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| APTlogogreen3 | ASIA-PACIFIC TELECOMMUNITY | **Document No:**  |
| **The 3rd Meeting of the APT Conference Preparatory Group for WRC-19 (APG19-3)** | **APG19-3/OUT-24** |
| 12 – 16 March 2018, Perth, Australia | **16 March 2018** |

Working Party 5

**PRELIMINARY VIEWs on WRC-19 agenda item 1.10**

**Agenda Item 1.10:**

*to consider studies on spectrum needs and regulatory provisions for the introduction and use of the global aeronautical distress and safety system, in accordance with Resolution* ***426 (WRC-15)****;*

**1. Background**

Recent tragedies of aircraft flight highlighted limitation of the current air navigation system and stressed the necessity of timely identification and location of aircraft on distress occasions. To address issues, the International Civil Aviation Organization (ICAO) held a Special Meeting on global flight tracking (GFT) of Aircraft in May 2014 and formed two groups. One of them was an ICAO ad hoc Working Group tasked to develop a concept of operations (ConOps) to support the development of a global aeronautical distress and safety system (GADSS). GADSS was designed to address all phases of flight under all circumstances including distress.

The ConOps is the guideline for the development of ICAO performance-based standards, outlining specific technical and operational requirements that an aircraft must meet. Based on these requirements, the aircraft operators will determine which specific systems need to be installed on an aircraft.

The version 6.0 of the ConOps describes in particular the following functions:

* Aircraft Tracking Function;
* Autonomous Distress Tracking function;
* Post Flight Localization and Recovery function; and
* GADSS Information Management and Procedures

The ConOps for the GADSS does not identify specific systems proposed to contribute to GADSS. Studies within ICAO in preparation for WRC-19 have determined that the GADSS requirements can be satisfied using existing systems operating within existing aeronautical frequency allocations and distress spectrum (e.g. 406.1 MHz) in accordance with the provisions of the Radio Regulations.

With regards to spectrum needs and regulatory provisions necessary for the implementation of the GADSS, WRC-15 adopted Resolution 426 (WRC-15) and WRC-19 agenda item 1.10.

Resolution **426 (WRC-15)** - Studies on spectrum needs and regulatory provisions for the introduction and use of the Global Aeronautical Distress and Safety System

resolves to invite the 2019 World Radiocommunication Conference

1 to take appropriate actions, taking into account the results of ITU-R studies;

2 to analyse the necessity for further studies, and consider whether this matter should be brought to the attention of a future competent conference,

ITU-R Working Party 5B (WP 5B) which is the responsible group of this agenda item has been developing a working document towards a preliminary draft new Report M.[GADSS] ([5B/411 Annex 20](https://www.itu.int/md/R15-WP5B-C-0411/en))and a working document towards draft CPM text10 ([5B/411 Annex 7](https://www.itu.int/md/R15-WP5B-C-0411/en)).

As a result of the November 2017 meeting, one method including options and comments for further consideration at the next WP 5B meeting has been proposed to satisfy this agenda item. This method proposes no additional spectrum to support GADSS. However modification of Radio Regulations (RR) other than Article 5 to facilitate its introduction may be required.

**2. Documents**

* Input Documents APG19-3/INP-25 (KOR), INP-32 (IRN), INP-38 (NZL), INP-45 (AUS), INP-53 (JPN), INP-63 (THA), INP-74 (MLA), INP-80 (INS), INP-85 (VTN), INP-90 (CHN)
* Information Documents APG19-3/INF-06 (CEPT), INF-08(Rev.1) (CITEL)

**3. Summary of discussions**

**3.1 Summary of APT Members’ views**

**3.1.1 Republic of Korea** - **Document APG19-3/INP-25**

* The Administration of the Republic of Korea proposes modifications to the APT Preliminary View adopted as at the last APG19-2 meeting:

“APT Members support the ITU-R studies being undertaken for the introduction and use of Global Aeronautical Distress and Safety System (GADSS) in accordance with Resolution 426 (WRC-15).

APT Members are of the view that the studies on regulatory provisions required for the implementation of GADSS should take into account the GADSS concept provided by ICAO and that no changes to Article 5 of the Radio Regulations are required.”

**3.1.2 Islamic Republic of Iran** - **Document APG19-3/INP-32**

* I.R. of Iran supports the ITU-R studies being undertaken for the introduction and use of Global Aeronautical Distress and Safety System (GADSS) in accordance with Resolution 426 (WRC-15).
* I.R. of Iran is also of the view that:
	+ - systems identified to contribute to the GADSS may not necessarily require any additional frequency allocation nor any new or revised regulatory provisions.
		- additional regulatory actions for the introduction and use of GADSS, if any, should be identified ensuring sharing and compatibility with systems in incumbent radiocommunication services in the frequency bands proposed for GADSS introduction and in the adjacent frequency bands without imposing any additional constraints on the existing and planned systems.

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**3.1.3 New Zealand** - **Document APG19-3/INP-38**

* New Zealand supports the ITU-R studies undertaken in accordance with Resolution 426 (WRC-15) to facilitate the implementation of GADSS.

**3.1.4 Australia** - **Document APG19-3/INP-45**

* Australia supports current ITU-R studies in Working Party 5B for the introduction and use of Global Aeronautical Distress and Safety System (GADSS) in accordance with Resolution 426 (WRC-15).
* Australia considers that studies on possible spectrum needs and regulatory provisions for the implementation of GADSS should take into account specialist advice from ICAO relevant to the development of the GADSS concept.

**3.1.5 Japan** - **Document APG19-3/INP-53**

* Japan supports ITU-R studies for the introduction of GADSS in accordance with Resolution 426(WRC-15).

**3.1.6 Thailand** - **Document APG19-3/INP-63**

* Thailand supports modification of Article 30 General Provisions by adding Articles no.30.1A and also addition of Article 34A Global Aeronautical Distress and Safety System.

**3.1.7 Malaysia** - **Document APG19-3/INP-74**

* Based on results of ITU-R studies, Malaysia is of the view that GADSS spectrum requirements can be satisfied within existing frequency allocations for aeronautical and distress communications. As such, no change is required to Article 5 of the Radio Regulations.
* Malaysia is also of the view that insertion of detailed GADSS description in existing relevant chapters of the Radio Regulations and/or developing new chapter specific to GADSS may be required.

**3.1.8 Republic of Indonesia** - **Document APG19-3/INP-80**

* Indonesia supports that activities of WP 5B to implement the GADSS concept.

**3.1.9 Socialist Republic of Viet Nam** - **Document APG19-3/INP-85**

* Viet Nam Administration supports the activities of ITU-R on the introduction of GADSS.
* In regarding the modification of the Radio Regulations under WRC-19 Agenda Item 1.10, this Administration is of the view that:
	+ - No additional spectrum allocations are required and no changes to Article 5 are required, as appropriate with which has been stated by ICAO, that the GADSS requirements can be satisfied using systems operating within existing frequency allocations;
		- To facilitate the introduction of GADSS, any changes to the RR should be determined on the basis of the GADSS ConOps and must ensuring sharing and compatibility with incumbent services in the frequency bands proposed for GADSS and in the adjacent frequency bands without imposing any additional constraints on the existing and planned systems.

**3.1.10 People’s Republic of China** - **Document APG19-3/INP-90**

* China supports further studies of ITU-R, including the possible identification of the necessary regulatory changes to the Radio Regulations, for the implementation of GADSS.

**3.2 Summary of issues raised during the meeting**

There was a general consensus that no additional spectrum allocation is required and modifications in provisions other than Article 5 of Radio Regulation are needed.

**4. APT Preliminary Views**

APT Members support the ITU-R studies being undertaken for the introduction and use of Global Aeronautical Distress and Safety System (GADSS) in accordance with Resolution **426 (WRC-15)**.

APT Members are of the view that:

* no additional spectrum allocations and no changes to Article 5 of the Radio Regulations are required
* modification of Radio Regulations other than Article 5 to facilitate introduction of GADSS may be required e.g. modification of Article 30 General provision
* any studies on regulatory provisions required for the implementation of GADSS should take into account the GADSS concept provided by ICAO

**5. Other View(s) from APT Members**

None

**6. Issues for Consideration at Next APG Meeting**

APT members are encouraged to actively participate in relevant studies conducted by the ITU-R WP 5B including the development of method(s) to address this agenda item.

**7. Views from Other Organisations** (as provided in the information documents to

APG19-3)

**7.1 Regional Groups**

**7.1.1 ASMG** - **Document APG19-2/INF-01**

* + Support following-up studies and ensuring the protection of existing services in the case of new allocations are made.

**7.1.2 ATU** - **Document APG19-2/INF-07**

No preliminary position on this agenda item yet.

**7.1.3 CEPT** - **Document APG19-3/INF-06**

* CEPT recognises:
	+ - that the implementation of the GADSS concept would contribute to increasing the effectiveness of the current alerting of search and rescue (SAR) services for civil aviation transportation;
		- that ICAO has stated that the GADSS requirements can be satisfied using systems operating within existing frequency allocations, and also that for WRC-19 no additional spectrum allocations are required and no changes to Article 5 are required.
* CEPT is of the view
	+ - that systems contributing to the GADSS have to be identified in accordance with ICAO requirements or recommendations provided in SARPs, manuals or guidance material;
		- that any changes to the Radio Regulations should be determined on the basis of the GADSS concept developed by ICAO;
		- that systems identified to contribute to the GADSS may not necessarily require any additional frequency allocation nor any new or revised regulatory provisions
		- that additional regulatory actions for the introduction and use of GADSS, if any, should be identified ensuring sharing and compatibility with systems in incumbent radiocommunication services in the frequency bands proposed for GADSS introduction and in the adjacent frequency bands without imposing any additional constraints on the existing and planned systems.
		- that according to the process to implement the GADSS concept an extension of activities towards WRC-23 may need to be considered

**7.1.4 CITEL** - **Document APG19-3/INF-08(Rev.1)**

* + Preliminary views from a few countries support studies.ICAO is responsible for the identification of radiocommunication requirements and is still studying if new spectrum is needed for data retrieval; ITU-R studies should be done in coordination with ICAO based on their input

**7.1.5 RCC** - **Document APG19-2/INF-05**

* + The RCC Administrations support the need in the development of the Global Aeronautical Distress and Safety System (GADSS).
	+ The RCC Administrations consider that spectrum requirements, frequency bands, regulatory provisions for the introduction and use of GADSS should be identified based on GADSS concept which shall be developed by ICAO and submitted to the ITU. And GADSS shall share the considered and adjacent frequency bands with systems in existing services without imposing additional constraints on the existing systems.
	+ The RCC Administrations do not oppose the revision of Resolution 426 (WRC-15) to increase the period of studies on spectrum requirements and regulation for implementation and use of GADSS and transfer this issue to the WRC-23 agenda.

**7.2 International Organisations**

**7.2.1 IARU** -

No contribution covering this Agenda Item

**7.2.2 ICAO** - **Document APG19-2/INF-02**

* + To support studies to identify any regulatory changes required for the implementation of GADSS in accordance with ICAO requirements, and action by WRC-19 to integrate those changes into the Radio Regulations.

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