WIRELESS SIGNALS FOR THE USE OF SEAMEN AND URGENT NOTICES TO MARINERS

By the almost universal use of Wireless Telegraphy at sea the mariner is supplied not only inshore but on the high seas with very valuable information which contributes largely to safe sailing; thus, to-day, all urgent communications which it is necessary should reach seamen are made by Wireless Signals. Apart from the powerful land stations which broadcast over vast areas of the world both time signals or weather information, there exist near the coasts about 1350 coastal Wireless Signal Stations with which ships requiring information or advice may *themselves* enter into communication. To the latter category must be added the Radiobeacon Stations numbering, in 1936, about 300 for the whole world, the Direction-Finding Stations which to-day number about 126 and also about 110 coastal stations which assure radiotelephonic messages.

Two kinds of information are sent out: *firstly*, that which gives the mariner his position; and first in this connection must be mentioned the stations which send out Wireless Time Signals permitting the seamen to ascertain his longitude. At present 63 stations are appointed for this nature of emission. The systems of emission are rather diversified, but several of them were codified in 1925 by the International Hour Commission (Commission Internationale de l'Heure).

Nearer shore, either Radiobeacons or Direction-Finding Stations give the seaman the necessary bearings making use of fairly diversified methods peculiar to each group of stations.

Secondly, the weather messages emitted by about 510 stations in the whole world in the form of cyphered radiograms are of more general interest.

Fairly numerous national and international codes exist for these different kinds of messages, leaving aside the codes used for aeronautics; and the use of the Copenhagen (1929) code tends to become general. The task of decoding these messages would be greatly facilitated for the seaman if it were possible to adopt a single code by means of which he might be simply informed as to the probable state of the weather in a few selected well defined ocean or coastal areas.

From another point of view, the seaman requires immediate information concerning accidents which may have to be reckoned with in his navigation; urgent Distress Notices and urgent Notices of Navigational Dangers have already been catered for by the International Commission for the Safety of Life at Sea. At present 205 stations are fitted for sending out Storm Warnings, either *en clair* or using suitable codes; 90 stations are fitted for the regular emission of Ice Notices by means of special cyphered codes the possible standardisation of which has been studied by the International Meteorological Committee; lastly, 286 coastal Wireless Signal Stations are installed for reporting to the mariner unforeseen alterations in coast lighting and buoyage, the presence of wrecks, mines, or navigational dangers. These urgent Notices emanate either from local maritime authorities or from national Hydrographic Offices.

The greater number of these stations send out such urgent Notices to Mariners *en clair*, in the national language, sometimes, but not always, accompanied by a translation in English. The text of the telegram is repeated several times in order to avoid errors of interpretation. The stations send out these messages daily, when necessary, at a fixed time, generally on 600-metre wave-length (500 kc/s), and repeat them at any time at the request of ships: these repetitions by request are charged for. The indication of the Notice, its source, the geographical positions which it embraces, are generally in cypher in conformity with certain agreements which vary with the countries.

Soon after it came into existence, the International Hydrographic Bureau took up the question of the possibility of realising, for those urgent Notices to Mariners as for other codified Notices, some degree of standardisation and simplification in their construction and emission. Circular-Letter N° 26-H of 31st July 1924, set forth the results of a preliminary inquiry carried out in this connection by the Bureau in view of bringing to the knowledge of the mariner with the least possible delay known fortuitous information. It had been thought possible to use for this purpose the International Code of Signals.

It seems that several Services, while recognising that the emission of urgent Notices to Mariners *en clair* offers certain advantages, would not be averse to studying a special

standard code for sending out the most urgent Notices. Further, the following is a summary of the opinions formulated at the time by the various Hydrographic Offices Members of the International Hydrographic Bureau :

Great Britain, Norway, China, the United States of America prefer to send the Notices *en clair*, because of the risk of errors in interpretation to which a coded message gives rise.

Argentina, Belgium, Japan, France, Italy, Netherlands, Chile, Brazil, Portugal, Siam, Sweden, are of opinion that it would be possible to draw up a special code which might either be based on the International Code of Signals or, the necessary desiderata being introduced, might become a special division in that Code.

In a Note published in *International Hydrographic Bulletin* N° III, March 1929, pages 60 to 65, the International Hydrographic Bureau drafted a code for signalling the most important Urgent Notices to Mariners ; this code was based on the old International Code of Signals, 1897 edition. It had been thought that, without entirely replacing emission *en clair*, the code Notice might perhaps suitably replace one of the repetitions of the message or its translation, thus rendering it immediately accessible to mariners of all nations ; also, that if it were decided to experiment with code Notices by way of trial these might be signalled after the message *en clair*. The indications given on page 64 of the Bulletin were only by way of example as far as both the code combinations and the form of the message were concerned. It had been endeavoured to give to the message a form which in itself carried a check on the accuracy of the emission.

Desiring to know the opinion of Offices on this kind of message and on its method of emission, the International Hydrographic Bureau requested suggestions and proposals having reference to this question by Bulletin Circular-Letter N° 5, 1929.

Replies were sent by Sweden and by the United States of America (See *International Hydrographic Bulletin*, 1930, N° IV, p. 67 and N° VIII, p. 177).

The inquiry conducted by the International Hydrographic Bureau was suspended, for at this time a New, completely revised, Edition of the International Code of Signals was going to be brought into service ; it was, in particular, to include a special volume for the emission of messages by W/T.

The new International Code of Signals, 1931 edition, came into service on 1st January 1934.

The International Hydrographic Conference (1932) considered the question of Urgent Notices by Wireless Telegraphy (See pp. 155 and 156 of the Report of Proceedings) and the Committee expressed the idea that it was desirable to await the results of the inquiry undertaken by the Bureau and to obtain new replies on the matter.

Consequently, the Bureau has drawn up a proposed new tabulation based on the New Edition of the International Code of Signals, and a proposed form for the message keeping in view the rules prescribed by the International Commission for the Safety of Life at Sea.

Form proposed for message :

1. General Call Signal.
2. Characteristic of Notice to Mariners.
3. Characteristic of International Code of Signals.
4. Origin (for instance : British Notice to Mariners).
5. Sequence number.
6. Object (one of the coded groups taken from the left-hand column in tabulation given below).
7. Name of object (in full letters, not using code cypher).
8. Nature of incident (one of the coded groups taken from the row heading the tabulation given below).
   (As may be seen by examination of this tabulation, the fundamental meaning of this coded group is adapted to the nature of the object signalled).
9. Latitude and Longitude if necessary. (This group to be signalled in conformity with the International Code rule, i. e. a group of four figures to indicate the Latitude, followed by a group of four figures to indicate the Longitude)
10. Object (Repetition of N° 6 above).
11. Day of month and hour of incident if necessary (these indications to be given by a group of the form 05.To630 ; the first figures indicate the day of the month ; the succeeding figures, the hour preceded by the characteristic *T* (Time).

So that the telegram :

CQ — NOTICENAVIG — INTCO — BNTM — 152 — UCBUF — TONGUE — FEZOS — 5130 — 0123 — UCBUF — 05. T0630

will give *en clair* the following message :

To all — Urgent Notices to Mariners — International Code of Signals — British Notice to Mariners N° 152 — Lightvessel *Tongue* extinguished — 51° 30' N., 01° 23' E. of Greenwich — Lightvessel — 5th of month at 6.30 a. m.

Method of Emission :

This coded telegram might by way of trial replace one of the repetitions *en clair* and in the national language of Urgent Notices sent out by Wireless Signal Stations appointed to broadcast Urgent Notices to Mariners.

The International Hydrographic Bureau will be grateful to have the further opinion of Services on this nature of message and this method of emission.

If the opinions expressed by States Members concerning the above Tabulation tends to such action, the International Hydrographic Bureau might enter into communication with the Editing Committee of the International Code of Signals for the purpose of having introduced into this Code, if and when opportunity occurs a special division for Urgent Notices to Mariners, as has already been done for Medicala nd Quarantine Notices, in establishing which the above draft Tabulation might be taken into account, under reservation of advisable modifications.

Draft Code for signalling urgent Notices to Mariners
Projet de Code pour signaler les Avis urgents aux Navigateurs

MONACO 1936

OBJECT OBJET		NATURE OF INCIDENT / NATURE DE L'EVENEMENT											
		KINOL (Working)	**FEZOS** (Negative)	**FAMMY** (Modification)	**FUYQX** (Out of order)	**FEBOH** (Moved)	**ISTIK** (Suppressed)	**CESCI** (Destroyed)	**FYUBS** (Out of Station)	**ADOWM** (Adrift)	**KIJOF** (Withdrawn)	**ISMYT** (Sunken)	**BYPYL** (Dangerous)
Light *Feu*	**ESWAS**	Lit Allumé	Extinguished Eteint	Altered Modifié	Out of order En avarie	Moved Déplacé	Suppressed Supprimé	Destroyed Détruit					
Light Vessel *Bateau-feu*	**UCBUF**	»	»	»	»	»	»		Out of Station Hors de station	Adrift En dérive	Withdrawn Retiré		
Lightbuoy *Bouée lumineuse*	**ASUBP**	»	»	»	»	»	»	Washed away by sea Enlevée par la mer	»	»	»	Sunken Coulée	
Fog Signal *Signal de brume*	**ILHUK**	Working Fonctionne	Not working Ne fonc-tionne pas	»	»	»	»	Destroyed Détruit					
Submarine Signal *Signaux sous-marins*	**ILJUT**	»	»	»	»	»	»	»	»		»		
Radio Beacon *Radiophare*	**ANUCP**	»	»	»	»	»	»	»					
Beacon Balise *Tower Beacon Tourelle*	**ANTJA**	Erected Construite		»	»	»	»	»					
Buoy *Bouée*	**ASRCS**	Laid Mouillée		»	»	»	»	Washed away by sea Enlevée par la mer	»	»	»	»	
Wreck *Epave*	**KIWEC**	Reported Signalée						Destroyed Détruite		»		»	Dangerous Dangereuse
Floating Mine *Mine flottante*	**EZZAD**	»						»		»		»	»
Shoal *Haut-fond*	**IKFXO**	»		»					Extending En Extension				»
Obstruction	**FOLYV**	»							»			»	»
Derelict	**CELIV**	»								»		»	»
Bar *Barre*	**ANCRI**	Navigable Praticable	Not navigable Impraticable		Obstructed Obstrué	»	Prohibited Interdit	Silted Ensablé	Compulsory Pilotage obligatoire				»
Fairway *Chenal*	**DOKOP**	»	»	»	»	»	»	»	»		Difficult Difficile	Dredged dragué	»
Ice *Glace*	**EKELC**	Reported Signalée	»		Ice breaker necessary Brise-glace nécessaire	Difficult Difficile	free from libre de		Floating Flottante	»	dredged channel Chenal dragué		»
Iceberg	**EKMIX**	»	Numerous Nombreux							»		Stranded Echoué	»

Group showing origin and authority

NEFS	Norwegian	*Efterretninger for Sjøfarende*		Norvégiens
DEFS	Danish	*Efterretninger for Søfarende*		Danois
SUFS	Swedish	*Underrattelser for Sjøfarande*		Suédois
DNFS	German	*Nachrichten für Seefahrer*		Allemands
NBAZ	Dutch	*Bericht Aan Zeevarenden*		Hollandais
BBAZ	Belgian	*Bericht aan Zeevarenden*		Belges
BNTM	British	*Notices to Mariners*		britanniques
INTM	Indian	»	»	Indiens
ANTM	Australian	»	»	Australiens
SNTM	Siamese	»	»	Siamois
CNTM	Chinese	»	»	Chinois
JNTM	Japanese	»	»	Japonais
CANM	Canadian	»	»	Canadiens
USNM	U.S.A.	»	»	E.U.A.

Groupe indiquant la provenance officielle

FAAN	French	*Avis aux Navigateurs*		Français
SAAN	Spanish	*Avisos a los Navegantes*		Espagnols
PAAN	Portuguese	*Avisos aos Navegantes*		Portugais
IAAN	Italian	*Avvisi ai Naviganti*		Italiens
MAAN	Mexican	*Avisos a los Marinos*		Mexicains
BAAN	Brazilian	*Avisos aos Navegantes*		Brésiliens
AAAN	Argentine	*Avisos a los Navegantes*		Argentins
CHAN	Chilean	*Avisos a los Navegantes*		Chiliens
UAAN	Uruguayan	*Avisos a los Navegantes*		Uruguayens
PAAN	Peruvian	»	»	Péruviens
EAAN	Ecuadorian	»	»	Equatoriens
URSS	Russian	*Isvietchniya Moreplavateliam*		Russes