

Radio Spectrum Policy Group Secretariat  
Avenue de Beaulieu 33  
B-1160 Bruxelles

12 January 2015

**Airbus Defence and Space comments on the (Draft) RSPG Opinion on Common Policy Objectives for WRC-15**

Dear RSPG,

Airbus Defence and Space wishes to thank the Radio Spectrum Policy Group (RSPG) for this opportunity to contribute comments to its draft Opinion on Common Policy Objectives for WRC-15.

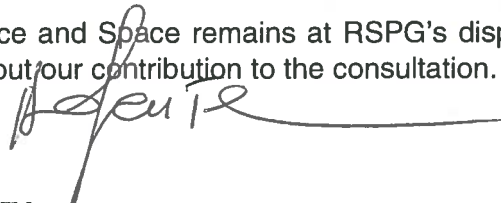
Airbus Defence and Space is a division of Airbus Group formed by combining the business activities of Cassidian, Astrium and Airbus Military. The new division is Europe's number one defence and space enterprise, the second largest space business worldwide and among the top ten global defence enterprises. It employs some 40,000 employees generating revenues of approximately €14 billion per year.

The following section provides comments to the (Draft) RSPG Opinion on three Agenda Items of the WRC-15:

1. Agenda Item 1.1
2. Agenda Item 1.6
3. Agenda Item 10

Airbus Defence and Space remains at RSPG's disposal for any further question the RSPG may have about our contribution to the consultation.

Sincerely,



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## 1. Information Society – Electronic Communications

### Elements for a common policy objective:

#### Under Agenda Item 1.1

Member states should ensure that at WRC-15 additional spectrum is identified for IMT and allocated to mobile services as appropriate taking into account the development of electronic communication services within the EU, the need to fulfil the tasks of the Digital Agenda for Europe and the RSPP and the protection of other radio applications.

In particular Member States should:

- support the harmonization of existing allocations for electronic communication services in EU Member states on a global level to gain benefits from economies of scale and increased opportunities;
- support regulatory provisions in this spectrum which ensures an equitable access between countries,
- support no mobile allocation in the band 470 – 694 MHz
- support no regulatory additional constraints to mobile service for the protection of aeronautical telemetry in the band 1429 – 1518 MHz
- also support, based on the RSPG Broadband Opinion, the worldwide identification of the following additional frequency bands for IMT:

around 1.5 GHz, in particular

- 1427-1452 MHz
- 1452-1492 MHz
- 1492-1518 MHz

and

- 3400-3600 MHz
- 3600-3800 MHz

- **As a general comment, Airbus Defense and Space regret to have seen our sector positions cornered during national and regional preparatory meetings to WRC 15.**

**The industry regrettably, feels that our existing services in the potential candidate bands considered in the scope of WRC 15 – AI 1.1, are not fully acknowledged for their contribution to fulfill the European Union Common Policy Objectives. This is particularly true when we revisit the debate about the future usage of the 5350 - 5470 MHz band, which is currently allocated to Earth exploration-satellite services (active) and space research services.**

**This band currently has a primary allocation for its use by satellite services and is essential to the future operation of major investments in space and ground-based infrastructure being undertaken by the European Union under the Copernicus Earth observation program. Two cornerstone satellites missions of the program, known as Sentinel-1 (launched last 3<sup>rd</sup> April 2014) and Sentinel-3 due to launch later this year, will provide data from space radars and altimeters operating in this band.**

- **Airbus Defense and Space is against any proposal for a worldwide identification of the C-band (3.4 – 3.6 GHz, 3.6 – 3.8 GHz and 3.8 – 4.2 GHz), highly used for FSS services to IMT at WRC 15.**

**The band, currently extensively used for FSS including in Europe, is a key band for upcoming new satellite capacity worldwide projects. The continuity and quality of service free from harmful interference of the large number of earth stations already installed- commercial teleport interconnecting Europe with North Africa and the Middle East, humanitarian missions, the global Galileo data distribution network, TV reception including in EU member states - shall not be jeopardized by any means.**

## **2. Space policy**

WRC-15 Agenda Item 1.6 concerns possible new primary allocations for the fixed satellite service: 1) of 250 MHz between 10 GHz and 17 GHz in Region 1; and 2) of 250 MHz in Region 2 and 300 MHz in Region 3 in the range 13 GHz to 17 GHz. This is a complex issue due to the fact that the amounts of spectrum allocated to two satellite services, the fixed-satellite service (FSS) and the broadcasting-satellite service (BSS) varies between the three ITU Regions and that the Agenda Item only addresses one service (FSS) and a limited frequency band (10 – 17 GHz). In addressing the issue, it is important to take into account the allocations to both satellite services across a wider frequency range. The main issue for item 2) is to solve the imbalance between the available up and downlink spectrum. Since several European operators are operating on a worldwide scale, both 1) and 2) are of significance.

- **Provided existing users are protected and sharing is feasible without adverse effect on the existing and future capabilities - in particular in the harmonized NATO frequency band 14.62 – 15.23 GHz - Airbus Defense and Space agrees a new primary allocation for the fixed satellite service could be considered of 250 MHz between 10 GHz and 17 GHz in Region 1.**

## **3. Future WRC Agenda Items, WRC-15 Agenda Item 10**

The formulation of positions for future WRC Agenda Items is a critical issue since it may determine the scope of changes to the global spectrum management environment for several decades. It will be important to identify, as soon as possible, opportunities to promote European policies through action at future WRCs with the objective to promote European arrangements at a global level.

It will also be necessary to identify potential Agenda Items for future conferences early in the process, taking into account both the need to ensure long term consistency with EU policy and the possible connection to common policy objectives for WRC-15 Agenda Items.

**Elements for a common policy objective:**

Member States should support a future Agenda item addressing the spectrum needs for the fifth generation of mobile networks (commonly known as 5G) with the focus above 6GHz.

- Airbus Defence and Space finds premature to consider a new agenda item for WRC19 related to new frequency spectrum allocation for IMT 2020 above 6 GHz. The entire 5G ecosystem is at a very early stage of development and several technical solutions are considered along different performance and cost scenarios.

Whatever shapes the 5G will take, we raise awareness towards the necessity for the terrestrial wireless solutions to make efficient use of the spectrum already available to them.

The undisputed 5G requirement for more cost efficient backhaul capacity will include satellite technology in a novel converged environment.

Knowing that frequency bands above 6 GHz and below 31 GHz are well used by a large number of services, including satellite communication systems, mostly operating in the C-band, Ku-band and Ka-band frequencies we join our voice to the position expressed by ESOA ( European Satellite Operators Association) and recommend that any consideration on candidate frequency bands for IMT terrestrial should be limited in scope to frequency bands above 31 GHz and outside the frequency bands allocated by the ITU on a primary or co-primary basis to satellite services.

- Airbus Defense and Space would like to draw RSPG attention to the fact that still some EU Member States believe there is merit in further investigating bands 2700-2900 MHz, 3800-4200 MHz and 5350-5470 MHz for mobile broadband/IMT identification. Due to incumbent satellite use, there is little international support for this position at this time. Nevertheless some regulators expect support for a new agenda item for IMT in 5350-5470 MHz at WRC-19.

Should an allocation to RLANs in this Band be reconsidered in view of WRC19, it will have in any case to ensure that no degradation of the Synthetic Aperture Radar (SAR) and radar altimetry measurements from space in this frequency band will occur. Technical studies have shown so far that co-existence of both usages in the band (space and RLAN) would have a severe impact on the successful implementation of the Copernicus program and the return on investment to the taxpayer and industry, not to mention the loss of economic and societal benefit from downstream applications and services markets. We therefore urge RSPG to take a firm position against any proposal for additional allocation of this band to RLAN at the WRC 2019.