

RESOLUTION A.583(14)

***Adopted on 20 November 1985
Agenda item 10(b)***

**AMENDMENTS TO THE CODE OF SAFETY FOR DIVING SYSTEMS
(RESOLUTION A.536(13))**

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

RECALLING FURTHER that it adopted by resolution A.536(13) the Code of Safety for Diving Systems,

BEING CONCERNED with further improvement of safety measures for diving systems,

RECOGNIZING the need for establishing international standards for equipment of diving systems to provide for the interchange of diving support systems and assist in the conduct of rescue operations,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its fiftieth session,

1. ADOPTS the amendments to the Code of Safety for Diving Systems (resolution A.536(13)) the text of which is annexed to the present resolution;
2. INVITES Governments concerned to accept these amendments when applying the Code of Safety for Diving Systems.

ANNEX

**AMENDMENTS TO THE CODE OF SAFETY FOR DIVING SYSTEMS
(RESOLUTION A.536(13))**

Chapter 2 — Design, construction and survey

Paragraph 2.3.1

Add a new subparagraph to read:

“.4 be fitted with a manifold at a suitable point close to the main lifting attachment which should include connections for the following services:

- $\frac{3}{4}$ inch NPT (female) - for hot water
- $\frac{1}{2}$ inch NPT (female) - for breathing mixture

The manifold should be clearly marked and suitably protected."

Paragraph 2.12.5

Amend to read:

"2.12.5 A diving bell should have an emergency locating device with a frequency of 37.5 kHz designed to assist personnel on the surface in establishing and maintaining contact with the submerged diving bell if the umbilical to the surface is severed. The device should include the following components:

.1 Transponder

.1.1 The transponder should be provided with a pressure housing capable of operating to a depth of at least 200 m containing batteries and equipped with salt water activation contacts. The batteries should be of the readily available "alkaline" type and, if possible, be interchangeable with those of the diver and surface interrogator/receiver,

.1.2 The transponder should be designed to operate with the following characteristics:

Common emergency reply frequency	37.5 kHz
Individual interrogation frequencies:	
- channel A	38.5 ± 0.05 kHz
- channel B	39.5 ± 0.05 kHz
Receiver sensitivity	+ 15 dB referred to 1µbar
Minimum interrogation pulse width	4 ms
Turnaround delay	125.7 ± 0.2 ms
Reply frequency	37.5 ± 0.05 kHz
Maximum interrogation rates:	
- more than 20% of battery life remaining	Once per second
- less than 20% of battery life remaining	Once per 2 seconds
Minimum transponder output power	85 dB referred to 1µ at 1 m
- Minimum transducer polar diagram	-6 dB at ± 135° solid angle, centred on the transponder vertical axis and transmitting towards the surface
Minimum listening life in water	10 weeks
Minimum battery life replying at 85 dB	5 days

.2 Diver-held interrogator/receiver

.2.1 The interrogator/receiver should be provided with a pressure housing capable of operating to a depth of at least 200 m with pistol grip and compass. The front end should contain the directional hydrophone array and the rear end the 3 digit LED display readout calibrated in metres. Controls should be provided for "on/off receiver gain" and "channel selection". The battery pack should be of the readily available "alkaline" type and, if possible, be interchangeable with that of the interrogator and transponder.

.2.2 The interrogator/receiver should be designed to operate with the following characteristics:

Common emergency reply frequency	37.5 kHz
Individual interrogation frequencies:	
- channel A	38.5 kHz
- channel B	39.5 kHz
Minimum transmitter output power	85 dB referred to 1µbar at 1 m
Transmit pulse	4 ms
Directivity	± 15°
Capability to zero range on transponder	
Maximum detectable range	more than 500 m"

Add a new paragraph 2.12.6 to read:

"2.12.6 In addition to the communication systems referred to above, a standard bell emergency communication tapping code should be adopted as given below for use between persons in the bell and rescue divers.

A copy of this tapping code should be displayed inside and outside the bell and also in the dive control room.

Bell emergency communication tapping code

Tapping Code	Situation
3.3.3	Communication opening procedure (inside and outside)
1	Yes or affirmative or agreed
3	No or negative or disagreed
2.2	Repeat please
2	Stop
5	Have you got a seal?
6	Stand by to be pulled up
1.2.1.2	Get ready for through water transfer (open your hatch)
2.3.2.3	You will NOT release your ballasts
4.4	Do release your ballast in 30 minutes from now
1.2.3	Do increase your pressure
3.3.3	Communication closing procedure (inside and outside)