB increases in a linear fashion shall consist of at least 12 individual corner reflectors placed in a straight line. The array shall be aligned at an angle of 45 degrees to the aircraft flight path. The spacing between individual corner reflectors shall be equal and shall be between 30 and 50 metres. The RCS of individual corner reflectors shall be equal increments of 5 dB from a minimum of no greater than -10 dB to a maximum of no less than 45 dB. The physical size of each corner reflector shall be optimised for SARs with operating wavelengths of between 0.03 and 0.05 metres.

4. The calibration target array to measure the ground resolution of a SAR shall consist of 9 individual corner reflectors arranged in a square in three rows of three. One diagonal of the square shall be perpendicular to the aircraft flight path. The spacing between adjacent corner reflectors in the array shall be equal and shall be between 100 and 120 metres. The RCS of the corner reflectors in the array shall be equal and in the range of 15 to 30 dB and at least 40 dB above the effective background RCS. The physical size of the corner reflectors shall be optimised for SARs with operating wavelengths of between 0.03 and 0.05 metres.

## SECTION III. ANALYSIS OF DATA COLLECTED DURING A CERTIFICATION OR DEMONSTRATION FLIGHT

The following procedures for the analysis of data collected during a certification or demonstration flight are established pursuant to Annex D, Appendix 1, Section II, paragraph 5 to the Treaty on Open Skies.

1. The ground resolution of a SAR installed on an observation aircraft shall be determined in both azimuth and slant range using data collected from images of trihedral corner reflectors deployed in arrays in accordance with the specifications in Section II.

2. The impulse response shall be approximated by a smoothing function in accordance with the following methodology:

(A) The initial phase data shall be recorded on magnetic media. A single-look amplitude image of each corner reflector shall be produced from the initial phase data using image-formation algorithms and shall be stored on magnetic media;

(B) The highest amplitude value and two amplitude values either side of the highest value in both slant range and azimuth which may be used to represent the main lobe shall be extracted from the image of the corner reflector to form a 5 element cross which shall represent the impulse response of the SAR;

(C) A smoothed amplitude profile shall be constructed by determining the two-dimensional Gaussian function which passes through the 5 individual values obtained in paragraph 2(B);

(D) The smoothed amplitude profile obtained from paragraph 2(C) which lies on the lines which pass through the original radar samples closest to the peak amplitude and the individual values obtained in paragraph 2(B) shall be plotted on hardcopy and, optionally, on a video display. The five radar samples either side of the central value in slant range and azimuth shall also be plotted on this graph.

3. During certification, the impulse response shall be interpolated by a Fourier transform in accordance with the following methodology,

(A) A sixteen by sixteen square of amplitude values in slant range and azimuth centered on a comer reflector shall be entered into a two-dimensional array;

(B) A two-dimensional Fourier transform shall be performed on the array obtained from subparagraph 3(A);

(C) The number of elements in the Fourier-transformed array constructed in subparagraph 3(B) shall be expanded by sixteen times in each dimension by inserting zero values into the centre elements of this Fourier-transformed array;

(D) A two-dimensional inverse Fourier transform shall be performed on this 256 by 256 array;

(E) The values of amplitude in slant range and azimuth obtained in subparagraph 3(D) which lie on the lines which pass through the original radar samples closest to the peak amplitude shall be plotted on hardcopy with linear interpolation between the interpolated radar samples. The amplitudes of the original radar samples shall also be plotted on this hardcopy.

4. The amplitude linearity of a SAR shall be determined using data collected from an image of at least 12 corner reflectors deployed in a linear array in accordance with the specifications in paragraph 3 of Section 11. The data shall be analysed in accordance with the following methodology:

(A) A smoothed amplitude profile of each of the corner reflectors in the linear array that is detectable in the processed image shall be constructed according to the procedures specified in paragraph 2 above;

(B) The peak value of each impulse response shall be determined from the smoothed amplitude profiles obtained in subparagraph 4(A);

(C) The peak amplitudes determined in subparagraph 4(B) shall be plotted against the value of the square root of the RCS of the associated corner reflector;

(D) A straight line shall be fitted to the linear portion of the individual points plotted in subparagraph 4(C);

(E) The graph obtained in subparagraph 4(D) shall be used to calculate the sensitivity level and the saturation level of the SAR.

(F) The graph obtained in subparagraph 4(D) shall be used to apply a correction to the linearity of the amplitude response of the SAR between the calculated sensitivity and saturation levels.

5. The spatial resolution of the SAR shall be determined using data collected from an image of the 9 corner reflectors deployed in a square in accordance with the specifications in paragraph 4 of Section II. The data shall be analysed in accordance with the following methodology,

(A) A smoothed amplitude profile shall be constructed for each of the 9 corner reflectors in the array, in accordance with the procedures specified in paragraph 2 above;

(B) The distance between the centres of the two corner reflectors at either end of the diagonals of the array on the ground, measured to an accuracy of no worse than one metre (for slant range with regard to incidence angle), shall be divided by the number of intervals between the corresponding number of radar samples in the image, to determine the spatial scaling factors in slant range and azimuth;

(C) The width of the curves in slant range and azimuth at the level which is 0.707 times the peak amplitude shall be measured in terms of the distance between radar samples for each smoothed amplitude profile obtained in subparagraph 5(A);

(D) The average of the nine azimuth values and the average of the nine slant range values obtained in subparagraph 5(C) shall be converted to distance in metres by multiplying by the spatial scaling factors determined in subparagraph 5(B).

6. The accuracy of the determination of the ground resolution using the Gaussian approximation in paragraph 5 and the value of the side lobes of the full impulse response shall be determined using data collected from the image of one of the 9 corner reflectors deployed in a square in accordance with the specifications in paragraph 4 of Section II. The data shall be analysed in accordance with the following methodology:

(A) An interpolated amplitude profile shall be constructed for one of the 9 corner reflectors in the array, in accordance with the procedures specified in paragraph 3 above;

(B) The width of the curves in slant range and azimuth at the level which is 0.707 times the peak amplitude shall be measured in terms of distances between radar samples for the interpolated amplitude profile obtained in subparagraph 6(A);

(C) If the average width of the curves obtained in subparagraph 5(C) is within five percent of the value obtained in subparagraph 6(B), the Gaussian approximation is defined as being a sufficiently accurate approximation for the determination of spatial resolution.

(D) If the average width of the curves obtained in subparagraph 5(C) is not within five percent of the value obtained in subparagraph 6(B), the interpolated amplitude profile shall be obtained for each of the nine corner reflectors and used to calculate spatial resolution in accordance with the procedures specified in subparagraphs 5(B) to 5(D) above;

(E) The maximum value of the side lobes of the SAR shall be determined from the interpolated profile obtained in subparagraph 6(A) above;

(F) The integrated side lobe level shall be calculated from manufacturer's information provided by the State Party conducting the certification;

(G) The ambiguity level shall be calculated from manufacturer's information provided by the State Party conducting the certification.

7. The ground resolution of the SAR shall be the spatial resolution in metres in slant range and azimuth obtained from either subparagraph 5(D) or subparagraph 6(D).

; ;;

\* \* \* \* \* \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 10 December 1992, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/III/Dec.8 16 July 1993

#### DECISION NUMBER EIGHT TO THE TREATY ON OPEN SKIES

#### INTERVALS AT WHICH DATA SHALL BE ANNOTATED WITH INFORMATION

The Open Skies Consultative Commission, pursuant to the provisions of Annex B, Section II, paragraph 2, subparagraphs (A)(1), (B) and (C)(1) of the Treaty on Open Skies, has decided as follows:

The intervals at which data shall be annotated with information are:

1. In the case of optical cameras, on every frame.

2. In the case of infra-red line-scanning devices recording data on photographic film, at intervals not greater than every thirty-one centimetres.

3. In the case of video cameras using a frame-imaging device, once per frame.

4. In the case of video cameras using a line-imaging device, infra-red line-scanning devices recording on magnetic tape, and sideways-looking synthetic aperture radars, at least every 512 lines.

\* \* \* \* \* \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 16 July 1993, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/III/Dec.9 16 July 1993

#### DECISION NUMBER NINE TO THE TREATY ON OPEN SKIES

# CODES OTHER THAN ALPHANUMERIC VALUES TO BE USED FOR THE ANNOTATION OF DATA

The Open Skies Consultative Commission, pursuant to the provisions of Annex B, Section II, paragraph 4 of the Treaty on Open Skies, has decided as follows:

.....

1. No codes other than alphanumeric values shall be used to annotate data collected during an observation flight. Items of information required to be annotated pursuant to Annex B, Section II shall be annotated using the alphanumeric codes set forth in Appendix 1 to Annex B.

2. States Parties shall have the right to annotate other items of information in addition to those required by Annex B, Section II. In the event that a State Party chooses to annotate additional information, it shall use alphanumeric codes and shall inform all other States Parties of the meaning of such codes before using them to annotate data collected during an observation flight.

#### \* \* \* \* \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 16 July 1993, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/III/Dec.10 16 July 1993

#### DECISION NUMBER TEN TO THE TREATY ON OPEN SKIES

#### SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION

The Open Skies Consultative Commission, pursuant to the provisions of Annex L, paragraph 9 of the Treaty on Open Skies, has decided as follows:

1. The scale of distribution for the common expenses associated with the operation of the Open Skies Consultative Commission (hereafter referred to as the "scale of distribution of the Open Skies Consultative Commission") is based on the scale of distribution adopted in Helsinki on 10 July 1992, by the participating States to the CSCE (hereafter referred to as the "Helsinki scale"). The special regime established by this Decision takes into account present economic conditions and is limited in scope and in time. It does not constitute a precedent for any other CSCE or CSCE related body.

2. Taking into account the fact that not all participating States to the CSCE are Parties to the Treaty, States Parties have to make an additional contribution to their contribution to the "Helsinki scale", in order to cover the existing shortfall.

- (A) As a rule, this additional contribution will be proportional to the "Helsinki scale". Nevertheless, any State Party may provide a higher additional contribution.
- (B) However, taking into account their present economic situation, those countries listed in Annex A to this Decision will be exempted from the proportional contribution mentioned in subparagraph (A) and will only make an ad hoc additional contribution, agreed by the States Parties.
- (C) The special regime established in subparagraph (B) will last as long as the economic situation of the countries listed in Annex A to this Decision so requires. The special regime will thus be subject to review every year.

3. As long as only participating States to the CSCE are Parties to the Treaty, and provided that there remains a shortfall to be covered, the financial contribution to the scale of distribution of the Open Skies Consultative Commission of any State Party will have to be superior to its contribution to the "Helsinki scale".

4. In case of accession to the Treaty of participating States to the CSCE, their financial contributions to the scale of distribution of the Open Skies Consultative Commission will be calculated according to the principles established in paragraphs 1 and 2. In that case, the financial contributions to the scale of distribution of the Open Skies Consultative Commission of the other States Parties will be reduced in due proportion. This provision does not apply to those countries listed in Annex A to this Decision, as long as the special regime established in paragraph 2, subparagraph (B) grants them the benefit of financial contributions to the scale of

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#### OSCC/III/Dec.10 16 July 1993

distribution of the Open Skies Consultative Commission lower than those of other States Parties which bear an identical contribution to the "Helsinki scale".

5. In case of accession to the Treaty of non-participating States to the CSCE, their financial contributions to the scale of distribution of the Open Skies Consultative Commission as well as the scale of distribution of the Open Skies Consultative Commission will be agreed on an ad hoc basis by the Open Skies Consultative Commission.

6. As of 1 January 1993, the scale of distribution of the Open Skies Consultative Commission is agreed as follows (in percentages):

10.82 10.82 10.82 10.82 10.82	
9.05	
6.55 5.10	(*)
4.27 4.27	
2.465 2.465	
1.77	
1.685	
1.20	
0.84 0.84 0.84	
0.805	
0.71	
0.66 0.66 0.66	
0.40	
0.24	
0.21 0.21	
	10.82 10.82 10.82 9.05 6.55 5.10 4.27 4.27 2.465 2.465 1.77 1.685 1.20 0.84 0.84 0.84 0.84 0.84 0.84 0.805 0.71 0.66 0.66 0.66 0.40 0.24 0.21

<sup>(\*)</sup> This percentage reflects the agreement of Spain to provide a higher additional contribution.

### OSCC/III/Dec.10 16 July 1993

## ANNEX A

List of countries to which the special regime established in paragraph 2, subparagraph (B) of the Decision on the scale of distribution of the Open Skies Consultative Commission may apply:

Armenia Azerbaijan Belarus Georgia Kazakhstan Kyrgyzstan Moldova Russian Federation Tajikistan Turkmenistan Ukraine Uzbekistan

#### OSCC/III/Dec.10 16 July 1993

#### ANNEX B

OPEN SKIES CONSULTATIVE COMMISSION CHAIRMAN'S STATEMENT ON THE DECISION ON THE SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION.

1. The financial contribution to the scale of distribution of the OSCC of each State Party to the Treaty, except those which benefit from the special regime established in paragraph 2, subparagraph (B) of the above-mentioned Decision, those that provide higher additional contributions and those which are not participating States to the CSCE, is calculated as follows (in percentages):

$$OS_i = K \times H_i$$

where:

D

i = State Party to which the present paragraph applies

OS<sub>i</sub> = financial contribution of State Party i

 $H_i$  = contribution to the "Helsinki scale" of State Party i

K = correction coefficient

2. The financial contribution to the scale of distribution of the OSCC of a State Party that provides a higher additional contribution is calculated as follows (in percentages):

 $OS_m = H_m + E_m$ 

where:

 $m = State Party to which the present paragraph applies OS_m = financial contribution of State Party m$ 

 $H_m$  = contribution to the "Helsinki scale" of State Party m

E<sub>m</sub> = additional contribution of State Party m

3. The financial contribution to the scale of distribution of the OSCC of a State Party to which the special regime established in paragraph 2, subparagraph (B) of the above-mentioned Decision applies is calculated as follows (in percentages):

$$OS_i = H_i + A_i$$

where:

- j = State Party to which the present paragraph applies
- OS<sub>i</sub> = financial contribution of State Party j

 $H_i$  = contribution to the "Helsinki scale" of State Party j

A<sub>j</sub> = ad hoc additional contribution of State Party j

## OSCC/III/Dec.10 16 July 1993

## 4. Coefficient K is determined from the formula:

$$(K \ x \ \Sigma H_i) + \Sigma OS_m + \Sigma OS_j = 100\%$$

$$or: K = \frac{100\% - \sum OS_m - \sum OS_j}{\sum H_i}$$

where:  $\Sigma H_i$  = sum of contributions to "Helsinki scale" of States Parties i - see paragraph 1 above.

 $\Sigma OS_m$  = sum of contributions to the scale of distribution of the OSCC of States Parties m - see paragraph 2 above.

 $\overline{\Sigma}OS_j$  = sum of contributions to the scale of distribution of the OSCC of States Parties j - see paragraph 3 above.

OSCC/III/Dec.11 16 July 1993

## DECISION NUMBER ELEVEN TO THE TREATY ON OPEN SKIES

## FINANCIAL AND ADMINISTRATIVE QUESTIONS, RELATING TO POINT VI OF DECISION OSCC/I/DEC.6 OF 29 JUNE 1992

The Open Skies Consultative Commission, pursuant to the provisions of Annex L, paragraph 9 of the Treaty on Open Skies, and to the provisions of Section VI of the Decision OSCC/I/Dec.6 of 29 June 1992, has decided as follows:

1. Paragraphs 1, 2, 3, 4, 5 and 6 of the Decision of the Open Skies Consultative Commission on the scale of distribution for the common expenses associated with the operation of the Open Skies Consultative Commission, adopted on 16 July 1993, will replace the brackets in point VI, paragraph 1 of the Decision OSCC/I/Dec.6 of 29 June 1992, as paragraphs 1.1., 1.2., 1.3., 1.4., 1.5. and 1.6. of this point.

2. Annexes A and B to the Decision of the Open Skies Consultative Commission on the scale of distribution for the common expenses associated with the operation of the Open Skies Consultative Commission, adopted on 16 July 1993, will be inserted as Annexes III and IV to the Decision OSCC/I/Dec.6 of 29 June 1992. These annexes and paragraphs 1.1. to 1.6. of point VI of the Decision OSCC/I/Dec.6 will be conformed accordingly.

3. The following provision:

"The practical arrangements for the payment of financial contributions by States Parties shall be the same as those agreed for other fora using the common services of the Joint Executive Secretariat."

will replace the brackets in point VI, paragraph 2 of the Decision OSCC/I/Dec.6 of 29 June 1992.

4. The following provision:

"The modalities for the administrative organization of the Commission will be in accordance with arrangements already established in connection with the use of the common services of the Joint Executive Secretariat."

will replace the brackets in point VI, paragraph 3 of the Decision OSCC/I/Dec.6 of 29 June 1992.

OSCC/IV/Dec.12 6 December 1993

## DECISION NUMBER TWELVE TO THE TREATY ON OPEN SKIES

## INFORMATION TO BE PROVIDED TOGETHER WITH CALIBRATION TARGET DIAGRAMS

The Open Skies Consultative Commission, pursuant to the provisions of Appendix 1 to Annex D, Section I, paragraph 5 of the Treaty on Open Skies, has decided as follows:

For each certification and demonstration flight, the following information shall be provided together with a diagram of the calibration targets.

- 1. For targets used with optical and video cameras:
  - (a) the number of bar groups;
  - (b) length and width of the bars within each bar group, in centimetres;
  - (c) overall length and width of the outside edges of the background material, in centimetres;
  - (d) location of its centre, by geographic co-ordinates to the nearest second;
  - (e) altitude above sea level, in metres;
  - (f) orientation of the bars with respect to true north, to the nearest degree;
  - (g) relative reflectance level of the surface background, as a percentage;
  - (h) relative reflectance of the dark and light bars of the calibration target expressed as the average and standard deviation for at least five measurements taken on any randomly selected bar group as a percentage for viewing angles of 0, 30, 45 and 60 degrees off vertical of the target's surface. With reference to the orientation of the bars, two sets of measurements shall be made. The first set shall be in a vertical plane whose azimuth is perpendicular to one side of a bar. The second shall be in a plane perpendicular to the first. For demonstration flights, the certification measurements can be validated using any bar pair at angles of only 0 and 45 degrees;
  - (i) true track for data collection, in degrees; and
  - (j) type of surface background.

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2.

For active and passive targets used with infra-red line-scanning devices:

- (a) the number of bar groups;
- (b) length and width of the bars within each bar group, in centimetres;
- (c) overall length and width of the outside edges of the target area, in centimetres;
- (d) location of its centre, by geographic co-ordinates to the nearest second;
- (e) altitude above sea level, in metres;
- (f) orientation of the bars with respect to true north, to the nearest degree;
- (g) emissivity of the hot and cold bars expressed as the average and the standard deviation for at least five measurements taken on any randomly selected bar group in the 3 to 5 and 8 to 14 micron wavelength bands;
- (h) the maximum and minimum radiant temperature differences which are achievable between the hot and cold bars, and the standard deviation of the temperature over the whole area of a single bar, in degrees;
- (i) operational limitations which are necessary to achieve the required performance, such as meteorological conditions, use of baffles or temperature controlling devices;
- (j) description of the surface background, including its emissivity; and
- (k) true track for data collection, in degrees.
- 3. For target arrays used with sideways-looking synthetic aperture radar:
  - (a) length of the inside edge of each individual corner reflector, in millimetres;
  - (b) angular accuracy of construction of each individual corner reflector, in degrees;
  - (c) distances between the apex of each individual trihedral corner reflector in the impulse response and dynamic range arrays, in metres;
  - (d) distance between the centre reflectors in each array, in metres;
  - distance between the apex of the most separated corner reflectors within each array, in metres;
  - (f) location of the centre of each array, by geographic co-ordinates to the nearest second;
  - (g) altitude above sea level, in metres;

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- (h) orientation of each array with respect to true north, to the nearest degree;
- description of the surface background and estimated background clutter level, in decibels per square metre;
- (j) true track for data collection, in degrees;
- (k) accuracy of alignment, in azimuth, of each corner reflector with respect to the recommended true track, in degrees;
- (1) angle and alignment accuracy in elevation with respect to the horizontal bottom surface of each corner reflector;
- (m) description of the technique used to reduce multipath signal reception from individual corner reflectors, and
- (n) description and diagram for attaching (mounting) the corner reflectors to the ground.

4. For demonstration flights it is not necessary to repeat measurements for invariant parameters specific to a target which has been used during certification.

\* \* \* \* \* \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 6 December 1993, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

## DECISION NUMBER THIRTEEN TO THE TREATY ON OPEN SKIES

# METHODOLOGY FOR CALCULATING THE MINIMUM PERMISSIBLE FLIGHT ALTITUDE WHEN USING OPTICAL AND VIDEO CAMERAS

The Open Skies Consultative Commission, in accordance with Article X, paragraph 5, and pursuant to Article IV, paragraph 2 (A) and Article VI, Section I, paragraphs 14 and 15, and Section II, paragraphs 4, 5 and 6 of the Treaty on Open Skies, has decided as follows:

## SECTION I. DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision:

1. The term "altitude" means the vertical distance of a level, point or object considered as a point, measured from mean sea level (MSL).

2. The term "flight level (FL)" means a surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals. The datum 1013.2 hPa has the same value as 1013.2 mb, 29.92 inches Hg and 760 mm Hg.

3. The term "height" means the vertical distance of a level, a point or an object considered as a point, measured from a specified datum. The datum used in this Decision is the ground level at the nadir point.

4. The term "elevation" means the vertical distance of a point or level, on or affixed to the surface of the earth, measured from mean sea level.

5. The term "leg" means a portion of the segment between two co-ordinates, navigation fixes or turning points designated in the mission plan.

#### SECTION II. FORMULAE

1. For conversion from metres to feet the factor 3.281, and from feet to metres the factor 0.305 will be used.

2. The "minimum permissible altitude" A for the use of sensors for each leg of an observation flight is calculated according to the formula:

$$A = E + H_{min}$$

where

- E is the maximum ground elevation on a given leg;
- Hmin is the certified minimum height at which a sensor may be operated; Note: H<sub>min</sub> is normally stated in metres.

3. If the forecast temperature at altitude over the point of maximum ground elevation E for a given leg of an observation flight deviates from that of ICAO standard atmosphere (ISA), the barometric altitude A is adjusted according to the following formula:

$$A_t = A \cdot (A \times K_t)$$

where

A is the barometric altitude to be flown to achieve H<sub>min</sub> after adjustment for the outside forecast temperature;

is the correction factor corresponding to the ISA deviation: K,

$$K_t = dT \times \frac{1}{288}$$

dT

is the forecast temperature in degrees centigrade minus the ISA temperature in degrees centigrade.

4 If required, the "minimum permissible flight altitude" Af for each leg of an observation flight is calculated according to the following formula:

 $A_f = A_1 + (Standard pressure setting - local QNH) x Coefficient$ 

where

Af is the barometric flight altitude after adjustment for standard atmospheric pressure;

Standard pressure setting

is a specific pressure datum as given in Section 1, paragraph 2;

#### local ONH

is the forecast air pressure on the ground at the point of maximum ground elevation E of a leg of an observation flight extrapolated to sea level and the envisaged overflight time;

Coefficient

1

is a factor which adjusts the altitude for a given change in atmospheric pressure.

5. For standard combinations of pressure and altitude units, the formulae to be used are:

For pressures in inches Hg and distances in feet:  $A_f = A_t + (29.92 - local QNH) \times 924.05;$ 

For pressures in hPa or mb and distances in feet:  $A_f = A_t + (1013.2 - local QNH) \times 27.30;$ 

For pressures in mm Hg and distances in metres:  $A_f = A_t + (760 - local QNH) \times 11.09.$ 

## SECTION III. CALCULATION OF THE MINIMUM PERMISSIBLE ALTITUDE AND SELECTION OF CRUISING ALTITUDE

The minimum permissible altitude for the use of sensors, taking into consideration the ground resolution permitted for optical and video cameras, is calculated as follows:

1. The maximum ground elevation E for the calculation of the altitude  $A_t$  to be flown is determined along the line of the nadir for each leg of the observation flight. If the observed State Party considers that, as a result of specific terrain features, the maximum sensor resolution permitted by the Treaty will be exceeded, they have the right to propose changes to the mission plan in accordance with Article VI, Section II, paragraph 6.

2. In principle, the minimum permissible altitude  $\Lambda$  for the use of sensors is the altitude resulting from the sum of the maximum ground elevation E and the minimum permissible height above ground level  $H_{min}$  for the respective sensor.

3. Prior to submission of the mission plan, on the basis of the current weather forecast, the altitude calculated in accordance with paragraph 2 shall be adjusted, if necessary, by the correction factor for the deviation of the true temperature from ISA temperature. The formula used in this calculation shall be that given in Section II, paragraph 3.

4. Should the use of cruising altitudes be prescribed by national air traffic control regulations, the barometric altitude At calculated in paragraph 3 shall be converted to a cruising altitude in accordance with the following procedure, unless otherwise agreed: the cruising altitude shall be selected which is nearest to - either above or below - the barometric altitude At and which does not result in a deviation from At exceeding 500 feet or 150 metres.

## SECTION IV. CALCULATION OF THE MINIMUM PERMISSIBLE FLIGHT ALTITUDE AND SELECTION OF FLIGHT LEVEL

The minimum permissible flight altitude for the use of sensors, taking into consideration the ground resolution permitted for optical and video cameras, is calculated as follows:

1. Prior to submission of the mission plan, on the basis of the current weather forecast, the barometric altitude calculated in accordance with Section III, paragraph 3 shall be adjusted by the correction factor for the difference between the specific pressure datum as given in Section I, paragraph 2 and local air pressure on each leg of the route. To make this calculation, the appropriate formula in Section II, paragraph 5 shall be used.

2. Should the use of flight levels be prescribed by national air traffic control regulations, the barometric altitude A<sub>f</sub> calculated in paragraph 1 shall be converted to a flight level in accordance with the following procedure, unless otherwise agreed:

the flight level shall be selected which is nearest to - either above or below - the barometric altitude  $A_f$  and which does not result in a deviation from  $A_f$  exceeding the following values:

500 feet below flight level 290;
1,000 feet above flight level 290 or;
150 metres below 8,100 metres;
250 metres above 8,100 metres and below 12,100 metres;
500 metres above 12,100 metres.

#### SECTION V. DEVIATION IN GROUND RESOLUTION

If in the case of an exception, when the application of the rules according to Section III, paragraph 4 or Section IV, paragraph 2 results in the use of a cruising altitude or a flight level, the deviation in ground resolution from the Treaty-specified 30 centimetres shall not exceed plus/minus 5 centimetres.

#### SECTION VI. REVIEW CLAUSE

The provisions of Section III, paragraphs 1 and 4, and Section IV, paragraph 2 shall be re-examined on the basis of practical experience if so requested by a State Party after 31 December of the year following the year during which the Treaty entered into force.

#### \* \* \* \* \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 18 April 1994, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

## DECISION NUMBER FOURTEEN TO THE TREATY ON OPEN SKIES

## METHODOLOGY FOR CALCULATING THE MINIMUM HEIGHT ABOVE GROUND LEVEL AT WHICH EACH VIDEO CAMERA WITH REAL TIME DISPLAY INSTALLED ON AN OBSERVATION AIRCRAFT MAY BE OPERATED DURING AN OBSERVATION FLIGHT

The Open Skies Consultative Commission, pursuant to the provisions of Appendix I to Annex D, Section III, paragraph 3 of the Treaty on Open Skies, has decided as follows:

### SECTION I. DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision:

The term "line imaging device" means a device containing one line of detector elements for each wavelength band to be recorded.

The term "frame imaging device" means a device containing either an electronic imaging tube or an array of detector elements for each wavelength band recorded which simultaneously form multiple lines of the image to be recorded.

The term "video camera" means a passive black and white or colour, line or frame imaging device, including the conversion of the image into electrical signals operating at optical wavelengths between 0.3 and 1.1 micrometres.

The term "black and white imaging device" means a video camera that is sensitive within a single wavelength band which is not less than 0.4 micrometres wide.

The term "colour imaging device" means a video camera that is sensitive within no more than three separate wavelength bands, with adjacent bands overlapping, giving maximum spectral response at wavelength bands corresponding to colours blue, green, and red.

The term "detector element" means the smallest definable element of the detector array of a video camera.

The term "scene element" means, in the case of a black and white video camera, the area on the ground that is projected onto a single detector element, and in the case of a colour video camera, means the area on the ground projected on to the detector elements used to provide the different wavelength band data associated with that area on the ground.

The term "image element" means the digitized signal representing the detected energy of a scene element within each wavelength band to which a video camera is sensitive which is stored in a frame store.

The term "image" means an array of image elements corresponding to an equally numbered array of scene elements which cover a contiguous area on the ground.

The term "image of the calibration target" means an image whose corresponding area on the ground covers, as a minimum, the entire along or across track set of bar groups of a calibration target.

The term "encoding techniques" means the use of special techniques of processing data intended for storage on magnetic media which would permit the extraction from such data of more information than could be extracted without use of such processing. Commercially available error correcting techniques commonly used to record on to and extract digital data from magnetic media and techniques designed to allow the multiplexing of data from multiple sensors or multiple colour bands on to a single recorder are not considered encoding techniques.

The term "video recorder" means a data recording device capable of storing data collected by a video camera on magnetic tape without the use of encoding techniques. For digital recorders, data must be recorded at eight bits per wavelength band to which a video camera is sensitive.

The term "video display" means a monitor used for analysis of data pursuant to this Decision, including any associated image processing electronics that is capable of displaying an image.

The term "frame store" means a digital memory that is capable of storing at least a complete image of a calibration target where each individual image element is stored at a separate memory cell.

The term "grey level" means the numerical value of an image element on an eight bit scale between zero and 255.

The term "relative reflectance" means the ratio of the radiant flux of a surface to the radiant flux from a second surface of known reflectance times the known reflectance of this second surface.

The term "target modulation" means, when measured on the ground, the ratio of the difference of the relative reflectance of the light and dark areas of the brightness panels to the sum of these values; and when measured in the image, the ratio of the difference of the grey level values of the light and dark areas of the brightness panels to the sum of these values.

The term "spatial frequency", designated by f, means a frequency measure, in cycles/radian, of a group of bars of bar width  $\Delta$  measured on the ground observed in an image collected at a height above the calibration target H and is calculated by:

#### $f = H/(2\Delta)$ .

The term "bar group amplitude" means a measure of the grey level difference between the light and dark bars of a bar group.

The term "image amplitude function", designated  $A_i(f)$ , means the relationship of the bar group amplitude to the spatial frequency corresponding to those bars for the image collected on the i<sup>th</sup> pass.

The term "bar triad" means any combination of three bars within a bar group of a calibration target; two bars of the same relative reflectance, separated by one bar of a different relative reflectance.

The term "video camera configuration" means each combination of camera, lens, filter, window, angle of deviation from vertical, airborne video recorder, magnetic tape type, and recording type and format which is to be certified. For video cameras equipped with variable focal length lens, but with intermediate fixed focal length settings, each intermediate setting shall be considered a new video camera configuration. For video cameras equipped with variable angles of deviation from vertical, but with intermediate fixed settings of the angle of deviation, each intermediate setting shall be considered a new video camera configuration.

The term "phase correction" means a technique to reduce scan line misalignments in the image caused by correctable time base errors in the video recorder, correctable motion compensation errors, or other errors which are camera induced.

The term " $H_{min}$ " means the minimum height above ground level at which a video camera configuration installed on an observation aircraft may be operated.

The term "image processing equipment" means all ground-based equipment and software used to perform the visual or computer-assisted analysis of the images and determination of ground resolution and  $H_{min}$ .

The term "atmospheric model in the 0.3 to 1.1 micrometre band" means a method of calculating the atmospheric transmission in relation to altitude, accounting for given atmospheric conditions.

The term "OSCC atmosphere parameters" means the parameters required to define the atmosphere which will include at least the following measurements: air temperature ( $^{\circ}$ K), pressure (mb), relative humidity (%), and visibility (km), and altitudes (km) at which the above parameters are measured.

#### SECTION II. SPECIFICATIONS FOR CALIBRATION TARGETS

1. Calibration targets used to determine the resolution of video cameras shall contain groups of bars made from light-grey and dark-grey materials. The calibration target shall contain brightness panels, the surface finish of which is the same as the groups of bars.

2. The bar groups shall consist of either light bars on a dark background or dark bars on a light background. Bar groups shall consist of either tri-bar or bi-bar groups and the ratio of bar width to length shall not be less than 1:4. The width of light and dark bars in a group shall be identical. The ratio of bar widths for adjoining groups shall be  $\sqrt[6]{2}$  to within a tolerance of  $\pm 5\%$ 

of the ideal width of the bar width being measured as calculated assuming no errors. The range of bar widths shall be at least 0.06 to 0.3 metres. The width separating adjacent groups shall be at least the width of a single bar in the group with the larger bars. The target shall contain two identical sets of bar groups, placed adjacent to each other. Bars in the first set shall be oriented along, those in the second set shall be oriented across, the planned ground track of the observation aircraft.

3. The brightness panels shall be dark-grey and light-grey square areas of which the length of a side shall be no less than 120 centimetres.

4. The modulation of the target as measured on the ground shall be between 0.66 and 0.82 within the optical bandwidth of 0.3 to 1.1 micrometres. The relative reflectance of the light-grey sections shall be no more than 83%, and the relative reflectance of the dark-grey sections shall be not less than 5%. The uniformity of the relative reflectance of the light and dark bars in the calibration target shall be accomplished with total permissible error of no more than 10% of the relative reflectance of the light bars. The targets shall be positioned on ground that has a relative reflectance that approximates the average relative reflectance of the dark and light sections of the target.

SECTION III. CONDUCT OF A CERTIFICATION OR A DEMONSTRATION FLIGHT

1. For certification flights, the  $H_{min}$  shall be determined for each video camera configuration which is to be certified. For demonstration flights, the number of video camera configurations and number of passes per configuration may be agreed between the observed and observing Parties prior to the conduct of the demonstration flight.

2. For video cameras equipped with a variable focal length lens, the  $H_{min}$  shall, as a minimum, be determined with the lens adjusted at its maximum focal length. When determining  $H_{min}$  only for the maximum focal length the resulting value of  $H_{min}$  is accepted as mandatory for all other focal length settings.

3. For each video camera configuration, any variable video camera controls shall be set to achieve the best ground resolution for the conditions encountered for certification or demonstration flights.

4. The flight path shall be flown such that, on the image of the calibration target, a line perpendicular to one axis of the calibration target shall be within plus or minus twenty degrees of a major axis of the display.

5. For vertically mounted video cameras, sufficient passes shall be made, and imagery collected, to ensure that an image of the calibration target is collected while the centre of the target is no more than plus or minus twenty five per cent of the camera's field of view away from the centre of the camera's field of view in degrees.

6. For obliquely mounted video cameras, horizontal targets shall be used for sensors whose optical axis is less than or equal to sixty degrees from the vertical, and vertical targets shall be used for sensors whose optical axis is more than sixty degrees from the vertical. In order to

determine the ground resolution of obliquely mounted video cameras the flight path shall be chosen to ensure that the target is imaged within twenty per cent of the camera's field of view, in degrees, of the axis of the video camera where resolution is the best. The axis of best resolution shall be determined from data provided by the State Party conducting the certification which indicates the ground resolution as a function of angle of view.

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7. For video cameras equipped with a variable angle of deviation from vertical, the  $H_{min}$  shall, as a unininum, be determined with the angle of deviation set at the mininum from vertical. When determining  $H_{min}$  only for the minimum angle from vertical the resulting value of  $H_{min}$  is accepted as mandatory for all other angles of deviation from vertical settings.

8. The OSCC atmosphere parameters will be measured at intervals of one hour or less during the certification or demonstration flight. The measurements will be used as input to an atmospheric model.

The following parameters shall be measured during the certification flight:

9.

li	=	the ground illumination for each pass (i), in lux.
$ ho_{\mathrm{i,light}}$	=	the average relative reflectance of the light grey bars of the target for each pass.
$ ho_{\mathrm{i,dark}}$	=	the average relative reflectance of the dark grey bars of the target for each pass.
hobackground.av	=	the average relative reflectance of the background at intervals of one hour or less.

In the case of demonstration flights, measurement of the parameters  $\rho_{i,light}$  and  $\rho_{i,dark}$  need to be performed only once during the demonstration flight.

10. The height above ground of certification or demonstration flights must be such that ground resolution can be determined on the calibration target.

SECTION IV. ANALYSIS OF DATA COLLECTED DURING A CERTIFICATION OR A DEMONSTRATION FLIGHT

1. Prior to the analysis of data collected during a certification or demonstration flight, the performance of the image processing equipment and video recorders used to collect the original imagery shall be checked in accordance with the procedures specified in Decision Number 16 to the Treaty on Open Skies.

2. In the course of certification, the value of  $H_{min}$  for each video camera configuration shall be determined as described in Section V of this Decision from analysis of at least five images from separate passes containing the calibration target described in Section II, paragraph 2 of this Decision.

3. The images of the calibration target shall be extracted from the original magnetic tape used on board the observation aircraft by the image processing equipment. In the case of video cameras that record data in analogue format, the analogue signal recorded on magnetic tape that contains the image of the calibration target shall be digitized at eight bits per sample per wavelength band to which the video camera is sensitive, and at a sampling rate which will produce an image obtained from the sampled data that represents the same aspect ratio of the target on the ground as viewed from an image of the original analogue tape, with a minimum loss of information from that available on the original video recording. In the case of video cameras that provide digital data, the data shall be recorded at eight bits per wavelength band to which the video camera is sensitive. Except as required in sub-paragraphs (D) and (E) of Section IV, paragraph 4 of this Decision, the analysis shall be performed on the unprocessed digital data.

4. The ground resolution of a video camera in both the along track and across track directions shall be determined by visual analysis. The visual analysis shall be performed on images of the calibration target having no less than 0.1 modulation as measured on the image of the ground target brightness panels. For images that conform to the specifications described in Section III of this Decision, the ground resolution shall be determined in accordance with the following procedures:

(A) The image of the calibration target shall be displayed on a video display, which can display at least 256 shades of grey and which has a screen size of at least 20 centimetres measured diagonally.

(B) At least ten experienced observers, representing the States Parties taking part in the certification, shall examine the images of the calibration target. Unless otherwise agreed, at least ten experienced observers, representing the States Parties taking part in a demonstration flight, shall examine the images of the calibration target.

(C) The brightness, contrast and magnification by pixel replication of the video display may be adjusted at the discretion of the observer.

(D) Each image shall be phase corrected, if necessary.

(E) The image of the calibration target from a camera with interlacing capability shall be analysed from either the image of a single field replicated to form a complete frame, or from the interlaced image obtained by phase alignment of the two single fields, at the observer's discretion.

(F) A bar group is resolved if, for at least one bar triad within the bar group, there is a visual perception of the displayed grey level difference between the middle bar and the outside bars over the entire length of the bar triad.

(G) For each observer, starting with the widest group of bars, the last resolved bar group is that group of bars immediately preceding the first group of bars which are not resolved.

(H) For each image, the last resolved bar group shall be the narrowest bar group which at least 80% of all observers resolve.

(I) For each image, the ground resolution shall be the width of a bar on the ground, in centimetres from the group obtained from step (H).

(J) In the case of colour video cameras the resolution shall be determined on an image of the calibration target selected as follows:

(1) Four images of the calibration target shall be available to the observer; one image from each of the three wavelength bands and a composite image made with each wavelength band having equal weight.

(2) The observer shall perform the visual analysis of each of the images identified in (1), and the image which contains the narrowest resolved bar group shall be used to determine the resolution of the video camera.

5. For each pass selected for analysis, data necessary to support a computer-assisted determination of resolution shall be collected and made available to all other States Parties.

SECTION V. PROCEDURE FOR CALCULATING THE MINIMUM HEIGHT ABOVE GROUND LEVEL AT WHICH A VIDEO CAMERA MAY BE OPERATED DURING AN OBSERVATION FLIGHT

1. For each pass (i) selected for analysis in the certification or demonstration flight

(A) The resolutions along track, L<sub>i,1</sub>, and across track, L<sub>i,2</sub>, are determined by

(1) in the case of certification flights, visual analysis as described in Section IV, paragraph 4 of this Decision, and

(2) in the case of demonstration flights, the Observed and Observing Parties shall have the right to use a computer-assisted method, or visual analysis of their choice, except that for the purpose of invoking Annex F, Section III, paragraphs 6 or 7 of the Treaty on Open Skies, only the visual analysis as described in Section IV, paragraph 4 of this Decision shall be used.

(B) The image amplitude functions for the set of bar groups laid along,  $A_{i,1}(f)$ , and across the line of flight,  $A_{i,2}(f)$ , shall be computed.

(C) While this Decision is in force, States Parties which use computer-assisted methods in accordance with paragraph 1 (A) (2) of this section, shall provide a written description of the theory, algorithms, and procedures used within the computer-assisted method, as well as procedures for its calibration to all other States Parties. This description shall meet the requirements set forth in Annex C to Decision 16 of the OSCC and shall become an appendix to the aforementioned Annex C.

(A) The value is determined by:

$$H_{\min i,j} = H_i \frac{L_a}{L_{i,j}}$$

where:

- $L_{i,j}$  = the ground resolution in centimetres obtained from analysis of the image of the calibration target and
  - j = 1 is for the along track set of bar groups, and

i = 2 is for the across track set of bar groups.

H<sub>i</sub> = the height above the calibration target of the aircraft in metres, at the moment the calibration target was imaged for pass (i).

 $L_a =$  the agreed ground resolution of 30 centimetres.

(B) The data necessary to evaluate a solution to determine  $H_{\min i,j}$  based on the following equation, or an agreed alternative, will be collected and evaluated for the duration of this Decision.

$$\frac{A_{i,j}\left[\frac{H_{\min ij}}{2L_a}\right]}{A_{i,j}\left[\frac{H_i}{2L_{i,j}}\right]}K_a = \left[\frac{\frac{H_{\min ij}}{2L_a}}{\frac{H_i}{2L_{i,j}}}\right]^c$$

where:

с

- $K_i$  = the modulation of the target as measured on the brightness panels in the image.
- $K_a =$  the agreed target modulation of 0.4 at which ground resolution is defined.

= the threshold exponent appropriate for the sensor and target used.

For the duration of this Decision, measurements shall be made of each of the parameters in the above equation and the images from certification and demonstration flights shall be made available to the OSCC for research to support a follow-on Decision.

3. H<sub>min i,t</sub> are used to compute the average, H<sub>min i</sub> of the computed values.

$$H_{\min j} = \frac{l}{n} \sum_{i} H_{\min i,j} \qquad : \qquad j = 1,2$$

where: n

is the total number of images of the calibration target used to determine H<sub>min i</sub>;

and

 $n \ge 5$  for certification flights,

 $n \ge 1$  for demonstration flights.

4. The value of  $H_{min}$  is the greater of the minimum permissible height values  $H_{min 1}$  and  $H_{min 2}$  obtained for sets of bar groups aligned along and across track.

This Decision shall enter into force simultaneously with the Treaty on Open Skies. It shall remain in force during the period from entry into force of the Treaty until 31 December of the third year following the year during which entry into force takes place. The States Parties shall, within the Open Skies Consultative Commission and during the period this Decision is in force, conclude a follow-on agreement on the determination of minimum height above ground at which a video camera with real time display may be operated, which shall enter into force upon the expiration of this Decision.

Decided in Vienna, in the Open Skies Consultative Commission, on 12 October 1994, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

## DECISION NUMBER FIFTEEN TO THE TREATY ON OPEN SKIES

## METHODOLOGY FOR CALCULATING THE MINIMUM HEIGHT ABOVE GROUND LEVEL AT WHICH EACH INFRARED LINE-SCANNING DEVICE INSTALLED ON AN OBSERVATION AIRCRAFT MAY BE OPERATED DURING AN OBSERVATION FLIGHT

The Open Skies Consultative Commission, pursuant to the provisions of Appendix I to Annex D, Section III, paragraph 4 of the Treaty on Open Skies, has decided as follows:

## SECTION I. DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision:

The "resolution limit" per the Treaty on Open Skies in Article IV, paragraph 2 (C) for an infrared line-scanning device is defined as 50 cm at a radiant temperature difference of 3.0 degrees Celsius.

The term "signal recorder" means an analogue or digital data recording device capable of storing data collected by an infrared line-scanning device on magnetic tape without the use of concoding techniques, or on photographic film.

The term "infrared line-scanning device configuration" means each combination of infrared line-scanning device, filter, window, angle of deviation from vertical, signal recorder, type of photographic film or magnetic tape, and recording type and format which is to be certified. For infrared line-scanning devices with variable effective focal lengths, but with intermediate effective focal length settings, each intermediate setting shall be considered a new configuration. For infrared line-scanning devices with variable angles of deviation from the vertical, but with intermediate fixed settings of the angle of deviation, each intermediate setting shall be considered a new configuration.

The term "encoding techniques" means the use of special techniques of processing data intended for storage on magnetic media which would permit the extraction from such data of more information than could be extracted without use of such processing. Commercially available error correcting techniques commonly used to record on to and extract digital data from magnetic media and techniques designed to allow the multiplexing of data from multiple sensors or multiple colour bands on to a single recorder are not considered encoding techniques.

The term "detector element" means the smallest definable element of the detector array in an infrared line-scanning device.

The term "scene element" means the area on the ground that is projected on to a single detector element.

The term "image element" means the stored digitized signal representing a single scene element.

The term "video display" means a monitor used for the analysis of data, including any associated image processing electronics, that is capable of displaying, from data in analogue or digital format, the data collected by an infrared line-scanning device.

The term "frame store" means a digital memory that is capable of storing at least a complete image of a calibration target where each individual image element is stored at a separate memory cell.

The term "grey level" means the numerical value of an image element on an eight-bit scale between zero and 255.

The term "radiant temperature" means, for a given wavelength, the equivalent temperature of a black body radiating the same power per unit area as the given body being measured.

A "passive calibration target" is understood to be a calibration target which does not use artificial heating to ensure the given radiant temperature difference between the cold and hot bars.

An "active calibration target" is understood to be a calibration target which uses artificial heating to ensure the given radiant temperature difference between the cold and hot bars.

The term "bar group" refers to a set of adjacent bars of the same width and length but with alternating radiant temperature.

The term "bar triad" means any combination of three bars within a bar group, two bars of similar radiant temperature separated by one bar of a different radiant temperature.

The term "phase correction" means a technique to reduce scan line misalignments in the image caused by correctable time base errors in the magnetic tape recorder, correctable motion compensation errors, or other errors which are induced by the infrared linescan device.

The term "OSCC atmosphere parameters" means the parameters required to define the atmosphere which shall include at least the following measurements: air temperature (°K), pressure (mb), relative humidity (%) and visibility (km) and altitudes (km) at which the above parameters are measured.

The term "agreed atmospheric model" means a method for calculating the atmospheric transmission as a function of altitude given the OSCC atmosphere parameters for a given wavelength band (for example, the LOWTRAN 7 model is one of the agreed methods).

The term "OSCC standard atmosphere" means the input to the LOWTRAN 7 Mid-latitude Summer Model, as specified in the Annex to this Decision.

The term "H<sub>min</sub>" means the minimum height above ground level at which an infrared line-scanning device configuration installed on an observation aircraft may be operated.

## SECTION II. SPECIFICATIONS FOR CALIBRATION TARGETS

1. Calibration targets for use in measuring the ground resolution of an infrared line-scanning device configuration installed on an observation aircraft during certification or demonstration flights may be active or passive.

2. The widths and lengths of bars within a bar group shall remain constant and the length to width ratio shall be no less than 5:1. For certification flights, the calibration target shall include bar groups with bars of widths of 40, 50 and 60 cm that shall be used for analysis. For demonstration flights, the calibration target shall include at least two bar groups of different bar widths selected from 40, 50 and 60 cm.

3. Each group of bars shall consist of at least five bars alternating in radiant temperature.

4. Target radiant temperature specifications:

(A) The radiant temperature standard deviation along and/or across any bar shall be no greater than 10 per cent of the radiant temperature difference between the hot and cold bars, or 0.5 degrees Celsius, whichever is greater.

(B) The radiant temperature difference between any bars of the same nominal radiant temperature within a bar group shall be no greater than 10 per cent of the radiant temperature difference between the hot and cold bars, or 0.5 degrees Celsius, whichever is greater.

(C) The radiant temperature of the hot bars shall be no greater than 10 degrees Celsius above the cold bars.

(D) The set of bars with radiant temperatures closer to the background radiant temperature shall be no more than three degrees Celsius above or below the radiant temperature of the background on which the calibration target is deployed.

5. The calibration targets shall be deployed in a horizontal position against a background that has a minimal variation in radiant temperature.

SECTION III. CONDUCT OF A CERTIFICATION OR A DEMONSTRATION FLIGHT

1. The  $H_{min}$  of an infrared line-scanning device shall be determined for each infrared line-scanning device configuration. Any variable controls shall be set to achieve the best ground resolution for the conditions encountered in certification and demonstration flights.

2. For certification and demonstration flights using three bar groups for analysis, there shall be at least four passes over the calibration target for each selected radiant temperature difference. For demonstration flights using only two bar groups for analysis, there shall be at least three

passes over the calibration target for each selected radiant temperature difference. The height above ground of each pass shall be bounded by the following conditions:

(A) the first, or lowest height above ground pass, shall be the maximum height above ground at which all the bar groups to be analysed in the array are resolved, and

(B) the last, or highest height above ground pass, shall be the minimum height above ground at which none of the bar groups to be analysed are resolved.

The intermediate heights above ground shall be evenly spaced between the lowest and highest heights above ground. For demonstration flights, the Party supplying the aircraft may request that the lowest radiant temperature difference of the calibration target be set at not less than 3 degrees Celsius.

3. The targets shall be aligned to measure the resolution in the in-scan-direction of the infrared line-scanning device with the long axis of the bars of the targets oriented within plus or minus 20 degrees of the perpendicular to the nominal scan direction.

4. For vertically mounted infrared line-scanning devices, each image of the calibration target used in the analysis shall be collected while the centre of the bar groups is no more than plus or minus 25 per cent of the sensor's field of view away from the centre of the sensor's field of view. For obliquely mounted infrared line-scanning devices, the centre of the bar groups shall be within the third of the image closest to nadir.

5. The OSCC atmosphere parameters shall be measured at least once an hour.

6. At the time of each pass over the target array, the radiant temperature of each bar group shall be measured using a calibrated instrument or system and recorded for use in the determination of  $H_{min}$ .

(A) Measurements shall be made above the target using a radiometer which views the target bars within plus or minus 20 degrees of the vertical.

(B) During a certification flight, measurements of the radiant temperatures of all the bars shall be made for each bar group used, either by a portable radiometer, a mapping radiometer, or an imaging radiometer.

(C) For each radiant temperature difference used, and for at least one pass, for each individual bar group, the measurements to verify the requirements given in Section II, paragraph 4, sub-paragraphs (A) - (D) of this Decision shall be provided by an imaging radiometer or a mapping radiometer which provides a minimum of 10 single point measurements on each bar measured.

(D) For demonstration flights, provided that the bar groups to be used have been previously used in a certification, sub-paragraph (C) of this paragraph may be waived.

7. The maximum resolving height above ground,  $H_i$ , the height above ground of the highest pass at which the bar group is resolved, shall be determined for each bar group of width  $L_i$  and radiant temperature difference,  $\Delta T_i$ .

8. For the time of the pass at the maximum resolving height above ground H<sub>i</sub>, the radiant temperature difference at the aperture of the sensor ( $\delta t_i$ ) shall be calculated for each bar group of width L<sub>i</sub> from the measured radiant temperature difference of the target,  $\Delta T_i$ , and the transmission to the height above ground H<sub>i</sub>,  $\tau$  (H<sub>i</sub>), as computed by the agreed atmospheric model using the measured OSCC atmosphere parameters by the formula:

 $\delta t_i = \Delta T_i \tau(H_i).$ 

9. For certification flights, the steps in paragraphs 2 through 8 of this section shall be repeated at each selected radiant temperature difference until at least two measurement triads for different width bar groups  $(H_i, L_i, \delta t_i)$  are obtained. The steps in paragraphs 2 through 8 of this section shall be repeated for three different selected radiant temperature differences in the interval of 2 to 10 degrees with a separation between radiant temperatures of approximately 3 degrees until at least six measurement triads  $(H_i, L_i, \delta t_i)$  are obtained. For demonstration flights, at least two different selected radiant temperature differences shall be used and at least one measurement triad  $(H_i, L_i, \delta t_i)$  shall be obtained at each selected radiant temperature difference.

10. For infrared line-scanning devices equipped with a variable angle of deviation from vertical, the  $H_{min}$  shall, as a minimum, be determined with the angle of deviation set at the minimum from vertical. When determining  $H_{min}$  only for the minimum angle from vertical the resulting value of  $H_{min}$  is accepted as mandatory for all other angles of deviation from vertical settings.

#### SECTION IV. ANALYSIS OF DATA COLLECTED DURING A CERTIFICATION OR DEMONSTRATION FLIGHT

1. The ground resolution of an infrared line-scanning device shall be determined by visual analysis. A bar group is resolved if, for at least one bar triad within the bar group, there is a visual perception of a difference between the grey level on the video display or the density of the photographic film between the middle bar and the outside bars over the entire length of the bar triad.

2. At least 10 experienced observers, representing the States Parties taking part in the certification, shall examine the images of the calibration target. Unless otherwise agreed, at least 10 experienced observers, representing the States Parties taking part in the demonstration flight, shall examine the images of the calibration target.

3. The maximum height above ground at which a bar group is resolved is the maximum height above ground for which at least 80 per cent of all observers resolve the bar group.

4.

In the case of data collected on photographic film:

(A) Prior to the analysis of data collected during a certification or demonstration flight, the film processing equipment shall be calibrated according to the procedures specified in Annex K, Section II to the Treaty on Open Skies.

(B) The height above ground for each set of passes at which each bar group of the calibration target was resolved shall be determined from a visual analysis of the original film.

5. In the case of data collected on magnetic tape:

(A) Prior to the analysis of data collected during a certification or demonstration flight, the image processing system shall be calibrated in accordance with the procedures specified in Decision Number 16 to the Treaty on Open Skies.

(B) The ground resolution of an infrared line-scanning device shall be determined by visual analysis of the digitized images of the calibration target recorded on magnetic tape. Except as required in sub-paragraph (3) of this sub-paragraph, the analysis shall be performed on the unprocessed digital data.

(1) The image of the calibration target shall be displayed on a video display, which can display at least 256 shades of grey and which has a screen size of at least 20 centimetres measured diagonally.

(2) The brightness, contrast and magnification by pixel replication of the video display may be adjusted at the discretion of the observer.

(3) Each image shall be phase corrected, if necessary.

6. Each image selected for analysis during certification or demonstration flights together with any supporting data available such as meteorological, target radiant temperature measurements, target information, etc. shall be made available to all other States Parties. As computer assisted methods are developed, the State Party proposing such a method shall provide a written description of the theory, algorithms, and procedures used within the computer-assisted method, as well as procedures for its calibration to all other States Parties. This description shall meet the requirements set forth in Annex C to Decision Number 16 to the Treaty on Open Skies and shall become an appendix to the aforementioned Annex C. States Parties carrying out certification or demonstration flights may choose to provide the additional information required by such proposed methods.

## SECTION V. PROCEDURE FOR CALCULATING THE MINIMUM HEIGHT ABOVE GROUND LEVEL AT WHICH AN INFRARED LINE-SCANNING DEVICE MAY BE OPERATED DURING AN OBSERVATION FLIGHT

1. The certified minimum height above ground level at which an infrared line-scanning device may be operated during an observation flight shall be calculated using the formula:

 $H_{\min} = \frac{1}{n} \sum_{i=1,n} H_i \frac{L_a}{L_i} \left[ \frac{\Delta T_a \tau_a(H_i)}{\delta t_i} \right]^m$ 

where

H<sub>min</sub> is the minimum height above ground level, in metres;

n is the total number of measurement triads  $(H_i, L_i, \delta t_i)$ ;

- L<sub>i</sub> is the width of a single bar in the bar group of a particular measurement triad, as described in Section III, paragraph 9 of this Decision;
- H<sub>i</sub> is the maximum height above ground of the aircraft in metres, at which the bar group of width L<sub>i</sub> was resolved as described in Section III, paragraph 7 of this Decision:
- δt<sub>i</sub> is the value of the radiant temperature difference between the hot and cold bars in the calibration target corrected for the atmospheric transmission as described in Section III, paragraph 8 of this Decision;
- L<sub>a</sub> is the agreed ground resolution of 50 centimetres;
- $\Delta T_a$  is the agreed value of radiant temperature difference to be used in the calculation of minimum height above ground, of 3.0 degrees Celsius;
- $\tau_a(H)$  is the atmospheric transmission as a function of altitude using the agreed OSCC standard atmosphere;
- m is the exponent as defined in paragraph 2 of this section.

2. The value of m shall be in the interval from zero to one and shall be calculated from the measurement triads ( $H_i$ ,  $L_i$ ,  $\delta t_i$ ) by performing a regression analysis based on a least squares approach.

3. For infrared line-scanning devices that can record data on photographic film and magnetic tape simultaneously, a separate H<sub>min</sub> shall be determined for each method of recording, and the higher H<sub>min</sub> value shall be used during observation flights if simultaneous recording is employed.

4. A value of 3 degrees Celsius for  $\Delta T_a$  has been agreed for this Decision with an understanding that States Parties will evaluate data collected during the duration of this Decision for the determination of  $H_{min}$  in a subsequent Decision which will select a value of  $\Delta T_a$  within the range of 1 to 10 degrees Celsius.

This Decision shall enter into force simultaneously with the Treaty on Open Skies. It shall remain in force during the period from entry into force of the Treaty until 31 December of the third year following the year during which entry into force takes place. The States Parties shall, within the Open Skies Consultative Commission and during the period this Decision is in force, conclude a follow-on agreement on the determination of minimum height above ground at which an infrared line-scanning device may be operated, which shall enter into force upon the expiration of this Decision.

Decided in Vienna, in the Open Skies Consultative Commission, on 12 October 1994, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

## ANNEX TO DECISION NUMBER 15 TO THE TREATY ON OPEN SKIES

The input to the Mid-latitude Summer Model for the LOWTRAN 7 computer program is provided in the following table.

LOWTRAN 7 input variable name	Variable value
MODEL	2
ITYPE	2
IEMSCT	0
IMULT	0
M1 .	0
M2	0
M3	0
M4	0
M5	0
M6	0
MDEF	0
IM	0
NOPRT	user choice
TBOUND	0.0
SALB	1.0
IHAZE	1
ISEASN	1
IVULCN	2
ICSTL	0
ICLD	0
IVSA	0
VIS	8.0
WSS	0.0
RAINRT	0.0
GRNALT	Altitude of calibration target (in km)
HI	Altitude of sensor (in km)
H2	Altitude of calibration target (in km)
ANGLE	0.0 or 180.0
RANGE	H1-H2 (using variables above)
ВЕТА	0.0
RO	0.0
LEN	0.0
V1	Initial frequency of sensor (see LOWTRAN)
V2	Final frequency of sensor (see LOWTRAN)
DV	10.0

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TABLE: LOWTRAN 7 Input Values

#### DECISION NUMBER SIXTEEN TO THE TREATY ON OPEN SKIES

## CALIBRATION OF GROUND PROCESSING EQUIPMENT USED FOR THE DETERMINATION OF H<sub>MIN</sub> FROM VIDEO CAMERAS OR INFRARED LINE-SCANNING DEVICES AND FOR CALIBRATING GROUND-BASED TAPE REPRODUCERS USED TO REPLAY DATA FROM SAR SENSORS

The Open Skies Consultative Commission, pursuant to the provisions of Decision 14 and Decision 15 to the Treaty on Open Skies (hereinafter referred to as Decision 14 and Decision 15), has decided as follows:

This calibration procedure shall be followed to calibrate the ground equipment used to process and analyse data collected as a part of certification or demonstration flights. The calibration shall be done prior to these analyses.

Annex A of this Decision provides a description of the Test Patterns to be used in calibration. Annex B of this Decision provides a description of the tests to be performed when an analogue framing video camera is to be certified using a ground video reproducer that is a different model from the airborne video recorder. Annex C of this Decision provides a description of computer-assisted techniques which may be used pursuant to Decisions 14 and 15. These Annexes constitute an integral part of this Decision.

## SECTION I. DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision.

The term "line imaging device" means a device containing one line of detector elements for each wavelength band to be recorded.

The term "frame imaging device" means a device containing either an electronic imaging tube or an array of detector elements for each wavelength band recorded which simultaneously form multiple lines of the image to be recorded.

The term "video camera" means a passive black and white or colour, line or frame imaging device, including the conversion of the image into electrical signals operating at optical wavelengths between 0.3 and 1.1 micrometres.

The term "image element" means the digitized signal representing the detected energy of a scene element within each wavelength band to which a video camera is sensitive which is stored in a frame store.

The term "scene element" means, in the case of a black and white video camera, the area on the ground that is projected on to a single detector element, and in the case of a colour video camera, means the area on the ground projected on to the detector elements used to provide the different wavelength band data associated with that area on the ground.

The term "image" means an array of image elements corresponding to an equally numbered array of scene elements which cover a contiguous area on the ground.

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The term "grey level" means the numerical value of an image element on an eight bit scale between zero and 255.

The term "video densitometer" means a device or technique which is able to extract the numerical value of the grey level of individual image elements from a frame store.

The term "video display" means a monitor used for analysis of data pursuant to this Decision, including any associated image processing electronics, that is capable of displaying an image.

The term "image processing system" means all ground-based equipment and software used to perform the visual or computer-assisted analysis of the images and determination of ground resolution and  $H_{min}$ .

. The term "frame store" means a digital imemory that is capable of storing at least a complete image of a calibration target where each individual image element is stored at a separate memory cell.

The term "scan converter" means a device which has the capability to selectively extract a frame or sub-frame of imagery from data produced by an infrared line scan device or a lineimaging device.

The term "scan line" means a row of image or scene elements that are displayed or imaged sequentially.

The term "line scan formatter" means a device which has the capability to transfer a two-dimensional digital matrix that is stored in the computer into a series of scan lines that corresponds to the output of an infrared line scan device or a line imaging device or synthetic aperture radar, for the purpose of recording such data in line scan format.

The term "frame grabber" means a device which has the capability to convert the output of an analogue video frame imaging device or analogue scan converter into an eight bit digital image for transfer into the computer and image processing system memory.

The term "frame formatter" means a device which has the capability to output data contained in a frame store to an analogue video recorder, in a format that simulates the output of a frame imaging device.

The term "video recorder" means a data recording device capable of storing data collected by a video camera on magnetic tape without the use of encoding techniques. For digital recorders, data must be recorded at eight bits per wavelength band to which the video camera is sensitive.

The term "video tape reproducer" means a device that plays back the information recorded on a video tape.

The term "grey level difference function" means a software-based procedure that computes, summarizes and displays the differences in grey level that occur for each corresponding pair of image elements in two identically-sized images.

The term "linearity of amplitude characteristics" means the measure of the ability of a video tape reproducer to reproduce grey scale values in Test Patterns.

The term "overshoot/undershoot characteristics" means the measure of the errors produced by a video tape reproducer while reproducing signals with large changes in grey scale values between adjacent image elements in Test Patterns.

The term "bar" means, in the case of a digital Test Pattern, a rectangular array of image elements, all of the same grey scale value.

The term "bar width" or "width" means, in the case of a digital Test Pattern, the number of image elements across the bar in the horizontal direction (number of columns in the bar).

The term "bar height" or "height" means, in the case of a digital Test Pattern, the number of image elements along the bar in the vertical direction (number of rows in the bar).

The term "bar pair" means an adjoining pair of bars of the same width and height, but with different grey scale values.

The term "light bar" means the bar in a bar pair with the larger grey scale value.

The term "dark bar" means the bar in a bar pair with the smaller grey scale value.

The term "bar group" means a sequence of adjoining bars of the same width and height whose grey scale values alternate between a single light value and a single dark value. A bar group may begin with either a light bar or a dark bar.

The term "spatial frequency", designated by f, means a frequency measure of a group of bars of bar width  $\Delta$  and is calculated by:

## $f = 1/(2\Delta)$ .

The term "bar group amplitude" means a measure of the grey level difference between the light and dark bars of a bar group.

The term "image amplitude function", designated A(f), means the relationship of the bar group amplitude to the spatial frequency corresponding to those bars.

The term "phase correction" means a technique to reduce scan line misalignments in the image caused by correctable time base errors in the video recorder, correctable motion compensation errors, or other errors which are camera induced.

# SECTION II. CALIBRATION PROCEDURE FOR VALIDATING THE SOFTWARE AND COMPUTER SYSTEM

The following procedure shall be performed in order to verify that the software and basic image processing computer system are acceptable for performing the tasks required in Section III and for use in analysing data from certification and demonstration flights.

1. Tests of image processing system and image quality acceptability functions

(A) Frame store and cursor function/video densitometer capability

The six Test Patterns described in Annex A of this Decision and illustrated in Figure 1 of Annex A shall be transferred into the ground processing computer system and presented for viewing. The video display and associated frame store shall be capable of displaying all Test Patterns simultaneously in a single image.

(1) A visual analysis of the displayed Test Patterns shall be performed to ensure conformity with the visual characteristics shown in Figure 1 of Annex A of this Decision. The video display shall be viewed to determine that no readily apparent distortion appears in the image and that all patterns can be simultaneously observed.

(2) The cursor shall be positioned over the four corners of the video display containing the Test Patterns and the image co-ordinates and grey scale value at each location shall be recorded. The cursor locations and grey scale values of the four corners, relative to a co-ordinate system which defines the upper left corner of Test Pattern 1 as (0,0), shall be (0,0) and 20 for the upper left corner; (511,0) and 230 for the upper right corner; (0,479) and 127 for the lower left corner; and (511,479) and 127 for the lower right corner. The cursor shall also be positioned at (25,0). The grey scale value shall be 20. The zoom function of the image processing system may be employed to assist in this task, but shall not change the image co-ordinates or grey level values.

(B) Protractor function

The image processing software shall be capable of correctly calculating the angle between the rotated rectangle in Test Pattern 5 and any scan line in the image. The angle calculated shall be 5 degrees  $\pm 1.0$  degree.

## (C) Aspect ratio

The aspect ratio shall be determined for the rotated rectangle in Test Pattern 5 by measuring its longer dimension and its shorter dimension in units of pixels. The result of dividing the longer dimension by the shorter dimension shall be  $17.7 \pm 10\%$ .

2. Tests of software used to determine the suitability of digital tape reproducers

The ability of the image processing software to correctly determine the differences between two separate images shall be verified by first loading the entire Test Pattern image into the image processing software and then storing this image into a separate image file outside of the frame store used by the image processing system. This new image file shall then be loaded back into the image processing system and, using the software's grey level difference function, compared to the originally loaded image. Both a video display of the difference and the ability to quantify the magnitude of any grey level changes shall be provided. A grey level difference of zero for each image element shall be verified.

Tests of computer-assisted processing techniques

Any computer-assisted techniques used pursuant to Decisions 14 and 15 shall be described in appendices attached to Annex C to this Decision. These appendices shall be provided by the State Party which sponsors the computer-assisted technique and shall include detailed procedures for validating, in accordance with the procedures of this paragraph, the computer-assisted calculations. Annex C describes the computer-assisted techniques which may be used and is included as part of this Decision.

(A) Validation of image amplitude functions calculations

Test Pattern 4 shall be used to confirm the ability of the software to calculate the image amplitude function A(f). The A(f) shall be calculated by determining the amplitude of each of the bar groups in Test Pattern 4, as follows:

(1) The amplitude a(i) shall be calculated for each of the i = 1, ..., 36 bar pairs of Test Pattern 4 according to the formula:

a(i) = 0.5 (Amax<sub>4</sub>(i) - Amin<sub>4</sub>(i)) where

Amax<sub>4</sub>(i) is the maximum calculated grey scale value and  $Amin_4(i)$  is the minimum calculated grey scale value of the i<sup>th</sup> bar pair of Test Pattern 4.

(2) The image amplitude function  $A(f_j)$  shall be defined for each of the j = 1, ..., 12 bar groups of Test Pattern 4 as the average of the amplitudes of the three bar pairs belonging to the  $j^{th}$  bar group.

(3) The calculated values of these functions shall lie within 1% of the correct values, provided in Table 2 of Annex A, for every bar group.

(B) Last resolved bar group validation

The ability of the algorithm and software to correctly identify the last resolved bar group shall be validated.

### (C) H<sub>min</sub> calculation validation

The ability of the software to correctly apply the formulas for  $H_{inin}$  for video cameras and infrared line-scanning devices, as specified in the Decisions 14 and 15, shall be validated.

#### (D) Phase correction validation

The ability of the phase correction algorithm and software to correct the known phase error in Test Pattern 6 of Annex A to this Decision shall be verified. This shall be done by first applying this algorithm on Test Pattern 6. The corrected pattern shall then be analysed by generating an Image Amplitude Function A(f) plot of the corrected pattern, as described in Section II, paragraph 3 (A) of this Decision. The A(f) plot values at bar group numbers 3 and 13 shall be within 10% of the amplitude values stated in Annex A of this Decision for Test Pattern 6 for the pattern before the phase errors were introduced.

## SECTION III. CALIBRATION PROCEDURES FOR SYSTEMS WHICH EMPLOY GROUND-BASED VIDEO TAPE REPRODUCERS

The specific procedure to be used shall depend on the type of output from the airborne video or infrared sensor system. Figures 1 through 3 of this Decision provide the functional test diagrams for the four generic types of sensor systems: digital framing, digital lineimaging/scanning, analogue framing, and analogue line-imaging/scanning converted to digital. Paragraphs 1 through 3 of this section provide the details for calibrating the ground-based equipment associated with transferring the data from these four types of systems. Procedures for testing tape reproducers used to replay SAR data are also covered in the section on digital lineimaging. Only the tests directly related to validating the performance of the tape reproducer need to be performed for the SAR. These three paragraphs cover the testing of the tape reproducers and associated input/output equipment used to transfer the image from the tape reproducer into the image processing system used for determining the last resolved bar group and calculating H<sub>min</sub>. Paragraphs 1 and 2 detail the procedures for digital framing and digital lineimaging/scanning systems respectively, while paragraph 3 deals with analogue framing systems. Data from analogue line-imaging/scanning devices shall be converted to digital and, therefore, the procedures of paragraph 2 shall apply. For sensors that produce output in more than one spectral band (such as a colour imaging device), the appropriate procedure shall be separately applied to the output of each spectral band of the sensor. Any cables or special interface equipment to be used during certification or demonstration flights shall be the same as those used during this calibration procedure. In all of the tests of this section, the data shall be recorded on to magnetic tape of the same type to be used in the certification or demonstration flight, and at the maximum packing density to be used in an observation flight. If multiple tape types are to be used, each shall be tested separately. Prior to proceeding with the tests described in paragraphs 1 through 3 of this section, the State Party responsible for performing the tests shall, by pre-testing, equipment selection, and/or care in maintaining configuration control be responsible for ensuring. that:

(A) The output of the computer shall be capable of simulating the sensor output that is input to the airborne video recorder, to the degree necessary to ensure that all functions used to analyse data from a certification or demonstration flight are present in the equipment and software to be calibrated. This may be done either directly or indirectly, via a device or technique such as a frame grabber, line scan formatter or frame formatter. The output of the computer need not simulate the maximum output data rate of the sensor.

(B) In the case where an analogue ground-based video tape reproducer is to be used to replay information collected and recorded on an analogue airborne video recorder, the ground-based video tape reproducer shall not introduce appreciable degradation of the data recorded by the airborne video recorder. This shall be done by ensuring that the manufacturer's specifications for the quality of replay of such data are consistent with the airborne video recorder's recording capabilities. Further, they shall ensure that the ground-based video tape reproducer is properly adjusted such that the manufacturer's specifications for replay quality are achieved.

1. Calibration procedure for systems which use digital video tape reproducers for playback from digital framing type sensors - see Figure 1.

(A) The Test Patterns described in Annex A of this Decision shall be loaded into the computer system, transferred into the ground digital video recorder/reproducer and recorded on the video tape. If the ground-based digital video tape reproducer does not have a record capability, this procedure shall be performed on a video recorder of the same type used on the observation aircraft.

(B) The image of the Test Patterns as generated on the tape in Step A of this paragraph shall then be replayed from the ground-based digital video tape reproducer back into the computer. The grey level difference function shall be used to compare this image to the original. The video recorder/reproducer and associated input/output equipment shall be deemed acceptable if no more than three non-zero differences/errors occur between the two images.

2. Calibration procedure for systems which use digital tape reproducers for playback from digital line-imaging/scanning or analogue line-imaging/scanning converted to digital type sensors - see Figure 2. These types include video line imaging devices, infrared line scanning devices and synthetic aperture radar sensors.

(A) The same procedure as described in Section III, paragraph 1 (A) of this Decision shall be used to transfer the Test Patterns to the ground digital video tape reproducer. The line scan formatter shall be capable of positioning the Test Pattern lines (480 lines of 512 image elements each) at any location within the total number of lines and image elements per line of the format used by the line-imaging, line-scanning or SAR sensor. This shall be verified by using the line-scan formatter to position the Test Patterns at three different locations and then demonstrating the ability to extract the complete Test

Patterns for display in the image processing system by means of the system's scan converter.

(B) Using one of the images of the Test Patterns extracted via the scan converter as described in Section III, paragraph 2 (A) of this Decision, the same procedure as described in Section III, paragraph 1 (B) of this Decision shall be performed. It shall be verified that no more than three non-zero differences occur between the two images. In the case that obvious equipment malfunctions prevent meeting this criterion, the State Party owning the equipment shall be allowed to repeat this test after adjustment of the equipment and until the criterion is satisfied.

3. Calibration procedure for systems which use analogue video tape reproducers for playback from analogue framing type sensors - see Figure 3.

(A) Image acquisition

(1) Transfer the Calibration Test Patterns shown in Figure 1, Annex A of this Decision via the frame formatter into the airborne video recorder and record onto the magnetic media for at least 10 seconds.

(2) Play back the recorded image of the Calibration Test Patterns from the airborne video recorder used in step (1) of this sub-paragraph.

(3) With the frame grabber, acquire images of the recorded Calibration Test Patterns from the airborne video recorder, and save them in files for later processing.

(a) If the ground video tape reproducer is of the same model as the airborne video recorder, one image shall be acquired.

(b) If the ground video tape reproducer is of a different model from the airborne video recorder, two images shall be acquired.

(4) If the ground video tape reproducer is of a different model from the airborne video recorder:

(a) Replace the airborne video recorder with the ground video tape reproducer, keeping all other components the same.

(b) Move the magnetic media created in step (1) of this sub-paragraph from the airborne video recorder to the ground video tape reproducer and play back the recorded image of the Calibration Test Patterns using the ground video tape reproducer.

(c) With the same frame grabber used in step (3) of this subparagraph, acquire two images of the recorded Calibration Test Patterns from the ground video tape reproducer, and save them in files for later processing.

## (B) Sampling tests

Using any one of the images acquired in sub-paragraph (A) of this paragraph, the sampling capability of the frame grabber shall be checked to ensure that sampling of the played-back Test Pattern image occurs at an acceptable rate. The sampling rate for the played-back image of the Test Pattern shall be deemed to be acceptable provided that there are at least as many image elements across the displayed sensor frame as there are in each row of the Test Pattern. If sampling produces more image elements per row than exist in each row of the Test Pattern then, prior to performing tests in sub-paragraph (C) of this paragraph, if required, the images obtained in sub-paragraphs (A) (3) or (A) (4) of this paragraph shall be resampled to result in new stored images of the Test Pattern with each line having exactly one image element per Test Pattern column (512 total per line).

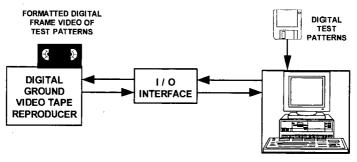
(C) Ground video tape reproducer tests

If the ground video tape reproducer to be used is of a different model from the airborne video recorder, the ground video tape reproducer shall pass all tests specified in Annex B to this Decision before it may be used in the certification or demonstration flight data analysis. The original tape containing the imagery collected from these tests shall, upon request, be made available to other States Parties for further testing and verification following the certification or demonstration flight. This shall not delay the signing of the certification report or delay an observation flight.

\* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

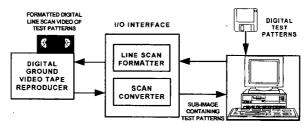
Decided in Vienna, in the Open Skies Consultative Commission, on 12 October 1994, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.



COMPUTER SYSTEM

# FIGURE 1 - DIGITAL FRAMING TYPE SENSORS

CALIBRATION BLOCK DIAGRAM FOR GROUND PROCESSING EQUIPMENT USED WITH DIGITAL FRAME IMAGING DEVICES

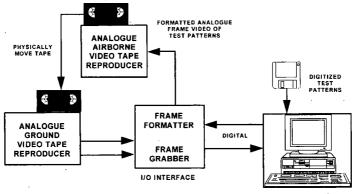


COMPUTER SYSTEM

FIGURE 2 DIGITAL LINE-IMAGING/SCANNING OR ANALOGUE LINE-IMAGING/SCANNING CONVERTED TO DIGITAL TYPE SENSORS

CALIBRATION BLOCK DIAGRAM FOR GROUND PROCESSING EQUIPMENT USED WITH LINE IMAGING DEVICES, INFRARED LINE SCANNING DEVICES, OR SYNTHETIC APERTURE RADARS

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# FIGURE 3 - ANALOGUE FRAMING TYPE SENSORS

CALIBRATION BLOCK DIAGRAM FOR GROUND PROCESSING EQUIPMENT USED WITH ANALOGUE FRAME IMAGING DEVICES

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#### TEST PATTERNS USED IN CALIBRATION

The test patterns shall be obtained by the States Parties on removable magnetic disc from the OSCC, or shall be created based on the descriptions below.

Figure 1 of this Annex illustrates the six test patterns that shall be used in the calibration process. The overall image size shall be 480 image elements high by 512 image elements wide. Test Patterns 1, 2, 3, 5 and 6 shall have as a lower border a rectangular region 5 image elements high and 512 image elements wide with grey scale value 127. Test Pattern 4 shall have, as its lower border, a rectangular region 6 image elements high and 512 image elements wide with grey scale value 127. Each test pattern shall be referred to by its own coordinate system, beginning at x = 0, y = 0 in the upper left comer.

#### 1. Pattern 1

Pattern 1 shall be a rectangular region 75 image elements high by 512 image elements wide, consisting of 15 adjoining bar groups. Each bar group shall consist of two bar pairs. All of the light bars shall have grey scale value 230 and all of the dark bars shall have grey scale value 2.0. All bars in the pattern shall have the same height as the region. The width of the bars in each successive bar group, from the first to the fifteenth shall be: 21, 16, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2 and 1. The first bar shall be a dark bar whose uppermost left corner shall be designated as reference position at x = 0, y = 0.

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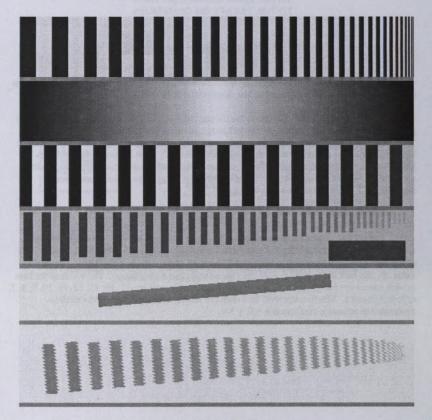


FIGURE 1 DIGITAL TEST PATTERNS USED IN CALIBRATION

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# 2. Pattern 2

Pattern 2 shall consist of 512 adjoining bars, all of height 75 image elements, and all of width 1 image element. The grey scale values of the first 256 bars shall begin with 0 for the first bar and shall increase sequentially by 1 to 255 for the 256<sup>th</sup> bar. The grey scale values of the remaining 256 bars shall begin with 255 for the 257<sup>th</sup> bar and shall decrease sequentially by 1 to 0 for the 512<sup>th</sup> bar.

#### 3. Pattern 3

Pattern 3 shall consist of 16 adjoining bar pairs of height 75 image elements and width 16 image elements per bar. Table 1 specifies the dark and light bar grey scale values for each bar pair, beginning with a dark bar at x = 0, y = 0.

Bar group number	Dark bar grey scale value	Light bar grey scale value
1	0	255
2	2	253
3	4	· 251
4	6	249
5	8	247
6	10	245
7	12	243
8	14	. 241
9	18	237
10	22	233
11	26	229
12	30	225
13	34 .	221
14	38	217
15	42	213
16	46	209

# TABLE 1 BAR GREY SCALE VALUES FOR TEST PATTERN 3

#### 4. Pattern 4

Pattern 4 shall be a rectangular region 65 image elements high and 512 image elements wide and shall have two components. The first component shall consist of a row of 12 adjoining bar groups, with all bar groups having the same starting (smallest) y = 2 coordinate. Each bar group shall consist of three bar pairs. All bars shall have a 5:1 aspect (height to width) ratio.

Starting with a dark bar, the bars in a bar group shall alternate from dark to light. The first bar group shall begin at x = 5, and shall have width 12. Table 2 specifies the width, height and dark and light bar grey scale values for each bar group. The bar group amplitude values are derived from the grey scale values of the light and dark bars in each group and are provided in Table 2.

The second component of Pattern 4 shall be a noise region, that is a rectangular region 50 image elements high and 100 image elements wide whose upper left corner shall be at x = 399, y = 34. The image element grey scale values in the noise region shall be randomly distributed. The distribution shall be gaussian, with mean 64, variance 1.2 and two-dimensional correlation radius of 2.5.

Bar group number	Bar width	Bar height	Dark bar grey scale value	Light bar grey scale value	Bar group amplitude
1	12	60	60	200	70.0
2	11	55	67	200	66.5
3	10	50	74	200	63.0
4	8	40	82	200	59.0
5	8	40	<u>91</u>	200	54.5
6	7	35	101	200	49.5
7	6	30	112	200	44.0
8	5	25	125	200	37.5
9	5	25	138	200	31.0
10	4	20	153	200	23.5
11	4	20	170	200	15.0
12	3	15	189	200	5.5

All image elements in Pattern 4 not otherwise assigned an grey scale value shall be assigned a background grey scale value of 200.

# TABLE 2 BAR CHARACTERISTICS FOR TEST PATTERN 4

### 5. Pattern 5

Pattern 5 shall be a rectangular region 64 image elements high and 512 image elements wide with one component, which shall be an area of dark image elements (grey scale value 120) that had been a rectangle prior to being rotated. The area shall be contained within and superimposed on a background of light image elements (grey scale value 240). The location of the area shall be defined by the corner coordinates, beginning with the upper left and proceeding counterclockwise:

 $x_1 = 103, y_1 = 31; x_2 = 104, y_2 = 46; x_3 = 403, y_3 = 23; and x_4 = 402, y_4 = 7.$ 

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#### 6. Pattern 6

Pattern 6 shall be a rectangular region 95 image elements high by 512 image elements wide. Within the region shall be 15 adjoining bar groups, each consisting of two bar pairs, starting with a dark bar. Characteristics of the bar groups, prior to bar group rotation and pattern shifting, shall be as specified below and listed in Table 3.

The width of the bars in successive bar groups shall decrease, in decrements of one image element, beginning with 15 image elements for the first (largest) bar group to one image element for the narrowest bar group. The height of the bar groups shall decrease, in three line decrements, from 60 horizontal lines for the largest group to 18 horizontal lines for the smallest. The first bar shall be a dark bar with upper left coordinates at x = 32, y = 24. All bar groups shall have their lower edge at y = 83, prior to rotation of the bar groups. The grey scale values for the dark bars in successive bar groups shall increase, in increments of five, from 130 for the first group to 200 for the fifteenth group. The light bars in all groups shall be at a constant grey scale value of 240.

Bar group number	Bar width	Bar group height	Dark bar grey scale value	Light bar grey scale value	Bar group amplitudes
1	15	60	130	240	55
2	14	57	135	240	52.5
3	13	54	140	240	50
. 4	12	51	145	240	47.5
5	- 11	48	150	240	45
6	10	45	155	240	42.5
7	9	42 .	160	240	40
8	8	39	165	240	37.5
9	7	36	170	240	-35
10	6	33	175	240	32.5
11	5	30	180	240	30
12	4	27	185	240	27.5
13	3	24	190	240	25
14	2	21	195	240	22.5
15	1	18	200	240	20

The entire test pattern shall be rotated five degrees anticlockwise using x = 32, y = 83 as the center of rotation. All image elements in Pattern 6 not otherwise assigned a grey scale value shall be assigned a grey scale value of 240.

TABLE 3<sup>+</sup> BAR CHARACTERISTICS FOR TEST PATTERN 6

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After rotation, test pattern 6 shall be adjusted to simulate phase errors as follows. Rows 1, 5, 9, 13, ...4k+1 ...etc. shall remain unshifted. Rows 2, 6, 10, 14, ...4k+2 ...etc. shall be shifted one image element to the right. Rows 3, 7, 11, 15, ...4k+3 ...etc. shall be shifted two image elements to the right, and rows 4, 8, 12, 16, ...4k ...etc. shall be shifted three image elements to the right. All image elements in Pattern 6 not assigned an grey scale value by this process shall be assigned a grey scale value of 240.

### ANNEX B TO DECISION NUMBER SIXTEEN TO THE TREATY ON OPEN SKIES

# PROCEDURES FOR CALIBRATING GROUND-BASED TAPE REPRODUCERS WHICH ARE USED TO REPLAY DATA FROM AN ANALOGUE VIDEO FRAMING CAMERA AND ARE OF A DIFFERENT MODEL FROM THE AIRBORNE RECORDER USED WITH THE CAMERA

1. Analysis of spatial frequency characteristics

The purpose of this test is to measure the frequency content of the image that results from playing the recording made on the airbome recorder on the ground video tape reproducer and to compare the results with those achieved by playing this same tape on the airbome recorder. The image amplitude function, A(f), of Test Pattern 1 in the captured video image shall be produced and the frequencies at which the amplitude falls below 50% (3 dB) and 10% (10 dB) of their peak values shall be recorded. In obtaining these results, the following six steps shall be completed.

(A) Using the video densitometer, no less than five adjacent profile cuts across Test Pattern 1 shall be made for each of the two images obtained in Section III. paragraph 3, sub-paragraph (A) (3) of Decision 16 to the Treaty on Open Skies (hereinafter referred to as Decision 16). These profiles shall be obtained from near the centre of each pattern and shall be along the scan lines. Each series of profiles shall be stored in a separate file for later use. The file names used for each series of profile cuts shall be recorded together with names of the image files from which the profiles were made.

(B) The average maximum value  $\overline{A}max(i)$  and the average minimum value  $\overline{A}min(i)$ shall be calculated for each of the i = 1, ..., 30 bar pairs of Test Pattern 1 as follows:  $\overline{A}max(i)$  is the average (arithmetic mean) of the maximum grey scale values in the i<sup>th</sup> bar pair and  $\overline{A}min(i)$  is the average of the minimum grey scale values in the i<sup>th</sup> bar pair, where the average is taken over all of the profiles obtained in sub-paragraph (A) above.

(C) The amplitude a(i) shall be calculated for each of the i = 1, ..., 30 bar pairs of Test Pattern 1 according to the formula:

$$a(i) = \frac{\overline{A} \max(i) - \overline{A} \min(i)}{2}$$

where Amax(i) and Amin(i) are defined in sub-paragraph (B) above.

The image amplitude function  $A(f_j)$  shall be defined for each of the j = 1, ..., 15 bar groups of Test Pattern 1 as the average of the amplitudes of the two bar pairs belonging to the j<sup>th</sup> bar group.

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(D) The steps in sub-paragraphs (A) through (C) above shall be repeated using the two images obtained in Section III, paragraph 3, sub-paragraph (A) (4) of Decision 16.

(E) Graphs shall be plotted for the airborne recorder's image amplitude function. The bar groups where the airborne recorder's image amplitude function first falls below 50% (-3 dB) and 10% (-10 dB) of their peak values shall be recorded.

(F) Graphs shall then be plotted for the ground reproducer's image amplitude function. The bar groups where the ground reproducer's image amplitude function first falls below 50% (-3 dB) and 10% (-10 dB) of their peak values shall be recorded. For the ground reproducer to be deemed acceptable, the bar groups at which the 50% and 10% amplitudes occur shall be of the same width or narrower width (better frequency response) than the corresponding bar groups recorded as the baseline in sub-paragraph (E) above.

2. Analysis of linearity of amplitude characteristics

Linearity characteristics shall be quantified by the mean square deviation and maximum absolute deviation obtained from the differences between the reproduced Test Pattern and the input Test Pattern, using Test Pattern 2 from Annex A of Decision 16 as the input. In obtaining these results, the following five steps shall be completed.

(A) Using the video densitometer, no less than five adjacent profile cuts across Test Pattern 2 of Annex A to Decision 16 shall be made for each of the two images obtained in Section III, paragraph 3, sub-paragraph (A) (3) of Decision 16. These profiles shall be obtained from near the centre of each pattern. Each series of profiles shall be stored in a separate file for later use. The file names used for each series of profiles shall be recorded together with names of the image files from which the profiles were made.

(B) The average airborne recorder value  $\overline{A}_2(i)$  shall be calculated for each of the i = 1, ..., 512 bars of Test Pattern 2 of Annex A to Decision 16 as the average of the grey scale values in the  $i^{th}$  bar, where the average is taken over all of the profiles obtained in sub-paragraph (A) of this paragraph.

(C) The procedure given in sub-paragraph (A) of this paragraph shall be repeated using the two images obtained in Section III, paragraph 3, sub-paragraph (A) (4) of Decision 16.

(D) The average ground reproducer value  $\overline{G}_2(i)$  shall be calculated for each of the i = 1, ..., 512 bars of Test Pattern 2 of Annex A to Decision 16 as the average of the grey scale values in the  $i^{th}$  bar, where the average is taken over all of the profiles obtained in sub-paragraph (C) of this paragraph.

(E) Using the ideal values (*I*) for Test Pattern 2 of Annex A to Decision 16,  $(I_2(n) = n - 1, \text{ for } n = 1, ..., 256, \text{ and } I_2(n) = 512 - n, \text{ for } n = 257, ..., 512)$ , the mean square deviations  $S_2(I,G)$  and  $S_2(I,A)$  and the absolute maximum deviations  $M_2(I,G)$  and

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 $M_2(I,A)$ , of the data obtained in sub-paragraphs (B) and (D) of this paragraph from the ideal shall be obtained as follows:

$$S_{2}(I, A) = \underset{d \to 3.3}{\operatorname{Min}} \frac{1}{512} \sum_{n=1}^{512} (I_{2}(n+d) - \overline{A}_{2}(n))^{2},$$

$$S_{2}(I, G) = \underset{d \to 3.3}{\operatorname{Min}} \frac{1}{512} \sum_{n=1}^{512} (I_{2}(n+d) - \overline{G}_{2}(n))^{2},$$

$$M_{2}(I, A) = \underset{d \to 3.3}{\operatorname{Min}} \underset{n=1.512}{\operatorname{Max}} |I_{2}(n+d) - \overline{A}_{2}(n)|,$$

$$M_{2}(I, G) = \underset{d \to 3.3}{\operatorname{Min}} \underset{n=1.512}{\operatorname{Max}} |I_{2}(n+d) - \overline{G}_{2}(n)|,$$

where  $I_2(n) = 0$ , for n < 1, and  $I_2(n) = 255$ , for n >512. (The process of minimizing over a set of offsets "d" in the above equations arises from observation of phase misalignments between the ideal and reproduced patterns. The effect of phase misalignment is reduced by using the measures that arise from the best fit between the observed and reproduced patterns.)

The ground tape reproducer shall be deemed acceptable in this test, if the mean square deviation of the ground tape reproducer is no more than 10% greater than the mean square deviation of the airborne recorder (i.e.,  $S_2(I,G) < 1.1 \cdot S_2(I,A)$ ) and the absolute maximum deviation of the ground tape reproducer is no more than 5% greater than the absolute maximum deviation of the airborne recorder (i.e.,  $M_2(I,G) < 1.1 \cdot S_2(I,A)$ ).

#### 3. Analysis of overshoot/undershoot characteristics

Overshoot/undershoot characteristics shall be quantified by the mean square deviations and maximum absolute deviations obtained from the differences between the reproduced Test Pattern and the input Test Pattern, using Test Pattern 3 of Annex A to Decision 16 as the input. In obtaining these results, the following four steps shall be completed.

(A) Using the video densitometer, no less than five adjacent profile cuts across Test Pattern 3 of Annex A to Decision 16 shall be made for each of the two images obtained in Section III, paragraph 3, sub-paragraph (A) (3) of Decision 16. These profiles shall be obtained from near the centre of each pattern. Each series of profiles shall be stored in a separate file for later use. The file names used for each series of profiles shall be recorded together with names of the image files from which the profiles were made.

(B) The average airborne recorder values,  $\overline{A}_{3L}(n)$  and  $\overline{A}_{3D}(n)$ , shall be calculated for each of the n = 1, ..., 16 bar groups of Test Pattern 3 of Annex A to Decision 16 as follows.  $\overline{A}_{3L}(n)$  is the average of the grey scale values in the peak areas and  $\overline{A}_{3D}(n)$  is the

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average of the grey scale values in the trough areas of the nth bar group, where the average is taken over all of the profiles obtained in sub-paragraph (A) of this paragraph.

(C) The steps of sub-paragraphs (A) and (B) of this paragraph shall be repeated using the two images obtained in Section III, paragraph 3, sub-paragraph (A) (4) of Decision 16 to obtain the values  $\overline{G}_{3L}(n)$  and  $\overline{G}_{3D}(n)$  for each of the n = 1, ..., 16 bar groups of Test Pattern 3 of Annex A to Decision 16.

(D) Using the ideal values for the n = 1, ..., 16 bar groups in Test Pattern 3 of Annex A to Decision 16,  $(I_{3L}(n) = 255 - 2n, I_{3D}(n) = 2n - 2$  for n = 1, ..., 8, and  $I_{3L}(n) = 273 - 4n$ ,  $I_{3D}(n) = 4n-18$ , for n = 9, ..., 16), the mean square deviations,  $S_{3L}(I,A), S_{3L}(I,G), S_{3D}(I,A)$ and  $S_{3D}(I,G)$ , and the absolute maximum deviations,  $M_{3L}(I,A), M_{3L}(I,G), M_{3D}(I,A)$  and  $M_{3D}(I,G)$ , of the data obtained in sub-paragraphs (B) and (C) of this paragraph from the ideal shall be obtained as follows:

$$S_{3L}(I, A) = \frac{1}{16} \sum_{n=1}^{16} (I_{3L}(n) - \overline{A}_{3L}(n))^{2}$$

$$S_{3L}(I, G) = \frac{1}{16} \sum_{n=1}^{16} (I_{3L}(n) - \overline{G}_{3L}(n))^{2}$$

$$S_{3D}(I, A) = \frac{1}{16} \sum_{n=1}^{16} (I_{3D}(n) - \overline{A}_{3D}(n))^{2}$$

$$S_{3D}(I, G) = \frac{1}{16} \sum_{n=1}^{16} (I_{3D}(n) - \overline{G}_{3D}(n))^{2}$$

$$M_{3L}(I, A) = M_{ax} |I_{3L}(n) - \overline{A}_{3L}(n)|$$

$$M_{3L}(I, G) = M_{ax} |I_{3L}(n) - \overline{G}_{3L}(n)|$$

$$M_{3D}(I, A) = M_{ax} |I_{3D}(n) - \overline{A}_{3D}(n)|$$

$$M_{3D}(I, A) = M_{ax} |I_{3D}(n) - \overline{A}_{3D}(n)|$$

$$M_{3D}(I, G) = M_{ax} |I_{3D}(n) - \overline{A}_{3D}(n)|$$

The ground reproducer shall be deemed acceptable in this test, if the mean square deviations of the ground reproducer are no more than 10% greater than the mean square deviations of the airborne recorder (i.e.,  $S_{3L}(l,G) < 1.1 \cdot S_{3L}(l,A)$  and  $S_{3D}(l,G) < 1.1 \cdot S_{3D}(l,A)$ ) and the absolute maximum deviations of the ground reproducer are no more than 5% greater than the absolute maximum deviations of the airborne recorder (i.e.,  $M_{3L}(l,G) < 1.05 \cdot M_{3L}(l,A)$  and  $M_{3D}(l,G) < 1.05 \cdot M_{3L}(l,A)$ ).

## ANNEX C TO DECISION NUMBER SIXTEEN TO THE TREATY ON OPEN SKIES

# COMPUTER-ASSISTED TECHNIQUES FOR CALCULATING THE MINIMUM HEIGHT ABOVE GROUND LEVEL AT WHICH EACH VIDEO CAMERA OR INFRARED LINE SCANNING DEVICE INSTALLED ON AN OBSERVATION AIRCRAFT MAY BE OPERATED DURING AN OBSERVATION FLIGHT AND PROCEDURES FOR VALIDATING SUCH COMPUTER-ASSISTED TECHNIQUES

Any computer-assisted techniques used pursuant to Decisions 14 and 15 to the Treaty on Open Skies (hereinafter referred to as Decisions 14 and 15) and Section II, paragraph 3 of Decision 16 to the Treaty on Open Skies (hereinafter referred to as Decision 16) shall be described in appendices to this Annex. These appendices shall be provided by the State Party which sponsors the computer-assisted technique and shall include a description of the computerassisted technique as well as detailed procedures for validating the computer-assisted calculations. Appendix 1 to this Annex is the first computer-assisted technique agreed by the OSCC. It contains an example of the details to be provided in any future appendix to this Annex. Additional appendices shall be included as a part of this Annex upon agreement by the OSCC. All computer-assisted techniques described in appendices to this annex shall be considered equally valid.

In the case of demonstration flights, in accordance with Decision 14, Section V, paragraph 1 (A) (2) and Decision 15, Section IV, paragraph 6, the observing and observed Parties shall each be free to use a computer-assisted technique of its choice. If more than one technique is used, and the results do not agree, and the observing and observed Parties cannot resolve the differences between the results, the visual technique shall be used.

In the case of demonstration flights, in accordance with Decision 14, Section V, paragraph 1 ( $\Lambda$ ) (2) and Decision 15, Section IV, paragraph 6, an observed or observing Party which uses a computer-assisted technique:

(1) shall provide the other Party with the following data pertaining to the computerassisted technique used: the name, size, date and time of all of the executable and data files used, which are unique to the application, as obtained from a computer directory listing, and

(2) shall make available to the other Party a copy on disk of all of the executable and data files, including macros, which are unique to the application.

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# APPENDIX I TO ANNEX C TO DECISION NUMBER SIXTEEN TO THE TREATY ON OPEN SKIES

## AMPLITUDE FREQUENCY FUNCTION (AFF) COMPUTER-ASSISTED TECHNIQUE FOR CALCULATING THE MINIMUM HEIGHT ABOVE GROUND LEVEL AT WHICH EACH VIDEO CAMERA INSTALLED ON AN OBSERVATION AIRCRAFT MAY BE OPERATED DURING AN OBSERVATION FLIGHT AND PROCEDURES FOR VALIDATING THE AFF COMPUTER-ASSISTED TECHNIQUES

Pursuant to Decision 14, Section V, Paragraph 1 (A) (2) and Annex C to Decision 16, the following computer-assisted technique may be used.

# SECTION I. PROCEDURES USED FOR THE DETERMINATION OF RESOLUTION OF THE VIDEO CAMERAS

After completion of paragraph 4, Section IV, Decision Number 14, the ground resolution for any configuration of video camera for the i<sup>th</sup> pass over the target is determined using a computer-assisted method in the following order:

1. From the test target image for each bar group a value of amplitude frequency function (AFF), designated by  $A_i(f, H_i, K_i, \tau_i)$  shall be calculated, which represents the relationship of the first harmonic amplitude in the target image from the spatial frequency f=1/(2 $\Delta$ ), where  $\Delta$  is the width of the bar on the ground, or group number at a given contrast on the target K<sub>i</sub>, aircraft flight altitude H<sub>i</sub> and the atmosphere characterized by transmission  $\tau_i$ . To implement the procedure for the evaluation of the first harmonic amplitude an image or a mask of a given target should be used.

2. From separate readouts obtained in paragraph 1 above a smoothed AFF curve  $A_i(f, H_i, K_i, \tau_i)$  is created.

3. A threshold function (TF), designated by  $M(f, P_{error})$ , shall be calculated, which represents the relationship of the minimum value of the first harmonic amplitude, under which every target group will be resolved with a probability of error  $P_{error}$ , from a spatial frequency f. The TF is calculated on the basis of the evaluation of the correlation noise function of the video camera on the brightness fields of the target image, and its form depends on the target shape.

4. The resolution is determined from the spatial frequency given by the intersection of the AFF and TF curves

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# SECTION II. PROCEDURE USED FOR CALCULATION OF Hmin

1. The AFF  $A_i(f, H_i, K_i, \tau_i)$  obtained for the  $i^{th}$  pass above the target is recalculated to an agreed contrast  $K_a = 0.4$ . As a result of this step a new AFF  $A_i(f, H_i, K_i, \tau_i)$  will be determined which corresponds to the aircraft flight altitude in the  $i^{th}$  pass and for the agreed contrast.

2. On a basis of AFF calculated for the agreed contrast a family of AFF  $\{A_{ik}(f, H_{ik}, K_a, \tau_{ak})\}$  is calculated, k = 1, 2, 3, ..., at the agreed atmospheric conditions which are characterized by transmission  $\tau_{ak}$  for every altitude  $H_{ik}$ . The set of altitudes  $H_{ik}$ , for which the AFF is being recalculated, is selected in such a way as to include the intersection of AFF and TF at agreed resolution  $\Delta_{agreed} = 30$  cm.

3. From the intersection points of the set of AFF,  $A_{ik}(f, H_{ik}, K_a, \tau_{ak})$ , and TF, M(f, P<sub>error</sub>), a curve of aircraft flight altitude under agreed contrast and atmospheric parameters as a function of ground resolution H( $\Delta$ ) of the video camera is prepared, which incorporates the value of the agreed resolution,  $\Delta_{agreed} = 30$  cm. From this curve a minimum altitude for a given pass shall be determined as:

$$H_{\min i} = H(\Delta_{agreed})$$

4. The procedures described in paragraphs 1-3 of Section II of this Appendix shall be repeated for n passes when analysing the image of a test target;  $n \ge 5$  in case of certification and  $n \ge 1$  in case of demonstration flights. As a result, a set of minimum altitudes  $\{H_{min ij}\}$  will be obtained, where i is the number of a pass above the target and j = 1 for a target set across the aircraft track, and j = 2 for a target set along the aircraft track.

5.  $H_{min \, j}$  value is used to calculate average values  $H_{min \, j}$  from the resolution evaluation across and along the aircraft track:

$$H_{\min j} = \frac{l}{n} \sum_{i=1}^{n} H_{\min ij}$$

6. The minimum permissible altitude  $H_{min}$  for a given configuration of video camera is the largest of the values of minimum permissible altitudes  $H_{min1}$  and  $H_{min2}$ , obtained for a set of targets located along and across the aircraft track.

# SECTION III. PROCEDURE FOR VALIDATION OF A COMPUTER-ASSISTED CALCULATION OF H<sub>min</sub>

1. Software validation is conducted in two stages using Test Pattern 4 from Annex A of Decision Number 16. During the first stage, calculation of the resolution is evaluated; during the second stage, the accuracy of the  $H_{min}$  calculation is evaluated. The calibration input data given in Table 1 are entered for that purpose into the  $H_{min}$  calculation software.

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. Calculation of the resolution is validated as follows:

(a) In accordance with paragraph 1, Section I of this Annex, an amplitude frequency function  $A_i(f, H_i, K_i, \tau_i)$  is plotted from the Test Pattern 4 image;

(b) Noise characteristics of the equipment are measured along the noise field of Test Pattern 4, which should match the values provided in Table 2.

No.	Parameter	Calibration value
1	Width of a single bar in the first bar group	0.6 m
2	Length of bars in the first bar group	3 m
3	Bar widths reduction coefficient	0.890899
4	Meteorological visibility (MV)	10,000 m
5	Average reflectance of a dark bar	0.4
6	Average reflectance of a light bar	0.5
. 7	Ground illumination	80,000 Lx
8	Equipment focal lengths	30 cm
9	Linear dimensions of radiation detector	12 μm
10	Aircraft flight altitude	400 m
11	Agreed value of MV	10,000 m
12	Agreed value of reflectance of a dark bar	0.2
13	Agreed value of reflectance of a light bar	0.6
14	Agreed value of resolution	0.3 m
15	Probability of error	. 0.2

# TABLE 1

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#### TABLE 2

No.	Parameter	Calibration value
1	Average value of equipment noise	62 65
2	Standard deviation value of equipment noise	1.0 1.5
3	Correlation radius of equipment noise values	2 3

3. In accordance with paragraph 2, Section 1 of this Appendix, the threshold function  $M(f, P_{error})$  is plotted. The intersection of  $M(f, P_{error})$  with the amplitude frequency function determines the resolved bar group, which must correspond to 11 for the AFF computer-assisted technique to be validated.

4. The accuracy of the  $H_{min}$  calculation is determined from the software output, which for the input data provided and the resulting  $H_{min}$  must be in the range of 830 to 870 metres for the AFF computer-assisted technique to be validated.

#### DECISION NUMBER SEVENTEEN TO THE TREATY ON OPEN SKIES

# THE FORMAT IN WHICH DATA IS TO BE RECORDED AND EXCHANGED ON RECORDING MEDIA OTHER THAN PHOTOGRAPHIC FILM

The Open Skies Consultative Commission, pursuant to the provisions of Article IX, Section I, paragraph 1 of the Treaty on Open Skies, has decided as follows:

#### SECTION I. DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision:

The term "encoding techniques" means the use of special techniques of processing data intended for storage on magnetic media which would permit the extraction from such data of more information than could be extracted without use of such processing. Commercially available error correcting techniques commonly used to record on to and extract digital data from magnetic media and techniques designed to allow the multiplexing of data from multiple sensors or multiple colour bands on to a single recorder are not considered encoding techniques.

The term "cartridge format" means a list of parameters specifying the physical size, shape, and mechanical characteristics of the tape cassette or open reel and its associated transport mechanism. These characteristics are specified in Section II, paragraph 6 (A) (1) of this Decision.

The term "recording format" means the technical details specific to the recording process, which describe the way in which information is transferred to the recording media. These characteristics are specified in Section II, paragraph 6 (A) (2) of this Decision.

The term "signal format" means the technical details of the analogue signals recorded on magnetic tape. These characteristics are specified in Section II, paragraph 6(A)(3) of this Decision.

The term "digital data format" means the structure of digital data for the recording on magnetic tape. These characteristics are specified in Section II, paragraph 6 (B) (1) of this Decision.

The term "data annotation format" means the structure of the annotation data on the magnetic tape. These characteristics are specified in Section II, paragraph 7 (E) of this Decision.

The term "slant range" means a distance perpendicular to the aircraft track in the slant plane.

The term "azimuth" means the direction parallel to the aircraft track.

The term "radar image" means a two-dimensional (slant range and azimuth) array of processed radar amplitude samples, generated from initial phase information.

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The term "standardized format(s)" means an entire commercially available combination of formats consisting of one each of a recording format, a cartridge format, and either a digital data format or signal format adopted and specified in Section II, paragraph 6 of this Decision.

The term "detector element" means the smallest definable element of the detector array of a video camera.

The term "image element" means the digitized signal representing the detected energy of a scene element within each wavelength band to which a video camera is sensitive which is stored in a frame store.

The term "line imaging device" means a device containing one line of detector elements for each wavelength band to be recorded.

The term "frame imagining device" means a device containing either an electronic imaging tube or an array of detector elements for each wavelength band recorded which simultaneously record multiple lines of the image to be recorded.

The term "video camera" means a passive black and white or colour, line or frame imaging device, including the conversion of the image into electrical signals operating at optical wavelengths between 0.3 and 1.1 micrometres.

The term "image" means an array of image elements corresponding to an equally numbered array of scene elements which cover a contiguous area on the ground.

# SECTION II. FORMATS FOR RECORDING AND EXCHANGING DATA

1. The original data collected by video cameras, infra-red line-scanning devices, or sideways-looking synthetic aperture radar shall be recorded without the use of encoding techniques.

2. In the case of any data recorded on recording media other than photographic film:

(A) In the case of video frame imaging devices which record in an analogue format, the original analogue data shall be recorded in the signal format specified in Section II, paragraph 6 (A) (1) of this Decision and exchanged on magnetic tape in the standardized format specified in Section II, paragraph 6 (A) of this Decision, and as specified in Section II, paragraph 5 of this Decision.

(B) In the case of video line imaging or infra-red line-scanning devices which record in an analogue format, the original data shall be recorded on magnetic tape in any signal, recording, or cartridge format. Immediately following the observation, certification or demonstration flight the analogue data shall be converted to the standardized digital format specified in Section II, paragraph 6 (B) of this Decision. Following conversion from analogue to digital format, the original analogue tape shall be destroyed or erased and the resulting digital tape shall be considered an original. First generation duplicates shall be exchanged on magnetic tape in the standardized digital format specified in Section II, paragraph 6 (B) of this Decision.

(C) In the case of video line-imaging or infra-red line-scanning devices which record in digital formats, the original data shall be recorded on magnetic tape in any format selected by the State Party which provides the aircraft. The data shall be exchanged in the standardized format specified in Section II, paragraph 6 (B) of this Decision.

(D) In the case of sideways-looking synthetic aperture radar, pursuant to Article IX, Section III, paragraphs 4 and 5 of the Treaty, data shall be exchanged as either initial phase information or as a radar image. The data shall be exchanged in digital form.

(1) The initial phase information shall be digitally recorded on magnetic tape in any format selected by the Party providing the aircraft. The initial phase information shall be exchanged as digital data with eight bits for the in-phase, and eight bits for the quadrature, component of the phase information, in the standardized format specified in Section II, paragraph 6 (B) of this Decision.

(2) Radar image data shall be exchanged in the standardized digital format specified in Section II, paragraph 6 (B) of this Decision. The data shall be exchanged as a digital image having eight bits per image element. Each image element must correspond with the actual range and azimuth properties of the radar. Techniques for combining range elements or azimuth elements, such as incoherent integration, shall not be employed.

(3) In the event the observing Party did not provide the observation aircraft and does not possess the initial phase information, pursuant to Article IX, Section IV of the Treaty, it shall not be required to provide the initial phase data to other States Parties. In this case, data shall be exchanged in the form of digital radar images in the standardized format specified in Section II, paragraph 6 (B) of this Decision.

3. In the event that only one original set of data is made:

(A) If the observation aircraft is provided by the observing Party, the observing Party shall have the right to retain the original set.

(1) If the data is recorded in a standardized format, the observed Party shall have the right to receive a first generation duplicate copy in the same standardized format in which the data was originally collected.

(2) If the data is recorded in a non-standardized format, the observed Party shall have the right to receive both a first generation duplicate copy in the same non-standardized format in which the data was originally collected and a first generation duplicate copy in the standardized format, consistent with paragraph 2 of this Section.

(B) If the observation aircraft is provided by the observed Party, the observed Party shall have the right to receive a first generation duplicate copy in the format in which the data was originally recorded:

(1) In the event the data is recorded in a standardized format, the observing Party shall have the right to receive the original set.

(2) In the event the data is recorded in a non-standardized format, the observing Party shall have the right to receive both the original set in the non-standardized format and a first generation duplicate copy in the standardized format consistent with paragraph 2 of this Section.

In the event that two original sets of data are made:

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(A) If the observation aircraft is provided by the observing Party, then:

(1) If the data is recorded in a standardized format, the observed Party shall have the right to select either of the two sets of recording media, and the set not selected by the observed Party shall be retained by the observing Party.

(2) If the data is recorded in a non-standardized format, the observed Party shall have the right to select either of the two sets of recording media in the non-standardized format and also receive a first generation duplicate copy in the standardized format consistent with paragraph 2 of this Section. Of the two non-standardized original sets of data, the set that is not selected by the observed Party shall be retained by the observing Party.

(B) If the observation aircraft is provided by the observed Party, then:

(1) If the data is recorded in a standardized format, the observing Party shall have the right to select either of the two sets of recording media, and the set not selected shall be retained by the observed Party.

(2) If the data is recorded in a non-standardized format, the observing Party shall have the right to receive both the data recorded in the non-standardized format and an additional first generation duplicate copy in the standardized format consistent with paragraph 2 of this Section. Of the two non-standardized original sets of data, the set that is not selected by the observing Party shall be retained by the observed Party.

5. Pursuant to Article IX, Section IV of the Treaty, each State Party shall have the right to request and receive from the observing Party copies of data collected by sensors during an observation flight.

(A) In the event the data was originally recorded in a standardized format, such copies shall be in the form of first generation duplicates produced from the original data collected by the sensor during the observation flight, in that same standardized format.

(B) In the event the data was originally recorded in a non-standardized format, such copies shall be provided in one of the forms described in sub-paragraphs (1) and (2) of paragraph 5 (B) of this Decision.

(1) If the observation aircraft was provided by the observing Party, the requesting country shall have the right to receive a first generation duplicate in either the non-standardized format in which it was originally recorded or in the standardized format, consistent with paragraph 2 of this Section.

(2) If the observation aircraft was provided by the observed Party, the requesting Party shall have the right to receive a first generation duplicate of the data in the standardized format, consistent with paragraph 2 of this Section. For the purposes of this paragraph, a first generation duplicate of the data received by the observing Party from the observed Party shall be considered as satisfying the requirement to provide a duplicate of the original data collected by the sensor, as set forth in by Article IX, Section IV of the Treaty.

6. The agreed standardized formats, consisting of a combination of an agreed recording format, cartridge format, and either a signal or digital data format, are specified in paragraphs (A) and (B) below.

(A) For analogue recordings of data collected by video frame imaging devices:

(1) The signal format for recording and exchange shall be PAL or CCIR-625 as described by the International Telecommunications Union - Radiocommunications (formerly "Comité Consultatif International des Radiocommunications")

(2) The recording format for exchange shall be S-VHS.

(3) The cartridge format for exchange shall be S-VHS.

(B) For digital recordings and analogue line scan converted to digital:

(1) The digital data format for exchange shall be DCRsi\*.

(2) The recording format for exchange shall be DCRsi\*.

(3) The cartridge format for exchange shall be Ampex 702, 731, 733, or equivalents.

(C) Without prejudice to the formats defined in paragraphs (A) and (B) above, or to any potential new format, the Open Skies Consultative Commission will review the list of agreed formats prior to 31 December of the third year following the year during which entry into force of the Treaty on Open Skies takes place and make additions and/or deletions to the list of agreed formats, as agreed by the Open Skies Consultative Commission.

7. Pursuant to Article IV, paragraph 10 and Annex B, Section I, paragraph 7 of the Treaty, States Parties shall provide technical information on their recording equipment, media and

DCRsi is a trademark of the Ampex Data Systems Corporation.

formats used for recording both the imagery and annotation data. The Party which provides the aircraft shall provide all other States Parties with a complete description of the cartridge format, recording format, signal or digital data formats, and annotation format in sufficient detail to allow the other States Parties to extract from the output signal all of the data originally recorded. Portions of this information which are readily available as international standards and provide the required data in sufficient detail may be omitted as long as it is properly referenced. This information shall include, but not be limited to, the following:

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(A) The description of the cartridge format shall include descriptions of the type of cassette or open reel type (such as 8 mm; D-1; T-120, 10 inch reel), the tape formulations (such as ferric oxide, cobalt, metal tape), the tape width and length, recording media maximum density and magnetic/recording properties.

(B) The description of the recording format (such as S-VHS, DCRsi\*) shall define such items as the track configuration, pitch angle of the helical scan tracks, recording speeds, the technique for recording auxiliary data, and how colour image information is recorded (if applicable). Techniques such as data interleaving and error detection and correction shall be addressed to the degree the details are available from the manufacturer. In the event systems employing proprietary techniques are used, they shall not be altered from the manufacturer's design. The calibration procedures described in Decision Number 16 to the Treaty on Open Skies shall be employed to ensure that no additional data is recorded on the tape

(C) The description of the signal format shall, where applicable, include such details of the signal output as: voltage levels, synchronization pulse timing, timing and voltage levels associated with the image data, electronic interface description, vertical and horizontal retrace timing, field and frame rates, the technique for recording auxiliary data, and any other data required to completely describe the signal output of the recorder.

(D) The description of the digital format shall fully define digitally recorded data including data structure, bit/byte and word patterns, the structure of data on tape, the technique for recording auxiliary data, and any other items necessary to completely describe the data format and which will allow the data to be fully processed in an expeditious manner.

(E) The description of the data annotation format shall be in sufficient detail to allow the other States Parties to extract the annotation data associated with the collected imagery. It shall include such items as the order, accuracy, units, location of the data on the tape (e.g. on the sound track, in the vertical retrace period, etc.), data format (e.g. ASCII), and any other data needed to locate and read the annotation information.

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8. If, through the introduction of additional categories or improvements to capabilities of existing categories of sensors provided for in Article IV of the Treaty on Open Skies, data is recorded on any media other than photographic film or magnetic tape, the format in which the data is to be recorded and exchanged shall be agreed by the Open Skies Consultative Commission.

\* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty, with due regard for the provisions of Section II, paragraph 6 (C) of this Decision.

Decided in Vienna, in the Open Skies Consultative Commission, on 12 October 1994, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

#### DECISION NUMBER EIGHTEEN TO THE TREATY ON OPEN SKIES

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## MANDATORY TIME PERIOD FOR STORING AND SHARING DATA RECORDED DURING AN OBSERVATION FLIGHT

The Open Skies Consultative Commission, pursuant to the provisions of Article IX, Section IV of the Treaty on Open Skies, has decided as follows:

1. The observing Party shall retain the original data collected during an observation flight for two years commencing on the date on which that observing Party transmits the mission report to the other States Parties to the Treaty.

2. Upon expiration of the two-year period specified in paragraph I above, the observing Party may either continue to retain the original data collected during an observation flight or dispose of it in accordance with its own national practice.

3. The observing Party shall provide copies of the original data from an observation flight in response to requests received before the expiration of the specified two-year period. It shall make every effort to provide the copies, no later than 45 days after receipt of a request, to States Parties which request them, unless otherwise agreed.

4. Eighteen months after the Treaty enters into force, the Open Skies Consultative Commission shall, during its next regular session, review whether two years is the appropriate minimum period for storing and sharing data.

\* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 12 October 1994, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

# DECISION NUMBER NINETEEN TO THE TREATY ON OPEN SKIES

#### SUPPLEMENTARY PROVISIONS FOR THE COMPLETION OF THE MISSION PLAN AND FOR THE CONDUCT OF AN OBSERVATION FLIGHT

The Open Skies Consultative Commission, in accordance with Article VI, Section I, paragraphs 14 and 15, and Section II, and pursuant to Article VIII, Sections I and II of the Treaty on Open Skies, has decided as follows:

# SECTION I. DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision:

1. The term "segment" means that portion of an observation flight from takeoff to planned landing.

2. The term "leg" means a portion of the segment between two co-ordinates, navigation fixes or turning points designated in the mission plan.

3. The term "TAS" means True Air Speed, the speed of the aircraft relative to undisturbed air.

4. The term "estimated mission time" means the time from the beginning of the first leg to the end of each leg, calculated using TAS.

5. The term "elevation (E)" means the vertical distance of a point or level, on or affixed to the surface of the earth, measured from mean sea level. The datum used in this Decision is the maximum ground elevation on a given leg.

6. The term "H<sub>min</sub>" means the certified minimum height at which a sensor may be operated. If there is concurrent use of different sensors on a given leg, for the purposes of this Decision, the highest certified minimum height shall apply.

7. The term "altitude A" is the minimum permissible altitude for the use of sensors on a given leg. The datum used in this Decision is the sum of the maximum ground elevation E and the  $H_{min}$  as defined in paragraph 6.

8. The term "altitude  $A_t$ " is the barometric altitude to be flown to achieve  $H_{min}$  for a given leg after adjustment of altitude A for the outside forecast temperature.

9. The term "altitude  $A_f$ " is the barometric flight altitude after adjustment of altitude  $A_f$  for standard atmospheric pressure.

10. The term "cruising altitude" means an altitude maintained during flight referenced to the QNH altimeter setting and separated from other cruising altitudes by specified intervals.

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11. The term "flight level (FL)" means a surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals. The datum 1013.2 hPa has the same value as 1013.2 mb, 29.92 inches Hg and 760 mm Hg.

#### SECTION II. MISSION PLAN

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1. The Mission Plan format consists of a cover sheet, an annex for each segment and an appendix to each annex. The Mission Plan shall be in the format attached to this Decision.

2. When submitting the Mission Plan the observing Party shall complete the cover sheet, for which data is initially only required in paragraphs 1 to 3. Subsequent paragraphs shall be jointly completed, as required, and signed only after final acceptance and agreement of the Mission Plan by all participating States Parties.

3. An "Annex to Open Skies Mission Plan" shall be submitted for each segment; the section at the top of page 1 and columns 1 to 8 on page 1 and all following pages must be completed. If the observed Party exercises its right to provide an observation aircraft, columns 4 and 5 need not be completed.

The field "Remarks" shall list all the supplementary information and requirements that may contribute to the safe conduct of the flight in accordance with the Treaty. This must include the ground services required at the landing field.

In the tables only every second row should be completed. The blank rows are intended to enable the agreed changes to be clearly entered. Columns 9 and 10 should be completed after agreement on the routing and the respective altitudes, cruising altitudes or flight levels for all legs. The single value per leg used in column 9 is determined according to OSCC Decision No. 13. The codes to be entered in column 10: "Sensor/media combinations allowed" shall be established during certification of the relevant observation aircraft.

4. A flight map shall be attached to the Mission Plan, in which the relevant airfields and coordinates, navigation fixes or turning points required for determining the flight route are marked.

5. Submission of the "Appendix to Annex to Open Skies Mission Plan", which contains additional information and reflects the complete calculation of the altitudes, cruising altitudes or flight levels in accordance with OSCC Decision No. 13, is optional. Since this appendix may contribute to the enhancement of transparency and avoidance of errors in calculation, it is recommended, as a general principle, that it is submitted with the Mission Plan.

#### SECTION III. TOTAL FLIGHT DISTANCE

1. The total flight distance is the sum of the flight distances of the individual segments. The flight distance of each segment is the sum of the flight distances of the individual legs determined from the co-ordinates of the published aerodrome reference point of the departure airfield through straight lines connecting the co-ordinates, navigation fixes or turning points of all legs in the proposed sequence to the co-ordinates of the published aerodrome reference point of the landing airfield.

2. Additional flight distances due to the use of published departure and approach procedures or to following the instructions of air traffic control authorities are not taken into account.

3. Inasmuch as the departure and/or landing airfields may themselves be objects of interest, or such objects of interest may be located in direct proximity to these airfields on the track of the first and/or last leg, the observed Party shall, at the request of the observing Party, through the authorization of suitable departure and/or approach procedures, ensure that these objects can be overflown at the agreed altitude, cruising altitude or flight level. The additional flight distance necessary shall likewise not be taken into account.

4. The additional flight distance required from leaving the agreed track until regaining the agreed track at the same point after refuelling or overnight stop shall not be taken into account.

5. The changes in the flight distance that result from the flight procedures employed when changing heading shall not be taken into account.

#### SECTION IV. DEVIATIONS

1. The observing Party may indicate, in the "Remarks" section of the Annex to Open Skies Mission Plan, that it does not intend to operate sensors during deviations from track as described in Article VIII Section II. If the observing Party does not waive its right to operate sensors during deviations from track, the procedures outlined in paragraph 2 of this Section will be executed, unless otherwise agreed.

2. The observing Party, after acceptance of the Mission Plan, shall submit a document with separate listings of the maximum ground elevation to be found on the left and right of a particular leg, within 50 kilometres of either side of the planned track. Once agreed by all participating State parties, these additional maximum elevations will form the basis for OSCC Decision No. 13 altitude calculations.

## SECTION V. REVIEW CLAUSE

The provisions of this Decision shall be re-examined on the basis of practical experience if so requested by a State Party after 31 December of the year during which the Treaty entered into force.

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This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

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Decided in Vienna, in the Open Skies Consultative Commission, 23 January 1995, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

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Agreed Cruise Alt. (m/ft) allowed

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# ANNEX TO OPEN SKIES MISSION PLAN

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OSCC/VII/Dec.19 23 January 1995

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## APPENDIX TO OPEN SKIES MISSION PLAN

SEGMENT No.\_\_\_\_\_

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Page No.

OSCC/VIII/Dec.20 12 June 1995

## DECISION NUMBER TWENTY TO THE TREATY ON OPEN SKIES

# PROVISIONS FOR A THREE-LETTER AND TELEPHONY DESIGNATOR FOR THE OPEN SKIES CONSULTATIVE COMMISSION AND AIRCRAFT IDENTIFICATION FOR OPEN SKIES FLIGHTS

The Open Skies Consultative Commission, in accordance with Article VI, Section I, paragraphs 14 and 15, and Section II, and pursuant to Article VII of the Treaty on Open Skies, has decided as follows:

#### SECTION I. DEFINITION OF TERMS

The following definitions shall apply to terms used in this Decision:

1. The term "three-letter designator" means a code, intended for use on the international telecommunication service, which is selected in accordance with and published in the ICAO Document 8585 and reflects to the maximum extent practicable the name of the aircraft operating agency or aeronautical service for which it is requested. The three-letter designator may be used in the aircraft identification in the same way as in the flight plan and associated messages.

2. The term "telephony designator" means a distinct shortened address, selected in accordance with and published in the ICAO Document 8585. The telephony designator may be used as part of the aircraft identification followed by the flight identification in radiotelephony communication.

3. The term "aircraft identification" means a group of letters, figures or a combination thereof which is either identical to, or the coded equivalent of, the aircraft call sign to be used in air-ground communications, and which is used to identify the aircraft in ground-ground air traffic services communications.

#### SECTION II. THREE-LETTER DESIGNATOR

1. For use in the international aeronautical telecommunication service, the Open Skies consultative commission shall adopt its own three-letter designator, consisting of the letters "OSY".

2. This designator shall be registered by the International Civil Aviation Organization (ICAO) for the Open Skies Consultative Commission and published in ICAO Document 8585.

#### SECTION III. TELEPHONY DESIGNATOR.

1. To ensure a quick and clear recognition of all flights being conducted in accordance with the Treaty, a common telephony designator is a basic requirement.

2. The telephony designator "OPEN SKIES" shall be used as part of the aircraft identification in radiotelephony communications.

3. This telephony designator shall be registered by the ICAO for the Open Skies Consultative Commission and published in ICAO Document 8585.

# SECTION IV. AIRCRAFT IDENTIFICATION

1. For air traffic services message handling and for radiotelephony communication with air traffic service units, all flight operations conducted in accordance with the Treaty shall use aircraft identification which immediately identifies an Open skies flight in order to ensure priority, support and safety, as guaranteed in the Treaty.

2. The aircraft identification shall in addition specify the State Party or group of States Parties conducting the Open Skies flight and the type of the Open Skies flight.

3. The aircraft identification of all Open skies flights shall be composed in the following manner:

For the purpose of air traffic services message handling the first part of the aircraft identification is the three-letter designator "OSY".

For the purpose of radiotelephony communication with air traffic service units the first part of the aircraft identification is the telephony designator "OPEN SKIES".

In both cases the following two digits are two figures identifying the observing or transiting State Party or group of States Parties according to a list to be published in the journal of the Open Skies Consultative commission.

In both cases the last digit is a letter which indicates the type of the Open Skies flight. The letters to be used are "O" for an observation flight, "D" for a demonstration flight, and "T" for a transit flight.

4. When an observation or demonstration flight is conducted by an observation aircraft provided by the observed States Party aircraft identification for air traffic services message handling and for radiotelephony communication with air traffic service units may be used in accordance with national air traffic control rules of the State Party.

# OSCC/V111/Dec.20 12 June 1995

# SECTION V. REVIEW CLAUSE

The provisions of this Decision shall be re-examined on the basis of practical experience if so requested by a State Party after 31 December of the year during which the Treaty entered into force.

#### \* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 12 June 1995, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/VIII/Dec.20 12 June 1995

Annex 14 December 1998

#### ANNEX

#### TO DECISION NUMBER TWENTY TO THE TREATY ON OPEN SKIES

1. The Open skies Consultative commission, due to reasons of flight safety which have arisen from practical experience during provisional application of the Treaty, has decided to modify Decision 20, Section IV. Aircraft Identification, paragraph three, ultimate sentence, to read as follows:

The letters to be used are "F" for an observation flight, "D" for a demonstration flight, and "T" for a transit flight.

2. The Open Skies consultative Commission, in accordance with Section IV, paragraph 3, subparagraph three, has decided on the attached list of codes identifying the observing or transiting State Party or group of States Parties.

#### OSCC/VIII/Dec.20 12 June 1995

Annex 14 December 1998

# Codes for the States Parties or groups of States Parties for the purpose of radiotelephony communication with air traffic service units

- 11 Germany
- 12 United States of America
- 13 Belarus
- 14 Benelux
- 15 Bulgaria
- 16 Canada
- 17 Denmark
- 18 Spain
- 19 France
- 21 Georgia
- 22 United Kingdom
- 23 Greece
- 24 Hungary
- 25 Iceland
- 26 Italy
- 27 Kyrgyzstan
- 28 Norway
- 29 Poland
- 31 Portugal
- 32 Romania
- 33 Russian Federation
- 34
- Slovak Republic 35
- Czech Republic 36
- Turkey
- 37 Ukraine
- 91 Belarus and Russian Federation group of States Parties
- 92 Western European Union group of States Parties

States Parties operating more than one aircraft at the same time should after the country code add a self-assigned figure between 1 and 9 to distinguish safely between their aircraft.

The codes for the States Parties or groups of States Parties shall be listed as follows:

In alphabetical order to the French alphabet. 1.

2. Once a number has been allocated that number shall be retained by the respective State Party or group of States Parties.

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OSCC/VIII/Dec.20 12 June 1995

Annex 14 December 1998

3. Additional States Parties or groups of States Parties acceding to the Treaty shall adopt the next available number at the end of the appropriate current list.

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#### \* \* \* \* \*

This Annex is an integral part of Decision 20, 12 June 1995; it shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 14 December 1998, in each of the six languages specified in the Article XIX of the Treaty on Open skies, all texts being equally authentic.

OSCC/IX/Dec.21 23 October 1995

#### DECISION NUMBER TWENTY-ONE TO THE TREATY ON OPEN SKIES

# ESTABLISHMENT OF AN OPEN SKIES CENTRAL DATA BANK

The Open Skies Consultative Commission,

Taking note that Hungary has already made a broad and significant contribution to a future Open Skies Data Bank through development of the reference library with appropriate software and hardware for the management of all data exchange formats,

Pursuant to the provisions of paragraphs 2, 3 and 6 of Article X of the Treaty on Open Skies,

Has decided as follows:

1. States Parties shall regard the existing reference library developed by Hungary in Budapest as the Central Data Bank of the Open Skies regime, hereinafter referred to as the Data Bank.

2. Each State Party shall transmit to the Data Bank all its notifications in the agreed formats for storage. Notifications which are sent to Hungary as a State Party or a Depositary State need not be transmitted to Budapest twice. On all notifications transmitted pursuant to this Decision there shall be the address "Hungary". Notifications to the Data Bank may be sent through the OSCE Communications Network or through other official channels in one of the six working languages of the OSCC chosen by the transmitting State Party.

3. Each State Party shall have the right to use the Data Bank. Requests to the Data Bank may be compiled in any form and transmitted through the OSCE Communications Network or through other official channels.

4. Hungary shall be responsible for the proper storage of the data provided and shall report on a quarterly basis to all states Parties by means of a list of notifications received.

5. Hungary shall undertake appropriate steps to prevent any unauthorized access to the Data Bank.

6. The costs of transmitting a request to the Data Bank and the answer to such a request shall be borne by the requesting State Party. All payments shall be in accordance with the existing procedures for the OSCE Communications Network.

7. The following shall be paid in accordance with the scale of distribution for the common expenses associated with the operation of the OSCC:

 the transmission of requests to the Data Bank on behalf of the OSCC by the Chairman, when the OSCC so decides, and the transmission of the answers to those requests by Hungary;

 the annual technical maintenance and operational expenses related to the Data Bank on the basis of a detailed bill for these expenses provided annually by Hungary.

8. States Parties will continue in an appropriate form discussions on the potential future development and extension of the Data Bank.

9. The provisions of this Decision may be reviewed on the basis of practical experience, if so requested by a State Party after 31 December 1996.

#### \* \* \* \* \*

This Decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty on Open Skies.

Decided in Vienna, in the Open Skies Consultative Commission, on 23 October 1995, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/X/Dec.22 18 March 1996

#### DECISION NUMBER TWENTY-TWO TO THE TREATY ON OPEN SKIES

# PROVISIONS FOR THE USE OF A STANDARD "PRE-FLIGHT INSPECTION REPORT"

The Open Skies Consultative Commission, in accordance with Article VI, Section I, paragraph 11, and pursuant to Annex F, Section I, paragraphs 10 and 11, and Section II, paragraph 10, of the Treaty on Open Skies, has decided as follows:

#### SECTION I. PROVISIONS

1. Upon completion of the pre-flight inspection a "Pre-Flight Inspection Report" shall be prepared, regardless whether the observation aircraft is provided by the observed, the observing, or a third State Party. The "Pre-Flight Inspection Report" shall be in the format attached to this Decision.

2. Comments shall be given by the State(s) Party(ies) inspecting the observation aircraft only if an item of paragraph 9(A) to 9(D) of the Report is answered with "NO".

3. In paragraph 10 of the Report "OBSERVING" shall be deleted if the observation aircraft is provided by the observing State(s) Party(ies), "OBSERVED" shall be deleted if the observation aircraft is provided by the observed State(s) Party(ies).

4. If the result of the statement in paragraph 10 of the Report is "NO" an explanation shall be given in OS Format No. 14 "Mission Report".

5. The Report shall be signed by the representatives of the observed and observing State(s) Party(ies).

#### SECTION II. REVIEW CLAUSE

The provisions of this Decision shall be re-examined on the basis of practical experience if so requested by a State Party after 31 December of the year during which the Treaty entered into force.

\* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 18 March 1996, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic

OSCC/X/Dec.22 18 March 1996

# OPEN SKIES PRE-FLIGHT INSPECTION REPORT

1.	OBSE	RVING STATE(S) PARTY(IES):
2.	OBSE	RVED STATE(S) PARTY(IES):
3.	OBSE	RVATION FLIGHT REFERENCE NUMBER(S):
4.	PLAC	E OF PRE-FLIGHT INSPECTION:
5.	DATE	OF PRE-FLIGHT INSPECTION:
6.	TIME	START:
		END:
7.	OBSE	RVATION AIRCRAFT TYPE / MODEL:
8.	STAT	E PARTY PROVIDING THE AIRCRAFT:
9.	IN TH	E COURSE OF THE PRE-FLIGHT INSPECTION IT HAS BEEN ESTABLISED THAT
		TO THE TREATY: (YES / NO) COMMENTS RESULTING FROM THE INSPECTION:
		EXPLANATIONS OF THE STATE PARTY PROVIDING THE OBSERVATION AIRCRAFT:
		2/4

TREATY: (YES / NO)	
COMMENTS RESUL	TING FROM THE INSPECTION:
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OSCC/X/Dec.22 18 March 1996

	ALL ITEMS OF INSPECTION EQUIPMENT HAS BEEN REMOVED FROM THE OBSERVATION AIRCRAFT UPON COMPLETION OF THE PRE-FLIGHT INSPECTION: (YES / NO)
	COMMENTS RESULTING FROM THE INSPECTION:
	EXPLANATIONS OF THE STATE PARTY PROVIDING THE OBSERVATION AIRCRAFT:
	AIRCKAF1:
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OBSE	DBSERVED / OBSERVING STATE(S) PARTY(IES) HEREBY AGREE(S) THAT THE RVATION AIRCRAFT MAY BE USED TO CONDUCT AN OBSERVATION FLIGHT: / NO)
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OSCC. XXVI.JOUR/70 25 June 2001

# OSCC DECISION TO THE TREATY ON OPEN SKIES

# OSCC DECISION ON THE WORKING MODALITIES OF THE OSCC

Bearing in mind the experience gathered during its provisional implementation and recognizing the existence of a number of issues requiring consideration to ensure successful implementation of the Treaty after its entry into force, the States Parties agree on the following:

1. The OSCC activities shall be organized in one session during the period until 31 December 2001.

2. The OSCC will meet at least once during this session but not more than once per month.

3. Informal working groups will resume activities after the deposit of the instruments of ratification by all the States Parties whose individual allocation of passive quotas as set forth in Annex A is eight or more.

4. The first meetings of the informal working groups will be held before the entry into force of the Treaty on Open Skies.

5. In order to prepare these meetings, preliminary consultations on the number of the informal working groups, chairmanships, agenda and issues to be addressed, will be conducted beginning from September 2001.

#### OSCC.XXVI.JOUR/72 29 October 2001

#### OSCC DECISION TO THE TREATY ON OPEN SKIES

# OSCC DECISION ON THE INFORMAL WORKING GROUPS OF THE OPEN SKIES CONSULTATIVE COMMISSION

In accordance with the OSCC decision of 25 June 2001:

- Informal Working groups will resume activities after the deposit of instruments of ratification by all the States Parties whose individual allocation of passive quotas as set forth in Annex A is eight or more.
- The first meetings of the informal Working groups will be held before the entry into force of the Treaty on Open Skies.
- In order to prepare these meetings, preliminary consultations on the number of the informal Working groups, chairmanships, agenda and issues to be addressed, have been conducted since September 2001.

The Open Skies Consultative Commission decides to establish the following Informal Working Groups:

#### 1. Informal Working Group on Certification:

- This IWG will deal with:
- planning and organization of the certification process;
- C-130 H unique certification for the Pod group;
- joint certification;

- OS format 25 (regarding signature);
- sensors aspects related to certification (Hmin, calibration target);
- other specific issues related to certification, and agreed by the OSCC.

#### 2. Informal Working Group on Sensors:

This IWG will start its activities after the OSCC has approved its working programme.

#### OSCC.XXVI.JOUR/72 29 October 2001

# 3. Informal Working Group on Rules and Procedures:

This IWG will deal with:

- flights rules and procedures;
- mission planning procedures;
- protection of the information gathered during OS flights;
- financial aspects of OS missions;
- other specific issues related to the OS flights, and agreed by the OSCC.

This IWG will start its activities in December 2001.

OSCC.XXVI.JOUR/74 17 December 2001

# OSCC DECISION TO THE TREATY ON OPEN SKIES

#### PROVISIONS FOR THE INITIAL CERTIFICATION PERIOD

The Open Skies Consultative Commission, in accordance with Annex D, Section I, paragraph 4, of the Treaty on Open Skies has decided as follows:

#### SECTION I. PROVISIONS

- 1. The initial certification period shall begin at the time of entry into force, on 1 January 2002, and end on 31 July 2002.
- 2. During the initial certification period, observation quota flights shall be conducted in accordance with the Treaty and shall be conducted only on an agreed bilateral basis.
- 3. During the initial certification period, the initial certification schedule shall be as follows:
- From 15 to 29 April 2002, the Federal Republic of Germany will host a joint certification event at Nordholz NAS, GE. Participants will be the Republic of Belarus and the Russian Federation group of States Parties, the Republic of Hungary and Ukraine.
  - From 8 to 15 May 2002, the United States of America will host a certification event at Wright-Patterson AFB, USA.
  - From 19 to 26 June 2002, the French Republic will host a unique certification event for the Pod Group (Kingdom of Belgium, Canada, Kingdom of Spain, French Republic, Hellenic Republic, Italian Republic, Grand Duchy of Luxembourg, Kingdom of Norway, Kingdom of the Netherlands, Portuguese Republic) at Orléans Brécy AFB, FR.
  - From 8 to 16 July 2002, the United Kingdom will host a joint certification event with the Republic of Bulgaria at Brize Norton AFB, GB.

## SECTION II. REVIEW CLAUSE

The provisions of this Decision shall be re-examined on the basis of practical experience if so requested by a State Party before 31 July 2002.

\* \* \* \* \*

This Decision shall enter into force simultaneously with the Treaty on Open Skies and shall terminate at the end of the initial certification period.

Decided in Vienna, in the Open Skies Consultative Commission, on 17 December 2001, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

#### OSCC DECISION TO THE TREATY ON OPEN SKIES

# RULES OF PROCEDURE AND WORKING METHODS OF THE OPEN SKIES CONSULTATIVE COMMISSION

In view of the entry into force of the Treaty on Open Skies on 1 January 2002, and bearing in mind the experience gathered during the period of the provisional implementation of the Treaty, the Open Skies Consultative Commission (OSCC) decides the following rules of procedure and working methods of the OSCC, pursuant to Article X and Annex L of the Treaty on Open Skies, the OSCC decision number six to the Treaty of 16 July 1993 (OSCC/I/Dec.6), and the OSCC decision of 25 June 2001 (OSCC.DD/3/01/Rev.1):

- The sessions of the OSCC shall last from the end of an OSCE recess to the end of the following recess (winter, spring and summer), which means a duration of about four months;
- The chairmanship of the OSCC shall be assumed by States Parties in rotation, determined by alphabetical order in the French language. Each chairmanship shall serve from the opening of a session until the opening of the following session, unless otherwise agreed;
- While in session, the OSCC shall meet formally at least once, but no more than once per month. Informal meetings of the OSCC will be convened by the OSCC chairmanship when needed.
- Decisions of the OSCC shall be recorded in the Journal by the OSCC Chairperson. Each decision shall be attached to the Journal; it shall also be published as a separate document with an OSCC decision number, starting on 1 January and finishing on 31 December of each calendar year;

The provisions of the present decision shall enter into force on 1 January 2002.

OSCC/XXVII/Dec/1/02 21 January 2002

#### OSCC DECISION No. 1/02 TO THE TREATY ON OPEN SKIES

# STATEMENTS OF THE CZECH REPUBLIC AND SLOVAKIA AS DELIVERED ON THE 4<sup>TH</sup> MEETING OF THE 3<sup>RD</sup> SESSION OF THE OSCC ON 3 MAY 1993 AND ATTACHED TO THE JOURNAL

The States Parties to the Treaty on Open Skies recalling the statements made by the Czech Republic and Slovakia as direct successor States of the former Czech and Slovak Federal Republic at the 4th Meeting of the 3rd Session of the OSCC on 3 May 1993,

Have agreed as follows:

The above mentioned statements annexed to this decision shall be deemed as a fulfilment of the requirements necessary in order for the Czech Republic and Slovakia fully to exercise the rights and fulfil the obligations as set forth in the Treaty.

The States Parties to the Treaty note, that the technical information contained in paragraphs II, III, and IV of the above mentioned statements of the Czech Republic and Slovakia have been updated to reflect the actual situation since 3 May 1993 in compliance with the procedures set by the Treaty through relevant notifications.

# STATEMENTS OF THE CZECH REPUBLIC AND SLOVAKIA AS DELIVERED ON THE 4TH MEETING OF THE 3RD SESSION OF THE OSCC ON 3 MAY 1993 AND ATTACHED TO THE JOURNAL

#### 1. Statement of the Czech Republic

The Czech Republic, as one of the direct successor States of the former Czech and Slovak Federal Republic, declares that it assumes all rights and obligations of the former Czech and Slovak Federal Republic under the Open Skies Treaty and makes the following requests and notifications to the Open Skies Consultative Commission.

Quotas:

I. A Passive quotas:

For the purpose of Annex A, section I, paragraph 1, the passive quota of the Czech Republic should be 4 after entry into force of the Treaty.

It is suggested that for the purpose of accepting observation flights by the States Parties which have acquired rights to overfly the former CSFR and taking into account the provisions of

1/3

# OSCC/XXVII/Dec/1/02 21 January 2002

Annex A, section II, paragraph 1, the allocation of passive quotas of the Czech Republic for the first distribution will be as follows:

-	Canada:	1 overflight
-	The Kingdom of Spain:	1 overflight
-	Ukraine:	1 overflight

I. B Active quotas :

The active quota of the Czech Republic should be 4 observation flights after entry into force of the Treaty with due account of Article III, Section I, paragraph 5.

It is suggested that the active quotas of the Czech Republic will be distributed for the first distribution for the purpose of Annex A, section II, paragraph I as follows :

- 1 overflight over the territory of the Federal Republic of Germany
- not allocated

- not allocated

II. According to Annex A, section III and Annex E, paragraph 5 (A), the maximum flight distance of observation flights over the territory of the Czech Republic will be 960 km.

III. According to Annex E, Appendix I, section II, the Czech Republic has declared that PRAHA INTERNATIONAL will be the site to be used as point of entry, point of exit, Open Skies airfield, refuelling airfield, calibration target, and site for inspection of aircraft/sensors.

IV. The diplomatic clearance number (as set forth in article VI, section I, paragraph 4) and the list of designated personnel (as set forth in article XIII, section 1, paragraph 1) were communicated to other States parties on 22 March, 1993 by means of a note verbale No. 98/93 of the Czech Delegation.

2. Statement of Slovakia

Slovakia, as one of the direct successor States of the former Czech and Slovak Federal Republic, declares that it assumes all rights and obligations of the former Czech and Slovak Federal Republic under the Open Skies Treaty and makes the following requests and notifications to the Open Skies Consultative Commission.

I. Quotas:

I. A Passive quotas :

For the purpose of Annex A, section I, paragraph 1, the passive quota of Slovakia should be 4 after entry into force of the Treaty.

#### OSCC/XXVII/Dec/1/02 21 January 2002

It is suggested that for the purpose of accepting observation flights by the States Parties which have acquired rights to overfly the former CSFR and taking into account the provisions of Annex A, section II, paragraph 1, the allocation of passive quotas of Slovakia for the first distribution will be as follows:

-	Canada:	1 overflight
-	The Kingdom of Spain:	l overflight
-	Ukraine:	1 overflight

#### I. B Active quotas:

The active quota of Slovakia should be 4 observation flights after entry into force of the Treaty with due account of Article III, Section I, paragraph 5.

It is suggested that the active quotas of Slovakia will be distributed for the first distribution for the purpose of Annex A, section II, paragraph 1 as follows:

- 1 overflight on Ukraine.
- not allocated
- not allocated

II. According to Annex A, section III and Annex E, paragraph 5 (A), the maximum flight distance of observation flights over the territory of Slovakia will be 1300 km.

III. According to Annex E, Appendix I, section II, Slovakia has declared that BRATISLAVA will be the site to be used as point of entry, point of exit, Open Skies airfield, refuelling airfield, calibration target, and site for inspection of aircraft /sensors.

IV. The diplomatic clearance number (as set forth in article VI, section I, paragraph 4) and the list of designated personnel (as set forth in article XIII, section 1, paragraph 1) were communicated to other States parties on 26 March, 1993 by means of a note verbale No. 207/93 of the Slovak Delegation.

#### DECISION No. 2/02 TO THE TREATY ON OPEN SKIES

# ACCESSION OF THE REPUBLIC OF FINLAND TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Having received from the Depositaries the application of the Republic of Finland for accession to the Treaty on Open Skies, deposited on 4 January 2002, in Budapest and 7 January 2002 in Ottawa,

Pursuant to the provisions of paragraph 4 of Article XVII of the Treaty on Open Skies,

Has decided:

That the application for accession of the Republic of Finland to the Treaty on Open Skies is accepted.

In accordance with paragraph 6 of article XVII, the Treaty shall enter into force for the Republic of Finland sixty days after the deposit of its instrument of accession with the Government of Canada or with the Government of the Republic of Hungary or both.

Done at Vienna in the Open Skies Consultative Commission on 21 January 2002, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/XXVII/Dec/3/02 21 January 2002

#### DECISION No. 3/02 TO THE TREATY ON OPEN SKIES

# ACCESSION OF THE KINGDOM OF SWEDEN TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Having received from the Depositaries the application of the Kingdom of Sweden for accession to the Treaty on Open Skies, deposited on 4 January 2002, in Budapest and 7 January in Ottawa,

Pursuant to the provisions of paragraph 4 of Article XVII of the Treaty on Open Skies,

Has decided:

That the application for accession of the Kingdom of Sweden to the Treaty on Open Skies is accepted.

In accordance with paragraph 6 of article XVII, the Treaty shall enter into force for the Kingdom of Sweden sixty days after the deposit of its instrument of accession with the Government of Canada or with the Government of the Republic of Hungary or both.

Done at Vienna in the Open Skies Consultative Commission on 21 January 2002, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

#### DECISION No. 4/02 TO THE TREATY ON OPEN SKIES

#### PROVISIONS FOR THE USE OF A STANDARD "SIGNATURE PAGE TO THE CERTIFICATION REPORT"

The Open Skies Consultative Commission, in accordance with Annex D, Section I, paragraphs 7 and 9, and Section IV, of the Treaty on Open Skies, has decided as follows:

#### SECTION I. PROVISIONS

1. Upon completion of a certification of observation aircraft and sensors, two original signature pages to the "Certification Report" (F25) shall be prepared. The "Signature Page to the Certification Report" shall be in the format attached to this decision.

2. Upon agreement of the "Certification Report" (F25), the signature page shall be promptly signed by the senior representative of each State Party taking part in the certification.

3. The contents of the "Certification Report" (F25), including the REMARKS section, are subject to agreement by the State Party conducting the certification and the States Parties taking part in the certification. The REMARKS section of the "Certification Report" (F25) may be used to document any comments or explanations, including cases in which the observation aircraft and/or specific sensor configuration(s) do not pass established certification criteria. Additionally, individual States Parties taking part in the certification have the right to document comments using the "Miscellaneous" format (F35).

4. In the event that the "Certification Report" (F25) is not signed by the senior representative of one or more States Parties, an explanation by that (those) representative(s) shall be provided to all States Parties taking part in the certification no later than the end of the certification and documented using the "Miscellaneous" format (F35) within 14 days.

5. The State Party conducting the certification of observation aircraft and sensors shall retain one original, signed "Signature Page to the Certification Report". The second original signature page shall accompany the "Certification Report" (F25) sent to the OSCC. A copy shall be provided to the States Parties taking part in the certification.

6. The "Certification Report" (F25), excluding the signature page, shall be transmitted over the OSCE communications network to all State Parties.

#### OSCC/XXVII/Dec/4/02 18 February 2002

#### SECTION II. REVIEW CLAUSE

The provisions of this Decision shall be re-examined on the basis of practical experience if so requested by a State Party after 31 December 2002.

.....

This Decision shall enter into force on the day of its adoption and shall have the same duration as the Treaty on Open Skies.

Decided in Vienna, in the Open Skies Consultative Commission, on 18 February 2002, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

# SIGNATURE PAGE TO THE CERTIFICATION REPORT

# Open Skies Format 25 Open Skies Message Number: OS/// /F25/O

The following States Parties took part in the certification of observation aircraft and sensors of (State Party) for the period (dates of certification) and certify that the designated aircraft and sensors that are declared certified, are in compliance with the Articles and Decisions of the Treaty on Open Skies.

# STATE PARTY

#### NAME OF THE SENIOR SIGNATURE REPRESENTATIVE

OSCC/XXVII/Dec/5/02 18 February 2002 

# DECISION No. 5/02 TO THE TREATY ON OPEN SKIES

# PROVISIONS FOR THE USE OF "PG" AS A UNIQUE IDENTIFIER FOR POD GROUP SENSOR CONFIGURATIONS

The States Parties to the Treaty on Open Skies have decided as follows:

#### SECTION I. PROVISIONS

1. The States Parties belonging to the "Pod Group" (at present Benelux, Canada, France, Greece, Italy, Norway, Portugal and Spain) may utilize the "PG" identifier in preparing OS Formats 3, 4, 5, 6, 8 and 25.

2. One of the "Pod Group" States Parties (at present France), on behalf of all the "Pod Group" States Parties, shall issue OS Formats 3, 4, 5, 6 and 25.

3. Each "Pod Group" State Party shall issue a separate OS Format 8.

This decision shall enter into force on the day of its adoption and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 18 February 2002, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

\*\*\*\*\*\*

#### DECISION No. 6/02 TO THE TREATY ON OPEN SKIES

# PROCEDURES FOR ALLOCATION OF OBSERVATION FLIGHT REFERENCE NUMBERS

The Open Skies Consultative Commission, in accordance with Appendix 1 to Annex B, Paragraph 1, of the Treaty on Open Skies, has decided as follows:

SECTION I. PROVISIONS

1. The allocation of Open Skies Observation Flight Reference Numbers is contained in the attached Annex, and shall be used with Formats 12, 14 and 17.

2. The Observation Flight Reference Numbers allocated to each State Party or Group of States Parties shall be as follows:

- Each State Party or Group of States Parties shall be allocated at least 4 numbers; and
- b) The numbers allocated shall be no less than 25 per cent greater than the full passive quota of each State Party or Group of States Parties, rounded up to the nearest whole number, but no less than the full Passive Quotas plus 2.

3. The Observation Flight Reference Numbers for Training Flights allocated to each State Party shall be equal to the number of Observation Flight Reference Numbers allocated to that State Party, and shall be the numbers of the block of Observation Flight Reference Numbers allocated plus 500.

4. All States Parties shall use the next available number in the allocated sequence for each Observation Flight or Training Flight, beginning with the first allocated number for each calendar year.

5. Additional States Parties or Groups of States Parties acceding to the Treaty shall adopt the next available sequence of numbers at the end of the appropriate current list in the Annex, in accordance with OSCC agreement on the passive quota for such States Parties or Group of States Parties. The Open Skies Observation Flight Reference Numbers shall be effective 60 days after the deposit of the Acceding State's Instrument of Ratification or Accession, as per Article XVII, paragraph 6 of the Treaty on Open Skies.

6. The Annex to this Decision will be updated in accordance with each accession per paragraph 5 above, and will be re-issued to all States Parties.

# OSCC/XXVII/Dec/6/02 18 February 2002

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# SECTION II. REVIEW CLAUSE

The provisions of this Decision shall be re-examined on the basis of practical experience if so requested by a State Party after 31 December 2003.

\*\*\*\*\*\*

This decision shall enter into force on the day of its adoption and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission, on 18 February 2002, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/XXVII/Dec/6/02 18 February 2002

	FULL	75%	min 25%	OBSERVATION	TRAINING
	PASSIVE QUOTA	PASSIVE OUOTA	BUT not < 2	FLIGHT REFERENCE NUMBER	FLIGHT REFERENCE NUMBER
STATE PARTY	QUUIA	QUUIN	1101 < 2	KEPEREINCE NOMIBER	KEFEKENCE NUMBER
			<b>6</b> 0		<u> </u>
Russian Federation (RU) /	42 .	31	53	001 - 053	501 - 553
Belarus (BY) Group of					
States Parties	10			054 0(0)	554 560
Germany (DE)	12	9	15	054 - 068	554 - 568
United States of America (US)	42	31	53	069 - 121	569 - 621
Benelux (BX)	6	4	8	122 - 129	622 - 629
Bulgaria (BG)	4	3	6	130 - 135	630 - 635
Canada (CA)	12	9	15	136 - 150	636 - 650
Denmark (DK)	6	4	8	151 - 158	651 - 658
Spain (ES)	4	3	6 .	159 - 164	659 - 664
France (FR)	12	9	15	165 - 179	665 - 679
Georgia (GE)	4**	3	6	180 - 185	680 - 685
United Kingdom (GB)	12	9	15	186 - 200	686 - 700
Greece (GR)	4	3	6	201 - 206	701 - 706
Hungary (HU)	4	3	6	207 - 212	707 - 712
Iceland (IS)	4	3	6	213 - 218	713 - 718
Italy (IT)	12	9	15	219 - 233	719 - 733
Kyrgyzstan (KG)	4**	3	6	234 - 239	734 - 739
Norway (NO)	7	5	9	240 - 248	740 - 748
Poland (PL)	6	4	8	249 - 256	749 - 756
Portugal (PT)	2	- 1	4	257 - 260	757 - 760
Romania (RO)	6	4	8	261 - 268	761 - 768
Slovak Republic (SK)	4	3	6	269 - 274	769 - 774
Czech Republic (CZ)	4	3	6	275 - 280	775 - 780
Turkey (TR)	12	9	15	281 - 295	781 - 795
Ukraine (UA)	12	9	15	296 - 310	796 - 810
Finland (FI)	5***	3	7	311 - 317	811 - 817
Sweden (SE)	7***	5	9	318 - 326	818 - 826
acceding state					
acceding state					
acceding state					

# **OPEN SKIES OBSERVATION FLIGHT REFERENCES NUMBERS**

\*\* sample only - quota(s) not yet allocated

\*\*\* requested quota allocations

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Effective as of 18 February 2002 (Effective date will be amended, as per paragraph 6, with each additional allocation)

# OSCC/XXVII/Dec/7/02 18 March 2002

# DECISION No. 7/02 TO THE TREATY ON OPEN SKIES

# **REVISION 1 OF DECISION NUMBER ONE**

Due to a general rise of costs in the OSCE area since 1992, the Open Skies Consultative Commission, has decided to change Decision Number One to the Treaty on Open Skies of 10 December 1992, Section V, paragraph 2, subparagraph (A) to read as follows:

"(A) Travel expenses for representatives of the States Parties at the certification process, as well as costs for their meals and accommodation up to the equivalent of EUR 120 per person per day, shall be met by the State Party which they represent."

This Revision is effective from the date of its adoption.

#### OSCC/XXVIII/Dec/8/02 22 April 2002

#### DECISION No. 8/02 TO THE TREATY ON OPEN SKIES

## GUIDELINES FOR ACCESSION TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission, in accordance with Article X, paragraph 4 (D) of the Treaty on Open Skies, has decided as follows:

SECTION 1. APPLICATION FOR ACCESSION: (OS reference: Article XVII)

- According to Article XVII, there are three tiers of acceding States to the Treaty on Open-Skies:
- <u>Tier One</u>: In accordance with paragraph 3 of Article XVII, Armenia, Azerbaijan, Kazakhstan, Moldova, Tajikistan, Turkmenistan and Uzbekistan, which did not sign the Treaty before it entered into force, may now accede to the Treaty at any time by depositing an instrument of accession with one of the Treaty Depositories.
  - Note: Georgia is already a State Party to the Treaty. Kyrgyzstan has already signed the Treaty and will become a State Party following deposit of its instrument of ratification with one of the Depositories. All future references to accession will be taken to apply to ratification by Kyrgyzstan.
- <u>Tier Two</u>: In accordance with paragraph 4 of Article XVII, any other OSCE States who are currently neither OS States Parties nor fall into the Tier One category, may apply to accede to the treaty by submitting a written request to one of the Depositories at any time during a six month period following entry into force of the treaty. The Depository receiving such a request shall circulate it promptly to all States Parties.
  - <u>Tier Three</u>: In accordance with paragraph 5 of Article XVII, six months after entry into force of the Treaty (1 July 2002), the OSCC may consider applications from any State which in the judgement of the OSCC is able and willing to contribute to the objectives of the Treaty on Open Skies. When considering applications from OSCE States, the OSCC shall take into account the Ministerial Declaration made in Helsinki on 24 March 1992. The Depository receiving such a request shall circulate it promptly to all States Parties.

SECTION 2: CONSIDERATION OF ACCESSION APPLICATIONS BY THE OSCC: (OS Reference: Article XVII)

 In accordance with paragraph 3, Article XVII, Tier One applications for accession do not require OSCC approval.

#### OSCC/XXVIII/Dec/8/02 22 April 2002

- Following circulation of an application to accede to the Treaty by any Tier Two State, the application shall be considered at the next regular OSCC meeting and decided in due course.
  - In accordance with paragraph 5 of Article XVII, six months after entry into force of the Treaty (1 July 2002), the OSCC may consider applications from any State which in the judgement of the OSCC is able and willing to contribute to the objectives of the Treaty on Open Skies. When considering applications from OSCE States, the OSCC shall take into account the Ministerial Declaration made in Helsinki on 24 March 1992. The Treaty does not specify when applications may be considered or when a decision on such applications must be taken. The Depositories shall inform promptly all States Parties of the application for accession, the name of the requesting State and the result of the procedure.
- There are no time limits between the OSCC accession approval and the deposit of the acceding State's instrument of accession. In accordance with paragraph 7(c) of Article XVII, the Treaty Depositories shall inform promptly all State Parties of the date of deposit and the date of entry into force of the Treaty for each State that subsequently accedes to it.
  - In accordance with Paragraph 6 of Article XVII, the acceding State shall gain State Party status 60 days after the deposit of its instrument of accession.

SECTION 3: THE ALLOCATION OF PASSIVE QUOTAS: (OS Reference: Article III, Article XVII, Annex A, Section I, paragraph 2)

- In accordance with Article III, Section 1, paragraph 2, a State shall be obliged to accept observation flights over its territory once it becomes a State Party.
- States applying for accession may, if they wish, request an allocation of a passive quota and the level of this quota. They may do this at the same time they notify the Depositories of their intent to accede or later in the accession process. The OSCC will look into developing guidelines to help acceding States in determining the passive quota to request.
  - An allocation of passive quota to an acceding State shall be considered during the regular session of the OSCC following the date of the deposit of its instrument of accession. An OSCC decision shall then be adopted and take effect after entry into force of the Treaty for that acceding State.

SECTION 4: THE DISTRIBUTION OF ACTIVE QUOTAS (OS Reference: Article III, Annex A, Section II, paragraph 4)

In accordance with Article III, Section 1, a State shall have the right to conduct observation flights once it becomes a State Party and following the allocation of its active quota. Its total active quota shall not exceed its total passive quota. Distribution of the active quota shall only be considered by the OSCC following the deposit of a State's instrument of accession and shall follow the decision on the allocation of passive quotas. The OSCC shall consider the distribution of active quotas during the regular session of the OSCC. The distribution of the active quotas shall become effective following OSCC approval and be subject to annual reviews in accordance with the provisions of the Treaty.

SECTION 5: CONTRIBUTION TO THE SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OSCC (OS Reference: OSCC Decision No. 10: 16 July 1993, Article X, Annex L, Section 1, paragraph 9)

Following the deposit of an acceding State's instrument of accession, the OSCC shall consider the redistribution of OSCC costs at the next regular OSCC meeting and settle it as soon as possible. A State shall become liable for OSCC costs sixty days after deposit of its instrument of accession, effective at the beginning of the next OSCE budget quarter following OSCC agreement on the redistribution of costs.

SECTION 6: ALLOCATION OF OBSERVATION FLIGHT REFERENCE NUMBERS BY THE OSCC (OS Reference: Appendix 1 to Annex B, paragraph 1 and OSCC Decision No. 6/02, 18 February 2002, OSF 12, 14 and 17)

- In accordance with OSCC Decision No. 6/02 of 18 February 2002, and following OSCC agreement on the passive quota for an acceding State, the OSCC shall allocate to the acceding State observation flight reference numbers for use in conducting observation flights or training flight missions.
- Observation flight reference numbers shall become effective 60 days after the deposit of the States' instrument of accession.

SECTION 7: ALLOCATION OF CALL-SIGN CODE (OS Reference: Decision No. 20, 12 June 1995 and Annex of 14 December 1998)

- Within sixty days of the deposit of the instrument of accession, the OSCC shall confirm the assignment of the next available Call-Sign code for each acceding State in accordance with OSCC Decision No. 20, including the annex of 14 December 1998, paragraph 3.
- Call Sign Codes shall become effective sixty days after the deposit of the States instrument of accession.

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OSCC/XXVIII/Dec/8/02 22 April 2002

The OSCC shall take the necessary steps in order to register the OS Call Sign Codes with ICAO.

# SECTION 8: PROVISION OF OPEN SKIES NOTIFICATION SOFTWARE TO ACCEDING STATES

- The OSCC shall arrange for each acceding State to receive the required Open Skies notification software and training on how to use the software. The OSCC has agreed to use the OSCE Communications Network as a means for the exchange of Treaty notifications and States Parties are encouraged to do so, if possible. The OSCC shall inform the OSCE Communications Group of its approval of an application request from a State to accede to the Treaty submitted by a State or that of a Tier One State who has deposited its Instrument of Accession.
- The OSCC shall distribute requisite software upgrades to enable them to participate in the exchange of notifications required between States Parties.
- OS NOFES software changes shall be made in order to allow an acceding State to participate fully in exchange of Treaty notifications 60 days after the deposit of its instrument of accession. If it so wishes, an acceding State may use the software for the purpose of communicating to States Parties the information requested under Sections 9-13 of this document during the 60 day period following deposit.

#### SECTION 9: DESIGNATION OF PERSONNEL (OS Reference: Article XIII, OSF 18)

Sixty days after the deposit of a State's instrument of accession, an acceding State shall submit to all other States Parties a list of designated personnel relating to the conduct of observation flights including those involved in monitoring and processing sensor output. The list should not exceed four hundred individuals. The list should include the name, gender, date of birth, place of birth, passport number and function of each individual. The original list and subsequent amendments are subject to approval by all other States Parties. Information on personnel should be submitted via OS Format 18, using the OSCE Communications Network, if possible. This information may be provided during the 60 day period following deposit of the instrument of accession at the discretion of the acceding State.

# SECTION 10: DESIGNATION OF POINTS OF ENTRY AND EXIT, OPEN SKIES AIRFIELDS AND REFUELLING AIRFIELDS (OS Reference: Annex E including Appendix 1 to Annex E)

 Sixty days after the deposit of its instrument of accession, the acceding State shall submit to all States Parties their designated points of entry/exit, open skies airfields, refuelling airfields and calibration target sites (OSF26). This information may be provided during the 60 day period following deposit of the instrument of accession at the discretion of the acceding State.

#### OSCC/XXVIII/Dec/8/02 22 April 2002

SECTION 11: MAXIMUM FLIGHT DISTANCES (OS Reference: Annex A, Section 3 and Annex E, paragraphs 1-5)

Sixty days after the deposit of a State's instrument of accession, the acceding State shall inform all States Parties of the maximum flight distances over its territory from/to the commencement and termination of observation flights (OSF26). This information may be provided during the 60 day period following deposit of the instrument of accession at the discretion of the acceding State.

SECTION 12: INFORMATION ON AIRSPACE AND FLIGHTS IN HAZARDOUS AIRSPACE (OS Reference: Annex I)

- Sixty days after deposit of its instrument of accession, an acceding State shall notify all other State Parties of the source of the information referred to in paragraph 1 of Annex I. This information may be provided during the 60 day period following deposit of the instrument of accession at the discretion of the acceding State.
- According to paragraph 1 of Annex I, at the request of any other State Party (OSF 30) a State Party shall provide information on airspace structures, hazardous airspace and airfields within thirty days of receipt of such a request.

SECTION 13: DIPLOMATIC CLEARANCE NUMBERS AND LANGUAGES TO BE USED (OS Reference: Article VI, Section 1, paragraph 4(a), Article XVIII, Section 1, paragraph 1(a) and OSCC Chairman's Statement of 18 February 2002)

In accordance with Article VI, Section 1, Paragraph 4(a) of the Treaty, sixty days after the deposit of its instrument of accession, an acceding State shall provide all States Parties with standing diplomatic clearance numbers for Open Skies observation flights and the language(s) its personnel shall use for all activities associated with the conduct of observation flights over its territory (OSF 11). This information may be provided during the sixty day period following deposit of the instrument of accession at the discretion of the acceding State.

SECTION 14: OBLIGATIONS OF EXISTING STATES PARTIES TO ACCEDING STATES

- Existing States Parties shall provide the information outlined in Sections 9-13 of this document to acceding States no later than sixty days after deposit of the acceding States' instrument of accession.

OSCC/XXVIII/Dec/9/02 13 May 2002

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# DECISION No. 9/02 TO THE TREATY ON OPEN SKIES

# PROTECTION OF DATA COLLECTED DURING OBSERVATION FLIGHTS AND TRANSFER OF RECORDING MEDIA CONTAINING THIS DATA

The Open Skies Consultative Commission, taking into consideration the sensitive nature of the data collected during observation flights to the security interests of the States Parties and pursuant to Article IX, Section I, paragraph 4 of the Treaty, has decided as follows:

1. The States Parties shall ensure that data collected by sensors during observation flights shall be used exclusively for the attainment of the purposes of the Treaty. Data collected by sensors during observation flights shall be considered sensitive information and shall be made available to States Parties. Each State Party shall take necessary measures to protect the security of this data.

2. Transfers of recording media containing the data collected by sensors during observation flights from one State Party to another State Party shall be documented in accordance with the Annex of this Decision.

\* \* \* \* \*

This Decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty on Open Skies.

Decided in Vienna, in the Open Skies Consultative Commission on 13 May 2002, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/XXVIII/Dec/9/02 I3 May 2002

## RECEIPT FOR THE RECORDING MEDIA CONTAINING OBSERVATION FLIGHT DATA

1.	Observing Party:								
2.	Observed Party:								
3.	Requesting Party:								
4.	Place of transfer:								
5.	Date and time of transfer:								
6.	Observation flight reference number:								
7.	Reference to notification format (OSF 14 or OSF 17) containing transferred data description:								
Tota	: aerial films								
	cassettes								
	diskettes								
	Handed over by								
	Received by (signature, name)								

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### OSCC/XXVIII/Dec/10/02 10 June 2002

## DECISION No. 10/02 TO THE TREATY ON OPEN SKIES

## REVISION 1 OF DECISION NUMBER EIGHTEEN TO THE TREATY ON OPEN SKIES

In an attempt to provide for economic use of scarce resources the Open Skies Consultative Commission has decided to change Decision Number Eighteen to the Treaty on Open Skies of 12 October 1994, paragraph 3, to read as follows:

"3. The observing Party shall provide copies of the original data from an observation flight in response to requests received before the expiration of the specified two-year period. It shall make every effort to provide the copies, no later than 45 days after receipt of a request, to States Parties which request them, unless otherwise agreed. However, for requests sent within the first 30 days after transmission of the mission report this 45 day period starts 30 days after the mission report was transmitted."

This revision is effective from the date of its adoption.

OSCC/XXVII/Dec/11/02 10 June 2002

## DECISION No. 11/02 TO THE TREATY ON OPEN SKIES

## REVISION 2 OF DECISION NUMBER ONE TO THE TREATY ON OPEN SKIES

Due to a general rise of costs in the OSCE area since 1992, the Open Skies Consultative Commission, has decided to change Decision Number One to the treaty on Open Skies of December 1992, Section V, paragraph 2, subparagraph (B) to read as follows:

"(B) Unless otherwise agreed, the observed Party shall not charge more than the equivalent of EUR 120 in a convertible currency per person per day for meals and accommodation provided to the personnel of the observing Party. This figure will be subject to review on the request of a State Party".

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This revision is effective from 1 January 2003.

OSCC/XXVIII/Dec/12/02 22 July 2002

### DECISION No. 12/02 TO THE TREATY ON OPEN SKIES

## ALLOCATION OF A PASSIVE QUOTA TO SWEDEN

The Open Skies Consultative Commission (OSCC),

In accordance with the provisions of the Treaty on Open Skies and, notably, Article III, Section I, paragraph 2, Article X, paragraph 4 (D), Article XVII, paragraph 4 and the contents of Annex A, Section I to the Treaty, with the procedures outlined in Section 3 of OSCC Decision No. 8/02/Corr. 1,

#### Decides:

To allocate a passive quota of seven to Sweden. This decision shall take effect upon entry into force of the Treaty for Sweden.

## OSCC/XXVII/Dec/13/02 22 July 2002

#### DECISION No. 13/02 TO THE TREATY ON OPEN SKIES

#### ALLOCATION OF OBSERVATION FLIGHT REFERENCE NUMBERS

The Open Skies Consultative Commission, in accordance with Appendix 1 to Annex B, paragraph 1, of the Treaty on Open Skies, has decided as follows:

#### SECTION I. PROVISIONS

1. The allocation of Open Skies Observation Flight Reference Numbers is contained in the attached Annex, and shall be used with Formats 12, 14 and 17.

2. The Observation Flight Reference Numbers allocated to each State Party or Group of States Parties shall be as follows:

- (A) Each State Party or Group of States Parties shall be allocated at least four numbers; and
- (B) The numbers allocated shall be no less than 25 per cent greater than the full passive quota of each State Party or Group of States Parties, rounded up to the nearest whole number, but no less than the full Passive Quotas plus two.

3. The Observation Flight Reference Numbers for Training Flights allocated to each State Party shall be equal to the number of Observation Flight Reference Numbers allocated to that State Party, and shall be the numbers of the block of Observation Flight Reference Numbers allocated plus 500.

4. All States Parties shall use the next available number in the allocated sequence for each Observation Flight or Training Flight, beginning with the first allocated number for each calendar year.

5. Additional States Parties or Groups of States Parties acceding to the Treaty shall adopt the next available sequence of numbers at the end of the appropriate current list in the Annex, in accordance with OSCC agreement on the passive quota for such States Parties or Group of States Parties. The Open Skies Observation Flight Reference Numbers shall be effective 60 days after the deposit of the Acceding State's Instrument of Ratification or Accession, as per Article XVII, paragraph 6 of the Treaty on Open Skies.

6. The Annex to this decision will be updated in accordance with each accession per paragraph 5 above, and will be re-issued to all States Parties.

#### OSCC/XXVII/Dec/13/02 22 July 2002

## SECTION II. REVIEW CLAUSE

The provisions of this decision shall be re-examined on the basis of practical experience if so requested by a State Party after 31 December 2003.

\*\*\*\*\*\*

This decision shall enter into force upon Sweden's accession to the Treaty on 27 August 2002 and shall have the same duration as the Treaty.

## OSCC/XXVII/Dec/13/02 22 July 2002

#### ANNEX

## **OPEN SKIES OBSERVATION FLIGHT REFERENCES NUMBERS**

STATE PARTY	FULL	75%	min 25%	OBSERVATION	TRAINING
	PASSIVE	PASSIVE	BUT	FLIGHT	FLIGHT
	QUOTA	QUOTA	not < 2	REFERENCE NUMBER	REFERENCE NUMBER
			_		
Russian Federation (RU)/					
Belarus (BY) Group of		i			
States Parties	42	31	53	001 - 053	501 - 553
Germany (DE)	12 •	9	15	054 - 068	554 - 568
United States of America (US)	42	31	53	069 - 121	569 - 621
Benelux (BX)	6	4	8	122 - 129	622 - 629
Bulgaria (BG)	4	3	6	130 - 135	630 - 635
Canada (CA)	12	9	15	136 - 150	636 - 650
Denmark (DK)	6	4	8	151 - 158	651 - 658
Spain (ES)	4	3	6	159 - 164	659 - 664
France (FR)	12	9	15	165 - 179	665 - 679
Georgia (GE)	4*	-	-	180 - 185	680 - 685
United Kingdom (GB)	12	9	15	186 - 200	. 686 - 700
Greece (GR)	4	3	6	201 - 206	701 - 706
Hungary (HU)	4	3	6	207 - 212	707 - 712
Iceland (IS)	<b>4</b> ·	3	6	213 - 218	713 - 718
Italy (IT)	12	. 9	15	219 - 233	719 - 733
Kyrgyzstan (KG)	4**	3	6	234 - 239	734 - 739
Norway (NO)	7	5	9	240 - 248	740 - 748
Poland (PL)	6	4	8	249 - 256	749 - 756
Portugal (PT)	2	1	4	257 - 260	757 - 760
Romania (RO)	6	4	8	261 - 268	761 - 768
Slovak Republic (SK)	. 4	3	6	269 - 274	769 - 774
Czech Republic (CZ)	4	3	6	275 - 280	775 - 780
Turkey (TR)	12	9	15	281 - 295	781 - 795
Ukraine (UA)	12	9	15	296 - 310	796 - 810
Sweden (SE)	7	5	9	311 - 319	811 - 819
Finland (FI)	5***	3	7	320 - 326	820 - 826
acceding State		· · · · · · · · · · · · · · · · · · ·			
acceding State					
acceding State					1
accessing Grate	L		1	1	

\*. not yet allocated passive quotas to this State Party

\*\* sample only - quota(s) not yet allocated

\*\*\* requested quota allocations

Effective as of 27 August 2002

(Effective date will be amended, as per paragraph 6, with each additional allocation.)

OSCC/XXVII1/Dec/14/02 22 July 2002

## DECISION No. 14/02 TO THE TREATY ON OPEN SKIES

## **REVISION 1 OF DECISION NUMBER TWENTY**

Due to the upcoming accession of Sweden to the Treaty on Open Skies and in accordance with Decision Number Twenty of 12 June 1995 and in particular with paragraph 3 of the Annex attached to that Decision, the Open Skies Consultative Commission has decided to revise the Annex to Decision Number Twenty of 12 June 1995 and adopt the attached Annex.

This decision shall enter into force upon Sweden's accession to the Treaty on 27 August 2002 and shall have the same duration as the Treaty.

#### OSCC/XXVIII/Dec/14/02 22 July 2002

ANNEX

## CODES FOR THE STATES PARTIES OR GROUPS OF STATES PARTIES FOR THE PURPOSE OF RADIOTELEPHONY COMMUNICATION WITH AIR TRAFFIC SERVICE UNITS

- 11 Germany
- 12 United States of America
- 13 Belarus
- 14 Benelux
- 15 Bulgaria
- 16 Canada
- 17 Denmark
- 18 Spain
- 19 France
- 21 Georgia
- 22 United Kingdom
- 23 Greece

- 24 Hungary
- 25 Iceland
- 26 Italy
- 27 Kyrgyzstan
- 28 Norway
- 29 Poland
- 31 Portugal
- 32 Romania
- 33 Russian Federation
- 34 Slovakia
- 35 Czech Republic
- 36 Turkey
- 37 Ukraine
- 38 Sweden
- 91 Belarus and Russian Federation group of States Parties
- 92 Western European Union group of States Parties

States Parties operating more than one aircraft at the same time should after the country code add a self-assigned figure between one and nine to distinguish safely between their aircraft.

The codes for the States Parties or groups of States Parties shall be listed as follows:

1. In alphabetical order to the French alphabet.

2. Once a number has been allocated that number shall be retained by the respective State Party or group of States parties.

3. Additional States Parties or groups of States Parties acceding to the Treaty shall adopt the next available number at the end of the appropriate current list.

## OSCC/XXVIII/Dec/14/02 22 July 2002

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This Annex is an integral part of Decision Number Twenty of 12 June 1995. It has entered into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

#### DECISION No. 15/02 TO THE TREATY ON OPEN SKIES

## PROVISION ON CALIBRATION TARGETS

Article VI, Section I, paragraph 17(A), provides that: "The observed Party shall provide a calibration target...to be overflown during the demonstration flight or the observation flight upon the request of either Party, for each sensor that is to be used during the observation flight."

The Treaty on Open Skies does not address the implementation of calibration targets to be overflown during observation flights in a manner comparable to the detailed implementation guidelines provided in Annex F, Section III for calibration targets to be overflown during demonstration flights.

In order to resolve ambiguities and differences of interpretation that may become apparent in implementation of the requirement to provide a calibration target during observation flights, in accordance with Article X, paragraph 4(B) of the Treaty on Open Skies, and recognizing the financial burden placed on many States Parties to supply calibration targets, the OSCC has decided that:

When the aircraft is provided by the observing Party, the observed Party shall not be obliged to provide a calibration target unless the observed Party requests a demonstration flight or overflight during the observation flight.

When the aircraft is provided by the observed Party, the observed Party shall not be obliged to provide a calibration target unless the observing Party requests a demonstration or overflight during the observation flight.

This decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty on Open Skies.

OSCC/XXVII/Dec/16/02 22 July 2002

#### DECISION No. 16/02 TO THE TREATY ON OPEN SKIES

## MISSION PLAN SUBMISSION AND REVIEW

The Open Skies Consultative Commission, in accordance with OSCC Decision Number Nineteen and on the basis of the experience of joint trial flights and in order to ensure common interpretation of the parameters of the mission plan during its preparation, has decided as follows:

#### SECTION I. DEFINITION OF TERMS

The following definitions shall apply for the purposes of this decision:

1. Turn Short - manoeuvre to change the flight path of the observation aircraft before the declared turn point of the route and directly intercepting the next leg of the selected course of the observation flight. The "turn short" technique is appropriate if the observing party does not intend to use authorized sensors close to the declared turn point of the route.

2. Overflight turn - overflying the declared turn point of the route and maneuver to change the flight path of the observation aircraft in the shorter direction to intercept the next leg of the selected course. The "overflight turn" technique is appropriate if the observing party intends to use authorized sensors just prior to the turn point of the route, but does not intend to use authorized sensors in the first portion of the leg after the turn point of the route.

3. Loop turn - maneuver to change the flight path of the observation aircraft after overflying the turn point of the route to overfly the turn point of the route on the selected course for the following leg. The "loop turn" technique is appropriate if the observing party intends to use authorized sensors just prior to and just after the turn point of the route.

#### SECTION II. MISSION PLAN

1. The mission plan shall include estimated mission timing for navigating between the turn points of the route by the observation aircraft throughout the mission. These calculations must take into account the time spent on the execution of any loop turns.

2. The flight map attached to the mission plan shall indicate the turn points. Turn points that are intended to be flown as loopturns shall be annotated as such.

3. If the observing party's mission plan envisages use of the "loop turn" type of maneuver after passing the turn point of the route, the observing party shall identify the turn point number where the loop turn will occur, in the field "Remarks". To simplify air traffic control coordination, use of loop turns should be kept to a minimum.

## OSCC/XXVIII/Dec/16/02 22 July 2002

4. To ensure the safe conduct of the observation flight, the agreed mission plan shall be reviewed jointly by the observed and observing parties with the participation of the necessary experts. This review may include anticipated procedures for all turning points.

5. The points in this decision are to facilitate mission planning and coordination and do not, in any way, restrict flight crew flexibility in executing the actual mission.

This decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty.

OSCC/XXVII/Dec/17/02 22 July 2002

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## DECISION No. 17/02 TO THE TREATY ON OPEN SKIES

## ACCESSION OF THE REPUBLIC OF LITHUANIA TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Having received from the Depositaries the application of the Republic of Lithuania for accession to the Treaty on Open Skies, deposited on 30 May 2002, in Ottawa,

Pursuant to the provisions of paragraph 4 of Article XVII of the Treaty on Open Skies,

Has decided as follows:

That the application for accession of the Republic of Lithuania to the Treaty on Open Skies is accepted.

In accordance with paragraph 6 of Article XVII, the Treaty shall enter into force for the Republic of Lithuania 60 days after the deposit of its instrument of accession with the Government of Canada or with the Government of the Republic of Hungary or both.

\*\*\*\*\*\*

### DECISION No. 18/02 TO THE TREATY ON OPEN SKIES

## ACCESSION OF THE REPUBLIC OF CROATIA TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Having received from the Depositaries the application of the Republic of Croatia for accession to the Treaty on Open Skies, deposited on 28 June 2002, in Budapest,

Pursuant to the provisions of paragraph 4 of Article XVII of the Treaty on Open Skies,

Has decided as follows:

That the application for accession of the Republic of Croatia to the Treaty on Open Skies is accepted.

\*\*\*\*\*\*

In accordance with paragraph 6 of Article XVII, the Treaty shall enter into force for the Republic of Croatia 60 days after the deposit of its instrument of accession with the Government of Canada or with the Government of the Republic of Hungary or both.

## OSCC/XXVII/Dec/19/02 22 July 2002

## DECISION No. 19/02 TO THE TREATY ON OPEN SKIES

## ACCESSION OF BOSNIA AND HERZEGOVINA TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Having received from the Depositaries the application of Bosnia and Herzegovina for accession to the Treaty on Open Skies, deposited on 28 June 2002, in Ottawa,

Pursuant to the provisions of paragraph 4 of Article XVII of the Treaty on Open Skies,

Has decided as follows:

That the application for accession of Bosnia and Herzegovina to the Treaty on Open Skies is accepted.

\*\*\*\*\*\*

In accordance with paragraph 6 of Article XVII, the Treaty shall enter into force for Bosnia and Herzegovina 60 days after the deposit of its instrument of accession with the Government of Canada or with the Government of the Republic of Hungary or both.

OSCC/XXVII/Dec/20/02 22 July 2002

#### DECISION No. 20/02 TO THE TREATY ON OPEN SKIES

## ACCESSION OF THE REPUBLIC OF LATVIA TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Having received from the Depositaries the application of the Republic of Latvia for accession to the Treaty on Open Skies, deposited on 28 June 2002, in Ottawa,

Pursuant to the provisions of paragraph 4 of Article XVII of the Treaty on Open Skies,

Has decided as follows:

That the application for accession of the Republic of Latvia to the Treaty on Open Skies is accepted.

\*\*\*\*\*\*

In accordance with paragraph 6 of Article XVII, the Treaty shall enter into force for the Republic of Latvia 60 days after the deposit of its instrument of accession with the Government of Canada or with the Government of the Republic of Hungary or both.

## OSCC DECISION No. 21/02 TO THE TREATY ON OPEN SKIES

# SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION

The Open Skies Consultative Commission, pursuant to the provision of Annex L, paragraph 9 of the Treaty on Open Skies, has decided as follows:

1. The scale of distribution for the common expenses associated with the operation of the Open Skies Consultative Commission (hereafter referred to as the "scale of distribution of the Open Skies Consultative Commission") shall be based on the revised scale of distribution adopted in PC.DEC/468, dated 11 April 2002, by the Permanent Council of the OSCE (hereafter referred to as the "Standard Scale of Contributions"). The scale of distribution of the Open Skies Consultative Commission shall be revised to reflect any revisions of the Standard Scale of Contributions.

2. In accordance with OSCC.DEC/8/02/Corr.1, dated 22 April 2002, further to the deposit of Sweden's instrument of accession, the OSCC decides to redistribute OSCC costs in accordance with paragraph 4. Sweden shall become liable for OSCC costs sixty days after deposit of its instrument of accession, effective at the beginning of the next OSCE budget quarter following OSCC agreement on the redistribution of costs.

3. Recalling OSCC/III/Dec.10 paragraph 2 (B), it revises the ad hoc additional contributions of OSCC States Parties to the special regime established for those countries exempted from proportional contribution in line with the revisions made to the Standard Scale of Contributions. Annex A paragraph 3 applies.

4. Taking into account the fact that not all participating States to the OSCE are Parties to the Treaty, States Parties have to make an additional contribution to their contribution to the "Standard Scale", in order to cover the existing shortfall.

- (A) As a rule, this additional contribution will be proportional to the "Standard Scale". Nevertheless, any State Party may provide a higher additional contribution.
- (B) However, taking into account their present economic situation, those countries listed in Annex A to this Decision will be exempted from the proportional contribution mentioned in subparagraph (A) and will only make an ad hoc additional contribution, agreed by the States Parties.
- (C) The special regime established in subparagraph (B) will last as long as the economic situation on the countries listed in Annex A to this Decision so requires. The special regime will be subject to review every year.

5. As long as only participating States to the OSCE are Parties to the Treaty, and provided that there remains a shortfall to be covered, the financial contribution to the scale of distribution of the Open Skies Consultative Commission of any State Party will have to be superior to its contribution to the "Standard Scale".

6. In case of accession to the Treaty of participating States to the OSCE, their financial contributions to the scale of distribution of the Open Skies Consultative Commission will be calculated according to the principles established in paragraphs 1, 2, and 3. In that case, the financial contributions to the scale of distribution of the Open Skies Consultative Commission of the other States Parties will be reduced in due proportion. This provision does not apply to those countries listed in Annex A to this Decision, as long as the special regime established in paragraph 4, subparagraph (B) grants them the benefit of financial contributions to the scale of distribution of the Open Skies Consultative Commission lower than those of other States Parties which bear an identical contribution to the "Standard Scale".

7. In case of accession to the Treaty of non-participating States to the OSCE, their financial contributions to the scale of distribution of the Open Skies Consultative Commission as well as the scale of distribution of the Open Skies Consultative Commission will be agreed on an ad hoc basis by the Open Skies Consultative Commission.

8. As of 1 October 2002, the scale of distribution of the Open Skies Consultative Commission is agreed as follows (in percentages):

France	10.329
Germany	10.329
Italy	10.329
United Kingdom	10.329
United States of America	10.215
Russian Federation	9.050
Canada	6.185
Spain	5.100*
Netherlands	4.313
Belgium	4.029
Sweden	4.029
Denmark	2.327
Norway	2.327
Poland	1.589
Ukraine	1.510
Turkey	1.135
Portugal	0.964
Greece	0.794
Hungary	0.794
Romania	0.794
Czech Republic	0.760
Bulgaria	0.624
Luxembourg	0.624
Belarus	0.590
Slovakia	0.375
Iceland	0.216
Georgia	0.180
Kyrgyzstan	0.160
Armenia	0.000
Azerbaijan	0.000
Kazakhstan	0.000
Moldova	0.000
Tajikistan	0.000
Turkmenistan	0.000
Uzbekistan	0.000

Total

100.000

This percentage reflects the agreement of Spain to provide a higher additional contribution.

List of countries to which the special regime established in paragraph 4, subparagraph (B) of the Decision on the scale of distribution of the Open Skies Consultative Commission may apply:

Armenia Azerbaijan Belarus Georgia Kazakhstan Kyrgyzstan Moldova Russian Federation Tajikistan Turkmenistan Ukraine Uzbekistan

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1. The financial contribution to the scale of distribution to the scale of distribution of the OSCC of each State Party to the Treaty, except those which benefit from the special regime established in paragraph 4, subparagraph (B) of the above-mentioned Decision, those that provide higher additional contributions and those which are not participating States to the OSCE, is calculated as follows (in percentages):

 $OS_i = K \times H_i$ 

where: i = State Party to which the present paragraph applies

 $OS_i$  = financial contribution of State Party i

H<sub>i</sub> = contribution to the "Standard Scale" of State Party i

K = correction coefficient

2. The financial contribution to the scale of distribution of the OSCC of a State Party that provides a higher additional contribution is calculated as follows (in percentages):

$$OS_m = H_m + E_m$$

m

where:

= State Party to which the present paragraph applies

 $OS_m = financial contribution of State Party m [for 2002 = 5.100%]$ 

 $H_m$  = contribution to the "Standard Scale" of State Party m [for 2002 = 3.800%]

 $E_m$  = additional contribution of State Party m [for 2002 = 1.300%]

3. The financial contribution to the scale of distribution of the OSCC of a State Party to which the special regime established in paragraph 4, subparagraph (B) of the above-mentioned Decision applies is calculated as follows (in percentages):

 $OS_i = H_i + A_i$ 

where: j

= State Party to which the present paragraph applies

- $OS_j$  = financial contribution of State Party j
- $H_j$  = contribution to the "Standard Scale" of State Party j

 $A_j$  = ad hoc additional contribution of State Party j

State Party	Aj
Armenia	-0.150%
Azerbaijan	-0.150%
Belarus	+0.010%
Georgia	+0.010%
Kazakhstan	-0.475%
Kyrgyzstan	+0.010%
Moldova	-0.170%
Russian Federation	+0.050%
Tajikistan	-0.150%
Turkmenistan	-0.150%
Ukraine	+0.020%
Uzbekistan	-0.475%
Total	-1.620%

## 4. Coefficient K is determined from the formula:

$$K = \frac{100\% - \Sigma OS_m - \Sigma OS_j}{\Sigma H_i}$$
 [for 2002 = 1.134984]

where:

 $\Sigma_{H_i}$ 

= sum of contribution to "Standard Scale" of States Parties i see paragraph 1 above. [for 2002 = 73.490%].

 $\Sigma_{OS_m}$  = sum of contributions to the scale of distribution of the OSCC of States Parties m - see paragraph 2 above. [for 2002 = 5.100%]

 $\Sigma_{OS_j}$  = sum of contributions to the scale of distribution of the OSCC of States Parties j - see paragraph 3 above. [for 2002 = 11.490%]

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Annex B

# OSCC SCALES OF ASSESSMENT FROM 1 OCTOBER 2002 (K = 1.134984)

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Participating State	2002 Standard Scale (per cent) <b>Hi/Hm/Hj</b>	Tot Hi Hi	OSm	Em	OSj	Aj	OSi	OSCC Scale 2002 OSi/OSm/OS
France	9,100	9.100					10.328	10.3284
Germany	9.100	9.100					10.328	10.3284
Italy	9.100	9.100					10.328	10.3284
United Kingdom	9.100	9.100					10.328	10.3284
Russian Federation	9.000				9.050	0.050		9.0500
United States	9.000	9.000					10.215	10.2149
Canada	5.540	5.540					6.186	6.1857
Netherlands	3.800	3.800					4.313	4.3129
Spain	3.800		5.100	1.300			4.313	5.1000
Belgium	3.550	3.550					4.029	4.0292
Sweden	3.550	3.550					4.029	4.0292
Denmark	2.050	2.050					2:327	2.3267
Norway	2.050	2.050					2.327	2.3267
Ukraine	1.490				1.510	0.020		1.5100
Poland	1.400	1.400					1.589	1.5890
Turkey	1.000	1.000					1.135	1.1350
Belarus	0.580				0.590	0.010		0.5900
Greece	0.700	0.700					0.794	0.7945
Hungary	0.700	0.700					0.794	0.7945
Romania	0.700	0.700					0.794	0.7945
Czech Republic	0.670	0.670					0.760	0.7604
Bulgaria	0.550	0.550				•	0.624	0.6242
Kazakhstan	0.475				0.000	-0.475		0.0000
Luxembourg	0.550	0.550		1			0.624	0.6242
Portugal	0.850	0.850					0.965	0.9647
Uzbekistan	0.475			1	0.000	-0.475		0.0000
Slovakia	0.330	0.330					0.375	0.3745
lceland	0.190	0.190			ļ		0.216	0.2156
Georgia	0.170				0.180	0.010		0.1800
Moldova	0.170				0.000	-0.170		0.0000
Armenia	0.150				0.000	-0.150		0.0000
Azerbaijan	0.150				0.000	-0.150		0.0000
Kyrgyzstan	0.150				0.160	0.010		0.1600
Tajikistan	0.150				0.000	-0.150		0.0000
Turkmenistan	0.150				0.000	-0.150		0.0000

OSCC/XXIX/Dec/22/02 16 December 2002

#### OSCC DECISION No. 22/02 TO THE TREATY ON OPEN SKIES

## PROCEDURES FOR TRANSIT NECESSARY DURING A SEGMENT OF AN OPEN SKIES OBSERVATION FLIGHT

Article VII of the Treaty on Open Skies provides procedures for conducting transit flights, which include a provision that sensor operation on an observation aircraft during transit flights is prohibited. The Treaty is silent, however, on procedures for transit through the airspace of States Parties or non-States Parties necessary during a segment of an observation flight.

The Open Skies Consultative Commission has decided that in order to safeguard the right of an observing Party to observe the entire territory of the observed Party and to provide measures to prevent observation of transited States during an observation flight, States Parties will use the following procedures:

1. States Parties shall accept transit legs during an observation flight that are essential to reach a part of the territory of the observed Party, subject to preco-ordination.

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2. The observing Party shall provide timely pre-co-ordination with any State whose airspace may be transited during a segment of an observation flight. The observing Party's pre-co-ordination shall include transit details which shall request, *inter alia*, the planned route, altitude, timing and, if required, diplomatic clearance number from the transited State.

3. A State Party whose airspace is to be transited shall provide transit details to the observing Party within 72 hours of request. More time may be necessary for co-ordination with non-States Parties. In either case, pre-co-ordination should be completed prior to presentation of the Mission Plan in accordance with Article VI, Section II.

4. The observing Party will include details for transit legs during an observation flight to the observed Party during presentation of the Mission Plan. Transit legs will be clearly identified within the Mission Plan and the Mission Report.

5. The observed Party shall co-ordinate execution of the transit legs during an observation flight with the appropriate authorities of the transited State using all the information provided in accordance with paragraph 4 above. After the Mission Plan is agreed the observed Party will provide immediate notice to the transited state of the date and time of entry the airspace of the transited State.

#### OSCC/XXIX/Dec/22/02 16 December 2002

6. The operation of sensors on an observation aircraft during transit legs of an observation flight is prohibited. Control of sensors during transit legs shall rest on the observing Party.

7. A representative of the State whose airspace is to be transited shall be invited as an observer to monitor the transit legs. The invitation will be forwarded along with the request for transit details. There is no obligation for the transited State to provide an observer. If the transited State intends to send an observer to the flight, relevant information regarding participation of such an observer shall be provided along with the transit details. States Parties shall chose their observer from the list of designated personnel for observation flights. The observer shall have the right to verify that the sensors are not in operation during the transit legs, and may assist in air traffic control issues related to the transit legs as necessary.

8. For States Parties and unless otherwise agreed, travel expenses for the observer to the point of entry and from the point of exit of the observed State Party shall be borne by the transited State. For the purposes of other costs, as detailed in OSCC Décision Number One, the observer will be considered part of the observing Party.

9. States Parties may use OS Format 35 to pre-co-ordinate transit necessary during a segment of an observation flight.

This Decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty.

OSCC/XXIX/Dec/23/02 16 December 2002

## DECISION No. 23/02 TO THE TREATY ON OPEN SKIES

## ALLOCATION OF A PASSIVE QUOTA TO FINLAND

## The Open Skies Consultative Commission (OSCC),

In accordance with the provisions of the Treaty on Open Skies and, notably, Article III, Section I, paragraph 2, Article X, paragraph 4 (D), Article XVII, paragraph 4 and the contents of Annex A, Section I to the Treaty, with the procedures outlined in Section 3 of OSCC Decision No. 8/02/Corr. 1,

#### Decides:

- To allocate a passive quota of five to Finland. This decision shall take effect upon entry into force of the Treaty for Finland on 10 February 2003.

#### OSCC DECISION No. 24/02 TO THE TREATY ON OPEN SKIES

### REVISION 2 OF DECISION NUMBER TWENTY TO THE TREATY ON OPEN SKIES

Due to the upcoming entry into force of the Treaty on Open Skies for Finland and in accordance with Decision Number Twenty of 12 June 1995 and in particular with paragraph 3 of the Annex attached to that Decision, the Open Skies Consultative Commission has decided to revise the Annex to Decision Number Twenty of 12 June 1995 and adopt the attached Annex.

This decision shall enter into force upon the entry into force of the Treaty for Finland on 10 February 2003 and shall have the same duration as the Treaty.

#### OSCC/XXIX/Dec/24/02 16 December 2002

## ANNEX

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## CODES FOR THE STATES PARTIES OR GROUPS OF STATES PARTIES FOR THE PURPOSE OF RADIOTELEPHONY COMMUNICATION WITH AIR TRAFFIC SERVICE UNITS

- 11 Germany
- 12 United States of America
- 13 Belarus
- 14 Benelux
- 15 Bulgaria
- 16 Canada
- 17 Denmark
- 18 Spain
- 19 France
- 21 Georgia
- 21 Georgia
- 22 United Kingdom
- 23 Greece
- 24 Hungary
- 25 Iceland
- 26 Italy
- 27 Kyrgyzstan
- 28 Norway
- 29 Poland
- 31 Portugal
- 32 Romania
- 33 Russian Federation
- 34 Slovakia
- 35 Czech Republic
- 36 Turkey
- 37 Ukraine
- 38 Sweden
- 39 Finland
- 91 Belarus and Russian Federation group of States Parties
- 92 Western European Union group of States Parties

States Parties operating more than one aircraft at the same time should after the country code add a self-assigned figure between one and nine to distinguish safely between their aircraft.

The codes for the States Parties or groups of States Parties shall be listed as follows:

1. In alphabetical order to the French alphabet.

2. Once a number has been allocated that number shall be retained by the respective State Party or group of States Parties.

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## OSCC/XXIX/Dec/24/02 16 December 2002

3. Additional States Parties or groups of States Parties acceding to the Treaty shall adopt the next available number at the end of the appropriate current list.

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This Annex is an integral part of Decision Number Twenty of 12 June 1995. It has entered into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

OSCC/XXIX/Dec/25/02 16 December 2002

### OSCC DECISION No. 25/02 TO THE TREATY ON OPEN SKIES

## REVISION 1 OF OSCC DECISION No. 6/02 TO THE TREATY ON OPEN SKIES

In accordance with Decision 6/02 of 18 February 2002, and in particular with paragraph 6 thereof, the Open Skies Consultative Commission has decided to revise and adopt the attached Annex to reflect the allocation of Observation Flight Reference numbers for Sweden and Finland.

This Decision shall supercede OSCC Decision 13/02 of 22 July 2002.

This Decision shall enter into force upon the entry into force of the Treaty for Finland on 10 February 2003 and shall have the same duration as the Treaty.

#### OSCC/XXIX/Dec/25/02 16 December 2002

## ANNEX

STATE PARTY	FULL	75%	min 25%	OBSERVATION	TRAINING
SIAIETAKIT	PASSIVE	PASSIVE	BUT	FLIGHT	FLIGHT
	QUOTA	QUOTA	not < 2	REFERENCE NUMBER	REFERENCE NUMBER
Russian Federation (RU)/				· ·	
Belarus (BY) Group of					
States Parties	42	31	53	001 - 053	501 - 553
Germany (DE)	12	. 9	15	054 - 068	554 - 568
United States of America (US)	42	31	53	069 - 121	569 - 621
Benelux (BX)	6	4	8	122 - 129	622 - 629
Bulgaria (BG)	4	3	6	130 - 135	630 - 635
Canada (CA)	12	9	15	136 - 150	636 - 650
Denmark (DK)	6	4	8	151 - 158	651 - 658
Spain (ES)	4	3	6	159 - 164	659 - 664.
France (FR)	12	9	15	165 - 179	665 - 679
Georgia (GE)	4*	-	-	180 - 185	680 - 685
United Kingdom (GB)	12	9	15	186 - 200	686 - 700
Greece (GR)	4	3	6	201 - 206	701 - 706
Hungary (HU)	4	3	6	207 - 212	707 - 712
Iceland (IS)	4	3	6	213 - 218	713 - 718
Italy (IT)	12	9	15	219 - 233	719 - 733
Kyrgyzstan (KG)	4**	3	6	234 - 239	734 - 739
Norway (NO)	7	5	9	240 - 248	740 - 748
Poland (PL)	6	4	8	249 - 256	749 - 756
Portugal (PT)	2	1	4	257 - 260	757 - 760
Romania (RO)	6	4	8	261 - 268	761 - 768
Slovak Republic (SK)	4	3	6	269 - 274	769 - 774
Czech Republic (CZ)	4	3	6	275 - 280	775 - 780
Turkey (TR)	12	9	15	281 - 295	781 - 795
Ukraine (UA)	12	9	15	296 - 310	796 - 810
Sweden (SE)	7	5	9	311 - 319	811 - 819
Finland (FI)	5	3	7	320 - 326	820 - 826
Acceding State					
Acceding State					<u></u>
Acceding State					

## **OPEN SKIES OBSERVATION FLIGHT REFERENCES NUMBERS**

not yet allocated passive quotas to this State Party

\*\* sample only - quota(s) not yet allocated

Effective as of 10 February 2003

(Effective date will be amended, as per paragraph 6, with each additional allocation.)

OSCC/XXX/Dec/1/03 27 January 2003

## OSCC DECISION No. 1/03 TO THE TREATY ON OPEN SKIES

## REVISION 3 OF DECISION NUMBER TWENTY TO THE TREATY ON OPEN SKIES

Due to the upcoming entry into force of the Treaty on Open Skies for Latvia and in accordance with Decision Number Twenty of 12 June 1995 and in particular with paragraph 3 of the Annex attached to that Decision, the Open Skies Consultative Commission has decided to revise the Annex to Decision Number Twenty of 12 June 1995 and adopt the attached Annex.

This decision shall enter into force upon the entry into force of the Treaty for Latvia on 11 February 2003 and shall have the same duration as the Treaty.

## OSCC/XXX/Dec/1/03 27 January 2003

#### ANNEX

## CODES FOR THE STATES PARTIES OR GROUPS OF STATES PARTIES FOR THE PURPOSE OF RADIOTELEPHONY COMMUNICATION WITH AIR TRAFFIC SERVICE UNITS

- Germany 11
- 12 United States of America
- 13 Belarus

- Benelux 14
- 15 Bulgaria
- 16 Canada
- 17 Denmark
- 18 Spain
- 19 France
- 21 Georgia
- United Kingdom 22
- 23 Greece
- 24 Hungary
- lceland 25
- 26 Italy
- 27 Kyrgyzstan
- 28 Norway
- 29 Poland
- 31 Portugal
- 32 Romania
- Russian Federation 33
- 34 Slovakia
- 35 Czech Republic
- 36 Turkey
- 37 Ukraine
- 38 Sweden
- 39 Finland
- 41 Latvia
- 91 Belarus and Russian Federation group of States Parties
- 92 Western European Union group of States Parties

States Parties operating more than one aircraft at the same time should after the country code add a self-assigned figure between one and nine to distinguish safely between their aircraft.

The codes for the States Parties or groups of States Parties shall be listed as follows:

In alphabetical order to the French alphabet. L.

## OSCC/XXX/Dec/1/03 27 January 2003

2. Once a number has been allocated that number shall be retained by the respective State Party or group of States Parties.

3. Additional States Parties or groups of States Parties acceding to the Treaty shall adopt the next available number at the end of the appropriate current list.

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This Annex is an integral part of Decision Number Twenty of 12 June 1995. It has entered into force simultaneously with the Treaty on Open Skies and shall have the same duration as the Treaty.

#### OSCC/XXX/Dec/2/03 24 February 2003

#### OSCC DECISION No. 2/03 TO THE TREATY ON OPEN SKIES

## AMENDMENT 1 TO DECISION NUMBER SIX TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Taking into account the considerable changes affecting the implementation of the Treaty on Open Skies, especially its entry into force on 1 January 2002, and the experience gained since,

Taking into account the information provided by the OSCE Secretariat annexed to this decision,

In accordance with Article X and Annex L of the Treaty on Open Skies,

Has decided to

Request the OSCE Secretariat to provide the following tasks, beyond those that are listed in paragraph 3 of Section VI of Decision Number Six to Treaty on Open Skies:

- Maintain a hardcopy archive of all OSCC documents, as well as an electronic version;
- Ensure the filing of circulated national data;
- Maintain a central archive of Open Skies notifications received from States Parties.
   Forward notifications to/from States Parties not connected to the OSCE network.
   Retransmit required notifications to States Parties. Notifications received through the OSCE Network will not be posted on the Website;
- Maintain a point of contact list of Open Skies experts;
- Participate in OSCC plenary meetings;
- Handle issues related to the OSCE website: ensure the posting of all OSCC documents as requested by delegations on the "OSCE delegations website", as well as posting current reference information on the public website as provided by the OSCC.

In order to ensure the effective implementation of this Decision, all States Parties are strongly encouraged to provide the OSCE Secretariat a copy of their Open Skies notifications.

The scale of distribution for the expenses associated with the fulfilment of the above tasks will be the same as other common expenses according to Decision No. 21/02.

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This Decision supersedes Decision Number Twenty-One to the Treaty on Open Skies.

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This Decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty.

OSCC/XXX/Dec/2/03 24 February 2003

OSCC.DEC/2/03 requested the OSCE Secretariat to provide the following tasks. Pursuant to numerous meetings and internal co-ordination by the Secretariat, the following is a breakdown by function based on input from the OSCC. It is recommended that experience be gathered from the first phase of Open Skies Treaty implementation until the first review conference in 2005 to further ascertain exact support requirements.

Supporting agency	Task	Resources required
CPC	Forward OS notifications received through the OSCE Communications Network to Conference Services for distribution to non-networked States Parties	No additional Already established (according to existing procedure via pigeon-holes).
СРС	Retransmit required notifications to States Parties	No additional. Already established (existing procedure via pigeon-holes). Currently performed upon request only for notifications sent on the OSCE Communications Network
DMF/Conference Services	Maintain a hard and electronic copy archive of all OSCC documents	Already established, hard copies are being filed and an electronic archive is available on the OSCE Restricted Website
DMF/Conference Services	File circulated national data	Hard copies and an electronic archive of circulated OSCC documents are available (OSCE Restricted Website).
DMF/Conference Services	Maintain a central archive of all OS notifications: Notifications received through the OSCE Network will not be posted on the Website.	To date CS files the hard copies. As of 1 January 2003 CS will keep an electronic archive of all notifications received from delegations and from CPC for non-network States Parties. States Parties must ensure the Secretariat is provided an information copy of notifications from 1 January 2003.
DMF/Conference Services	Forward notifications to/from States Parties not connected to the OSCE Communications Network;	Already established (existing procedure via pigeon-holes).

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Supporting agency	Task	Resources required
DMF/Conference Services	Maintain a Point of Contact list of OS experts	A list could be maintained according to procedures to be discussed and established.
DMF/Conference Services	Participate in OSCC plenary meetings. Limited to administrative support by conference services; substantial representation by the Secretariat is not anticipated.	CS/Meetings Assistance can participate in OSCC plenaries and provide only administrative support. If more substantive support is required, i.e. the development of analytical papers, reports as a basis for review processes, etc., a greater resource impact is anticipated and professional grade support would be required.
DMF/Conference Services PPIS	<ul> <li>Handle issues related to the OSCE website</li> <li>Ensure posting of all OSCC documents on the OSCE Delegates' Website.</li> <li>Post current reference information on the public website as provided by the OSCC, i.e. general information on States Parties, short Treaty description, and other selected</li> </ul>	Restricted Website: already established. Public Website: PPIS can provide requested limited support without additional cost. OSCC will provide information to be published and a point of contact.
	announcements. No confidential information, only public material drafted and cleared by the OSCC (OS Treaty already available on the public website). Update 2-3 times a year.	·

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#### OSCC/XXX/Dec/3/03 24 February 2003

#### OSCC DECISION No. 3/03 TO THE TREATY ON OPEN SKIES

#### OPEN SKIES AIRCRAFT STATUS

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Seeking to clarify Article VI, Section I, Paragraph 14(A) of the Treaty on Open Skies the State Parties to the Treaty have agreed as follows:

Open Skies aircraft (the observation aircraft and transport aircraft used for transportation of the missions personnel) shall be regarded as State aircraft exempt from noise and engine emission limitations.

\* \* \* \* \*

This Decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission on 24 February 2003, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/XXX/Dec/4/03 24 February 2003 

#### OSCC DECISION No. 4/03 TO THE TREATY ON OPEN SKIES

#### CORRECTION TO ANNEX G, SECTION I, PARAGRAPH 7

In order to correct a typographical error in English, Spanish and Italian versions of Annex G, Section I, paragraph 7 and reflect wording similar to Annex G, Section I, paragraph 5, the OSCC decides under Article X, to change in those texts the wording of the preamble sentence in Annex G, Section I, paragraph 7 to:

"In addition to the rights specified in paragraph 4 of this Section, the chief flight representative shall have:"

This Decision shall enter into force on the date of its adoption and shall have the same duration as the Treaty.

Decided in Vienna, in the Open Skies Consultative Commission on 24 February 2003, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

#### OSCC/XXX/Dec/5/03 24 February 2003

#### OSCC DECISION No. 5/03 TO THE TREATY ON OPEN SKIES

#### ACCESSION OF THE REPUBLIC OF SLOVENIA TO THE TREATY ON OPEN SKIES

The Open Skies Consultative Commission,

Having received from the Republic of Hungary, in its capacity as Depository, the application of the Republic of Slovenia for accession to the Treaty on Open Skies, deposited on 23 January 2003 in Budapest,

Pursuant to the provisions of paragraph 5 of Article XVII of the Treaty on Open Skies,

Has decided as follows:

That the application for accession of the Republic of Slovenia to the Treaty on Open Skies is accepted.

\* \* \* \*

In accordance with paragraph 6 of Article XVII, the Treaty shall enter into force for the Republic of Slovenia sixty days after the deposit of its instrument of accession with the Government of Canada or with the Government of the Republic of Hungary or both.

Decided at Vienna in the Open Skies Consultative Commission on 24 February 2003, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

#### OSCC/XXX/Dec/6/03 24 March 2003

#### OSCC DECISION No. 6/03 TO THE TREATY ON OPEN SKIES

## SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION

The Open Skies Consultative Commission (OSCC), pursuant to the provision of Annex L, paragraph 9 of the Treaty on Open Skies, has decided as follows:

1. In accordance with paragraph 1 of Decision 21/02 dated 9 September 2002 and the Decision of the OSCE Permanent Council No. 468 on the Revised Standard Scale of Contributions dated 11 April 2002, adopts the scale of distribution of the OSCC as contained in paragraph 2 of this decision.

2. As of 1 January 2003, the scale of distribution of the Open Skies Consultative Commission is agreed as follows (in percentages):

France	10.357
Germany	10.357
Italy	10.357
United Kingdom	10.357
United States of America	10.243
Russian Federation	9.050
Canada	6.203
Spain	5.300
Netherlands	4.325
Belgium	4.040
Sweden	4.040
Norway	2.561
Denmark	2.333
Poland	1.593
Turkey	1.138
Ukraine	0.970
Greece	0.967
Portugal '	0.967
Hungary	0.797
Romania	0.797
Czech Republic	0.763
Bulgaria	0.626
Luxembourg	0.626
Belarus	0.520
Slovakia	0.376
Iceland	0.216
Georgia	0.120
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OSCC/XXX/Dec/6/03 24 March 2003

Total

#### 100.000

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Decided in Vienna, in the Open Skies Consultative Commission on 24 March 2003, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

OSCC/XXX/Dec/7/03 24 March 2003

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#### OSCC DECISION No. 7/03 TO THE TREATY ON OPEN SKIES

## SCALE OF DISTRIBUTION FOR THE COMMON EXPENSES ASSOCIATED WITH THE OPERATION OF THE OPEN SKIES CONSULTATIVE COMMISSION

The Open Skies Consultative Commission (OSCC), pursuant to the provision of Annex L, paragraph 9 of the Treaty on Open Skies, has decided as follows:

1. The scale of distribution for the common expenses associated with the operation of the Open Skies Consultative Commission (hereafter referred to as the "scale of distribution of the OSCC") shall be based on the revised scale of distribution adopted in PC.DEC/468, dated 11 April 2002, by the Permanent Council of the OSCE (hereafter referred to as the "Standard Scale"). The scale of distribution of the Open Skies Consultative Commission shall be revised to reflect any revisions of the Standard Scale.

2. In accordance with OSCC.DEC/8/02/Corr.1, dated 22 April 2002, further to the deposit of Finland and Latvia's instruments of accession, the OSCC decides to redistribute OSCC costs in accordance with paragraph 4 of Decision 10 to the Treaty on Open Skies dated 16 July 1993. Finland and Latvia become liable for OSCC costs sixty days after deposit of their instruments of accession, effective as of 1 April 2003.

3. Taking into account the fact that not all participating States to the OSCE are Parties to the Treaty, States Parties have to make an additional contribution to their contribution to the Standard Scale, in order to cover the existing shortfall.

- (A) As a rule, this additional contribution will be proportional to the Standard Scale. Nevertheless, any State Party may provide a higher additional contribution.
- (B) However, taking into account their present economic situation, those countries listed in Annex A to this Decision will be exempted from the proportional contribution mentioned in subparagraph (A) and will only make an ad hoc additional contribution, agreed by the States Parties.
- (C) The special regime established in subparagraph (B) will last as long as the economic situation in the countries listed in Annex A to this Decision so requires. The special regime will be subject to review every year.

4. As long as only participating States to the OSCE are Parties to the Treaty, and provided that there remains a shortfall to be covered, the financial contribution to the scale of distribution of the OSCC of any State Party will have to be superior to its contribution to the Standard Scale.

5. In case of accession to the Treaty of participating States to the OSCE, their financial contributions to the scale of distribution of the OSCC will be calculated according to the principles established in paragraphs 1, 2, and 3. In that case, the financial contributions to the scale of distribution of the OSCC of the other States Partics will be reduced in due proportion.

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#### OSCC/XXX/Dec/7/03 24 March 2003

This provision does not apply to those countries listed in Annex A to this Decision, as long as the special regime established in paragraph 3, subparagraph (B) grants them the benefit of financial contributions to the scale of distribution of the OSCC lower than those of other States Parties which bear an identical contribution to the Standard Scale.

6. In case of accession to the Treaty of non-participating States to the OSCE, their financial contributions to the scale of distribution of the OSCC as well as the scale of distribution of the OSCC will be agreed on an ad hoc basis by the Open Skies Consultative Commission.

7. As of 1 April 2003, the scale of distribution of the Open Skies Consultative Commission is agreed as follows (in percentages):

France	10.152
Germany	10.152
Italy	10.152
United Kingdom	10.152
United States of America	10.041
Russian Federation	9.050
Canada	6.080
Spain	4.463
Netherlands	4.239
Belgium	3.961
Sweden	3.961
Norway	2.510
Denmark	2.287
Finland	2.287
Poland	1.562
Turkey	1.116
Ukraine	0.970
Greece	0.948
Portugal	0.948
Hungary	0.781
Romania	0.781
Czech Republic	0.747
Bulgaria	0.614
Luxembourg	0.614
Belarus	0.520
Slovakia	0.368
Iceland	0.212
Latvia	0.212
Georgia	0.120
Total	100.000

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This decision shall enter into force on the date of its adoption.

Decided in Vienna, in the Open Skies Consultative Commission on 24 March 2003, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

#### OSCC/XXX/Dec/7/03 24 March 2003 Annex A

List of countries to which the special regime established in paragraph 3, subparagraph (B) of this decision on the scale of distribution of the OSCC may apply:

Armenia Azerbaijan Belarus Georgia Kazakhstan Kyrgyzstan Moldova Russian Federation Tajikistan Turkmenistan Ukraine Uzbekistan

The financial contribution to the scale of distribution of the OSCC of each State Party to 1. the Treaty, except those which benefit from the special regime established in paragraph 3, subparagraph (B) of this decision, those that provide higher additional contributions and those which are not participating States to the OSCE, is calculated as follows (in percentages):

 $OS_i = K \times H_i$ 

i

where:

State Party to which the present paragraph applies =  $OS_i =$ financial contribution of State Party i

Hi = contribution to the Standard Scale of State Party i

К correction coefficient =

2. The financial contribution to the scale of distribution of the OSCC of a State Party that provides a higher additional contribution is calculated as follows (in percentages):

 $OS_m = H_m + E_m$ 

m

where:

= State Party to which the present paragraph applies

 $OS_m =$ financial contribution of State Party m

H<sub>m</sub> = contribution to the Standard Scale of State Party m

= additional contribution of State Party m Em

The financial contribution to the scale of distribution of the OSCC of a State Party to 3. which the special regime established in paragraph 3, subparagraph (B) of this Decision applies is calculated as follows (in percentages):

 $OS_i = H_i + A_i$ 

= State Party to which the present paragraph applies where: j

OSCC/XXX/Dec/7/03 24 March 2003 Annex A

- OS<sub>i</sub> = financial contribution of State Party j
- H<sub>i</sub> = contribution to the Standard Scale of State Party j
- $A_i$  = ad hoc additional contribution of State Party j

State Party	Aj
Belarus	+0.01
Georgia	+0.01
Russian Federation	+0.05
Ukraine	+0.02
Total	+0.09

4. Coefficient K is determined from the formula:

$$K = \frac{100\% - \Sigma OS_m - \Sigma OS_j}{\Sigma H_i}$$
 [for 2003 = 1.115634]

where:

 $\Sigma_{H_i}$ 

- = sum of contribution to Standard Scale of States Parties isee paragraph 1 above. [for 2003 =80.08%]
- $\sum_{OS_m} = \sup_{Parties m} of contributions to the scale of distribution of the OSCC of States Parties m see paragraph 2 above. [for 2003 = 0%]$
- $\sum OS_j$  = sum of contributions to the scale of distribution of the OSCC of States Parties j - see paragraph 3 above. [for 2003 = 10.66%]

OSCC/XXX/Dec/7/03 24 March 2003 Annex B

#### 2003 2003 Standard OSCC Scale (%) Scale State Party OSi Hi/Hm/Hj Hi Em OSm Aj OSi OSi/OSm/ OSj France 9.100 9.100 10.152 10.152 9.100 9.100 Germany 10.152 10.152 Italy 9.100 9.100 10.152 10.152 **United Kingdom** 9.100 9.100 10.152 10.152 United States 9.000 9.000 10.041 10.041 **Russian** Federation 9.000 0.050 9.050 9.050 Canada 5.450 5.450 6.080 6.080 Spain 4.0004.000 4.463 4.463 Netherlands 3.800 3.800 4.239 4.239 Belgium 3.550 3.550 3.961 3.961 Sweden 3.550 3.550 3.961 3.961 2.250 2.250 2.510 Norway 2.510 Denmark 2.050 2.050 2.287 2.287 Finland 2.050 2.050 2.287 2.287 Poland 1.400 1.400 1.562 1.562 Turkey 1.000 1.000 1.116 1.116 Ukraine 0.950 0.020 0.970 0.970 Greece 0.850 0.850 0.948 0.948 0.850 Portugal 0.850 0.948 0.948 Hungary 0.700 0.700 0.781 0.781 Romania 0.700 0.700 0.781 0.781 **Czech Republic** 0.670 0.670 0.747 0.747 Bulgaria 0.550 0.550 0.614 0.614 Luxembourg 0.550 0.550 0.614 0.614 Belarus 0.510 0.010 0.520 0.520 Slovakia 0.330 0.330 0.368 0.368 Iceland 0.190 0.190 0.212 0.212 0.190 0.190 Latvia 0.212 0.212 Georgia 0.110 0.010 0.120 0.120 TOTAL 90.650 80.080 89.340 0.000 0.000 0.090 10.660 100.00

#### **OSCC SCALE OF DISTRIBUTION AS OF 1 APRIL 2003**

(K = 1, 115634)

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OSCC/XXX/Dec/8/03 07 April 2003

#### OSCC DECISION No. 8/03 TO THE TREATY ON OPEN SKIES

#### ALLOCATION OF A PASSIVE QUOTA TO GEORGIA

#### The Open Skies Consultative Commission (OSCC),

In accordance with the provisions of the Treaty on Open Skies and, notably, Article III, Section I, paragraph 2, Article X, paragraph 4 (D), Article XVII, paragraph 4 and the contents of Annex A, Section I to the Treaty, with the procedures outlined in Section 3 of OSCC Decision No. 8/02/Corr. 1, with the Chairperson's Statement of 11 November 2002 on passive quotas,

Decides:

To allocate a passive quota of four to Georgia.

This Decision shall take effect immediately.

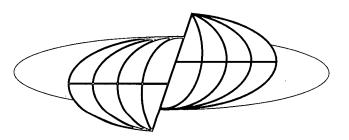
Decided in Vienna, in the Open Skies Consultative Commission, on 7 April 2003, in each of the six languages specified in Article XIX of the Treaty on Open Skies, all texts being equally authentic.

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# OPEN SKIES CONSULTATIVE COMMISSION

## **CHAIRPERSON'S STATEMENTS**



#### SECTION III

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### STATEMENTS BY THE CHAIRPERSON OF THE OPEN SKIES CONSULTATIVE COMMISSION

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29 June 1992

#### STATEMENT BY THE CHAIRMAN OF THE OPEN SKIES CONSULTATIVE COMMISSION

A. With regard to the distribution of costs arising under the Treaty on Open Skies the Open Skies Consultative Commission, in fulfillment of its obligation pursuant to Annex L, Section I, paragraph 9, has elaborated the provisions set forth in Decision No. 1 to the Treaty on Open Skies, which the States Parties have endorsed today.

With reference to Section V, paragraph 10 of this decision, it has not been possible, however, to reach agreement on the distribution of costs related to fees for navigational aids and for air traffic control services, airport landing and take-off, ground handling, parking and security for observation, transport and transit flights.

On the basis of the extensive discussion which has taken place on this issue a significant majority of States Parties has agreed that the above-mentioned fees should not be charged to the Observing Party. They consider this to be a fair and reasonable as well as technically simple approach which by facilitating the implementation of the Treaty by all States Parties would thus enhance transparency, confidence- and security-building. Some States Parties, however, could not agree to this principle.

Some States Parties reserved their positions with regard to the provisions of Section V, paragraph 5, pending a satisfactory solution of the problem of the above-mentioned fees.

Taking careful note of the views which have been expressed on this issue, it is apparent to me as Chairman that the question will require further analysis and discussion. It is my hope that Parties will achieve a mutually agreeable and equitable solution before the end of the autumn session.

It is understood by all States Parties that the need to reconsider this issue does not constitute a hindrance to those States Parties who wish to proceed to ratification of the Treaty on Open Skies.

B. I hereby record that the States Parties to the Treaty on Open Skies represented in the Open Skies Consultative Commission, on this date, have taken five decisions entitled:

Decision Number One, Distribution of Costs Arising Under the Treaty on Open Skies;

Decision Number Two, Addition Non-Destructive-Testing Equipment;

Decision Number Three, Methodology For Calculating The Minimum Height Above Ground Level At Which Optical Camera Installed On An Observation Aircraft May Be Operated During An Observation Flight;

29 June 1992

Decisions Number Four, Minimum Camera Specification For An Observation Aircraft Of An Observed Party Exercising Its Right To Provide An Observation Aircraft For An Observation Flight; and

Decision Number Five, Responsibility For The Processing Of Film Used During An Observation Flight.

With regard to the five decisions taken today and referred to in this statement, we understand:

that those decisions formally adopted shall be legally binding;

that Article XV of the Treaty on Open Skies shall apply to those decisions; and

that with reference to Article XVII of the Treaty on Open Skies, any State signing or acceding to the Treaty shall also be bound by those decisions.

The Chairman's statement recording the above decisions of the OSCC and these understandings will be recorded in the Journal and transmitted to the Depositaries by the Chairman.

This action of the Open Skies Consultative Commission satisfies the obligation in the Treaty on Open Skies for decisions prior to June 30, 1992 as laid out in: Annex L, Section 1, Paragraph 9; Annex F, Section 1, Paragraph 7; and Appendix 1 to Annex D, Section III, Paragraph 2.

C. The States Parties to the Treaty on Open Skies have agreed that the methodology for determining the operational capabilities of video cameras shall be placed on the agenda for the next session of the Open Skies Consultative Commission. That methodology shall include the definition of video cameras and the means of certifying those capabilities. The decision on the above-mentioned issues should be taken on its own merit, independently of the operating altitudes of other sensors. The States Parties have further agreed that, during an observation flight, video cameras may be used with real time displays. A video camera shall not record imagery on magnetic tape in the case where it is pointed forward of a plane perpendicular to the longitudinal axis of the observation aircraft. When not pointed forward of such a plane, a video camera shall be allowed to record data.

D. With regard to the next, second session of the Open Skies Consultative Commission (OSCC) I would suggest:

that the next session of the OSCC commence during the first week of the CSCE Forum for Security Cooperation, established at the Helsinki Follow-Up Meeting, and that the first plenary be held on September 24, 1992 under the Chairmanship of Denmark;

29 June 1992

that the next session of the OSCC may avail itself of common conference services to be provided by the joint Executive Secretary to be established under decisions taken at the Helsinki Follow-Up Meeting and reflected in paragraph 12, Section XII of the Administrative Decisions of the Helsinki Decisions, on the understanding that this agreement is without prejudice to any future decisions of the OSCC regarding modalities for the provision of conference services and the relationship between the OSCC and the Executive Secretary;

that, until relevant decision is taken, the scale of distribution of the costs of the next session be the same as that agreed for the Open Skies Negotiations and for the initial session of the OSCC;

that for the next session, the rules of procedure and working methods agreed here guide the work of the OSCC.

I note that this statement meets with no objection.

17 December 1992

#### STATEMENT BY THE CHAIRMAN OF THE OPEN SKIES CONSULTATIVE COMMISSION

The OSCC took note of the report on the "Results of an Anglo-Russian Trial Observation Flight and Recommendations for the Implementation of the Open Skies Treaty" prepared by the United Kingdom and the Russian Federation which was distributed to all delegations. The Chairman noted the understanding that the contents of the report, including its recommendations, would be taken into account at the Commission's continued work in preparation for implementation.

The chairman of the OSCC expressed the following common understanding of the OSCC with respect to discussions on ecological monitoring held during the second session of the Commission:

"In the opinion of all participants the environmental seminar held on last 3 and 4 December within the framework of the OSCC was a success. It was very useful in that it made it possible to take a look at the available technological capabilities, at the place of the airborne component in the system of environmental monitoring and the potential role that the Open Skies regime could play in this area.

The OSCC was of the opinion that discussions on the possible use of the Open Skies aircraft and regime for ecological purposes could usefully be continued on the understanding that discussions should not lead to delays in entry into force of the Open Skies Treaty.

The OSCC concluded in that context that contacts on this issue could continued in an informal and flexible way in 1993."

17 January 1994

#### STATEMENT BY THE CHAIRMAN OF THE OPEN SKIES CONSULTATIVE COMMISSION

The Open Skies Consultative Commission agreed to the following Chairman's statement:

In accordance with Article XI of the Treaty on Open Skies the Open Skies Consultative Commission (OSCC) states its intention to make use of the CSCE Communications Network for transmission of notifications and reports of the Open Skies regime as well as data from a possible future Open Skies data base.

For that purpose the OSCC agrees to request the Permanent Committee of the CSCE and the Special Committee of the FSC to give their agreement in principle to the use of the CSCE Communications Network for the above-mentioned purposes.

If the PC/CSCE and SC/FSC agree, then the OSCC tasks its Working Group on Information Exchange (Formats and data base) to elaborate the appropriate procedures and related aspects and to report to the OSCC. The Working Group is advised to work in close co-operation with the Ad Hoc Working Group on Communications of the CSCE.

16 May 1994

#### STATEMENT BY THE CHAIRMAN OF THE OPEN SKIES CONSULTATIVE COMMISSION

Pursuant to the suggestion of the Working Group on Procedures, the Open Skies Consultative Commission has taken note of the intention of the Working Group on Procedures to hold an open-ended informal brainstorming meeting of experts on the possible use of the Open Skies regime in the field of environmental monitoring. The open-ended meeting will be held in the second week of July this year, with the possibility of the active participation of experts from capitals, as well as of representatives from international organizations active in the field of environmental monitoring and protection.

Modalities and timetable will be finalized by the OSCC Working Group on Procedures.

9 November 1994

#### CHAIRMAÑ'S STATEMENT ON PURPOSE AND USE OF SENSOR GUIDANCE DOCUMENTS

The OSCC has adopted Decisions 3, 7, 14, 15 and 16 in accordance with the Treaty requirement to specify procedures for the four Treaty sensor methodologies. These legally binding Decisions are limited in scope to describing "what" is to be accomplished during sensor certification and demonstration flights. The Decisions are silent on the details of "how" to implement the respective methodologies.

In an effort to facilitate the implementation of these Decisions, the Informal Working Group on Sensors (IWGS) will develop Guidance Documents representing the common view worked on at the experts' meetings. These Guidance Documents will be brought to the attention of the Open Skies Consultative Commission and will be applied from then on.

The Guidance Documents will not be legally binding. However, they will be approved as IWGS documents and will serve to translate the negotiators' intent into field implementers' detailed instructions.

A State Party which follows the procedures laid out in the Guidance Documents may expect agreement by those international experts who attend the certification or demonstration flight. However, if a State Party chooses a different procedure for the certification or demonstration flight, it will be requested to explain its approach to those experts who attend the certification or demonstration flight. A different technical approach than those specified in the IWGS Guidance Documents will require detailed and persuasive explanations to obtain agreement by the experts for its use in certification. If the experts are not convinced of the merits of the alternative approach, this issue may provide a basis for not agreeing to the certification and not signing the certification report. This approach would serve as motivation for a State Party to follow an already agreed procedure.

The IWGS has agreed to the above-stated purpose of Guidance Documents and, upon endorsement by the OSCC, this statement will be recorded in the Journal of the day.

23 September 1996

#### CHAIRMAN'S STATEMENT ON SCHEDULING INITIAL CERTIFICATIONS

As agreed by the Flight Rules and Procedures Working Group (FRPWG), the OSCC states its intention to use the following procedures to schedule initial certifications.

As soon as possible after the deposit of the instrument of the last key ratification, the Chairman of the Flight Rules and Procedures Working Group shall call a meeting to which all States Parties are invited in order to discuss and agree a schedule of certification by those States Parties which are ready to conduct a certification.

The national participants shall be prepared to provide information such as:

- type of aircraft to certify;
- location of the certification;
- preferred period of the year in which the State Party wishes to conduct its certification;
- in case of a joint certification;
  - types of numbers of aircraft;
  - list of the States Parties jointly conducting the certification of their aircraft;
  - overall duration of the joint certification.

Once the initial certification schedule has been published, any State Party wishing to conduct a new certification shall normally be allowed to do so only after completion of this initial plan, unless otherwise agreed.

23 September 1996

#### CHAIRMAN'S STATEMENT ON PRINCIPLES OF SCHEDULING CERTIFICATIONS

As agreed by the Flight Rules and Procedures Working Group (FRPWG), with respect to initial certifications, the OSCC states its intention to adhere to the following principles for scheduling purposes:

In general, for scheduling purposes, seven days will be used for a single certification period, with a gap between each certification period.

For a single certification period:

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- In accordance with the Treaty, the amount of time allotted for a single certification is seven days.
- Because of the possibility of unpredictable difficulties such as bad weather, technical difficulties, medical emergency, or force majeur, there is a need for operational flexibility to achieve the goal of certification.
- Such unpredictable events can extend the actual length of the certification up to an
  additional seven days, making a maximum total of 14 days. This extension will be
  agreed by consensus of the participants in the certification event at the site, with the
  goal of successful certification.

Consideration may be given to unique certification events (i.e., joint certifications) following a request to the FRPWG.

From an operational perspective, the FRPWG agrees that there should be a gap between each certification period. Such a gap would allow for flexibility and travel requirements and meet the desire for timely scheduling of all certifications. The period of this gap is likely to be between seven and 14 days and will be determined at the scheduling meeting.

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#### CHAIRMAN'S STATEMENT

#### ON OBSERVATION FLIGHTS DURING THE INITIAL CERTIFICATION PERIOD

As agreed by the Flight Rules and Procedures Working Group (FRPWG), for a fixed period following entry into force (EIF) of the Treaty, scheduled by the FRPWG at a meeting to be held following the deposit of the instrument of the last key ratification, observation flights would only occur by bilateral agreement. During deliberations the FRPWG recognized the interests of States Parties as follows:

- Acknowledge that, following EIF, States Parties may undertake observation flights once their aircraft is certified;
- A desire that observation flights do not interfere with a State Party's initial certification process;
- A desire by some States Parties to ensure that their own aircraft certification is finished before accepting any observation flights over their territory during the initial certification period;
- A desire for smooth certification scheduling and sequencing;
- A desire to relieve any perceived pressure to certify first;
- A concern that States Parties with limited numbers of experts could be overburdened during the period of certifications immediately following EIF;
- A concern that normal observation flights are not constrained indefinitely by States Parties that do not certify for whatever reason;
- A desire that observation flights are only conducted on an agreed bilateral basis during the period of initial certifications immediately following EIF.

As agreed by the OSCC<sup>(1)</sup>, the Chairman of the FRPWG will call a meeting to which all States Parties are invited in order to discuss and agree on a schedule of certification by those States Parties which are ready to conduct a certification. This meeting will publish an initial certification schedule. This initial certification schedule will be for a fixed period of time following EIF, and include all States Parties that have an aircraft ready for certification. During this initial certification schedule, beginning and ending on agreed specific calendar dates, observation flights should be conducted in accordance with the Treaty and will be conducted only on an agreed bilateral basis.

<sup>(1)</sup> OSCC Chairman's Statement dated 23 September 1996.

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#### OSCC JOUR. 054 17 February 1997

#### CHAIRMAN'S STATEMENT ON ADDITIONAL AIRCRAFT INFORMATION TO BE PRESENTED

In accordance with Article V, paragraph 2, and Annex C of the Treaty, certain mission planning information shall be provided when a State Party designates an observation aircraft. The Flight Rules and Procedures Working Group recommends that, in order to facilitate the mission planning process for a taxi option, the following additional information should be provided:

- Total usable fuel (typical) as configured for Open Skies operations.
- Ground operating fuel required (standard planning factors for taxi/pre-take-off).
- Take-off fuel required (fuel used from brake release to flaps up configuration).
- Climb time, distance and fuel used to the altitudes cited in Annex C.
- Normal en route cruise (depiction/performance curve representing a range of aircraft gross weights, altitudes and fuel used).
- Normal bank angle (if different from standard or half standard rate turns).
- En route climbs (depiction/performance curve representing a range of aircraft gross weights, fuel used, distance traveled, and time required).
- En route descents (curve representing range, time and fuel used for en route descents).
- Descent/landing time and fuel (standard planning factors for approach and landing from an Initial Approach Point).
- Fuel reserve required at landing/at an alternate site.
- Typical aircraft turn-around time during en route stops.
- Crew duty day limitations.

This information may be provided in text, graph or table format (as appropriate). It may be provided at the time of the Annex C data exchange, aircraft certification or, in the case of a subsequent decision to provide the taxi option, in a timely manner.

OSCC JOUR..054 17 February 1997

#### CHAIRMAN'S STATEMENT ON OBSERVATION FLIGHTS DURING ANY CERTIFICATION FOLLOWING THE INITIAL CERTIFICATION PERIOD

As agreed by the Flight Rules and Procedures Working Group (FRPWG), the OSCC states its intention that, during any certification period beyond the initial certification period, observation flights over certifying States Parties would be undertaken after careful consideration.

The FRPWG recognizes that observation flights could interfere with a State Party's certification process. It is understood that the following certifications may take place after the initial certification period:

- A new certification by any State Party;

- The addition of new sensors/sensor configurations to a previously certified aircraft;

The continuation of a previous certification.

OSCC JOUR. 055 26 May 1997

#### CHAIRMAN'S STATEMENT REGARDING THE RECOGNITION OF THE "GUIDANCE FOR CERTIFICATION OF SENSORS INSTALLED ON OBSERVATION AIRCRAFT AND THEIR ASSOCIATED PROCESSING, DUPLICATING AND ANALYSIS EQUIPMENT AND THE CONDUCT OF DEMONSTRATION FLIGHTS"

The OSCC takes note of the "Guidance for Certification of Sensors Installed on Observation Aircraft and their Associated Processing, Duplicating and Analysis Equipment and the Conduct of Demonstration Flights" in accordance with the provisions of the earlier adopted Chairman's Statement of 9 November 1994.

OSCC JOUR. 056 18 July 1997

#### CHAIRMAN'S STATEMENT ON THE UKRAINIAN PROPOSAL CONCERNING "PRINCIPLES OF PLANNING OF MISSIONS IN PROXIMITY TO ADJACENT STATES' BORDERS"

The Open Skies Consultative Commission takes note of the Ukrainian proposal of 9 December 1996 on "Principles of Planning of Missions in Proximity to Adjacent States' Borders" and expresses its readiness to consider this issue, which is related to the borders of adjacent non-States Parties, after the Open Skies Treaty has entered into force.

#### OSCC XVIII JOUR. 061 14 December 1998

#### STATEMENT BY THE CHAIRMAN OF THE OPEN SKIES CONSULTATIVE COMMISSION

The Open Skies Consultative Commission, in response to concerns regarding flight safety, agrees to the attached Annex to OSCC Decision 20, 12 June 1995. This Annex replaces the letter "O" by "F" in order to avoid confusion between the letter "O" for Observation Flight and the number "0" (zero) in Section IV, paragraph 3, subparagraph four. The Annex also fulfills the requirement in Decision 20, Section IV, paragraph 3, subparagraph three, for the OSCC to agree the list of codes for the observing or transiting State Party.

Decision 20, with the Annex, will be circulated to all States Parties. In accordance with Decision 20, Section IV, paragraph 3, subparagraph three, this Chairman's Statement and Annex will also be published in the journal of the 14 December OSCC Plenary.

OSCC XIX JOUR. 062 15 March 1999

#### STATEMENT BY THE CHAIRMAN OF THE OPEN SKIES CONSULTATIVE COMMISSION

I.

The attached Annex to Decision Number One to the Treaty on Open Skies of 10 December 1992, replaces the currency unit denomination "ECUs" by "euro" in Section V, paragraph 2, subparagraphs (A) and (B).

According to Council Regulation (EC) No. 1103/97 of 17 June 1997, on certain provisions relating to the introduction of the euro<sup>1</sup> and Council Regulation (EC) No. 2866/98 of 31 December 1998, on the conversion rates between the euro and the currencies of the Member States adopting the euro,<sup>2</sup> the European currency unit (ECU) ceased to be defined as a basket of component currencies on 1 January 1999. Pursuant to Article 2, paragraph 1, of Council Regulation (EC) No. 1103/97, every reference in a legal instrument to the ECU shall be replaced by a reference to the euro at <u>a rate of one euro to one ECU</u>. As this provision is binding upon the Member States of the European Communities only, the Open Skies Consultative Commission should decide expressly to substitute, in Section V, paragraph 2, subparagraphs (A) and (B), of Decision Number One to the Treaty on Open Skies, the currency unit denomination "euro" for the currency unit denomination "ECU". The replacement reference rate being 1 euro to 1 ECU, there is no need to amend the numerical amount of 75.

Decision Number One to the Treaty on Open Skies of 10 December 1992, with the suggested annex, if so taken, will be circulated to all States and published in the journal of the OSCC Plenary of 15 March 1999.

Further, it is understood that the prices in the price list referred to in Section V, paragraph 6 of Decision Number One to the Treaty on Open Skies of 10 December 1992, will additionally be denominated in "euro" as from the next issue.

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Official Journal of the European Communities 1997 L 162, page 1.

Official Journal of the European Communities 1998 L 359, page 1.

#### OSCC XX JOUR. 063 7 June 1999

#### STATEMENT BY THE CHAIRMAN OF THE OPEN SKIES CONSULTATIVE COMMISSION

The Open Skies Consultative Commission (OSCC) recognizes that many States Parties have participated in bilateral and multilateral Open Skies trial flights during the period of provisional application of the Treaty. It is the OSCC's view that bilateral and multilateral Open Skies trial flights are consistent with the stated goals of the Treaty and are beneficial to all participants. The OSCC recalls Annex L, Section III, paragraph 3 of the Treaty, and considers trial flights are a substitute for the regime of observation flights as set forth in the Treaty itself. The OSCC strongly encourages States Parties to continue bilateral and multilateral Open Skies trial flights during the period of provisional application.

The OSCC agrees that trial flights have proven essential in achieving the following:

#### 1. THE VALIDITY AND VIABILITY OF OPEN SKIES

It is the OSCC's judgement that trial flights have in fact promoted greater openness and transparency among participating States Parties - the key objective of the Treaty. The OSCC agrees that bilateral and multilateral trial flights have proven, and will continue to prove, the Treaty's validity and viability.

#### 2. PREPARATION OF STATES PARTIES FOR POST-EIF OPERATIONS

Trial flights enable States Parties to develop and refine Treaty procedures, processes, and programmes to accommodate the conglomeration of activities that are required after entry into force (EIF). Examples of these activities include media processing, aircraft designation and inspection procedures, optical target date acquisition, active and passive mission procedures, as well as taxi and third-party aircraft options.

#### 3. POLITICAL SUPPORT FOR ADDITIONAL RATIFICATIONS

There have been a significant number of bilateral and multilateral efforts, including trial flights, aimed at encouraging signatory States to ratify the Treaty. These efforts have contributed most recently to the ratification of the Treaty by Georgia in 1998.

## 4. DEMONSTRATION OF THE CONCEPT OF OPEN SKIES TO FUTURE STATES PARTIES

Trial flights are an important means of demonstrating the benefits of the Treaty to Observer and other interested States. Flights have been conducted with Finland and Sweden and are planned for Estonia, Lithuania and Latvia in the near future.

#### 5. COMMUNICATING THE CONCEPT OF AERIAL OBSERVATION AS A TOOL FOR CONFLICT PREVENTION AND CRISIS MONITORING

Trial flights have been the key to communicating and demonstrating the relevance of aerial observation to conflict-prevention and crisis-monitoring applications. Several Open Skies trial flights with Dayton Article II parties have demonstrated the confidence- and security-building benefits derived from aerial observation, thus furthering the Treaty's preambular intentions for "the potential contribution which an aerial observation regime of this type could make to security and stability in other regions."

It is hoped that the tangible benefits deriving from the trial flights experience will have a positive impact on the entry into force of the Treaty as soon as possible.

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#### CHAIRPERSON'S STATEMENT ON ISSUES RELATED TO CERTIFICATION OF OBSERVATION AIRCRAFT AND SENSORS

In accordance with the Treaty on Open Skies and relevant decisions of the Open Skies Consultative Commission (OSCC),

Noting the wealth of experience gathered during the period of provisional application,

Taking account of the Sensor Guidance Document (SGD) and other related agreements,

Anticipating that each individual participant in any certification will have the same opportunities to participate in individual certification events, irrespective of the type of certification (single, unique or joint),

The informal Working Group on Certification has agreed to the following arrangements for the certification of observation aircraft and sensors, which constitute the attachments to this Chairperson's statement.

1. Use of a standard CD-ROM format for distribution of certification documentation (Attachment 1).

2. OSCC determination of the number of individuals participating in a certification (Attachment 2).

3. Principles for the conduct of the C-130 H/POD-system certification (Attachment 3).

4. Principles for joint certifications (Attachment 4).

5. Determination of H<sub>MIN-CERT</sub> (Attachment 5).

6. Use of one calibration target for certification (Attachment 6).

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In particular the OSCC Chairman's statement on principles for scheduling certifications as of 23 September 1996.

Attachment 1

#### USE OF A STANDARD CD-ROM FORMAT FOR DISTRIBUTION OF CERTIFICATION DOCUMENTATION

As agreed by the informal Working Group on Certification, the use of CD-ROMs is acceptable and the desired medium for distribution of data relevant to observation aircraft and sensor certification. In order to increase efficiency, CD-ROMs containing this data should be created in accordance with the following standards:

Microsoft Office 97 is to be used for the Word documents and Excel programs.

- Photographs will be provided in the JPEG file format and saved as separate files.

- Photographs of sensors, required in accordance with the Treaty, Annex D, Section 1, paragraph 6 (B), should be scanned at a minimum of 150 dots per inch (DPI) and using at least 16-bit true colour.
- Additional imagery (digital or otherwise) may be included to complement the Treaty-compliant imagery, should the certifying State wish to do so.

Original photographs, used to create the scanned images on the CD-ROM and required by Annex D, Section 1, paragraph 6 (B), of the Treaty, will be made available at the time of certification.

The certifying States Parties will distribute the CD-ROM to all participating States Parties through their OSCC delegations in Vienna 30 days prior to the beginning of individual certifications. At the same time, additional copies may be provided directly to appropriate verification organizations.

Copies of the distributed CD-ROM will be provided to all other States Parties along with the certification report.

Additionally, one closed copy of the distributed CD-ROM will be made available for filing at the Open Skies Consultative Commission.

#### Attachment 2

## OSCC DETERMINATION OF THE NUMBER OF INDIVIDUALS PARTICIPATING IN A CERTIFICATION

As agreed by the Informal Working Group on Certification, following the notification of a certification period by a State Party, the OSCC will meet to decide the number of individuals from among those States Parties that have notified their intent to participate in the certification at its next formal meeting, but not later than 45 days prior to the scheduled certification.

The Treaty on Open Skies, Annex D, Section I, paragraph 4, states:

"The number of individuals that shall participate in the certification from amongst those States Parties that notified their intention to participate shall be decided upon within the Open Skies Consultative Commission. Unless otherwise agreed, the number of individuals shall total no more than 40 and include no more than four from any one State Party."

When the number of individuals participating in the certification is limited to 40, the OSCC will use the following methodology to decide on the number of individuals for each State Party that will participate in the certification:

- Each State Party that has notified its intent to participate in certification (through OSF 23) will be represented by at least one notified participant.
- Each State Party will be represented by a second, third and fourth notified participant if all States Parties can be accommodated within the limit of 40.
- In the event that the second through the fourth rounds cannot be completely accommodated, the priority will go to those notifying States Parties for which the certifying State Party has an active quota.
- If conflicts remain for available slots, notifying States Parties may consult amongst themselves and seek agreement. If not, the final participation list will be resolved by drawing lots.

If the State Party hosting the certification is willing to accept participation of all notified participants, it will inform the OSCC that there is no need for a meeting on this subject.

Attachment 3

# PRINCIPLES FOR THE CONDUCT OF THE C-130 H/POD-SYSTEM CERTIFICATION

As agreed by the informal Working Group on Certification, the OSCC recognizes that the certification of the C-130 H/Pod system is a unique certification event, and as such will require special arrangements.

Considering that it is in the interest of every State Party to make this unique certification event as time- and cost-effective as possible, the Benelux, Canada, France, Greece, Italy, Norway, Portugal and Spain, hereinafter referred to as the "Pod Users", propose to offer one C-130 H and its unique sensor system for a seven-day certification period, valid for all Pod Users, provided that the conduct of the preparation phase as outlined below is found satisfactory by the interested States Parties.

The Pod Users support the principle of openness and transparency and strongly wish to accomplish their certification in that spirit.

To achieve these goals, the Pod Users intend to organize the preparation phase for their certification in the following manner:

1. Provide information on the Pod system itself, in addition to that already released. This information will include photographs and descriptions of the various components of the system.

2. Provide information on the aircraft, stressing the differences between the national C-130 H. This information will include photographs, especially of the cockpit, the navigation and communication equipment, and of the instrument panels, and a detailed description of the various components.

3. In order to collect data prior to certification, all Pod Users will fly their own aircraft equipped with the Pod system, using various sensor configurations in accordance with agreed procedures.

4. The same calibration target will be used throughout the whole data-collection campaign and for the certification.

5. All sensor data collected will be processed in accordance with agreed guidelines and film manufacturers' specifications, and will be presented as a consolidated package.

6. In view of increasing openness and transparency and of making the C-130 H/Pod system certification a successful event, the Pod Users will be ready to consider any further request from interested States Parties.

#### Attachment 4

#### PRINCIPLES FOR JOINT CERTIFICATIONS

As agreed by the informal Working Group on Certification, States Parties intend to use the following principles for joint certification.

Joint certification is when one observation aircraft and its sensors from more than one State Party, or more than one observation aircraft type and its sensors from one or more States Parties are presented for certification in the same location at the same time.

The aim of a joint certification is to realize benefits to States Parties by:

- Reducing the time of the total certification period;
- Reducing travel requirements;

- Eliminating gaps between single certifications;
- Reducing the total time period necessary for unpredictable events.

It is the responsibility of the States Parties wishing to conduct a joint certification to devise a comprehensive framework to ensure all the individual national responsibilities are fulfilled, and to present a plan to the OSCC for scheduling purposes.

While a single certification event is limited to seven days, a joint certification would be limited to a maximum of seven days times the number of observation aircraft being certified. It is anticipated that the actual joint certification plan would be some number of days less than the maximum allowed.

The number of individuals participating in a joint certification shall be in accordance with Annex D, Section I, paragraph 4, which states: "Unless otherwise agreed, the number of individuals shall total no more that 40 and include no more than four from any one State Party." Additional consideration should be given to the total number and distribution of individual participants.

Attachment 5

## DETERMINATION OF HMIN-CERT

As agreed by the informal Working Group on Certification (IWGC), all States Parties agree that a consistent methodology of technical interpretation for certification is desirable to ensure acceptable results.

The Treaty on Open Skies, Annex D, Section III, paragraph 1 and (B), states: "In addition to conducting a ground examination of the observation aircraft and its sensors, the State Party conducting the certification shall conduct one in-flight examination of its sensors which shall be sufficient to:

. . .

(B) in the event that the ground resolution of a sensor is dependent upon height above ground level, establish the minimum height above ground level from which each such sensor installed on an observation aircraft of that type and model shall be operated for any observation flight, in accordance with the limitation on ground resolution specified in Article IV, paragraph 2 of the Treaty; ..."

Therefore, States Parties have indicated that they are prepared to use the following methodology during certification to determine the  $H_{min-cert}$  for certifications of optical and video cameras.

 $H_{min-cert}$  will be based upon a methodology of validating  $H_{min-exp}$ , which is derived from a substantial quantity of data previously collected.  $H_{min-exp}$  becomes  $H_{min-cert}$ , if  $H_{min}$ , calculated during the certification flight is within  $\pm 20$  per cent of  $H_{min-exp}$ . In accordance with the Sensor Guidance Document (SGD), higher variations should not be considered surprising and are subject to discussion.

#### OSCC.XXVII.JOUR.074 17 December 2001

#### Attachment 6

#### USE OF ONE CALIBRATION TARGET FOR CERTIFICATION

As agreed by the informal Working Group on Certification, States Parties state their intention to adhere to the following principle with regard to calibration targets for the certification of optical and video sensor configurations.

During the briefing prior to the commencement of the in-flight examination of the sensors, each certifying State Party will identify the calibration target it will use during the certification.

#### OSCC.XXVII.JOUR.076 18 February 2002

## OSCC CHAIRPERSON'S STATEMENT ON DISTRIBUTION OF NATIONAL DATA AFTER ENTRY INTO FORCE

In accordance with the Treaty on Open Skies and relevant decisions of the Open Skies Consultative Commission (OSCC),

Taking into account the entry into force of the Treaty on Open Skies on 1 January 2002,

Anticipating that each individual State Party wishes to have the latest pertinent national data of all other States Parties, and

With the understanding that all States Parties wish to have to have a smooth and effective entry into force of the Treaty,

During the period commencing no earlier than 1 December 2001 but prior to the dates indicated, if specified,

1. All States Parties to re-issue the following formatted messages:

(a) OSF 11 - Diplomatic Clearance Numbers and Language to Be Used, by 28 February 2002;

(b) OSF 18 - Initial List of Designated Personnel, prior to 28 February 2002, as specified by Article XIII Section I paragraph 1. Updates would be allowed every six months after that date - end August and end February each year;

(c) OSF 26 - Changes to Designation of Sites (and Maximum Flight Distances) by the end of February 2002. Information changes issued by that date would then be effective by the end of May 2002 and in time prior to the first Open Skies observation flight after EIF.

2. All States Parties certifying Sensor Configurations on Designated Observation Aircraft re-issue their latest Technical Information. This would include the following OSFs - 3,4,5,6 and 8, as required prior to the dates required for certification.

3. All States Parties that have previously made agreements to transfer quotas should issue the appropriate OSFs - 36, 37, 1 and 2, by the end of February 2002.

#### OSCC.XXVII.JOUR.077 18 March 2002

#### CHAIRPERSON'S STATEMENT ON THE CO-ORDINATION OF OBSERVATION FLIGHTS FOR 2002

Realizing that the 1 January 2002 entry into force of the Treaty precluded the declaration of each State Party's right to notify its plans to utilize all or part of its active quota for 2002 prior to 1 November 2001,

Utilizing the procedures for co-ordination specified in Annex H of the Treaty,

The OSCC States Parties declare their intention to adhere to the following principles for the co-ordination of observation flights for the calendar year 2002:

1. Each State Party, having the right to conduct observation flights as specified in Annex A, Section II, of the Treaty, may notify, and is encouraged to notify, using OSF 27, all other States Parties of its plan to utilize all or part of its active quota during the period 1 August 2002 to 31 December 2002, no later than 15 April 2002; and

2. The States Parties involved shall notify the resulting sequence of observation flights, using OSF 28, to all States Parties in accordance with paragraph 3 of Annex H.

#### OSCC.XXVII.JOUR.077 18 March 2002

#### CHAIRPERSON'S STATEMENT ON THE POSTING OF OSCC DOCUMENTS ON THE OSCE DELEGATES' WEBSITE

With reference to Document OSCC.INF/3/02 regarding the posting of OSCC documents to the OSCE Delegates' Website, the Chairperson, on behalf of the Open Skies Consultative Commission, would like to state the following:

The OSCC takes note of the positive experience the Organization and delegations have made with the OSCE Delegates' Website since November 2000. It considers the Website as a powerful tool which can assist delegations in the decision-making process.

The OSCC welcomes the new service offered by the Secretariat, namely to provide electronic access via a secure Website to unclassified and restricted documents distributed by the OSCE Documents Distribution Unit at the Hofburg.

Recalling the sensitivity of certain of its documents, the OSCC notes that the documents on the Website would only be accessible to delegations, which are eligible to receive them.

It takes further note that the current distribution policy (hardcopy distribution to pigeonholes and e-mail transmission) will remain unchanged.

Based on the above assessment, the OSCC agrees to make available for posting on the secure and restricted Website all its documents registered and distributed by the Chairmanship, the Secretariat, as well as by Delegations except those which the document's originators do not wish to be posted on the website. This will include documents starting from I January 2002.

I request that this statement be attached to the Journal of the day.

#### CHAIRPERSON'S STATEMENT ON PROCEDURE FOR ISSUING VISAS TO DESIGNATED PERSONNEL

On behalf of the Open Skies Consultative Commission, taking into account the provisions of Article XIII, Section I, paragraph 3, the Chairperson reminds of the following:

I. Each State Party shall determine, on the basis of the Treaty provisions and its own national legislation, the procedure for issuing visas to designated personnel of other States Parties, which are subject to the provisions of Article XIII, Section I, paragraph 3.

2. Each State Party should notify all States Parties of its procedure before 30 May 2002, via OSF-35.

3. Subsequently, in case of changes in its procedure for issuing visas, a State Party should inform all States Parties about the new procedure for issuing visas via OSF-35, no less than 60 days before new procedures become effective.

#### OSCC.XXVIII.JOUR.080 10 June 2002

## CHAIRPERSON'S STATEMENT ON PUBLISHING INFORMATION ON DUTY DAY AND REST PERIODS

1. In accordance with Article VI, Section 1, Paragraph 14 of the Treaty on Open Skies and OSCC Journal No. 54, 17 February 1997, Annex 2, safety of flight for all Open Skies flights is considered of great importance and this can be enhanced through the application and sharing of national regulations which provide for limiting the length of time that personnel are required to be on duty, and which specify the amount of rest that personnel are entitled to, in order to ensure that their duties are carried out safely.

2. In order to promote a greater understanding amongst States Parties of each others' national rules with respect to duty and rest regulations, which will ensure safety of flight and permit more effective use of the 96 hour period, it is agreed that in fulfilling the requirements of OSCC Journal No. 54, 17 February 1997, Annex 2, States Parties will publish their national Flight Crew Duty Day and Rest Period regulations, via an OSF 35 prior to 15 July 2002 using the following common set of definitions:

3. "Duty Day" is the period of time from when the first Flight Crew member reports for duty to when the last Flight Crew member is released from duty (this includes mission and weather briefings, maintenance and other delays).

4. "Rest Period" is the period of time from when the last Flight Crew member is released from duty to when the first Flight Crew member reports for duty. This period includes the time required to transit to and from accommodations and the time required for meals.

5. States Parties may also publish national rules with respect to Duty Day and Rest Periods for Flight Representatives and Flight Monitors via an OSF 35.

#### CHAIRPERSON'S STATEMENT ON MINIMUM SAFE FLIGHT ALTITUDES

In accordance with Annex I, paragraph 1(A), of the Treaty on Open Skies and with a view to clarify the requirement to provide information on minimum safe flight altitudes. States Parties have reached the following understanding:

The information required by Annex I, paragraph 1(A) shall also include information on nationally established regulations regarding minimum safe flight altitudes.

#### CHAIRPERSON'S STATEMENT ON MISSION PLANNING OVER CONGESTED AREAS

While reaffirming the right of the observing Party to observe any point on the territory of the observed Party as set forth in the Treaty on Open Skies, and in an attempt to minimize risks during the conduct of observation flights, States Parties will take note of congested areas during mission planning.

#### CHAIRPERSON'S STATEMENT ON STANDARD BILLING INVOICE

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In accordance with Decision Number One, Section V, paragraph 9 to the Treaty on Open Skies, the observed Party shall transmit a bill no later than 30 days after completion of an observation flight, clearly itemizing the costs incurred during the observation flight.

In order to standardize the billing process, all States Parties will submit their bill using the standard invoice of the Attachment to this Chairperson's Statement.

STANDARD OPEN SKIES INVO	ICE
INVOICE NUMBER:	
IO STATE PARTY:	
	·
FROM STATE PARTY:	
DATE OF INVOICE:	
DBSERVATION FLIGHT REFERENCE NUMBER:	S
DATE/TIME OF ARRIVAL:	
DATE/TIME OF DEPARTURE:	
SUMMARY OF COSTS (EUROS)	
MEALS AND ACCOMMODATIONS:	
FUEL, OIL, HYDRAULIC FLUID. GREASE, OXYGEN,	
WATER, DE-ICING FLUID, DE-ICING CHARGE:	
GROUND TECHNICAL AND COMMERCIAL SERVICING:	
MEDIA AND CHEMICALS:	
ADDITIONAL SERVICES:	
TOTAL INVOICED AMOUNT (EUROS):	
OBSERVED PARTY AGREE AS CORRECT (ON SUBMISSION)	
	NAME:
SIG	NATURE:
OBSERVING PARTY AGREE AS CORRECT (PRIOR TO PAYMENT)	
SIG	NAME: NATURE:
INVOICE PAYABLE TO THE FOLLOWING BANK:	

DAILY COST PER TOTAL DAILY COST

(EUROS)

PERSON (EUROS)

.

MEALS AND ACCOMMODATION COSTS	
INVOICE NUMBER:	
TO STATE PARTY:	
FROM STATE PARTY:	
DATE OF INVOICE:	
MEALS/ACCOMMODATION COSTS	NUMBER OF
DAY 1	PERSONNEL
DAY 1	· ·····
DAY 3	
DAY 4	
DAY 5	•
DAY 6	
DAY 7	
TOTAL	
TOTAL MEALS AND ACCOMMODATION	COST (EUROS)
	35

NUMBER OF

PERSONNEL

FLUID, GREASE, OXYGEN, WATER, DE-ICING	G COSTS FUEL, O	IL, HYDRAULI	с								
INVOICE NUMBER:		]	FROM STATE P	ARTY:							
TO STATE PARTY:	[	]	DATE OF INVO	ICE:							
UPLOAD	FUEL (litres)	OIL (US quarts)	HYDRAULIC FLUID (litres)	GREASE (kg)	OXYGEN (Filling)	WATER (litres)	DE-ICING FLUID (kg)	DE-ICING CHARGE BY AIRCRAFT TYPE			
								CAT I	CAT 2	CAT 3	CAT 4
1. ON ARRIVAL								1			
2. DEMO FLIGIIT											
3. TRANSIT TO OPEN SKIES AIRFIELD								1			
4. OBSERVATION FLIGHT - SEGMENT 1								1			
5. OBSERVATION FLIGHT - SEGMENT 2								<u> </u>	<u> </u>		
6. OBSERVATION FLIGHT - SEGMENT 3									·		
7. OBSERVATION FLIGHT - SEGMENT 4											
8. OBSERVATION FLIGHT - SEGMENT 5											
9. TRANSIT TO POINT OF EXIT			·····								
10. DEPARTURE FROM POINT OF EXIT											
TOTAL UPLOAD (NUMBER OF UNITS)				· · · · · ·				1	<u> </u>		
UNIT COST (EUROS) - KOLN FOR YEAR											
TOTAL		l									

TOTAL FUEL, OIL, HYDRAULIC FLUID, GREASE, OXYGEN, WATER, DE-ICING COST (EUROS)

;

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> > а. 172 г

GROUND TECHNICAL AND COMMERCIAL SERVICING COSTS			······
INVOICE NUMBER:	r	1	
TO STATE PARTY:		-	
FROM STATE PARTY:		- 1 .	
DATE OF INVOICE:	ſ	1	
EXCHANGE RATE/DATE			
OTHER GROUND TECHNICAL AND COMMERCIAL SERVICING REQUESTED	ТҮРЕ	COST (LOCAL CURRENCY)	COST (EUROS)
1. ON ARRIVAL			· · ·
2. DEMO FLIGHT			
3. TRANSIT TO OPEN SKIES AIRFIELD		-	
4. OBSERVATION FLIGHT - SEGMENT 1			4,
5. OBSERVATION FLIGHT - SEGMENT 2	· ,		t:
6. OBSERVATION FLIGHT - SEGMENT 3			
7. OBSERVATION FLIGHT - SEGMENT 4			·
8. OBSERVATION FLIGHT - SEGMENT 5			· · · · · · · · · · · · · · · · · · ·
9. TRANSIT TO POINT OF EXIT	· · · · · · · · · · · · · · · · · · ·		
10. DEPARTURE FROM POINT OF EXIT			
TOTAL	· · · · · · · · · · · · · · · · · · ·		

TOTAL GROUND TECHNICAL AND COMMERCIAL SERVICING COST (EUROS)

MEDIA AND CHEMICAL COSTS					·				
INVOICE NUMBER		7	FROM STATE PARTY	۰ <b>۲</b>	—,				İ
INVOICE NUMBER			TROM STATE FARTS	··					
TO STATE PARTY:		נ	DATE OF INVOICE:						
EXCHANGE RATE/DATE		l	_						
	-								
Canadian Media Prices				FILMS TYPES USED	Film Width	Roll Length	# of Rolls	Total	Cost
as of Year						(metres)		Length (metres)	(Euros)
FILMS	Film Width	Cost (CAD)/Metre	Cost (€)∕Metre	specify					
Panchromatic, Fine Grain Negative Film	70 mm								
	5 in/127 mm								
	9.5 in/240 mm								
Panchromatic, High Speed Negative Film	70 mm								
	5 in/127 mm								
	9.5 in/240 mm							-	
Negative Duplicating Film - Neg to Pos	70 mm		·						
	5 in/127 mm								
	9.5 in/240 mm								
Direct Duplicating Film - Neg to Neg	70 mm								
	5 in/127 mm	1							
· · · · · · · · · · · · · · · · · · ·	9.5 in/240 mm			TOTAL FILM COSTS (EUROS)					
PROCESSING CHEMICALS	Film Width	Cost (CAD)	Cost (€)	PHOTO CHEMISTRY USED				Quantity	Cost (Euros)
Replenishing Cost for 30 metres of film	70 mm			specify					
(includes Developer and Fixer)	5 in /127 mm								
	9.5 in/240 mm								····
Developer Replenisher Kit for 60 litres	_								
									<u>.</u>
Fixer Replenisher Kit for 75 litres			+						
Developer Starter Kit for 34 litres	1		· · · ·	TOTAL CHEMISTRY COST (EI	UROS)				
MAGNETIC TAPES	Length	Cost (CAD)	Cost (€)	MAGNETIC TAPES USED				# of Tapes	Cost (Euros)
Video Cassette VHS	120 minutes			specify					
Video Cassette S-VHS	120 minutes								
Video Cassette HI - 8mm	60 minutes							L	
Video Cassette HI - 8mm	120 minutes		1 1	TOTAL TAPE COST (EUROS)					

TOTAL MEDIA AND CHEMICAL COST (EUROS)

## 

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ADDITIONAL SERVICES COSTS			
INVOICE NUMBER:		1	
		J	
TO STATE PARTY:		1	
FROM STATE PARTY:		]	
DATE OF INVOICE:		]	
EXCHANGE RATE/DATE	·	l	
ADDITIONAL SERVICES	TYPE	COST (LOCAL CURRENCY)	COST (EUROS)
ADDITIONAL SERVICES		CONT (DOCINE CONTRENOT)	CONT (EDITOR)
I. ON ARRIVAL			
2. DEMO FLIGHT		·····	
3. TRANSIT TO OPEN SKIES AIRFIELD			
4. OBSERVATION FLIGHT - SEGMENT 1	· · · · · · · · · · · · · · · · · · ·		
			·
5. OBSERVATION FLIGHT - SEGMENT 2			
6. OBSERVATION FLIGHT - SEGMENT 3		· · · · · · · · · · · · · · · · · · ·	
		· · · · · · · · · · · · · · · · · · ·	· · · ·
7. OBSERVATION FLIGHT - SEGMENT 4			4.5
8. OBSERVATION FLIGHT - SEGMENT 5		······	
S. OBSERVATION FEIGHT - SEGMENT 5			
9. TRANSIT TO POINT OF EXIT			
		· · · · · · · · · · · · · · · · · · ·	
10. DEPARTURE FROM POINT OF EXIT			
TOTAL			

TOTAL ADDITIONAL SERVICES COST (EUROS)

#### OSCC. XXIX. JOUR.084 11 November 2002

#### CHAIRPERSON'S STATEMENT ON THE REQUEST FOR PASSIVE QUOTAS BY ACCEDING STATES

In accordance with Article III, Section I, paragraphs 2 and 4 and Article III, Section II . and Article X, paragraph 4 (D) and Article XVII and Annex A, Section I of the Treaty on Open Skies and subsequent pertinent decisions, as well as OSCC.Dec/8/02/Corr.1, Section 3 on the Guidelines for accession to the Treaty,

1. The allocation of passive quotas is one of the mechanisms whereby the Treaty's aim of providing transparency, security and building confidence between the States Parties is achieved. A State may request an allocation of a passive quota and the level of this quota at the moment of application for accession to the Treaty or anytime thereafter until the date of the OSCC plenary meeting following the deposit of its instrument of accession. In the absence of a specific request made by a State, the OSCC shall, in co-operation with that State, take the necessary steps to allocate a passive quota. In both cases the allocation of a passive quota shall be considered by the OSCC during the regular session of the OSCC following the date of the deposit of its instrument of accession. An OSCC decision shall then be adopted and take effect upon entry into force of the Treaty for that acceding State.

2. The acceding State should consider an appropriate level of passive quotas to meet the Treaty's goals of openness and transparency. The acceding State when requesting a level of passive quota, should take into account the existing allocation of passive quotas as set forth in Annex A and subsequent pertinent OSCC Decisions. Passive quotas allocated to existing States Parties and groups of States Parties have ranged from 2 to 42. In all but one case, four or more passive quotas were allocated.

Other elements to be considered, *inter alia*, as appropriate by the State when making the request:

Its geographical size and location;

- Its military capabilities, to include infrastructure and armed forces.

3. Only States Parties holding passive quotas may form a group of States Parties. Quota provisions for groups of States Parties as stipulated by Article III, Section II are applicable. In the case of a group of States Parties established pursuant to Article III, Section II, paragraph 3 the OSCC, in co-operation with the States Parties concerned, shall allocate a common total passive quota.

#### OSCC.XXX.JOUR.087 24 February 2003

## STATEMENT BY THE CHAIRPERSON OF THE OPEN SKIES CONSULTATIVE COMMISSION

1. The purpose of OSF 26 messages is to publish changes, additions and deletions to information. There is currently no simple method for a State Party or group of States Parties to publish an OSF 26 message which contains a summary of all the current relevant information in one consolidated list.

2. Therefore, in order to provide a complete current list of all relevant material, it is agreed that States Parties or groups of States Parties will publish an OSF 26 by 15 March 2003, which lists all current information relating to Annex A, Section III, and Annex E - Appendix 1, Section II, for their State Party or group of States Parties. Paragraphs 5.A.(1), 5.B.(1), 5.(C).(1), etc., of the OSF 26 will be left blank. The remarks section will read: "This OSF 26 is not intended to introduce changes/additions/deletions, but is a summary of all current information.

3. States Parties or groups of States Parties will continue to use an OSF 26, as required during the year, to indicate the changes/additions/deletions to relevant information. However, a consolidated OSF 26 is optional each time an OSF 26 is published. This consolidated OSF 26 shall list all of the information relating to Annex A, Section III, and Annex E - Appendix 1, Section 11, that is currently valid for their State Party or group of States Parties. Paragraphs 5.A.(1), 5.B.(1), 5.(C).(1), etc., of the OSF 26 can be left blank for information that has not been modified. The remarks section may also be used to summarize the portion of the information that has been modified.

If there have been changes during the year, the State Party or group of States Parties shall publish an annual consolidated OSF 26, by 31 December of that year, which lists all of the information relating to Annex A, Section III, and Annex E - Appendix 1, Section II, that is currently valid for that State Party or group of States Parties. Paragraphs 5.A.(1), 5.B.(1), 5.(C).(1), etc., of the OSF 26 will be left blank. The remarks section will read: "This OSF 26 is not intended to introduce changes/additions/deletions, but is a summary of all current information."

5. If there have been no changes to the relevant information during the year, there is no requirement to publish an annual consolidated OSF 26.

#### OSCC.XXVIII.JOUR.089 07 April 2003

## CHAIRPERSON'S STATEMENT ON INFORMATION BY ACCEDING STATES

The Open Skies Treaty Articles III (Quotas), XVII (Accession) and Annex A provide for the allocation of passive quotas to States Parties. In addition, OSCC Decision No. 8/02/Corr.1 of 22 April 2002 (Guidelines for accession to the Treaty on Open Skies) and the Chairperson's Statement of 11 November 2002 detail modalities and elements to be taken into consideration.

In order to further facilitate the accession process and ensure that the Open Skies Treaty achieves the broadest possible membership, States wishing to accede are encouraged to provide, ideally upon declaring their intention, every useful information which may include the level of a passive quota, the designation of point(s) of entry/exit, Open Skies airfields and their associated maximum flight distances as well as any intention that may exist to form a group with any other State Party.

Even though it is not explicitly required by the Open Skies Treaty, such an early and, wherever applicable, co-ordinated provision of relevant information would contribute to the Commission reaching a more comprehensive assessment of requests for accession, enable early participation of acceding States in the practical implementation of the Treaty and enhance openness, transparency and confidence-building.

#### OSCC.XXX.JOUR.089 07 April 2003

## CHAIRPERSON'S STATEMENT ON MODIFICATIONS TO ANNEX A AND ANNEX E TO THE TREATY ON OPEN SKIES

The States Parties take note of the questions regarding implementation of the provisions of Annex A and Annex E to the Treaty on Open Skies and the concerns raised about changes introduced by some States Parties to their national networks of Open Skies airfields and to the maximum flight distances from them.

Willing to proceed in accordance with Article X, paragraphs 4 (A) and (B) and paragraph 5, the States Parties have reached the following understanding:

1. Acting in the spirit of good will, mutual understanding and cooperation characteristic of the Open Skies Consultative Commission's work, the States Parties will concentrate on their mutual concerns related to the national changes previously introduced to Annex A and Annex E to the Treaty on Open Skies, seeking to address these concerns before the summer recess;

2. While seeking to resolve these concerns, the OSCC tasks the Informal Working Group on Rules and Procedures to work on a draft decision which would contain relevant recommendations concerning the introduction of changes to Annex A and Annex E to the Treaty on Open Skies and to submit them for approval at the Commission's Plenary. Such changes should not affect Treaty operation and implementation, or the rights of States Parties, while maintaining flexibility;

3. While this issue is before the Open Skies Consultative Commission, every effort will be made to facilitate the continuing implementation of the Treaty.

## CHAIRPERSON'S STATEMENT ON ANNUAL EXCHANGE OF LIST OF DESIGNATED PERSONNEL

In accordance with the Treaty on Open Skies, Articles XI and XIII, and the Chairman's Statement of 18 February 2002, States Parties have exchanged notifications on the initial list of designated personnel (Format OSF 18).

In order to ensure all States Parties are able to maintain current lists of designated personnel, the Chair recommends the following procedures:

1. States Parties may provide updates to the list of designated personnel using Format OSF 19 every six months, publishing the OSF 19 prior to 1 March and 1 September each year.

2. Annually no later than 15 May, States Parties will publish, using Format OSF 18, an original consolidated list of designated personnel. This list will include all changes that have been notified and accepted since the submission of the previous consolidated list. As an exception, States Parties will publish an original consolidated list (OSF 18) for 2003 not later than 31 May 2003.

3. As is current OSCE Communications Network practice, States Parties may issue a corrected notification should information on the original OSF 18 or OSF 19 need to be updated or clarified (new passport number or minor typographical errors). As these notifications tend to be lengthy, it is recommended to identify the correction references in the remarks section. If the correction pertains to an individual(s) who will be participating in an upcoming Treaty mission, the correction in the remarks section. Use of a Format OSF 12 with an explanation of the correction in the remarks section. Use of a Format OSF 35 for correcting these innor errors is not recommended, as it has proven difficult to track such corrections.

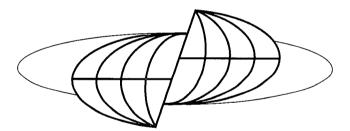
4. States Parties may provide their consolidated list of designated personnel (OSF 18) through the OSCE Communications Network and/or through diplomatic channels in Vienna, including CD-ROM. For practical reasons, States Parties are encouraged to exchange their consolidated list of designated personnel through the OSCE Communications Network.



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# ADDITIONAL

# **DOCUMENTS**



## SECTION IV

# **ADDITIONAL DOCUMENTS**

## TABLE OF CONTENTS

1.	CSCE DECLARATION ON THE TREATY ON OPEN SKIES OF 24 MARCH 1992 1
2.	STATUS REPORT ON RATIFICATIONS / ACCESSIONS - 07 APRIL 2003 2
3.	DESIGNATION OF SITES (OSF 26) SUMMARY AS OF 07 APRIL 2003 4

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Helsinki, 24 March 1992

#### THE CSCE DECLARATION ON THE TREATY ON OPEN SKIES

The Foreign Ministers of the participating States of the Conference on Security and Co-operation in Europe on the occasion of the signature of the Treaty on Open Skies have issued the following declaration:

- <u>Welcoming</u> the signing of the Treaty on Open Skies by the Foreign Ministers of the States concluding this Treaty,

- <u>Recognizing</u> the importance of the Open Skies réégime for the security of States participating in the CSCE process,

- <u>Assessing</u> the Treaty as an important element in the process of enhancing security and confidence between members of the international community,

- Reiterating the importance of the principle of equal security for all their countries,

- Noting the interest expressed by a number of States not full participants in the

negotiations, and believing that their adherence to the Treaty as well as signature by all the newly independent States, as mentioned in Article XVII of the Treaty, would enhance the effectiveness of the Open Skies réégime,

1. <u>Recognize</u> the significant contribution to the Open Skies negotiations made by a number of participants in the CSCE who are not original signatories to the Treaty on Open Skies.

2. <u>Recognize</u> also that these States may participate, on the basis of the active and passive quotas they would hold as State Parties, in the implementation of the Treaty and that they may take part in discussions regarding practical arrangements for the réégime which will continue in Vienna within the framework of the Open Skies Consultative Commission during the period of provisional application,

 <u>Acknowledge</u> the interest of the States which are participants in the CSCE but not original signatories to the Treaty on Open Skies in information obtained through Open Skies observation flights,

 <u>Welcome</u> the interest shown by States which are participants in the CSCE but not original signatories to the Treaty on Open Skies to accede to it as provided for by Article XVIII of the Treaty,

5. <u>Call upon</u> all Parties to the Treaty to allow the accession of such interested States as soon as possible and to act, in all matters related to it, in the spirit of co-operation which the Treaty commands.

#### TREATY ON OPEN SKIES

Done at Helsinki on 24 March 1992

#### ENTRY INTO FORCE (Art. XVII): 1st January 2002

**DEPOSITARIES** (Art. XVII): The Government of Canada and the Government of the Republic of Hungary **ACCESSION** and **RATIFICATION** (Art. XVII): For six months after entry into force of the Treaty, any State which participated in the Conference on Security and Co-operation in Europe may apply for accession by submitting a written request to one of the Depositaries. The Treaty shall enter into force for that State, 60 days after the date of deposit of its instrument of accession.

AUTHENTIC TEXTS (Art. XIX): English, French, German, Italian, Russian and Spanish

Parties	Signature		Deposit	Withdrawal
Belarus <sup>(2)</sup>	24 MAR 92	R	02 NOV 01	
Belgium	24 MAR 92	R	28 JUN 95	· ·
Bulgaria <sup>(2)</sup>	24 MAR 92	R	15 APR 94	
Canada <sup>(1)</sup>	24 MAR 92	R	21 JUL 92	1
Czech Rep.	24 MAR 92*	R	21 DEC 92	
Denmark <sup>(2)</sup>	24 MAR 92	R	21 JAN 93	
Finland <sup>(9)</sup>	-	A	12 DEC 02	
France	24 MAR 92	R	30 JUL 93	
Georgia <sup>(2)</sup>	24 MAR 92	R	31 AUG 98	
Germany	24 MAR 92	R	27 JAN 94	
Greece	24 MAR 92	R	09 SEP 93	
Hungary	24 MAR 92	R	11 AUG 93	
Iceland -	24 MAR 92	R	25 AUG 94	
Italy <sup>(4)</sup>	24 MAR 92	R	28 OCT 94	
Kyrgyzstan	15 DEC 92			
Latvia <sup>(10)</sup>	-	A	13 DEC 02	· ·
Luxembourg	24 MAR 92	R	28 JUN 95	
Netherlands	24 MAR 92	R	28 JUN 95	
Norway <sup>(2)</sup>	24 MAR 92	R	14 JUL 93	
Poland (6)	24 MAR 92	R	17 MAY 95	
Portugal	24 MAR 92	R	22 NOV 94	
Romania (2)	24 MAR 92	R	05 JUN 94	
Russia <sup>(7)</sup>	24 MAR 92	R	02 NOV 01	
Slovak Rep.	24 MAR 92*	R	21 DEC 92	1
Spain <sup>(1)(2)</sup>	24 MAR 92	R	18 NOV 93	
Sweden (1)(8)	-	A	28 JUN 02	
Turkey (5)	24 MAR 92	R	30 NOV 94	
UK <sup>(3)</sup>	24 MAR 92	R	08 DEC 93	1
Ukraine <sup>(2)</sup>	24 MAR 92	R	20 APR 00	
USA <sup>(1)</sup>	24 MAR 92	R	03 DEC 93	
	24 MAR 72	1		

 $\overline{\text{Accession} = (\Lambda)}$  Ratification = (R)

(1) With declaration(s) and/or reservation(s)

(2) Instrument deposited with Hungary only

(3) See Territorial Application

(4) Deposited with Canada 31 OCT 94 and with Hungary 28 OCT 94

(5) Deposited with Canada 1 DEC 94 and with Hungary 30 NOV 94

(6) Deposited with Canada 29 MAY 95 and with Hungary 17 MAY 95

(7) Deposited with Canada 2 NOV 01

(8) Deposited with Canada and with Hungary 28 June 02

(9) Deposited with Canada 13 DEC 02 and with Hungary 12 DEC 02

(10) Deposited with Canada 13 DEC 02

\* A Successor State of the former Federal Republic of Czechoslovakia

#### DECLARATIONS AND RESERVATIONS

#### CANADA

"The Government of Canada declares, with respect to Article XIII, Section II of the Treaty on Open Skies, that it will initially implement the required privileges and immunities to the extent permitted by Canadian law, and that it is reviewing the question of whether any legislative changes will be necessary for Canada to implement fully the required privileges and immunities."

SPAIN - [TRANSLATION] Declaration [24 March 1992]

As far as the definition of the term "territory" contained in Article II of the Treaty on Open Skies is concerned, the Kingdom of Spain reiterates its legal stand regarding the controversy with the United Kingdom over the sovereignty of the isthmus of Gibraltar.

#### USA

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"Statement of Interpretation [4 February 1994]

In connection with Article XII of the Treaty on Open Skies, the Government of the United States of America makes the following statement:

Article X1I of the Open Skies Treaty does not modify existing international law on liability for injury or damage that may occur as a result of flights conducted under the Treaty. It does not impose liability on the observing Party to pay compensation for injury or damage to an observed Party, or to its natural or juridical persons or to their property, caused by the operation of the observation aircraft during an observation flight in the course of imple-mentation of the Open Skies Treaty, if such observation flight was conducted using an observation aircraft designated and provided by the observed party under Article VI of the Treaty.

Further, the United States will seek compensation from the observed Party in any case in which injury or damage to the United States, including but not limited to any of its flight representatives, sensor operators and inspectors, is caused by the operation of the observation aircraft during an observation flight in the course of imple-mentation of the Open Skies Treaty and if such observation flight was conducted using an observation aircraft designated and provided by the observed Party pursuant to Article VI of the Treaty."

#### SWEDEN

Declaration/Reservation [28 June 2002]

The Government of the Kingdom of Sweden declares that it undertakes faithfully to perform and carry out all stipulations therein contained with the reservation that the stipulations concerning taxation in Article 34 in the Vieuna Convention on Diplomatic Relations of 18 April 1961, to which the Treaty refers, shall not apply to Swedish nationals or to persons who are resident in Sweden.

#### TERRITORIAL APPLICATION

#### UNITED KINGDOM

United Kingdom of Great Britain and Northern Ireland; Bailiwick of Guernsey; Bailiwick of Jersey; Isle of Man; Anguilla: Bermuda; British Indian Ocean Territory; British Virgin Islands; Cayman Islands; Falkland Islands; Gibraltar; Montserrat: Pitcaim, Henderson, Ducie and Oeno Islands; St. Helena; St. Helena Dependencies; South Georgia and the South Sandwich Islands; Turks and Caicos Islands; United Kingdom Sovereign Base Areas of Akrotiri and Dhekelia in the island of Cyprus.

State Party	Site Name	Latitude	Longitude	POE	OSA	Entry Exit	Refuel Airfield	Calibr'n Target	Insp'n Site	ICAO Ident	Max Flt Distance	Remarks	OS F26 Ref
	• · · · · · · · · · · · · · · · · · · ·												
Federal	Koin/Bonn	50-52-00N	007-09-00E	Х	Х		х		X	EDDK	1300 km		DE/03/007/C
Republic of	Nordholz	53-46-00N	008-39-00E		X		х			ETMN	1300 km		
Germany	Ingolstadt	49-43-00N	011-32-00E		X		X	,		ETSI	1300 km		
	Mendig	50-21-57N	007-18-54E					x		ETHM	0		
					_								
United States	Ellsworth AFB	44-08-42N	103-06-13W				X.			LCRA	0		US/0/006/O
of America	Elmendorf AFB	61-15-11N	149-47-38W		X					PAED	3750 km		
	Hickam AFB	21-18-58N	157-55-36W		ł		X			PHIK	0		
	Robins AFB	32-38-25N	083-35-31W				Х			KWRB	0		
	Tinker AFB	35-24-53N	097-23-12W				Х			KTIK	0		
	Travis AFB	38-15-46N	121-55-39W	X	X				X	KSUU	6000 km		
	Wright Patterson AFB	39-49-34N	084-02-54W		X			X	Х	KFFO	6000 km		
	Washington Dulles Int'l	38-56-40N	077-27-21W	x						KIAD	0		
Republic of	Yakusk	62-05-36N	129-46-18E		Ι		X			UEEE	0		RU/03/007/0
Belarus &	Ulan-Ude (Mukhino)	51-48-30N	107-26-30E	X		Γ	X		x	UUU	0		
Russiau	Khabarovsk (Central)	48-27-42N	135-09-00E		X X		X			XHHA	5500 km		
Federation	Tiksi	71-41-48N	128-53-48E		X		Х		_	UEST	7600 km		
Group of	Klin	56-22-00N	036-44-18E	X	х		X		X	XUMN	5000 km		
States Parties	Novosibirsk (Tolmachevo)	55-00-42N	082-39-00E		X		x		L	UNNT	3500 km		
	Petropavlovsk-Karnchatskiy (Yelizovo)	53-10-12N	158-27-06E			1	Х			UHPP	0		
	Kaliningrad (Khrabrovo)	54-53-24N	020-35-42E			1	X			UMKK	0	· · · ·	·
	Levashovo	60-05-18N	030-12-54E		_		X			XLLV	0		
	Kubinka	55-36-42N	036-39-00E					x		UUMB	0		
	Rostov-on-Don (Central)	47-16-42N	039-38-12E				X			XRRO	0		
	Severomorsk-1	69-01-48N	033-25-30E				x		L	XLMD	0		
	Perm (Bolshoie Savino)	57-55-00N	056-01-36E				x			USPP	0		
Benelux	Zaventem/Melsbroek	50-54-08N	004-29-55E	X	X		X		X	EBMB	945 km		BX/03/002/0
	Volkel	51-39-30N	005-42-30E		X		х			EHVK	945 km	<u></u>	
	Vredepeel	51-31-10N	005-51-30E					x	1	EHDP	0		1

Bulgaria	Sofia	42-41-70N	023-24-50E	х	Х	х	х	LBSF	660 km	 BG/02/004/C
,	Burgas	42-34-00N	027-31-00E		х	х		LBBG	660 km	

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State Party	Site Name	Latitude	Longitude	POE	OSA	Entry Exit	Refuel Airfield	Calibr'n Target	Insp'n Site	ICAO Ident	Max Fit Distance	Remarks	OS F26 Ref
			•	•		•				•			
Canada	Ottawa	45-19-21N	075-40-09W	X	X	1	Х		х	CYOW	5000 km		CA/03/008/O
		45-22-24N	075-55-42W	1				X					1
	Igaluit	63-45-23N	068-33-21W		X		Х			CYFB	6000 km		1
	Yellowknife	62-27-46N	114-26-25W	1	X		X			CYZF	5000 km		
	Edmonton Int'l	53-18-35N	113-34-47W				Х			CYEG	0		
	Halifax Int'l	44-52-51N	063-30-31W				Х			CYHZ	0		
	Winnipeg Int'l	58-44-21N	094-03-54W				Х			CYWG	0		
	Churchill	58-44-21N	094-03-54W				x			CYYQ	0		
Kingdom of	Copenhagen Int'l	55-37-07N	012-19-34E	X						EKCH	0		DK/02/006/O
Desmark	Aalborg	57-06-35N	009-51-23E	Х	X			Х	X	EKYT	1200 km		DK/02/007/O
	Soendre Stroemfjord Int'l	67-01-05N	050-41-39W				X			BGSF	5600 km		
	Vagar	62-03-51N	007-16-26W				х			EKVG	0		
Kingdom of	Getafe	40-17-39N	003-43-26W	х	X		X		Х	LEGT	1800 km	2000 km with Balearic Islands	ES/03/006/O
Spain	Gran Canaria (Gando)	27-55-55N	015-23-12W	x	x		x		х	GCLP	750 km		
-													
French Republic	Nimes Garons	43-45-27N	004-24-59E				Х			LFTW	0		FR/03/003/O
	Orleans Bricy	47-59-12N	001-45-43E	X	x		x	x	x	LFOJ	1900 km	2500 km with Corsica	
	-												
United Kingdom	Brize-Norton	51-45-00N	001-35-02W	x	х		x	х	x	EGVN	1150 km	1500 km with Shetland or Scilly Islands	GB/03/002/O
of Great Britain		51-45-01N	001-34-11W			1		X					
and	Leuchars	56-22-37N	002-52-11W	1	x		х		х	EGQL	1150 km	1500 km with Shetland or Scilly Islands	,,
Northern Ireland	Heathrow	51-28.65N	000-27.68W	x						EGLL	0	Scheduled pax fits only	
			<b>d</b>									L	
Hellenic	Thessaloniki Int'l/Makedonia	40-31-10N	022-58-25E	X	Х		X		X	LGTS	1010 km		GR/02/003/O
Republic	Larisa	39-38-55N	022-26-55E	X	X		Х	Х	X	LGLR	1010 km		
	Irakiion/Nikos Kazantakis	35-20-17N	025-10-39E	x	x		х		х	LGIR	910 km	1170 km with Kastelorizon Island	
Republic of	Budapest-Ferihegy	47-26-24N	019-15-42E	X		Х				LHBP	0	For Emergency Use only	HU/03/006/O
Hungary	Kecskemet	46-55-04N	019-45-03E	X	x		х	х	х	LHKE	860 KM		

Site Name	Latitude	Longitude	POE	OSA	Entry	Refuel	Calibr'n	lasp'a	ICAO	Max Flt	Remarks	OS F26 Ref
	1	-			Exit	Airfield	Target	Site	Ident	Distance		

Italian Republic	Sigonella	37-24-10N	014-55-34E				X			LICZ	0		TT/02/003/O
	Ciampino	41-47-48N	012-34-36E	X	x	х	Х		X	LIRA	1830 km	2000 km with Lampedusa	IT/O3/002/O
												Islands	
	Milano Linate	45-27-00N	009-16-24E				X			LIML	0		
	Rimini	44-01-24N	012-36-42E				Х			LIPR	0	•	
	Brindisi	40-40-05N	015-57-10E				Х			LIBR	0		
1	Cagliari Elmas	39-15-12N	009-03-24E				X			LIEE	0		
	Latina	41-32-32N	012-54-03E					x		LIRL	0		

Kingdom of	Gardermoen	60-12-10N	011-05-02E	Х	х	х	х	X	ENGM	1700 km	Cal Tgt @ Rygge	NO/03/004/O
Norway	Bardufoss	69-03-21N	018-32-25E		х	х			ENDU	1700 km		
	Vaernes	63-27-27N	010-55-27E			x			ENVA	0		
	Rygge	59-23-13N	010-45-43E				х		ENRY	0	Elevation 140 ft (43 m)	

Republic of	Warszawa/Okecie	52-09-56N	020-58-01E	Х	х	X		X	EPWA	1400 km	PL/02/003/O
Poland	Powidz	52-22-46N	017-51-15E				Х		EPPW	0	
	Poznan/Lawica	52-25-16N	016-49-40E			х			EPPO	0	
	Gdansk/Rembiechowo	54-22-41N	018-28-05E			х			EPGD	0	
	Krakow/Balice	50-04-41N	019-47-10E			x			EPKK	0	]
	Wrocław/Strachowice	51-06-11N	016-53-15E			x			EPWR	0	

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Portuguese	Lisboa Int'l	38-46-22N	009-07-58W	X	Γx	х	Х	X	LPPT	1200 km	PT/02/004/O
Republic	Santa Maria	36-58-22N	025-10-17W		X	X			1	1700 km	
	Porto Santo	33-04-01N	016-20-44W		x	х				1030 km	

Romania	Otopeni Bucharest	44-34-16N	026-05-07E	X	X	Х	X	LROP	900 km	RO/02/010/O
	Bacau	46-31-19N	026-54-37E		Х	х		LRBC	900 km	
	Giarmata Timisoara	45-48-36N	021-20-16E	х	х	Х	Х	LRTR	900 km	
	Kogalniceanu Constanta	44-21-44N	028-29-18E			Х		LRCK	0	]
1	Someseni Cluj Napoca	46-47-06N	023-41-10E			х		LRCL	0.	
	Craiova	44-19-05N	023-53-19E	•		х		LRCV	0	

Czech Republic	Pardubice	50-00-48N	015-44-19E	Х	х	Х	X	Х	LKPD	800 km	 CZ/03/006/O
		50-00-58N	015-43-49E				х				

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State Party	Site Name	Latitude	Longitude	POE	OSA	Entry	Refuel	Calibr'n	lasp'a	ICAO	Max Flt	Remarks	OS F26 Ref
		•	-			Exit	Airfield	Target	Site	Ident	Distance		

	Slovak Republic	Bratislava M.R. Stefanik	48-10-12N	017-12-46E	Х					LZIB	0	Scheduled pax fits only	SK/02/007/O
	-	Sliac	48-38-17N	019-08-03E	х	X	Х	Х	Х	LZSL	1300 km	Elevation 318 m (1043 ft)	SK/03/003/O
		ODNEM	48-51-12N	017-10-04E			х					Only for LZSL	] ]
		MALBE	48-49-26N	022-22-23E			х					Only for LZSL	
		ERGOM	47-48-30N	018-43-59E	_		x					Only for LZSL	
1		MEBAN	49-27-18N	019-38-48E			х					Only for LZSL	

Eskisehir AB	39-47-02N	030-34-55E	X	X X		Х		X	LTBI	1500 km		TR/03/003/O
Diyarbakir AB	37-53-37N	040-12-02E		х		X		X	LTCC	1500 km		
Cardak AB	37-47-06N	029-42-04E				Х			LTAY	0		
Corlu AB	41-08-17N	027-55-08E				X			LTBU	0		
Erzurum AB	39-57-23N	041-10-12E				X			LTCE	0		
ADORU	42-52-12N	026-34-06E			Х							
KUGOS	42-46-54N	034-05-18E			Х							
MAKOL	42-10-18N	029-08-36E			Х							
ODIRA	42-42-36N	036-54-54E			х							
RAKUR	42-48-00N	031-56-54E			X							
REDRA	37-58-54N	026-31-30E			х							
RIXEN	42-04-54N	028-46-00E			х							
SARPI	41-33-00N	041-27-00E			X							
VADEN	42-04-00N	027-13-12E			х			ľ				
	Diyarbakir AB Cardak AB Cordu AB Erzurum AB ADORU KUGOS MAKOL ODIRA RAKUR REDRA RIXEN SARPI	Diyarbakir AB         37-53-37N           Cardak AB         37-47-06N           Corlu AB         41-08-17N           Erzarum AB         39-57-23N           ADORU         42-52-12N           KUGOS         42-46-54N           MAKOL         42-10-18N           ODIRA         42-42-36N           RAKUR         42-48-00N           REDRA         37-58-54N           RIXEN         42-04-54N           SARPI         41-33-00N	Diyarbakir AB         37-53-37N         040-12-02E           Cardak AB         37-47-06N         029-42-04E           Corlu AB         41-08-17N         027-55-08E           Erzarum AB         39-57-23N         041-10-12E           ADORU         42-52-12N         026-34-06E           KUGOS         42-46-54N         034-05-18E           ODIRA         42-42-36N         034-05-18E           MAKOL         42-10-18N         029-08-36E           ODIRA         42-42-36N         031-65-145E           RAKUR         42-48-00N         031-65-145E           REDRA         37-58-54N         023-02-31-00E           RIXEN         42-04-54N         023-63-30E           RIXEN         42-04-54N         023-64-06E           SARPI         41-33-00D         041-27-00E	Diyarbakir AB         37:53-37N         040-12-02E           Cardak AB         37:47-06N         029-42-04E           Corlu AB         41-08-17N         027-55-08E           Erzarum AB         39:57-23N         041-10-12E           ADORU         42:52-12N         026-34-06E           KUGOS         42:46-54N         034-05-18E           MAKOL         42:42-36N         036-54-54E           RAKOL         42:42-36N         036-54-54E           RAKUR         42:48-00N         031-55-54E           REDRA         37:58-54N         028-66-00E           SARPI         41:33-00N         041-27-00E	Diyarbakir AB         37-53-37N         040-12-02E         X           Cardak AB         37-47-06N         029-42-04E         X           Corlu AB         41-08-17N         029-42-04E         X           Corlu AB         41-08-17N         027-55-08E         X           Erzarum AB         39-57-23N         041-10-12E         X           ADORU         42:52-12N         026-34-06E         X           KUGOS         42-46-54N         034-05-18E         X           MAKOL         42-10-18N         029-08-36E         X           ODIRA         42-42-36N         036-54-54E         X           RAKUR         42-48-00N         031-56-54E         X           REDRA         37-58-54N         026-31-30E         X           RIXEN         42-04-54N         024-66-0E         X           SARPI         41-33-00N         041-27-00E         X	Diyarbakir AB         37:53-37N         040-12-02E         X           Cardak AB         37:47-06N         02942-04E            Corlu AB         41-08-17N         027-55-08E            Erzarum AB         39:57-23N         041-10-12E            ADORU         42:52-12N         026-54-06E         X           KUGOS         42-46-54N         03-05-18E         X           MAKOL         42-10-18N         029-08-36E         X           ODIRA         42-42-36N         036-54-54E         X           RAKUR         42-48-04N         031-56-54E         X           REDRA         37-58-54N         028-46-00E         X           RIXEN         42-04-54N         028-46-00E         X	Diyarbakir AB         37-53-37N         040-12-02E         X         X           Cardak AB         37-47-06N         029-42-04E         X         X           Cordu AB         41-08-17N         029-42-04E         X         X           Cordu AB         41-08-17N         027-55-08E         X         X           Erzarum AB         39-57-23N         041-10-12E         X         X           ADORU         42-52-12N         026-34-06E         X         X           KUGOS         42-46-54N         034-05-18E         X         X           ODIRA         42-42-54N         036-54-54E         X         X           ODIRA         42-42-36N         036-54-54E         X         X           RAKUR         42-48-00N         031-56-54E         X         X           REDRA         37-58-54N         026-31-30E         X         X           REXEN         42-04-54N         028-46-00E         X         X           RIXEN         42-04-54N         028-46-00E         X         X	Diyarbakir AB         37-53-37N         040-12-02E         X         X           Cardak AB         37-47-06N         029-42-04E         X           Cortu AB         41-08-17N         027-55-08E         X           Erzarum AB         39-57-23N         041-10-12E         X           ADORU         42-52-12N         026-34-06E         X           KUGOS         42-46-54N         039-405-18E         X           MAKOL         42-10-18N         029-08-36E         X           ODIRA         42-42-36N         036-54-54E         X           RAKUR         42-48-00N         031-55-54E         X           REDRA         37-58-54N         026-31-00E         X           REDRA         37-58-54N         026-31-00E         X           REXEN         42-04-54N         028-46-00E         X	Diyarbakir AB         37-53-37N         040-12-02E         X         X         X           Cardak AB         37-47-06N         029-42-04E         X         X         X           Cordu AB         41-08-17N         027-55-08E         X         X         X           Erzarum AB         39-57-23N         041-10-12E         X         X         X           ADORU         42-32-12N         026-34-06E         X         X         X           ADORU         42-32-12N         026-34-06E         X         X         X           MAKOL         42-46-54N         034-05-18E         X         X         X           ODIRA         42-42-36N         036-54-54E         X         X         X           RAKUR         42-48-00N         031-55-54E         X         X         X           REDRA         37-58-54N         026-31-30E         X         X         X           REDRA         37-58-54N         026-31-30E         X         X         X           REXEN         42-04-54N         028-46-00E         X         X         X	Disprish rab         Disprish rab         Disprish rab         Disprish rab         Disprish rab         X         X         X         X         X         LTCC           Cardak AB         37-37-06N         029-42-04E         X         LTAX         LTAX         LTAX           Cortu AB         41-08-17N         027-55-08E         X         LTBX         LTAX           Cortu AB         39-57-23N         041-10-12E         X         LTBU         LTBU           Erzarun AB         39-57-23N         041-10-12E         X         LTCE         LTCE           ADORU         42-52-12N         026-34-06E         X         LTCE         MAKOL         LTCE           MAKOL         42-46-54N         03-04-05         X         MAKOL         MAKOL         42-46-54N         03-05-18E         X         MAKOL         MAKOL         42-46-54N         03-05-54-54E         X         MAKOL         MAKOL         MAKOL         42-42-36N         03-54-54E         X         MAKOL         MAKOL <td>Diyarbakir AB         37-53-37N         040-12-02E         X         X         X         LTCC         1500 km           Cardak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordu AB         41-08-17N         027-55-08E         X         LTBU 0           Erzarum AB         39-57-23N         041-10-12E         X         LTEU 0           ADORU         42-52-12N         026-34-06E         X         LTCE         0           ADORU         42-26-51N         034-05-18E         X              MAKOL         42-16-54N         034-05-18E         X               ODIRA         42-45-54N         036-63-54E         X  <t< td=""><td>Disprish r AB         37-53-37N         040-12-02E         X         X         X         LTCC         1500 km           Cardak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordu AB         41-08-17N         027-55-08E         X         LTBU         0           Erzarum AB         39-57-23N         041-10-12E         X         LTCC         0           ADORU         42-52+12N         026-34-06E         X         LTCC         0           ADORU         42-45-54N         034-05-18E         X             MAKOL         42-46-54N         034-05-18E         X             MAKOL         42-46-54N         034-05-18E         X              ODIRA         42-44-54N         031-56-54E         X               RAKUR         42-48-00N         031-56-54E         X               REDRA         37-58-54N         026-31-30E         X</td></t<></td>	Diyarbakir AB         37-53-37N         040-12-02E         X         X         X         LTCC         1500 km           Cardak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordu AB         41-08-17N         027-55-08E         X         LTBU 0           Erzarum AB         39-57-23N         041-10-12E         X         LTEU 0           ADORU         42-52-12N         026-34-06E         X         LTCE         0           ADORU         42-26-51N         034-05-18E         X              MAKOL         42-16-54N         034-05-18E         X               ODIRA         42-45-54N         036-63-54E         X <t< td=""><td>Disprish r AB         37-53-37N         040-12-02E         X         X         X         LTCC         1500 km           Cardak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordu AB         41-08-17N         027-55-08E         X         LTBU         0           Erzarum AB         39-57-23N         041-10-12E         X         LTCC         0           ADORU         42-52+12N         026-34-06E         X         LTCC         0           ADORU         42-45-54N         034-05-18E         X             MAKOL         42-46-54N         034-05-18E         X             MAKOL         42-46-54N         034-05-18E         X              ODIRA         42-44-54N         031-56-54E         X               RAKUR         42-48-00N         031-56-54E         X               REDRA         37-58-54N         026-31-30E         X</td></t<>	Disprish r AB         37-53-37N         040-12-02E         X         X         X         LTCC         1500 km           Cardak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordak AB         37-47-06N         029-42-04E         X         LTAY         0           Cordu AB         41-08-17N         027-55-08E         X         LTBU         0           Erzarum AB         39-57-23N         041-10-12E         X         LTCC         0           ADORU         42-52+12N         026-34-06E         X         LTCC         0           ADORU         42-45-54N         034-05-18E         X             MAKOL         42-46-54N         034-05-18E         X             MAKOL         42-46-54N         034-05-18E         X              ODIRA         42-44-54N         031-56-54E         X               RAKUR         42-48-00N         031-56-54E         X               REDRA         37-58-54N         026-31-30E         X

Ukraine	Boryspil	50-20-07N	030-53-07E	Х		Х	X	X	UKBB	Ö	UA/03/001/O
	Kulbakine (Mykolaiv)	46-56-30N	032-06-06E		X	X			-	1200 km	
	Mirgorod	49-55-48N	033-38-42E		Х	х				1500 km	 
	Ozeme (Zytomyr)	50-09-36N	028-44-24E		х	Х			-	1500 km	 ا الد العمي
	Odessa	46-25-36N	030-40-42E			X			UKOO	0	,,
	L'Viv	49-48-48N	024-57-24E			x			UKLL	0	
1											 

Sweden	Uppsala	59-54-01N	017-35-33E	Х	Х	Х	X	Х	ESCM	1700 km		SE/02/006/O
	Ronneby	56-16-00N	015-15-54E		Х	Х			ESDF	1700 km		SE/03/003/O
	Lulea	65-32-36N	022-07-25E		х	Х			ESPA	1700 km		
	Stockholm/Arlanda	59-39-07N	017-55-07E	х	х	X		Х	ESSA	1700 km	Only if a/c exceeds limits for	
	· · · · ·								l		ESCM	

- F	Finland	Helsinki-Vantaa	60-19-02N	024-57-48E	X	х	х		х	EFHK	1400 km	 FI/03/004/O
		Rovaniemi	66-33-42N	025-49-51E		Х	Х			EFRO	1400 km	 
		Hyvinkaa		024-52-52E				х		EFHV	0	

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