

Vorstandsinformation (003)

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Stellungnahme zur aktuellen 2m-Band Problematik

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Auf der Suche nach Frequenzspektrum für kommerzielle Datenkommunikation zwischen Luftfahrzeugen und Bodenstationen (Aeronautical Mobile Service - AMS) droht das 2m-Band als potentiell Band in die Untersuchungen für eine gewünschte neue AMS-Zuweisung mit einbezogen zu werden. Zurzeit handelt es sich noch um einen diesbezüglichen Antrag Frankreichs an die CEPT Vorbereitungsgruppe (CPG19, Conference Preparatory Group und PTA, Project Team A, Untergruppe der CPG19) für die im Oktober 2019 stattfindende Weltfunkkonferenz (WRC-19) in Sharm El-Sheikh, Ägypten.

Sollte dieser Antrag unverändert auf der nächsten CPG19-Sitzung im August in Ankara die Unterstützung der 48 CEPT-Mitgliedsstaaten erhalten, hätte er gute Chancen, auch auf der Agenda der übernächsten WRC-23 zu gelangen.

In den vier Jahren bis zur WRC-23 würden die Funkverträglichkeitsbedingungen für eine zusätzliche AMS Zuweisung im Bereich zwischen 144 MHz und 22.2 GHz in den beauftragten ITU-R Studiengruppen detailliert untersucht werden. Ergebnisse zu allen Aspekten dieser Untersuchungen wären ITU-R Reports und ITU-R Empfehlungen (Recommendations), die auch im Konsens der 193 ITU Mitgliedsländern zu erarbeiten sind. Diese Dokumente, zusammen mit politischen Bewertungen, führen dann auf der WRC-23 zu einer Entscheidung, ob oder wie die ITU Radio Regulations (VO-Funk) in dem beschlossenen Frequenzbereich zu ändern wären.

In all diesen Abfolgen wird die IARU, unterstützt durch regulatorische Experten der Mitgliedsverbände (DARC, ...) versuchen, auf die Entscheidungen dieses Prozesses in Sinne des vollständigen Erhalts der bestehenden 2m-Band Zuweisung hinzuwirken.

Allerdings, jetzt ist ein kühler Kopf angesagt. Bekanntlich haben beide Funkdienste (amateur und amateur-satellite service) im 2m-Band primäre Zuweisungen. Wie jeder andere der über 40 in den ITU RR definierten Funkdienste sind mit einer primären Zuweisung besondere Rechte auf einen störungsfreien Funkbetrieb verbunden.

Es gibt aber keine Ewigkeitsgarantie für diese Rechte. Jede WRC ist eine unabhängige Konferenz der ITU Mitgliedsstaaten, bei der völkerrechtlich verbindliche Vereinbarungen getroffen werden, die im Range eines Staatsvertrags (Treaty) stehen. Die auf der WRC-19 im Konsens der 193 Mitgliedsländer beschlossene neue Edition der ITU Radio Regulations (VO Funk) ersetzt die heute gültige Edition 2016 und alle vorherigen.

Die Verwaltung jedes Mitgliedstaats stimmt formell der verabschiedeten neuen Edition zu und veranlasst im nationalen Gesetzgebungsverfahren (in D: Deutscher Bundestag) die vollständige (oder ggfs. auch teilweise) Übernahme aller beschlossenen Änderungen in nationales Recht.

Was unternimmt nun die IARU (DARC, ...) und was kann jeder einzelne Funkamateurl beitragen, dass unser 2m-Band nicht auf der Liste verbleibt, wenn im Oktober die WRC-19 über die Agenda der folgenden WRC-23 entscheidet?

Die IARU arbeitet bereits intensiv daran bis August (CPG19) dieses Ziel zu erreichen. Es hängt davon ab, ob sich genügend CEPT-Verwaltungen (48!) in unserem Sinne für eine Ablehnung der Einbeziehung des Frequenzbereichs 144 – 146 MHz in Studien des französischen Antrags einsetzen, bevor dieser zu einem CEPT-Vorschlag wird.

Das Kriterium mindestens 10 dafür / nicht mehr als 6 dagegen.

Hier sind im weitesten Sinne auch alle Funkamateure gefordert. Es ist besonders wichtig, dass der Amateurlfunk mit einer Stimme spricht. Einzelinitiativen, eventuell mit "direkten Drähten" nach Berlin und/oder Brüssel helfen da nicht weiter. Im Gegenteil, sie können massiv unserem Anliegen schaden, weil sie möglicherweise einem systematischen Vorgehen die Wirkungskraft nehmen.

Was wir aber alle tun können ist, dass auf dem 2m-Band, wie auch auf den anderen Bändern der Amateurlfunk als eine wichtige gesellschaftliche Bereicherung wahrgenommen wird, die ihrem gesetzlichen Auftrag (ITU RR Artikel 25 und AFuG) angemessen nachkommen. Inhalte und Stil von Amateurlfunkausstrahlungen sollten von einer technischen und operativen Kompetenz bestimmt sein, Aus- und Eigenbildung von Jugendlichen und Erwachsenen hervorheben, technische Ideen und Lösungen beinhalten (WSJT, SDR-TRX, OSCAR, DATV, Funkwetter, u.v.a.m.), Notfunk vorweisen usw.

Unterstützen wir deshalb die CEPT-Verwaltungen, die dem Amateurlfunk aus diesen und anderen Gründen grundsätzlich positiv gewogen sind. Es ist in unserer aller Verantwortung, diese Sympathien mit unseren QSOs auf allen Bändern, täglich neu bestätigen. Letztlich wird kein einzelner Kopf darüber entscheiden wie es mit dem 2m-Band weitergeht, sondern entscheidend ist die Gesamtstimmungslage aller Verwaltungen.

Wann immer wir uns im Ringen um den erfolgreichsten Weg auseinanderdividieren (lassen), verlieren wir an Kraft in diesem ungleichen Kampf. Wir haben gerade vor ein paar Tagen wieder vernehmen können, was bestimmten Investoren "1 MHz-Bandbreite" wert ist. Unser "Kapital" ist der gesellschaftliche Beitrag zum Einsatz und Vermitteln von technischem Wissen und Begeisterung für die Funktechnik über das gesamte derzeit nutzbare Frequenzspektrum (137 kHz bis 250 GHz). Das hat uns bisher die Privilegien gesichert, um die uns andere Funkdienste nur beneiden.

Die nächste PTA Sitzung findet vom 17. – 21. Juni 2019 statt. Im Verlauf dieser Sitzung wird schon versucht, 2m aus der Vorschlagsliste zu streichen. Ob dieser Versuch erfolgreich war, werden wir noch am Freitag während der HAM RADIO erfahren.

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Anlagen

CPG19 PTA-7**Prague, Czech Republic 17-21 June 2019****Date issued: 5 June 2019****Source: FRANCE****Subject: AI 10 – revised proposal for an agenda item for new non-safety aeronautical mobile applications**

Group membership required to read? (Y/N)

 N**Summary:**

France submitted the contribution PTA(19)042 during the PTA-6 and received comments from the meeting. In addition, to meet the various operational requirements for new non-safety aeronautical mobile applications, France has been further considering possible additional frequency bands that may be studied within the scope of the agenda item.

The revised contribution addresses the following points :

- The draft resolution is added.
- The list of bands already allocated to the mobile except aeronautical mobile service above 144 MHz that are foreseen for evaluation of the possible revision or deletion of the “except aeronautical” restriction is proposed : 162,0375-174,000 MHz, 862-874 MHz, 8400-8500 MHz and 22-22.21 GHz.
- The list of bands that are proposed for study of possible new allocations to the aeronautical mobile service on a primary basis **is revised by adding the band 144-146 MHz**, the bands 5000-5010 MHz and 15.4-15.7 GHz being maintained.
- Some information is provided on the requirements and mainly the broad range of channel bandwidths which require studying frequencies in the VHF range up to 23 GHz.

Proposal:

PTA is invited to consider and adopt the proposed agenda item for new non-safety aeronautical mobile applications, as described in Annex to this contribution.

Background:

The decisions of previous conferences have introduced some restrictions to the use and have imposed constraints on the development of aeronautical mobile applications within some existing mobile allocations traditionally used by the aeronautical mobile applications.

At the same time, the number of manned and unmanned aircraft equipped with sensors has grown significantly in the past 20 years together with the need of bidirectional low to high data rate communications. Aeronautical applications like fire surveillance, border surveillance, air quality and environment monitoring, traffic monitoring, disaster monitoring, terrain modelling, imagery (visible, infrared, radar, meteo), video monitoring require non-safety communications between various types of aeronautical platforms.

Consequently the need of non-safety data communications between various types of aeronautical platforms increases and so the need for new frequency bands.

ANNEX 1 : TEMPLATE AND DRAFT RESOLUTION

ANNEX 2 TO RESOLUTION 804 (REV.WRC-12)

Template for the submission of proposals for agenda items

Subject:

Studies on frequency-related matters, including possible additional allocations, for the possible introduction of new non-safety aeronautical mobile applications.

Origin: France

Proposal:

In accordance with Resolution [NEW AMS APPLICATIONS] (WRC-19), to review studies on spectrum needs, coexistence with radiocommunication services and regulatory measures for the possible introduction of new non-safety aeronautical mobile applications:

- Spectrum needs for new non-safety aeronautical mobile applications for air to air, ground to air and air to ground communications of manned and unmanned aircraft systems.
 - Studies within the bands already allocated on a primary basis to the mobile except aeronautical mobile service above 146 MHz and up to 23 GHz in order to evaluate the possible revision or deletion of the “except aeronautical” restriction. The following bands are proposed to be studied : 162,0375-174,000 MHz, 862-874 MHz, 8400-8500 MHz and 22-22.21 GHz.
 - Study possible new allocations to the aeronautical mobile service on a primary basis in the following bands: 144-146 MHz, 5000-5010 MHz and 15.4-15.7 GHz, while ensuring the protection of existing services in those bands and, as appropriate, adjacent bands, and not constraining future development of these services.
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Background/reason:

The number of manned and unmanned aircraft equipped with sensors has grown significantly in the past 20 years together with the need of bidirectional low to high data rate communications.

One can mention the following applications: fire surveillance, border surveillance, air quality and environment monitoring, traffic monitoring, disaster monitoring, terrain modelling, imagery (visible, infrared, radar, meteo), video monitoring... Such applications require communications for flight coordination and identification, sensor control or synchronization and for access to ground databases.

Consequently the need of non-safety data communications between various types of aeronautical platforms exponentially increases.

At the same time, there is no clear identification of those bands in which non-safety aeronautical mobile applications may be developed with a sufficient level of confidence for long term use by the industry. In addition, the existing mobile allocations which can be used for non-safety aeronautical mobile applications have some limitations due to coexistence with other services in the band. Furthermore the decisions of previous conferences have introduced some restrictions to the use and have imposed constraints on the development of wideband aeronautical mobile applications within some existing mobile allocations traditionally used by the aeronautical mobile applications.

In consequence an adaptation of the regulatory framework for further visibility, protection and development of wideband non-safety aeronautical mobile applications is required. Use of innovative sharing methods, like those mentioned in working document¹ ITU-R SM.[SHARING-METHODS], may be considered to ensure the protection of existing services while offering the possibility to have access to new frequency bands. The sharing methods could consider, for example, to take into account the separation linked to the altitude of the aircrafts or power control. In addition, the access may be supported by effective tuning ranges and may be authorized depending on national circumstances and spectrum policies.

Several frequency bands are proposed for investigation within different ranges in order to meet the various operational requirements for new non-safety aeronautical mobile applications. Implementation of separation distances for such aeronautical systems or pfd limits or others regulatory measures may be envisaged.

¹https://www.itu.int/dms_ties/itu-r/md/15/wp1a/c/R15-WP1A-C-0144!N22!MSW-E.docx

Radiocommunication services concerned: MS and AMS

Indication of possible difficulties:

Protection of existing services within the bands and adjacent bands allocated to the mobile except aeronautical mobile service.

Protection of existing services within the bands and adjacent bands proposed for a new allocation to the aeronautical mobile service.

Previous/ongoing studies on the issue: no recent studies for aeronautical mobile applications, other than those for related to safety.

Studies to be carried out by: ITU-R WP5B

with the participation of:

ITU-R Study Groups concerned: SG-5 and SG-4, SG-6, SG-7

ITU resource implications, including financial implications (refer to CV126):

This proposed agenda item will be studied within the normal ITU-R procedures and planned budget.

Common regional proposal: Yes/No

Multicountry proposal: Yes/No

Number of countries:

Remarks

See section 3.2.1.2 in the draft CEPT Brief.

DRAFT NEW RESOLUTION [NEW AMS APPLICATIONS] (WRC-19)

Studies on frequency-related matters, including possible additional allocations, for the possible introduction of new non-safety aeronautical mobile applications.

The World Radiocommunication Conference (Sharm el-Sheik Egypt, 2019),

considering

- a) that the number of manned and unmanned aircraft equipped with sensors has grown significantly in the past 20 years;
- b) that the need for bidirectional low to high data rate communications between aeronautical stations and aircraft stations, or between aircraft stations, including those relating to flight coordination, is consequently increasing;
- c) that the considered communication data links implement channel bandwidths from some kHz up to some hundreds of MHz requiring to study frequencies in the VHF range up to 23 GHz.
- d) that these new aeronautical communications are not related to safety of flights;
- e) that there is no clear identification of those bands in which these new aeronautical communication systems may be developed with a sufficient level of confidence for long term investment by industry;
- f) that the decisions of previous conferences have introduced some restrictions to the use and have imposed constraints on the development of these communication systems within several existing mobile allocations traditionally used by the aeronautical mobile applications;
- g) that in Region 1, there are only few primary mobile allocations beyond 146 MHz, other than aeronautical mobile en route (R), in which the aeronautical mobile service is considered;
- h) that the existing mobile allocations which can be used by these communication systems have some limitations due to coexistence with other services in the band;
- i) that in Region 1, there are allocations to the mobile except aeronautical mobile service in some frequency bands which are allocated to the mobile service in Regions 2 and 3;
- j) that a global allocation in the three regions of the ITU for these new aeronautical communication systems is expected;
- k) the only frequency ranges beyond 400 MHz, worldwide identified for aeronautical mobile applications other than those with the mobile allocation, those en route (R) or for telemetry are beyond 55 GHz as per N° 5.558;
- l) that an adaptation of the regulatory framework for further visibility, protection and development of non-safety aeronautical mobile applications may be required;

recognizing

- a) that during the 2016-2018 period, WP1A of the ITU-R has conducted studies on methods for sharing between radiocommunication services;
- b) that the use of such innovative sharing methods may be considered to ensure the protection of existing services while offering the possibility to have access to new frequency bands;
- c) that the implementation of tuning ranges may allow granting authorization depending on national circumstances and spectrum policies;
- d) that the use of frequencies of Appendix 18 to the Radio Regulation for the maritime VHF communication shall be protected;

e) that new allocations for the aeronautical mobile service in the range 144-174 MHz would extend existing the allocation in 138-144 MHz and would ensure the possibility to develop systems operating on a wider tuning range providing that the protection of the incumbent services is ensured;

noting

a) that the band 144-146 MHz is allocated to the Amateur and Amateur-Satellite on a primary basis in all Regions and may be considered for possible new allocations to the aeronautical mobile service on a primary basis;

b) that the bands 5000-5010 MHz and 15.4-15.7 GHz may be considered for possible new allocations to the aeronautical mobile service on a primary basis;

c) that the band 5000-5010 MHz is allocated to the RadioNavigation Satellite Service (earth to space) on a primary basis;

d) that the band 5000-5010 MHz is adjacent to the band 5010-5030 MHz which is allocated to the RadioNavigation Satellite Service (space to earth) (space to space) on a primary basis;

e) that the bands 162,0375-174,000 MHz, 862-874 MHz, 8400-8500 MHz and 22-22.21 GHz, that are allocated on a primary basis to the mobile except aeronautical mobile service, may be considered for possible revision or deletion of the “except aeronautical” restriction;

f) that the bands 5000-5010 MHz, 15.4-15.7 GHz and 144-146 MHz are adjacent respectively to the band 4990-5000 MHz, 15.35-15.4 GHz and 150.05-153 MHz which are allocated to the Radioastronomy service on a primary basis;

g) that the band 22.01-22.21 GHz is covered by the note RR 5.149;

resolves to invite ITU-R

1 to study spectrum needs for new non-safety aeronautical mobile applications for air to air, ground to air and air to ground communications of manned and unmanned aircraft systems;

2 to study some bands already allocated on a primary basis to the mobile except aeronautical mobile service, as listed in the noting e, in order to evaluate the possible revision or deletion of the “except aeronautical” restriction;

3 to study possible new allocations to the aeronautical mobile service, for those bands listed in the noting a and b, while ensuring the protection of existing services in the considered bands and, as appropriate, adjacent bands, and not constraining future development of these services;

4 to review studies in resolve 1 to 3 and elaborate regulatory measures for the possible introduction of new non-safety aeronautical mobile applications;

5 to complete studies in time for WRC-23,

further resolves to invite WRC-23

to review the results of these studies and take appropriate actions,

invites administrations

to participate actively in the studies by submitting contributions to ITU-R.