

UNITED STATES OF AMERICA

DRAFT PRELIMINARY VIEWS ON WRC-11

AGENDA ITEM 1.23: to consider an allocation of about 15 kHz in parts of the band 415-526.5 kHz to the amateur service on a secondary basis, taking into account the need to protect existing services

Formatted: English (U.S.)

ISSUE:

Whether to allocate spectrum on a secondary basis to the amateur service between 415-526 kHz, and, if so, to determine how to protect existing services in the band from harmful interference. The potential impacts to other users in the band should be examined, and whether the spectrum in the secondary allocation needs to be contiguous should be considered.

BACKGROUND:

The band 415-526.5 kHz is largely allocated to the maritime mobile and aeronautical radionavigation services with some variances in their allocations between the three ITU Regions. There is a common primary mobile service allocation across all three Regions in the band 495-505 kHz. In Region 2, the primary mobile service allocation extends to 510 kHz.

The band 495-505 kHz had previously been allocated to the mobile service for distress and calling.¹ WRC-07 retained the mobile allocation for the band 495-505 kHz, suppressed the designation pertaining to the distress and calling and added two footnotes: the first² limits the use of the band to radiotelegraphy, and the second³ requests that authorizations for use other than for the maritime mobile service ensure that no harmful interference is caused to this service.

¹Footnote 5.83 was suppressed at WRC-07:

5.83: The frequency 500 kHz is an international distress and calling frequency for Morse telegraphy. The conditions for its use are prescribed in Articles **31** and **52**, and in Appendix **13**.

²5.82A: The use of the band 495-505 kHz is limited to radiotelegraphy. (WRC-07)

³5.82B: Administrations authorizing the use of frequencies in the band 495-505 kHz by services other than the maritime mobile service shall ensure that no harmful interference is caused to the maritime mobile service in this band or to the services having allocations in the adjacent bands, noting in particular the conditions for use of the frequencies 490 kHz and 518 kHz, as prescribed in articles **31** and **52**. (WRC-07)

Formatted: English (U.S.)

Formatted: English (U.S.)

Formatted: English (U.S.)

The principal interest of the amateur radio service in this band lies in its unique propagation properties, which are different from those in the 135 kHz and 1800 kHz bands. For example, the band allows for propagation unaffected by ionospheric disturbances and sunspot cycle variations. This characteristic would prove invaluable in the continuing development by radio amateurs of dependable emergency communications. Moreover, new digital radiotelegraphy modes, such as PSK31, PSK63, and QSK63, represent opportunities to bring new technologies to frequencies whose communications capabilities have historically been defined by legacy communications technologies.

Worldwide, the amateur service successfully shares spectrum as a secondary user to the fixed service between 10.100 and 10.150 MHz. In some countries around the world, including the United States, amateurs utilize specific channels between 5.25 and 5.45 MHz as secondary users to the fixed and mobile services. The primary interference avoidance technique on these bands has been a listen-before-transmit protocol, supplemented by appropriate regulatory power limitations. These techniques have led to successful sharing arrangements, which should be replicable at or near 500 kHz.

Footnote 5.82B calls attention to the NAVTEX frequencies at 490 and 518 kHz. Given the safety aspect of NAVTEX transmissions, an amateur allocation should avoid these frequencies.

U.S. VIEW:

The United States supports a secondary allocation to the amateur service of up to 15 kHz, and ideally 15 kHz, in this band. The band segment 495-510 kHz is preferred. Protection to incumbent services shall be provided in accordance with footnote 5.82B.
