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NOR-DOC

WRC-23

Rev. 04

14. mars 2023

Innledning

ITU World Radiocommunications Conference (WRC) arrangeres hvert tredje til fjerde år. En WRC skal gå igjennom Radioreglementet (RR) og dersom det finnes nødvendig reviderer denne. Eventuelle revideringer skal skje på bakgrunn av en agenda. Agendaen for en kommende WRC blir foreslått av den forrige WRC-en og blir endelig godkjent av ITU Council. Mellom konferansene er det en studieperiode der det gjøres tekniske og regulatoriske studier for å komme frem til metoder for å løse agendapunktene. Disse forberedelsene foregår i ITU med bidrag fra medlemsstater og sektormedlemmer (interesseorganisasjoner, kommersielle selskap osv.). Agendaen for WRC-23 finnes i [Resolution **811 (WRC-19)**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0041PDFE.pdf).

Agendaen og relevante resolusjoner er samlet på [denne siden hos ITU](https://www.itu.int/en/ITU-R/study-groups/rcpm/Pages/wrc-23-studies.aspx).

Internt i CEPT blir det også gjort forberedende arbeid. Dette arbeidet har som mål å komme frem til felles-europeiske forslag til løsning av agendapunktene til konferansen. En del av det interne bidraget i CEPT går også inn som bidrag til arbeidet i ITU.

Dette dokumentet er ment som en oversikt over forberedelsesarbeidet som foregår i CEPT fram mot WRC-23. Dokumentet blir oppdatert periodisk etter hvert som forberedelsene i CEPT skrider frem. All dokumentasjon av arbeidet i CEPT er fritt tilgjengelig på [CEPT sin hjemmeside](http://www.cept.org/ecc/groups/ecc/cpg/client/introduction/).

**Organiseringen av CEPT sine forberedelser fram mot WRC-23**

Forberedelsene i CEPT foregår i en arbeidsgruppe som kalles Conference Preparatory Group (CPG). CPG har ansvaret for å utarbeide felles europeiske standpunkt spesielt for WRC, ITU Radiocommunication Assemblies (RA) og ITU Conference Preparatory Meeting (CPM).

Arbeidet foregår i forskjellige undergrupper, PT A, PT B, PT C og PT D, samt eksisterende gruppe PT 1, inndelt etter tema. Disse undergruppene utfører tekniske studier, lager utkast til CEPT Brief, lager foreløpig CEPT standpunkt, lager utkast til European Common Proposal (ECP) og har en koordinerende rolle for CEPT i andre relevante møter i ITU-R. Undergruppene til CPG rapporterer opp til CPG som har det endelige ansvaret for å lage CEPT Brief og ECP. CPG har også kontakt med organisasjoner utenfor CEPT, det være seg regionale organisasjoner, administrasjoner utenfor CEPT og andre interesseorganisasjoner. Hensikten med slik kontakt er innsamling av informasjon og påvirkning.

**PT A** – Agendapunktene som er av interesse for vitenskap og de punktene som til stor grad er av regulatorisk karakter, denne arbeidsgruppen diskuterer også agendaen for neste WRC (WRC-27).

**PT B** – Agendapunktene som dreier seg om tekniske og regulatoriske problemstillinger knyttet til satellittkommunikasjon.

**PT C** – Agendapunktene knyttet til maritim og aeronautisk bruk samt radiodeterminasjon.

**PT D** – Agendapunktet knyttet til gjennomgang av UHF allokeringer.

**PT 1** – Agendapunktene knyttet til IMT.

Som nevnt ovenfor, skal arbeidsgruppene lage utkast til CEPT Brief og ECP. Som navnet tilsier, skal et CEPT Brief gi en orientering om ett agendapunkt. Mer spesifikt skal det inneholde informasjon om:

* Hva ett agendapunkt handler om og konkret hva agendapunktet spør etter, da teksten i ett agendapunkt ofte ikke er tydelig
* Foreløpig CEPT standpunkt
* Bakgrunnsinformasjon om agendapunktet som f.eks. relevante ITU, CEPT og EU dokument
* Hva som bør gjøres videre i forberedelsesarbeidet
* Kort informasjon om standpunkt til andre regionale organisasjoner, administrasjoner utenfor CEPT og andre interesseorganisasjoner.

Agendapunktene knyttet til et WRC kan sees på som ett sett med problemstillinger som har flere mulige løsninger. ECP er CEPT sitt forslag til løsning av ett agendapunkt. CPG skal komme frem til ett felleseuropeisk standpunkt forslag som flest mulig CEPT medlemmer kan skrive under på og gi sin støtte til på WRC (og RA). ECP-en består av en liten introduksjon som sammenfatter forslaget og en del som, ord for ord, foreslår slettinger eller tilføyelser i Radioreglementet og tilhørende rekommandasjoner og resolusjoner.

Fordeling av agendapunkter i CPG

**Overlappende agendapunkter for WRC-23**



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# Revisjonshistorikk

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| **Revisjon** | **Dato** | **Endringer** |
| Rev. 01 | 19.05.20 | - Første versjon |
| Rev. 02 | 21.03.22 | - Oppdatert med status etter CPG23-4 (9.-12. november 2021) |
| Rev. 03 | 11.10.2022 | - Oppdatert etter NORWRC-23 # 1 (23. mars 2022)  - Oppdatert med innspill fra Space Norway, Telenor og Telia Company, Norsk Romsenter og NRRL  - Oppdatert med status etter CPG23-5 (25.-29. april 2022) |
| Rev. 04 | 14.03.2023 | * Oppdatert etter NORWRC-23 # 2 (18. oktober 2022) * Oppdatert med innspill fra Luftfartstilsynet, NTV, Q-Free, NRK og Norsk Flygerforbund * Oppdatert med reviderte innspill fra Space Norway og Telia Company * Oppdatert med status etter CPG23-6 (7.-11. november 2022) * Oppdatert med status etter CPG23-7 (6.-10. februar 2023) |

# Agendapunkt 1.1 – Beskyttelse av AMS og MMS i 4 800-4 990 MHz fra IMT i enkelte land (No. 5.441B)

*1.1 ​​ to consider, based on the results of the ITU R studies, possible measures to address, in the frequency band 4 800-4 990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories, and to review the pfd criteria in No.* ***5.441B*** *in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0001PDFE.pdf)* ***[223 (Rev.WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0001PDFE.pdf)***

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B, WP 5D

**Om agendapunktet**

Fotnote **5.441B** inneholdt før WRC-19 kun Cambodia, Lao P.D.R. og Viet Nam. Pfd-kriteriene var oppe til diskusjon under WRC-19, men konferansen klarte ikke å komme til enighet. Under konferansen var det en rekke land som ønsket å legge seg til i fotnoten. Ny fotnote ser ut som følger:

**5.441B** In Angola, Armenia, Azerbaijan, Benin, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, China, Côte d’Ivoire, Djibouti, Eswatini, Russian Federation, Gambia, Guinea, Iran (Islamic Republic of), Kazakhstan, Kenya, Lao P.D.R., Lesotho, Liberia, Malawi, Mauritius, Mongolia, Mozambique, Nigeria, Uganda, Uzbekistan, the Dem. Rep. of the Congo, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, South Africa, Tanzania, Togo, Viet Nam, Zambia and Zimbabwe, the frequency band 4 800-4 990 MHz, or portions thereof, is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of IMT stations is subject to agreement obtained under No. 9.21 with concerned administrations, and IMT stations shall not claim protection from stations of other applications of the mobile service. In addition, before an administration brings into use an IMT station in the mobile service, it shall ensure that the power flux-density (pfd) produced by this station does not exceed −155 dB(W/(m2 · 1 MHz)) produced up to 19 km above sea level at 20 km from the coast, defined as the low-water mark, as officially recognized by the coastal State. This pfd criterion is subject to review at WRC-23. Resolution 223 (Rev.WRC-19) applies. This identification shall be effective after WRC-19. (WRC-19)

WRC-19 kom til enighet om å frem mot WRC-23 studere tekniske og regulatoriske forhold for beskyttelse av stasjoner i Aeronautical Mobile Service (AMS) og Maritime Mobile Service (MMS), lokalisert i internasjonalt luftrom eller farvann (dvs. utenfor nasjonale territorier) og som opererer i frekvensbåndet 4 800-4 990 MHz

WRC-23 skal, basert på resultatene av disse studiene, vurdere mulige tiltak for beskyttelse av AMS og MSS lokalisert i internasjonalt luftrom og farvann fra stasjoner som ligger innenfor nasjonale territorier, samt vurdere pfd-kriteriene i No. **5.441B**.

**Situasjonen etter 7. CPG (februar 2023)**

* En hel del endringer i foreløpig CEPT standpunkt.
* Også en del endringer i resten av dokumentet.
* Draft CEPT Brief godkjent.
* Noen justeringer i Draft ECP.
* ECP anses som stabil og er foreslått for endelig godkjenning i CPG-møtet i mai.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT is of the view that,   * AMS and MMS stations located in international airspace or waters and operated in the band 4800‑4990 MHz shall be protected on the basis of the following pfd limits provided in RR No. 5.441B and derived from detailed AMS and MMS characteristics and protection criteria:   In the frequency bands 4800-4825 MHz and 4835-4950 MHz, −140 dB(W/(m2 · 1 MHz)) produced up to 19 km above sea level at 22 km from the coast, defined as the low-water mark, as officially recognized by the coastal State.  In the band 4800-4990 MHz, −134 dB(W/(m2 · 1 MHz)) produced up to 30 m above sea level at 22 km from the coast, defined as the low-water mark, as officially recognized by the coastal State.   * These pfd criteria shall apply to IMT operating in national territories in order to protect AMS and MMS stations located in international airspace or waters and operating in the band 4800-4990 MHz, i.e. beyond the territorial seas. * The above new pfd criteria shall apply to all countries listed in RR No. 5.441B ensuring consistency in the application of the limits |

**Situasjonen etter 6. CPG (november 2022)**

* Ingen endringer i foreløpig CEPT standpunkt.
* Et par mindre justeringer i dokumentet.
* Det er først og fremst Frankrike som er engasjerte i dette AI.
* PTC presenterte for første gang Draft ECP. Draft ECP inneholder forslag til revidert No **5.441B**, med PFD grenser og avstand til kysten. Foreløpig CEPT standpunkt er ikke i tråd med standpunktet til mange andre land i Region 1.
* Sverige kommenterte at de reserverer seg når det gjelder ECP. De kommer tilbake med et standpunkt senere.
* Draft CEPT Brief godkjent.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT is of the view that, AMS and MMS stations located in international airspace or waters and operated in the band 4 800-4 990 MHz shall be protected on the basis of the pfd limit provided in RR 5.441B which will be reviewed taking into account all detailed AMS and MMS characteristics and protection criteria. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Forventer at NATO ber medlemsland om å støtte arbeidet med AI.

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| **AI 1.1** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Agendapunktet ser i første omgang ut til å involvere diskusjoner for andre regioner. Norge følger diskusjonene. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
|  |  |

**Innspill fra aktører**

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-5 - B-6:  To support any measures taken to enhance the protection of flight testing in international airspace that are consistent with the results of agreed studies.  To oppose any proposed measure that is not in line with the results of agreed studies and reduces the level of protection afforded to flight test operations in international airspace and above international waters.  To ensure that the proposed methods to satisfy this agenda item do not have a negative impact on the use of aviation systems in other frequency bands. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
|  | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| **Generell merknad vedr. innspill fra Norsk Flygerforbund:**  På vegne av den globale føderasjonen for yrkesflygere - International Federation of Air Line Pilots’ Associations (IFALPA) - ber vi Norge v/Nkom om å støtte standpunktet til FNs organ for sivil luftfart - International Civil Aviation Organization (ICAO). Ref. **ICAO State Letter E 3/5-21/37 (ICAO Position for the ITU WRC-23)**.  Vi ber samtidig om at ICAOs standpunkt vurderes innlemmet i Norges standpunkt for WRC-23 i størst mulig grad. | |

# Agendapunkt 1.2 – IMT i 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz og 10.0-10.5 GHz

*1.2 ​to consider identification of the frequency bands 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0002PDFE.pdf)* ***[245 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0002PDFE.pdf)***

**CEPT ansvar:** PT 1

**ITU-R ansvar:** WP 5D

**Om agendapunktet**

Under WRC-19 ble det studert frekvensbånd for IMT over 24.25 GHz. Sammenlignet med lavere og høyere frekvensbånd, kan midtspekteret gi bedre balanse hva gjeldende både dekning og kapasitet. Disse frekvensbåndene er også bedre egnet for avanserte antenneteknikker, som MIMO og beam-forming. For WRC-23 skal man derfor studere følgende bånd for IMT:

* 3 600-3 800 MHz og 3 300-3 400 MHz (Region 2)
* 3 300-3 400 MHz (revidere fotnote for Region 1)
* 6 425-7 025 MHz (Region 1)
* 7 025-7 125 MHz (globalt)
* 10.0-10.5 GHz (Region 2)

For frekvensbåndet 3 300-3 400 MHz finnes det i dag en fotnote i RR, **5.429B**, som identifiserer båndet for IMT i en rekke land sør for 30º nordlige parallell (nordlige Afrika og sørover). Denne fotnoten skal sees på under agendapunktet.

**Situasjonen etter 7. CPG (februar 2023)**

* PT1 foreslo ingen endringer i foreløpig CEPT standpunkt.
* Deler av dokumentet har ikke PT1 klart å komme til enighet rundt, og var derfor ikke oppe for godkjenning i CPG.
* Bidrag fra Frankrike, Slovenia og Latvia, der det argumenterte for at **NOC** ECP er i strid med RSPG Opinion, og at dette alternativet derfor måtte fjernes.
  + Hellas støttet forslaget.
  + Sverige støttet ikke dette, da de mener at det ikke er full enighet rundt RSPG Opinion.
  + Tsjekkia ønsket å fortsatt beholde **NOC** alternativet på bordet.
  + UK ønsket ikke å inkludere forslaget i foreløpig CEPT standpunkt.
* CPG diskuterte forslag om foreløpig CEPT standpunkt for 6425-7025 MHz (Region 1) og 7025-7125 MHz (globally), og kom til enighet om en ny tekst.
* Draft CEPT Brief godkjent.
* **3300-3400 MHz (Region 1):**
  + CEPT standpunkt for 3300-3400 MHz (Region 1) virker stabil. CEPT støtter ikke en endring i Nos **5.429A** og **5.429B** som medfører at man får en IMT identifisering nord for 30 grader.
  + Draft ECP for 3300-3400 MHz (Region 1) godkjent.
  + CPG sikter mot endelig godkjenning av ECP i mai.
* **3300-3400 MHz (Region 2):**
  + CEPT standpunkt for 3300-3400 MHz i Region 2 virker stabil.
  + Draft ECP for 3300-3400 MHz (Region 2) godkjent.
  + CPG sikter mot endelig godkjenning av ECP i mai.
* **10.0-10.5 GHz (Region 2):**
  + CEPT standpunkt for 10 GHz i Region 2 virker stabil. CEPT har konkludert med at det ikke er mulig å dele med eksisterende tjenester i båndet, og at en introduksjon av IMT i båndet vil få en global negativ påvirkning på EESS (active). Det kan også få konsekvenser for EESS (passive) i 10.6-10.7 GHz. Forstyrrelser av radarer i internasjonalt farvann er også en problemstilling.
  + Draft ECP for 10.0-10.5 GHz (Region 2) godkjent.
  + CPG sikter mot endelig godkjenning av ECP i mai.
* **6 425-7 025 MHz (Region 1) og 7 025-7 125 MHz (globalt):**
  + Man hadde ikke kommet nærmere en enighet i PT1.
  + Problemstillingen rundt fremtiden for «passive measurement of sea temperature» om båndet blir tatt i bruk til MFCN ble diskutert. PTA fikk i oppgave å diskutere dette videre.

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| **Preliminary CEPT position** |
| 3300-3400 MHz (amend footnote in Region 1)   * CEPT does not support amendments to footnotes 5.429A and 5.429B which could extend them to countries north of 30° parallel north. Thus, CEPT does not support an IMT identification for the entire Region 1. Furthermore, CEPT opposes amending the footnote to change the regulatory provisions applicable to IMT stations in the band. In particular, IMT stations shall not cause harmful interference to, or claim protection from, systems in the radiolocation service in various national and international operational environments and shall meet unwanted emission levels specified in the relevant ITU-R Recommendations. In addition, protection of FSS in the frequency band 3400-3800 MHz should also be ensured, as appropriate.   3300-3400 MHz (Region 2)   * CEPT supports maintaining the regulatory provisions in the footnotes 5.429C and 5.429D applicable to IMT stations in this band. In particular, IMT stations shall not cause harmful interference to, nor claim protection from, systems in the radiolocation service in various national and international operational environments and shall meet unwanted emission levels specified in the relevant ITU-R Recommendations.   3600-3800 MHz (Region 2)  TBD  6425-7025 MHz (Region 1) and 7025-7125 MHz (globally)  CEPT is considering different future wireless broadband usages in the frequency band 6425-7125 MHz i.e. IMT or WAS/RLAN or a shared framework between IMT and WAS/RLAN, while taking into account the coexistence with incumbent services.  CEPT recognises that some countries and/or regions outside CEPT may propose an IMT identification in the band 6425-7125 MHz and whilst not advocating for it or proactively supporting it, CEPT is considering the conditions for potentially accepting an IMT identification in this band or parts thereof.  CEPT is of the view that the protection of incumbent primary services and applications in the band 6425-7125 MHz should be ensured through relevant RR provisions, if this band or parts thereof are identified for IMT. Due consideration should also be given to the continued operation of other services (i.e. RR Nos. 5.458 and 5.149).  CEPT emphasises that any potential IMT identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Additional provisions should clearly outline opportunities for other broadband applications in the mobile services (i.e. WAS/RLAN).  CEPT is discussing further conditions including in relation to potential candidate IMT bands for WRC-27.  10000-10500 MHz (Region 2)  CEPT is of the view that the result of a possible identification of the frequency band 10-10.5 GHz in Region 2 under this agenda item has a global impact on EESS (active) in the band 10.0-10.4 GHz and may have a global impact on EESS (passive) in the band 10.6-10.7 GHz due to the required protection of these services on a global basis. Moreover, interference would be detrimental to airborne and shipborne radars operating in 10-10.5 GHz under the radiolocation Service operated by some CEPT countries in all Regions at 10-10.5 GHz. Sharing and compatibility studies between IMT and EESS (active) show that sharing between IMT and those services is not possible. Therefore, CEPT is of the view that the band 10 – 10.5 GHz should not be identified for IMT in Region 2 in order to ensure the protection of the radiolocation and the globally operating EESS (active) systems and in order to not impose any additional regulatory or technical constraints to these services. |

**Situasjonen etter 6. CPG (november 2022)**

* Noen endringer i foreløpig CEPT standpunkt for båndet 10000-10500 MHz (Region 2). Ellers uforandret.
* Deler av dokumentet var ikke oppe for godkjenning i CPG:
  + 3.4.2 var ikke oppe for godkjenning.
* **3300-3400 MHz (Region 1):**
  + Bidrag fra DIGITALEUROPE der de peker på at forslaget i ECP ikke tar høyde for at enkelte land sør for 30 grader kan legge seg til i eksisterende fotnoter. Dagens forslag med NOC kan gi inntrykk av at CEPT heller ikke tillater land sør for 30 grader å legge seg til i eksisterende fotnoter. De pekte også på samme problemstilling for Draft ECP 3300-3400 MHz (Region 2).
    - UK kommenterte at de ikke kunne støtte forslaget.
    - Tyskland støttet forslaget.
    - Tyrkia argumenterte for at de ønsker en klar **NOC**.
    - Det var ikke støtte i møtet for å endre ECP fra **NOC** til NOC. PT1 har muligheter til å diskutere videre om det finnes mellomløsninger.
  + CEPT standpunkt for 3300-3400 MHz (Region 1) virker stabil. CEPT støtter ikke en endring i Nos **5.429A** og **5.429B** som medfører at man får en IMT identifisering nord for 30 grader.
  + Draft ECP for 3300-3400 MHz (Region 1) godkjent.
  + CPG sikter mot endelig godkjenning av ECP i mai.
* **3300-3400 MHz (Region 2):**
  + CEPT standpunkt for 3300-3400 MHz i Region 2 virker stabil.
  + Draft ECP for 3300-3400 MHz (Region 2) godkjent.
  + CPG sikter mot endelig godkjenning av ECP i mai.
* **10.0-10.5 GHz (Region 2):**
  + CEPT standpunkt for 10 GHz i Region 2 virker stabil. CEPT har konkludert med at det ikke er mulig å dele med eksisterende tjenester i båndet, og at en introduksjon av IMT i båndet vil få en global negativ påvirkning på EESS (active). Det kan også få konsekvenser for EESS (passive) i 10.6-10.7 GHz. Forstyrrelser av radarer i internasjonalt farvann er også en problemstilling.
  + EUMETNET, støttet av Frankrike, foreslo at man lager et anneks i Draft CEPT Brief der man sier noe om hvilke regulatoriske vilkår IMT kan operere under, uten at det påvirker eksisterende bruk negativt.
  + Draft ECP for 10.0-10.5 GHz (Region 2) godkjent.
  + CPG sikter mot endelig godkjenning av ECP i mai.
* **6 425-7 025 MHz (Region 1) og 7 025-7 125 MHz (globalt):**
  + Frankrike kommenterte at det er klart fra diskusjoner i PT1 og dokumenter vist i CPG møtet at standpunktene fra administrasjoner er veldig polarisert. De foreslo at man ikke starter diskusjoner rundt et kompromiss i dette CPG-møtet, men fortsetter diskusjonen i PT1.
  + UK støttet Frankrikes oppfatning. Det er for mye ny informasjon til at CPG kan diskutere dette. Diskusjonen må fortsettes i PT1.
  + Tyskland var også av oppfatning av at dette må tilbake til PT1 for videre diskusjoner. De kommenterte også at man allerede nå diskuterer hva som faktisk skal inn i båndet, og ikke kun regulatoriske allokeringer. Det er viktig at man er bevist rundt hva man vil WRC-23 skal løse.
  + Liechtenstein ønsket også at diskusjonene skal fortsette i PT1, og at de fokuserer på kompromiss.
  + Sverige var av oppfatning av at det er for tidlig å ta en avgjørelse her. De spurte om hva deadline var for en ECP. CPG Chairman opplyste om at deadline er to uker før siste CPG-møte i september 2023.
  + Enighet i CPG om at PT1 diskuterer dette videre i deres neste møte.

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| **Preliminary CEPT position** |
| * 3300-3400 MHz (amend footnote in Region 1)   CEPT does not support amendments to footnotes 5.429A and 5.429B which could extend them to countries north of 30° parallel north. Thus, CEPT does not support an IMT identification for the entire Region 1. Furthermore, CEPT opposes amending the footnote to change the regulatory provisions applicable to IMT stations in the band. In particular, IMT stations shall not cause harmful interference to, or claim protection from, systems in the radiolocation service in various national and international operational environments and shall meet unwanted emission levels specified in the relevant ITU-R Recommendations. In addition, protection of FSS in the frequency band 3400-3800 MHz should also be ensured, as appropriate.   * 3300-3400 MHz (Region 2)   CEPT supports maintaining the regulatory provisions in the footnotes 5.429C and 5.429D applicable to IMT stations in this band. In particular, IMT stations shall not cause harmful interference to, nor claim protection from, systems in the radiolocation service in various national and international operational environments and shall meet unwanted emission levels specified in the relevant ITU-R Recommendations.   * 3600-3800 MHz (Region 2)   TBD   * 6425-7025 MHz (Region 1)   TBD   * 7025-7125 MHz (globally)   TBD   * 10000-10500 MHz (Region 2)   CEPT is of the view that the result of a possible identification of the frequency band 10-10.5 GHz in Region 2 under this agenda item has a global impact on EESS (active) in the band 10.0-10.4 GHz and may have a global impact on EESS (passive) in the band 10.6-10.7 GHz due to the required protection of these services on a global basis. Moreover, interference would be detrimental to airborne and shipborne radars operating in 10-10.5 GHz under the radiolocation Service operated by some CEPT countries in all Regions at 10-10.5 GHz. Sharing and compatibility studies between IMT and EESS (active) show that sharing between IMT and those services is not possible. Therefore, CEPT is of the view that the band 10 – 10.5 GHz should not be identified for IMT in Region 2 in order to ensure the protection of the radiolocation and the globally operating EESS (active) systems and in order to not impose any additional regulatory or technical constraints to these services. |

**NORWRC-23 #2 (18. oktober 2022)**

* Telia presiserte at radiolinjer er viktig, men kanskje ikke nødvendig alle områder. Man kan se for seg at IMT anvendes i de områder der det ikke er nødvendig med de lave frekvensene for radiolinjer.

**NORWRC-23 #1 (23. mars 2022)**

* MET poengterte at frekvensbåndet brukes til å måle havtemperatur. Dette er viktige målinger.
* NRS er bekymret for både 6 GHz og 10 GHz båndene under dette arbeidet. Viktige bånd i Copernicus programmet. Kommer med innspill.
* NRRL poengterte at radioamatørene har sekundær allokering i 10 GHz i alle tre regioner. I Norge brukes 10,45-10,5 GHz til satellitt nedlink.

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| **AI 1.2** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
| I Norge er 6 425-7 125 MHz avsatt for sendertillatelser for radiolinjer. Fra 1. juni 2021 åpnet man opp for WAS/RLAN i 5 925-6 425 MHz (200 mW innendørs og 25 mW utdendørs) i Norge, i henhold til Europeisk harmonisering. Etter ferdigstillelse av den Europeiske harmoniseringen for WAS/RLAN i lav-6 GHz åpnet Nkom opp for sendertillatelser for radiolinje i båndet (tidligere spektrumstillatelse). Høy-6 GHz (6 425-7 125 MHz) forventes å bli et enda viktigere radiolinjebånd etter introduksjon av RLAN i lav-6 GHz. | | |
| **Norsk standpunkt** | | |
| **3 600-3 800 MHz og 3 300-3 400 MHz (Region 2)**  Norge støtter foreløpig CEPT standpunkt og draft ECP.  **3 300-3 400 MHz (revidere fotnote for Region 1)**  Norge støtter foreløpig CEPT standpunkt og draft ECP.  **6 425-7 025 MHz (Region 1) og 7 025-7 125 MHz (globalt)**  For Norge er 6 425-7 125 MHz et viktig frekvensbånd for radiolinjer. Norge ønsker primært **NOC** i dette båndet, men motsetter seg ikke en IMT identifisering så lenge videre diskusjoner rundt spesifik bruk av båndet finner sted innad i CEPT. Norge har ikke konkludert rundt hvordan de ser fremtidige behov for ytterligere spektrumsressurser til MFCN/IMT og WAS/RLAN, og en fordeling av ressurser for disse i båndet.  **10.0-10.5 GHz (Region 2)**  Norge støtter foreløpig CEPT standpunkt og draft ECP. | | |

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| Draft CEPT Brief: | Draft ECP: 3300-3400 MHz (Region 1) | Draft ECP: 3300-3400 MHz (Region 2) | Draft ECP: 10-10,5 GHz (Region 2) |
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**Innspill fra aktører**

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| **Telia Company** | **14/03/2023** |
| ***Innspill på agendapunkt*** | |
| Telia Company supports IMT identification for the considered bands. In particular, 6425-7125 MHz is of great interest, as it would support meeting the future demands for additional mid-band spectrum for IMT in Europe.  There is a large demand for additional mid-band spectrum for 5G in future, about 2 GHz within 10 years according to [GSMA and Coleago study](https://www.gsma.com/spectrum/resources/5g-mid-band-spectrum-needs-vision-2030/). The spectrum demand study is complemented with a [GSMAi study on socio-economic benefits of mid-band 5G services](https://www.gsma.com/spectrum/resources/mid-band-5g-spectrum-benefits/) analysing the impact for economic growth, and a [GSMAi study focusing on 6 GHz band](https://6ghzopportunity.com/wp-content/uploads/2022/07/gsma-160622-The-socioeconomic-benefits-of-the-6-GHz-band.pdf) comparing licensed and unlicensed options for future. In Europe there are not many mid-band candidates where new spectrum could realistically be made available in the foreseeable future. We expect that with new massive-mimo antenna systems 6 GHz band enables similar range as 3.6 GHz band today, and thus also significant mobile network capacity enhancement even without network densification. This would be sustainable both economically and ecologically, e.g. lower energy and material use.  It is foreseen that sharing/coordination with existing services is possible. Licenses would allow setting separate conditions to protect existing use (e.g. protection zones) as needed. Additional IMT mid-band spectrum will be needed especially in urban areas (e.g. for outdoor-to-indoor and city-wide coverage), but 6425-7125 MHz would also enable the possibility of more advanced 5G services to a larger part of the population (e.g. sub-urban areas), which may not be covered by mmW-bands. IMT identification for this band enables equipment ecosystem development and a possibility for countries to allow mobile IMT use when and where feasible, noting that also Telia Company has fixed links in this band in some of our countries. Licensed approach would allow national decisions on the use based on demand, and conditions in the licenses to ensure protection of existing use if needed.  Telia Company also provides fixed broadband and Wi-Fi solutions for our customers, and we recognize the importance of license-exempt spectrum. However, we do not foresee need for additional WAS/RLAN spectrum in mid-bands. When considering the possible MFCN and WAS/RLAN shared use in the upper 6 GHz band, we do not think it is possible in practise without significant separation distances, and it should be noted that IMT services are provided both outdoors and indoors. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| High | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| In Norway the band 6 GHz band is important for fixed links. However, it is foreseen that in Europe the decision on the future use of 6425-7125 MHz is done between licensed IMT and unlicensed WAS/RLAN. Licensed approach allows national licensing decisions and conditions for licenses based on demands. | |

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Hovedbekymring er *in-band emissions* fra 5G mot EESS (passive) sensors i båndet 6425-7125 MHz. Det er ingen EESS allokering i dette båndet, men behandlet i fotnote 5.458.  Potentially affected ESA mission: CIMR (Sentinel Expansion Mission).  *The Copernicus Imaging Microwave Radiometer, CIMR, mission will carry a wide-swath conically-scanning multi-frequency microwave radiometer to provide observations of sea-surface temperature, sea-ice concentration and sea-surface salinity. Uniquely, it will also observe a wide range of other sea-ice parameters. CIMR responds to high-priority requirements from key Arctic user communities.*  CIMR launch er planlagt tidligst 2025. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| CIMR er spesielt relevant for *key Arctic user communities,* deriblant Norge*.* Bekymringene kan evt. fremmes sammen med bekymringer for radiolinjer. | |

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| **Luftfartstilsynet** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Luftfartstilsynet ønsker at det kan komme en begrensing på effekt (EIRP) I båndet 3600 -3800 MHz (og opp til 4200 MHz). Dette med hensyn på utfordringer som er rapportert med Radioaltimeter som opererer I 4200 -4400 MHz | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| RTCA Paper No. 274-20/PMC-2073 | |

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-7 - B-8:  To oppose any proposal in the frequency band 6 425-7 025 MHz in Region 1 that would reduce the level of protection below an acceptable level and hence compromise flight test operations.  To oppose any proposal in the frequency bands 3 600-3 800 MHz and 6 425-7 025 MHz that could lead to harmful interference or could constrain the use of these bands by the FSS for the provision of aeronautical services or GSO MSS feeder links. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Q-Free** | **Dato: 20.10.2022** |
| ***Innspill på agendapunkt*** | |
| Q-Free har følgende kommentar til agendapunkt 1.2 – IMT i 6.425-7.025 GHz:  TTT-båndet må beskyttes slik at mobiltelefoni ikke kan bruke 6 GHz båndet med signalstyrke som kompromitterer CEN DSRC funksjoner på 5.8 GHz.   1. Bruk av CEN DSRC for veiprising er påkrevet i EU gjennom direktiver og reguleringer. 2. Digital tachograph er påbudt i EU for kjøretøy over 3.5 tonn (fra 2026, over 2.5 tonn). Formålet med tachografen er å overvåke kjøre- og hviletider og forhindre ulovlig kabotasje og sosial dumping i transportbransjen. Direktivet er blitt endret og utvidet flere ganger de siste årene, senest i 2020 3. EU kommisjonen har 18 oktober 2022 implisitt bestemt at veieceller på tunge kjøretøy skal bruke CEN DSRC for kontroll. Formålet er å kontrollere at transportbransjen overholder regler om aksellast.   Elektronisk innkreving av bompenger er i Norge fastsatt i 3 forskrifter som igjen er knyttet til EU-direktiv og reguleringer (EETS). De tekniske standardene er CEN EN15509 og ETSI EN 300 674. Frekvensbåndet 5795 - 5815 MHz (ECC Recommendation 70-03, Annex 5, bands b1 and b2) brukes til dette formålet. Bompengebrikkene bruker veldig lite strøm og sender på lave signalnivåer, dette muliggjør batteridrift opp mot 10 år. Signalene fra bompengebrikkene ca -50 dBm. Brikkene opererer etter prinsippet med reflekterte radiobølger og utstrålt effekt er således på samme nivå som innstrålt. Mottatt signal på veikantutstyr vil være i området -130 dBm.  *(Se full tekst i innspill)* | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| RSPG recommends that the Commission should clarify explicitly the intention for EU to consider, by 2024 or later, the best usage of the frequency band 6 425-7 125 MHz for wireless broadband in the future: either IMT, or WAS/RLAN or a shared framework between IMT and WAS/RLAN, possibly depending on the portion of this frequency band, noting that an IMT identification does not exclude other use of the band, for example a shared future use between IMT and WAS/RLAN or WAS/RLAN alone.  RSPG recommends that the EU position should be to accept an IMT identification at WRC-23, while not advocating for it or proactively supporting it, in all or portion of the band 6 425-7 125 MHz and only if the following conditions are met:  • that the protection of incumbent services and applications in the band 6 425-7 125 MHz is ensured through relevant RR provisions  • that the negotiations under Agenda Item 10 relating to IMT candidate bands between 7 and 30 GHz are successful to preserve the EU interest (see section 4.9).  RSPG also considers that an IMT identification may, depending on the WRC-23 negotiation and under the same conditions as outlined above, be limited to a portion of the band 6 425-7 125 MHz.  It is noted that the RSPG intends to include the issue of the future use (which could entail IMT, WAS/RLAN or a shared framework between IMT and WAS/RLAN) of the band 6 425-7 125 MHz into the RSPG Work Programme, taking into account -among others- the outcome of CEPT studies for this band.  Given the global interest of Member states in the frequency bands 3.3-3.4 GHz and 10 GHz, the RSPG recommends that the EU Member States should oppose to any IMT identification in the bands 3.3-3.4 GHz and 10-10.5 GHz as a common policy approach.  These recommendations are falling under *case b)*. | |
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# Agendapunkt 1.3 – Vurdere primær allokering for MS i 3 600-3 800 MHz i Region 1

*1.3 ​to consider primary allocation of the band 3 600-3 800 MHz to mobile service within Region 1 and take appropriate regulatory actions, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0003PDFE.pdf)* ***[246 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0003PDFE.pdf)***

**CEPT ansvar:** PT 1

**ITU-R ansvar:** WP 5A

**Om agendapunktet**

Frekvensbåndet 3 600-3 800 MHz er allokert til FS og FSS på primær basis i alle tre regioner. For Region 2 og 3 er det også en primærallokering for *MS, except aeronautical mobile*, i frekvensbåndet. For Region 1 er det per i dag en sekundær allokering for MS i frekvensbåndet. Innen CEPT har man gjennom ECA Table (European Common Allocations Table) allokert frekvensbåndet for MS på primær basis, og frekvensbåndet 3 400-3 800 MHz er gjennom ECC/DEC/(11)06 harmonisert for MFCN, inkludert IMT. Innen EU er frekvensbåndet 3 400-3 800 MHz harmonisert for bakkebaserte systemer som kan levere neste generasjons trådløse bredbånds elektroniske kommunikasjonstjenester (5G) gjennom gjennomføringsbeslutningen 2008/411/EC, endret ved 2019/235/EU.

I tid for WRC-23 skal det gjennomføres delings- og kompatibilitetsstudier mellom MS og andre tjenester allokert på primær basis i frekvensbåndet 3 600-3 800 MHz, samt eksisterende tjenester i tilstøtende frekvensbånd, for Region 1. Det skal sikrestilles beskyttelse av de tjenestene som er allokert på primær basis, og disse skal ikke pålegges unødvendige begrensninger.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt.
* Noe ny tekst, samt en del editors notes og uferdig tekst i resten av dokumentet.
* Draft CEPT Brief godkjent.
* Det ble igjen en hel diskusjon i CPG rundt strategien for publisering av standpunkt for AI 1.3. Det er Tyskland som har startet diskusjonene.
* En rekke administrasjoner talte for at de ikke ser behovet for å gjøre det annerledes med dette agendapunktet enn for andre agendapunkt.Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports the upgrade of the allocation of the frequency band 3 600-3 800 MHz to the mobile, except aeronautical mobile, service on a primary basis in Region 1 to improve opportunities for the introduction of mobile service applications in Europe.  This support is subject to the conditions that the current use in the frequency bands 3 400-3 800 MHz and the protection of primary services, under the existing CEPT regulatory framework, can be continued, and that no undue constraints are imposed on the existing services and their future development.  In consequence, CEPT supports that the technical and regulatory conditions applicable to the band 3400-3600 MHz, in particular the pfd limit of -154.5 dBW/m²/4 kHz not to be exceeded for more than 20 % of time 3 m above ground at the border to protect the neighbouring countries, are one part of the technical conditions in response to WRC- 23 Agenda item 1.3, recognizing that sharing studies are required in ITU-R to ensure that the full objective of Resolution 246 (WRC-19) is met.  CEPT is of the view that consideration of an IMT identification in this band is not in the scope of Resolution 246 (WRC-19). |

**Situasjonen etter 6. CPG (november 2022)**

* Noen endringer i foreløpig CEPT standpunkt. Den viktigste endringen er at CEPT nå skriver at de støtter en oppgradering av allokeringen for Mobile i 3600-3800 MHz.
* En hel del endringer og ny tekst i resten av dokumentet. Teksten med bakgrunnsfarge i dokumentet var ikke oppe for godkjenning i CPG.
* Draft CEPT Brief godkjent.
* PT1 presenterte Draft ECP for første gang. Dradt ECP endrer allokeringen for Mobile fra sekundær til primær i RR Article 5. Når det kommer til fotnote så inneholder Draft ECP to options for fotnote.
  + Sverige stilte spørsmål med hva som er fordelene og ulempene ved de to alternativene. Sverige hadde per nå ikke noen formening om hvilke alternativ som er det rette.
  + Tyskland talte for Option 2. Dette er et alternativ som ikke definerer en fotnote eksplisitt, men gir elementer som CEPT mener er viktige å ta med i en fotnote. Det gir mer fleksibilitet.
  + Frankrike talte for Option 1. De forstod ikke helt poenget med Option 2. Når man gjør et forslag inn til konferansen så mener de at det er viktig å gjøre et fullt forslag. Det er slik det er ment å fungere når man foreslår endringer i RR.
  + Sveits ønsket Option 1. De mener det er viktig at man har klare standpunkt ut mot andre regioner.
  + UK, Norge, Sverige og Italia støttet Option 1.
  + Finland støtter Option 1. De mener Option 2 er veldig uklar når det kommer til hva den foreslår.
  + Luxembourg støttet Option 2. De foreslo å sende tilbake Draft ECP til PT1.
* Enighet om å ikke godkjenne Draft ECP i CPG-møtet, og sende denne tilbake til PT1 for videre diskusjoner.

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| **Preliminary CEPT position** |
| CEPT supports the upgrade of the allocation of the frequency band 3 600-3 800 MHz to the mobile, except aeronautical mobile, service on a primary basis in Region 1 to improve opportunities for the introduction of mobile service applications in Europe.  This support is subject to the conditions that the current use in the frequency bands 3 400-3 800 MHz and the protection of primary services, under the existing CEPT regulatory framework, can be continued, and that no undue constraints are imposed on the existing services and their future development.  In consequence, CEPT supports that the technical and regulatory conditions applicable to the band 3400-3600 MHz, in particular the pfd limit of -154.5 dBW/m²/4 kHz not to be exceeded for more than 20 % of time 3 m above ground at the border to protect the neighbouring countries, are one part of the technical conditions in response to WRC- 23 Agenda item 1.3, recognizing that sharing studies are required in ITU-R to ensure that the full objective of Resolution 246 (WRC-19) is met.  CEPT is of the view that consideration of an IMT identification in this band is not in the scope of Resolution 246 (WRC-19). |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Telia presiserte at de ønsker en primær allokering. Dette ville forenkle arbeidet med koordinering mot land i øst.

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| **AI 1.3** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Auksjon for hele 3400-3800 MHz til MFCN ble avholdt i september 2021. | | |
| **Norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Telia Company** | **22/03/2022** |
| ***Innspill på agendapunkt*** | |
| Telia Company supports an upgrade of the mobile allocation from secondary to primary in the 3600-3800 MHz band, but the upgrade shall not limit the current conditions for use by mobile/ IMT.  The 3600-3800 MHz is of great importance being the core band for 5G. The band is currently in use for mobile/IMT in European Economic Area and an upgrade of the mobile allocation from secondary to primary would help to confirm and protect that use. In particular, it may ease the cross-border coordination with countries outside EEA (e.g. Russia) and help to agree fair conditions for future use. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| High/Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Luftfartstilsynet** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Luftfartstilsynet ønsker at det kan komme en begrensing på effekt (EIRP) I båndet 3600 -3800 MHz (videre opp til 4200 MHz). Dette med hensyn på utfordringer som er rapportert med Radioaltimeter som opererer I 4200 -4400 MHz | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| RTCA Paper No. 274-20/PMC-2073 | |

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-9 - B-10:  To oppose any changes in existing regulatory provisions of the ITU Radio Regulations for the frequency band 3 600-3 800 MHz that adversely affect the aeronautical use of systems operating in the FSS in Region 1. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that the European Commission proposes an EU position to the Council to update the allocation of the 3 600-3 800 MHz frequency band to a primary mobile, except aeronautical mobile service, allocation, as this will facilitate coordination negotiations between EU and non-EU countries at the EU borders, where non-EU neighbouring countries have a different use of the frequency band.  The position should take proper account of the following conditions:  • as the 3 400-3 600 MHz and 3 600-3 800 MHz bands have similar characteristics, the upgrade should follow similar technical and regulatory conditions already adopted for the 3 400-3 600 MHz band;  • existing primary services in the 3 600-3 800 MHz band (FSS and FS) should be protected and allowed to continue operations, without undue constraints on their future development;  • IMT identification in this band should be considered outside the scope of this Agenda Item.  This recommendation is falling under *case a)*. | |

# Agendapunkt 1.4 – «High-altitude platform stations as IMT base stations» (HIBS) i IMT bånd under 2.7 GHz

*1.4 to consider, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0004PDFE.pdf)* ***[247 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0004PDFE.pdf)****, the use of high-altitude platform stations as IMT base stations (HIBS) in the mobile service in certain frequency bands below 2.7 GHz already identified for IMT, on a global or regional level*

**CEPT ansvar:**  PT 1

**ITU-R ansvar:** WP 5D

**Om agendapunktet**

*High-altitude platform* er i RR No. **1.66A** definert som en stasjon lokalisert på et objekt med en høyde på 20 til 50 km, og hvor objektets posisjon er relativt fast i forhold til jordens overflate.

RR No. **5.388A** identifiserer noen frekvensbånd for HIBS:

**5.388A** In Regions 1 and 3, the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz and, in Region 2, the bands 1 885-1 980 MHz and 2 110-2 160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications (IMT), in accordance with Resolution **221 (Rev.WRC-07)**. Their use by IMT applications using high altitude platform stations as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-12)

Under dette agendapunktet skal man frem mot WRC-23 gjøre delings- og kompatibilitetsstudier i utvalgte frekvensbånd under 2.7 GHz, som er i dag er allokert til MS på primær basis, samt identifisert for IMT. Det skal ikke innføres ekstra tekniske og regulatoriske krav på eksisterende allokeringer. Frekvensbåndene som skal studeres er:

* 694-960 MHz
* 1 710-1 885 MHz (1 710-1 815 MHz kun for opplink i region 3)
* 2 500-2 690 MHz (2 500-2 535 MHz kun for opplink i region 3, 2 655-2 690 MHz unntatt for region 3)

Eksisterende fotnoter som identifiserer frekvensbåndene for IMT er utenfor mandatet til dette agendapunktet.

**Situasjonen etter 7. CPG (februar 2023)**

* Arbeidet går sakte med dette agendapunktet.
* En del endringer i foreløpig CEPT standpunkt.
* Mye ny tekst i resten av dokumentet også.
* Draft CEPT Brief godkjent.
* PT1 presenterte for første gang Draft ECP. Det gjenstår en del jobb for PT1.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports regulatory provisions applying to HIBS in order to enable their use of the frequency bands 694-960 MHz, 1710-1885 MHz and 2500-2690 MHz while protecting other services and applications in these frequency bands as well as in the adjacent bands.  CEPT is of the view that the use by HIBS of these frequency bands should be on a non-protection basis, since studies have not addressed the risk that HIBS may require more protection than conventional IMT base stations.  CEPT is of the view that the use of HIBS should be enabled at an altitude lower than 20 km, down to a minimum of 18 km, since ITU-R studies have confirmed that there is a negligible difference in terms of impact to other services. |

**Situasjonen etter 6. CPG (november 2022)**

* Foreløpig CEPT standpunkt presentert for første gang.
* Det er også tilkommet tekst i resten av dokumentet, som tidligere har vært svært tynt.
* EUMETNET/EUMETSAT reagerte på at foreløpig CEPT standpunkt sier at man støtter Issue B. Slik de forstod det så er det ikke slik at CEPT støtter dette aktivt. De foreslo å endre til «would not oppose».
* Frankrike kommenterte at de ikke ser meningen med Issue A. De mener dette er gått ut på dato, og delvis dekket inn av Issue B. De så også andre utfordringer med foreløpig CEPT standpunkt.
* UK kommenterte at PT1 ikke hadde diskutert foreløpig CEPT standpunkt i detalj. De foreslo å endre foreløpig CEPT standpunkt tilbake til TBD, og diskutere dette i mer detalj i PT1.
* PT1 Chairman støttet forslaget med å reversere foreløpig CEPT standpunkt.
* Frankrike foreslo en enkel setning i foreløpig CEPT standpunkt, slik at man ikke kun har TBD. Møtet støttet dette.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT considers the development of regulatory provisions applying to HIBS in order to protect other services and applications in the frequency bands proposed for HIBS as well as in the adjacent bands. |

**NORWRC-23 #2 (18. oktober 2022)**

* MET sender innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Telia informerte om at de kommer med innspill til NOR-DOC.

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| **AI 1.4** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge deltar ikke i diskusjonene, men følger utviklingen og avventer eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Telia Company** | **22/03/2022** |
| ***Innspill på agendapunkt*** | |
| Telia Company could support the use of HIBS under the condition that existing terrestrial mobile/IMT networks are protected and not causing limitations for their future development.  The use of HIBS could complement the terrestrial mobile/IMT networks in areas where coverage and capacity are difficult to obtain. If existing terrestrial use could be protected, HIBS may enable opportunities for mobile operators, e.g. adding coverage or more capacity for temporary demands, provided that HIBS use would be allowed within MNOs’ existing nationwide licenses. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Agendapunktet omfatter bl.a. nabobånd (både over og under) 2025-2110 MHz. Spesielt gjennomgang av fotnote 5.388A må ivareta beskyttelse av dette båndet. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| 2025-2110 MHz benyttes for de aller fleste norske offentlige satellitter samt TT&C opplink for alle ESA missions. | |

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-11 - B-12:  To ensure that high-altitude platform stations as IMT-base stations (HIBS) sharing and compatibility studies under Resolution 247 (WRC-19) address the protection of aeronautical systems operating in the frequency bands 960-1 164 MHz and 2 700-2 900 MHz.  In particular, to oppose the use of HIBS within the frequency band 2 500-2 690 MHz or parts thereof where agreed studies have not demonstrated that the signal levels from the HIBS will be below the predicted levels from the ground based IMT studies. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.5 – Revidere spektrum bruk og behov i 470-960 MHz for Region 1

*1.5 to review the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and consider possible regulatory actions in the frequency band 470-​694 MHz in Region 1 on the basis of the review in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000C0029PDFE.pdf)* ***[235 (WRC-15)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000C0029PDFE.pdf)***

**CEPT ansvar:** PT D

**ITU-R ansvar:** TG 6/1

**Om agendapunktet**

Gjennomgå spektrumbruken og studere spektrumsbehovene til eksisterende tjenester i frekvensbåndet 470-960 MHz for Region 1, i særdeleshet spektrumskravene for kringkasting og mobil, unntatt aeronautisk mobil.

Delings- og kompatibilitetsstudier mellom kringkasting og mobil, unntatt aeronautisk mobil, og ved behov opp mot andre eksisterende tjenester i frekvensbåndet.

**Situasjonen etter 7. CPG (februar 2023)**

* PTD hadde siden forrige CPG-møte jobbet aktivt med å redusere størrelsen på Draft CEPT Brief. En hel del av teksten er nå flyttet ut i et kompendium.
* Draft CEPT Brief godkjent etter en del diskusjoner. PT D jobber videre med kompendiumet før dette godkjennes i CPG.
* PTD presenterte et tredje alternativ for ECP, tatt frem i forrige PTD møte etter MCP fra en rekke land. Dette forslaget er en sekundær allokering med et fremtidig agendapunkt (WRC-31) for å se på å oppgradere allokeringen til primær.
  + Finland, Litauen og Sverige kommenterte at alle tre løsningsalternativer må beholdes inntil videre. De støtter per i dag co-primær.
  + UK ønsket også å beholde alle tre alternativer, og presiserte at de per i dag kun støtter **NOC**.
  + Spania, Italia, Vatikanet og Hellas kommenterte at de i utgangspunktet er tilhenger av **NOC**, men kan gå videre med sekundær allokering.
  + Irland har også standpunkt **NOC**, men kan gå med på sekundær allokering.
  + Liechtenstein talte også for et kompromiss og kunne gå med på en sekundær allokering.
  + Bulgaria kommenterte at de i utgangspunktet har standpunktet **NOC**, men at de er villige til å vurdere option 3.
  + Sveits ser option 3 som det lengste de kan strekke seg ut over **NOC**.
* PTD foreslo et CEPT bidrag inn til CPM23-2 der man introduserer Option 3 i CPM-report. Forslaget er en revidering av Method F.
  + UK kommenterte at de er bekymret for hvilke inntrykk det gir om man sender inn forslaget til CEPT. De mente at dette er et nytt forslag som må diskuteres nærmere innad i CEPT før man bringer det inn i ITU.
  + Frankrike mente at det er rett å sende inn dette. Option 1 og Option 2 finnes allerede i CPM-text, så de mener det er rett og rimelig at også dette alternativet kommer inn i CPM-report.
  + Spania, Lituania støttet også innsendelse.
  + Finland hadde tilsvarende bekymring som UK.
  + Etter drafting av en lengre Introduction som sier noe om alle options kom møtet til slutt til enighet om et CEPT bidrag inn til CPM23-2.

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| **Preliminary CEPT position** |
| * CEPT supports a complete and comprehensive overview of the existing usage and evaluation of spectrum needs of the existing services within the frequency band 470–960 MHz in Region 1 as a basis for further work on agenda item 1.5. * CEPT is of the view that any consideration of possible regulatory action(s) in the band 470-694 MHz requires a full account of the results and impact of sharing studies including a thorough analysis. * In line with Resolution 235 (WRC-15), CEPT acknowledges and supports that no regulatory action is required in the band 694-960 MHz. * CEPT is of the view that the primary allocation of the 470-862 MHz band to the broadcasting service in Region 1 shall remain, in order to enable the protection and development of incumbent usage of the broadcasting service. * CEPT is of the view that any possible regulatory action by WRC-23 in the band 470 – 694 MHz shall not be in conflict with any provision of the GE06 Agreement. * CEPT is of the view that this agenda item seeks the long-term balance between meeting various national requirements and the challenges of effective cross-border coordination between the existing services and various services/applications wishing to access spectrum, including applications of the mobile service. * CEPT supports the continuation and development of the incumbent usage by PMSE (SAP/SAB) (in accordance with existing RR No. 5.296). * CEPT supports the protection of the radioastronomy service within the frequency band 606-614 MHz, where required, to ensure its continued operation. CEPT is of the view that any decision on regulatory action(s) in the band 470-694 MHz at the WRC-23 shall consider regulatory action to protect RAS, taking into account RR No. 5.149. * CEPT is currently of the view that no changes are necessary concerning RR No. 5.291A addressing the operation of wind profiler radars.   Taking into account the above views, CEPT is currently investigating three options to respond to this AI:  No Change, with an agenda item at a later WRC to consider possible regulatory actions in the frequency band 470-694 MHz;  A primary allocation to the mobile service to be made at WRC-23, which would come into effect at a later date;  A secondary allocation to the mobile service to be made at WRC-23, with an item on the agenda of WRC-31 for consideration of a possible upgrade to a primary allocation. |

**Situasjonen etter 6. CPG (november 2022)**

* Bidrag fra Italia der de kom med mer detaljert informasjon vedrørende bruk og trender i Italia. Italia uttrykte et sterkt strandpunkt for **NOC**.
  + CPG besluttet at bidraget bringes inn til PTD for diskusjon der, da 3.4 ikke ble diskutert og godkjent i CPG.
* Bidrag fra EBU og BNE der de summerer diskusjonene i TG 6/1. Bidraget argumenterte også for at man skal gå for **NOC** nå, og ikke diskutere dette igjen før i 2031.
* Ingen vesentlige endringer i foreløpig CEPT standpunkt.
* En hel del ny tekst i resten av dokumentet. Fortsatt en del tekst i [].
* UK kommenterte at de mener det er for mye tekst i Draft CEPT Brief. De ønsket å sende tilbake Draft CEPT Brief tilbake til PTD for videre arbeid. Spesielt med fokus på å redusere mengden tekst.
  + Frankrike støttet UK. De mente at det var et problem om man skal inkludere informasjon om bruk og trender i 46 CEPT land.
  + Danmark støttet også at det er for mye tekst i Draft CEPT Brief.
  + CPG Chairman foreslo å godkjenne dokumentet frem til 3.4, og gi PTD i oppgave å se spesielt på 3.4 med tanke på å slanke dette avsnittet. PTD Chairman foreslo å også godkjenne 3.5 og videre (tekst som ikke står i []).
  + UK presset på at de ville ha i minutes at selv godkjent tekst kan diskuteres i PTD. Norge stilte spørsmåltegn med dette, da dette er normal prosess. PTC Chairman poengterte også dette.
* CPG godkjent Draft CEPT Brief, men unntak av 3.4 og annekser.
* PTD hadde på oppdrag fra CPG tatt frem to alternative Draft ECPs:
  + **NOC** med nye diskusjoner enten i 2027 eller 2031
  + Primær Mobile allokering i 470-694 MHz
* Disse ble kun notert av CPG.

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| **Preliminary CEPT position** |
| * CEPT supports a complete and comprehensive overview of the existing usage and evaluation of spectrum needs of the existing services within the frequency band 470–960 MHz in Region 1 as a basis for further work on agenda item 1.5. * CEPT is of the view that any consideration of possible regulatory action(s) in the band 470-694 MHz requires a full account of the results and impact of sharing studies including a thorough analysis. * In line with Resolution 235 (WRC-15), CEPT acknowledges and supports that no regulatory action is required in the band 694-960 MHz. * CEPT is of the view that the primary allocation of the 470-862 MHz band to the broadcasting service in Region 1 shall remain, in order to enable the protection and development of incumbent usage of the broadcasting service. * CEPT is of the view that any possible regulatory action by WRC-23 in the band 470 – 694 MHz shall not be in conflict with any provision of the GE06 Agreement. * CEPT is of the view that this agenda item seeks the long-term balance between meeting various national requirements and the challenges of effective cross-border coordination between the existing services and various services/applications wishing to access spectrum, including applications of the mobile service. * CEPT supports the continuation and development of the incumbent usage by PMSE (SAP/SAB) (in accordance with existing RR No. 5.296). * CEPT supports the protection of the radioastronomy service within the frequency band 606-614 MHz, where required, to ensure its continued operation. CEPT is of the view that any decision on regulatory action(s) in the band 470-694 MHz at the WRC-23 shall consider regulatory action to protect RAS, taking into account RR No. 5.149. * CEPT is currently of the view that no changes are necessary concerning RR No. 5.291A addressing the operation of wind profiler radars. |

**NORWRC-23 #2 (18. oktober 2022)**

* Nytt innspill fra NTV der de argumenterer for **NOC** i WRC-23. Det fokuserer også på beredskapsansvaret.
* Båndet brukes til Wind Profiler radarer i andre land. Disse målingene er viktig for MET også i Norge.
* Det er ingen klare indikasjoner hva en eventuelle EU Kommisjonsforordning kommer til å inneholde for dette agendapunktet.
* Spektrumsbehovet for trådløse mikrofoner (Audio-PMSE) må dekkes inn her eller andre bånd.

**NORWRC-23 #1 (23. mars 2022)**

* Norges Televisjon AS ønsker **NOC** for WRC-23.
* NRK indikerte en mulig interesse for å beholde båndet også etter 2030, men da muligens for andre teknologier.
* KDD indikerte at det er forventet sterke føringer fra EU for deres medlemmer for dette agendapunktet. Det forventes en Council Decision fra Kommisjonen som i 2019, som de enkelte medlemstatene må følge.
* MET indikerte at WMO ser på bruken av Wind Profiler radarer i båndet.
* NATO har interesse for agendapunktet.

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| **AI 1.5** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
| 470-694 MHz benyttes til digital-TV kringkasting, med utløp i 2030, og PMSE (white-space). | | |
| **Norsk standpunkt** | | |
| Norge ønsker ikke endringer i dagens regulatoriske regime i båndet før utgangen av 2030. Norge kan støtte alle tre foreslåtte løsningsforslag fra CEPT, gitt at ECP med ko-primær allokering får dato for ikrafttredelse lik 1. januar 2031 eller senere.  Norge ser behov for å sikre tilstrekkelig kapasitet for PMSE ved introduksjon av annen bruk i 470-694 MHz, i dette båndet eller i andre bånd.  Norge har ikke behov for å beskytte radioastronomi tjeneste i 608-614 MHz. | | |

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| Draft CEPT Brief: | Draft ECP’s (ikke godkjent av CPG): | | |
|  | Option 1:  **NOC** | Option 2:  Co-primary | Option 3:  Secondary |

**Innspill fra aktører**

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| **Telia Company** | **14/03/2023** |
| ***Innspill på agendapunkt*** | |
| Telia Company supports the review of the 470-960 MHz and regulatory changes to obtain a primary mobile allocation in 470-698 MHz. Additionally, an identification for IMT would be positive but may not be necessary for Europe.  Primary mobile allocation in radio regulations would create clarity for future development of feasible technical and regulatory solutions for more flexible and efficient spectrum use of sub-700 MHz spectrum. WRC-23 will decide on possible primary mobile allocation. The potential change in the actual use will be based on national and/or regional decisions and requires thorough evaluation also from spectrum efficiency and socio-economic perspective.  Additional low-band spectrum is essential to be able to increase the mobile broadband capacity and performance in areas where higher frequencies have less effective propagation characteristics, especially in rural areas, including transport paths. It enables meeting the growing demand for higher speed broadband in these areas with reasonable investments.  In many countries other broadcasting platforms (cable, IPTV, satellite) are more popular than DTT for linear TV viewing. In addition, there is ongoing change in media consumption. More people view increasingly more video content in on-demand and live-streams. This increases data in broadband, including mobile broadband. The change has been driven by OTT media streaming services, but also traditional broadcasters are making more content and replays available in their on-demand platforms. When this content reaches audiences well in on-demand platforms, the need to distribute it over linear channels decreases. This may eventually justify the lower number of linear channels and multiplexes. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| High | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **NTV** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Norges televisjon (NTV) legger til grunn NO Change (NO) for spektrum 470 – 694 MHz t.o.m. år 2030 slik vi også har lagt til grunn tidligere, og det kan være behov for kringkastingsfrekvenser i dette spektrumet også etter 2030.  Kringkastingsbransjen trenger på lik linje med andre forutsigbarhet, og herunder som et minimum jf. konsesjonstildelingens varighet ut 2030.  Frekvensbåndet brukes bredt til kringkasting (DTT) i mange land i Europa og hvor nettopp mange hushold ser TV over DTT ref. tabellen nedenfor.    **Nasjonal sikkerhet og beredskap:**  Det digitale bakkenettet i Norge er en del av den totale nasjonale beredskapen ref. bl.a. Stortingsmelding nr. 44.  **Stortingsmelding nr. 44 (2002-2003) Om digitalt bakkenett for fjernsyn - avsnitt 4.3.5**  ***4.3.5 Beredskap***  *Kringkastingsnettene er et viktig innslag i totalfor­svaret fordi de gjør det mulig å formidle informa­sjon samtidig til hele befolkningen. Selv om radio regnes som det viktigste mediet i beredskapssam­menheng spiller også fjernsynsnettene en sentral rolle som informasjonsformidler ved naturkata­strofer og i krigs- og krisesituasjoner….*  Det er klare argumenter jf. sikkerhet og beredskap som taler for at spektrumet fortsatt bør være allokert til kringkasting nettopp med bakgrunn i å sikre redundante, solide og robuste nasjonale beredskapsplattformer i Norge og i Europa for øvrig.  Nødnettet skal gå i de kommersielle mobile nettene og likeledes legger DSB opp til varsling av befolkningen gjennom etablering av Cell Broadcast i mobilnettene. Med andre ord varsling til/fra nødetater og til befolkning går begge i mobilnettene.  Ved sabotasje eller andre handlinger som gjør mobilnettene utilgjengelig eller ved terror hvor myndighetene evt. velger å skru av mobilnett for å begrense evt. gjennomføringsevnen/omfang av en terrorhandling, er myndighetene avhengig av andre plattformer for å nå ut til befolkningen med viktig informasjon.  Kringkastingsnett er nettopp en bærer/en plattform for bruk ikke minst i krisesituasjoner (ref. Lærdalsbrannen i sin tid hvor DTT nettet var operativt, mens mobilnettene var nede). Kringkastingsnettene er allerede bygd ut og det finnes tilgjengelig enkel teknologi/utstyr for å nå ut til befolkningen ved kriser. Viktigheten av redundante og/eller komplementære løsninger for sikkerhet og beredskap har ikke blitt mindre viktig jf. krig og urolighet som Europa nå opplever.  Med andre ord å legge til grunn en frekvenskoordinering som tar høyde for fremtidens behov jf. sikkerhet- og beredskapsplattformer er meget viktig, og ikke minst redundante plattformer i så måte. Dvs. alle frekvenser kan ikke «legges i samme kurv» (i mobilnett) da oppnås ikke komplementære sikkerhets- og beredskapsløsninger over flere plattformer med økt robusthet og tilgjengelighet, som Norge og Europa nok vil være helt avhengig av i fremtiden.  NTV mener det er klokt å avvente å bringe på banen co-primary bruk jf. WRC-23, for ved å bringe det inn nå åpnes muligheten opp for evt. endring av bruken av spektrumet tidligere enn nødvendigvis ønsket. Co-primary bruk bør utredes nærmere mhp. hvilke tjenester kan sameksistere før det bringes inn som et forslag. Likeledes ikke minst sett hen til å sørge for at fremtidig spektrumsanvendelse sikrer redundante/komplementære sikkerhet og beredskapsplattformer for fremtiden. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **NRK** | **Dato: 18.10.2022** |
| ***Innspill på agendapunkt*** | |
| NRK støtter opp under innspillet fra NTV knyttet til agendapunkt 1.5 under PT D.  I tillegg legger vi ved EBUs innstilling knyttet til fremtidig bruk av lavere UHF spektrum hvor behovet for PSM og videre DTT bruk fortsatt er viktig for Norge og Europa. Dette er en innstilling også NRK stiller seg bak. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that the European Commission proposes an EU position to the Council to ensure that the decision of WRC-23 on this Agenda Item is compliant with the Decision (EU) 2017/899 providing priority to broadcasting and PMSE usage until at least end 2030.    RSPG has debated on the different possible ways to achieve this EU objective, finding that many Member States do not see the need to adopt regulatory actions at this moment (No Change at WRC-23, with a possible Agenda Item for WRC-27 or WRC-31) and that several other Member States find it necessary to adopt regulatory actions (co-primary allocation to mobile, except aeronautical mobile, service which could become effective at a later stage (e.g. 31.12.2030)).  Further to this debate the RSPG identified a potential compromise solution to be recommended as an EU position. In consequence, the RSPG is of the view that the above outline recommendation can be ensured by an EU position supporting a secondary allocation to the mobile, except aeronautical mobile, service with a WRC-31 Agenda Item to consider a possible upgrade of the secondary mobile allocation.  This recommendation is falling under *case a)*. | |

# Agendapunkt 1.6 – Stasjoner om bord sub-orbitale fartøy

*1.6 to consider, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0005PDFE.pdf)* ***[772 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0005PDFE.pdf)****, regulatory provisions to facilitate radiocommunications for sub-orbital vehicles;*

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B

**Om agendapunktet**

Studere spektrumsbehov for kommunikasjon mellom stasjoner om bord sub-orbital fartøy og bakke/satellitt stasjoner, for blant annet tale/data kommunikasjon, navigasjon, overvåkning og TT&C.

Studere nødvendige endringer i RR, ekskludert nye allokeringer og endring av eksisterende allokeringer i Article **5**. Herunder, studere status for sub-orbitale fartøy, og studere korresponderende regulatoriske bestemmelser, for å avgjøre hvilke eksisterende tjenester som kan anvendes for sub-orbitale fartøy.

Under agendapunktet skal man også studere hvordan man trygt kan integrere sub-orbitale fartøy i eksisterende regime for aeronautisk kommunikasjon, herunder også interoperabilitet med internasjonal sivil luftfart. Det skal også studeres i båndet og nabobåndsdeling med andre applikasjoner, tatt i betraktning sub-orbital fartøys bruksmønster.

Studiene skal også vurdere eventuelt behov for ytterligere spektrum, for studier i fremtidige WRC’er.

**Situasjonen etter 7. CPG (februar 2023)**

* Større endringer i foreløpig CEPT standpunkt.
* Noe ny tekst i Background.
* Draft CEPT Brief godkjent.
* PT C presenterte for første gang Draft ECP.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT is of the view that a new WRC Resolution is required that:   * Provides the conditions for the operation of terrestrial stations and earth stations fitted on board sub-orbital vehicles; * Decides which of the terrestrial stations and earth stations on board a sub-orbital vehicle are required to ensure the safe integration in aviation airspace under the following conditions:   that using only aviation systems standardised by ICAO;  that these stations on board sub-orbital vehicles shall not impose any additional constraint than aircraft on other services or applications operated in the same service, and in adjacent band;  that these stations on sub-orbital vehicles shall not impact the radiocommunications of satellite launchers which operate in the space operation service. |

**Situasjonen etter 6. CPG (november 2022)**

* Foreløpig CEPT standpunkt er forenklet. Fortsatt et åpent standpunkt.
* Mye ny tekst i Background.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT is of the view that a new WRC Resolution is required that:   * Defines sub-orbital flights; * Identifies the technical and regulatory conditions for use of stations operating on such flights as appropriate, recognising that the use of aeronautical radiocommunication stations onboard sub-orbital vehicles when used to ensure safety-of-life has to be in accordance with ICAO provisions.   CEPT is also of the view that the sub-orbital vehicles shall ensure the protection and not impose any additional constraint on other services or applications operated in the same service and that the sub-orbital vehicles shall not impact the radiocommunications of satellite launchers which operate in the space operation service. |

**NORWRC-23 #2 (18. oktober 2022)**

* Luftfartstilsynet har kommet med innspill siden forrige NORWRC.

**NORWRC-23 #1 (23. mars 2022)**

* Luftfartstilsynet og MET forventes å komme med et innspill på dette AI.

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| **AI 1.6** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Luftfartstilsynet** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Det er pr. I dag usikkert om luftfarten I Norge vil få behov for økt frekvensspekter for sub-orbitale fartøy. Luftfartstilsynet ønsker uansett en studie velkommen om hvordan man trygt kan integrere sub-orbitale fartøy i eksisterende regime for aeronautisk kommunikasjon, herunder også interoperabilitet med internasjonal sivil luftfart. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Sikkre interoperabilitet med eksisterende frekvensbruk | |

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-13 - B-14:  To support ITU-R studies and the definition of relevant technical characteristics as called for by Resolution 772 (WRC-19) to ensure aviation needs are satisfied.  To support, if identified as required by the studies called for in Resolution 772 (WRC-19), modifications to the Radio Regulations that help enable the integration of sub-orbital vehicles into the airspace structure.  To support, if studies show the need for access to additional spectrum, the establishment of a WRC agenda item at a future competent conference. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.7 – AMS(R)S i 117.975-137 MHz

*1.7 to consider a new aeronautical mobile-satellite (R) service (AMS(R)S) allocation in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0006PDFE.pdf)* ***[428 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0006PDFE.pdf)*** *for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz, while preventing any undue constraints on existing VHF systems operating in the AM(R)S, the ARNS, and in adjacent frequency bands;*

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B

**Om agendapunktet**

Definere de relevante tekniske karakteristikkene og studere kompatibiliteten mellom potensielle nye AMS(R)S systemer som opererer i frekvensbåndet 117.975-137 MHz i Earth-to-space og space-to-Earth retning og eksisterende primære tjenester i dette og tilstøtende frekvensbånd. Studiene skal sikre beskyttelse av eksisterende primære tjenester i frekvensbåndet, og ikke begrense planlagt fremtidig bruk av disse systemene.

Basert på resultatene fra studiene, gi tekniske og regulatoriske anbefalinger i forhold til en mulig ny AMS(R)S tildeling innenfor frekvensbåndet 117.975-137 MHz, under hensyntagen til ansvaret fra ICAO. Arbeidet gjøres i samarbeid med ICAO.

Allokering i RR rev. 2020:

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| **Region 1** | **Region 2** | **Region 3** |
| **108-117.975** | AERONAUTICAL RADIONAVIGATION  5.197 5.197A | |
| **117.975-137** | AERONAUTICAL MOBILE (R)  5.111 5.200 5.201 5.202 | |
| **137-137.025** | SPACE OPERATION (space-to-Earth) 5.203C  METEOROLOGICAL-SATELLITE (space-to-Earth)  MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209  SPACE RESEARCH (space-to-Earth)  Fixed  Mobile except aeronautical mobile (R)  5.204 5.205 5.206 5.207 5.208 | |

**5.111** The carrier frequencies 2 182 kHz, 3 023 kHz, 5 680 kHz, 8 364 kHz and the frequencies 121.5 MHz, 156.525 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles. The conditions for the use of the frequencies are prescribed in Article **31**.

The same applies to the frequencies 10 003 kHz, 14 993 kHz and 19 993 kHz, but in each of these cases

emissions must be confined in a band of ± 3 kHz about the frequency. (WRC-07)

**5.200** In the band 117.975-137 MHz, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz. Mobile stations of the maritime mobile service may communicate on these frequencies under the conditions laid down in Article **31** for distress and safety purposes with stations of the aeronautical mobile service. (WRC-07)

**5.201** *Additional allocation:* in Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq (Republic of), Japan, Kazakhstan, Mali, Mongolia, Mozambique, Uzbekistan, Papua New Guinea, Poland, Kyrgyzstan, Romania, Senegal, Tajikistan, Turkmenistan and Ukraine, the frequency band 132-136 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-19)

**5.202** *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Bulgaria, the United Arab Emirates, the Russian Federation, Georgia, Iran (Islamic Republic of), Jordan, Mali, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, Senegal, Tajikistan, Turkmenistan and Ukraine, the frequency band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-19)

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen vesentlige endringer i foreløpig CEPT standpunkt.
* Noe ny tekst i resten av dokumentet.
* Draft CEPT Brief godkjent.
* En hel del endringer i draft ECP. Draft ECP foreslår to ulike options.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports a new primary allocation to AMS(R)S in all or part of the frequency band 117.975-137 MHz while:   * limiting the use of the new AMS(R)S allocation to non-geostationary and internationally standardised aeronautical systems; * mandating that the use of this new primary allocation to AMS(R)S be subject to appropriate Article 9 coordination provisions, for example No. 9.11A; * ensuring protection of services in adjacent bands and not constraining these services.   CEPT is of the view that in-band coexistence between AM(R)S and AMS(R)S and adjacent-band coexistence with ARNS below 117.975 MHz need to be ensured through frequency planning and coordination work, taking into account the current ICAO frequency management framework.  CEPT is of the view that the provisions above will also ensure compatibility between AMS(R)S systems and AM(OR)S assignments in the band 132-137 MHz of countries listed in RR Nos. 5.201 and 5.202.  CEPT is of the view that the protection of adjacent band services operating above 137 MHz from AMS(R)S emissions can be ensured :   * through the 1 MHz frequency separation in 136-137 MHz and RR Appendix 3 limits for spurious emissions for AMS(R)S systems operating in 117.975-136 MHz, * through 62.5 kHz frequency separation and RR Appendix 3 limits for spurious emissions for the band 136‑136.9375 MHz and * through a limit on the level of unwanted emissions above 137 MHz for AMS(R)S emissions from systems operating in 136.9375-137 MHz.   CEPT is of the view that the allocation to AMS(R)S should be protected as a safety service, recognizing that the required protection of AMS(R)S satellite receivers shall not adversely impact planned usage of MSS, SOS, SRS and MetSat systems above 137 MHz. |

**Situasjonen etter 6. CPG (november 2022)**

* En del endringer i foreløpig CEPT standpunkt.
* Noe ny tekst i resten av dokumentet.
* Draft CEPT Brief godkjent.
* PTC presenterte for første gang Draft ECP.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports a new primary allocation to AMS(R)S in all or part of the frequency band 117.975-137 MHz while:   * limiting the use of the new AMS(R)S allocation to non-geostationary and internationally standardised aeronautical systems; * mandating that the use of this new primary allocation to AMS(R)S be subject to appropriate Article 9 coordination provisions, for example No. 9.11A; * ensuring protection of services in adjacent bands and not constraining these services.   CEPT is of the view that in-band coexistence between AM(R)S and AMS(R)S and adjacent-band coexistence with ARNS below 117.975 MHz need to be ensured through frequency planning and coordination work, taking into account the current ICAO frequency management framework.  CEPT is of the view that the provisions above will also ensure compatibility between AMS(R)S systems and AM(OR)S assignments in the band 132-137 MHz of countries listed in RR Nos. 5.201 and 5.202.  CEPT is of the view that the protection of adjacent band services operating above 137 MHz from AMS(R)S emissions can be ensured :   * through the 1 MHz guard band in 136-137 MHz and RR Appendix 3 limits for spurious emissions for AMS(R)S systems operating in 117.975-136 MHz, * through 62.5 kHz guard band and RR Appendix 3 limits for spurious emissions for the band 136-136.9375 MHz and * through a limit on the level of unwanted emissions above 137 MHz for AMS(R)S emissions from systems operating in 136.9375-137 MHz.   CEPT is of the view that the allocation to AMS(R)S should be protected as a safety service, recognizing that the required protection of AMS(R)S satellite receivers shall not adversely impact planned usage of MSS, SOS, SRS and MetSat systems above 137 MHz. |

**NORWRC-23 #2 (18. oktober 2022)**

* Norsk standpunkt bør etableres.

**NORWRC-23 #1 (23. mars 2022)**

* Høy prioritet for Luftfarttilsynet.
* Space Norway ser agendapunktet som interessant. VDES ligger rundt 160 MHz, så det kan være mulig å kobinere VDES Satellite med denne applikasjonen. En utfordring er sendereffekten som er foreslått. Denne kan være problematisk fra småsatellitter.

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| **AI 1.7** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. | | |

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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2022-03-21** |
| ***Innspill på agendapunkt*** | |
| Norge bør støtte den foreløpige CEPT-posisjonen. Støtte at det blir en allokering. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| En AMS(R)S-allokering kan forbedre kommunikasjon for flytrafikken i nordområdene. I tillegg kan allokeringen åpne opp for nye forretningsmuligheter for norsk industri. | |

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| **Luftfartstilsynet** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Luftfartstilsynet ønsker at det kommer SAT tjenester på frekvensbåndet *117.975-137 MHz* | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Dette vil være med på å øke sikkerheten for flyvninger over havområder uten VHF dekning fra bakken. | |

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-15 - B-16:  To support ITU-R studies and the definition of relevant technical characteristics as called for by Resolution 428 (WRC-19).  To support a global allocation to the aeronautical mobile-satellite (route) service for both the Earth-to-space and space-to-Earth directions in the frequency band 117.975-137 MHz and that the use of the allocation be limited to the relaying of aeronautical VHF air traffic management communications.  To support that those systems shall operate in accordance with international Standards and Recommended Practices and procedures established in accordance with the Convention on International Civil Aviation.  To ensure that any change to the regulatory provisions and spectrum allocation resulting from this agenda item do not adversely impact the operation of existing VHF systems in the band 117.975-137 MHz operating in the AM(R)S, including regional usage of terrestrial VHF, nor require any changes to aircraft equipage or to existing installations. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.8 – Revidere Resolution 155 og No. 5.484B

*1.8 ​to consider, on the basis of ITU R studies in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0027PDFE.pdf)* ***[171 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0027PDFE.pdf)****, appropriate regulatory actions, with a view to reviewing and, if necessary, revising [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0027PDFE.pdf)* ***[155 (Rev.WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0027PDFE.pdf)*** *and No.* ***5.484B*** *to accommodate the use of fixed-satellite service (FSS) networks by control and non-payload communications of unmanned aircraft systems*

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B

**Om agendapunktet**

Resolution **155** «*Regulatory provisions related to earth stations on board unmanned aircraft which operate with geostationary-satellite networks in the fixed-satellite service in certain frequency bands not subject to a Plan of Appendices 30, 30A and 30B for the control and non-payload communications of unmanned aircraft systems in non-segregated airspaces*» identifiserer en rekke GSO FSS frekvensbånd for UAS CNPC (*control and nonpayload communication*). Resolution stiller krav om at det før båndene tas i bruk til formålet, innarbeides i ICAO sitt regime. Det står også at pfd grenser, for beskyttelse av FS i båndet, skal revideres under WRC-23. Fotnote **5.484B** er referert til i frekvensbåndene som er definert i Resolution **155**, og sier enkelt: «*Resolution* ***155 (WRC-15)*** *shall apply.*».

Under agendapunktet skal man fullføre relevante studier for tekniske, operasjonelle og regulatoriske aspekter relatert til implementasjon av Resolution **155**. Ved behov skal Resolution **155** og fotnote **5.484B** revideres.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i Draft CEPT Brief siden forrige møte, derfor ikke oversendt fra PTC for diskusjon og godkjenning i CPG.
* PT C presenterte Draft ECP for første gang. Det er fortsatt en del uavklart tekst i forslaget.
* En del av teksten har avhengigheter til kommende ICAO møte.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| * CEPT acknowledges the opportunities of the use of networks of the FSS for UAS CNPC links and CEPT is of the view that UAS CNPC links using FSS in non-segregated airspace shall operate: * in accordance with ICAO SARPs; * under successfully coordinated assignments for FSS applications notified with class of earth station “UG”. * CEPT is of the view that the safety aspects of UAS CNPC shall not have any impact on: * the existing terrestrial services and their current and expected applications; * the relevant existing agreements reached during FSS satellite coordination process; * the future coordination of FSS networks during the application of provisions of Articles 9 and 11 of the RR; * all cases which fall under RR 11.41. * CEPT is of the view that in order to ensure safety-of-flight operation of UAS, the administrations responsible for the operation of UAS CNPC links under the ICAO SARPs shall:   take the required measures to ensure freedom from harmful interference to earth stations on board UA;  act immediately when their attention is drawn to any such harmful interference;  thus, the cases where harmful interferences could not be mitigated by the administration responsible for operating UAS CNPC links and which lead to a loss of the UAS CNPC links would need to be addressed by airworthiness and flight operational procedures defined within ICAO.   * CEPT is of the view that the pfd mask labelled as example b in Annex 2 of Resolution 155 (Rev. WRC-19) is appropriate to protect the terrestrial services. * CEPT is of the view that the RR No. 5.149 for the protection of Radioastronomy from harmful interference in the frequency band 14.47-14.5 GHz has to be taken into account. * CEPT recognises that ICAO is responsible for the safe operation of aircraft including UAS and is developing appropriate SARPs covering all aspects of safe operation of UAS including the required communication systems. * CEPT recognises that RR 4.10 does not apply to the use of networks of the FSS for the UAS CNPC links between Earth stations on board the UA and the satellites. This implies that any administration notifying FSS network as well as any administrations authorising the operation of stations of the terrestrial services in accordance with the RR in the frequency bands identified in resolves 1 of Resolution 155 (Rev. WRC-19) have no responsibility for the safety of life for these links.   CEPT is of the view that if the conditions for the safety operation of CNPC established by ICAO cannot be met with the existing FSS link as it stands, then this link should not be used by the UAS operator. |

**Situasjonen etter 6. CPG (november 2022)**

* Noe forenkling av foreløpig CEPT standpunkt, men ingen meningsendringer.
* Noen små endringer i resten av dokumentet.
* Draft CEPT Brief godkjent.
* PTC har startet arbeidet med Draft ECP, men denne var ikke klar for å presenteres i CPG.
* Sverige kommenterte at de ser en uoverensstemmelse mellom foreløpig CEPT standpunkt og ICAO sitt standpunkt. ICAO kommenterte at dette var et sprikende punkt i diskusjoner i ICAO.

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| **Preliminary CEPT position** |
| * CEPT acknowledges the opportunities of the use of networks of the FSS for UAS CNPC links and CEPT is of the view that UAS CNPC links using FSS in non-segregated airspace shall operate: * in accordance with ICAO SARPs; * under successfully coordinated assignments for FSS applications notified with class of earth station “UG”. * CEPT is of the view that the safety aspects of UAS CNPC shall not have any impact on: * the existing terrestrial services and their current and expected applications; * the relevant existing agreements reached during FSS satellite coordination process; * the future coordination of FSS networks during the application of provisions of Articles 9 and 11 of the RR; * all cases which fall under RR 11.41. * CEPT is of the view that in order to ensure safety-of-flight operation of UAS, the administrations responsible for the operation of UAS CNPC links under the ICAO SARPs shall:   take the required measures to ensure freedom from harmful interference to earth stations on board UA;  act immediately when their attention is drawn to any such harmful interference;  thus, the cases where harmful interferences could not be mitigated by the administration responsible for operating UAS CNPC links and which lead to a loss of the UAS CNPC links would need to be addressed by airworthiness and flight operational procedures defined within ICAO.   * CEPT is of the view that the pfd mask labelled as example b in Annex 2 of Resolution 155 (Rev. WRC-19) is appropriate to protect the terrestrial services. * CEPT is of the view that the RR No. 5.149 for the protection of Radioastronomy from harmful interference in the frequency band 14.47-14.5 GHz has to be taken into account. * CEPT recognises that ICAO is responsible for the safe operation of aircraft including UAS and is developing appropriate SARPs covering all aspects of safe operation of UAS including the required communication systems. * CEPT recognises that RR 4.10 does not apply to the use of networks of the FSS for the UAS CNPC links between Earth stations on board the UA and the satellites. This implies that any administration notifying FSS network as well as any administrations authorising the operation of stations of the terrestrial services in accordance with the RR in the frequency bands identified in resolves 1 of Resolution 155 (Rev. WRC-19) have no responsibility for the safety of life for these links. * CEPT is of the view that if the conditions for the safety operation of CNPC established by ICAO cannot be met with the existing FSS link as it stands, then this link should not be used by the UAS operator. |

**NORWRC-23 #2 (18. oktober 2022)**

* WP 5B kom ikke I mål i sitt siste møte før deadline for CPM-teksten. Resultatet er en uferdig tekst med to løsningsforslag. Det ene forslaget går ut på å **SUP** Resolution 155. Den andre løsningen går ut på å revidere Resolution **155**, men inneholder ikke noe ferdig forslag for hvordan.
* Dette er i praksis en ESIM problematikk (AI 1.16).
* Sikkerhetsaspekter er ikke avklart. ICAO har en viktig rolle. Vil BR påta seg ansvar ved å bli involvert i beregninger rundt registreringer.
* Er det forsvarlig og lurt å bruke kommersielle satellittbånd for denne typen bruk?

**NORWRC-23 #1 (23. mars 2022)**

* For Telenor Satellite er det viktig at denne bruken ikke får bedre beskyttelse enn andre FSS tjenester. Det er foreslått å definer tjenesten som «safety of life/flight» tjeneste. Dette har vært kontroversielle diskusjoner i PT C og CPG.
* ICAO arbeidet er godt i gang. De har ansvaret for «safety of flight» blant annet med krav om oppetid på satellittlinker.
* Viktig for Luftfartstilsynet. Kommer innspill.
* Ekstraordinært WP 5B om en uke. Forslag fra en del aktører, inklusive Telenor Satellite, der det foreslås **NOC**.

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| **AI 1.8** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellite(TS) mener at UAS CNPC linker kun kan operere som vanlige FSS linker, denne tjenesten skal ikke ha ekstra beskyttelse eller mer tilgjengelighet enn andre FSS tjenester. TS er bekymret for at denne tjenesten skal kunne karakteriseres som en «saftey of life» eller «safety of flight» tjeneste som kan kreve mer beskyttelse og tilgjengelighet i forhold til andre FSS tjenester og dermed kunne blokkere koordineringen av nye satellitt nettverk. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-17 - B-19:  To support ITU-R studies, as called for by Resolutions 155 (Rev.WRC-19) and 171 (WRC-19).  To support the modification of No. 5.484B and Resolution 155 (Rev.WRC-19).  ICAO is expecting that the decision of WRC-23 will result in a Resolution that:   * clearly provides primary status; * removes any apparent inconsistencies; * acknowledges that in accordance with the Annexes of the Convention of the International Civil Aviation Organization (ICAO), ensuring the safety-of-life aspects of the use of UAS CNPC is the role of the responsible States; * provides sufficient information to support and/or validate safety cases; and * ensures that safety cases do not need to be revisited as a result of future satellite coordination agreements. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.9 – Revidere RR Appendix 27

*1.9 to review Appendix* ***27*** *of the Radio Regulations and consider appropriate regulatory actions and updates based on ITU R studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0009PDFE.pdf)* ***[429 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0009PDFE.pdf)***

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B

**Om agendapunktet**

RR Appendix **27** «*Frequency allotment Plan for the aeronautical mobile (R) service and related information*» definerer bruken av frekvensbånd i frekvensområdet 2 850 and 22 000 kHz som er eksklusivt allokert til aeronautical mobile (R) service.

Agendapunktet skal se på regulatoriske endringer i RR Appendix **27** for å legge til rette for en modernisering av aeronautisk HF kommunikasjon. I dag er anvendelsen i hovedsak analog tale og digital smalbånd datakommunikasjon. For å møte fremtidige behov for høyere båndbredder er det behov for å modernisere dette. Dette kan blant annet gjøres ved å aggregere nabokanaler eller spredte kanaler. Agendapunktet skal identifisere nødvendige endringer i Appendix **27**, samt definere et overgangsregime for introduksjon av nytt digitalt bredbånds HF system i båndene. Definere relevante tekniske karakteristikker og gjennomføre nødvendige delingsstudier for å unngå skadelig interferens in i eksisterende bruk i båndene, samt brukere i nabobånd, inngår i arbeidet.

Det er ikke forventet at det kreves noen endringer i RR Article **5**.

**Situasjonen etter 7. CPG (februar 2023)**

* En mindre endring i foreløpig CEPT standpunkt.
* Ingen andre endringer i Draft CEPT Brief.
* Draft CEPT Brief godkjent.
* En del endringer i draft ECP.
* Bidrag fra Frankrike med forslag til justeringer av draft ECP. Tatt inn uten diskusjoner.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT is of the view that the current version of RR Appendix 27 does not preclude the use of wideband digital HF communication by using multiple channels simultaneously.  CEPT is of the view that relevant parts of the current text of the Rules of Procedures need to be introduced in RR Appendix 27 and make adjustments to make explicit the use of wideband emissions by aggregation of multiple individual channels each of which complies with the provisions of the RR Appendix 27. |

**Situasjonen etter 6. CPG (november 2022)**

* Omskrivning av foreløpig CEPT standpunkt.
* Ingen andre endringer i Draft CEPT Brief.
* Draft CEPT Brief godkjent.
* PT C presenterte Draft ECP for første gang. Det er fortsatt en del gjenstående arbeid i denne.
* Tyskland foreslo at CPG kun noterte seg Draft ECP, og at den sendes tilbake for PTC for videre arbeid. Etter en avklaring fra PTC Chairman, trakk Tyskland tilbake forslaget.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT is of the view that the current version of RR Appendix 27 does not preclude the use of wideband digital HF communication by using multiple channels simultaneously.  CEPT is of the view that relevant parts of the current text of the Rules of Procedures need to be introduced in RR Appendix 27 and make adjustments to make explicit the use of wideband emissions. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Viktig for Luftfartstilsynet. Kommer innspill.
* Viktig agendapunkt for NATO.

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| **AI 1.9** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-20:  To support ITU-R studies as called for by Resolution 429 (WRC-19).  To support, based on agreed studies, the necessary modification of Appendix 27 to the Radio Regulations that will enable the introduction of HF wideband aeronautical communications systems. Those systems shall be operated in accordance with international Standards and Recommended Practices and procedures established in accordance with the Convention on International Civil Aviation. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.10 – AMS non-safety

*1.10 ​​to conduct studies on spectrum needs, coexistence with radiocommunication services and regulatory measures for possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0010PDFE.pdf)* ***[430 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0010PDFE.pdf)***

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B

**Om agendapunktet**

Under agendapunktet skal man studere spektrumsbehovet for nye non-safety aeronautisk mobil applikasjoner for luft-luft, bakke-luft og luft-bakke kommunikasjon. Antall fly og mengden sensorer om bord i flyene øker. Det er derfor et økende behov for toveis datakommunikasjon mellom stasjoner om bord i fly, og stasjoner i andre fly eller på bakke. Denne kommunikasjonen er ikke relatert til flysikkerhet.

Studere frekvensbåndet 22-22.21 GHz, som i dag er allokert til *mobile, except aeronautical mobile*, for å evaluere muligheten for å fjerne begrensningen ‘*except aeronautical mobile*’.

Delings- og kompatibilitetsstudier for en mulig ny primær allokering til *aeronautical mobile service (AMS)*, for bruk til AMS non-safety, i frekvensbåndet 15.4-15.7 GHz.

Definere tilfredsstillende beskyttelse for passive tjenester og RAS i omkringliggende frekvensbånd mot *unwanted emmissions* fra AMS.

**Situasjonen etter 7. CPG (februar 2023)**

* Noen mindre endringer i Draft CEPT Brief.
* Draft CEPT Brief godkjent.
* PTC presenterte for første gang draft ECP.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT acknowledges the need for additional spectrum to fulfil the increasing demand for non-safety aeronautical mobile applications. Therefore, CEPT supports a new allocation to AM(OR)S for non-safety application in the whole range or a part of the frequency band 15.4-15.7 GHz, and considers the possibility of a new allocation to AM(OR)S for non-safety application in the whole range or parts of the frequency band 22-22.21 GHz while:   * ensuring protection of the EESS/SRS (passive), and the RAS from unwanted emissions of the AMS; * ensuring protection of the primary allocations to radiolocation, aeronautical radionavigation and fixed-satellite (Earth-to-space) services in the relevant parts of the frequency band 15.4-15.7 GHz; * ensuring protection of the primary allocations to the fixed and mobile services in the frequency band 22-22.21 GHz noting that the frequency range 21.2-23.6 GHz is allocated to the fixed service; * considering that RR No. 5.149 applies, also recognizing that some CEPT administrations operate RAS under their National regulation with a primary or secondary status in the frequency band 22.00-22.21 GHz.   Noting that some CEPT Administrations operate water vapour radiometers in the frequency range 22-22.5 GHz utilized by some radio astronomy stations and in a variety of environmental applications, including weather forecasting and nowcasting, as well as climate monitoring for meteorology, CEPT will also ensure their necessary protection. |

**Situasjonen etter 6. CPG (november 2022)**

* En hel del omskrivning av foreløpig CEPT standpunkt.
* Også en hel del endringer i resten av dokumentet.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT acknowledges the need for additional spectrum to fulfil the increasing demand for non-safety aeronautical mobile applications. Therefore, CEPT supports a new allocation to AMS for non-safety application in the whole range or a part of the frequency band 15.4-15.7 GHz, and considers the possibility of a new allocation to AMS for non-safety application in the whole range or parts of the frequency band 22-22.21 GHz while:   * ensuring protection of the EESS/SRS (passive), and the RAS from unwanted emissions of the AMS; * ensuring protection of the primary allocations to radiolocation, aeronautical radionavigation and fixed-satellite (Earth-to-space) services in the relevant parts of the frequency band 15.4-15.7 GHz; * ensuring protection of the primary allocations to the fixed and mobile services in the frequency band 22-22.21 GHz noting that the frequency range 21.2-23.6 GHz is allocated to the fixed service; * considering that RR No. 5.149 applies, also recognizing that some CEPT administrations operate RAS under their National regulation with a primary or secondary status in the frequency band 22.00-22.21 GHz.   Noting that some CEPT Administrations operate water vapour radiometers in the frequency range 22-22.5 GHz utilized in a variety of environmental applications, including weather forecasting and nowcasting, as well as climate monitoring for meteorology, CEPT will also ensure their necessary protection. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* For MET er det viktig å beskytte passive bånd.

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| **AI 1.10** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Spesielt beskyttelse av nabobånd for EESS (passive) i 22.21-22.5 GHz må hensyntas (i tråd med posisjoner fra bl.a. SFCG og WMO/EUMETNET). | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-21 – B-22:  To support ITU-R studies as called for by Resolution 430 (WRC-19).  To support, based on the agreed results of studies, new allocations to the aeronautical mobile service only for use by non-safety aeronautical mobile applications.  To ensure that any such modification does not adversely affect the status or provision of aeronautical safety services. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.11 – Modernisering av GMDSS

*1.11 to consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e navigation, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0011PDFE.pdf)* ***[361 (Rev.WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0011PDFE.pdf)***

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B

**Om agendapunktet**

Vurdere mulige regulatoriske endringer som understøtter GMDSS modernisering. Dette i tett samarbeid med IMO.

Studere spektrum behov og nødvendige regulatoriske endringer, for *maritime mobile service*, for å støtte e-navigation.

Vurdere nødvendige regulatoriske bestemmelser ved introduksjon av ytterligere satellittsystemer i GMDSS, gitt IMOs konklusjoner rundt pågående behandling av søknader for nye systemer.

**Situasjonen etter 7. CPG (februar 2023)**

* Noen mindre justeringer av draft CEPT Brief.
* PTC kom ikke til enighet rundt fremtiden for frekvensbåndet 1645.5–1646.5 MHz. Det er delt syn på om dette båndet skal fjernes fra ITU-R RR Annex 15 og også fotnote **5.375** i Article 5.
  + Nederland var av oppfatningen at det er forhastet å gjøre dette.
  + Forslaget til ny bruk av frekvensbåndet kom fra Inmarsat via UK. Det er en metode også i CPM-text, men det er ingen stor enighet innen ITU.
  + Frankrike kommenterte at SAT-COM, som det foreslås endret til i Annex **15** ikke er korrekt da generell SAT-COM ikke er en del av GMDSS.
  + Tyskland støttet alternativ ett.
  + Nederland kommenterte at det er uklart om inter-satellitt delen av No. **5.375** er i bruk fortsatt eller ikke.
  + UK kommenterte at de mener dette er for tidlig. De stilte også spørsmål med om det er fornuftig å endre bruken av båndet fra GMDSS som ikke har vært i bruk til IoT som kanskje ikke kan bruke det.
  + Frankrike kommenterte at om man fjerner No. **5.357** så blir båndet et generisk MSS-bånd. Det vil i praksis bety at båndet er «fritt vilt» mellom WRC-23 og WRC-27.
* Etter en del diskusjon foreslo Chairman at man i første omgang sletter allokeringen fra Anneks **15**, og at man diskuterer No. **5.357** videre. Møtet støttet denne tilnærmingen.
* Draft CEPT Brief godkjent.
* Draft ECP godkjent.
* PT C fikk i oppgave å jobbe frem tre separate ECP’er, en for hvert issue.

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| **Preliminary CEPT position** |
| Issue A: Modernisation of GMDSS  CEPT supports regulatory actions needed to implement the GMDSS modernisation in the Radio Regulation based on decisions taken in IMO.  CEPT supports in particular:  the removal of narrow band direct printing from the GMDSS and introduction of an automatic connection system for MF and selected HF bands;  the introduction of NAVDAT as a component of the GMDSS;  to accommodate Automatic Identification System search and rescue transmitters (AIS-SARTs) as homing equipment for survival craft stations, as an alternative to Radar-SARTs;  the removal of satellite EPIRBs operating in the frequency band 1645.5–1646.5 MHz (Earth-to-space) from the GMDSS in the Radio Regulations.  Issue B: e-navigation  CEPT is of the view that no change to the Radio Regulations is required as a consequence of no decision taken by IMO regarding spectrum requirements to implement e-navigation.  Issue C: Regulatory action due to the introduction of additional satellite systems into the GMDSS by IMO  CEPT does not support at this stage the introduction of the satellite system BEIDOU in the Radio Regulations in order to be part of the GMDSS, even if the IMO were to recognize BEIDOU as a GMDSS service provider. The reasons are the lack of justification of the frequency requirement, the incompatibility with the current usage of the 1610-1626.5 MHz and 2483.5-2500 MHz bands in which BEIDOU would like to operate and the non-achievement of the frequency coordination with the other MSS systems present in these frequency bands. |

**Situasjonen etter 6. CPG (november 2022)**

* Foreløpig CEPT standpunkt endret for Issue C. CEPT sier nå at de ikke støtter introduksjon av BEIDOU som et GMDSS system.
* Frankrike kommenterte at de anser det som tidlig å si i foreløpig CEPT standpunkt at man støtter gjenbruk av 1645.5-1646.5 MHz båndet til andre GMDSS applikasjoner. Norge støttet dette. UK støttet også forslaget, men ønsket en mer åpen oppgave til PTC for å diskutere dette.
* Enighet i møtet at teksten ble fjernet fra foreløpig CEPT standpunkt, og PTC diskuterer dette punktet videre i deres neste møte.
* Frankrike spurte om hvorfor ikke nedlink båndet 1 544-1 545 MHz er med i diskusjonen. BR kommenterte at nedlink delen av allokeringen er mye brukt til GMDSS nedlink. Det er opplink delen som ikke har blitt tatt i bruk.
* Draft CEPT Brief godkjent.
* PTC presenterte for første gang Draft ECP. Ref diskusjonen ovenfor kom møtet til enighet å sette [] rundt forslag nummer 12 og 76.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| Issue A: Modernisation of GMDSS  CEPT supports regulatory actions needed to implement the GMDSS modernisation in the Radio Regulation based on decisions taken in IMO.  CEPT supports in particular:  the removal of narrow band direct printing from the GMDSS and introduction of an automatic connection system for MF and selected HF bands;  the introduction of NAVDAT as a component of the GMDSS;  to accommodate Automatic Identification System search and rescue transmitters (AIS-SARTs) as homing equipment for survival craft stations, as an alternative to Radar-SARTs;  the removal of 1.6 GHz satellite EPIRBs from the GMDSS.  Issue B: e-navigation  CEPT is of the view that no change to the Radio Regulations is required as a consequence of no decision taken by IMO regarding spectrum requirements to implement e-navigation.  Issue C: Regulatory action due to the introduction of additional satellite systems into the GMDSS by IMO  CEPT does not support at this stage the introduction of the satellite system BEIDOU in the Radio Regulations in order to be part of the GMDSS, even if the IMO were to recognize BEIDOU as a GMDSS service provider. The reasons are the lack of justification of the frequency requirement, the incompatibility with the current usage of the 1610-1626.5 MHz and 2483.5-2500 MHz bands in which BEIDOU would like to operate and the non-achievement of the frequency coordination with the other MSS systems present in these frequency bands. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Space Norway har interesse i de neste stegene i prosessen med en modernisering av GMDSS og e-navigasjon. VDES og VDES Satellitte er brikker i dette.

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| **AI 1.11** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Avhenger av IMO sin godkjenning av BeiDou, eller andre systemer, som et offisielt GMDSS system (på lik linje med Inmarsat og Iridium). BeiDou sin GMDSS del er et regionalt system for Asia. | | |
| **Norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. | | |

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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway støtter en modernisering av GMDSS i henhold til Resolution 361 (Rev.WRC-​19). Videre støtter Space Norway Draft ECP med «Alternative 1» for frekvensbåndet 1645.5-1646.5 MHz (SUP No.5.375 og fjerning av frekvensbåndet fra Appendix 15). | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| En modernisering av GMDSS kan åpne opp for nye bruksområder og forretningsmuligheter for norsk industri. For frekvensbåndet 1645.5-1646.5 MHz bør RR No. 5.375 strykes og frekvensbåndet fjernes fra RR Appendix 15 siden 1.6GHz EPIRB dette båndet har vært avsatt til ikke lenger er en del av SOLAS. | |

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-23:  To ensure that any change to the regulatory provisions and spectrum allocations resulting from this agenda item do not adversely impact on the capability of search and rescue aircraft, including helicopters, to effectively communicate with vessels during disaster-relief operations.  To ensure that any regulatory provisions in response to this agenda item do not adversely affect compliance of aeronautical mobile-satellite (route) service systems with international Standards and Recommended Practices and procedures established in accordance with the Convention on International Civil Aviation. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| **Issue A**  The RSPG recommends that, as a common policy approach for issue A, subject to the decision by IMO and the successful outcome of necessary studies (i.e. compatibility with incumbent services is ensured) Member States should support the possible regulatory actions needed to implement the Global Maritime Distress and Safety System modernisation in the RR.  This recommendation is falling under *case b)*.  **Issue C**  The RSPG recommends that, as a common policy approach for issue C, Member States should not support regulatory actions to introduce an additional satellite system into the provision of GMDSS, unless additional studies demonstrate spectrum needs as well as the absence of any impact on the regulatory status of other services and assignments.  This recommendation is falling under *case b)*. | |

# Agendapunkt 1.12 – EESS radar sounders rundt 45 MHz

*1.12 to conduct, and complete in time for WRC-23, studies for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, including in adjacent bands, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0012PDFE.pdf)* ***[656 (Rev.WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0012PDFE.pdf)***

**CEPT ansvar:** PT A

**ITU-R ansvar:** WP 7C

**Om agendapunktet**

Studere spektrumsbehov og deling mellom EESS (active) og eksisterende tjenester i frekvensområdet 40-50 MHz, for en mulig sekundær allokering for EESS radar sounders.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt. En hel del ny tekst rundt hva som har skjedd i ITU arbeidet.
* Det er fortsatt ikke etablert en ECP for agendapunktet.
* Draft CEPT Brief godkjent uten diskusjoner.

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| **Preliminary CEPT position** |
| CEPT supports a new secondary allocation to the Earth exploration-satellite service (active) in the 40-50 MHz band while ensuring the protection of incumbent services already allocated to the 40-50 MHz band or adjacent frequency ranges. |

**Situasjonen etter 6. CPG (november 2022)**

* PTA har etablert et foreløpig CEPT standpunkt.
* Det er fortsatt ikke etablert en ECP for agendapunktet.
* Draft CEPT Brief godkjent uten diskusjoner.

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| **Preliminary CEPT position** |
| CEPT supports a new secondary allocation to the Earth exploration-satellite service (active) in the 40-50 MHz band while ensuring the protection of incumbent services already allocated to the 40-50 MHz band or adjacent frequency ranges. |

**NORWRC-23 #2 (18. oktober 2022)**

* NRRL har bruk i 50-52 MHz. De ser det som positivt at man har tatt inn beskyttelse av nabobånd i foreløpig CEPT standpunkt.

**NORWRC-23 #1 (23. mars 2022)**

* Viktig for ESA og dermed NRS.
* NRRL har bruk i 50-52 MHz. Det er for dem viktig at bruken foreslått under dette agendapunktet begrenses til bruk utenfor bebodde områder.

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| **AI 1.12** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. | | |

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| Draft CEPT Brief: | Draft ECP: |
|  | TBA |

**Innspill fra aktører**

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Støttes.  45 MHz radar sounder-teknologien anses av ESA å ha et stort potensial:  *... have very large signal penetration depths, and therefore would allow new insights into the sub-surface structures. Use of these sensors is being considered in polar regions and in deserts.* | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Absolutt relevant for Norge på sikt. | |

# Agendapunkt 1.13 – Oppgradering av status for SRS i 14.8-15.35 GHz

*1.13 to consider a possible upgrade of the allocation of the frequency band 14.8-15.35 GHz to the space research service, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0013PDFE.pdf)* ***[661 (WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0013PDFE.pdf)***

**CEPT ansvar:** PT A

**ITU-R ansvar:** WP 7B

**Om agendapunktet**

Gjennomføre delings- og kompatibilitetsstudier for å vurdere muligheten for å oppgradere status for SRS allokeringen i 14.8-15.35 GHz fra sekundær til primær, og samtidig beskytte eksisterende primære tjenester i båndet.

Allokering i RR rev. 2020:

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| **Region 1** | **Region 2** | **Region 3** |
| **14.75-14.8**  FIXED  FIXED-SATELLITE (Earth-to-space) 5.510  MOBILE  Space research 5.509G | | **14.75-14.8**  FIXED  FIXED-SATELLITE (Earth-tospace)  5.509B 5.509C 5.509D  5.509E 5.509F 5.510  MOBILE  Space research 5.509G |
| **14.8-15.35** | FIXED  MOBILE  Space research  5.339 | |
| **15.35-15.4** | EARTH EXPLORATION-SATELLITE (passive)  RADIO ASTRONOMY  SPACE RESEARCH (passive)  5.340 5.511 | |

**5.339** The bands 1 370-1 400 MHz, 2 640-2 655 MHz, 4 950-4 990 MHz and 15.20-15.35 GHz are also allocated to the space research (passive) and Earth exploration-satellite (passive) services on a secondary basis.

**Situasjonen etter 7. CPG (februar 2023)**

* Noen endringer i foreløpig CEPT standpunkt.
* Noe ny tekst i avsnittet rundt pågående arbeid i ITU-R.
* Draft CEPT Brief godkjent uten diskusjoner.
* PTA har startet arbeidet med en ECP, men denne er enda ikke forelagt CPG.

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| **Preliminary CEPT position** |
| CEPT is supporting upgrade of space research service (SRS) allocation to satellite systems operating in the space-to-space, space-to-Earth and Earth-to-space directions at distances from the Earth less than 2 × 106 km from secondary to primary while ensuring protection for in-band FS/MS and for radioastronomy service in the adjacent band 15.35-15.4 GHz. Upgrading of the allocation of the frequency band 14.8-15.35 GHz to the SRS shall not not claim protection from the aeronautical mobile service (AMS) in the frequency band 14.8-15.35 GHz. Additionally, an upgrading of the SRS should not place constraints on the FS and MS and CEPT will consider whether further regulatory measures are needed. |

**Situasjonen etter 6. CPG (november 2022)**

* Ingen endringer i foreløpig CEPT standpunkt.
* Noe ny tekst i tekst avsnittet rundt pågående arbeid i ITU-R.
* Draft CEPT Brief godkjent uten diskusjoner.
* PTA har startet arbeidet med en ECP, men denne er enda ikke forelagt CPG.

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| **Preliminary CEPT position** |
| CEPT is supporting upgrade of space research service (SRS) allocation from secondary to primary while ensuring protection for in-band FS/MS and for radioastronomy service in the adjacent band 15.35-15.4 GHz. Upgrading of the allocation of the frequency band 14.8-15.35 GHz to the SRS should not impose constraints on existing systems of FS and MS in the frequency band 14.8-15.35 GHz. |

**NORWRC-23 #2 (18. oktober 2022)**

* NATO er positive til allokeringen i sitt standpunkt, gitt at det ikke påvirker deres allokeringer.

**NORWRC-23 #1 (23. mars 2022)**

* MET poengterte at det er passive bånd i nærheten som må beskyttes.

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| **AI 1.13** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. | | |

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| Draft CEPT Brief: | Draft ECP: |
|  | TBA |

**Innspill fra aktører**

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Støttes. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Vil tilrettelegge for økt kapasitet og økte hastigheter for nedlasting av vitenskapelige data. | |

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-24:  To support studies called for by Resolution 661 (WRC-19) ensuring that they take account of systems operating in the aeronautical mobile service.  To ensure that any radio regulatory action taken as a result of agreed studies does not adversely affect the provision of aeronautical services. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.14 – Revidere EESS (passive) i 231.5-252 GHz

*1.14 to review and consider possible adjustments of the existing or possible new primary frequency allocations to EESS (passive) in the frequency range 231.5-252 GHz, to ensure alignment with more up-to-date remote-sensing observation requirements, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0014PDFE.pdf)* ***[662 (WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0014PDFE.pdf)***

**CEPT ansvar:** PT A

**ITU-R ansvar:** WP 7C

**Om agendapunktet**

Gjennomgå eksisterende primære allokeringer for EESS (passive) i frekvensområdet 231.5-252 GHz og vurdere om disse er i tråd med behovene for observasjon ved hjelp av passive mikrobølgesensorer.

Studere påvirkningene eventuelle endringer har for andre primære tjenester med allokeringer i frekvensområdet.

Forslå endringer på dagens allokeringer for EESS (passive), og foreslå nye allokeringer i frekvensområdet.

Allokering i RR rev. 2020:

| **Region 1** | **Region 2** | **Region 3** |
| --- | --- | --- |
| **231.5-232** | FIXED  MOBILE  Radiolocation | |
| **232-235** | FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE  Radiolocation | |
| **235-238** | EARTH EXPLORATION-SATELLITE (passive)  FIXED-SATELLITE (space-to-Earth)  SPACE RESEARCH (passive)  5.563A 5.563B | |
| **238-240** | FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE  RADIOLOCATION  RADIONAVIGATION  RADIONAVIGATION-SATELLITE | |
| **240-241** | FIXED  MOBILE  RADIOLOCATION | |
| **241-248** | RADIO ASTRONOMY  RADIOLOCATION  Amateur  Amateur-satellite  5.138 5.149 | |
| **248-250** | AMATEUR  AMATEUR-SATELLITE  Radio astronomy  5.149 | |
| **250-252** | EARTH EXPLORATION-SATELLITE (passive)  RADIO ASTRONOMY  SPACE RESEARCH (passive)  5.340 5.563A | |

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen i foreløpig CEPT standpunkt. PTA foreslo at man skulle ta inn en linje som sier at foreløpig CEPT standpunkt er i tråd med Method B1, Option 1, i Draft CPM text, men CPG konkluderte med at dette ikke passer seg i foreløpig CEPT standpunkt.
* Noe ny tekst i resten av Draft CEPT Brief.
* Draft CEPT Brief godkjent.
* PTA presenterte for første gang draft ECP.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports to cover relevant requirements of passive microwave sensor measurements within the frequency range 231.5-252 GHz with frequency allocations to EESS (passive) without unduly constraining the other primary services currently allocated in this frequency range, specifically:   * In line with the scientific observation requirements identified so far, CEPT supports a new primary allocation to the EESS (passive) in the frequency bands 239.2-242.2 GHz and 244.2-247.2 GHz; * In order to avoid undue constraints to the primary services to which the bands 239.2-242.2 GHz and 244.2-247.2 GHz are currently allocated and subject to the outcome of the relevant sharing and compatibility studies with the services to which these and the adjacent bands are already allocated, CEPT is also proposing a shift of existing allocations to the FS and MS in the frequency band 239.2-241 GHz into the frequency band 235-238 GHz. * In order to ensure that there will be no potential future impact to FS and MS in the frequency band 235-238 GHz, CEPT proposes to limit the existing allocation to EESS (passive) in this frequency band for use by limb sounding passive sensors only. |

**Situasjonen etter 6. CPG (november 2022)**

* Noen endringer i foreløpig CEPT standpunkt. Foreløpig CEPT standpunkt er i tråd med Method B1 i Draft CPM text.
* Noe ny tekst i resten av Draft CEPT Brief.
* Draft CEPT Brief godkjent.
* PTA har startet arbeidet med en ECP, men denne er enda ikke forelagt CPG.

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| **Preliminary CEPT position** |
| CEPT supports to cover relevant requirements of passive microwave sensor measurements within the frequency range 231.5-252 GHz with frequency allocations to EESS (passive) without unduly constraining the other primary services currently allocated in this frequency range, specifically:   * In line with the scientific observation requirements identified so far, CEPT supports a new primary allocation to the EESS (passive) in the frequency bands 239.2-242.2 GHz and 244.2-247.2 GHz; * In order to avoid undue constraints to the primary services to which the bands 239.2-242.2 GHz and 244.2-247.2 GHz are currently allocated and subject to the outcome of the relevant sharing and compatibility studies with the services to which these and the adjacent bands are already allocated, CEPT is also proposing a shift of existing allocations to the FS and MS in the frequency band 239.2-241 GHz into the frequency band 235-238 GHz. * In order to ensure that there will be no potential future impact to FS and MS in the frequency band 235-238 GHz, CEPT proposes to limit the existing allocation to EESS (passive) in this frequency band for use by limb sounding passive sensors only. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Stor interesse for ESA og dermed viktig for NRS.

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| **AI 1.14** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. | | |

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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Støttes. Endringer og evt. nye allokeringer til EESS i dette området kan skape nye og forbedrede muligheter for observasjon ved hjelp av passive mikrobølgesensorer. Relevant for EUMETSAT MetOpSG-B og payload Ice Cloud Imager. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
|  | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Anses som en viktig mulighet. Agendapunktet prioriteres "Very High" av ESA . | |

**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that the European Commission proposes an EU position to the Council to provide the relevant frequency spectrum to correspond to the scientific observation requirements (to monitor the Earth’s environment) in support of the European Copernicus programme.  Member States should support primary allocations to the EESS (passive) in the frequency bands 239.2-242.2 GHz and 244.2-247.2 GHz, without unduly constraining other primary services currently allocated in this frequency range and should support further adjustments to allocations of other primary services in the frequency range 231.5-252 GHz based on the results of compatibility and sharing studies.  Note: The currently considered adjustments of the current allocations to the Fixed and Mobile services, consist of (1) adding new allocations to Fixed and Mobile services in 235-238 GHz (3 GHz), contiguous to 2 existing bands and (2) suppressing the existing allocations in 239.2-241 GHz (1.8 GHz).  This recommendation is falling under *case a)*. | |

# Agendapunkt 1.15 – GSO ESIM i Ku-bånd

*1.15 to harmonize the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service globally, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0015PDFE.pdf)* ***[172 (WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0015PDFE.pdf)***

**CEPT ansvar:** PT B

**ITU-R ansvar:** WP 4A

**Om agendapunktet**

Studere tekniske og operasjonelle egenskaper og brukerkrav for jordstasjoner om bord i fly og på skip, som kommuniserer med GSO satellitter i FSS i frekvensbåndet 12.75-13.25 GHz (Earth-to-space), underlagt Appendix **30B** Article 6.

Delings- og kompatibilitetsstudier mellom jordstasjoner om bord i fly og på skip og eksisterende og planlagte stasjoner under eksisterende tjenester, samt tjenester i nabobånd, for å sikre beskyttelse av og ikke påføre disse ytterligere begrensninger.

Sikre at eventuell bruk av frekvensbåndet 12.75-13.25 GHz (Earth-to-space) til dette formålet ikke begrenser andre administrasjoners tilgang til sine nasjonale ressurser i Appendix **30B**, samt implementeringen av Resolution **170 (WRC-19)**.

Agendapunktet er basert på den Europeiske harmoniseringen for ulisensiert bruk av jordstasjoner om bord i fly (ECC/DEC/(19)04) og ble foreslått av CEPT som agendapunkt for WRC-23. Agendapunktet ble utvidet til også å omhandle jordstasjoner om bord på skip, etter forslag fra CITEL under WRC-19.

Allokering i RR rev. 2020:

| **Region 1** | **Region 2** | **Region 3** |
| --- | --- | --- |
| **12.5-12.75**  FIXED-SATELLITE  (space-to-Earth) 5.484A 5.484B  (Earth-to-space)  5.494 5.495 5.496 |  | **12.5-12.75**  FIXED  FIXED-SATELLITE  (space-to-Earth) 5.484A 5.484B  MOBILE except aeronautical  mobile  BROADCASTINGSATELLITE 5.493 |
| **12.7-12.75**  FIXED  FIXED-SATELLITE  (Earth-to-space)  MOBILE except aeronautical  mobile |
| **12.75-13.25** | FIXED  FIXED-SATELLITE (Earth-to-space) 5.441  MOBILE  Space research (deep space) (space-to-Earth) | |
| **13.25-13.4** | EARTH EXPLORATION-SATELLITE (active)  AERONAUTICAL RADIONAVIGATION 5.497  SPACE RESEARCH (active)  5.498A 5.499 | |

**5.441** The use of the bands 4 500-4 800 MHz (space-to-Earth), 6 725-7 025 MHz (Earth-to-space) by the fixedsatellite service shall be in accordance with the provisions of Appendix **30B**. The use of the bands 10.7-10.95 GHz (space-to-Earth), 11.2-11.45 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by geostationary-satellite systems in the fixed-satellite service shall be in accordance with the provisions of Appendix **30B**. The use of the bands 10.7-10.95 GHz (space-to-Earth), 11.2-11.45 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixed-satellite service is subject to application of the provisions of No. **9.12** for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixedsatellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. **5.43A** does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

**Situasjonen etter 7. CPG (februar 2023)**

* Et lite tillegg i foreløpig CEPT standpunkt. Ellers ingen endringer.
* Draft CEPT Brief godkjent.
* PTB presenterte for første gang en draft ECP. PTB jobber videre med denne.
* Draft ECP godkjent.

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| **Preliminary CEPT position**  CEPT supports establishing a regulatory framework and technical requirements for operation of earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz (Earth-to-space) with conditions that protect the services currently allocated in this frequency band and bands adjacent to it, taking into account ECC Decision (19)04.  CEPT considers that earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz shall operate consistent with the Appendix **30B** procedures, protect the Appendix **30B** allotments in the Plan, assignments in the List and in the new proposed Appendix **30B** ESIM List (if adopted at WRC-23) and respect Resolution **170 (WRC-19)**.  CEPT supports the operation of these earth stations in the territories (air space and territorial waters) of administrations which have given agreement under No. **6.6** of Article 6 of Appendix **30B** and have authorised such operation within their territories. The characteristics of these earth stations should remain in the envelope of notified earth station characteristics.  CEPT supports the application of on-axis (depending on the maximum antenna gain) and off-axis e.i.r.p. density limits for the purpose of the protection of non-GSO FSS systems.  CEPT supports the use of power flux density (PFD) limits on the earth surface for earth stations on aircraft to ensure the protection of Mobile and Fixed Services, and also supports the development of a methodology to verify compliance with PFD limits by GSO earth stations on aircraft or of adequate transitional measures in case WRC-23 could not finalise the methodology.  CEPT is of the view that the notifying administration of the GSO network with which the earth stations on aircraft and vessels communicate should be identifiable to address the potential cases of harmful interference caused by any earth station on aircraft and vessels to fixed and mobile services. This identification could be done thanks to i) the license issued by / authorization of the administration for the operation of the earth station on aircraft and vessels on its territory; ii) the assistance of the flag nation of aircraft/vessel; iii) the on-board radio license of the aircraft or vessel equipped with an earth station. CEPT is of the view that the receiving part of these earth stations in the associated frequency bands shall not claim protection from terrestrial services having allocations in the same frequency bands and operating in accordance with the Radio Regulations. |

**Situasjonen etter 6. CPG (november 2022)**

* Bidrag fra koordinator med forslag om justeringer i Draft CEPT Brief etter WP 4A, som fant sted etter forrige PTB møte. Forslaget var basert på Draft CEPT Brief godkjent i PTB.
* Enighet i CPG om å gå videre med forslaget fra koordinator.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position**  CEPT supports establishing a regulatory framework and technical requirements for operation of earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz (Earth-to-space) with conditions that protect the services currently allocated in this frequency band and bands adjacent to it, taking into account ECC Decision (19)04.  CEPT considers that earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz shall operate consistent with the Appendix **30B** procedures, protect the Appendix **30B** allotments in the Plan, assignments in the List and in the new proposed Appendix **30B** ESIM List (if adopted at WRC-23) and respect Resolution **170 (WRC-19)**.  CEPT supports the operation of these earth stations in the territories (air space and territorial waters) of administrations which have given agreement under No. **6.6** of Article 6 of Appendix **30B** and have authorised such operation within their territories. The characteristics of these earth stations should remain in the envelope of notified earth station characteristics.  CEPT supports the use of power flux density (PFD) limits on the earth surface for earth stations on aircraft to ensure the protection of Mobile and Fixed Services, and also supports the development of a methodology to verify compliance with PFD limits by GSO earth stations on aircraft or of adequate transitional measures in case WRC-23 could not finalise the methodology.  CEPT is of the view that the notifying administration of the GSO network with which the earth stations on aircraft and vessels communicate should be identifiable to address the potential cases of harmful interference caused by any earth station on aircraft and vessels to fixed and mobile services. This identification could be done thanks to i) the license issued by / authorization of the administration for the operation of the earth station on aircraft and vessels on its territory; ii) the assistance of the flag nation of aircraft/vessel; iii) the on-board radio license of the aircraft or vessel equipped with an earth station. CEPT is of the view that the receiving part of these earth stations in the associated frequency bands shall not claim protection from terrestrial services having allocations in the same frequency bands and operating in accordance with the Radio Regulations. |

**NORWRC-23 #2 (18. oktober 2022)**

* Det er *planned bands* som brukes her. Dette har medført en del diskusjoner.
* Forelått resolusjon er stor. Det er veldig mange krav som må oppfylles. BR har også en rolle i det hele i at de skal vurdere registreringene.
* Risikoen er at løsningen blir så komplisert at den ikke kommer til å anvendes.

**NORWRC-23 #1 (23. mars 2022)**

* Det er Intelsat som driver agendapunktet. De har satset på Ku-bånd.
* Telenor Satellite tilbyr tjenesten i Europa i dag. De er positive til en internasjonal allokering.

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| **AI 1.15** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Norge følger utviklingen under dette agendapunktet. Det er forventet at agendapunktet kan være av interesse for norske aktører. Avventer eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellite(TS) har to satellitter (Thor 5&Thor 6) som opererer i dette frekvensbåndet (opplink 12.75-13.25 GHz, nedlink 10.7-10.95 & 11.2-11.45 GHz) regulert av RR AP30B. Vi støtter at båndet skal «åpnes» opp for ESIM bruk så lenge ikke dette fører til ekstra begrensninger på nåværende bruk. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Det er viktig å sikre beskyttelse av EESS (active) sensors i nabobånd 13.25-13.75 GHz. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-25 – B-26:  To ensure that any radio regulatory action, taken as a result of this agenda item, neither adversely affects the provision of aeronautical safety-of-life services nor sets an unwanted precedent. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| As a common policy approach for the harmonized operation of earth stations on aircraft and vessels communicating with GSO space stations in the FSS to respond to an increased need for broadband in-flight and maritime connectivity where only satellite infrastructure exists, Member States should support a regulatory framework and technical requirements for operation of earth stations on aircraft and on vessels in the frequency band 12.75-13.25 GHz (Earth-to-space), while protecting the services currently allocated in this frequency band and bands adjacent to it and avoiding any impact on Appendix 30B procedures and existing rights.  This recommendation is falling under *case b)*. | |

# Agendapunkt 1.16 – NGSO ESIM i Ka-bånd

*1.16 to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by non-GSO FSS earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0016PDFE.pdf)* ***[173 (WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0016PDFE.pdf)***

**CEPT ansvar:** PT B

**ITU-R ansvar:** WP 4A

**Om agendapunktet**

Studere og ta frem tekniske, operasjonelle og regulatoriske krav for non-GSO FSS jordstasjoner i bevegelse (ESIM) bruk i hele eller deler av frekvensbåndene 17.7-18.6 GHz, 18.8-19.3 GHz og 19.7-20.2 GHz (space-to-Earth), og 27.5-29.1 GHz og 29.5-30 GHz (Earth-to-space).

Studere deling og kompatibilitet mellom ESIMs under non-GSO FSS systemer, og eksisterende og planlagte stasjoner under primære tjenester i frekvensbåndene nevnt ovenfor. Studiene skal ta høyde for beskyttelse av, og at det ikke påføres ytterlige begrensninger på, GSO systemer og andre tjenester, herunder bakkebaserte tjenester, i disse frekvensbåndene og nabobånd. Passive tjenester inkludert.

Ta frem tekniske og regulatoriske bestemmelser for operasjon av aeronautiske og maritime ESIM’s mot non-GSO FSS systemer.

Agendapunktet ble foreslått av CEPT inn til WRC-19 for inkludering i agendaen for WRC-23. Allerede harmonisert i Europa i ECC Decision (15)04.

**Situasjonen etter 7. CPG (februar 2023)**

* Et lite tillegg i foreløpig CEPT standpunkt.
* En hel del ny tekst i Background.
* Draft CEPT Brief godkjent.
* PTB presenterte for første gang en draft ECP. PTB jobber videre med denne.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports the development of a regulatory framework for the operation of aeronautical and maritime ESIMs communicating with non-GSO satellite systems in the FSS in the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space). CEPT also supports the operations of land ESIMs in the frequency bands above and recognises that they are subject to national regulations. CEPT also supports that such operations shall not cause unacceptable interference to terrestrial services in neighbouring countries.  CEPT supports that the technical and operational requirements for the use of non-GSO ESIM shall ensure the protection of GSO networks and other services operating in the same frequency bands and in adjacent bands.   * CEPT is of the view that the protection of GSO networks in the fixed-satellite service operating in the frequency bands 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.6 GHz and 29.5-30 GHz from non-GSO ESIM can be achieved by requiring that links involving non-GSO ESIM comply with epfd limits referred to in  Nos. 22.5C, 22.5D and 22.5F and that the methodology included in Recommendation ITU-R S.1503 for determination of compliance with epfd limits in Article 22 is applicable to ESIM communicating with non-GSO FSS systems. * CEPT is of the view that to protect GSO networks – in those bands where epfd limits do not apply - and non-GSO systems in the FSS:   non-GSO ESIM characteristics shall remain within the envelope characteristics of typical earth stations associated with the non-GSO satellite system with which the ESIM communicates;  non-GSO ESIM shall not cause more interference and shall not claim more protection than typical earth stations in this non-GSO system;  the operation of non-GSO ESIM shall comply with the coordination agreements obtained following the application of provisions under No. 9.11A.  CEPT supports that the technical and operational requirements for the use of non-GSO ESIM shall ensure the protection of fixed and mobile services with allocations in the frequency bands considered in this agenda item:   * CEPT is of the view that non-GSO ESIM operating in the frequency bands 17.7-18.6 GHz and 18.8‑19.3 GHz (space-to-Earth) shall not claim protection from stations in the fixed and mobile services operating in the same frequency bands in accordance with the Radio Regulations; * CEPT supports the use of pfd (power flux density) limits on the Earth’s surface for aeronautical ESIMs to ensure the protection of fixed and mobile services. CEPT supports also the use of the methodology under development to examine compliance with the pfd limits by non-GSO aeronautical ESIM or transitional measures in case WRC-23 could not agree on the methodology; * CEPT supports the applicability of the limits contained in Annex 3 to Resolution 169 (WRC-19) to aeronautical and maritime ESIMs communicating with non-GSO systems operating in the frequency band 27.5-29.1 GHz; such ESIMs shall not cause unacceptable interference to fixed and mobile services operating in the same frequency band; * CEPT supports the use of the limits contained in Annex 3 to Resolution 169 (WRC-19) to protect stations in the fixed and mobile services operating in the frequency band 29.5-30 GHz on the entire territories of administrations mentioned in No. 5.542; * CEPT is of the view that the notifying administration of the non-GSO system with which the ESIMs communicate should be identifiable to address the potential cases of harmful interference caused by any ESIM to fixed and mobile services. This identification could be done thanks to: i) the license issued by / authorization of the administration for the operation of the ESIM on its territory; ii) the assistance of the flag nation of aircraft/vessel; iii) the on-board radio license of the aircraft or vessel equipped with the ESIM.   CEPT supports the protection of EESS (passive) sensors in the frequency band 18.6-18.8 GHz, and compatibility studies with related non-GSO systems to define necessary protection measures. In particular, CEPT is of the view that enabling the operations of non-GSO ESIM should not result in an increase of the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band. Any measure on non-GSO space stations communicating with aeronautical ESIM and maritime ESIM that may be needed to limit the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band shall be applicable only to those non-GSO systems notified/brought into use after the last day of WRC-23. In addition, CEPT supports that no specific measure is required for non-GSO systems operating in LEO orbits that make use of frequency reuse schemes employing at least three colours. |

**Situasjonen etter 6. CPG (november 2022)**

* En hel del omskrivning av foreløpig CEPT standpunkt.
* En hel del ny tekst i Background.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT supports the development of a regulatory framework for the operation of aeronautical and maritime ESIMs communicating with non-GSO satellite systems in the FSS in the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space). CEPT also supports the operations of land ESIMs in the frequency bands above and recognises that they are subject to national regulations. CEPT also supports that such operations shall not cause unacceptable interference to terrestrial services in neighbouring countries.  CEPT supports that the technical and operational requirements for the use of non-GSO ESIM shall ensure the protection of GSO networks and other services operating in the same frequency bands and in adjacent bands.   * CEPT is of the view that the protection of GSO networks in the fixed-satellite service operating in the frequency bands 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.6 GHz and 29.5-30 GHz from non-GSO ESIM can be achieved by requiring that links involving non-GSO ESIM comply with epfd limits referred to in  Nos. 22.5C, 22.5D and 22.5F and that the methodology included in Recommendation ITU-R S.1503 for determination of compliance with epfd limits in Article 22 is applicable to ESIM communicating with non-GSO FSS systems. * CEPT is of the view that to protect GSO networks – in those bands where epfd limits do not apply - and non-GSO systems in the FSS:   non-GSO ESIM characteristics shall remain within the envelope characteristics of typical earth stations associated with the non-GSO satellite system with which the ESIM communicates;  non-GSO ESIM shall not cause more interference and shall not claim more protection than typical earth stations in this non-GSO system;  the operation of non-GSO ESIM shall comply with the coordination agreements obtained following the application of provisions under No. 9.11A.  CEPT supports that the technical and operational requirements for the use of non-GSO ESIM shall ensure the protection of fixed and mobile services with allocations in the frequency bands considered in this agenda item:   * CEPT is of the view that non-GSO ESIM operating in the frequency bands 17.7-18.6 GHz and 18.8‑19.3 GHz (space-to-Earth) shall not claim protection from stations in the fixed and mobile services operating in the same frequency bands in accordance with the Radio Regulations; * CEPT supports the use of pfd (power flux density) limits on the Earth’s surface for aeronautical ESIMs to ensure the protection of fixed and mobile services. CEPT supports also the use of the methodology under development to examine compliance with the pfd limits by non-GSO aeronautical ESIM or transitional measures in case WRC-23 could not agree on the methodology; * CEPT supports the applicability of the limits contained in Annex 3 to Resolution 169 (WRC-19) to aeronautical and maritime ESIMs communicating with non-GSO systems operating in the frequency band 27.5-29.1 GHz; such ESIMs shall not cause unacceptable interference to fixed and mobile services operating in the same frequency band; * CEPT supports the use of the limits contained in Annex 3 to Resolution 169 (WRC-19) to protect stations in the fixed and mobile services operating in the frequency band 29.5-30 GHz on the entire territories of administrations mentioned in No. 5.542; * CEPT is of the view that the notifying administration of the non-GSO system with which the ESIMs communicate should be identifiable to address the potential cases of harmful interference caused by any ESIM to fixed and mobile services. This identification could be done thanks to: i) the license issued by / authorization of the administration for the operation of the ESIM on its territory; ii) the assistance of the flag nation of aircraft/vessel; iii) the on-board radio license of the aircraft or vessel equipped with the ESIM.   CEPT supports the protection of EESS (passive) sensors in the frequency band 18.6-18.8 GHz, and compatibility studies with related non-GSO systems to define necessary protection measures. In particular, CEPT is of the view that enabling the operations of non-GSO ESIM should not result in an increase of the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band. Any measure on non-GSO space stations communicating with aeronautical ESIM and maritime ESIM that may be needed to limit the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band shall be applicable only to those non-GSO systems notified/brought into use after the last day of WRC-23. |

**NORWRC-23 #2 (18. oktober 2022)**

* Space Norway stilte spørsmål med når man ser for seg et Norsk standpunkt.

**NORWRC-23 #1 (23. mars 2022)**

* For Space Norway er det viktig at resultatet fra WRC ikke ekskluderer eller har begrensinger som gjør det vanskelig å operere visse typer NGSO systemer.
* Telenor Satellite bruker båndet i dag til GSO, men stiller seg positive til agendapunktet så lenge det ikke legger begrensninger på GSO.
* NRS poengterte at 18,6-18,8 GHz er viktige EEES(passive) bånd.

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| **AI 1.16** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Norge følger utviklingen under dette agendapunktet. Det er forventet at agendapunktet kan være av interesse for norske aktører. | | |
| **Norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. | | |

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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2022-03-21** |
| ***Innspill på agendapunkt*** | |
| Støtte det foreløpige CEPT-standpunktet som vil åpne opp for bruk av mobile jordstasjoner for NGSO FSS-system. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Viktig for Space Norway som skal operere NGSO FSS-system. Mer generelt så er dette agendapunktet viktig for å bedre kommunikasjon i nordområdene der geostasjonære system har ingen eller redusert dekning. | |

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| **Telia Company** | **22/03/2022** |
| ***Innspill på agendapunkt*** | |
| Telia Company is of the view that the use of non-GSO Earth Stations in Motion can only be allowed if existing services including fixed and mobile are able to continue to operate without any further restrictions and that the future development of these services is guaranteed. In addition, the non-GSO service shall not claim protection from the existing services.  The concerned bands are of high importancefor thefixed and mobileservices. Telia Company has fixed links in some of these bands. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Det er viktig å sikre at ikke non-GSO FSS ESIM i båndene 17.7-18.6 GHz og 18.8-19.3 GHz resulterer i økt interferes inn mot EESS (passive) i 18.6-18.8 GHz.  Relevante ESA missions i båndet er CIMR, CRISTAL, CryoSat-2, Sentinel-3 og Sentinel-6. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| For Norge blir satellittene som skal se på is og hav, som CIMR og CRISTAL, spesielt viktige. | |

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellite(TS) støtter at frekvensområdene 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.6 GHz og 29.5-30 GHz også kan brukes til kommunikasjon mellom ESIM og NGSO satellitter så lenge ikke dette fører til ekstra begrensninger for kommunikasjon mellom jordstasjoner (VSAT og ESV/ ESIM) og GSO satellitter. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-27 – B-28:  To ensure that any radio regulatory action taken as a result of this agenda item:   * do not adversely affect the provision of UAS CNPC under Resolution 155 (Rev.WRC-19); * make a clear regulatory distinction between satellite networks or satellite network resources providing UAS CNPC and those providing non-safety ESIMs applications; * do not set a precedent that could adversely affect the provision of aeronautical safety-of-life services. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that, as a common policy approach, Member States should support the development of an international regulatory framework to allow non-GSO ESIMs to use the 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (earth-to-space) frequency bands, as this will contribute to providing broadband connectivity to 21 European citizens, as well as to creating a stable environment for a global European space industry. The position should take due account of the following conditions:  • GSO systems and other services operating in the same and adjacent frequency bands should be protected;  • passive services in general, and EESS (passive) sensors in the 18.6-18.8 GHz frequency band, should be adequately protected;  • in particular, global protection of the European satellite system Copernicus should be ensured.  This recommendation is falling under *case b)*. | |

# Agendapunkt 1.17 – Inter-satellitt linker

*1.17 to determine and carry out, on the basis of the ITU R studies in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0017PDFE.pdf)* ***[773 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0017PDFE.pdf)****, the appropriate regulatory actions for the provision of inter-satellite links in specific frequency bands, or portions thereof, by adding an inter-satellite service allocation where appropriate*

**CEPT ansvar:** PT B

**ITU-R ansvar:** WP 4A

**Om agendapunktet**

Ta frem tekniske og operasjonelle karakteristikker for ulike typer satellittstasjoner som planlegger kommunikasjon via satellitt-til-satellitt link i frekvensbåndene 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz og 27.5-30 GHz.

Studere disse tekniske og operasjonelle karakteristikkene, inkludert spektrumskrav, påkrevd e.i.r.p og *out-of-band emission limits* i overnevnte frekvensbånd.

Delings- og kompatibilitetsstudier mellom satellitt-til-satellitt linker, ment å operere mellom satellittstasjoner i frekvensbåndene 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz og 27.5-30 GHz, og eksisterende og planlagte FSS stasjoner og andre eksiterende tjenester allokert i disse båndene, og i nabobånd. Inklusive passive tjenester.

Ta frem, for de ulike typer satellittstasjoner, tekniske vilkår og regulatoriske bestemmelser for satellitt-til-satellitt operasjoner i hele eller deler av båndene nevnt ovenfor. Ved behov, foreslå nye allokeringer for ISS i båndene.

**Situasjonen etter 7. CPG (februar 2023)**

* En hel del endringer i foreløpig CEPT standpunkt.
* Draft CEPT Brief godkjent.
* Draft ECP presentert for første gang. PTB søkte veiledning fra CPG rundt CEPT standpunkt og videreutviktlingen av draft ECP.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports the development of a regulatory framework to enable the operation of satellite-to-satellite links in the 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz bands, while ensuring protection of existing services in the same frequency bands and adjacent bands.  CEPT supports that the introduction of satellite-to-satellite transmissions must ensure the same level of protection for GSOs and non-GSOs as currently provided in the RR and must not impose new constraints on GSOs and non-GSOs to protect satellite-to-satellite links from interference.  CEPT supports that the introduction of satellite-to-satellite transmissions must ensure the same level of protection for terrestrial services as currently provided in the RR and must not impose new constraints on terrestrial services to protect satellite-to-satellite links from interference.  CEPT does not oppose the deletion of the 11.7-12.7 GHz frequency band from the consideration under this agenda item.  CEPT is considering whether to address this agenda item through either an FSS (space-to-space) or an ISS allocation. The hard limits or coordination procedures to protect terrestrial services and/or other satellite networks/systems will not be tied to the type of allocation.  CEPT supports the completion of the studies in order to be able to address the operations under the “expanded cone” concept of operations.  CEPT supports the development of provisions where no additional coordination would be required for the user and service provider space stations if sat-to-sat emissions fall within the envelope of the operational characteristics of the service provider. Additional coordination or measures may be required for the user space stations outside the cone of coverage for the protection of GSO.  For the protection of GSO systems in the bands where epfd limits are in place, the CEPT is considering alternative provisions depending on whether the transmission is from non-GSO to non-GSO or from non-GSO to GSO.  For the protection of non-GSO systems, the CEPT is considering the development of hard limits.  CEPT proposes that space stations that plan satellite-to-satellite transmissions should be governed by the following preliminary guiding principles:   * Satellite-to-satellite link transmissions will comply with the same directionality indicators as in the existing FSS allocations (Earth-to-space = from user space station to service provider space station, space-to-Earth = from service provider space station to user space station); * Non-GSO user space stations will operate in a manner that should resemble typical Earth stations of the FSS service provider system; * The equivalent power flux-density, epfd↑, produced at any point in the geostationary-satellite orbit by emissions from all combined operations of space-to-space and typical Earth station transmissions shall not exceed the limits given in Table 22-2; * The equivalent power flux-density, epfd↓, at any point on the Earth’s surface visible from the transmitting satellite system, produced by emissions from all the space stations of the non-geostationary-satellite system shall not exceed the limits given in Tables 22-1A to 22-1E, where applicable; * The higher altitude to lower altitude link transmissions in 18.1-18.6 GHz and 18.8‑20.2 GHz from the GSO or non-GSO FSS service provider space station to the non-GSO user space station would be identical in technical characteristic to the transmissions from GSO or non-GSO service providers to any ground-based user in the service provider’s network. * Enabling the operation of satellite-to-satellite links should not result in an increase of the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band. CEPT supports the development of provisions to ensure EESS (passive) protection in the 18.6-18.8 GHz frequency band. Any provision on non-GSO service provider space stations providing satellite-to-satellite links that may be needed to limit the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz shall be applicable only to those non-GSO service provider systems notified/brought into use after the last day of WRC-23. |

**Situasjonen etter 6. CPG (november 2022)**

* Noe omskriving av foreløpig CEPT standpunkt.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position**  CEPT supports the development of a regulatory framework to enable the operation of satellite-to-satellite links within the fixed-satellite service (FSS) allocation in the 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz bands, or parts thereof, while ensuring protection of existing services in the same frequency bands and adjacent bands.  CEPT supports that the introduction of satellite-to-satellite transmissions must ensure the same level of protection for GSOs and non-GSOs as currently provided in the RR and must not impose new constraints on GSOs and non-GSOs to protect satellite-to-satellite links from interference.  CEPT supports that the introduction of satellite-to-satellite transmissions must ensure the same level of protection for terrestrial services as currently provided in the RR and must not impose new constraints on terrestrial services to protect satellite-to-satellite links from interference.  CEPT proposes that space stations that plan satellite-to-satellite transmissions should be governed by the following preliminary guiding principles:   * Satellite-to-satellite link transmissions will comply with the same directionality indicators as in the existing FSS allocations (Earth-to-space = from user space station to service provider space station, space-to-Earth = from service provider space station to user space station); * Non-GSO user space stations will operate in a manner that should resemble typical Earth stations of the FSS service provider system; * The equivalent power flux-density, epfd↑, produced at any point in the geostationary-satellite orbit by emissions from all combined operations of space-to-space and typical Earth station transmissions shall not exceed the limits given in Table 22-2; * The equivalent power flux-density, epfd↓, at any point on the Earth’s surface visible from the transmitting satellite system, produced by emissions from all the space stations of the non-geostationary-satellite system shall not exceed the limits given in Tables 22-1A to 22-1E, where applicable; * The higher altitude to lower altitude link transmissions in 11.7-12.7 GHz, 18.1-18.6 GHz and 18.8‑20.2 GHz from the GSO or non-GSO FSS service provider space station to the non-GSO user space station would be identical in technical characteristic to the transmissions from GSO or non-GSO service providers to any ground-based user in the service provider’s network. * Enabling the operation of satellite-to-satellite links should not result in an increase of the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band. CEPT supports the development of provisions to ensure EESS (passive) protection in the 18.6-18.8 GHz frequency band. Any provision on non-GSO service provider space stations providing satellite-to-satellite links that may be needed to limit the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz shall be applicable only to those non-GSO service provider systems notified/brought into use after the last day of WRC-23. |

**NORWRC-23 #2 (18. oktober 2022)**

* Seks foreslåtte metoder i draft CPM-tekst.

**NORWRC-23 #1 (23. mars 2022)**

* Space Norway poengterte at det er viktig at ikke kun LEO tas med i løsningen. Det er stort fokus på LEO satellitter i diskusjonene så langt.
* NRS poengterte at 18,6-18,8 GHz er viktige EEES(passive) bånd.

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| **AI 1.17** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway kan støtte CEPT-standpunktet, spesifikt en metode som begrenser bruk til “within cone of coverage”. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Space Norway har ingen umiddelbare interesser i denne tjenesten. Det er likevel viktig å følge med på utviklingen slik at man ikke risikerer at system i HEO-baner blir ekskludert eller blir skadelidende på andre måter. | |

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Hensynta beskyttelse av EESS (passiv) i 18.6-18.8 GHz. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellite (TS) støtter at frekvensbåndene 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz og 27.5-30 GHz kan brukes til satellitt til satellitt kommunikasjon så lenge ikke dette fører til ekstra begrensninger i forhold til dagens bruk av de samme frekvensbånd. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-29:  To ensure that, given the overlap in frequency bands, any radio regulatory action taken as a result of this agenda item does not adversely affect the provision of UAS CNPC under Resolution 155 (Rev.WRC-19). | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 1.18 – MSS allokeringer for smalbånd data innsamling

*1.18 to consider studies relating to spectrum needs and potential new allocations to the mobile-satellite service for future development of narrowband mobile-satellite systems, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0018PDFE.pdf)* ***[248 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0018PDFE.pdf)***

**CEPT ansvar:** PT B

**ITU-R ansvar:** WP 4C

**Om agendapunktet**

Studere tekniske og operasjonelle krav, samt system karakteristikker, for lavhastighets data systemer for innsamling av data under MSS.

Delings- og kompatibilitetsstudier med eksisterende primære tjenester i frekvensbåndene, for å vurdere egnetheten for nye MSS allokeringer, med fortsatt beskyttelse av eksisterende primære tjenestene, i frekvensbåndene:

* 1 695-1 710 MHz i Region 2
* 2 010-2 025 MHz i Region 1
* 3 300-3 315 MHz og 3 385-3 400 MHz i Region 2

Vurdere mulige nye primære eller sekundære allokeringer, med nødvendige tekniske begrensninger, til MSS for non-GSO satellitter for lavhastighets datainnsamlingssystemer, med fortsatt beskyttelse av eksisterende primære tjenester i båndene, samt i nabobånd.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen oppdateringer til Draft CEPT Brief.
* Draft ECP oppdatert med «No Change» som instruert av forrige CPG-møte. Draft ECP godkjent av møtet.

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| **Preliminary CEPT position**  CEPT supports “No Change” to the Radio Regulations for the frequency bands 1695-1710 MHz, 2010-2025 MHz, 3300-3315 MHz and 3385-3400 MHz.  CEPT considers further the possibility for a global allocation for narrowband MSS to be addressed by WRC-27. |

**Situasjonen etter 6. CPG (november 2022)**

* Revidert Draft CEPT Brief presentert. Preliminary CEPT posisjon i inputdokument indikerer en no-change, men usikkerhet rundt 2010-2025 MHz båndet.
* CPG ender opp med å endre preliminary CEPT posisjon til en «No Change» for alle 4 bånd under diskusjon på agendapunktet.
* CEPT vurderer videre muligheten for nytt agendapunkt for narrowband MSS på WRC-27.
* PTB bedt om å oppdatere draft ECP basert på endringene i preliminær CEPT posisjon og presentere på neste CPG.

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| **Preliminary CEPT position**  CEPT supports “No Change” to the Radio Regulations for the frequency bands 1695-1710 MHz, 2010-2025 MHz, 3300-3315 MHz and 3385-3400 MHz.  CEPT considers further the possibility for a global allocation for narrowband MSS to be addressed by WRC-27. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen interesse fra norske aktører.
* Norske satellittaktører foreslår **NOC**. Det er bedre å forsøke en gang til for WRC-27 for å se om man kan få til en global allokering.

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| **AI 1.18** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
| Norge støtter **NOC** for dette agendapunktet. Norge anser at det er mer hensiktsmessig å jobbe mot en ny Resolution for et nytt agendapunkt for WRC-27. | | |

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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway støtter Draft ECP på AI 1.18 som foreslår NOC for 1.18. Space Norway anser det som mer hensiktsmessig å heller støtte nytt agendapunkt til WRC-27 som identifiserer frekvensbånd med sikte på globale allokeringer for smallbånds lavdatarate MSS. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Agendapunktet ser på regionale frekvensallokeringer, noe som er svært uheldig siden agendapunktet er rettet inn mot lavbanesatellitter. Videre har studiene under agendapunktet ikke funnet akseptable løsninger for deling av frekvensene med eksisterende systemet. Det foreløpige agendapunktet til WRC-27 åpner for potensielt å se på andre frekvensbånd med en revidert eller ny Resolusjon som ikke skaper de samme problemene som Resolusjon 248 har skapt for AI 1.18. | |

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| **Telia Company** | **22/03/2022** |
| ***Innspill på agendapunkt*** | |
| Telia Companyis of the view that sufficient MSS spectrum is already allocated. Any potential newallocation for mobile satellite service needs to fully protect the existing services concerned and enable their future development. In Europe the 2010-2025 MHz is the considered band, which in many European countries is used for video cameras and video links and has some relevance for Telia Company media services.  In Europe the terrestrial mobile networks are well established and can be used also for IoT demands. In the past various mobile satellite communication ventures have failed, and spectrum demands should be justified with viable business cases. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Hensynta beskyttelse mot økt interference inn mot 2025-2110 MHz. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
|  | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| 2025-2110 MHz benyttes for de fleste norske offentlige satellitter samt TT&C opplink for alle ESA missions. | |

# Agendapunkt 1.19 – FSS i 17 GHz i Region 2

*1.19 to consider a new primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2, while protecting existing primary services in the band, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0019PDFE.pdf)* ***[174 (WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0019PDFE.pdf)***

**CEPT ansvar:** PT B

**ITU-R ansvar:** WP 4A

**Om agendapunktet**

Delings- og kompatibilitetsstudier mellom FSS (space-to-Earth) og BSS (space-to-earth) og FSS (space-to-Earth) og FSS (Earth-to-space), for å vurdere en ny primær allokering for FSS (space-to-Earth) i frekvensbåndet 17.3-17.7 GHz for Region 2, og samtidig sikre beskyttelse av og ytterligere begrensninger på eksiterende primære allokeringer i frekvensbåndet.

Deling mellom FSS (Earth-to-space) og FSS (space-to-Earth) er allerede vurdert og allokert i Region 1 for dette frekvensbåndet.

Allokering i RR rev. 2020:

| **Region 1** | **Region 2** | **Region 3** |
| --- | --- | --- |
| **17.2-17.3** | EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  SPACE RESEARCH (active)  5.512 5.513 5.513A | |
| **17.3-17.7**  FIXED-SATELLITE  (Earth-to-space) 5.516  (space-to-Earth) 5.516A 5.516B  Radiolocation  5.514 | **17.3-17.7**  FIXED-SATELLITE  (Earth-to-space) 5.516  BROADCASTING-SATELLITE  Radiolocation  5.514 5.515 | **17.3-17.7**  FIXED-SATELLITE  (Earth-to-space) 5.516  Radiolocation  5.514 |
| **17.7-18.1**  FIXED  FIXED-SATELLITE  (space-to-Earth) 5.484A 5.517A  (Earth-to-space) 5.516  MOBILE | **17.7-17.8**  FIXED  FIXED-SATELLITE  (space-to-Earth) 5.517 5.517A  (Earth-to-space) 5.516  BROADCASTING-SATELLITE  Mobile  5.515 | **17.7-18.1**  FIXED  FIXED-SATELLITE  (space-to-Earth) 5.484A 5.517A  (Earth-to-space) 5.516  MOBILE |
| **17.8-18.1**  FIXED  FIXED-SATELLITE  (space-to-Earth) 5.484A 5.517A  (Earth-to-space) 5.516  MOBILE  5.519 |

**Situasjonen etter 7. CPG (februar 2023)**

* Draft CEPT Brief godkjent.
* Draft ECP godkjent.
* Ingen endringer i CEPT standpunkt.
* Godkjente Draft CEPT Brief og ECP.

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| **Preliminary CEPT position**  CEPT supports a new FSS (space-to-Earth) allocation in Region 2 in the frequency band 17.3-17.7 GHz, which facilitates the use of spectrum available to networks and systems in the FSS across Regions. |

**Situasjonen etter 6. CPG (november 2022)**

* Noen justeringer av foreløpig CEPT standpunkt.
* Draft CEPT Brief godkjent.
* Draft ECP godkjent

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| **Preliminary CEPT position**  CEPT supports a new FSS (space-to-Earth) allocation in Region 2 in the frequency band 17.3-17.7 GHz, which facilitates the use of spectrum available to networks and systems in the FSS across Regions. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Telenor Satellite mener at det ikke bør være noe CEPT standpunkt for dette agendapunktet. Allokeringen finnes allerede for Region 1.

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| **AI 1.19** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Norsk standpunkt** | | |
| Da dette båndet allerede i dag er allokert til FIXED-SATELLITE (space-to-Earth) i Europa, er Norge av den oppfatning at CEPT skal støtte Region 2, om delingsstudier viser at det ikke er Region 2 spesifikke problemstillinger som vanskeliggjør en ny allokering i Region 2.  Norge støtter Draft ECP. | | |

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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

# Agendapunkt 2 – gjennomgang av reviderte rekommandasjoner som RR har henvisninger til

*2 to examine the revised ITU R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with further resolves of [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0020PDFE.pdf)* ***[27 (Rev.WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0020PDFE.pdf)****, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in resolves of that Resolution*

**CEPT ansvar:** PT A

**ITU-R ansvar:** CPM23-2

**Om agendapunktet**

Fast agendapunkt til WRC. Man skal ha en gjennomgang av alle ITU-R Rekommandasjoner som har blitt oppdatert siden sist WRC og som RR henviser til. WRC skal ta stilling til om RR skal ha henvisning til den nye versjonen.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt. Minimale justeringer i resten av dokumentet.
* Draft CEPT Brief godkjent.
* PTA valgte å ikke oversende Draft ECP for godkjenning i CPG, da dokumentet er uforandret siden forrige CPG-møte.

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| **Preliminary CEPT position** |
| * CEPT supports updating the reference(s) in relevant RR provisions of the following ITU-R Recommendation(s): ITU-R M.585-8 to M.585-9, TBD. * CEPT resumes examining the compliance with the principles of Annex 1 to Resolution 27 (Rev.WRC‑19) of the references to ITU-R Recommendations in the Radio Regulations. * CEPT supports update of the RR Volume 4 cross-reference list. |

**Situasjonen etter 6. CPG (november 2022)**

* Teksten for AI 2 er stabil. Det er noen endringer i foreløpig CEPT standpunkt. Revidert ITU-R M.585-8 er allerede godkjent av Study Group og publisert.
* Draft CEPT Brief godkjent.
* PTA har tatt frem en Draft ECP. Foreløpig har man kun tatt inn endringer grunnet ny revisjon av ITU-R M.585-8.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| * CEPT supports updating the reference(s) in relevant RR provisions of the following ITU-R Recommendation(s): ITU-R M.585-8 to M.585-9, TBD. * CEPT resumes examining the compliance with the principles of Annex 1 to Resolution 27 (Rev.WRC‑19) of the references to ITU-R Recommendations in the Radio Regulations. * CEPT supports update of the RR Volume 4 cross-reference list. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 2** |  | |  |
| **Prioritet fra norsk ståsted** | | **LAV** | |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | | |
| **Foreløpig norsk standpunkt** | | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

# Agendapunkt 3 – oppdatere RR

*3 to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the conference*

**CEPT ansvar:**

**ITU-R ansvar:** Utenfor CPM sitt ansvar

**Om agendapunktet**

Fast agendapunkt til WRC. Endringer som må gjøres i RR som konsekvens av beslutningene som ble gjort på WRC.

# Agendapunkt 4 – gjennomgang av Resolusjoner og Rekommandasjoner fra tidligere konferanser

*4 in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0021PDFE.pdf)* ***[95 (Rev.WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0021PDFE.pdf)****, to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement or abrogation*

**CEPT ansvar:** PT A

**ITU-R ansvar:** CPM23-2

**Om agendapunktet**

Fast agendapunkt til WRC. Gjennomgang av alle Rekommandasjoner og Resolusjoner fra tidligere konferanser.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt.
* PTA hadde besluttet å inkludere Resolution **655** arbeidet under AI 4, da det ser ut til at dette arbeidet kun ender opp med en revidert Resolution. Draft CEPT Brief for Resolution **655** er nå inne som Annex 2 i Draft CEPT Brief for AI 4.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT encourages the constant review of Resolutions and Recommendations from previous conferences and will follow activities, in particular of ITU, associated with this effort.   * CEPT proposes to suppress Resolutions: RES 75 (Rev.WRC-12), RES 160 (WRC-15), RES 161 (WRC-15), TBD * CEPT proposes to modify Resolutions: RES 76 (WRC-15), RES 99 (WRC-19), RES 655 (WRC-15), RES 731 (Rev WRC-19), RES 804 (Rev.WRC-19), TBD * CEPT proposes to suppress Recommendations: TBD * CEPT proposes to modify Recommendations: REC 34 (Rev.WRC-12), TBD |

**Situasjonen etter 6. CPG (november 2022)**

* En endring i foreløpig CEPT standpunkt. Resolution **81 (WRC-15)** er fjernet.
* Draft CEPT Brief godkjent.
* Draft ECP godkjent.
* PTA hadde jobbet videre med utkastet til et nytt Annex til Resolution **804 (WRC-19)** «Principles for establishing agendas for world radiocommunication conferences». Tanken med dette nye annekset er å gi veiledning til utarbeidelsen av Resolutions for nye agendapunkter. CEPT ser behov for å forebedre kvaliteten på disse.

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| **Preliminary CEPT position** |
| CEPT encourages the constant review of Resolutions and Recommendations from previous conferences and will follow activities, in particular of ITU, associated with this effort.   * CEPT proposes to suppress Resolutions: RES 75 (Rev.WRC-12), RES 160 (WRC-15), RES 161 (WRC-15), TBD * CEPT proposes to modify Resolutions: RES 76 (WRC-15), RES 99 (WRC-19), RES 731 (Rev WRC-19), RES 804 (Rev.WRC-19), TBD * CEPT proposes to suppress Recommendations: TBD * CEPT proposes to modify Recommendations: REC 34 (Rev.WRC-12), TBD |

**NORWRC-23 #2 (18. oktober 2022)**

* MET kommer med innspill anngående Recommandation **731**.
* Recommandation **175** er dekket inn under AI 9.1c.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 4** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP:  Main | Draft ECP:  Resolution **804** |
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**Innspill fra aktører**

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-30 – B-37:  Resolution No. 155 (Rev.WRC-19): Subject to WRC-23 Agenda Item 1.8.  Resolution No. 156 (WRC-15): Modify if necessary to ensure clear delineation between ESIMs and unmanned aircraft control and non-payload communication covered in Resolution 155 (Rev.WRC-19).  Resolution No. 160 (WRC-15): Suppress based on the results of studies carried out under WRC-19 Agenda Item 1.14.  Resolution No. 169 (WRC-19): Modify if necessary to ensure that the provisions for ESIMs do not limit the use of unmanned aircraft control and non-payload communication covered in Resolution 155 (Rev.WRC-19).  Resolution No. 171 (WRC-19): Subject to WRC-23 Agenda Item 1.8.  Resolution No. 172 (WRC-19): Subject to WRC-23 Agenda Item 1.15.  Resolution No. 173 (WRC-19): Subject to WRC-23 Agenda Item 1.16.  Resolution No. 176 (WRC-19): Modify or suppress as necessary based on the results of studies carried out (preliminary WRC-27 Agenda Item 2.2).  Resolution No. 223 (WRC-19): Modify or suppress *invites the ITU Radiocommunications Sector* 1 to Resolution 223, as appropriate, based on the results of the studies called for by that provision.  Resolution No. 240 (WRC-19): Monitor studies and ensure protection of aeronautical systems.  Resolution No. 245 (WRC-19): Subject to WRC-23 Agenda Item 1.2.  Resolution No. 246 (WRC-19): Subject to WRC-23 Agenda Item 1.3.  Resolution No. 247 (WRC-19): Subject to WRC-23 Agenda Item 1.4.  Resolution No. 249 (WRC-19): Modify or suppress as necessary based on the results of studies carried out for WRC-27 (preliminary WRC-27 Agenda Item 2.8).  Resolution No. 250 (WRC-19): Modify or suppress as necessary based on the results of studies carried out for WRC-27 (preliminary WRC-27 Agenda Item 2.9).  Resolution No. 251 (WRC-19): Modify or suppress as necessary based on the results of studies carried out for WRC-27 (preliminary WRC-27 Agenda Item 2.12).  Resolution No. 361 (Rev.WRC-19): Subject to WRC-23 Agenda Item 1.11.  Resolution No. 405 (Geneva 1979): Subject to WRC-23 Agenda Item 1.9.  Resolution No. 422 (WRC-12): Suppress as a result of the approval of Recommendation ITU-R M.2091.  Resolution No. 428 (WRC-19): Subject to WRC-23 Agenda Item 1.7.  Resolution No. 429 (WRC-19): Subject to WRC-23 Agenda Item 1.9.  Resolution No. 430 (WRC-19): Subject to WRC-23 Agenda Item 1.10.  Resolution No. 661 (WRC-19): Subject to WRC-23 Agenda Item 1.13.  Resolution No. 772 (WRC-19): Subject to WRC-23 Agenda Item 1.6.  Resolution No. 773 (WRC-19): Subject to WRC-23 Agenda Item 1.17.  Resolution No. 774 (WRC-19): Subject to WRC-23 Agenda Item 9.1 topic b. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 5 – rapporten fra RA

*5 to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos.* ***135*** *and* ***136*** *of the Convention*

**CEPT ansvar:**

**Om agendapunktet**

Fast agendapunkt til WRC. RA arrangeres uka før WRC. Det er derfor ikke noen aktivitet på dette agendapunkt før selve WRC møtet.

# Agendapunkt 6 – viktige saker for studiegruppene

*6 to identify those items requiring urgent action by the radiocommunication study groups in preparation for the next world radiocommunication conference*

**CEPT ansvar:**

**Om agendapunktet**

Fast agendapunkt til WRC. Saker som trenger snarlig behandling i ITU-R SG.

# Agendapunkt 7 – forbedringer av prosedyrer rundt koordinering av satellittnetverk

*7 to consider possible changes, in response to* [*Resolution* ***86 (Rev. Marrakesh, 2002)***](http://search.itu.int/history/HistoryDigitalCollectionDocLibrary/4.17.43.en.100.pdf)*of the Plenipotentiary Conference, on advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with* [*Resolution* ***86 (Rev.WRC-​07)***](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000A0032PDFE.pdf)*, in order to facilitate the rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit*

**CEPT ansvar:** PT B

**ITU-R ansvar:** WP 4A

**Om agendapunktet**

Fast agendapunkt på alle WRC. Målet med agendapunktet er å forbedre prosedyrene og reglementet rundt innmelding av satellittbaneposisjoner og deres frekvensbruk.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endring i overgripende foreløpig CEPT standpunkt.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT supports retaining the current process of continuing evolution at successive WRCs of the regime governing space services. CEPT also favours a stable and predictable regulatory framework for efficient use of spectrum and orbit resources. CEPT intends to develop specific positions susceptible to bring improvement to the regulatory process.  CEPT favours the review of any RR provision which can bring accurate solutions to specific detected inconsistencies and develop new improved provisions with emphasis on solving the most urgent issues, i.e. well characterized issues whose improvement is urgent and impacting. |

**Situasjonen etter 6. CPG (november 2022)**

* Forrige WP 4A fjernet Topic L. AI 7 koordinator foreslo å slette Topic L fra Draft CEPT Brief. Møtet støttet dette.
* Ingen endring i overgripende foreløpig CEPT standpunkt.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT supports retaining the current process of continuing evolution at successive WRCs of the regime governing space services. CEPT also favours a stable and predictable regulatory framework for efficient use of spectrum and orbit resources. CEPT intends to develop specific positions susceptible to bring improvement to the regulatory process.  CEPT favours the review of any RR provision which can bring accurate solutions to specific detected inconsistencies and develop new improved provisions with emphasis on solving the most urgent issues, i.e. well characterized issues whose improvement is urgent and impacting. |

**NORWRC-23 #2 (18. oktober 2022)**

* Space Norway melder at de primært er interessert i Issue A, B, C, G, J og L, som alle er NGSO relaterte.

**NORWRC-23 #1 (23. mars 2022)**

* Telenor Satellite har tatt initiativ til et topic rundt 15+15 år definert i Article 4.1.24 i Appendix 30 og 30A. Gjelder Region 1 og 3. Ble foreslått på WP 4A i juni 2021, men fikk ikke støtte. Modifisert innspill sendes inn til WP 4A i mai 2022.

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| **AI 7 - overall** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
| Det er forventet at det kommer underpunkter under dette AI som er av interesse for Norge og norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
| Se standpunkt for de enkelte topics. | | |

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| Draft CEPT Brief: |
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## AI7 – Topic A: Tolerances for non-GSO orbital characteristics

*“to study tolerances for certain orbital characteristics of non-GSO space stations of the FSS, MSS or BSS to account for potential differences between the notified and deployed orbital characteristics for:*

* *the inclination of the orbital plane,*
* *the altitude of the apogee of the orbit of the space station,*
* *the altitude of the perigee of the orbit of the space station, and*
* *the argument of the perigee of the orbit of the space station.”*

Topic A handler om å sette noen krav til tolleranser for ulike parametre i innmelding av NGSO systemer.

**Situasjonen etter 7. CPG (februar 2023)**

* Mindre endringer i foreløpig CEPT standpunkt siden forrige CPG møte.
* Ingen draft ECP oppe til godkjenning på dette møtet, fremdeles diskusjoner rundt CEPT standpunkt.

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| **Preliminary CEPT position** |
| * CEPT supports the development of the definition of tolerances limited to the four orbital characteristics of non-GSO space stations in FSS, BSS and MSS identifying a “notified orbital plane”. * CEPT does not support the development of tolerances under this topic for the orbital characteristics of non-GSO space stations whose frequency assignments belong to services other than the FSS, BSS and MSS. * CEPT supports the development of these tolerances of all FSS, BSS and MSS systems in the context of ITU regulatory procedures such as BIU, BBIU and the milestone-based approach. In the absence of such tolerances, it is unclear whether the requirements of Resolution 35 (WRC-19) are met. * To avoid collision with another non-GSO space station or to permit reorganisation of satellites in an orbit-plane after a launch of new non-GSO space stations, CEPT supports, under No. 11.51, specific regulatory measures to temporary exceed the defined tolerances. * CEPT supports the development of appropriate regulatory consequences under Nos. 11.44C, 11.49.2 and 11.51 for frequency assignments to non-GSO space stations that do not maintain these to-be-developed orbital tolerances |

**Situasjonen etter 6. CPG (november 2022)**

* Ingen endringer i foreløpig CEPT standpunkt siden forrige CPG møte.
* CPM teksten inneholder to Options. Det kommer ikke klart frem hvilken Option CEPT støtter. PT B legger inn dette i neste møte.

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| **Preliminary CEPT position**   * CEPT supports the development of the definition of tolerances limited to the four orbital characteristics of non-GSO space stations in FSS, BSS and MSS identifying a “notified orbital plane”. * CEPT does not support the development of tolerances under this topic for the orbital characteristics of non-GSO space stations whose frequency assignments belong to services other than the FSS, BSS and MSS. * CEPT supports the development of these tolerances in the context of ITU regulatory procedures such as BIU and the milestone-based approach. In the absence of such tolerances it is unclear whether the requirements of Resolution 35 (WRC-19) are met. * To avoid collision with another non-GSO space station or to permit reorganisation of satellites in an orbit-plane after a launch of new non-GSO space stations, CEPT supports specific regulatory measures to temporary exceed the defined tolerances if final tolerances definition could not address such operational requirements. * CEPT supports the development of appropriate regulatory consequences for frequency assignments to non-GSO space stations that do not maintain these to-be-developed orbital tolerances. |

**NORWRC-23 #2 (18. oktober 2022)**

* Har vært liten tid til å diskutere dette topic under WP 4A.
* Tunge tekniske diskusjoner i WP 4A.

**NORWRC-23 #1 (23. mars 2022)**

* Gjelder FSS og kommunikasjonssatellitter.

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| **AI 7 – Topic A** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
| Topic A anses som viktig av en norsk aktør. Det er sendt inn norsk bidrag til ITU-R WP 4A for dette topic. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft ECP: |
| TBA |

**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway støtter CEPT-standpunktet. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

## AI7 – Topic B: Non-GSO BIU post-milestone procedure

*“to study possible development of a post-milestone procedure taking into account the reporting defined in resolves 19 of the Resolution* ***35 (WRC-19)****.”*

Gjenstående deler av diskusjonen under AI 7 Issue A for WRC-19.

**Situasjonen etter 7. CPG (februar 2023)**

* Eneste endring i CEPT standpunkt er fjerning av paranteser på %-angivelsen av antall satellitter i posisjonsteksten.
* Oppdatert Draft ECP godkjent.

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| **Preliminary CEPT position**   * CEPT supports the adoption of a new Resolution to replace resolves 19 of Resolution 35 (WRC-19) at WRC-23 suppressing resolves 19 of Resolution 35 (WRC-19) and leaving the rest of the Resolution 35 (WRC-19) as is otherwise. * CEPT supports a regulatory solution aligning the post milestone procedures in this new Resolution with No. 11.49 and Resolution 35 (WRC-19) allowing some operational flexibilities:   Possibility to operate a minimum 95% of the number of satellites notified in the MIFR without regulatory impact.  Possibility to operate less than 95% of the number of satellites notified in the MIFR for a maximum period of 3 years without regulatory impact. (A suspension process analogue to the GSO case is proposed.)  Considering the process to duly notify the Bureau based on similar regulatory mechanism as in No. 11.49.   * CEPT supports a reduction in the number of satellites notified in the MIFR if the deployed number of satellites falls below 95% of that which was notified in the MIFR for a continuous period exceeding 3 years.   CEPT considers that the application of No. 13.6 by the BR is not an adequate solution for Topic B. |
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**Situasjonen etter 6. CPG (november 2022)**

* En hel del endringer i foreløpig CEPT standpunkt. Er i henhold til Method B2 i CPM tekst. Method B2 inneholder to Options. CEPT støtter den med fast milestone.
* PT B hadde tatt frem en draft ECP for Topic B.

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| **Preliminary CEPT position** |
| * CEPT supports the adoption of a new Resolution to replace resolves 19 of Resolution 35 (WRC-19) at WRC-23 suppressing resolves 19 of Resolution 35 (WRC-19) and leaving the rest of the Resolution 35 (WRC-19) as is otherwise. * CEPT supports a regulatory solution aligning the post milestone procedures in this new Resolution with No. 11.49 and Resolution 35 (WRC-19) allowing some operational flexibilities:   Possibility to operate a minimum [95%] of the number of satellites notified in the MIFR without regulatory impact.  Possibility to operate less than [95%] of the number of satellites notified in the MIFR for a maximum period of 3 years without regulatory impact. (A suspension process analogue to the GSO case is proposed.)  Considering the process to duly notify the Bureau based on similar regulatory mechanism as in No. 11.49.   * CEPT supports a reduction in the number of satellites notified in the MIFR if the deployed number of satellites falls below [95%] of that which was notified in the MIFR for a continuous period exceeding 3 years.   CEPT considers that the application of No. 13.6 by the BR is not an adequate solution for Topic B. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Space Norway ønsker seg en modell der man tar i betraktning antallet totalt planlagte satelliter.

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| **AI 7 – Topic B** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
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| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. For Norge er det viktig at en løsning av dette topic ikke slår spesielt negativt ut for mindre konstellasjoner. | | |

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| Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway støtter CEPT-standpunktet, men må være aktsom på at regelverket ikke slår spesielt negativt ut for mindre konstellasjoner. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

## AI7 – Topic C: Protection of GSO MSS from non-GSO emissions in 7/8 and 20/30 GHz

*“At the WRC-19, the regulatory protection of geostationary-satellite orbit (GSO) mobile-satellite service (MSS) or maritime mobile-satellite service (MMSS) networks from interference caused by non-GSO systems and networks was identified to be considered under WRC-23 agenda item (AI) 7 in the frequency bands:*

* *7 250-7 750 MHz (space-to-Earth),*
* *7 900-8 025 MHz (Earth-to-space),*
* *20.2-21.2 GHz (space-to-Earth) and*
* *30-31 GHz (Earth-to-space).*

*It should be noted that the scope of this topic is limited to consider the protection of GSO MSS (including the MMSS) in the above mentioned bands.”*

**Situasjonen etter 7. CPG (februar 2023)**

* CEPT standpunktet er utvidet med tekst som sammenfaller med metode C2C i CPM-teksten.
* Draft ECP godkjent.

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| **Preliminary CEPT position**  CEPT supports the identification and definition of criteria, extensions, and additions of provisions in order to quantify the protection of GSO networks operating in the MSS from interference caused by non-GSO networks or systems operating in the same frequency bands 7250-7750 MHz (space-to-Earth), 7900-8025 MHz (Earth-to-space), 20.2-21.2 GHz (space-to-Earth) and 30-31 GHz (Earth-to-space) and in identical directions.  More specifically, CEPT supports:   * the modification of footnote RR No. 5.461 to exempt agreements under RR No. 9.21 regarding GSO networks in the MSS in the frequency bands 7250-7300 MHz and 7300-7375 MHz with respect to non-GSO systems for which complete coordination information are received by the Bureau after the last date of WRC-23 or the entry into force of final acts of WRC-23. * extend the provisions of RR No. 22.2 via an additional Article No. 22.2bis to GSO networks in the MSS in the concerned frequency bands.   Introducing new RR Appendix 4 data items for assignments to non-GSO systems in the abovementioned frequency bands to better facilitate analysis of potential interference for victim GSO networks. |

**Situasjonen etter 6. CPG (november 2022)**

* Ingen endringer i foreløpig CEPT standpunkt. Foreløpig CEPT standpunkt er høy-nivå, og det kreves mer arbeid for å kommer nærmere en konklusjon. PT B jobber videre med dette i deres neste møte.

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| **Preliminary CEPT position**  CEPT supports the identification and definition of criteria, extensions and additions of provisions in order to quantify the protection of GSO networks operating in the MSS from interference caused by non-GSO networks or systems operating in the same frequency bands 7250-7750 MHz (space-to-Earth), 7900-8025 MHz (Earth-to-space), 20.2-21.2 GHz (space-to-Earth) and 30-31 GHz (Earth-to-space) and in identical directions. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Space Norway ser ikke behovet for topic for å løse dette. De ønsker i utgangspunktet **NOC** for denne topic. Dette kan bli vanskelig innen CEPT da topic ble foreslått av CEPT administrasjoner.

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| **AI 7 – Topic C** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
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| **Foreløpig norsk standpunkt** | | |
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| Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2022-03-21** |
| ***Innspill på agendapunkt*** | |
| Foretrekker NOC, men kan akseptere CEPT-standpunktet. Kritisk til at det faktisk er behov for endringer i regelverket I båndet det er snakk om får MSS indirekte beskyttelse gjennom FSS (RR No. 22.2) allokeringen i det sammen frekvensbåndet. Problemet er egentlig knyttet til det i det svake koordineringskravet for system meldt inn med API «not subject to coordination». Dette burde vært adressert gjennom en oppstramming av koordineringskravet knyttet til API. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellite (TS) opererer ikke i disse frekvensbåndene i dag og mener at de enkleste ville være å utvide Art 22 til å inkludere fekvensbåndene nevnt i dette agendapunktet, og å unngå kompliserte regler for beskyttelse av MSS og MMSS i frekvensbåndene 7 250-7 750 MHz (space-to-Earth), 7 900-8 025 MHz (Earth-to-space), 20.2-21.2 GHz (space-to-Earth) og 30-31 GHz (Earth-to-space). | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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## AI7 – Topic D1: Modifications to Appendix 1 to Annex 4 of AP 30B

*“Correcting the aggregate C/I calculation in Appendix 1 to Annex 4 of RR Appendix* ***30B*** *based on the coordination arc reductions decided at WRC-19.”*

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt. CPM tekst inneholder kun et forslag til løsning, så det virker være enighet om dette.

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| **Preliminary CEPT position** |
| CEPT supports correcting the values of the coordination arc in the aggregate C/I calculation in Appendix 1 to Annex 4 of RR Appendix 30B based on the coordination arc reductions decided at WRC-19. |

**Situasjonen etter 6. CPG (november 2022)**

* Ingen endringer i foreløpig CEPT standpunkt. CPM tekst inneholder kun et forslag til løsning, så det virker være enighet om dette.

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| **Preliminary CEPT position** |
| CEPT supports correcting the values of the coordination arc in the aggregate C/I calculation in Appendix 1 to Annex 4 of RR Appendix 30B based on the coordination arc reductions decided at WRC-19. |

**NORWRC-23 #2 (18. oktober 2022)**

* Dette er en samle topic for ukontroversielle outeglemmelser fra fra tidligere konferanser.

**NORWRC-23 #1 (23. mars 2022)**

* Telenor Satellite poengterte at dette i praksis er en inkure fra forrige konferanse, som bør kunne fikses opp i uten store diskusjoner.

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| **AI 7 – Topic D1** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Norge anser dette topic å være en uteglemmelse fra WRC-19, som bør kunne fikses opp i uten store diskusjoner. | | |
| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft ECP: |
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**Innspill fra aktører**

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| **Telenor Satellite** | **Dato:2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellite (TS) er helt på linje med CEPT posisjonen, ser på dette som helt ukontroversielt. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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## AI7 – Topic D2: New AP 4 parameters for Rec. S.1503 updates

*“To include additional parameters in RR Appendix 4 as required by the proposed revision to Recommendation ITU-R S.1503.”*

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt.

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| **Preliminary CEPT position** |
| * CEPT supports making modifications to Appendix 4 in consequence to the update to Recommendation ITU-R S.1503. * CEPT acknowledges the existence of other methods that could allow administrations to provide the additional parameters required by updates to Recommendation ITU-R S.1503, e.g. by defining new fields in the.xml file that describes a non-GSO system operating parameters. |

**Situasjonen etter 6. CPG (november 2022)**

* Nytt Topic siden forrige møte. Foreløpig CEPT standpunkt etablert. Regnes som et ukontroversielt Topic, og det var enighet i WP 4A.

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| **Preliminary CEPT position** |
| * CEPT supports making modifications to Appendix 4 in consequence to the update to Recommendation ITU-R S.1503. * CEPT acknowledges the existence of other methods that could allow administrations to provide the additional parameters required by updates to Recommendation ITU-R S.1503, e.g. by defining new fields in the.xml file that describes a non-GSO system operating parameters. |

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| **AI 7 – Topic D2** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
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| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway kan støtte CEPT-standpunktet. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

## AI7 – Topic D3: BR reminders for BIU and BBIU

*“To add reminders for confirming the bringing into use or bringing back into use of a satellite network or system under Nos.* ***11.44B****,* ***11.44C****,* ***11.44D*** *and* ***11.44E****.”*

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt.

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| **Preliminary CEPT position** |
| CEPT supports to establish reminders for confirming the bringing into use or bringing back into use of a satellite network or system under Nos. 11.44B, 11.44C, 11.44D and 11.44E. |

**Situasjonen etter 6. CPG (november 2022)**

* Nytt Topic siden forrige møte. Foreløpig CEPT standpunkt etablert. Regnes som et ukontroversielt Topic, og det var enighet i WP 4A.

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| **Preliminary CEPT position** |
| CEPT supports to establish reminders for confirming the bringing into use or bringing back into use of a satellite network or system under Nos. 11.44B, 11.44C, 11.44D and 11.44E. |

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| **AI 7 – Topic D2** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
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| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft ECP: |
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**Innspill fra aktører**

## AI7 – Topic E: Improved procedures under AP 30B for new ITU member States

*“To study the possibility to grant new ITU Member States the same privilege as those granted to administrations having no assignments in the Appendix* ***30B*** *List, or under coordination, as adopted in Resolution* ***170 (WRC-19)****.”*

Muligheter for nye medlemsland å få en allotment i Appendix 30B.

**Situasjonen etter 7. CPG (februar 2023)**

* CEPT standpunkt oppdatert med henvisning til muligheten nye medlemsland har til å legge til nye allotment under artikkel 7 i Appendix 30B.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| * CEPT supports to grant new ITU Member States the same conditions as those granted to administrations having no assignments in the Appendix 30B List, or assignments listed under 6.1, as adopted in Resolution 170 (WRC-19), in addition to the procedure for the addition of a new allotment to the Plan for a new Member State of the Union, already contained in Article 7 of Appendix 30B of the RR.CEPT supports that a comprehensive understanding of the interference scenarios for new ITU Member States can be achieved through additional technical analysis. * CEPT encourage new ITU Member States and the resulting affected administrations to actively undertake and cooperate in coordination discussions to resolve any interference cases in addition to consider RR changes. |

**Situasjonen etter 6. CPG (november 2022)**

* Noen justeringer av foreløpig CEPT standpunkt for dette Topic. Kun av editoriell karakter.
* PTB kom ikke til enighet om et mer detaljert foreløpig CEPT standpunkt. Det etterlyses bidrag inn til PTB for å komme videre med Topic E.

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| **Preliminary CEPT position** |
| * CEPT supports the possibility to grant new ITU Member States the same conditions as those granted to administrations having no assignments in the Appendix 30B List, or assignments listed under 6.1, as adopted in Resolution 170 (WRC-19). * CEPT supports that a comprehensive understanding of the interference scenarios for new ITU Member States can be achieved through additional technical analysis. * CEPT encourage new ITU Member States and the resulting affected administrations to actively undertake and cooperate in coordination discussions to resolve any interference cases in addition to consider RR changes. |

**NORWRC-23 #2 (18. oktober 2022)**

* Uenigheter innenfor CEPT.
* CEPT er enige om at det skal være mulig for nye land å komme inn i planen.
* Uenighet om hvordan dette skal løses og hvor mye arbeide som må til fra andre land.

**NORWRC-23 #1 (23. mars 2022)**

* Innen CEPT har ikke Serbia en allokering i Appendix 30B.
* Vanskelige diskusjoner både i CEPT og ITU.

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| **AI 7 – Topic E** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
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| **Foreløpig norsk standpunkt** | | |
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| Draft ECP: |
| TBA |

**Innspill fra aktører**

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellite (TS) har to satellitter (Thor 5 og Thor 6) som opererer i frekvensbånd som er regulert av RR AP30B og mener selvfølgelig at nye ITU land skal ha samme rettigheter som andre som ikke har en allokering i AP30B. Dette er et vanskelig agendapunkt som sannsynligvis ikke kan løses generisk, hvert nye ITU land må sees på individuelt så en ikke gir bedre vilkår for disse i forhold til eksisterende. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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## AI7 – Topic F: Excluding uplink service area in AP 30A for R1&3 and AP 30B

*“To study excluding the territory of an administration from the feederlink/uplink service area of satellite networks in RR Appendix* ***30A*** *for Regions 1 and 3, and in RR Appendix* ***30B****.”*

**Situasjonen etter 7. CPG (februar 2023)**

* Små endringer i ordlyden i CEPT standpunkt.
* Liten feil i draft ECP som ble rettet, men denne finnes også i draft CPM tekst. Frankrike tok på seg å rette dette med et input dokument til CPM23-2.

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| **Preliminary CEPT position** |
| * Considering high level of completed coordination in Resolution 559 (WRC-19) between administrations, CEPT supports bilateral coordination solutions or national licensing conditions to address potential encountered problems on a case-by-case basis. * As alternative solution, CEPT supports developing specific measures, to avoid creating obstacles to establish satellite networks by other countries over their territories considering implementable regulatory and technical solutions that will not unduly restrict operations of other satellite networks, in particular satellite networks already in operation. * CEPT notes that, as an example, aligning the coverage area with the service area is not always technically feasible. * CEPT supports developing specific measures fully protecting current or future operations, taking into account the required roll-off of the space station receive beam to address such operations. * CEPT encourages administrations involved in Resolution 559 (WRC-19) coordinations to make utmost efforts to communicate with requesting administrations and to timely reply in order to complete coordination. |

**Situasjonen etter 6. CPG (november 2022)**

* En del endringer i foreløpig CEPT standpunkt. Standpunktet er ikke klart når det kommer til hvilken methode og option i CPM tekst som støttes.

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| **Preliminary CEPT position** |
| * CEPT supports exploring if bilateral coordination solutions or national licensing conditions can address encountered problems on a case-by-case basis. * CEPT supports developing specific measures, if needed, to avoid creating obstacles to establish satellite networks by other countries over their territories considering implementable regulatory and technical solutions that will not unduly restrict operations of other satellite networks, in particular satellite networks already in operation. * CEPT notes that, as an example, aligning the coverage area with the service area is not always technically feasible. * CEPT supports developing specific measures taking into account the required roll-off of the space station receive beam to be fully protected. * CEPT encourages administrations involved in Resolution 559 (WRC-19) coordinations to make utmost efforts to communicate with requesting administrations and to timely reply in order to complete coordination. |

**NORWRC-23 #2 (18. oktober 2022)**

* Opprinnelig initiert av Japan.
* En del radikale ideer. Det går på hvordan man skal beskytte opplinken.
* Innmeldte opplinker kan blokkere for senere filinger.
* CEPT virker å være samkjørte.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 7 – Topic F** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
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| **Foreløpig norsk standpunkt** | | |
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| Draft ECP: |
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**Innspill fra aktører**

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellte (TS) mener dette må studeres nøye før vi eventuelt kan endre på gjeldene regelverk. Mener dette er noe som kan ordnes gjennom bilateral koordinering. Det er ikke en fordel for oss dersom dekningsområde (coverage area og service område (service area) skal være det samme, dette er umulig for alle allerede operative satellitter.  Dette er et av mange «planned bands» initiativ som er plukket opp av Afrika/Iran som kan skape uro og lange diskusjoner på WP 4A og senere WRC, så alle disse initiativene bør sees på i sammenheng. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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## AI7 – Topic G: Resolution 770 (WRC-19) GSO protection from single entry non-GSO in Q/V bands

*“To study the possibility of amending Resolution* ***770 (WRC-19)***  *(non-GSO interference in Q/V band, referenced in Art.* ***5*** *footnote* ***5.550C****).”*

**Situasjonen etter 7. CPG (februar 2023)**

* Noen justeringer av foreløpig CEPT standpunkt.

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| **Preliminary CEPT position** |
| * CEPT supports to amend Resolution 770 (WRC-19) by suppressing Annex 2 from Resolution 770 (WRC-19) and move it to a new ITU-R recommendation to be incorporated by reference in Resolution 770 (WRC-19). |

**Situasjonen etter 6. CPG (november 2022)**

* En del endringer i foreløpig CEPT standpunkt. Foreløpig CEPT standpunkt er i henhold til Method G3 i CPM tekst.

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| **Preliminary CEPT position** |
| * CEPT supports Method 3 of the draft CPM text in ITU-R WP 4A in which Annex 2 of Resolution 770 (WRC-19) is included in a ITU-R Recommendation. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill ut over CEPT standpunkt.

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| **AI 7 – New Topic** |  |  |
| **Prioritet fra norsk ståsted** | | **TBA** |
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| **Foreløpig norsk standpunkt** | | |
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| Draft ECP: |
| TBA |

**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway kan støtte CEPT-standpunktet. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellte (TS) støtter CEPT posisjonen | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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## AI7 – Topic H: Enhanced protection of AP 30/30A in Regions 1 and 3 and RR AP 30B

*“Enhanced protection of Appendices 30/30A in Region 1 and 3 and Appendix 30B: the implicit agreement” and “the EPM degradation tolerance”.”*

**Situasjonen etter 7. CPG (februar 2023)**

* En del endringer i foreløpig CEPT standpunkt.

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| **Preliminary CEPT position** |
| * CEPT notes that there are several Planned bands initiatives to be discussed at WRC-23. * CEPT generally supports the continued protection of Appendices 30/30A and Appendix 30B. * CEPT does not support to change the current provisions with regards to implicit agreement at WRC-23 but CEPT is willing to consider studying the implications of suppressing provisions with regards to implicit agreement. * CEPT does not support to reduce the EPM degradation tolerance in Appendices 30 and 30A without any valid technical studies supporting the reasoning behind such a modification. |

**Situasjonen etter 6. CPG (november 2022)**

* Nytt Topic. Foreløpig CEPT standpunkt er etablert. Det er to helt ulike regulatoriske løsninger bakt inn i et Topic.

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| **Preliminary CEPT position** |
| * CEPT supports to enhance the protection of Appendices 30 and 30A in Regions 1 & 3 and Appendix 30B for networks in the Plan and the List. * CEPT supports to replace the implicit agreement in case of no comments in due time of affected Regions 1 and 3 BSS Plan assignments or Appendix 30B allotments on an additional use/system, with a new regulatory solution allowing the administration of the additional use/system to operate until the national assignment/allotment is brought into use. * CEPT supports to not consider mutual interference between Regions 1 and 3 BSS Plan assignments or Appendix 30B allotments and additional use/system networks using this new regulatory solution, since they will not operate the same frequency range over the same area simultaneously. * CEPT does not support to reduce the EPM degradation tolerance in Appendices 30 and 30A without any technical studies supporting the reasoning behind such a modification. |

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| **AI 7 – Topic H** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
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| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft ECP: |
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**Innspill fra aktører**

## AI7 – Topic I: Special agreements under AP 30B

*“Study the possibility to initiate a new type of agreements in AP30B for national allotments subject to agreements under § 6.15 of RR AP30B to restore adequate overall aggregate C/I levels without changing the orbital position of the national allotment.”*

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt.

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| **Preliminary CEPT position** |
| * CEPT supports the development of a regulatory solution based on a specific agreement, on a voluntary basis, allowing an administration suffering from low reference protection margin for its national allotment in Appendix 30B due to agreements under § 6.15 to retrieve adequate reference protection margin. * CEPT supports the possibility to sign a specific agreement between an additional system and a national allotment in Appendix 30B permitting the additional system to cover the territory of the national allotment in Appendix 30B until the bringing into use of this national allotment in Appendix 30B. * CEPT supports the adaptation of the additional system operations to not create harmful interference and to fully protect the operations of the national allotment with which the specific agreement was signed. * CEPT encourages administrations for which § 6.15 of Appendix 30B has been applied with respect to a national allotment, to cooperate and consider signing such a specific agreement. |

**Situasjonen etter 6. CPG (november 2022)**

* Nytt Topic siden forrige møte. Foreløpig CEPT standpunkt etablert. Regnes som et ukontroversielt Topic, og det var enighet i WP 4A.

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| **Preliminary CEPT position** |
| * CEPT supports the development of a regulatory solution based on a specific agreement, on a voluntary basis, allowing an administration suffering from low reference protection margin for its national allotment in Appendix 30B due to agreements under § 6.15 to retrieve adequate reference protection margin. * CEPT supports the possibility to sign a specific agreement between an additional system and a national allotment in Appendix 30B permitting the additional system to cover the territory of the national allotment in Appendix 30B until the bringing into use of this national allotment in Appendix 30B. * CEPT supports the adaptation of the additional system operations to not create harmful interference and to fully protect the operations of the national allotment with which the specific agreement was signed. * CEPT encourages administrations for which § 6.15 of Appendix 30B has been applied with respect to a national allotment, to cooperate and consider signing such a specific agreement. |

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| **AI 7 – Topic I** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
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| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft ECP: |
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**Innspill fra aktører**

## AI7 – Topic J: MODs to Res 76 (Rev. WRC-15)

*“Resolution* ***76 (Rev. WRC-15)*** *contains aggregate EPFD limits for multiple non-GSO satellite systems to comply with for the protection of GSO satellite networks. It is necessary to revise Resolution* ***76 (Rev. WRC-15)*** *to encourage administrations to introduce the concept of consultation meetings having the duty of evaluating compliance with the aggregate EPFD limits, as well as to instruct the BR to participate and to publish the results of the meeting as appropriate.*

*Aspects such as the criteria for participation and terms of reference for such consultations need to be defined.*

*In relation to this, methods and technical procedures are under development in the ITU-R towards establishing one or more new Recommendations to be used during the consultations.”*

**Situasjonen etter 7. CPG (februar 2023)**

* Store endringer i CEPT standpunkt siden forrige møte.
* Ingen draft ECP enda.
* Draft CEPT brief viser til at CEPT foreløpig støtter metode J3 i draft CPM tekst.

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| **Preliminary CEPT position** |
| * CEPT supports the modification of Resolution 76 (Rev.WRC-15) to introduce the concept of “consultation process/meetings”; * CEPT supports that only those non-GSO systems for which appropriate Notification information under No. 11.2 of the Radio Regulations and for which submission of the information referred to in resolves 2, 3, 7 and/or 8, as applicable, of Resolution 35 (WRC-19) have been submitted should be considered to evaluate the aggregate epfd levels; * CEPT supports that only those GSO networks for which appropriate Notification information under No. 11.2 of the Radio Regulations and for which submission of the information referred to in No. 11.44B of the Radio Regulations has been submitted should be considered in the evaluation of the aggregate epfd levels; * CEPT supports that administrations notifying NGSO systems that meet the applicable criteria indicated above can participate in the consultation meetings; * CEPT also supports non-GSO systems for which appropriate notification information under No. 11.2 of the Radio Regulations has been submitted may participate in the consultation meetings; * CEPT supports that administrations notifying GSO networks that meet the applicable criteria indicated above can participate in the consultation meetings and make comments with respect to the results of the computations; * CEPT supports that a mechanism should be established to ensure that all administrations are given full visibility of the process; * CEPT supports that the ITU-R should develop Terms of Reference to regulate the first consultation meeting; * CEPT supports that the technical work, such as the methodology to be used to evaluate aggregate epfd limit compliance, as well as the methodology to adapt the operation of all non-GSO FSS systems operating co-frequency in frequency bands covered in Tables 1A to Table 1D that are taken into account to evaluate the aggregate epfd levels, should be developed by the ITU Radiocommunication Sector as a matter of urgency; * CEPT supports that any amendment to the relevant non-GSO FSS systems mentioned above shall not affect the regulatory status of the affected non-GSO systems, including following any modifications to their published characteristics; * CEPT supports that consultation meetings held under the amended Resolution 76 (WRC-15) shall not occur before the methodologies above are developed by the ITU-R and made available to the membership; * CEPT supports that those administrations participating in the consultation meetings should designate one administration that should communicate to the Bureau the results of any technical or operational amendment to the relevant non-GSO FSS systems following the application of the amended Resolution 76 (Rev.WRC-15); * CEPT does not support instructing the BR to develop aggregate epfd calculation tools. |

**Situasjonen etter 6. CPG (november 2022)**

* Nytt Topic siden forrige møte.

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| **Preliminary CEPT position** |
| * CEPT supports the modification of Resolution 76 (Rev.WRC-15) to introduce the concept of “consultation process/meetings” and to clarify the non-GSO systems which are eligible to participate in the consultation meetings. * CEPT supports that the technical work, such as methodologies to be used to evaluate aggregate EPFD limit compliance, as well as the process and procedures for the consultation meeting, should be addressed in separate relevant documents such as in a new ITU-R Recommendation, in line with invites 1, 2 and 3 of Resolution 76 (Rev. WRC-15). |

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| **AI 7 – Topic J** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
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| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway foretrekker ITU Method J5, men kan støtte CEPT-standpunktet (Method J3). I Space Norway mening krever dette punktet mer bearbeidelse noe som kan medføre at Topic J skyves til WRC-27. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

## AI7 – Topic K: MODs to Res. 553 (Rev. RWC-15)

*“Modifications to the Resolution* ***553 (Rev. WRC-15)*** *to allow for it to be applied for one network per administration at a given time and by administrations have a pending network under RR No. 9.6.”*

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt.

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| **Preliminary CEPT position** |
| * CEPT supports the possibility to apply the special procedure of Resolution 553 (Rev. WRC-15) again if the requesting administration fails to bring into use a network even if the special procedure of Resolution 553 (Rev. WRC-15) was previously requested. * CEPT supports the possibility to also apply the special procedure of Resolution 553 (Rev. WRC-15) once if the requesting administration has at maximum one network successfully examined under No. 9.34 and published under No. 9.38 for the frequency band 21.4-22 GHz and at the same orbital position(s) as the network to which the special procedure is to be applied. |

**Situasjonen etter 6. CPG (november 2022)**

* Nytt Topic siden forrige møte. Foreløpig CEPT standpunkt etablert. Regnes som et ukontroversielt Topic, og det var enighet i WP 4A.

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| **Preliminary CEPT position** |
| * CEPT supports the possibility to apply the special procedure of Resolution 553 (Rev. WRC-15) again if the requesting administration fails to bring into use a network even if the special procedure of Resolution 553 (Rev. WRC-15) was previously requested. * CEPT considers supporting the possibility to also apply the special procedure of Resolution 553 (Rev. WRC-15) once if the requesting administration has at maximum one network successfully examined under No. **9.34** and published under No. **9.38** for the frequency band 21.4-22 GHz and at the same orbital position(s) as the network to which the special procedure is to be applied. |

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| **AI 7 – Topic K** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
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| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og Draft ECP. | | |

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| Draft ECP: |
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**Innspill fra aktører**

## AI7 – UTGÅTT: Item CG#6 Task 1A

*“Resolution* ***769 (WRC-19)*** *invites the ITU-R:*

* *To carry out studies and develop, as a matter of urgency, a suitable methodology, considering a range of input values and assumptions, including both best and worst case, for calculating the aggregate interference produced by all non-GSO FSS and as appropriate non-GSO MSS systems operating or planning to operate in the frequency bands referred to above co-frequency with GSO FSS, GSO MSS and GSO BSS networks, which may be used to determine whether the systems are in compliance with the aggregate limits specified in No.* ***22.5M****;*
* *To carry out studies and develop, as a matter of urgency a methodology to validate supplemental GSO links;*
* *To study the selection and use of C/N objectives, and the necessity of specifying one or more C/N objective points at associated percentages of time, with regard to the GSO link performance;*
* *To report back to a future WRC, as appropriate, under Resolution* ***86 (Rev. WRC-07)****.”*

**Situasjonen etter 6. CPG (november 2022)**

* Under møtet i WP4A i mai 2022 ble det bestemt at studiene på dette emnet ikke var tilstrekkelige nok til å inkludere det som et eget topic under agendapunkt 7.

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen nye innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Space Norway har ingen direkte interesse i Topic, men regner med at metodikkene kan bli brukt i andre bånd senere. De følger derfor med på diskusjonene.

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| **AI 7 – Item CG#6 Task 1A** |  |  |
| **Prioritet fra norsk ståsted** | | **TBA** |
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| **Foreløpig norsk standpunkt** | | |
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| Draft ECP: |
| TBA |

**Innspill fra aktører**

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| **Space Norway** | **Dato: 2022-03-21** |
| ***Innspill på agendapunkt*** | |
| [AI7 – Item CG#6 Task 1A]: Støtter CEPT-standpunktet | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

## AI7 – UTGÅTT: Item CG#6 Task 3

*“WRC-19 invited the ITU-R to study the appropriateness of the equations contained in RR* ***No. 21.16.6*** *for large non-GSO satellite systems (e.g. those having more than 1000 satellites). The results of the studies can be considered by WRC-23 under the standing agenda item 7 if a Topic under this agenda item has been included in the CPM23 Report.*

*Article* ***21*** *contains a per-satellite reduction in the maximum pfd for non-GSO satellite constellations with more than 50 satellites at certain elevation angles, and specifies a function, X, in No.* ***21.16.6****, to scale downward the pfd per satellite for non-GSO FSS constellations with more than 50 satellites at certain elevation angles based on the total number, N, of satellites in these non-GSO satellite constellations. This scaling function was developed by WRC-2000 and considered no more than 840 satellites in the development of the equations.”*

* **Situasjonen etter 6. CPG (november 2022)**Artikkel 21 skaleringsfaktorligninger i 21.16.6 er ikke med i den endelige listen av topics under AI7 fra WP4A. CPG bestemte at dette derfor skulle ut av draft CEPT Brief på agendapunkt 7 på PTB-møtet i desember 2022.

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| **Preliminary CEPT position** |
| * CEPT considers that the current equations contained in RR No. 21.16.6, for the scaling function X, dependent on the number of satellites in the constellation, N, leads to inaccurate scaling calculations when applied to satellite constellations composed of a number of satellites greater than at least 288 satellites (with the final number of satellites still to be decided). * CEPT supports the development of adequate scaling factor for large non-GSO constellations, while ensuring the same level of protection to Fixed and Mobile Services as they have today. * Updates of the scaling factor equations should focus primarily on the maximum potential visibility of the non-GSO system’s space stations visible to any single point on the surface of the Earth. * CEPT supports that this item may only modify the X value, excluding any other part of the computation of the pfd limit in RR Table 21-4 for systems with the number of satellites greater than at least 288 (with the final number of satellites still to be decided). * CEPT supports that future treatment of non-GSO systems is consistent among non-GSO systems. * CEPT supports that changes to the X value do not create differences in terms of examination by the BR of the non-GSO systems, or affect the priority of the non-GSO systems, based on their filing date. * CEPT supports that the modification of RR No. 21.16.6 should be based on single-entry pfd per system. |

**NORWRC-23 #2 (18. oktober 2022)**

* Handler om hvordan man skal modelere de store LEO systemene.

**NORWRC-23 #1 (23. mars 2022)**

* Space Norway har ingen direkte interesser, men ser behovet for at noe gjøres.

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| **AI 7 – Item CG#6 Task 3** |  |  |
| **Prioritet fra norsk ståsted** | | **TBA** |
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| **Foreløpig norsk standpunkt** | | |
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| Draft ECP: |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2022-03-21** |
| ***Innspill på agendapunkt*** | |
| [AI7 – Item CG#6 Task 3]: Støtter CEPT-standpunktet | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Generelt så er agendapunkt 7 svært viktig for Norge å følge tett. Utfallet har ofte stor innvirkning på satellittbransjen. | |

# Agendapunkt 8 - fotnoter

*8 ​to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution* ***26 (Rev.WRC-19)***



**CEPT ansvar:** PT A

**ITU-R ansvar:** Utenfor CPM sitt ansvar

**Om agendapunktet**

Fast agendapunkt til WRC. For å oppnå mest mulig harmonisering er det ønskelig med minst mulig fotnoter i allokeringstabellen, artikkel 5. Alle land skal derfor vurdere å stryke sitt navn fra fotnotene som man står oppført under.

Det er et tilbakevendende problem at land også ønsker å legge seg til i fotnoter, eller ønsker å opprette helt nye fotnoter. CEPT har klare standpunkt rundt dette, og ønsker at agendapunktet kun skal omfatte sletting av navn fra fotnoter.

Fotnoter hvor Norge er nevnt direkte (ikke inkludert fotnoter hvor hele Region 1 er nevnt):

**5.96** In Germany, Armenia, Austria, Azerbaijan, Belarus, Croatia, Denmark, Estonia, the Russian Federation, Finland, Georgia, Hungary, Ireland, Iceland, Israel, Kazakhstan, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., the United Kingdom, Sweden, Switzerland, Tajikistan, Turkmenistan and Ukraine, administrations may allocate up to 200 kHz to their amateur service in the frequency bands 1 715-1 800 kHz and 1 850-2 000 kHz. However, when allocating the frequency bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile

services of other countries. The mean power of any amateur station shall not exceed 10 W. (WRC-15)

**5.161B** *Alternative allocation:* in Albania, Germany, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Cyprus, Vatican, Croatia, Denmark, Spain, Estonia, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malta, Moldova, Monaco, Montenegro, Norway, Uzbekistan, Netherlands, Portugal, Kyrgyzstan, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, Slovenia, Sweden, Switzerland, Turkey and Ukraine, the frequency band 42-42.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-19)

**5.162A** *Additional allocation:* in Germany, Austria, Belgium, Bosnia and Herzegovina, China, Vatican, Denmark, Spain, Estonia, the Russian Federation, Finland, France, Ireland, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Monaco, Montenegro, Norway, the Netherlands, Poland, Portugal, the Czech Rep., the United Kingdom, Serbia, Slovenia, Sweden and Switzerland the frequency band 46-68 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution **217 (WRC-97)**. (WRC-19)

**5.164** *Additional allocation:* in Albania, Algeria, Germany, Austria, Belgium, Bosnia and Herzegovina, Botswana, Bulgaria, Côte d'Ivoire, Croatia, Denmark, Spain, Estonia, Eswatini, Finland, France, Gabon, Greece, Hungary, Ireland, Israel, Italy, Jordan, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Malta, Morocco, Mauritania, Monaco, Montenegro, Nigeria, Norway, the Netherlands, Poland, Syrian Arab Republic, Slovakia,

Czech Rep., Romania, the United Kingdom, Serbia, Slovenia, Sweden, Switzerland, Chad, Togo, Tunisia and Turkey, the frequency band 47-68 MHz, in South Africa the frequency band 47-50 MHz, and in Latvia the frequency bands 48.5-56.5 MHz and 58-68 MHz, are also allocated to the land mobile service on a primary basis. However, stations of the land mobile service in the countries mentioned in connection with each frequency band referred to in this footnote shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations of countries other than those mentioned in connection with the frequency band. (WRC-19)

**5.211** Additional allocation: in Germany, Saudi Arabia, Austria, Bahrain, Belgium, Denmark, the United Arab Emirates, Spain, Finland, Greece, Guinea, Ireland, Israel, Kenya, Kuwait, Lebanon, Liechtenstein, Luxembourg, North Macedonia, Mali, Malta, Montenegro, Norway, the Netherlands, Qatar, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sweden, Switzerland, Tanzania, Tunisia and Turkey, the frequency band 138-144 MHz is also allocated to the maritime mobile and land mobile services on a primary basis. (WRC-19)

**5.221** Stations of the mobile-satellite service in the frequency band 148-149.9 MHz shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations in the following countries: Albania, Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brunei Darussalam, Bulgaria, Cameroon, China, Cyprus, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Croatia, Cuba, Denmark, Djibouti, Egypt, the United Arab Emirates, Eritrea, Spain, Estonia, Eswatini, Ethiopia, the Russian Federation, Finland, France, Gabon, Georgia, Ghana, Greece, Guinea, Guinea Bissau, Hungary, India, Iran (Islamic Republic of), Ireland, Iceland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Namibia, Norway, New Zealand, Oman, Uganda, Uzbekistan, Pakistan, Panama, Papua New Guinea, Paraguay, the Netherlands, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Kyrgyzstan, Dem. People’s Rep. of Korea, Slovakia, Romania, the United Kingdom, Senegal, Serbia, Sierra Leone, Singapore, Slovenia, Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Tanzania, Chad, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Viet Nam, Yemen, Zambia and Zimbabwe. (WRC-19)

**5.235** *Additional allocation:* in Germany, Austria, Belgium, Denmark, Spain, Finland, France, Israel, Italy, Liechtenstein, Malta, Monaco, Norway, the Netherlands, the United Kingdom, Sweden and Switzerland, the band 174-223 MHz is also allocated to the land mobile service on a primary basis. However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.

**5.274** *Alternative allocation:* in Denmark, Norway, Sweden and Chad, the bands 430-432 MHz and 438-440 MHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

**5.296** *Additional allocation:* in Albania, Germany, Angola, Saudi Arabia, Austria, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Vatican, Congo (Rep. of the), Côte d'Ivoire, Croatia, Denmark, Djibouti, Egypt, United Arab Emirates, Spain, Estonia, Eswatini, Finland, France, Gabon, Georgia, Ghana, Hungary, Iraq, Ireland, Iceland, Israel, Italy, Jordan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malawi, Mali, Malta, Morocco, Mauritius, Mauritania, Moldova, Monaco, Mozambique, Namibia, Niger, Nigeria, Norway, Oman, Uganda, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, the Czech Republic, Romania, the United Kingdom, Rwanda, San Marino, Serbia, Sudan, South Africa, Sweden, Switzerland, Tanzania, Chad, Togo, Tunisia, Turkey, Ukraine, Zambia and Zimbabwe, the frequency band 470-694 MHz is also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting and programme**-**making. Stations of the land mobile service in the countries listed in this footnote shall not cause harmful interference to existing or planned stations operating in accordance with the Table in countries other than those listed in this footnote. (WRC-19)

**5.331** *Additional allocation:* in Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Belarus, Belgium, Benin, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cameroon, China, Korea (Rep. of), Croatia, Denmark, Egypt, the United Arab Emirates, Estonia, the Russian Federation, Finland, France, Ghana, Greece, Guinea, Equatorial Guinea, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Jordan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Madagascar, Mali, Mauritania, Montenegro, Nigeria, Norway, Oman, Pakistan, the Kingdom of the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People’s Rep. of Korea, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sudan, South Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Thailand, Togo, Turkey, Venezuela and Viet Nam, the frequency band 1 215-1 300 MHz is also allocated to the radionavigation service on a primary basis. In Canada and the United States, the frequency band 1 240-1 300 MHz is also allocated to the radionavigation service, and use of the radionavigation service shall be limited to the aeronautical radionavigation service. (WRC-19)

**5.536B** In Algeria, Saudi Arabia, Austria, Bahrain, Belgium, Brazil, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Estonia, Finland, Hungary, India, Iran (Islamic Republic of), Iraq, Ireland, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People’s Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Slovenia, Sudan, Sweden, Tanzania, Turkey, Viet Nam and Zimbabwe, earth stations operating in the Earth exploration-satellite service in the frequency band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. Resolution **242 (WRC-19)** applies. (WRC-19)

**Situasjonen etter 7. CPG (februar 2023)**

* Ikke diskutert i møtet.
* Draft CEPT Brief fra forrige CPG-møtet fortsatt gjeldende versjon.

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| **Preliminary CEPT position** |
| Issue A – Deletion of country footnotes or country names from footnotes   * CEPT supports Administrations taking the initiative to review their footnotes and to propose the deletion of their country names or the deletion of country footnotes, if no longer required.   Issue B – Addition of country names into existing footnotes   * CEPT is of the view that this agenda item is not intended for adding country names into existing footnotes. * CEPT is of the view that Conferences may continue to deal with requests to add country names to existing footnotes on a case by case basis, subject to the principle that proposals for the addition of country names to existing footnotes can be considered but their acceptance is subject to the express condition that there are no objections from the affected countries.   Issue C – Addition of new country footnotes  CEPT is of the view that this agenda item is not intended for addition of new country footnotes and therefore proposals for the addition of new country footnotes which are not related to agenda items of this Conference should not be considered.  Issue D – Availability of proposals   * CEPT supports Administrations bringing their proposals on Agenda item 8 to the attention of other Administrations with a view to avoid any potential difficulties well before a WRC. * CEPT is of the view that the current practice on establishment of submission deadlines should be kept by the WRC-23 with regard to additional proposals for deletion of country names from footnotes and for addition of country names to existing footnotes.   Issue E – Possible revision of Resolution 26 (Rev. WRC-19)  CEPT supports retaining Resolution 26 (Rev. WRC-19). |

**Situasjonen etter 6. CPG (november 2022)**

* Det har ikke kommet noen innspill fra administrasjoner om at de ønskes fjernet fra noen fotnoter.
* Det er derfor ikke gjort noen endringer i Draft CEPT Brief.
* Draft CEPT Brief godkjent uten diskusjoner.

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| **Preliminary CEPT position** |
| Issue A – Deletion of country footnotes or country names from footnotes   * CEPT supports Administrations taking the initiative to review their footnotes and to propose the deletion of their country names or the deletion of country footnotes, if no longer required.   Issue B – Addition of country names into existing footnotes   * CEPT is of the view that this agenda item is not intended for adding country names into existing footnotes. * CEPT is of the view that Conferences may continue to deal with requests to add country names to existing footnotes on a case by case basis, subject to the principle that proposals for the addition of country names to existing footnotes can be considered but their acceptance is subject to the express condition that there are no objections from the affected countries.   Issue C – Addition of new country footnotes  CEPT is of the view that this agenda item is not intended for addition of new country footnotes and therefore proposals for the addition of new country footnotes which are not related to agenda items of this Conference should not be considered.  Issue D – Availability of proposals   * CEPT supports Administrations bringing their proposals on Agenda item 8 to the attention of other Administrations with a view to avoid any potential difficulties well before a WRC. * CEPT is of the view that the current practice on establishment of submission deadlines should be kept by the WRC-23 with regard to additional proposals for deletion of country names from footnotes and for addition of country names to existing footnotes.   Issue E – Possible revision of Resolution 26 (Rev. WRC-19)  CEPT supports retaining Resolution 26 (Rev. WRC-19). |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 8** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Det er ikke noen utestående diskusjoner eller vurderinger rundt fotnoter hvor Norge ekplisitt er nevnt.  Under forberedelsene til WRC-19 var det en del diskusjoner rundt No. **5.536B** og betydelsen av denne. CEPT land som Norge diskuterte med ønsket ikke å hastig melde seg ut av denne. Da dette er noe som må vurderes innad i et land, kan verdien av denne diskuteres. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
|  | TBA |

**Innspill fra aktører**

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-38 – B-41:  To encourage administrations listed in the footnotes to review Nos. 5.181, 5.197 and 5.259, as access to the frequency bands 74.8-75.2, 108-112 and 328.6-335.4 MHz by the mobile service is difficult and could create the potential for harmful interference to important radionavigation systems used by aircraft at final approach and landing as well as systems operating in the aeronautical mobile service in the frequency band 108-112 MHz.  To encourage administrations listed in the footnotes to review Nos. 5.201 and 5.202, as use by the AM(OR)S of the frequency bands 132-136 MHz and 136-137 MHz in some States may cause harmful interference to aeronautical safety communications.  To encourage administrations listed in the footnote to review No. 5.330 as access to the frequency band 1 215-1 300 MHz by the fixed and mobile services could potentially cause harmful interference to services used to support aircraft operations.  To encourage administrations listed in the footnote to review No. 5.352A as access to the frequency band 1 525-1 530 MHz by the fixed services could potentially constrain aeronautical use of this frequency band.  To encourage administrations listed in the footnote to review No. 5.355 as access to the frequency bands 1 540-1 559, 1 610.6-1613.8 and 1613.8-1 626.5 MHz by the fixed services could potentially constrain aeronautical use of these frequency bands.  To encourage administrations listed in the footnote to review No. 5.359 as access to the frequency bands 1 550-1 559, 1 610-1 645.5 and 1 646.5-1 660 MHz by the fixed services could potentially jeopardize aeronautical use of those frequency bands.  To encourage administrations listed in the footnote to review No. 5.439 to ensure the protection of the safety critical operation of radio altimeters and WAIC systems in the frequency band 4 200-4 400 MHz.  ICAO would encourage administrations to take appropriate actions under this agenda item to remove their country's name from these footnotes if no longer required. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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# Agendapunkt 9 – rapport fra direktøren i BR

*9 to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:*

*9.1 on the activities of the Radiocommunication Sector since WRC-19*

**Om agendapunktet**

Direktørens rapport for aktiviteter innen ITU-R siden WRC-19. Under dette agendapunktet kan konferansen bli enige om å legge *topics* som ikke krever endringer i RR Article 5 (*table of allocation*). Dette kan også være forstudier for noe som forventes å bli et agendapunkt for neste konferanse.

*Topics* under AI 9.1 får ikke foreslå endringer i *table og allocation* (RR Article 5).

Under WRC-19 diskusjoner rundt agendapunkter for neste konferanse, var det en enighet om at antall *topics* under AI 9.1 skulle holdes til et minimum. Konferansen foreslo tre *topics*, som er listet i ITU-R [Resolution **811 (WRC-19)**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0041PDFE.pdf). Dette er *topics* a, b og c under AI 9.1.

I tillegg til disse kom det opp et *topic* under CPM23-1 (direkte etterfulgt WRC-19), *topic* d. Dette er hentet fra MoM fra WRC-19 plenary, der man vedtok å instruere ITU-R til å studere et aspekt videre, basert på funn under WRC-19 AI 1.6, frem mot WRC-23.

De to neste temaene under AI 9.1 er etablert delvis av CPM23-1, basert på arbeid som er pålagt ITU-R i perioden frem mot WRC-23 gjennom *resolves to invite ITU-R* i Resolution og gjennom vedtak i WRC-19 plenary.

Siste tema, time scale, er løftet opp innen CEPT da det er forventet at det kommer til å bli diskusjoner rundt denne. Dette basert på at direktøren for BR skal rapportere status for beslutningen tatt under WRC-15 til WRC-23. Det er i midlertidig noe uenighet innen CEPT om dette temaet er relevant å jobbe med for CEPT.

Se underpunktene nedenfor.

## AI 9.1a – Sensorer for romvær

*a) In accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0022PDFE.pdf)* ***[657 (Rev.WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0022PDFE.pdf)****, review the results of studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations for space weather sensors with a view to describing appropriate recognition and protection in the Radio Regulations without placing additional constraints on incumbent services*

**CEPT ansvar:** PT A

**ITU-R ansvar:** WP 7C

**Om agendapunktet**

Identifisere, basert på eksisterende og eventuelt nye ITU-R studier rundt tekniske og operasjonelle karakteristikker, sensorer for romvær som har behov for beskyttelse gjennom passende reguleringer. Man skal også fastslå om passive sensorer for romvær skal inngå i applikasjoner under *Metaids* tjenesten. Om det konkluderes med at disse ikke skal inngå, foreslå en egnet radiokommunikasjonstjeneste.

Nødvendige delingsstudier med eksisterende systemer som opererer i frekvensbånd brukt av romværssensorer, for å foreslå mulige endringer i reguleringen som gir passive sensorer for romvær annerkjennelse i RR, uten at det legges ytterligere begrensninger på eksisterende tjenester.

Studere tekniske og operasjonelle karakteristikker for aktive sensorer for romvær, og foreta nødvendige delingsstudier med eksisterende systemer som opererer i de samme frekvensbåndene, med mål om å fastsette passende radiokommunikasjonstjeneste for disse sensorene.

**Situasjonen etter 7. CPG (februar 2023)**

* En hel del omskrivning av foreløpig CEPT standpunkt.
* En hel del ny tekst også i resten av dokumentet.
* Draft CEPT Brief godkjent uten diskusjon.
* PT A presenterte Draft ECP for første gang.
* Draft ECP godkjent uten diskusjon.

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| **Preliminary CEPT position** |
| CEPT supports that the following definition for space weather is included in Article 1, section VIII, of the Radio Regulations:  space weather: natural phenomena, mainly originating from solar activity and occurring beyond the major portion of Earth´s atmosphere that impact Earth’s environment and human activities.  CEPT also supports the:   * Designation of space weather observations (active and receive-only) as an application of the MetAids service, operated under a subset of this service called MetAids (space weather) through Article 4 as follows:  Space weather sensor systems, may operate under the meteorological aids service (space weather) allocations. * Draft New WRC Resolution on the importance of MetAids (space weather) service applications, in which the definitions of active and receive-only space weather sensors will be introduced.   In addition, CEPT supports the further processing of the related work under an agenda item of WRC-27 - see preliminary agenda item 2.6 in Resolution 812 (WRC-19), in order to study the appropriate protection of space weather in the priority frequency bands which will be defined for this purpose.  Finally, CEPT supports the development of ITU-R Recommendation(s) to provide the relevant protection criteria for receive-only and active space weather sensors. |

**Situasjonen etter 6. CPG (november 2022)**

* Et par små justeringer i foreløpig CEPT standpunkt.
* En hel del endringer i resten av dokumentet.
* Koordinator minnet gruppen på at CEPTs hensikt under dette agendapunktet for WRC-23 er å komme til enighet om en tjenestedefinisjon for MetAids (romvær) i Article 1 og Article 4 i RR, mens endring i Article 5 er målet for WRC -27.
* Draft CEPT Brief godkjent uten diskusjoner.
* PT A hadde startet arbeidet med å ta frem en Draft ECP, men denne var ikke klart for oversending til CPG.

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| **Preliminary CEPT position** |
| CEPT supports that the following definition for space weather is included in Article 1, section VIII, of the Radio Regulations:  space weather: information relating to the characteristics of natural phenomena occurring beyond the major portion of Earth´s atmosphere that impact Earth’s environment and human activities.  CEPT also supports the:   * Designation of space weather observations (active and receive-only) as an application of the MetAids service, operated under a subset of this service called MetAids (space weather); * Recognition in the Radio Regulations of specific usage through Article 4 (space weather sensors) in order to extend MetAids applications to space weather; * Identification of priority frequency bands used for providing data critical for space weather forecasting/warnings that will require protection.   In addition, CEPT supports the further processing of the related work under an agenda item of WRC-27 - see preliminary agenda item. 2.6 in Resolution 812 (WRC-19).  Finally, CEPT supports the development of ITU-R Recommendation(s) to provide the relevant protection criteria for receive-only and active space weather sensors. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* MET og NRS følger med på topic gjennom sine internasjonale samarbeidsgrupper.

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| **AI 9.1 topic a** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Støttes. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Romvær er felt med økende grad av viktighet og prioritet generelt og for Norge spesielt bl.a. på bakgrunn av vår geografiske beliggenhet. Norge har også allerede en aktiv rolle bl.a. gjennom sensor-nettverk og EISCAT-radar på Svalbard og i Tromsø. | |

**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that the Member States should support as a common policy approach:  • the recognition of space weather sensors at WRC 23 through an appropriate definition in the Radio Regulations (RR)  • identification of priority frequency bands used for providing data critical for space weather forecasting/warnings.  This recommendation is falling under *case b)*. | |

## AI 9.1b – Beskyttelse av RNSS i 1 240-1 300 MHz

*b)* ​​​​*R​eview of the amateur service and the amateur-satellite service allocations in the frequency band 1 240 1 300 MHz to determine if additional measures are required to ensure protection of the radionavigation-satellite (space-to-Earth) service operating in the same band in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0023PDFE.pdf)* ***[774 (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0023PDFE.pdf)***

**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5A

**Om agendapunktet**

Frekvensbåndet 1 240-1 300 MHz er allokert til amatørtjenester på sekundær basis i alle tre regioner. *Amateur-satellite service* (Earth-to-space) kan operere i 1 260-1 270 MHz, under No. **5.282**. 1 240-1 300 MHz er også allokert til *radionavigation-satellite service (RNSS)* (space-to-Earth) på primær basis i alle tre regioner.

Galileo E6, med senterfrekvens 1 278.75 MHz, er en av RNSS brukerne. Etter noen tilfeller av forstyrrelser inn i test-stasjonene for Galileo E6 var det stort press fra Kommisjonen om å få til et agendapunkt for WRC-23.

Under agendapunktet skal man kartlegge av de ulike systemene og applikasjonene som opererer under *amateur service* og *amateur-satellite service* allokeringen i 1 240-1 300 MHz.

Basert på denne kartleggingen, skal man studere mulige tekniske og operasjonelle tiltak for å sikre beskyttelse av RNSS (space-to-Earth) mottakere fra *amateur service* og *amateur-satellite service* i frekvensbåndet, uten å vurdere å fjerne den sekundære allokeringen for disse tjenestene.

CEPT har allerede startet et arbeid i WG SE (SE40) som studerer dette innen CEPT. PT C må samarbeide tett med SE40 for å dra nytte av dette arbeidet.

Allokering i RR rev. 2020:

| **Region 1** | **Region 2** | **Region 3** |
| --- | --- | --- |
| **1 240-1 300** | EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)  5.328B 5.329 5.329A  SPACE RESEARCH (active)  Amateur  5.282 5.330 5.331 5.332 5.335 5.335A | |

**5.328** The use of the band 960-1 215 MHz by the aeronautical radionavigation service is reserved on a worldwide basis for the operation and development of airborne electronic aids to air navigation and any directly associated groundbased facilities. (WRC-2000)

**5.329** Use of the radionavigation-satellite service in the frequency band 1 215-1 300 MHz shall be subject to the condition that no harmful interference is caused to, and no protection is claimed from, the radionavigation service authorized under No. **5.331**. Furthermore, the use of the radionavigation-satellite service in the frequency band 1 215-1 300 MHz shall be subject to the condition that no harmful interference is caused to the radiolocation service. No. **5.43** shall not apply in respect of the radiolocation service. Resolution **ssssssss** shall apply. (WRC-19)

**5.329A** Use of systems in the radionavigation-satellite service (space-to-space) operating in the bands 1 215-1 300 MHz and 1 559-1 610 MHz is not intended to provide safety service applications, and shall not impose any additional constraints on radionavigation-satellite service (space-to-Earth) systems or on other services operating in accordance with the Table of Frequency Allocations. (WRC-07)

**5.282** In the bands 435-438 MHz, 1 260-1 270 MHz, 2 400-2 450 MHz, 3 400-3 410 MHz (in Regions 2 and 3 only) and 5 650-5 670 MHz, the amateur-satellite service may operate subject to not causing harmful interference to other services operating in accordance with the Table (see No. **5.43**). Administrations authorizing such use shall ensure that any harmful interference caused by emissions from a station in the amateur-satellite service is immediately eliminated in accordance with the provisions of No. **25.11**. The use of the bands 1 260-1 270 MHz and 5 650-5 670 MHz by the amateur-satellite service is limited to the Earth-to-space direction.

**5.330** *Additional allocation:* **-> ikke relevant for Norge og CEPT**

**5.331** *Additional allocation:* in Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Belarus, Belgium, Benin, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cameroon, China, Korea (Rep. of), Croatia, Denmark, Egypt, the United Arab Emirates, Estonia, the Russian Federation, Finland, France, Ghana, Greece, Guinea, Equatorial Guinea, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Jordan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Madagascar, Mali, Mauritania, Montenegro, Nigeria, Norway, Oman, Pakistan, the Kingdom of the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People’s Rep. of Korea, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sudan, South Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Thailand, Togo, Turkey, Venezuela and Viet Nam, the frequency band 1 215-1 300 MHz is also allocated to the radionavigation service on a primary basis. In Canada and the United States, the frequency band 1 240-1 300 MHz is also allocated to the radionavigation service, and use of the radionavigation service shall be limited to the aeronautical radionavigation service. (WRC-19)

**5.332** In the band 1 215**-**1 260 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service, the radionavigation-satellite service and other services allocated on a primary basis. (WRC-2000)

**5.335** In Canada and the United States in the band 1 240-1 300 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause interference to, claim protection from, or otherwise impose constraints on operation or development of the aeronautical radionavigation service. (WRC-97)

**5.335A** In the band 1 260-1 300 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service and other services allocated by footnotes on a primary basis. (WRC-2000)

**Situasjonen etter 7. CPG (februar 2023)**

* Draft CEPT Brief godkjent uten diskusjoner.
* PTC fikk i oppdrag å starte arbeidet med draft ECP i kommende møte.

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| **Preliminary CEPT position** |
| * CEPT supports the protection of the RNSS * CEPT supports the development of a new ITU-R Recommendation based on the ITU-R Reports to provide guidance towards the implementation of technical and operational measures for the continued use of the frequency band 1 240-1 300 MHz by the Amateur and Amateur-satellite services in accordance with the RR in order to protect the RNSS. * CEPT supports that the above-mentioned measures to be applied on the use of secondary Amateur and Amateur-satellite services should be based on the results of co-existence studies and measurement campaigns. |

**Situasjonen etter 6. CPG (november 2022)**

* Kun en editoriell justering av foreløpig CEPT standpunkt.
* Mye ny tekst i resten av dokumentet.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| * CEPT supports the protection of the RNSS * CEPT supports the development of a new ITU-R Recommendation based on the ITU-R Reports to provide guidance towards the implementation of technical and operational measures for the continued use of the frequency band 1 240-1 300 MHz by the Amateur and Amateur-satellite services in accordance with the RR in order to protect the RNSS. * CEPT supports that above mentioned measures to be applied on the use of secondary Amateur and Amateur-satellite services, should be based on the results of co-existence studies and measurement campaigns. |

**NORWRC-23 #2 (18. oktober 2022)**

* WP 5A har møte I november. Der blir det nok en del diskusjoner rundt dette.
* Per i dag foreslås det en ITU-R Recommendation som sier noe om organiseringen av radioamatørbruken i båndet.

**NORWRC-23 #1 (23. mars 2022)**

* Arbeidet er delt mellom WP 4C og 5A i ITU. 4C skal ta frem studier, og 5A tiltak. Arbeidet har ikke hatt noen progress.
* NRRL kommer med innspill straks ITU kommer videre i arbeidet.
* NRS kommer med innspill.

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| **AI 9.1 topic b** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Norge anser diskusjonene som relevante, og følger disse. | | |
| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt. | | |

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| Draft CEPT Brief: | Draft ECP: |
|  | TBA |

**Innspill fra aktører**

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Agendapunktet og diskusjonene er relevante. Høy grad av tilgjengelighet og pålitelighet for RNSS / Galileo-systemet er kritisk. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Europas satellittnavigasjonssystem Galileo har stor betydning for Norge og norske interesser. Gjennom EØS-avtalen og samarbeidsavtale signert i 2010 deltar vi for alle praktiske formål i Galileo på lik linje med EU-landene. | |

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| **NRRL** | **Dato: 04.10.2022** |
| ***Innspill på agendapunkt*** | |
| NRRL støtter den foreløpige ITU CPM-rapporten selv om teksten nok bør kortes noe ned.  Når det gjelder den foreslåtte rekommandasjonen som skal gi veiledning til teleadministrasjonene om begrensninger i bruk av båndet for radioamatørene, har vi følgende kommentarer:   * Vi forutsetter at denne rekommandasjonen bare tas i bruk i de land der Galileos E6-tjenesten tas i bruk. * Vi ønsker å beholde tilgangen til 4 MHz øverst i båndet (1296 - 1300 MHz) med dagens effektnivå til eksisterende smalbåndsaktivitet og EME (Earth-Moon-Earth), siden det er der størsteparten av dagens aktivitet foregår. * Vi ønsker oss et lite segment (0,5 – 1 MHz) litt lenger nede i båndet til bruk for repeater inn- signaler. Det vil typisk være i 1290 -1292 området. Siden dette da er beregnet på repeater inn-signaler, kan vi nok greie oss med en lavere tillatt effekt * Norske radioamatører vil relativt greit klare seg med 2 MHz (1260 – 12 62 MHz) til satellitt-trafikk. * Vi støtter ønsket om å få beholde et 4 MHz segment i området 1254 – 1258 MHz til bredbåndsaktiviteter (mindre enn 1 MHz båndbredde) og til utforskning og fremtidige eksperimenter. Dette segmentet vil da også med litt ekstra innsats kunne erstatte behovet for repeater inn-frekvenser i 1290 – 1292 MHz. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-42 – B-43:  To ensure that ITU-R studies under Resolution 774 (WRC-19) address whether potential mitigation measures will impact the protection of aeronautical radar systems operating under the existing aeronautical radionavigation or radiolocation service allocations. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that the EU should support the establishment of technical conditions applicable to the secondary amateur service that provide adequate protection of the radionavigation satellite service, including various Galileo services (HAS, CAS and PRS) receivers, in the frequency band 1 260-1 300 MHz in an ITU-R Recommendation that should be used by all ITU Member States for ensuring the protection of GNSS.  This recommendation is falling under *case a).* | |

## AI 9.1c – IMT for FWA i FS bånd

*c)* ​​*Study the use of International Mobile Telecommunication system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0024PDFE.pdf)* ***[175 (WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0024PDFE.pdf)***

**CEPT ansvar:** PT A

**ITU-R ansvar:** WP 5A, WP 5C

**Om agendapunktet**

Studere bruken av IMT systemer for *fixed wireless broadband* i frekvensbånd allokert til FS på primær basis.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen endringer i foreløpig CEPT standpunkt.
* Noen små justeringer i teksten i resten av dokumentet.
* Draft CEPT Brief godkjent uten diskusjoner.
* ECP endelig godkjent i forrige CPG-møte.

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| **Preliminary CEPT position** |
| CEPT supports suppression of Resolution 175 (WRC-19) and opposes any other changes to the Radio Regulations in response to WRC-23 Agenda item 9.1, topic c including any draft new or revised Resolution on this topic, aligned with Alternative 2 of the draft CPM text.  CEPT is further of the view that:  the usage of IMT systems in the fixed service is not compliant with the Radio Regulations;  the work under this topic should focus on consideration of broadband fixed wireless access (BFWA) that use IMT technologies under the existing regulatory framework of the fixed service;  given the existing provisions of the Radio Regulations and taking a technology neutral approach there is no need to consider/study specific frequency bands under this topic;  BFWA that use IMT technologies as well as other technologies in the frequency bands allocated to the fixed service can be adequately addressed, if necessary, through an update of appropriate existing ITU-R Recommendations/Reports/Handbooks aligned with Approach 2 of the draft CPM text;  the development of new ITU-R Recommendations/Reports should only be considered, if necessary, based on the outcome of a review of existing ITU-R deliverables;  discussions on fixed wireless broadband applications that use IMT technologies, as any other technologies, should take place in ITU-R WPs 5A and 5C (not other ITU-R WPs) to avoid fragmentation of work and to ensure efficient working within ITU-R. |

**Situasjonen etter 6. CPG (november 2022)**

* Det er ikke enighet rundt dette agendapunktet i ITU-R, som forventet. Det er to alternativer i CPM-teksten:
  + Alternativ 1: Videre studier i neste periode. Tre nasjoner støtter dette.
  + Alternativ 2: **NOC** i RR. Ingen ny eller revidert ITU-R Resolution. Hovedvekten av landene støtter dette alternativer, inkludert CEPT.
* Irland fremmet et ønske om en presisering i foreløpig CEPT standpunkt. De ble bedt om å bringe dette inn som et bidrag inn til PTA.
* Draft CEPT Brief godkjent uten diskusjoner.
* Draft ECP var oppe til endelig godkjenning. ECP er en **NOC** ECP, og Resolution **175** foreslås undertrykt.
* **ECP endelig godkjent**, ingen stemte nei.

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| **Preliminary CEPT position** |
| CEPT supports suppression of Resolution 175 (WRC-19) and opposes any other changes to the Radio Regulations in response to WRC-23 Agenda item 9.1, topic c including any draft new or revised Resolution on this topic, aligned with Alternative 2 of the draft CPM text.  CEPT is further of the view that:  the usage of IMT systems in the fixed service is not compliant with the Radio Regulations;  the work under this topic should focus on consideration of broadband fixed wireless access (BFWA) that use IMT technologies under the existing regulatory framework of the fixed service;  given the existing provisions of the Radio Regulations and taking a technology neutral approach there is no need to consider/study specific frequency bands under this topic;  BFWA that use IMT technologies as well as other technologies in the frequency bands allocated to the fixed service can be adequately addressed, if necessary, through an update of appropriate existing ITU-R Recommendations/Reports/Handbooks aligned with Approach 2 of the draft CPM text;  the development of new ITU-R Recommendations/Reports should only be considered, if necessary, based on the outcome of a review of existing ITU-R deliverables;  discussions on fixed wireless broadband applications that use IMT technologies, as any other technologies, should take place in ITU-R WPs 5A and 5C (not other ITU-R WPs) to avoid fragmentation of work and to ensure efficient working within ITU-R. |

**NORWRC-23 #2 (18. oktober 2022)**

* Telenor Satellite gjentok bekymringen for at IMT bruk i FS-bånd, som ofte er delt med FSS, kan forstyrre FSS bruk. Flere av båndene nevnt i diskusjonene er nedlinksbånd for satellitt. Tidligere erfaringen med for eksempel WiMax viser at det er svært uheldig å kombinere nedlinksbånd fra satellitt med bakkebasert bruk i båndet. I Ku-båndet er det mange ikke-koordinerte jordstasjoner.
* Telia er positive til tanken å se på bruk av IMT teknologien til radiolinjer og FWA.
* Under PP-22 var det forslag om å referere Resolution **175** i tre ulike resulosjoner. Dette ble ikke vedtatt.

**NORWRC-23 #1 (23. mars 2022)**

* Telenor Satellite er bekymret for at IMT bruk i FS-bånd, som ofte er delt med FSS, kan forstyrre FSS bruk.
* NRS utrrykte bekymring for deres bruk i nabobånd.

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| **AI 9.1 topic c** |  |  |
| **Prioritet fra norsk ståsted** | | **MEDIUM** |
| Norge anser diskusjonene som interessante, og følger disse. | | |
| **Foreløpig norsk standpunkt** | | |
| Norge støtter foreløpig CEPT standpunkt og utkast til ECP, med **NOC** for dette agendapunktet, inkludert oppheving av Resolution **175 (WRC-19)**. | | |

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| Draft CEPT Brief: | **Endelig ECP:** |
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**Innspill fra aktører**

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| **Space Norway** | **Dato: 2022-03-21** |
| ***Innspill på agendapunkt*** | |
| Støtter CEPT-standpunktet | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Agendapunktet kan få alvorlige konsekvenser for FSS dersom begrepsbruken gjør at FS-allokeringer kan brukes til «IMT systems» | |

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| **Telia Company** | **22/03/2022** |
| ***Innspill på agendapunkt*** | |
| Telia Company supports further studies of using IMT technology for FWA. The results of such studies do not necessarily need to be incorporated in the Radio Regulations but could also form the basis for other ITU-R outputs such as Recommendations, Reports and Handbooks.  The use of IMT technology for FWA is foreseen play an important role in the future and only using the current mobile/IMT bands may not be sufficient. A solution could be to also use Fixed Service bands for such FWA applications based on IMT techniques. Further guidance on this issue can help to create an ecosystem for IMT equipment that could operate in FS-bands. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| En utfordring med dette agendapunktet er at det er åpent mhp. hvilke FS bånd som skal vurderes. Det er derfor en generell bekymring for beskyttelse av spesielt space science services (både in-band og nabobånd). | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Telenor Satellte (TS) mener dette agendapunktet kan være en stor trussel siden alle FS bånd er delt med FSS, tidligere studier har vist at FWA og FSS kan ikke kan sameksistere i samme frekvensområde. TS støtter CEPT posisjonen. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that the European Commission should include in its proposal to Council an EU position that supports the protection of EESS (passive) sensors operating in the frequency band 36-37 GHz from NGSO FSS systems operating in the band 37.5-38 GHz and the inclusion of relevant conditions (e.g. an unwanted emission limit) that would ensure such protection in the RR.  This recommendation is falling under *case a).* | |

## AI 9.1d – Beskyttelse av EESS (passive) i 36-37 GHz

*d)* ​*Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations (ref. [WRC-19 Doc. 573 (Minutes of the twelfth plenary meeting), Section 35.2, sub-section "Protection of EESS in the frequency band 36-37 GHz](https://www.itu.int/dms_pub/itu-r/md/16/wrc19/c/R16-WRC19-C-0573!!MSW-E.docx))*

Relevant tekst fra minutes: «*Under studies considered for WRC 19 agenda item 1.6, a preliminary study on the protection of EESS (passive) sensors operating in the 36-37 GHz was submitted to the ITU-R. This preliminary study indicated that it may be necessary to not exceed an out-of-band e.i.r.p of −34 dBW/100 MHz, for all angles greater than 71.4 degrees from nadir, for FSS non-GSO space stations operating in the frequency band 37.5-38 GHz. In addition, interference into the cold calibration channel of the EESS (passive) sensor operating in the frequency band 36-37 GHz has not been studied.*

*WRC 19 invites ITU-R to conduct further study of this topic and develop Recommendations and/or Reports, as appropriate, and Report back to WRC 23 to take action, if necessary.*

*Furthermore, WRC 19 agreed that modifications to Resolution* ***750 (Rev WRC-19)*** *should not be considered under these studies since the frequency band 36-37 GHz is not referenced in No.* ***5.340****.*»

**CEPT ansvar:** PT A

**ITU-R ansvar:** WP 7C

**Om agendapunktet**

Studere beskyttelseskriterier for EESS (passive) sensorer som opererer i 36-37 GHz fra FSS non-GSO satellitter som opererer i frekvensbåndet 37.5-38 GHz.

Ta frem ITU-R Recommendation og/eller Reports om dette ansees nødvendig.

**Situasjonen etter 7. CPG (februar 2023)**

* Noen endringer i foreløpig CEPT standpunkt
* En hel del ny tekst i resten av dokumentet.
* Draft CEPT Brief godkjent uten diskusjoner.
* PT A presenterte Draft ECP for første gang.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT supports the protection of EESS (passive) sensors operating in the frequency band 36-37 GHz from NGSO FSS systems operating in the band 37.5-38 GHz.   * CEPT supports an unwanted emission power limit of -31 dBW/100 MHz in the band 36-37 GHz for FSS non-GSO space stations operating at an apogee altitude above 407 km and below 2000 km in the frequency band 37.5-38 GHz for the protection of EESS (passive) cold calibration channels; * CEPT support the inclusion of that unwanted emission power limit in a new footnote of Article 5 of the Radio Regulation during WRC-23. |

**Situasjonen etter 6. CPG (november 2022)**

* Foreløpig CEPT standpunkt er justert til å kun inneholde en effektgrense, da det virker enighet om at man kan forenkle løsningen til kun en.
* Draft CEPT Brief godkjent uten diskusjoner.
* CPG gav PTA i oppgave å starte arbeidet med draft ECP.

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| **Preliminary CEPT position** |
| CEPT supports the protection of EESS (passive) sensors operating in the frequency band 36-37 GHz from NGSO FSS systems operating in the band 37.5-38 GHz. Specifically, CEPT supports an unwanted emission power limit of -29 dBW/100 MHz in the band 36-37 GHz for FSS non-GSO space stations operating in the frequency band 37.5-38 GHz with constellations of more than 1000 satellites for the protection of EESS (passive) measurements and cold calibration channels. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* NRS melder at ESA har høy prioritet på dette Topic. NRS støtter dette.

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| **AI 9.1 topic d** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

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| **Norsk Romsenter** | **Dato: 17.08.2022** |
| ***Innspill på agendapunkt*** | |
| Støttes.  36-37 GHz benyttes bl.a. av SENTINEL-3 og SENTINEL-3 NG samt flere planlagte Copernicus instrumenter. Det vil også benyttes for *Copernicus Imaging Microwave Radiometer* (CIMR) og potensielt for *Copernicus Polar Ice and Snow Topography Altimeter* (CRISTAL), | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Norge er en aktiv deltager i EUs Copernicus program. For Norge blir satellittene som skal se på is og hav, som CIMR og CRISTAL, spesielt viktige, | |

## AI 9.1 – Resolution 427 – Aeronautical provisions

*From Resolution* ***427 (WRC-19)*** *“Updating provisions related to aeronautical services in the*

*Radio Regulations – resolves to invite ITU-R states “to study the Articles, limited to Chapters*

*IV, V, VI and VIII of Volume I of the Radio Regulations and their associated Appendices, as*

*appropriate, in order to identify outdated aeronautical provisions with respect to ICAO*

*standards and recommended practices and to develop examples of regulatory texts for*

*updating these provisions, while ensuring that potential changes to such provisions will not*

*impact any other systems or services operating in accordance with the Radio Regulations”.*



**CEPT ansvar:** PT C

**ITU-R ansvar:** WP 5B

**Om agendapunktet**

Resolution 427 er ny fra WRC-19. Under CPM23-1 kom dette punktet opp da det krever studier under ITU-R. Det settes ikke krav om noen aksjon eller rapportering til WRC-23, derfor ligger ikke punkter under de andre *topics* under AI 9.1. Resultatet skal i midlertidig rapporteres i *Directors report* til WRC-23.

Studere artikler, begrenset til kapittel IV, V, VI og VIII i *Volume I* av RR, med tilhørende appendikser, for å lokalisere utdaterte aeronautiske bestemmelser med tanke på ICAO standarder og anbefalt praksis. Ta frem eksempler på regulatorisk tekst for disse utdaterte bestemmelsene, og samtidig sikre at foreslåtte endringer ikke påvirker andre systemer eller tjenester som opererer i henhold til RR.

**Situasjonen etter 7. CPG (februar 2023)**

* Ingen revidert Draft CEPT Brief fra PTC levert til CPG.
* PTC hadde tatt frem en draft ECP. Dette er en **NOC** ECP.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT proposes for WRC-23 no change to Chapters IV, V, VI and VIII of Volume I of the Radio Regulations. |

**Situasjonen etter 6. CPG (november 2022)**

* Ingen revidert Draft CEPT Brief fra PTC levert til CPG.

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| **Preliminary CEPT position** |
| CEPT proposes for WRC-23 no change to Chapters IV, V, VI and VIII of Volume I of the Radio Regulations. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 9.1 – Resolution 427** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
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**Innspill fra aktører**

## AI 9.1 – Article 21.5 for IMT

*From WRC-19 Document 550 – “ITU-R is invited to study, as a matter of urgency, the*

*applicability of the limit specified in No.* ***21.5*** *of the Radio Regulations to IMT stations, that*

*use an antenna that consists of an array of active elements, with a view to recommend ways*

*for its possible replacement or revision for such stations, as well as any necessary updates*

*to Table 21-2 related to terrestrial and space services sharing frequency bands.*

*Furthermore, the ITU-R is invited to study, as a matter of urgency, verification of No.* ***21.5***

*regarding the notification of IMT stations that use an antenna that consists of an array of*

*active elements, as appropriate.”*



**CEPT ansvar:** PT 1 med bidrag fra PT B

**ITU-R ansvar:** WP 5D

**Om agendapunktet**

Kom opp som et punkt fra Ad Hoc Group 4A (AI 1.13) under WRC-19. Under CPM23-1 kom dette punktet opp da det krever studier under ITU-R. Det settes ikke krav om noen aksjon eller rapportering til WRC-23, derfor ligger ikke punkter under de andre *topics* under AI 9.1. Resultatet skal i midlertidig rapporteres i *Directors report* til WRC-23.

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| **ARTICLE 21** – «Terrestrial and space services sharing frequency bands above 1 GHz»  Section II − Power limits for terrestrial stations  **21.5** 3) The power delivered by a transmitter to the antenna of a station in the fixed or mobile services shall not exceed +13 dBW in frequency bands between 1 GHz and 10 GHz, or +10 dBW in frequency bands above 10 GHz, except as cited in No. **21.5A**. (WRC-2000)  **21.5A** As an exception to the power levels given in No. **21.5**, the sharing environment within which the Earth exploration-satellite (passive) and space research (passive) services shall operate in the band 18.6-18.8 GHz is defined by the following limitations on the operation of the fixed service: the power of each RF carrier frequency delivered to the input of each antenna of a station in the fixed service in the band 18.6-18.8 GHz shall not exceed −3 dBW. (WRC-2000) |

Med aktive antennesystemer (AAS) endres den tradisjonelle tankegangen med effekt ut fra radio til antenne, og antenneforsterkning. For 26 GHz IMT forventes det å anvende AAS med en antennematrise. Totalt utstrålt effekt (TRP) må da måles over hele «antennekula».

ITU-R skal studere om begrensningen gitt i Article 21.5 også er anvendelig ved bruk av AAS i 26 GHz. Det skal også studeres hvordan man kan verifisere No. **21.5** for notifiserte IMT stasjoner som anvender aktive antenneelementer.

**Situasjonen etter 7. CPG (februar 2023)**

* PT1 Chairman rapporterte at det ikke hadde kommet inn noen bidrag til forrige PT1-møte.
* Draft CEPT Brief var derfor uforandret, og ikke oppe til godkjenning i CPG.
* PT1 fikk i oppgave å starte arbeidet med utarbeidelse av Draft ECP.

**Situasjonen etter 6. CPG (november 2022)**

* PT1 hadde fortsatt den vanskelige diskusjonen. De presenterte revidert Draft CEPT Brief, med en hel del endringer og ny tekst.
* Foreløpig CEPT standpunkt er helt omskrevet.
* De bad CPG kun å se på og godkjenne kapitlene 1 og 2.1.
* Sverige foreslo at man endrer frekvensbåndet 24.25-29.5 GHz tilbake til 24.45-27.5 GHz. Dette fordi det ikke er satellitt allokeringer i ytterkantene av allokeringen.
  + Tyskland kunne støtte dette.
  + Frankrike poengterte at man må ta inn det internasjonale aspektet. Det er andre allokeringer i andre deler av verden.
  + UK sa de kunne godta en endring av starten av båndet, men de stod fast på å beholde den øverste grensen.
  + Sverige godtok dette, men kommenterte at de kan komme tilbake til dette senere.
* En del diskusjoner rundt de ulike elementene i foreløpig CEPT standpunkt. Etter en del diskusjoner kom møtet til enighet om å godkjenne Draft CEPT Brief med noen små justeringer.

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| **Preliminary CEPT position** |
| Se Draft CEPT Brief. |

**NORWRC-23 #2 (18. oktober 2022)**

* Diskusjon med interesserte parter må finne sted.

**NORWRC-23 #1 (23. mars 2022)**

* Nkom kaller inn norske aktører til et møte for å diskutere aspekter inn mot norsk standpunkt. Telenor Satellite, Space Norway, Telia og MET ønsker å være med. NOR-DOC oppdateres med resultatet av diskusjoner.

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| **AI 9.1 – Article 21.5 for IMT** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
|  | TBA |

**Innspill fra aktører**

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| **Space Norway** | **Dato: 2022-03-21** |
| ***Innspill på agendapunkt*** | |
| Grenseverdier må defineres på en måte som ivaretar sameksistens med satellitt-tjenester i tilgrensende og overlappende frekvensbånd. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Lav | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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| **Telia Company** | **14/03/2023** |
| ***Innspill på agendapunkt*** | |
| Article 21.5 should not limit the use of mobile IMT more than what was agreed during WRC-19 when detailed studies on the protection of satellite services were conducted and formed the basis for the allocation decision.  The work should focus only on the immediate issue of how notifying stations in the 26 GHz band could be solved without any change in the Radio Regulations. The current power limits in Art.21.5 were developed for much smaller bandwidths and thus could not be used in conjunction with the reference bandwidths used for the WRC-19 AI1.13 studies. Telia Company believes that the usage of a TRP limit to protect the space receivers is a blunt instrument that would unduly restrict the terrestrial usage with AAS and, in some cases, not even guarantee improved protection of space receivers.  An alternative to the current discussed options to limit the emissions (single element or TRP), would be to introduce a carefully crafted vertical EIRP mask when AAS antennas are used. This would guarantee the protection of space receivers without unduly limiting the terrestrial services and at the same time give more flexibility for mobile operators to select the system configuration best serving the demand. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Medium/High | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| This agenda item has relevance to the use of 26 GHz band, which in Europe is identified as one of the pioneer bands for 5G. Unnecessary limitations restricting the 5G use should be avoided. | |

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| **Telenor Satellite** | **Dato: 2022-03-22** |
| ***Innspill på agendapunkt*** | |
| Dette er et meget kontroversielt agendapunkt og Telenor Satellte (TS) mener at en alltid på se på hensikten, og for Art 21.5 er det er å beskytte FSS. Derfor bør TRP (Total Radiated Power) gjelde når AAS(Active Antenna Systems) er tatt i bruk. PTB har ansvaret for å oppdatere tabellen i Art 21-2, og her mener TS at tabellen bør oppdateres og inkludere alle frekvensbånd som er delt mellom FSS/FS og IMT. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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**Andre innspill som påvirker Norge**

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| **RSPG opinion (RSPG22-040 FINAL)** | **Dato: 09.12.2022** |
| The RSPG recommends that the European Commission should include in its proposal to Council an EU position that supports an update of Article 21 to include technical conditions for the 24.45-29.5 GHz band to be fulfilled by IMT base stations using Active Antenna Systems (AAS) in order to enable protection of satellite receivers from cumulative interference from IMT base stations using active antennas.  This recommendation is falling under *case a)*. | |

## AI 9.1 – Resolution 655 – Time scale

*ITU-R Resolution* ***655 (WRC-15)*** *– «Definition of time scale and dissemination of time signals via radiocommunication systems».*

*«resolves*

*that until WRC-23, UTC as described in Recommendation ITU-R TF.460-6 shall continue to apply, and for most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT*

*instructs the Director of the Radiocommunication Bureau*

*2 to report on the progress of this Resolution to WRC-23»*



**CEPT ansvar:** PT A

**ITU-R ansvar:** WP 7A

**Om agendapunktet**

Selv om ikke ITU-R Resolution 655 er identifiser som et formelt agendapunkt eller et «annet» punkt under CPM23-1, så er det forventet at *Directors report* skal inneholde noe om dette. Enkelte CEPT administrasjoner har derfor foreslått å legge denne inn under CEPT arbeidet, da det er forventet at det kommer aktivitet rundt denne.

**Situasjonen etter 7. CPG (februar 2023)**

* PTA hadde besluttet å inkludere Resolution **655** arbeidet under AI 4, da det ser ut til at dette arbeidet kun ender opp med en revidert Resolution. Draft CEPT Brief for Resolution **655** er nå inne som Annex 2 i Draft CEPT Brief for AI 4.
* Når det gjelder revisjon av Resolution **655 (WRC-15)**, erkjente CPG at resolusjonen krever ytteligere oppdatering på grunn av den tidligere forventningen om at WRC-23 ville være i stand til å vurdere en endelig avgjørelse fra CGPM til BIPM. Imidlertid vil avgjørelsen om hvorvidt det skal fortsette å inkludere en toleranse for å justere sol- og atomtid, og i så fall hvor lenge denne praksisen skal brukes, tas ved neste CGPM i 2026.
* Draft ECP godkjent.

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| **Preliminary CEPT position** |
| CEPT recognises that:   * the general definition of the international reference time scale UTC is provided in Resolution 2 (2018) of the 26th General Conference on Weights and Measures (CGPM), whereas Resolution 4 (2022) of the 27th CGPM determines its future relation with respect to mean solar time UT1; * UTC is produced by BIPM and its definition is not a task of spectrum regulation; and * the cooperation between BIPM and the ITU-R is settled by their Memorandum of Understanding, signed in 2020.   CEPT will address necessary revisions and amendments regarding Resolution 655 (WRC-15). |

**Situasjonen etter 6. CPG (november 2022)**

* Ingen endringer i foreløpig CEPT standpunkt.
* Det er noe ny tekst i Background.
* Det ble stilt spørsmål med under hvilke agendapunkt dette skal diskuteres under WRC-23. Tyskland og Tsjekkia mente at dette burde diskuteres under AI 4. CPG Chairman var av oppfatningen at dette skal med i Directors report. Det ble ikke tatt noen aksjon rundt dette i møtet.

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| **Preliminary CEPT position** |
| CEPT recognises strictly that:   * the UTC is produced by BIPM and is not a task of spectrum regulation; and * the general definition of international reference time scale UTC is provided in Resolution 2 of the 26th General Conference on Weights and Measures; * UTC is addressed in RR 1.14, Resolution 655 (WRC-15) and Recommendation ITU-R TF.460-6. |

**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.
* Nkom tar kontakt med Justervesenet for å be om innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 9.1 – Resolution 655** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
| Norge prioriterer ikke dette agendapunktet, før eventuelle innspill fra norske aktører. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
| Se AI 4 |  |

**Innspill fra aktører**

## AI 9.2 – Uoverensstemmelser i RR

*9.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations; and (This agenda sub-item is strictly limited to the Report of the Director on any difficulties or inconsistencies encountered in the application of the Radio Regulations and the comments from administrations. Administrations are invited to inform the Director of the Radiocommunication Bureau of any difficulties or inconsistencies encountered in the Radio Regulations.)​*

**CEPT ansvar:** PT B

**ITU-R ansvar:** -

**Om agendapunktet**

Innsamling av informasjon om eventuelle vanskeligheter som man har støtt på i bruken av RR og forslag til hvordan man kan løse disse.

**Situasjonen etter 7. CPG (februar 2023)**

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| **Preliminary CEPT position** |
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**Situasjonen etter 6. CPG (november 2022)**

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| **Preliminary CEPT position** |
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**Situasjonen etter 5. CPG (april 2022)**

* Arbeidet starter på et senere tidspunkt.

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| **Preliminary CEPT position** |
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**Situasjonen etter 4. CPG (november 2021)**

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| **Preliminary CEPT position** |
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**NORWRC-23 #2 (18. oktober 2022)**

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 9.2** |  | |  |
| **Prioritet fra norsk ståsted** | | **TBA** | |
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| **Foreløpig norsk standpunkt** | | | |
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| Draft CEPT Brief: | Draft ECP: |
| TBA | TBA |

**Innspill fra aktører**

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| **Norsk Flygerforbund** | **Dato: 17.10.2022** |
| ***Innspill på agendapunkt*** | |
| Ref. ICAO State Letter E 3/5-21/37, B-44:  Participate in ITU-R studies to ensure any proposed changes to the Radio Regulations recommended in the Director’s Report to the WRC do not impact current or planned aeronautical systems or applications. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
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| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
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## AI 9.3 – Resolusjon 80

*9.3 on action in response to [Resolution 80 (Rev.WRC‑07)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000A0031PDFE.pdf)*

**CEPT ansvar:** PT B

**ITU-R ansvar:** -

**Om agendapunktet**

I samsvar med prinsipper nedlagt i §44 i Konstitusjonen skal man arbeide for effektiv utnyttelse av radiospektrumet og satellittbaneposisjoner.

**Situasjonen etter 7. CPG (februar 2023)**

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| **Preliminary CEPT position** |
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**Situasjonen etter 6. CPG (november 2022)**

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| **Preliminary CEPT position** |
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**Situasjonen etter 5. CPG (april 2022)**

* Arbeidet starter på et senere tidspunkt.

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| **Preliminary CEPT position** |
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**Situasjonen etter 4. CPG (november 2021)**

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| **Preliminary CEPT position** |
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**NORWRC-23 #2 (18. oktober 2022)**

* Ingen innspill.

**NORWRC-23 #1 (23. mars 2022)**

* Ingen innspill.

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| **AI 9.3** |  |  |
| **Prioritet fra norsk ståsted** | | **LAV** |
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| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
| TBA | TBA |

**Innspill fra aktører**

# Agendapunkt 10 – agenda for den neste konferansen, WRC-27

*10 to recommend to the Council items for inclusion in the agenda for the next WRC, and items for the preliminary agenda of future conferences, in accordance with Article 7 of the Convention and [Resolution](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0028PDFE.pdf)* ***[804 (Rev.WRC-​19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0028PDFE.pdf)***

**CEPT ansvar:** PT A

**ITU-R ansvar:** WRC

**Om agendapunktet**

Fast agendapunkt til WRC. WRC-23 skal sende en anbefaling til ITU Council om agendaen til WRC-27.

Foreløpig agenda for WRC-27 er satt under WRC-19 og finnes i [Resolution **812 (WRC-19)**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0028PDFE.pdf). Agendapunktene i denne Resolution blir en del av diskusjonene under AI 10.

Følgende foreløpige agendapunkter ble foreslått av CEPT: AI 2.1, 2.4, 2.5, 2.6, 2.11, 2.12.

**Situasjonen etter 7. CPG (februar 2023)**

* En hel del endringer i foreløpig CEPT standpunkt. Tre nye foreløpige agendapunkt støttes nå av CEPT.
* Møtet diskuterte foreslått agendapunkt “*MSS for narrowband systems within [1.5-5 GHz*]” og behovet for å inkludere operasjonelle vilkår i en draft new Resolution. Det var uenighet blant administrasjoner om detaljnivået. Enkelte ønsket ingen krav, mens andre uttrykte at de ikke kan støtte foreslåtte agendapunkt om det ikke stilles krav. PT A diskuterer dette videre, basert på eventuelle bidrag.
* Gjeldende mulig IMT-agendapunkt, så ble det foreslått at ingen kandidatbånd som kan sette kritisk myndighets- eller rombruk i fare, skal studeres for IMT-identifikasjon på WRC-27. Det ble videre bemerket at arbeidet i PTA er bidragsdrevet og at det ikke var kommet forslag rundt aktuelle bånd. Diskusjonen bør avsluttes dersom det ikke er kommer forslag inn til neste PT A-møte om akseptable frekvensbånd som skal studeres.
* Draft CEPT Brief godkjent.

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| **Preliminary CEPT position** |
| CEPT is developing position on preliminary Agenda items as included in Resolution 812 (WRC-19) as well as considering new Agenda items.  CEPT is currently supporting the following preliminary Agenda items:   * 2.1 Radiolocation service 275 - 700 GHz. Resolution 663 (WRC-19) to be modified * 2.2 Aeronautical and Maritime ESIM. Resolution 176 (WRC-19) to be modified to cover also NGSO and land ESIM * 2.4 PFD and EIRP limits for 71-76 GHz/81-86 GHz. Resolution 775 (WRC-19) to be modified * 2.6 Space weather sensors. Follow-up on Resolution 657 (WRC-19). * 2.11 EESS (Earth-to-space) 22.55-23.15 GHz. Resolution 664 (WRC-19) to be modified * 2.12 694-960 MHz removal of limitation of aeronautical mobile. Resolution 251 (WRC-19) to be modified.   In replacement of preliminary agenda item 2.5, CEPT is supporting the following proposals for new agenda items:   * Protection of the EESS (passive) in bands covered by RR No. 5.340 above 86 GHz * Protection of RAS above 76 GHz from active space services   In addition, CEPT is supporting the following proposal for a new agenda item:   * FSS (Earth-to-space) 51.4 -52.4 GHz for gateway earth stations NGSO. |

**Situasjonen etter 6. CPG (november 2022)**

* Foreløpig CEPT standpunkt er fortsatt tomt.
* En hel del ny tekst i resten av dokumentet.
* Åtte av de 13 foreløpige agendapunktene ble foreslått av CEPT under forrige konferanse. Man indikerer støtte for alle disse åtte i Draft CEPT Brief.
* Det er foreløpig to nye forslag for agendapunkter nevnt i dokumentet:
  + Protection of the EESS (passive) in bands covered by RR No. 5.340 above 86 GHz
  + IMT-2030 and beyond (IMT i spesifikke bånd i 7.125-24 GHz)
* For sistnevnte er det opp til bidragsytere å foreslå kandidatbånd.
* Når det gjelder foreslått agendapunkt 2.13, så ble dette diskutert. Det ser ut som om AI 1.18 for WRC-23 ikke kommer noen vei, og ender opp med **NOC**. Sveit og Tyskland stilte spørsmål med om det er behov for å endre teksten i Draft CEPT Brief som følge av dette. Enighet om noen små justeringer i teksten.
* AI 10 koordinator-team hadde tatt frem et forslag til et foreløpig CEPT standpunkt. I forslaget uttrykker CEPT støtte for de åtte foreløpige agendapunkter som CEPT foreslo til WRC-19.
* Møtet valgte å ta inn dette forslaget i Draft CEPT Brief, med et par mindre justeringer.
* Draft CEPT Breif godkjent.

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| **Preliminary CEPT position** |
| CEPT is developing position on preliminary Agenda items as included in Resolution 812 (WRC-19) as well as considering new Agenda items.  CEPT is currently supporting the following preliminary Agenda items :   * 2.1 Radiolocation service 275 - 700 GHz. Resolution 663 (WRC-19) to be modified * 2.2 Aeronautical and Maritime ESIM. Resolution 176 (WRC-19) to be modified to cover also NGSO * 2.4 PFD and EIRP limits for 71-76 GHz/81-86 GHz. Resolution 775 (WRC-19) to be modified * 2.5 Satellite services and passive services at 71-76 GHz/ 81-86 GHz. Resolution 776 (WRC-19) to be modified or new Resolutions to be developed to expand the scope of the agenda item. * 2.6 Space weather sensors. Follow-up on Resolution 657 (WRC-19). * 2.11 EESS (Earth-to-space) 22.55-23.15 GHz. Resolution 664 (WRC-19) to be modified * 2.12 694-960 MHz removal of limitation of aeronautical mobile. Resolution 251 (WRC-19) to be modified. |

**NORWRC-23 #2 (18. oktober 2022)**

* Mye diskusjoner internasjonalt rundt *planned bands* for satellitt. En del nasjoner som ikke har brukt sine allokeringer har begynt å komme på banen. Det kan komme agendapunkt for å gjøre en større jobb rundt dette. Se også COM5/3.
* Foreslått agendapunkt for IMT der man vil lete etter kanidatbånd i 7-24 GHz og i 92-300 GHz. Nevnte bånd er 7125-8500 MHz, 10,0-13,25 GHz, 13,3-15,3 GHz, 17,7-19,7 og GHz 21,2-23,6 GHz.
* 13,75-14 GHz for satellitt – se på muligheten for mindre antenner.
* MET kommer med standpunkt.

**NORWRC-23 #1 (23. mars 2022)**

* Space Norway har interesse i foreløpig agendapunkt 2.13 (MSS allokeringer for smalbåndig datainnsamling).

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| **AI 10** |  |  |
| **Prioritet fra norsk ståsted** | | **HØY** |
| Norge følger diskusjonene. | | |
| **Foreløpig norsk standpunkt** | | |
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| Draft CEPT Brief: | Draft ECP: |
|  | TBA |

**Innspill fra aktører**

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| **Space Norway** | **Dato: 2023-03-09** |
| ***Innspill på agendapunkt*** | |
| Space Norway støtter videreføring av foreløpig agendapunkt 2.13 for satellittbasert Internet of Things. Et slikt agendapunkt bør få en ny Resolusjon som ikke skaper de samme problemene som Resolusjon 248 har skapt for AI 1.18. Space Norway støtter at frekvensbåndene 1645.5-1646.5MHz, 1880-1920MHz og 2010-2025MHz identifiseres som kandidatbånd for studier under et slikt agendapunkt. Videre støtter Space Norway at en allokering for satellittbasert IoT underlegges et regulatorisk regime som sikrer lik adgang til frekvensene for alle, i henholdtil ITUs grunnprinsipper, og ikke baseres på et prinsipp om førstemann til mølla. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| Høy | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| Det er lite tilgang til frekvenser for operatører av nye og innovative IoT-liknende applikasjoner og kommunikasjonssystemer. Slike systemer og applikasjoner kan realiseres med små satellitter og på en kostnadseffektiv måte bidra til å dekke norske behov for smallbånds og lavrate datainnsamling. En MSS allokering for satellittbasert IoT som underlegges et regulatorisk regime som sikrer lik adgang til frekvensene for alle og ikke baseres på et prinsipp om førstemann til mølla vil kunne gi bedre tilgang til frekvenser til slike systemer. Space Norway har samarbeid med ESA med anskaffelse av satellitt for å støtte studier av frekvensbåndet 1500-5000 MHz med faktiske demonstrasjoner og målinger med satellitt i rommet. Satellitten skal opp Q1 2025. | |

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| **Telia Company** | **14/03/2023** |
| ***Innspill på agendapunkt*** | |
| Telia Company supports the inclusion of an agenda item for the consideration of additional IMT spectrum for WRC-27.  So far, the capacity demand has been continuously growing in mobile networks since their introduction. This is expected to continue as people and societies are increasingly relying on mobile and broadband connectivity. Even if mobile operators update their networks and refarm new technologies in existing bands, as they have done also so far, it may be expected that there will be demand for new spectrum also in future.  In particular, we consider spectrum in range 7-15 GHz should be studied for possible future IMT use. | |
| ***Forslag til Norsk prioriering av agendapunktet (Lav/Medium/Høy)*** | |
| High | |
| ***Argumentasjon for Norsk prioritering av agendapunktet*** | |
| It is important to support long-term development of IMT technologies and services to meet the society demands and to foster innovation and efficiency. New generations of IMT technology providing additional and more efficient solutions become available every ~10 years. The next one, IMT-2030 is being planned already and is expected to be available in around 2030. | |

# Ordliste

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| 3GPP | 3rd Generation Partnership Project |
| AIS | Automatic Identification System |
| AM(R)S | Aeronautical Mobile (Route) Service |
| AMS(R)S | Aeronautical Mobile Satellite (Route) Service |
| AMT | Aeronautical Mobile Telemetry |
| API | Advance Publication Information |
| APT | Asia Pacific Telecommunity |
| ARNS | Aeronautical Radio Navigation Service |
| ASM | Application Specific Message |
| BBiU | Bringing Back into Use |
| BiU | Bringing into Use |
| BR | ITU Radiocommunication Bureau |
| BS | Broadcasting Service |
| BSS | Broadcasting Satellite Service |
| CEPT | European Conference of Postal and Telecommunications Administrations |
| CGC | Complementary Ground Component |
| CNPC | Control and Non-Payload Communications |
| CPG | Conference Preparatory Group |
| CPM | Conference Preparatory Meeting |
| CTCSS | Continuous Tone Controlled Squelch System |
| DSC | Digital Selective Calling |
| DTT | Digital Terrestrial Television |
| ECP | European Common Proposal |
| EESS | Earth Exploration Satellite Service |
| ES | Earth Station |
| E-s | Earth-to-space |
| ESIM | Earth Stations In Motion |
| ESOMPs | Earth Stations On Mobile Platforms |
| ESV | Earth Stations onboard Vessels |
| EU | European Union |
| EVA | Extra-Vehicular Activity |
| FS | Fixed Service |
| FSS | Fixed Satellite Service |
| GADSS | Global Aeronautical Distress and Safety System |
| GE06 | Avtale for koordinering av digital kringkasting |
| GMDSS | Global Maritime Distress Safety System |
| HAPS | High Altitude Platforms |
| HDFSS | High Density FSS, ukoordinerte ES |
| HIBS | High-altitude platform stations as IMT base stations |
| IALA | International Association of Lighthouse Authorities |
| ICAO | International Civil Aviation Organization |
| IMO | International Maritime Organization |
| IMT | International Mobile Telecommunication |
| ITS | Intelligent Transport System |
| ITU | International Telecommunication Union |
| ITU-R | ITU Radicommunication sector |
| LMS | Land Mobile Service |
| MetSat | meteorological-satellite |
| MLS | Microwave Landing System |
| MMS | Maritime Mobile Service |
| MMSS | Maritime Mobile Satellite Service |
| MRNS | Maritime Radionavigation Service |
| MS | Mobile Service |
| MSS | Mobile Satellite Service |
| n-GSO | non-Geostationary Satellite Orbit |
| NJFA | NATO Joint Frequency Agreement |
| NOC | No Change |
| OOBE | Out-of-Band Emissions |
| PFD | Power Flux Density |
| PMSE | Programme Making and Special Events |
| PPDR | Public Protection and Disaster Relief |
| PT | Project Team |
| PT1 | ECC PT1 IMT Matters |
| RA | Radio Assembly |
| RAG | Radio Advisery Group |
| RAS | Radio Astronomy Service |
| RDS | Radio Determination Service |
| RFC | Request for Coordination |
| RLAN | Radio Local Area Network |
| RLS | Radio Location Service |
| RNS | Radio Navigation Service |
| RoP | Rules of Procedure |
| RR | Radio Regulations |
| RRB | Radio Regulations Board |
| SAR | Synthetic Aperture Radar |
| SAR | Search and Rescue |
| SC | Special Committee |
| SD | Samferdselsdepartementet |
| SDL | Supplementary Downlink |
| SG | Study Group |
| s-E | Space-to-Earth |
| SOS | Space Operation Service |
| SRS | Space Research Service |
| SST | Sea Surface Temprature |
| TT&C | Telemetry, tracking and command |
| UAS | Unmanned Aircraft System |
| UTC | Universal Coordinated Time |
| VDES | VHF Data Exchange System |
| WAIC | Wireless Avionics Intra-Communications |
| WAS | Wireless Access System |
| WP | Working Party |
| WP 4A | ITU arbeidsgruppe for effektiv bruk av FSS og BSS |
| WP 5B | ITU arbeidsgruppe for MMS, GMDSS, AMS, RLS, RDS |
| WP 5D | ITU arbeidsgruppe for IMT |
| WPT | Wireless Power Transmission |
| WRC | World Radiocommunication Conference |

# Anneks 1 – Offisielle møtereferater fra CPG møter

7. CPG – februar 2023



6. CPG – november 2022

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5. CPG – april 2022



4. CPG – november 2021  


# Anneks 2 – Mottatte forslag til norske standpunkt

|  |  |  |  |
| --- | --- | --- | --- |
| **Luftfartstilsynet** | **Jotron** | **Meteorologisk institutt** | |
| **Norsk Romsenter** | **Norsk Radio Relæ Liga** | **Norsk Flygerforbund** | |
| **Telenor** | **Space Norway** | **Q-Free** | |
| **Kystverket** | **Telia Company** | **Forsvaret** | |
| **Ericsson** | **NRK** | **ICE** | |
| **Telenor Kystradio** | **Statens Vegvesen** | | **NTV** |

# Anneks 4 – Standpunkt fra andre aktører

|  |  |  |
| --- | --- | --- |
| **RSPG Opinion - final** |  |  |

# Anneks 3 – CPM Report med Corrigendums

