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UNITED STATES OF AMERICA

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

AGENDA ITEM 1.20: *To consider the results of ITU-R studies and spectrum identification for gateway links for high altitude platform stations (HAPS) in the range between 5 850-7 075 MHz in order to support operations in the fixed and mobile services, in accordance with Resolution 734 (Rev.WRC-07)*

BACKGROUND

Different segments of the 5 850-7 075 MHz frequency band are utilized for fixed, fixed-satellite, and mobile services. Resolution **734 (WRC-07)** proposes to study spectrum identification for gateway links for high-altitude platform stations in the range from 5 850 to 7 075 MHz. The study effort is to identify two channels of 80 MHz each for gateway links for HAPS in the range from 5 850 to 7 075 MHz, in bands already allocated to the fixed service, while ensuring the protection of existing services.

Previous WRC efforts (WRC-97, WRC-2000) had undertaken initiatives to examine HAPS types of applications in various frequency bands. Due to the fact that all previous studies were carried out in frequency bands significantly higher than 5 850-7 075 MHz, new electromagnetic compatibility (EMC) studies are being conducted. The EMC are addressing HAPS ability to coexist with mobile, fixed satellite services as well as with radiolocation service, which exists in adjacent frequency bands.

Land-based and maritime radiolocation systems operate in the lower adjacent frequency band. Fixed, mobile, and fixed-satellite systems also operate in the 5 850-7 075 MHz band. Remote sensing systems operate in the 6 475-7 075 MHz band.

The FS band is heavily utilized for point-to-point and point-to-multipoint links in many parts of the world, in particular the bands between 5 925 to 6 875 MHz. In the US alone, there are over 42,000 licenses with multiple locations and multiple frequencies in the band 5850-6875 MHz. The bands were originally used for backbone high capacity systems for FM and, subsequently, digital networks. However, they are now used primarily for backhaul for cellular mobile systems, office intranet, ethernet traffic, public safety communications traffic and for delivering traffic to the public switched and data networks, involving shorter hop systems. Introducing high altitude platform links in this band for gateway stations would make it difficult to mutually coordinate either type of system in this environment. US studies have been submitted to the Working Party which demonstrated that there would be large areas surrounding HAPS gateway stations where FS stations could not be coordinated and similarly where, due to the presence of FS stations, gateway stations could not be installed.

The Preliminary View of the United States supported the studies for potential HAPS identification in the 5 850 – 7 075 MHz band, and indicated that the identification of any spectrum for HAPS in the 6 GHz band should not constrain the use of the 5 850-7 075 MHz band or the adjacent bands by any application of the services to which they are allocated.

The studies carried out to date indicate that there will be great difficulty in providing the type of regulatory identification being requested.

PROPOSAL

UAS/1.20/01

5570-7250 MHz

Allocation to Services

Region 1	Region 2	Region 3
5850-5925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.150	5850-5925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Amateur Radiolocation 5.150	5850-5925 FIXED FIXED-SATELLITE (Earth-to=space) MOBILE Radiolocation 5.150
5925-6700 FIXED FIXED-SATELLITE,5.457A (Earth-to-space), 5.457B MOBILE,5.457C 5.149 5.440 5.458	5925-6700 FIXED FIXED-SATELLITE (Earth-to-space),5.457B MOBILE,5.457C 5.149,5.440,5,458	5925-6700 FIXED FIXED-SATELLITE (Earth-to-space), 5.457B MOBILE, 5.457C 5.149,5.440,5.458
6700-7075 FIXED FIXED-SATELLITE,5.441 (Earth-to-space)(space-to- Earth) 5.458,5.458A,5.458B,5.458C	6700-7075 FIXED FIXED-SATELLITE,5.441 (Earth-to-space)(space-to- Earth) 5.458,5.458A,5.458B,5.458C	6700-7075 FIXED FIXED-SATELLITE,5.441 (Earth-to-space)(space-to- Earth) 5.458,5.458A,5.458B,5.458C

For the band 5850-7075 MHz in Article 5 of the Radio Regulations. the United States proposes:

NOC

Reason: In the bands indicated regulatory identification would be too difficult to achieve and sustain without causing [constraint](#) on the development of the services allocated to the bands of concern.