

UNITED STATES OF AMERICA

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Agenda Item 1.6: *to review No. 5.565 of the Radio Regulations in order to update the spectrum use by the passive services between 275 GHz and 3 000 GHz, in accordance with Resolution 950 (Rev.WRC 07), and to consider possible procedures for free-space optical-links, taking into account the results of ITU R studies, in accordance with Resolution 955 (WRC 07)*

Background Information: Agenda item 1.6 addresses two distinct issues. The content of this proposal addresses only the consideration of possible procedures for free-space optical links (Resolution 955 (WRC-07)).

Resolution 955 (WRC-07) considers possible procedures for free-space optical links. Free space communication links operating above 3 000 GHz have been in existence for many years. No. 1005 of the Annex to the ITU Convention indicates that the term radiocommunication is limited to “electromagnetic waves of frequencies arbitrarily lower than 3 000 GHz, propagated in space without artificial guide.” In 2002, the Plenipotentiary Conference adopted Resolution 118 (Marrakesh) which resolves that “world radiocommunication conferences can include in agendas for future conferences, items relevant to spectrum regulation of frequencies above 3 000 GHz and take any appropriate measures, including revision of the relevant parts of the Radio Regulations.” The outcome of the 2010 Plenipotentiary Conference might affect this agenda item should that conference change or remove the upper limit of 3 000 GHz in the radio wave definition.

Because emitters used in near-infrared, free-space links have extremely narrow beamwidth, and terrestrial emitters can only cause interference over very short distances, cases of terrestrial interference will be very rare and easily resolved on a local basis. Moreover, interference between inter-satellite links would also be rare due to directed and narrow beamwidths, and the vast geometry of space.

The ITU-R has not conducted studies related to procedures for the use of free space optical links; therefore, there is no need to modify the Radio Regulations.

Proposal:

NOC USA/AI 1.6 (Res. 955)/1

RESOLUTION 955 (WRC-07)

Consideration of procedures for free-space optical links

Reasons: There is no evidence to suggest procedures for free space optical links are needed.