

member states it will be necessary to harmonize the procedures by which they make requests for the collection, analysis and dissemination of information, and by which the tasking of the organization is determined.

These considerations will also apply to other potential multinational bodies dedicated to the collection of information helpful for verification, confidence-building, non-proliferation and peace operations, but they are especially important for spaceborne surveillance, with its global scope and ability to amass detailed information on short notice.

### Multinational Aerial Surveillance

Somewhat less ambitious than multinational exploitation of space surveillance would be aerial surveillance. In this case the vehicles are within the financial capability of most states, and the opportunity is present for observers from different countries to be present during the surveillance flights.<sup>9</sup> Although Open Skies is considered to be a confidence-building rather than a verification measure, it would not require much of a change to employ it for verification or the monitoring of peacekeeping. Also, the opportunity exists for overhead surveillance to provide valuable assistance in the planning and execution of on-site inspections, for choosing the sites most appropriate for a visit, for ensuring that no last-minute removals are conducted between the announcement of the visit and the arrival of the inspectors and, possibly, for real-time consultation between the inspectors on the site and aircraft overhead. Clearly such application will demand effective harmonization between the scheduling of the overflights and of the ground parties. In cases where both airborne and spaceborne surveillance are co-operating, cloud cover will produce circumstances in which optical spaceborne sensors will not be able to collect images, while airborne photogra-

phy will be possible if made at altitudes below the cloud. Again, harmonization of scheduling will be required. Or if cloud, fog or rain made optical surveillance impossible, coverage may be obtainable using spaceborne or airborne radar sensors.

As has just been discussed for spaceborne surveillance, there will be a need for harmonization of the requests for collection and analysis of information, and of the process of tasking. Harmonization will be all the more necessary as the number of countries, the number of types of aircraft, and the variety of airborne sensors increases.

### A Multinational Centre for Verification of a Comprehensive Nuclear Test Ban

As the prospects improve for the signing of a comprehensive nuclear test ban, increased attention will be paid to the problem of effective verification. It seems clear that verification will require, as well as other facilities, a worldwide network of seismic sensors, with much depending on integration of the information collected from sensors at widely dispersed locations, almost certainly in many countries. Following the long-standing practice of geological research (e.g. into earthquakes), it should be possible to establish an international organization to collect, analyse and distribute the information obtained from the seismic network.

### A Multinational Centre for Monitoring Arms Control in Space

While there may be little probability of early negotiation of a global agreement for the control of weapons in space,<sup>10</sup> the subject may well come up some time in the future. By then many nations will have satellites in orbit, and any meaningful treaty would have to be multinational. Implementation would be strengthened by the establishment of a multinational

<sup>9</sup> See Michael Krepon and Amy Smithson, eds., *Open Skies, Arms Control, and Cooperative Security* (New York: St. Martin's Press, 1992). Also Michael Slack and Heather Chestnutt, eds., *Open Skies: Technical, Organizational, Legal, and Political Aspects* (Toronto: York University Centre for International and Strategic Studies, 1990). While these, and most of the other recent references to aerial surveillance for arms control, concentrate on the Open Skies Treaty, many of the considerations should have application to other arrangements

for aerial surveillance among other participants, in other regions, and under other circumstances.

<sup>10</sup> The multilateral Outer Space Treaty prohibits the placing of "weapons of mass destruction" in space, and the bilateral ABM Treaty prohibits space-based antiballistic missile weapons. But there are no agreements to ban non-nuclear space-to-space or ground-to-space weapons.

