

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
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Amendment of Parts 2, 15, 80, 90, 97 and 101 of the Commission’s Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2012) (WRC-12), Other Allocation Issues, and Related Rule Updates)	ET Docket No. 15-99
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Reply by Donald B. Chester, K4KYV, to previous comments regarding Radio Buoys in the 1900-2000 kHz Band

To: The Commission

I have been licensed as an amateur radio operator since 1959, and have held the Amateur Extra Class since 1963. I have operated in the 1800-2000 kHz band for nearly my entire tenure as a licensed operator. I was pleased with the partial restoration of this band to exclusive amateur use in 1983 following the Implementation of the Final Acts of the World Administrative Radio Conference, Geneva, 1979. I applaud the Commission’s recent decision to reallocate the 1900-2000 kHz segment of this band to the amateur service on a primary basis, as had been proposed under ET Docket No. 12-338. However, I have serious misgivings about the pending proposal to permanently authorize heretofore illegal radio buoys located in the “open sea” to operate in the 1900-2000 kHz segment.

I concur with the comments submitted by Brian S. McDaniel and by the American Radio Relay League, that the distinction between “open sea” and “inland waters” is ambiguous. I also concur with these commenters that despite proposed power limitations, given the large number of existing and potential new beacons and the coverage area expected of a transmitter located over salt water, harmful interference to land-based amateur radio operation, already being reported at present, will substantially increase in the future if these beacons are made legal.

Mr McDaniel is correct in his assertion that extending legal status to these beacons would unwind Amateur Radio Service exclusivity in the United States and its territories, by allowing radio buoys to continue operating in spectrum they were never authorized to use in the first place. Furthermore, this would set a dangerous precedent, fundamentally undermining Commission's congressional mandate to create and enforce rules to govern orderly and disciplined use of the limited resource that is radio spectrum. By accepting "squatting" as a suitable tactic for spectrum allocation, the Commission has effectively surrendered its authority and declared that since these illegal stations are already here and their operation is arguably in the public interest, we have to let them continue. Mr McDaniel correctly described this situation as someone who covets radio spectrum being allowed to develop and deploy transmitters on the frequency band of their choice, and then, once their product has significant market penetration and use, the Commission accepting a petition to make their operation legal.

Both Mr McDaniel and the ARRL have suggested the obvious solution to the problem, to transition the Radio Buoys to Another MF Band. These beacons are clearly a form of radiolocation, which is defined as the process of using radio waves for finding the location of a distant object (as opposed to radionavigation, which is the process of actively determining one's own position). Under Proceeding 12-338, the Commission recently deleted the Radiolocation allocation from the 1900-2000 kHz band, therefore making it imperative to relocate these transmitters to the nearby frequency band that remains allocated to the Radiolocation service.

Per the ITU Table of Frequency Allocations, the MF band 1705-1800 kHz in Region 2 is allocated to Fixed, Mobile, Aeronautical Radionavigation, and Radiolocation. Until most of the radiolocation systems previously operating in the vicinity of 2 MHz were rendered obsolete by new technology such as the Global Positioning Satellite system, this band was packed solid with various forms of Radiolocation beacons. Several additional beacons shared the 1900-2000 kHz band with amateurs, at that time on a primary basis. Gradually, radiolocation signals disappeared from this portion of the MF spectrum. Now, it is rare to hear a radio signal of any kind in the 1715-1800 kHz segment, at least at this location. According to Mr McDaniel, with the exception of Travellers' Information Service at

1,710 kHz, a search of the Universal Licensing System indicates only one non-federal user in this entire band segment. Reserving 1705-1715 kHz to protect TIS stations would leave the entire frequency segment from 1715 to 1800 kHz available to accommodate existing and future radio buoy beacons.

Radio buoys would suffer far less interference operating in the now-vacant 1715-1800 kHz Radiolocation spectrum, than in the heavily used 1900-2000 kHz amateur band. Even though the buoy transmitters operate at low power, amateur radio operators, particularly those living in coastal areas, frequently complain of interference. Likewise, signals from high power amateur transmitters are undoubtedly capable of causing harmful interference to low power radio buoys.

I am not familiar with radio buoy transmitters beyond viewing a few internet advertisements for the products, but I suspect it would be very easy to move the transmit frequency, requiring only re-setting a synthesised master oscillator and tweaking the antenna tuning network. A technician could probably complete the task in a few minutes. Shifting the operating frequency of radio buoys from the 1900-2000 kHz band to 1715-1800 kHz should not be a major inconvenience to manufacturers or users, but instead, provide a significant benefit.

Per Paragraph 156 of the *notice*, the Commission seeks comments on alternative approaches that would accomplish its objective of allowing continued radio buoy use by the U.S. high seas fishing fleet. It would appear that the Commission has provided an answer to its own question in Footnote 347:

In the U.S. Table, the 1705-1800 kHz band is allocated, (among other things), to the radiolocation and mobile services on a primary basis for Federal and non-Federal use. We note that the upper 50 kilohertz of this band (1750-1800 kHz) is lightly used. It appears that all of the MF radio buoy transmitters currently being marketed are capable of operating in the 1750-1800 kHz band. For example, the marketing material for radio buoy model "KTUS-1L" (FCC ID No.XLTKTUS-1L) (for

which ITM is the grantee listed) states that “[o]ne frequency is transmitted between the ranges of 1605 to 4000 kHz (in USA, 1900-1999.9 kHz).” See http://www.blueoceantackle.com/radio_buoys.htm.

I wish to reiterate that it is not only the 1750-1800 kHz band, but the entire segment from 1715 kHz to 2000 kHz that is “lightly used”, to the point of being practically devoid of radio signals of any kind.

I therefore concur with Mr McDaniel and the American Radio Relay League that any new radio buoys should be transitioned to another MF band. I would further suggest that the entire 1715-1800 segment be considered for this re-accommodation, not just 1750-1800 kHz. I also concur with the ARRL that a sunset date for 1900-2000 kHz buoys should be established for those currently deployed.

Respectfully submitted for your consideration,

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Paper copies of these comments are forwarded to the following recipients:

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