(Thought leadership reflection)

*ii* ITU-R maintains the standard for International Morse code characters and operational provisions.

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## The International Amateur Radio Union and CCIR/ITU-R

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he International Amateur Radio Union, founded in 1925, is the global federation of national amateur radio associations with member-societies in 140 ITU Member States. The IARU was admitted to participation in the work of the International Radio Consultative Committee (CCIR) by the International Radiotelegraph Conference, Madrid, 1932.

It has been and continues to be a regular contributor to the CCIR and the ITU Radocommunication Sector (ITU-R) Study Groups and Working Parties on behalf of more than three million licensees of the amateur and amateur-satellite services throughout the world.

## A mutually beneficial relationship

The relationship is mutually beneficial. The amateur and amateur-satellite services offer, to private citizens who demonstrate their qualifications, the opportunity to intercommunicate and experiment with radio transmission to increase their personal knowledge and skills. Radio amateurs apply their skills in services to the public, notably by providing communications at no cost with their own equipment in the event of natural disasters. They share what they learn with one another and with the wider telecommunications community, in part through ITU-R Recommendations and Reports.

ITU-R Study Group 5 and Working Party 5A (WP-5A) are home to both the amateur and the amateur-satellite services. While this is a departure from the usual practice of assigning responsibility for satellite services to Study Group 4 it reflects the unique nature of amateur radio. The frequency allocations to the amateur and amateur-satellite service are made on a primary and secondary basis in a number of frequency bands throughout Article 5 of the Radio Regulations, the same classes of emission are used in both services, and most administrations grant privileges in both services to their amateur licensees. Recommendation ITU-R M.1732, "Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies," was developed and is kept up to date in WP-5A. The IARU also participates as appropriate in other Working Parties of Study Group 5.



## Radio amateurs – their concerns

While their experimental pursuits involve the use of advanced digital coding and signal processing techniques for recovering information from extremely weak signals, radio amateurs are also the largest group of regular users of the International Morse code. ITU-R maintains the standard for International Morse code characters and operational provisions, updating Recommendation **ITU-R M.1677** as recently in 2009 with the addition of "@" (the "commercial at" or "arobase" symbol) to the set of defined characters.

Unwanted radiations leading to interference, sometimes called spectrum pollution, is an area of growing concern to radio amateurs. The radio spectrum is an irreplaceable natural resource. Unintended and unnecessary radio frequency emissions from poorly maintained electric power lines and poorly designed electronic devices and systems can cause interference that degrades the capacity of the radio spectrum to support communication. The efforts of ITU-R Working Party 1A therefore are of vital importance to all radiocommunication services. As new technologies such as Wireless Power Transmission are developed it is essential that the highest possible priority is given to the development and implementation of standards to prevent radio spectrum pollution.

## Since the first amateur radio satellite

The first amateur radio satellite was launched in 1961, just four years after Sputnik 1. Since then, approximately 100 satellites built by and for radio amateurs have been placed in orbit. The amateur-satellite service provides a hands-on educational platform for university students who are the next generation of space communications engineers. However, increasing numbers of non-geostationary satellites with short duration missions that are inconsistent with the objectives of the amateur-satellite service are being proposed for operation in the limited amateur-satellite allocations. The IARU appreciates the efforts of Working Party 7B and other concerned WPs to identify more suitable spectrum for telemetry, tracking and command of these satellites at the World Radiocommunication Conference in 2019 (WRC-19), consistent with Resolution 659 (WRC-15).

The IARU congratulates the ITU-R Study Groups for continuing to build on the magnificent record of the CCIR in furthering the advancement of radiocommunication.