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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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| PLENARY MEETING | **Addendum 10 to Document 28-E** |
|  | **1 September 2019** |
|  | **Original: Chinese** |
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| China (People's Republic of) | |
| Proposals for the work of the conference | |
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| Agenda item 1.10 | |

1.10 to consider spectrum needs and regulatory provisions for the introduction and use of the Global Aeronautical Distress and Safety System (GADSS), in accordance with Resolution **426 (WRC-15)**;

Background

After the disappearance of Malaysia Airlines flight MH370, a special meeting regarding Global Flight Tracking was held at International Civil Aviation Organization (ICAO) Headquarters in May 2014. The meeting concluded that global tracking of airline flights will be pursued as a matter of priority to provide early notice of, and response to, abnormal flight behaviour. It also concluded that a draft Global Aeronautical Distress Safety System concept of operations (GADSS CONOPS) be developed. To develop this document, the Air Navigation Commission and the Air Navigation Bureau of ICAO established an ad hoc working group. Meanwhile, the Aircraft Tracking Task Force (ATTF), led by the International Air Transport Association (IATA), was established to identify potential solutions for routine flight tracking. ICAO is supporting this collaborative effort.

So far, ICAO has developed GADSS CONOPS Version 6.0 where the objective, architecture, operation, implementation and scenarios of GADSS are discussed. And ICAO has also stated that there is no need to change Article **5** of the Radio Regulations (RR) and there may be a need to change some RR provisions, for example some of those contained in Chapter VII and Chapter VIII in order to facilitate the introduction of such a system. It should be noted that currently ICAO has not defined the aviation systems that comprise GADSS, and GADSS is the framework on the basis of performance-based standards.

In the ITU-R’s CPM Report to WRC-19, three methods have been developed to address agenda item 1.10. All these methods state that no change to the RR Article **5** is required and two of them propose to modify RR Chapter VII.

Considering GADSS is a system crucial to flight safety, it is prudent and appropriate to use frequency bands that are allocated on a primary basis when GADSS is used for safety purposes.

Proposals

NOC CHN/28A10/1#50343

ARTICLE 5

Frequency allocations

**Reasons:** ICAO’s studies indicate that GADSS requires no new allocations.

ARTICLE 30

General provisions

Section I − Introduction

MOD CHN/28A10/2

30.1 § 1 Nos. **30.4**-**30.13**, and Articles **31**, **32**, **33** and **34** of this Chapter contain the provisions for the operational use of the global maritime distress and safety system (GMDSS), whose functional requirements, system elements and equipment carriage requirements are set forth in the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended. These Nos. and Articles also contain provisions for initiating distress, urgency and safety communications by means of radiotelephony on the frequency 156.8 MHz (VHF channel 16). Article **34A** of this Chapter contains provisions for the global aeronautical distress and safety system (GADSS), whose functional requirements, system elements and equipment carriage requirements are set forth in the Annexes to the Convention on International Civil Aviation, as amended.     (WRC‑19)

**Reasons:** To facilitate the introduction of GADSS.

ADD CHN/28A10/3#50345

ARTICLE 34A

Global aeronautical distress and safety system

**Reasons:** To facilitate the introduction of GADSS.

ADD CHN/28A10/4#50346

34A.1 The GADSS determines performance requirements for the radiocommunication systems utilized for conducting several functions, such as aircraft tracking, autonomous distress tracking, and post-flight localization and recovery.

Resolution **[CHN/A110-GADSS] (WRC‑19)** applies to the operation of GADSS.     (WRC‑19)

**Reasons:** To facilitate the introduction of GADSS.

ADD CHN/28A10/5#50347

34A.2The performance requirements, system elements and equipment carriage requirements of GADSS are set forth in ICAO standards and recommended practices, guidance material and manuals.     (WRC‑19)

**Reasons:** To facilitate the introduction of GADSS.

ADD CHN/28A10/6#50348

34A.3 The radiocommunication systems meeting the GADSS performance requirements shall operate in the radiocommunication services having an appropriate allocation in Article **5** and shall operate in conformity with the Radio Regulations. The choice of a type of radiocommunication service to be used depends on the requirements of the specific GADSS function in accordance with Resolution **[CHN/A110-GADSS] (WRC‑19)**. This use of GADSS frequency bands shall not prevent the use of these bands by any application of the services to which these bands are allocated, nor shall establish a priority for GADSS.     (WRC‑19)

**Reasons:** To facilitate the introduction of GADSS.

ADD CHN/28A10/7#50349

Draft NEW Resolution [CHN/A110-GADSS] (WRC-19)

Implementation and operation of global aeronautical distress and safety system

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

considering

*а)* that the International Civil Aviation Organization (ICAO) has developed the concept of operations for the global aeronautical distress and safety system (GADSS);

*b)* that GADSS is intended to provide for the timely identification and location of an aircraft during all phases of flight including distress and emergency situations, which will also support search and rescue (SAR) and flight data recorder recovery;

*c)* thatthe GADSS at its current development phase can be introduced within existing primary aeronautical frequency allocations, and may not need any new systems or applications for such introduction;

*d)* that the full GADSS concept can be realized in an evolutional manner, and some applications may be developed after 2019,

recognizing

*а)* that SAR operations of aircraft passengers and crew survived in an aircraft accident have the highest priority;

*b)* that retrieval of flight recorder data is required to prevent aircraft accidents in future;

*с)* that interference-free operation of systems included in GADSS and protection of the GADSS frequencies included in the Radio Regulations should be ensured;

*d)* that there are provisions in the Radio Regulations, including frequency band allocations, related to aeronautical services that support distress and safety systems;

*е)* that Annex 10 to the Convention on International Civil Aviation is a part of international standards and recommended practices for aeronautical telecommunication systems used by international civil aviation,

resolves

1 that GADSS elements shall use frequency bands which have already been allocated on a primary basis when used for safety purposes;

2 that the use of frequency bands for GADSS shall be limited to systems that operate in accordance with recognized international aviation standards;

3 that the frequency bands used by GADSS, its system elements and their technical characteristics to be contained in ITU‑R Recommendation(s) as appropriate;

4 that in case of changes of the frequency bands, system elements included in GADSS or their technical and operational characteristics, these changes be contained in ITU‑R Recommendation(s) as appropriate,

invites ITU-R

based on the information to be provided by ICAO, to develop the relevant ITU‑R Recommendation(s) and to ensure their timely update,

instructs the Secretary-General

to bring this Resolution to the attention of the Secretary-General of ICAO,

invites the International Civil Aviation Organization

to provide to ITU‑R the information in relation to GADSS elements, their technical and operational characteristics and operational frequency bands for development of the relevant ITU‑R Recommendations and timely update this information in case of change of GADSS elements, their technical characteristics and operational frequency bands.

**Reasons:** To facilitate the introduction of GADSS.

SUP CHN/28A10/8#50350

RESOLUTION 426 (WRC-15)

Studies on spectrum needs and regulatory provisions for the introduction and use of the Global Aeronautical Distress and Safety System

**Reasons:** The agenda item has been solved and Resolution **426 (WRC-15)** is no longer needed.

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