

HAVING CONSIDERED the Report of the Maritime Safety Committee on its twenty-fifth session,

RECOMMENDS that an Administration, when applying the provisions of sub-paragraphs (i), (ii) and (iii) of Regulation 1(b) of Chapter III for a ship built prior to the date of entry into force of the International Convention for the Safety of Life at Sea, 1960, ensures that the relaxed life-boatage permitted by sub-paragraph (b)(i) of Regulation 27 of Chapter III, together with an increase in the number of persons on board, are allowed only if the ship fully complies with the provisions of:

- (a) Part B – “Subdivision and Stability” – of Chapter II of the International Convention for the Safety of Life at Sea, 1960;
- (b) the International Convention for the Safety of Life at Sea, 1948 relating to fire safety measures as well as Part G of Chapter II of the International Convention for the Safety of Life at Sea, 1960, adopted by Resolution A.108(ES.III) on 30 November 1966;
- (c) Regulation 68(a)(i)(3) of Part F of Chapter II of the International Convention for the Safety of Life at Sea, 1960; and
- (d) Regulation 29(a), (b), (e) and (f) of Chapter III of the International Convention for the Safety of Life at Sea, 1960,

INVITES all governments concerned to apply the above Recommendation in determining compliance with Regulation 1 of Chapter III of the International Convention for the Safety of Life at Sea, 1960,

BELIEVING that the universal application of the Recommendation could best be achieved by amending the International Convention for the Safety of Life at Sea, 1960,

NOTING that the International Conference on Safety of Life at Sea will be convened in October 1974,

REQUESTS the Maritime Safety Committee and, in particular, its Ad Hoc Working Group on the Revision of the 1960 Safety Convention to prepare a proposed text of new Regulation 1(b)(iii) of Chapter III for inclusion in the draft International Convention for the Safety of Life at Sea, 1974, embodying the provisions of the above Recommendation.

## **RESOLUTION A.277(VIII)**

*Adopted on 20 November 1973  
Agenda item 10*

### **RECOMMENDATION ON PERFORMANCE STANDARDS FOR RADAR REFLECTORS**

THE ASSEMBLY,

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

RECOGNIZING that small vessels will improve the range and probability of their radar detection, if fitted with radar reflectors,

HAVING CONSIDERED the Report of the Maritime Safety Committee on its twenty-fifth session,

RESOLVES:

- (a) to adopt the Recommendation on Performance Standards for Radar Reflectors, set out at Annex hereto;
- (b) to recommend that Member Governments should require all vessels of less than 100 tons gross tonnage operating in international waters and adjacent coastal areas to be fitted, if practicable, with a radar reflector complying with performance standards not inferior to those shown in the Annex to this Resolution.

## ANNEX

### RECOMMENDATION ON PERFORMANCE STANDARDS FOR RADAR REFLECTORS

#### 1. Introduction

- (a) Small craft referred to in paragraph 2 of this Recommendation should be fitted with radar reflectors to improve the range and probability of their radar detection.
- (b) Radar reflectors should comply with the minimum performance requirements as specified in this Recommendation.
- (c) In the following paragraphs the echoing areas specified are those for the frequency of 9.3 GHz (corresponding to a wave-length of 3.2 cm).

#### 2. Application

- (a) All vessels of less than 100 tons gross tonnage operating in international waters and adjacent coastal areas should, if practicable, be fitted with a radar reflector.
- (b) The radar reflector should be of an approved type with an adequate polar diagram in azimuth, and an echoing area:
  - (i) preferably, of at least 10 m<sup>2</sup>, mounted at a minimum height of 4 m above water level; or
  - (ii) if this is not practicable, of at least 40 m<sup>2</sup>, mounted at a minimum height of 2 m above water level.

#### 3. Performance

- (a) Reflectors should be capable of performance around 360° in azimuth using a typical marine navigational radar.
- (b) The echoing areas referred to in paragraph 2 correspond to the maximum values of the main lobes of the polar diagram.
- (c) The azimuthal polar diagram should be such that the response over a total angle of 240° is not less than -6dB with reference to the maxima of the main lobes and that the response should not remain below -6dB over any single angle of more than 10°

#### 4. Construction

The reflector should be capable of maintaining its reflection performance under the conditions of sea states, vibration, humidity and change of temperature likely to be experienced in the marine environment.

#### 5. Installation

- (a) Fixing arrangements should be provided so that the reflector can be fitted either on a rigid mount or suspended in the rigging.
- (b) If there is a preferred orientation of mounting (generally the top point only), this should be clearly marked on the reflector.