



I M C O

COM/Circ. 7
30 January 1964



RADIOCOMMUNICATION REQUIREMENTS FOR
THE OCEAN DATA SERVICE OF THE
INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

1. The Intergovernmental Oceanographic Commission, being in need of radiocommunication facilities and frequency bands for the transmission of data for the Ocean Data Service, established a Working Group to study the subject. The result was a Recommendation prepared by the Working Group and adopted by the Bureau and Consultative Committee of the IOC. This Recommendation has now been forwarded to the International Frequency Registration Board for circulation and collection of comments. IMCO has, so far, reserved its position since the subject was under consideration by the Maritime Safety Committee (MSC VII/SR.5).
2. The Working Group recognized "that, as an interim procedure, without prejudice to the future use of the Maritime Mobile bands, one 3.5 kc/s band within each of the bands allocated exclusively to the Maritime Mobile Service between 4 and 23 Mc/s may be used by the Ocean Data Service on a secondary basis in accordance with No. 139 of the Radio Regulations" and recommended that the IFRB should be invited to circulate the Recommendation and collect comments. The subject will be considered further in the light of replies received. Certain countries participating in the Group

Chancery House,
Chancery Lane,
LONDON, W.C.2.

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objected to the operation of the Ocean Data Service in the Maritime Mobile bands and submitted their objections in writing to the IOC.

3. The IFRB has circulated the Recommendation to Member Governments of the International Telecommunication Union and invited their comments on it, requesting also suggestions for possible alternatives by 1 April 1964 at the latest.

4. The Maritime Safety Committee will be considering this subject at its eighth session in April. Any views of the Committee will be circulated to IMCO Members and communicated to the IFRB as the IMCO view with the suggestion that they should be taken into account, despite the fact that they have been made available after the date fixed by the IFRB.

5. The Maritime Administrations of Member Governments may wish to make their views known to their national telecommunications administrations when the latter are considering their replies to the IFRB.

6. Attached are copies of the Recommendation, circular letter No. 88 of IFRB and statements by those members of the Group who objected to the Recommendation. It is understood that the circular letter of IFRB may be subject to revision.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC
AND CULTURAL ORGANIZATION

Paris, 6 September 1963

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

Joint Meeting of Experts on Telecommunications,
Oceanography and Meteorology concerning Oceanographic
Radio Communication Requirements.
Paris, 2 - 6 September 1963

RECOMMENDATION

Requirements for radiocommunication facilities,
and associated frequency bands, formulated by
the Intergovernmental Oceanographic Commission (IOC).

The Joint Meeting of experts representing telecommunications,
oceanographic and meteorological national authorities,
Having studied the comments submitted by Members of the
International Telecommunication Union and interested Organizations,
Considering

- (a) that a need for radiocommunication facilities has been
established to accommodate the Ocean Data Service* which,

* For the purpose of this Recommendation, the following definitions
have been adopted:

Ocean Data Service; a service of radiocommunications for the
acquisition of data from ocean data stations.

Ocean Data Telecommand Station; a station in the ocean data
service intended to telecommand ocean data stations.

Ocean Data Station; a station in the ocean data service intended
for the automatic transmission of data collected at the site of
the station.

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according to the operational requirements of this Service, can be satisfied only in the high frequency portion of the radio spectrum;

- (b) that world-wide standardization and use of frequencies is advisable in the interest of efficient operation and radio spectrum economy;
- (c) that an additional band in the medium frequency range is needed for the Ocean Data Service within the Arctic and Antarctic regions, with the specific band and bandwidth to be agreed on a local basis by administrations concerned;
- (d) that a 20 kc/s band between 30 and 60 Mc/s is needed for the Ocean Data Service, with the specific band to be agreed on a local basis by administrations concerned; and
- (e) that a 10 Mc/s band is needed in the VHF or UHF portion of the spectrum at the lowest practicable order of frequency for the Ocean Data Service, with the specific band to be agreed on a local basis by administrations concerned,

Recognizing

- (a) that in the Table of Frequency Allocations of the Radio Regulations there are no bands allocated to the Ocean Data Service;
- (b) that any early solution to the problem of providing radiocommunication facilities for the Ocean Data Service must be interim in nature, pending final consideration by an appropriate Administrative Radio Conference of the International Telecommunication Union; and

- (c) That a more suitable solution to the problem of satisfying the radiocommunication needs of the Ocean Data Service can be found when there exists a plan outlining the geographical distribution of Ocean Data Stations, their type (permanent or temporary), scope of information to be transmitted and the number of transmissions during each 24 hour period;
- (d) that, as an interim procedure, without prejudice to the future use of the Maritime Mobile bands, one 3.5 kc/s band within each of the bands allocated exclusively to the Maritime Mobile Service between 4 and 23 Mc/s, may be used by the Ocean Data Service, on a secondary basis in accordance with No. 139 of the Radio Regulations, as follows:

4140	-	4143.5	or	4136.5	-	4140	kc/s
6211	-	6214.5		6207.5	-	6211	
8280	-	8283.5		8276.5	-	8280	
12421	-	12424.5		12417.5	-	12421	
16562	-	16565.5		16558	-	16561.5	
22100	-	22103.5		22095.5	-	22099	

- (e) that the occupied bandwidth of any emission shall not exceed the limiting frequencies mentioned in (d) above,

Recommends

that the Intergovernmental Oceanographic Commission initiate action

1. to invite the International Frequency Registration Board of the international Telecommunication Union,
 - (a) to circulate this Recommendation to all Members and Associate Members of the International Telecommunication Union and interested organizations, and

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- (b) to collect the comments received in respect to this Recommendation, as well as possible alternatives, and circulate these comments to all Members and Associate Members of the International Telecommunication Union, to the Intergovernmental Oceanographic Commission, and interested international organizations including World Meteorological Organization, Inter-Governmental Maritime Consultative Organization, Comité International Radio Maritime and International Chamber of Shipping;
2. in the light of responses received, and in collaboration with WMO and other interested organizations, to formulate an appropriate plan for utilization of the frequencies selected for the Ocean Data Service; and
 3. to take the necessary steps to establish for consideration at the next appropriate Administrative Radio Conference, a more suitable solution to the problem of satisfying the radiocommunication needs of the Ocean Data Service based on planning which takes into account the geographical distribution of Ocean Data Stations, their type (permanent or temporary), scope of information to be transmitted and the number of transmissions during each 24 hour period.

INTERNATIONAL FREQUENCY REGISTRATION BOARD

Reference: I.F.R.B. Circular-letter
No 88

Geneva, 30 December 1963

Subject: Joint meeting of experts representing national telecommunication, oceanographic and meteorological authorities.

To the Director-General

Sir,

On behalf of the International Frequency Registration Board, I have the honour to bring the following to your notice:

1. According to the conclusions of the report of the Working Group on Communications of the Intergovernmental Oceanographic Commission, this Commission decided, when it adopted this report, that experts representing national telecommunication, oceanographic and meteorological authorities should be invited to a joint meeting to consider, on the basis of this report, the requirements to be formulated by the IOC for radiocommunications facilities and associated frequency bands.
2. This meeting of experts was held in Paris at UNESCO headquarters from 2 to 6 September 1963. Those experts present were from the following countries:

Belgium	Italy
Canada	Monaco
Chili	Norway
China	Netherlands
Cuba	Philippines
United States of America	Federal Republic of Germany
France	United Kingdom of Great Britain and Northern Ireland
India	Union of Soviet Socialist Republics

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In addition, the following international organizations were represented:

International Civil Aviation Organization
World Meteorological Organization
Intergovernmental Maritime Consultative Organization
International Radio-Maritime Committee
International Chamber of Shipping

A member of the IFRB took part in the meeting as the representative of the ITU.

3. At this meeting, the experts drew up a recommendation which was adopted, on behalf of the Intergovernmental Oceanographic Commission by the Bureau and Consultative Committee of the IOC at their meeting from 28 to 31 October 1963. As a consequence of this recommendation, the IOC has requested the IFRB to circulate the recommendation in question to all Administrations of the Members and Associate Members of the ITU. The IOC communication and the associated recommendation are reproduced in Annex 1 and Annex 2, respectively, to this Circular-letter.

4. In order to be able to supply the IOC with comments that will be sufficiently representative of the views of the Union, the IFRB invites you to submit to the Board any comments and suggestions of your Administration regarding the above-mentioned recommendation. The Board will assemble these comments and suggestions and forward them to the IOC for appropriate action. The Board would request you to be so good as to send the comments of your Administration by 1st April 1964.

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5. A copy of this Circular-letter is being forwarded to the Intergovernmental Oceanographic Commission, the World Meteorological Organization, the Inter-Governmental Maritime Consultative Organization, the International Radio-Maritime Committee and the International Chamber of Shipping.

I have the honour to be, Sir
Your obedient Servant,

(signed) John H. Gayer
Chairman

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STATEMENTS

Additional statement by the Netherlands Delegate

If, contrary to the opinion expressed in the Netherlands' comment (annex to Circular letter No. 69) frequencies for the Ocean Data Service have to be sought in the Maritime Mobile band, the least unfavourable solution would be to study the allocation of the lowest frequencies in the band for wide-band telegraphy, etc. of Appendix 15A, Radio Regulations (Geneva, 1959).

4142 kc/s
6213 "
8282 "
12424 "
16564 "
22102 "

Statement by the Norwegian Delegate

The principal view of the Norwegian Telecommunication Administration is that frequencies for oceanographic purposes should be sought outside the Maritime Mobile HF bands. This view is governed by the need for the available bands on an exclusive basis to cope with the ever-increasing amount of Maritime Mobile traffic.

If, however, a certain majority accepts the proposal of accommodating the oceanographic service in the Maritime Mobile bands, the probabilities of providing the necessary spectrum in the wide-band telegraphy portions (Appendix 15, Section A, of Radio Regulations) should be thoroughly studied.

The Norwegian Telecommunication Administration proposes, with the support of the Danish and Swedish Telecommunication Administrations, that during the forthcoming EARC for the revision of the Radio Regulation, Appendix 26 (the first meeting is already scheduled for January 1964), due consideration should

be given to the possibilities of accommodating the Ocean Data Service in the aeronautical mobile (R) bands as a permitted service under the provisions of No. 138 of the Radio Regulations.

Assuming that the requirements for the Ocean Data Service are six channels each with a band width of 3.5 kc/s in the HF bands, we suggest that at the EARC referred to above endeavours should be made to reserve the necessary frequency spectrum for this service, preferably at the upper or lower end of the following aeronautical mobile bands:

3400 - 3500 kc/s
5480 - 5680 "
8815 - 8965 "
13260 - 13360 "
17900 - 17970 "
21850 - 22000 "

Comments of the Representative of the Soviet Union

In view of the fact that at present many countries introduce on a large scale radiotelephone communications with ships and that frequency bands allocated to the Maritime Mobile Service for single side-band telephony (Annex 15, Section B, Radio Regulations) have few frequencies, their use would be extremely undesirable.

At the same time it might be suggested that before the next Administrative Conference a study should be made on the use of 3.5 kc/s band for the needs of oceanography with the frequency range of the Maritime Mobile service in accordance with Annex 15, Section A, allocated for wide-band telegraphy, facsimile and special transmission system.

The assignment of 3.5 kc/s band with the frequency band of 22 Mc/s for the needs of oceanography seems at present unadvisable.

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India

While I have noted the recommendations that, as an interim procedure, 3.5 kc/s band in each of the bands allocated exclusively to the Maritime Mobile Service between 4 and 23 Mc/s may be used by the Ocean Data Service, on a secondary basis in accordance with No. 139 of the Radio Regulations, Indian administration reserves the right to examine the possibility of setting apart any 3.5 kc/s bands (not necessarily the recommended frequencies) from the following sub-band frequencies earmarked for wide-band telegraphy, etc. in Section A of Appendix 15:

4140 - 4160 kc/s	6211 - 6240 kc/s
8280 - 8320 kc/s	12421 - 12471 kc/s
16562 - 16622 kc/s	22100 - 22148 kc/s

United Kingdom

The United Kingdom considers the proposal to allocate to the Ocean Data Service on 3.5 kc/s channel in each of the bands between 4 and 23 Mc/s that are allocated exclusively to the Maritime Mobile Service on a secondary basis is not permitted under No. 139 of the Radio Regulations as this regulation must be read in conjunction with No. 137 (c). No. 139 refers only to secondary allocations already existing in the Frequency Allocation Table and the allocation of radio frequency spectrum space to the Ocean Data Service under No. 139 would constitute a revision of the Frequency Allocation Table. Such a revision can only be undertaken by an Administrative Radio Conference; consequently the U.K. considers that in the interim period between now and the next Administrative Radio Conference, allocations for the Ocean Data Service can only be made under No. 115 of the Radio Regulations, and that any such allocations on this basis should be on the particular channel of Section B of Appendix 15 of the Radio Regulations that is specified in the recommendation attached to this report.

Comité International Radio Maritime

CIRM strongly deprecates any service which has not fully considered its operational and technical perimeters being authorized to utilize, especially on an exclusive basis, frequencies already employed by another service. This is especially so when, as in the case of the Maritime Mobile Service, these bands are of great importance to the safe operation of the shipping of the whole world. It must be remembered that the maritime bands traffic of all categories and in any parts of these bands the over loading has already led to severe operational limitations, and has forced the marine industry to employ techniques certainly as advanced as any other service.

Much experimental work so far carried out by the IOC has used fixed frequencies which CIRM considers the correct spectrum area to be used. In any case, when the appropriate sub-committee of the IOC had determined its operational needs, this is the time to make a technical appraisalment of the radio communication needs. In making the appraisalment, the possibilities of using firstly the fixed bands and secondly all other bands, should be explored fully in co-operation with the appropriate services and the responsible national and international authorities. From the Paris meeting (2 - 6 September 1963) it seems clear that use of any portion of the maritime radio bands will seriously incommode one or other of the administrations represented; in the meantime, the maritime users will observe with great interest how the IOC experimental work proceeds.

International Chamber of Shipping

The ICS representative reserved the position of the International Chamber of Shipping on the problem of providing radio communication facilities for the Ocean Data Service as

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it was felt impossible adequately to assess the frequency requirements for such a service until a detailed operational plan for the establishment, location and operation of ocean data stations has been studied.

Moreover, if world-wide standardization and use of frequencies in the high frequency portion of the radio spectrum is the objective for the Ocean Data Service, it is felt that the study should embrace present allocations made in Article 5 of the Radio Regulations to all services and not be restricted to the maritime mobile bands alone. The fixed frequencies extensively used by the meteorological services should be taken into account.
