

call signals of the stations from which bearings are required, and also (if the call is NOT made on 450 metres) by the figures "450," signifying that the ship will shift to 450 metres for the taking of the bearing. The ship then awaits instructions.

*Example 1.*

A ship whose call signal is XYZ requires bearings from Peterhead (BVL) and Berwick (BVG), and thinks that the latter is nearest.

The ship, having first shifted to 450 metres, calls Berwick thus:—

"Call" BVG BVG de XYZ QTE BVL BVG ?

She then awaits instructions.

*Example 2.*

The ship requires a bearing from Seaview (BXK). The ship has to use 600 metres to call Malin Head (GMH). She calls on 600 metres, thus:—

"Call" GMH GMH de XYZ QTE BXK ? 450.

She then gets ready to shift to 450 metres and awaits instructions.

30. The station or stations called then make the necessary arrangements and, when ready, answer in alphabetical order of their call signals (if more than one was originally called) and make "K" (go on) preceded by "450" if 450 had been made in the original call.

*Example 1.*

Berwick, in Example 1 above, warns Peterhead by land line and, when both are ready, makes on 450 metres:—

"Call" XYZ de BVG K.

*Example 2.*

Malin Head, in Example 2 above, warns Seaview by land line and then makes on 600 metres:—

"Call" XYZ de GMH 450 K.

Malin Head then shifts to 450 metres so as to be ready to give the result when received by wire from Seaview.

31. On receiving "K," the ship, having shifted transmitting wave to 450 metres (if not already done), then makes her own call signal for 45 seconds and awaits the result.

*Example 1.*

The ship, in Example 1 above, makes on 450 metres:—

"Call" BVG de XYZ XYZ XYZ, &c. (for 45 seconds) XYZ.

*Example 2.*

The same as Example 1, reading GMH for BVG.

32. The station or stations then reply (in alphabetical order, if more than one) either asking the ship to repeat (?) or giving the result. The result is given by the signal QTE followed as necessary by the call signal and by a group of three figures (000 to 359) indicating the true bearing from 0° to 359°, reckoned as in paragraph 14, of the ship from the station. Several bearings can be combined into one message, each bearing immediately following the call signal of the station which took it. The time of handing in is always expressed in Greenwich mean time for all messages giving bearings to merchant ships.

*Example 1.*

Peterhead, in Example 1 above, is not satisfied with the bearing and informs Berwick. Berwick makes on 450 metres:—

"Call" XYZ de BVG ?

The ship at once complies by making on 450 metres:—

"Call" BVG de XYZ XYZ XYZ, &c. (for 45 seconds) XYZ.

Peterhead is then satisfied that the bearing is 130° and informs Berwick, while Berwick finds that its own result is 37°. Berwick therefore makes 450 metres:—

"Call" XYZ XYZ de BVG 1 9.45 M (time) = QTE BVL 130 BVG 037 + BVG.

*Example 2.*

Seaview, in Example 2 above, gets a satisfactory bearing of 329° and informs Malin Head. The latter makes on 450 metres:—

"Call" XYZ XYZ de GMH 2 10.46 S (time) = QTE BXK 329 + GMH.

*Example 3.*

Had the ship merely asked Lizard (BVY) for a bearing, Lizard, finding it to be 246°, would make on 450 metres:—

"Call" XYZ XYZ de BVY 1 7.6 M (time) = QTE 246 + BVY.

33. The ship, on receiving the result, acknowledges receipt in the ordinary way, and makes the "end of work" sign. This sign is then repeated by the station or stations concerned. It is important that the "end of work" sign should not be

omitted, since it not only indicates that the operation is finished, but it also shows that all concerned are about to resume watch on their normal wave.

Note.—This notice will be subject to revision from time to time.

RADIO COMPASS-STATIONS.

The following harbour-entrance radio compass-stations are now in operation for the purpose of furnishing positions to vessels within 30 miles of the entrance to the outer channel, and bearings to vessels within 100 miles:—

Harbour Entrance.	Compass-control Station.	Radio Call.
Boston, Mass.	.. Boston ..	.. NAD.
New York, N.Y.	.. New York ..	.. NAH.
Delaware Capes	.. Cape May, N.J.	.. NSD.
Chesapeake Capes	.. Virginia Beach, Va.	.. NCZ.

The following radio compass-stations take bearings for Boston:—

Place.	Lat.	Lon.	Position.
Gloucester, Mass.	42° 35' 19" N.	70° 41' 8" W.	
Deer Island, Mass.	42° 21' 15" N.	70° 57' 30" W.	
Fourth Cliff, Mass.	42° 9' 40" N.	70° 42' 22" W.	

The following radio compass-stations take bearings for New York:—

Place.	Lat.	Lon.	Position.
Fire Island, N.Y.	40° 38' 7" N.	73° 12' 32" W.	
Rockaway Beach, L.I.	40° 33' 52" N.	73° 52' 40" W.	
Sandy Hook, N.J.	40° 28' 12" N.	74° 1' 6" W.	
Mantoloking, N.J.	40° 1' 30" N.	74° 3' 10" W.	

The following radio compass-stations take bearings for Cape May:—

Place.	Lat.	Lon.	Position.
Cape May, N.J.	38° 56' 41" N.	75° 53' 10" W.	
Cape Henlopen, Del.	38° 47' 26" N.	75° 5' 16" W.	
Bethany Beach, Del.	38° 32' 45" N.	75° 3' 20" W.	

The following radio compass-stations take bearings for Virginia Beach:—

Place.	Lat.	Lon.	Position.
Hog Island, Va.	37° 22' 36" N.	75° 42' 37" W.	
Smith Island, Va.	37° 7' 8" N.	75° 53' 42" W.	
Cape Henry, Va.	36° 55' 16" N.	75° 59' 51" W.	

The following independent radio compass-stations operate individually, and furnish bearings only to vessels within 100 miles:—

Radio Compass station.	Radio Call.	Lat.	Lon.	Position.
Cape Cod, Mass.	.. NAE	42° 2' 58" N.	70° 4' 32" W.	
Nantucket, Mass.	.. NBS	41° 14' 42" N.	70° 5' 56" W.	
Cape May, N.J.	.. NSD	38° 56' 41" N.	74° 53' 10" W.	
Cape Hatteras, N.C.	.. NDW	35° 14' 30" N.	75° 31' 40" W.	

Vessels desiring to obtain a bearing from compass-stations which operate independently should call the station from which the bearing is desired, and request bearings by means of a conventional signal given below. Simultaneous bearings from two or more compass-stations can be obtained by making the call include the other compass-stations desired.

Vessels desiring to obtain their positions from harbour-entrance compass-stations should carry out the same procedure, with the exception that they call the compass-control station instead of the compass-station.

When bearings are requested simultaneously from two or more independent compass-stations, the compass-station which is farthest north will supply the ship with its bearing first; the others will then follow in the order of their north to south or east to west geographical location.

The following abbreviated signals will be used until further notice:—

Signal.	Meaning.
QTE ?	What is my true bearing ?
QTE	Your true bearing is — degrees from — Radio Compass-station.
QTF ?	What is my position ?
QTF	Your position is latitude — longitude —.

The radio compass-station (or compass-control station for harbour-entrance compass-stations) will answer requests for bearings and positions in the customary manner of answering calls and follow their call letters with "K" if they desire to take the bearing at that time, "QRX" if they desire the vessel to stand by, or other abbreviated signal authorized by International Regulations.

On being told to "K," vessels desiring bearings or positions will transmit their radio call letters for 30 seconds and then