SECTION 8D: RADIODETERMINATION, GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM AND RELATED SUBJECTS

REPORT 1167*

STUDY ON GENERAL QUESTIONS RELATING TO THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM

(Question 92/8)

(1990)

1 INTRODUCTION

1.1 With the introduction of long range maritime distress and safety communications as part of the Global Maritime Distress and Safety System, there is a need for satisfactory telecommunication links between Rescue Co-ordination Centres (RCCs) of different administrations to ensure proper co-ordination of search and rescue activities.

2 REQUIREMENTS FOR TELECOMMUNICATION SERVICES BETWEEN RCCs OF DIFFERENT ADMINISTRATIONS

2.1 In many countries RCCs have been provided which are equipped with very modern telecommunication facilities. However, this is not the case in all countries and any arrangements made will need to be able to cater for various levels of both technical facilities and training.

2.2 IMO has already addressed this matter to some extent and has prepared lists of the telecommunication facilities, including details of dialling codes etc., provided at RCCs throughout most of the world. These lists are under constant review and are revised as and when necessary. In addition, IMO is actively encouraging administrations in those parts of the world where SAR networks are sparse, to co-ordinate their efforts and collectively provide better facilities.

2.3 In parts of the world where shore-based telecommunication networks are limited, fixed radio networks should be used to maintain communications between RCCs. Provided at least one of the RCCs was also connected to an international telecommunication network, world-wide compatibility would be ensured.

2.4 In addition to any problems due to limited telecommunication facilities, language difficulties are also likely to occur in the transfer of information from an RCC in one country to its counterpart in another. It is particularly important that the initial information should be

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* The Director of the CCIR is requested to bring this report to the attention of the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO) and the CCITT.

understood clearly so that search and rescue actions are started with a minimum of delay.

2.5 In the initial stages of a distress incident the information which would, in some cases, need to be transferred from one RCC to another includes:

1 details of the ship in distress;

2 details of any communication links established with the ship;

3 future actions requested of the RCC receiving the information transfer.

2.6 To minimise language difficulties, the information should be transferred by means of simple codes arranged in a manner suitable for transmission by appropriate means. Annex I contains a proposed coding arrangement for further development.

3 FURTHER STUDIES

3.1 Further studies on this subject are needed, particularly concerning:

1 the telecommunication networks available in those parts of the world not currently provided with RCCs;

2 the technical characteristics of possible fixed radio networks between RCCs; and

3 the preferred message format and transmission technique for the transfer of initial search and rescue information between RCCs.

3.2 To minimise the duplication of work in different international bodies, these studies should be conducted in conjunction with CCITT, ICAO and IMO.

ANNEX I

PROPOSED CODING ARRANGEMENT FOR THE
TRANSFER OF INFORMATION FROM ONE RCC TO ANOTHER

1 Details of ship in distress

A - Identity of ship

B - Nationality of ship (using Maritime Identification Digits)

C - Position of ship in distress:

0 = position of ship is unknown.
1 = position of ship is..... (in latitude and longitude)

D - Time of position determination:

0 = time of position determination is unknown.
1 = time of position determination was..... (UTC)

E - Course of ship in distress:

0 = course of ship is unknown.
1 = course of ship was reported as.....degrees
2 = adrift (set ..... degrees)

F - Speed of ship in distress:

0 = speed of ship in distress is unknown.
1 = speed of ship was reported as.....knots
2 = adrift (drift ..... knots)

G - Reported nature of distress:

0 = unknown (undesignated EPIRB transmission)
1 = fire/explosion
2 = flooding
3 = collision
4 = grounding
5 = listing, in danger of capsizing
6 = sinking
7 = disabled and adrift
8 = undesignated (unspecified distress)
9 = abandoning ship

H - Homing frequency carried by ship in distress:

0 = no homing frequency carried
1 = 121.5 MHz
2 = 9 GHz SAR radar transponder
3 = other homing frequency,.....MHz

2 Communications with the ship in distress

I - Communications with the ship in distress are:

0 = not established
1 = direct to the ship
2 = relayed via another ship whose identity is.....

J - Method of modulation in use:

0 = no modulation in use
1 = radiotelephony in use
2 = radiotelex in use

K - The frequency band in use is:

0 = no frequency band is in use
1 = VHF
2 = MF
3 = HF, 4 MHz
4 = HF, 6 MHz
5 = HF, 8 MHz
6 = HF, 12 MHz
7 = HF, 16 MHz
8 = 1.6 GHz (INMARSAT)

3 Future actions requested of receiving RCC

L - You are requested to:

0 = take no further action, adequate resources seem to be available
1 = advise whether you are prepared to accept co-ordination of the search and rescue activities
2 = try to establish communication with the ship in distress.