RESOLUTION A.278(VIII)

Adopted on 20 November 1973
Agenda item 10

SUPPLEMENT TO THE RECOMMENDATION ON PERFORMANCE STANDARDS FOR NAVIGATIONAL RADAR EQUIPMENT (RESOLUTION A.222(VII))

SYMBOLS FOR CONTROLS ON MARINE NAVIGATIONAL RADAR EQUIPMENT

THE ASSEMBLY,

NOTING Article 16(i) of the Convention on the Inter-Governmental Maritime Consultative Organization concerning the functions of the Assembly,

RECALLING Resolution A.222(VII) concerning performance standards for navigational radar equipment to which Recommendation 45 of the International Conference on Safety of Life at Sea, 1960, relates,

RECOGNIZING the desirability that switches and variable controls on marine navigational radar equipment be marked by symbols,

HAVING CONSIDERED the Reports of the Maritime Safety Committee on its twenty-fifth and twenty-seventh sessions,

RESOLVES to adopt the Recommendation on Symbols for Controls on Marine Navigational Radar Equipment, appearing at Annex, as a supplement to Resolution A.222(VII).

ANNEX

RECOMMENDATION ON SYMBOLS FOR CONTROLS ON MARINE NAVIGATIONAL RADAR EQUIPMENT

1. LIST OF CONTROLS TO BE SYMBOLIZED

The following switches and variable controls are considered to be the minimum required to be marked by symbols:

Radar on – standby – off switch
Aerial rotation switch
Mode of presentation switch – North up or Ship's Head up
Heading marker alignment control or switch
Range selection switch
Pulse length selection switch –short or long pulse
Tuning control
Gain control
Anti-clutter rain control (differentiation)
Anti-clutter sea control
Scale illumination control or switch
Display brilliance control
Range rings brilliance control
Variable range marker control
Bearing marker control
Performance monitor switch – transmitted power monitor or transmit/receive monitor

2. CODE OF PRACTICE

The following code of practice should be used when marking radar sets with recommended symbols.

2.1 The maximum dimension of a symbol should not be less than 9 mm.

2.2 The distance between the centres of two adjacent symbols should be not less than 1.4 times the size of the larger symbol.

2.3 Switch function symbols should not be linked by a line. A linked line infers controlled action.

2.4 Variable control function symbols should be linked by a line, preferably an arc. The direction of increase of controlled function should be indicated.

2.5 Symbols should be presented with a high contrast against their background.

2.6 The various elements of a symbol should have a fixed ratio one to another.

2.7 Multiple function of controls and switch positions may be indicated by a combined symbol.

2.8 Where concentric controls or switches are fitted, the outer of the symbols should refer to the larger diameter control.

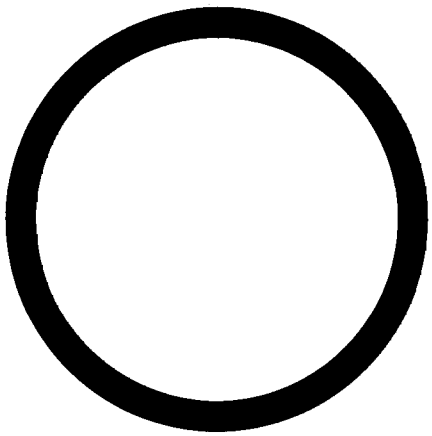
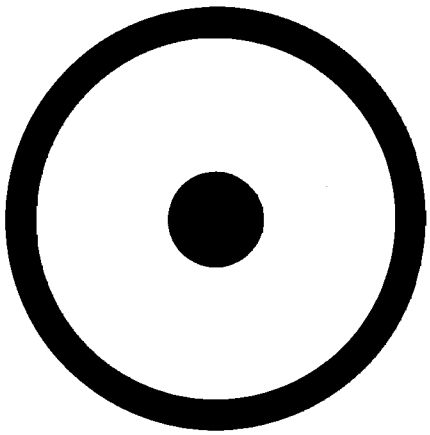
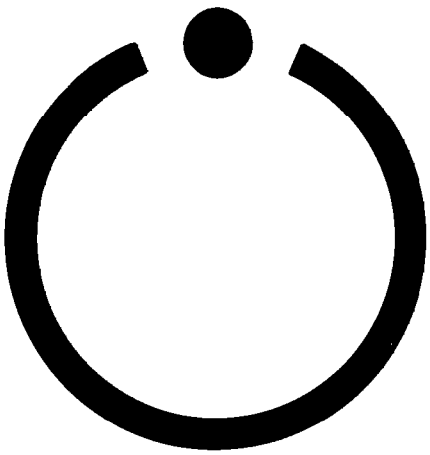
3. SYMBOLS

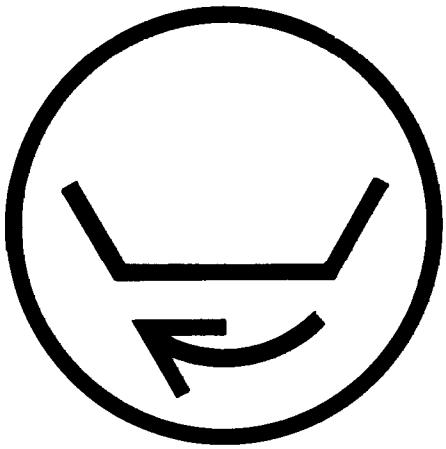
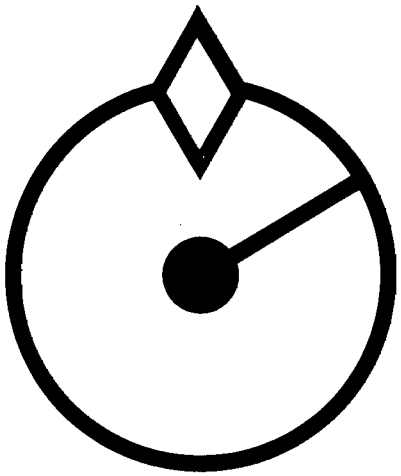
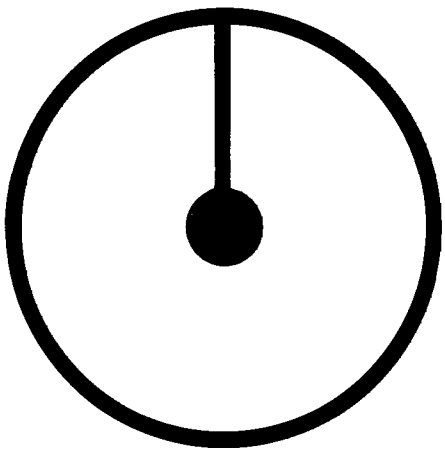
The symbols attached hereto should be used for controls on marine navigational radar equipment.

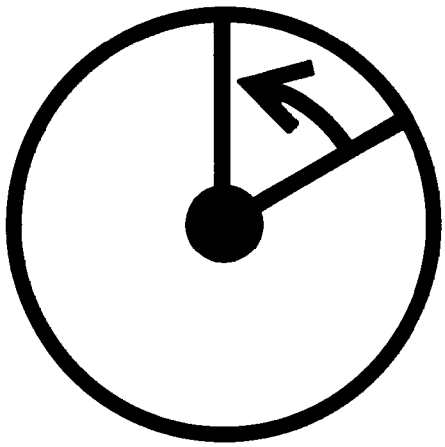
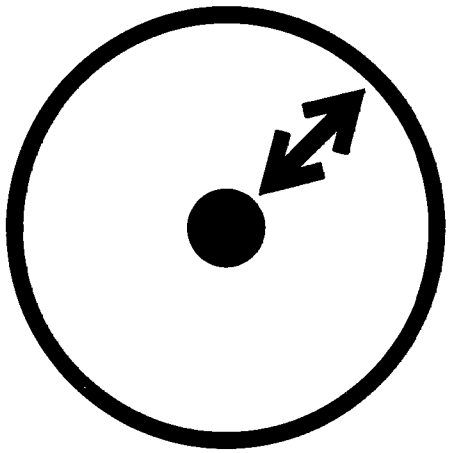
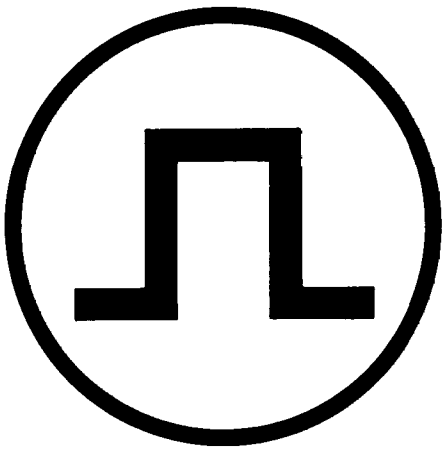
The circles shown around the following symbols are optional:

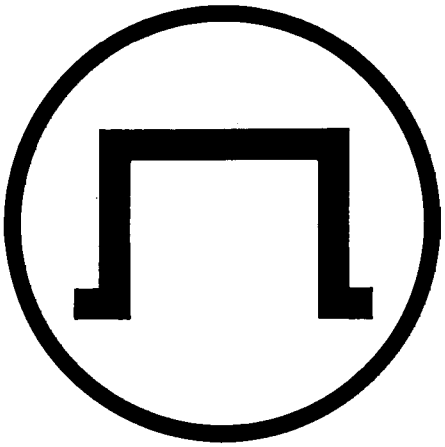
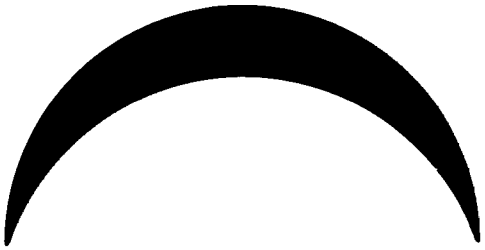
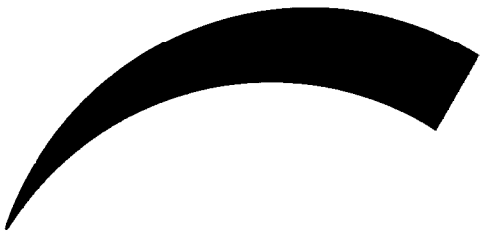
symbol 4:	aerial rotating
symbol 9:	short pulse
symbol 10:	long pulse
symbol 17:	scale illumination
symbol 22:	transmitted power monitor
symbol 23:	transmit/receive monitor

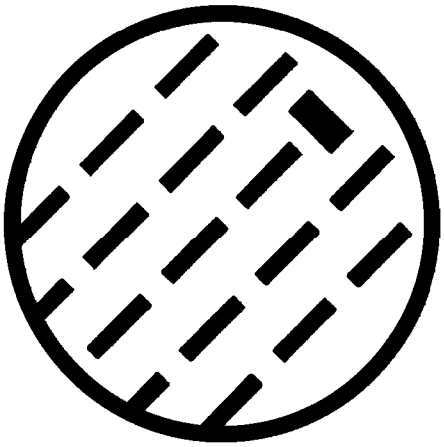
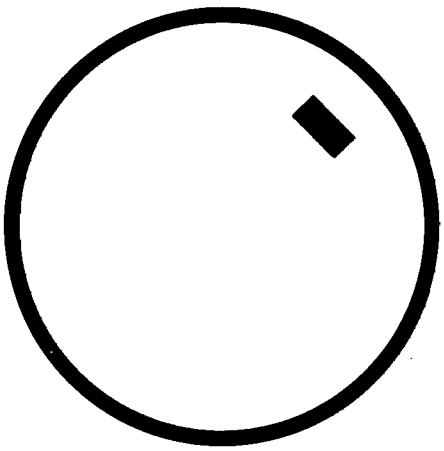
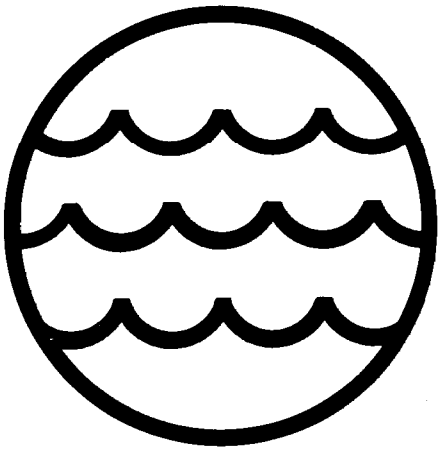
SYMBOLS FOR CONTROLS ON MARINE NAVIGATIONAL RADAR EQUIPMENT

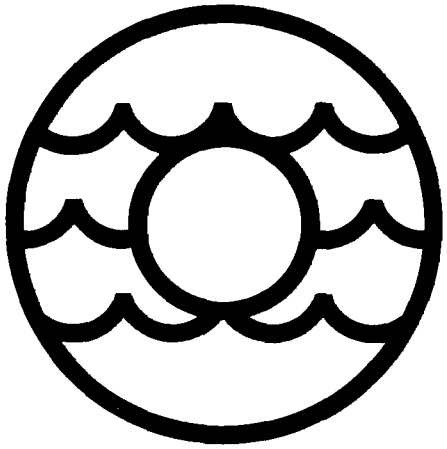
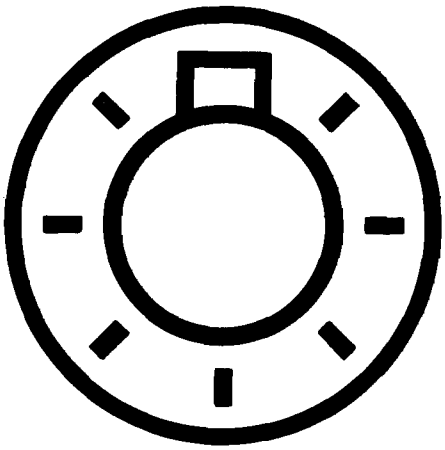
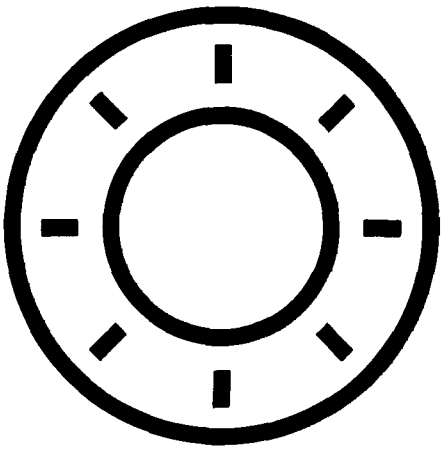
1.		OFF	TO IDENTIFY THE "OFF" POSITION OF THE CONTROL OR SWITCH
2.		RADAR ON	TO IDENTIFY THE "RADAR ON" POSITION OF THE SWITCH
3.		RADAR STAND-BY	TO IDENTIFY THE "RADAR STAND-BY" POSITION OF THE SWITCH

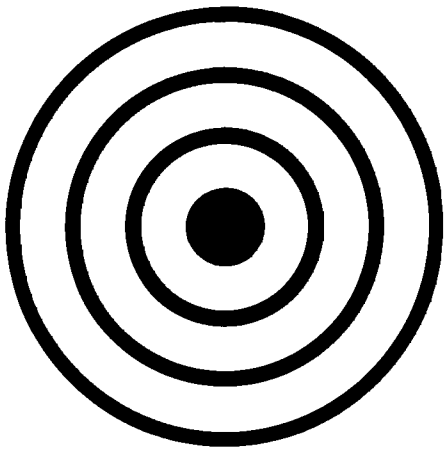
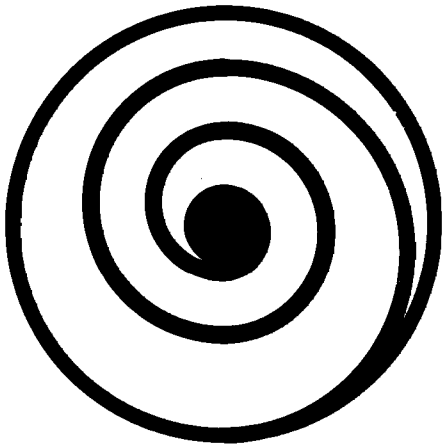
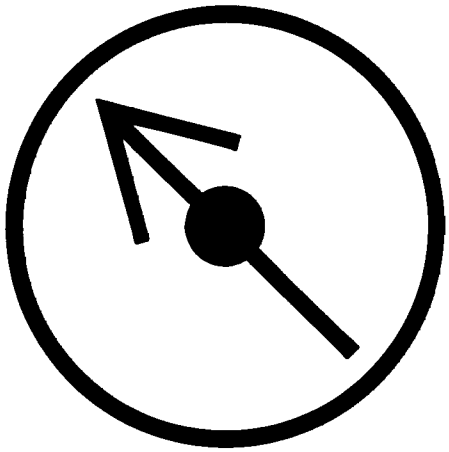
4.		AERIAL ROTATING	TO IDENTIFY THE "AERIAL ROTATING" POSITION OF THE SWITCH
5.		NORTH UP PRESENTATION	TO IDENTIFY THE "NORTH UP" POSITION OF THE MODE OF PRESENTA-TION SWITCH
6.		SHIP'S HEAD UP PRESENTATION	TO IDENTIFY THE "SHIP'S HEAD UP" POSITION OF THE MODE OF PRESENTA-TION SWITCH

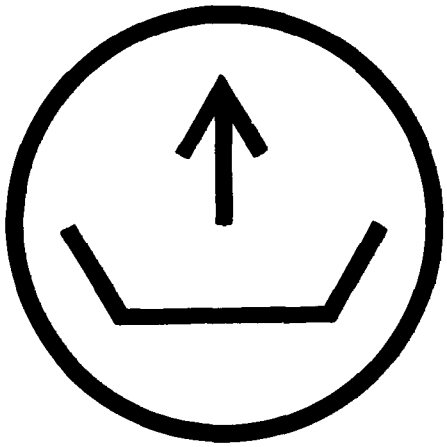
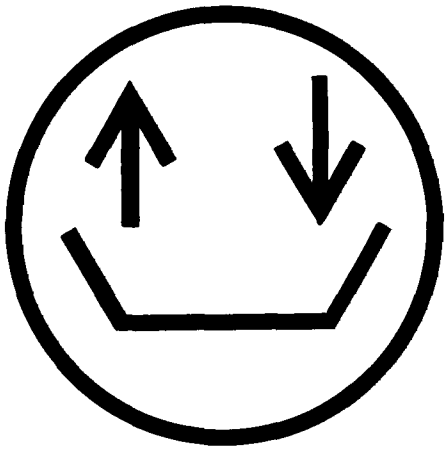
7.		HEADING MARKER ALIGNMENT	TO IDENTIFY THE "HEADING MARKER ALIGNMENT" CONTROL SWITCH
8.		RANGE SELECTOR	TO IDENTIFY THE RANGE SELECTION SWITCH
9.		SHORT PULSE	TO IDENTIFY THE "SHORT PULSE" POSITION OF THE PULSE LENGTH SELECTION SWITCH

10.		LONG PULSE	TO IDENTIFY THE "LONG PULSE" POSITION OF THE PULSE LENGTH SELECTION SWITCH
11.		TUNING	TO IDENTIFY THE "TUNING" CONTROL
12.		GAIN	TO IDENTIFY THE "GAIN" CONTROL

13.		ANTI-CLUTTER RAIN MINIMUM	TO IDENTIFY THE MINIMUM POSITION OF THE "ANTI-CLUTTER RAIN" CONTROL OR SWITCH
14.		ANTI-CLUTTER RAIN MAXIMUM	TO IDENTIFY THE MAXIMUM POSITION OF THE "ANTI-CLUTTER RAIN" CONTROL OR SWITCH
15.		ANTI-CLUTTER SEA MINIMUM	TO IDENTIFY THE MINIMUM POSITION OF THE "ANTI-CLUTTER SEA" CONTROL

16.		ANTI-CLUTTER SEA MAXIMUM	TO IDENTIFY THE MAXIMUM POSITION OF THE "ANTI-CLUTTER SEA" CONTROL
17.		SCALE ILLUMINATION	TO IDENTIFY THE MAXIMUM POSITION OF THE "SCALE ILLUMINATION" CONTROL OR SWITCH
18.		DISPLAY BRILLIANCE	TO IDENTIFY THE MAXIMUM POSITION OF THE "DISPLAY BRILLIANCE" CONTROL

19.		RANGE RINGS BRILLIANCE	TO IDENTIFY THE MAXIMUM POSITION OF THE "RANGE RINGS BRILLIANCE" CONTROL
20.		VARIABLE RANGE MARKER	TO IDENTIFY THE "VARIABLE RANGE MARKER" CONTROL
21.		BEARING MARKER	TO IDENTIFY THE "BEARING MARKER" CONTROL

22.		TRANSMITTED POWER MONITOR	TO IDENTIFY THE ON POSITION OF THE "TRANSMITTED POWER MONITOR" SWITCH
23.		TRANSMIT/ RECEIVE MONITOR	TO IDENTIFY THE ON POSITION OF THE "TRANSMIT/RECEIVE MONITOR" SWITCH