Resolution A23-2

INTERSESSIONAL WORKING GROUP (IWG) ON TECHNICAL AND OPERATIONAL APPROACHES TO ADDRESS THE GLOBAL DEPLOYMENT OF ULTRA WIDE BAND DEVICES, IWG [UWB]

The SFCG,

CONSIDERING

a) that at least one administration has established rules permitting marketing of devices "incorporating ultra-wideband (UWB) technology" and several other administrations are in process of preparing their own rules for these applications;

b) that the rules established by one administration of the prior consideration are predicated on the ultra low power emission characteristics of the UWB devices currently addressed by those rules;

c) that it is expected that many administrations will permit the sale and use of broadband devices (in particular unlicensed devices) for communications, local area networks, and other such uses in the near future;

d) that there are strong market pressures for the development and deployment of ultra low power emission devices (ULPEDs), inclusive of UWB devices, based on the rules of the administration of considering a);

e) that the deployment of ULPEDs can raise the noise floor of frequency bands where EESS and SRS missions (both active and passive) operate;

f) that the increased noise floor caused by the deployment of ULPEDs may adversely affect the mission objectives of EESS and SRS (both active and passive) operations;

g) that study questions regarding the deployment and regulation of UWB devices are addressed under ITU-R Task Group 1/8;

h) that the administrations of many of the SFCG member agencies are likely to produce rules for the deployment of ULPEDs within those administration's borders and those same administrations are also likely to participate in ITU-R Task Group 1/8;

RESOLVES

1. that the SFCG establish an Intersessional Working Group Ultra Wideband (IWG [UWB]) for the Assessment of Broadband Devices to investigate, study, measure, and catalogue these devices and the environment in which they will be operated to determine whether such devices pose any threat or risk of interference to any systems or services of interest to SFCG member agencies.

2. that Warren Martin is the Chairman of the IWG [UWB] and the members are:

S. Sayeenathan	(ISRO)
R. Wolf	(EUMETSAT)
S. Fukuda	(JAXA)
F. Eng	(NOAA)
K. Ruf	(DLR)
C. Rivera	(NOAA)
C. Sham	(NASA)

D. McGinnis	(NOAA)
T. vonDeak	(NASA)
E. Marelli	(ESA)
B. Rommen	(ESA)
W. van Driel	(IUCAF)
G. Rochard	(ITWG)
J. Pla	(CNES)
R. Jacobsen	(CSIRO)
L. Vadillo	(INSA)
M. Vasiliev	(RASA)
U. Christ	(ESA)
F. Manshadi	(NASA)

IWG WORK PLAN

FIRST YEAR

1) Identify, determine, and catalogue important technical characteristics of UWB and other broadband devices, which are currently available or which will become available up to the next several years, and record that information in a form to be provided by the person leading this IWG. Such information includes, without limitation:

    a) Device's Name?
    b) Device's purpose?
    c) Manufacturer's name?
    d) Model Number.
    e) Device's Center Frequency?
    f) Upper and lower frequencies where the spectrum falls to 10 dB below the peak level?
    g) Spectral generation:
        i) Does a short-pulse or modulated carrier produce the spectrum?
        ii) If system is pulse based:
            (1) Is dithering used to vary pulse spacing?
            (2) If a modulated pulse, what type of modulation (e.g., amplitude, pulse-position, other)?
        iii) If system is carrier based,
            (1) Is a modulation applied?
            (2) What modulation method is employed?

2) Submit completed form to the IWG chairman.

3) Create database on web-site available to all parties and ensure data is current.

4) Identify, establish, and document existing and emerging guidelines, standards, and regulations that could establish the limits of interference from UWB devices in specific bands.

5) Perform noise floor measurements in the space science bands and establish the corresponding reference levels.

6) Prepare draft SFCG position for submission through Members' administrations to TG 1/8 relating to the use, deployment, and protection requirements of UWB and other broadband devices.

7) Report first year results to SFCG-24.

SECOND YEAR

1) Continue to update database.
2) Identify, establish, and document existing and emerging guidelines, standards, and regulations that could establish the limits of interference from UWB devices in specific bands.

3) Estimate number and density of UWB and other broadband devices identified during first year likely to be in the vicinity of systems used by SFCG member Agencies.

4) Compile SFCG member agencies' submissions regarding existing noise floor measurements in bands of interest.

5) Determine the impact to the reference noise floor established during the first year by mass deployment of UWB devices operating in bands of interest to SFCG member agencies.

6) Estimate likelihood that the required concentration of such devices to cause harmful interference would be present within the critical distance of an SFCG Agency system.

7) Continue to develop position regarding UWB and other broadband devices in order to obtain an SFCG consensus regarding such devices.

8) Report second year results to SFCG-25.

THIRD YEAR

1) Continue to update database.
2) Identify, establish, and document existing and emerging guidelines, standards, and regulations that could establish the limits of interference from UWB devices in specific bands.

3) Continue activities of year two.