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| **The APT Conference Preparatory Group for WRC-15**  |  |
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Source: APG15-4/OUT-11

**PRELIMINARY views on WRC-15 agenda item 1.5 developed by apg15-4**

**Agenda Item 1.5:**

*to consider the use of frequency bands allocated to the fixed-satellite service not subject to Appendices* ***30****,* ***30A*** *and* ***30B*** *for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution* ***153 (WRC-12)***

**APT Preliminary Views:**

* Support ITU-R studies on measures to enable use of frequency bands allocated to the fixed-satellite service not subject to Appendices **30**, **30A** and **30B** for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution **153 (WRC-12)**.
* The compatibility between UAS CNPC links and incumbent systems in related bands should be ensured.
* Satellite command and control links should comply with accepted safety requirements, including ICAO Standards and Recommended Practices (SARPs) when developed.
* Any regulation relating to UAS operation in FSS bands should prevent an adverse impact on existing and future satellite networks of the FSS and other services in the same band without compromising relevant ICAO Standards and Recommended Practices (SARPs).
* Clear identification of globally harmonized spectrum for UAS CNPC links is preferred so that the current practice of licensing of manned aircraft following the ICAO standards can be extended to unmanned aircraft.
* All studies relating to the supporting Document towards preliminary draft new Report should be duly completed and adopted by ITU-R Study Groups before WRC-15.
* All technical, operational, regulatory issues referred to above should be properly addressed.
* Performance availability and service availability requirements to ensure safety aspects of the UAS CNPC and to conform to the very high degree of reliability required for such operation are yet to be established.

**APT Views on the methods proposed to address the Agenda item:**

**View One**

**Supporting Method A**

UAS CNPC links could be supported on the basis that systems operating in the FSS have the capability to provide reliable BLOS communications between unmanned aircraft and control stations, and UAS already operate in segregated airspace using FSS frequency bands for unmanned aircraft to satellite links under No. **4.4** of the Radio Regulations.

Proponents of Method A of the draft CPM text recognise that the associated draft Resolution should address technical, operational, regulatory, procedural and safety aspects of the use of FSS for UAS CNPC and further discussion of this resolution is required at ITU-R (See section 1, Methods to Satisfy the Agenda Item).

To this effect, issues mentioned in section 4 above need to be duly and properly addressed and the Resolution associated with method A should satisfy all conditions and requirements which include but are not limited to those mentioned above.

**View Two**

**Supporting Method B**

No change NOC

*Reasons*

The numerous obstacles, constraints and due to uncertainty in the operational, regulatory and procedural aspects of the FSS as a commercial communication link to be used for an application of highly safety aspects, it is difficult, if not impossible, to state, at this stage, that FSS could be used to provide CNPC application in UAS. Moreover, existing allocations for AMS(R)S as well as AMSS and MSS, under certain conditions would satisfy the requirements for UAS CNPC in the frequency bands of these services.

**Other Possible Methods**

Some APT Members remain open to other Methods that might be developed to satisfy this Agenda item, other APT Members do not support this concept.

**Issues for Consideration at APG15-5 Meeting:**

It should be noted that the above views, coming substantially from APG15-3, should be reviewed based on developments of the matter between APG15-3 and APG15-5. APT Members are invited to follow the progress of ITU-R studies, including the outcome of CPM15-2, and encouraged to contribute to these studies to be considered at APG15-5.

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