

RESOLUTION A.342(IX)

*Adopted on 12 November 1975
Agenda item 7(c)*

**RECOMMENDATION ON PERFORMANCE STANDARDS FOR
AUTOMATIC PILOTS**

THE ASSEMBLY,

NOTING Article 16(i) of the IMCO Convention concerning the functions of the Assembly,

HAVING CONSIDERED the Report of the Maritime Safety Committee on its thirty-second session,

RESOLVES:

- (a) to adopt the Recommendation on Performance Standards for Automatic Pilots, the text of which is set out in the Annex to this Resolution;
- (b) to recommend Member Governments to ensure that automatic pilots conform to performance standards not inferior to those specified in the Recommendation.

ANNEX

**RECOMMENDATION ON PERFORMANCE STANDARDS FOR
AUTOMATIC PILOTS**

Automatic pilot equipment aboard a seagoing vessel should comply with the following minimum operational requirements in addition to the general requirements contained in Assembly Resolution A.281(VIII).

1. **General**
 - 1.1 Within limits related to a vessel's manoeuvrability the automatic pilot, in conjunction with its source of heading information, should enable a vessel to keep a preset course with minimum operation of the vessel's steering gear.
 - 1.2 The automatic pilot equipment should be capable of adapting to different steering characteristics of the vessel under various weather and loading conditions, and provide reliable operation under prevailing environmental and normal operational conditions.
2. **Changing over from automatic to manual steering and vice versa**
 - 2.1 Changing over from automatic to manual steering and vice versa should be possible at any rudder position and be effected by one, or at the most two manual controls, within a time lag of 3 seconds.
 - 2.2 Changing over from automatic to manual steering should be possible under any conditions, including any failure in the automatic control system.

- 2.3 When changing over from manual to automatic steering, the automatic pilot should be capable of bringing the vessel to the preset course.
- 2.4 Change-over controls should be located close to each other in the immediate vicinity of the main steering position.
- 2.5 Adequate indication should be provided to show which method of steering is in operation at a particular moment.

3. Alarm signalling facilities

- 3.1 A course monitor should be provided which actuates an adequate "off course" audible alarm signal after a course deviation of a preset amount.
- 3.2 The information required to actuate the course monitor should be provided from an independent source.
- 3.3 Alarm signals, both audible and visual, should be provided in order to indicate failure or a reduction in the power supply to the automatic pilot or course monitor, which would affect the safe operation of the equipment.
- 3.4 The alarm signalling facilities should be fitted near the steering position.

4. Controls

- 4.1 The number of operational controls should be minimized as far as possible and they should be designed to preclude inadvertent operation.
- 4.2 Unless features for automatic adjustments are incorporated in the installation, the automatic pilot should be provided with adequate controls for operational use to adjust effects due to weather and the ship's steering performance.
- 4.3 The automatic pilot should be designed in such a way as to ensure altering course to starboard by turning the course setting control clockwise. Normal alterations of course should be possible by one adjustment only of the course setting control.
- 4.4 Except for the course setting control, the actuation of any other control should not significantly affect the course of the vessel.
- 4.5 Additional controls at remote positions should comply with the provisions of this Recommendation.

5. Rudder angle limitation

Means should be incorporated in the equipment to enable rudder angle limitation in the automatic mode of operation. Means should also be available to indicate when the angle of limitation has been reached.

6. Permitted yaw

Means should be incorporated to prevent unnecessary activation of the rudder due to normal yaw motion.