RECOMMENDATION ITU-R M.1080

**DIGITAL SELECTIVE CALLING SYSTEM ENHANCEMENT
FOR MULTIPLE EQUIPMENT INSTALLATIONS**

(Question ITU-R 9/8)

(1994)

The ITU Radiocommunication Assembly,

considering

a)   that Recommendation ITU-R M.493-5, § 5.2 has recommended that the X_{10} digit of the DSC address always be the figure 0 and is reserved for future use;

b)   that a need has arisen for multiple DSC radios to be installed on a single vessel;

c)   that various administrations only issue one MMSI according to Appendix 43 of the Radio Regulations to any vessel;

d)   that if only a single MMSI is assigned to a vessel with multiple DSC radios a conflict results when radios with the same MMSI all respond simultaneously;

e)   that the X_{10} digit in the DSC address be reserved for ship owners and installers to assign as required in accordance with this Recommendation for multiple installations on a vessel;

f)   that the capability in § e) allows for an additional level of selective calling within the vessel itself which solves the problem stated in § d);

g)   that the optional capability in § e) can be implemented in a manner that will not derogate the normal functioning of other DSC operations or create incompatibilities with older DSC equipment where this capability is not employed,

recommends

1.   that where there is a need for multiple installations of DSC equipment on a vessel, that they use equipment designed with an expanded address as defined in Annex 1.

ANNEX 1

**Technical characteristics of an enhancement of the digital
selective calling system address for multiple radio
equipment installations on the same vessel**

1.   General

1.1   All DSC sequences must utilize all technical characteristics as outlined in Recommendation ITU-R M.493 except as noted in this Annex.

1.2   Implementation of the expanded address is optional. The content of the last address digit shall be the number 0 if this Recommendation is not implemented. In such cases, this equipment has three possible ways to treat calls received with X_{10} not equal to zero. These are:

–   decode the tenth digit, ignoring that X_{10} has a non-zero value and acknowledge the call with the tenth digit set to the same non-zero value (this method will also comply with equipment designed in accordance with this Recommendation);

–   ignore the tenth digit and acknowledge the call with the tenth digit set to zero, the expected value. It should be noted that in this case the acknowledgement is routed to the primary installation aboard the vessel;

–   decode the tenth digit and since the tenth digit was expected to be set to zero, reject the call.

2.   Technical format of the enhanced address

2.1   In order to take advantage of this Recommendation, the X_{10} digit must be user programmable. The address of the DSC station shall be in accordance with § 5.2 of Recommendation ITU-R M.493 Annex 1 except for the following:

2.1.1   That the X_{10} digit be user programmable and the manufacturer shall set this digit to zero as a default for shipment.

2.1.2   That the X_{10} digit be used to differentiate various radio installations installed on the same vessel.

2.1.3   That the X_{10} always be set to zero on the primary radio installation, i.e. the radio installed at the position from which the ship is normally navigated.

2.1.4   That optionally, users can set the X_{10} to any number 1 to 9 for additional radio equipment installed on the same vessel for making routine calls. It should not be possible for the user to accidentally set the X_{10} digit to a non-zero value. This can be accomplished by prompts so that the user clearly understands that this action will change the tenth digit of the address.

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