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| **Radiocommunication Assembly (RA-15)Geneva, 26-30 October 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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|  | **Document 4/1003-E** |
| **26 August 2015** |
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| Radiocommunication Study Group 4 |
| satellite services |
| Questions assigned to Radiocommunication Study Group 4 |
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Attached please find the list of Questions assigned to Radiocommunication Study Group 4. The following extract from Resolution ITU-R 5-6 gives the definition of categories of Questions:

C: Conference-oriented Questions associated with work related to specific preparations for, and decisions of, world and regional radiocommunication conferences:

C1: very urgent and priority studies, required for the next World Radiocommunication Conference;

C2: urgent studies, expected to be required for other radiocommunication conferences.

S: Questions which are intended to respond to:

– matters referred to the Radiocommunication Assembly by the Plenipotentiary Conference, any other conference, the Council, the Radio Regulations Board;

– advances in radiocommunication technology or spectrum management;

– changes in radio usage or operation:

S1: urgent studies which are intended to be completed within two years;

S2: important studies, necessary for the development of radiocommunications;

S3: required studies, expected to facilitate the development of radiocommunications.

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| **NOC** = Maintained | **MOD** = Revised  | **SUP** = Deleted | **ADD** = New text | **UNA** = Undergoing approval |

QUESTIONS ASSIGNED TO radiocommunication STUDY GROUP 4

Satellite services

| Question ITU-R | Title | Status | Category | Proposed target date | Comments |
| --- | --- | --- | --- | --- | --- |
| [**42-1/4**](http://www.itu.int/pub/R-QUE-SG04.42)  | Characteristics of antennas at earth stations in the fixed-satellite service | NOC | (S1) | 2017 |  |
| [**46-3/4**](http://www.itu.int/pub/R-QUE-SG04.46)  | Preferred multiple-access characteristics in the fixed-satellite service | NOC | (S2) | 2019 |  |
| [**70-1/4**](http://www.itu.int/pub/R-QUE-SG04.70)  | Protection of the geostationary-satellite orbit against unacceptable interference from transmitting earth stations in the fixed-satellite service at frequencies above 15 GHz | NOC | (S3) | 2019 |  |
| [**73-2/4**](http://www.itu.int/pub/R-QUE-SG04.73)  | Availability and interruptions to traffic on digital paths in the fixed-satellite service | NOC | (S2) | 2019 |  |
| [**75-4/4**](http://www.itu.int/pub/R-QUE-SG04.75)  | Performance objectives of international digital transmission links in the fixed-satellite and mobile-satellite services | NOC | (S2) | 2019 |  |
| [**83-6/4**](http://www.itu.int/pub/R-QUE-SG04.83) | Efficient use of the radio spectrum and frequency sharing within the mobile-satellite service | NOC | (S1) | 2017 |  |
| [**84-4/4**](http://www.itu.int/pub/R-QUE-SG04.84)  | Use of non-geostationary-satellite orbits in mobile-satellite services | NOC | (S2) | 2019 |  |
| [**87-4/4**](http://www.itu.int/pub/R-QUE-SG04.87)  | Transmission characteristics for a mobile‑satellite communication system | NOC | (S2) | 2019 |  |
| [**88-1/4**](http://www.itu.int/pub/R-QUE-SG04.88) | Propagation and mobile earth station antenna characteristics for mobile-satellite services | NOC | (S3) | 2019 |  |
| [**91-1/4**](http://www.itu.int/pub/R-QUE-SG04.91)  | Technical and operating characteristics of the radiodetermination-satellite service | NOC | (S2) | 2019 |  |
| [**109-1/4**](http://www.itu.int/pub/R-QUE-SG04.109)  | Global Maritime Distress and Safety System requirements for mobile-satellite systems operating in the bands 1 530-1 544 MHz and 1 626.5-1 645.5 MHz | NOC | (S1) | 2017 |  |
| [**110-1/4**](http://www.itu.int/pub/R-QUE-SG04.110)  | Interference to the aeronautical mobile-satellite (R) service | NOC | (S2) | 2019 |  |
| [**201-1/4**](http://www.itu.int/pub/R-QUE-SG04.201)  | Frequency sharing between mobile-satellite services and other services | NOC | (S2) | 2019 |  |
| [**203-1/4**](http://www.itu.int/pub/R-QUE-SG04.203)  | The impact of using small antennas on the efficient use of the geostationary-satellite orbit | NOC | (S2) | 2019 |  |
| [**205-1/4**](http://www.itu.int/pub/R-QUE-SG04.205)  | Frequency sharing between non-geostationary satellite feeder links in the fixed-satellite service used by the mobile-satellite service | NOC | (S2) | 2019 |  |
| [**208/4**](http://www.itu.int/pub/R-QUE-SG04.208)  | Use of statistical and stochastic methods in evaluation of interference between satellite networks in the fixed-satellite service | NOC | (S3) | 2019 |  |
| [**209/4**](http://www.itu.int/pub/R-QUE-SG04.209)  | The use of frequency bands allocated to the fixed-satellite service for both the up and down links of geostationary-satellite systems | NOC | (S2) | 2019 |  |
| [**210-1/4**](http://www.itu.int/pub/R-QUE-SG04.210)  | Technical characteristics for mobile earth stations operating with global non‑geostationary-satellite systems in the mobile-satellite service in the band 1‑3 GHz | NOC | (S1) | 2017 |  |
| [**211-2/4**](http://www.itu.int/pub/R-QUE-SG04.211)  | Interference criteria and calculation methods for the mobile-satellite service | NOC | (S2) | 2019 |  |
| [**214/4**](http://www.itu.int/pub/R-QUE-SG04.214)  | Technical implications of steerable and reconfigurable satellite beams | NOC | (S1) | 2017 |  |
| [**217-2/4**](http://www.itu.int/publ/R-QUE-SG04.217-2-2007/en) | Interference to the radionavigation-satellite service in the ICAO global navigation satellite system | NOC | (S1) | 2017 |  |
| [**218-1/4**](http://www.itu.int/pub/R-QUE-SG04.218)  | Compatibility between on-board processing satellites in the fixed-satellite service and terrestrial networks | NOC | (S2) | 2019 |  |
| [**227/4**](http://www.itu.int/pub/R-QUE-SG04.227)  | Technical and operational characteristics of emergency communications in the mobile‑satellite service | NOC | (S1) | 2017 |  |
| [**231/4**](http://www.itu.int/pub/R-QUE-SG04.231)  | Sharing between networks of the fixed-satellite service using non-geostationary satellites and other networks of the fixed-satellite service | NOC | (S2) | 2019 |  |
| [**233/4**](http://www.itu.int/pub/R-QUE-SG04.233)  | Dedicated user digital satellite communications systems and their associated architectures | NOC | (S2) | 2019 |  |
| [**236/4**](http://www.itu.int/pub/R-QUE-SG04.236)  | Interference criteria and calculation methods for the fixed-satellite service | NOC | (S2) | 2019 |  |
| [**244/4**](http://www.itu.int/pub/R-QUE-SG04.244)  | Sharing between feeder links of the mobile-satellite (non-geostationary) service in the band 5 091-5 250 MHz and the aeronautical radionavigation service in the band 5 000‑5 250 MHz | NOC | (S2) | 2019 |  |
| [**245-1/4**](http://www.itu.int/pub/R-QUE-SG04.245)  | Out-of-band and spurious emission limits | NOC | (S1) | 2017 |  |
| [**248/4**](http://www.itu.int/pub/R-QUE-SG04.248)  | Frequency sharing between systems in the fixed-satellite service and wireless digital networks around 5 GHz | NOC | (S3) | 2019 |  |
| [**263-1/4**](http://www.itu.int/pub/R-QUE-SG04.263)  | Performance objectives of digital links in the fixed-satellite service for transmission of Internet or higher layer Protocol packets | NOC | (S1) | 2017 |  |
| [**264/4**](http://www.itu.int/pub/R-QUE-SG04.264)  | Technical and operational characteristics of networks of the fixed-satellite service operating above 275 GHz | NOC | (S2) | 2019 |  |
| [**266/4**](http://www.itu.int/pub/R-QUE-SG04.266)  | Technical characteristics of high-density fixed‑satellite service earth stations operating with geostationary satellite orbit fixed-satellite service networks in the 20/30 GHz bands | NOC | (S2) | 2019 |  |
| [**267/4**](http://www.itu.int/pub/R-QUE-SG04.267)  | Technical and operational considerations relating to the advance publication, coordination and notification of fixed-satellite networks | NOC | (S2) | 2019 |  |
| [**268/4**](http://www.itu.int/pub/R-QUE-SG04.268)  | Development of methodologies for the assessment of satellite unwanted emission levels before launch | NOC | (S3) | 2019 |  |
| [**270-1/4**](http://www.itu.int/pub/R-QUE-SG04.270)  | Fixed-satellite service systems using very wideband spreading signals | NOC | (S2) | 2019 |  |
| [**271/4**](http://www.itu.int/pub/R-QUE-SG04.271)  | Interference between satellite news gathering (SNG) carriers by unintentional access | NOC | (S1) | 2017 |  |
| [**272/4**](http://www.itu.int/pub/R-QUE-SG04.272)  | Frequency sharing between the FSS and the space research service in the 37.5-38 GHz and 40-40.5 GHz bands | NOC | (S2) | 2019 |  |
| [**273/4**](http://www.itu.int/pub/R-QUE-SG04.273) | Support of the modernization of civil aviation telecommunication systems and the extension of telecommunication systems to remote and developing regions with current and planned satellite networks | NOC | (S1) | 2017 |  |
| [**274/4**](http://www.itu.int/pub/R-QUE-SG04.274) | Technical methods for improving the spectrum/orbit utilization | NOC | (S1) | 2017 |  |
| [**275/4**](http://www.itu.int/pub/R-QUE-SG04.275) | Performance objectives of digital links in the fixed-satellite and mobile-satellite services forming elements of the Next Generation Network | NOC | (S2) | 2019 |  |
| [**276/4**](http://www.itu.int/pub/R-QUE-SG04.276) | Availability of digital paths in mobile-satellite services | NOC | (S2) | 2019 |  |
| [**277/4**](http://www.itu.int/pub/R-QUE-SG04.277) | Performance objectives for digital mobile-satellite services | NOC | (S2) | 2019 |  |
| [**278/4**](http://www.itu.int/pub/R-QUE-SG04.278) | Use of operational facilities to meet power flux-density limitation under Article 21 of the Radio Regulations | NOC | (S1) | 2017 |  |
| [**279/4**](http://www.itu.int/pub/R-QUE-SG04.279) | Satellite broadcasting of high-definition television | NOC | (S1) | 2017 |  |
| [**280/4**](http://www.itu.int/pub/R-QUE-SG04.280) | Receiving earth station antennas for the broadcasting‑satellite service | NOC | (S1) | 2017 |  |
| [**281/4**](http://www.itu.int/pub/R-QUE-SG04.281) | Digital techniques in the broadcasting‑satellite service (sound and television) | NOC | (S1) | 2017 |  |
| [**282/4**](http://www.itu.int/pub/R-QUE-SG04.282) | Frequency sharing issues related to the introduction of the broadcasting-satellite service (sound) in the frequency range 1‑3 GHz | NOC | (S1) | 2017 |  |
| [**283/4**](http://www.itu.int/pub/R-QUE-SG04.283) | Sharing studies between high-definition television in the broadcasting-satellite service and other services | NOC | (S1) | 2017 |  |
| [**284/4**](http://www.itu.int/pub/R-QUE-SG04.284) | Spectrum management issues related to the introduction of the broadcasting-satellite service (sound) in the frequency range 1‑3 GHz | NOC | (S1) | 2017 |  |
| [**285/4**](http://www.itu.int/pub/R-QUE-SG04.285) | Digital broadcasting of multiple services and programmes in the broadcasting-satellite service | NOC | (S1) | 2017 |  |
| [**286/4**](http://www.itu.int/pub/R-QUE-SG04.286) | Contributions of the mobile and amateur services and associated satellite services to the improvement of disaster communications | NOC | (S2) | 2019 |  |
| [**287/4**](http://www.itu.int/pub/R-QUE-SG04.287) | Technical and operational characteristics for packet network transmission in mobile-satellite services | NOC | (S1) | 2017 |  |
| [**288/4**](http://www.itu.int/pub/R-QUE-SG04.288) | Characteristics and operational requirements of radionavigation-satellite service (space‑to‑Earth, space-to-space, Earth-to-space) systems | NOC | (S2) | 2019 |  |
| [**289/4**](http://www.itu.int/pub/R-QUE-SG04.289) | Interactive satellite broadcasting systems (television, sound and data) | NOC | (S1) | 2017 |  |
| [**290/4**](http://www.itu.int/pub/R-QUE-SG04.290) | Broadcasting-satellite means for public warning, disaster mitigation and relief | NOC | (S1) | 2017 |  |
| [**291/4**](http://www.itu.int/pub/R-QUE-SG04.291) | System architecture and performance aspects on integrated MSS systems | NOC | (S2) | 2019 |  |
| [**292/4**](http://www.itu.int/pub/R-QUE-SG04.292) | UHDTV satellite broadcasting systems | NOC | (S1) | 2017 |  |
| [**293/4**](http://www.itu.int/pub/R-QUE-SG04.293) | Antenna radiation diagrams/patterns for small (D/λ around 30) earth station antennas used in fixed-satellite and broadcasting-satellite systems | NOC | (S2) | 2019 |  |

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