



Radiocommunication Bureau (BR)

Administrative Circular
CACE/1099

12 January 2024

To Administrations of Member States of the ITU, Radiocommunication Sector Members, ITU-R Associates and ITU Academia participating in the work of the Radiocommunication Study Group 7

Subject: **Radiocommunication Study Group 7 (Science Services)**

- **Approval of 2 revised ITU-R Questions**
- **Suppression of 4 ITU-R Questions**

By Administrative Circular [CACE/1085](#) dated 26 October 2023, 2 draft revised ITU-R Questions were submitted for approval by correspondence in accordance with Resolution ITU-R [1-8](#) (§ A2.5.2.3). In addition, the Study Group proposed the suppression of 4 ITU-R Questions.

The conditions governing this procedure were met on 26 December 2023.

The texts of the approved Questions are attached for your reference in Annexes 1 and 2 and will be published by the ITU. The suppressed ITU-R Questions are indicated in Annex 3.

Mario Maniewicz
Director

Annexes: 3

Annex 1

QUESTION ITU-R 236-3/7*

The future of the UTC time scale

(2001-2014-2017-2023)

The ITU Radiocommunication Assembly,

considering

- a) that the ITU Radiocommunication Sector (ITU-R) is responsible for defining the standard frequency and time signal service (SFTS) and the standard frequency and time signal-satellite service (SFTSS) for the dissemination of time signals via radiocommunication;
- b) that the International Bureau of Weights and Measures (BIPM) is responsible for establishing and maintaining the second of the International System of Units (SI) and the reference time scale UTC with the SI second as its scale unit;
- c) that Resolution **655 (WRC-15)** invites the ITU Radiocommunication Sector and BIPM, along with other organizations, to cooperate in studies, dialogue, and reports to address issues identified in that Resolution concerning the definition of time scales and the dissemination of time signals via telecommunication systems;
- d) that Resolution 2 (2018) of the 26th General Conference on Weights and Measures (CGPM) provides the definition of UTC and confirms that UTC, produced by the BIPM, is the only recommended time scale for international reference and the basis of civil time in most countries (<https://www.bipm.org/en/committees/cg/cgpm/26-2018/resolution-2>);
- e) that Recommendation ITU-R TF.460-6 states that all standard-frequency and time-signal emissions should conform as closely as possible to UTC and describes the procedure for the occasional insertion of leap seconds into UTC to ensure that it does not differ by more than 0.9 second from the time determined from the rotation of the Earth (UT1),

noting

that signals carrying time information, used in practically all areas of human activities (i.e. telecommunications, industries, etc.), are disseminated both by wired communications, covered by Recommendations of the ITU Telecommunication Standardization Sector (ITU-T), and by systems of different radiocommunication services (space and terrestrial), including the standard frequency and time signal services for which ITU-R is responsible,

recognizing

- a) that in 2020 a Memorandum of Understanding was signed between the BIPM and the ITU outlining the scope of mutual cooperation (<https://www.bipm.org/en/-/2020-bipm-itu-mou>);

* This Question should be brought to the attention of the Bureau international des poids et mesures (BIPM), the International Earth Rotation and Reference Systems Service (IERS), the ITU-T Study Group 15 / Question 13 and the ITU-R Study Groups, and furthermore to the Institute of Electrical and Electronic Engineering (IEEE), and the Internet Engineering Task Force (IETF), both engaged in standardization of protocols for disseminating time information in wired systems.

b) that the CGPM adopted the Resolution 4 (2022) “On the use and future development of UTC” (<https://www.bipm.org/en/cgpm-2022/resolution-4>);

c) that the various aspects of current and potential future reference time scales, including their impacts and applications are covered by the Report [ITU-R TF.2511](#) (2022),

decides that the following Questions should be studied

1 What are the required accuracy and availability of the (UT1 – UTC) information in the time signals to be disseminated by radiocommunication and wired systems, in view of a future UTC with relaxed constraints on the magnitude of (UT1 – UTC)?

2 Which techniques and formats are most appropriate to disseminate the quantity (UT1 – UTC) with the required accuracy and availability?

further decides

1 that the results of the above studies should be included in ITU-R Recommendations and/or Reports;

2 that the above studies should be completed before 2027.

Category: S1

Annex 2

QUESTION ITU-R 256-1/7*

Space weather observations

(2015-2023)

The ITU Radiocommunication Assembly,

considering

- a) that space weather observations are becoming increasingly important in detecting solar activity events that could impact services critical to the economy, safety and security of administrations;
- b) that these observations are made from platforms that may be ground based, airborne, or space-based;
- c) that some of the sensors operate by receiving low level natural emissions of the Sun or the Earth's atmosphere, and therefore may suffer interference at levels which could be permissible for other radio systems,

noting

- a) that currently there is no definition for Space Weather in the ITU terminology;
- b) that the definition of Space Weather given by the World Meteorological Organization is as follows: "Space Weather encompasses the conditions and processes occurring in space, including on the sun, in the magnetosphere, ionosphere and thermosphere, which have the potential to affect the near-Earth environment";
- c) that the definition of space weather elaborated in Working Party (WP) 7C and agreed by ITU Coordination Committee for Terminology (ITU CCT), is as follows: "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";
- d) that considerations of possible radio communication service under which space weather observations could be performed were carried out in WP 7C, and, as a result of that, meteorological aids service was considered appropriate,
- e) that ITU-R performed technical and regulatory studies for space weather in Report ITU-R RS.2456-1,

decides that the following Questions should be studied

- 1 What is the radio service(s) applicable for space weather sensors?
- 2 Which parts of the existing frequency allocations in RR Article 5 are suitable for use by space weather observations?

* This Question should be brought to the attention of the World Meteorological Organization.

- 3 What are typical technical and operational characteristics of space weather sensors?
- 4 What protection would be necessary for the operation of these systems?

further decides

- 1 that the results of the above studies should be included in one or more ITU-R Recommendations and/or Reports as appropriate;
- 2 that the above studies should be completed by the year 2027.

Category: S2

Annex 3

Proposed suppression of ITU-R Questions

Question ITU-R	Title
152-2/7	Standard frequencies and time signals from satellites
238/7	Trusted time source for time stamp authority
239/7	Instrumentation time code
253/7	Relativistic effects in the transfer of time and frequency in the vicinity of the Earth and in the solar system
