

Mr. John Giusti
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

Dear Mr. Giusti:

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch agencies, has approved the release of an additional draft Executive Branch proposal for WRC-07. This proposal considers the federal agency inputs toward the development of U.S. Proposals for WRC-07.

The enclosed document contains a draft proposal, which addresses Agenda Item 7.2 and proposes to add an additional Agenda Item (2.XE) to the WRC-10 agenda. This proposal, which would revise Appendix **17** of the ITU Radio Regulations to accommodate Advanced Maritime HF Data Services, is forwarded for your consideration and review by your WRC-07 Advisory Committee. Jim Vorhies of my staff is the primary contact for NTIA.

Sincerely,

(Original Signed September 20, 2006)

Fredrick R. Wentland
Associate Administrator
Office of Spectrum Management

Enclosure

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Agenda Item 7.2: to recommend to the Council items for inclusion in the agenda of the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution **802 (WRC-03)**;

Revision of Appendix 17 of the Radio Regulations to Accommodate Advanced Maritime HF Data Services

Background Information: Ships have traditionally made extensive use of the HF bands for long distance safety and general communications using Morse telegraphy, radiotelex and speech. The introduction of the Global Maritime Distress and Safety System (GMDSS) removed the dependence on Morse telegraphy and introduced a standard radiotelex system, known as Narrow Band Direct Printing (NBDP), as a carriage requirement in SOLAS chapter IV together with the option of using Inmarsat satellite services (which do not operate in the Polar Regions – Sea Area A4).

NBDP is a rather technically limited system and is little supported by coast stations around the world. At WRC-03, Appendix **17** was modified by the addition of a new footnote (p) which permitted initial testing and possible future introduction in certain bands of new digital technologies. These new digital technologies are becoming widely used. Studies performed in 2004 reported that a typical HF data communication system had grown threefold over the previous five years to 5,000 ships and that the kilobit usage per ship per day had also tripled over the same period. One such system is currently using three hundred - 3 kHz duplex channels, 75% of which are Appendix **17** frequencies and the remaining 25% which are outside Appendix **17** and are shared frequencies. These shared frequencies are found in the gap of Appendix **17** frequencies between 8 and 12 MHz.

Resolution **351 (WRC-03)** resolves that there should be interoperable technologies implemented under Appendix **17** and the ITU-R is preparing recommendations on technical standards with assistance of IMO. Resolution **351 (WRC-03)** also resolves that necessary changes be considered for Appendix **17** to accommodate new HF services which are replacing Morse telegraphy, NBDP and speech, according to IMO COMSAR 10/16 Annex 7, Report to the Maritime Safety Committee, dated 27 March 2006.

IMO COMSAR 9 has concluded that NBDP is little used for general communications; however, it is still required for shore transmission of Maritime Safety Information (MSI) in Sea Area A4; that there was a requirement for ships to transmit weather observations and position reports in Sea Area A4 for which NBDP could be used (although other technologies could also be possible) and that due to the more robust propagation of NBDP compared to voice, NBDP could not immediately be discontinued in Sea Area A4 as a distress follow up communication. COMSAR 9 therefore concluded that the frequencies for GMDSS that are designated within Appendix **15** concerning NBDP should be retained for the foreseeable future.

Proposal:

USA/ /1 MOD

RESOLUTION 803 (WRC-~~03~~07)

Preliminary Agenda for the 2010 World Radiocommunication Conference

The World Radiocommunication Conference (Geneva, ~~2003~~2007),

USA/ /2 ADD

2.XE to consider the revision of Appendix **17** of the Radio Regulations, within the existing spectrum limits of Appendix **17**, to accommodate advanced maritime HF data services in accordance with Resolution **351 (WRC-07)**.

Reasons: Meet international maritime shipping need for advanced globally interoperable HF data services to enhance maritime efficiency and safety. This need is of particular importance in Sea Area A4 (Polar Regions). The implementation of advanced HF data systems will meet the IMO requirement for a Narrowband Direct Printing (NBDP) replacement standard.

USA/ /3 MOD

RESOLUTION 351 (WRC-07)

Review of the frequency and channel arrangements in the MF and HF bands allocated to the maritime mobile service with a view to improving efficiency by considering the use of new digital technology by the maritime mobile service

The World Radiocommunication Conference (Geneva, ~~2003~~2007),

considering

- a)* that the agenda of this Conference included consideration of the use of new digital technology in the maritime mobile service (MMS) in the MF and HF bands;
- b)* that the introduction of new digital technology in the MMS shall not disrupt the distress and safety communications in the MF and HF bands including those established by the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended;
- c)* that changes made in Appendix **17** should not prejudice the future use of these frequencies or the capabilities of systems or new applications required for use by the MMS;
- d)* that the need to use new digital technologies in the MMS is growing rapidly;

- e) that the use of new digital technology on HF and MF frequencies allocated to the MMS will make it possible to better respond to the emerging demand for new services;
- f) that the HF bands allocated to the MMS for A1A Morse telegraphy and narrow-band direct-printing are significantly under-utilized at present;
- g) that the International Maritime Organization (IMO) supports replacing general communication narrow-band-direct-printing (NBDP) with new HF data exchange technology capable of working Forward Error Correction NBDP;
- h) that the IMO supports the frequencies of Appendix 15, concerning NBDP, be retained for the foreseeable future;
- gj) that the ITU Radiocommunication Sector is conducting ongoing studies to improve the efficient use of these bands,

noting

- a) that different digital technologies have already been developed and are in use in the MF and HF bands in several radiocommunication services;
- b) that new maritime HF data transfer protocols have already been developed to replace general narrow-band-direct-printing communications using Appendix 17 frequencies,

noting also

~~that this conference has modified Appendix 17 to permit the use of various channels or bands identified in the MF and HF bands for the introduction of new digital technology,~~

resolves

- 1 that, in order to provide full worldwide interoperability of equipment on ships, there should be one technology, or more than one interoperable worldwide technology, implemented under Appendix 17;
- 2 ~~that, as soon as the ITU-R studies are completed, a future competent conference WRC-10 should consider necessary changes to Appendix 17 to enable the use of new technology by the MMS,~~

invites ITU-R

to finalize studies currently ongoing:

- to identify future requirements of the MMS;
- to identify the technical characteristics necessary to facilitate use of digital systems in the MF and HF bands allocated to the MMS, taking into account any relevant ITU-R Recommendations;
- to identify the digital system(s) to be used in the MF/HF bands by the MMS;
- to identify any necessary modifications to the frequency table contained within Appendix 17;

- to propose a timetable for the introduction of new digital technologies and any consequential changes to Appendix 17;
- to recommend how digital technologies can be introduced while ensuring compliance with distress and safety requirements,

instructs the Secretary-General

to bring this Resolution to the attention of the International Maritime Organization, the International Civil Aviation Organization, the International Association of Marine Aids to Navigation and Lighthouse Authorities and the Comité International Radio-Maritime.
