

(Mr. Wegener, Federal Republic of Germany)

Even if the existing treaties and rules of general international law are subjected to extensive interpretation, including appropriate analogies, no clear information can be obtained on the precise scope of actual prohibition. That, of course, also means that, objectively speaking, nobody can complain about the given degree of militarization of outer space, since it is unclear which forms of the utilization of outer space have been legitimized by the existing treaties and their underlying intentions and which ones are incompatible with current prescription.

In view of the almost unimaginable dynamics of outer space technology and its military uses, such ambiguities, lacunae and contradictions in the outer space legal régime can hardly surprise anybody. The general prohibition of the threat or use of force in the Outer Space Treaty was codified at a time when force against outer space objects could at best be imagined or should I say, at worst, be imagined, as a direct application of military means -- by way of collision, or conventional or nuclear explosion. Today, the vulnerability of outer space objects has become infinitely greater, and the threats have become multiple, involving new and partly exotic technologies

Let me provide an example for a new possible threat scenario. If a laser beam of limited brightness -- and definitely sublethal intensity -- is fired from aboard a United States space shuttle or a Soviet space station, or even from the ground via an advanced directed energy weapon, and hits a satellite, the very sensitive cooling aggregates for the electronic circuits could be overheated and the satellite be incapacitated without any external trace of application of force. It would appear difficult to qualify such "warming up" of the satellite surface by a few centigrades as use of force under international law, although the ultimate effect would be the same as that of premeditated destruction by killer satellites or other destructive means, just as lasers or other advanced directed-energy weapons -- for instance particle-beam weapons -- are not unequivocally prohibited by international law. But there is no doubt that in principle they would be technologically capable of generating an all-altitude and instantaneous kill capacity against satellites. It is common knowledge that the Soviet Union has been working on such weapon systems for a considerable period, and the United States as of more recent date.

There are several other means of electronic warfare that are able of incapacitating satellites without any physical application of force, but with the same effect. One could cite the method of jamming (the overloading of a receptor device by excessive signals) spoofing (the feeding-in of misleading or deceptive electronic signals), dazzling (the blinding of satellites for a limited time) or the spoofing in the above-mentioned sense, of optical sensors.

There is no doubt that the instruments of international law in the field of renunciation of the use or threat of force must be adapted to meet these new technological possibilities. This specific regulatory need must be looked at under today's enhanced requirements of strategic stability and the ambivalence of most technological means which may be conceived as defensive, but may also be applicable to offensive use. It would obviously be unrealistic to deal with these new challenges by simply turning back the wheel of history by a quarter of a century. The complete elimination of these innumerable technological possibilities by the simple fiat of prohibition in international law does not appear as a feasible possibility, and other means of harnessing them with legal instruments must equally be considered. The wide array of new technologies that have an inherent antisatellite potential