

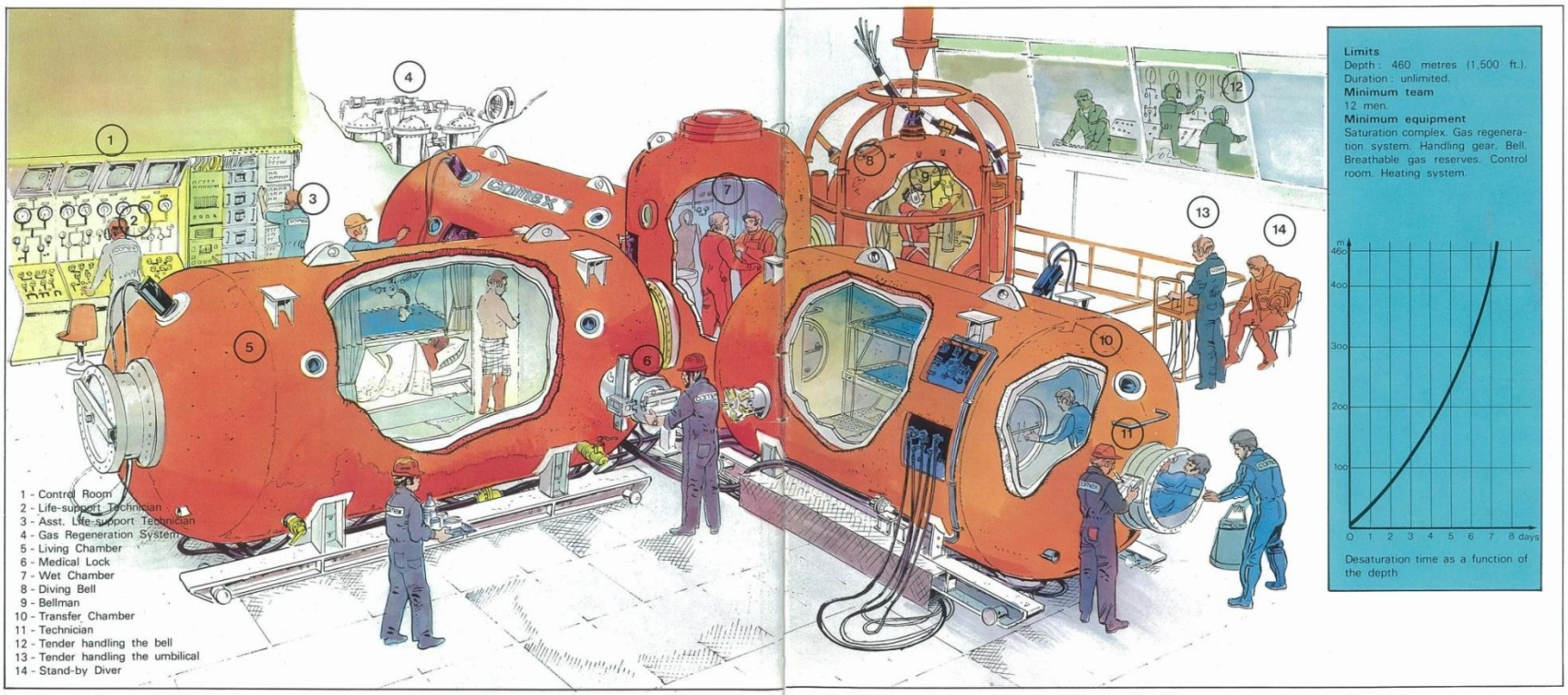
**THERE ARE OLD DIVERS AND BOLD DIVERS
BUT THERE ARE NO OLD BOLD DIVERS !!**

Presented by Ray Farrier

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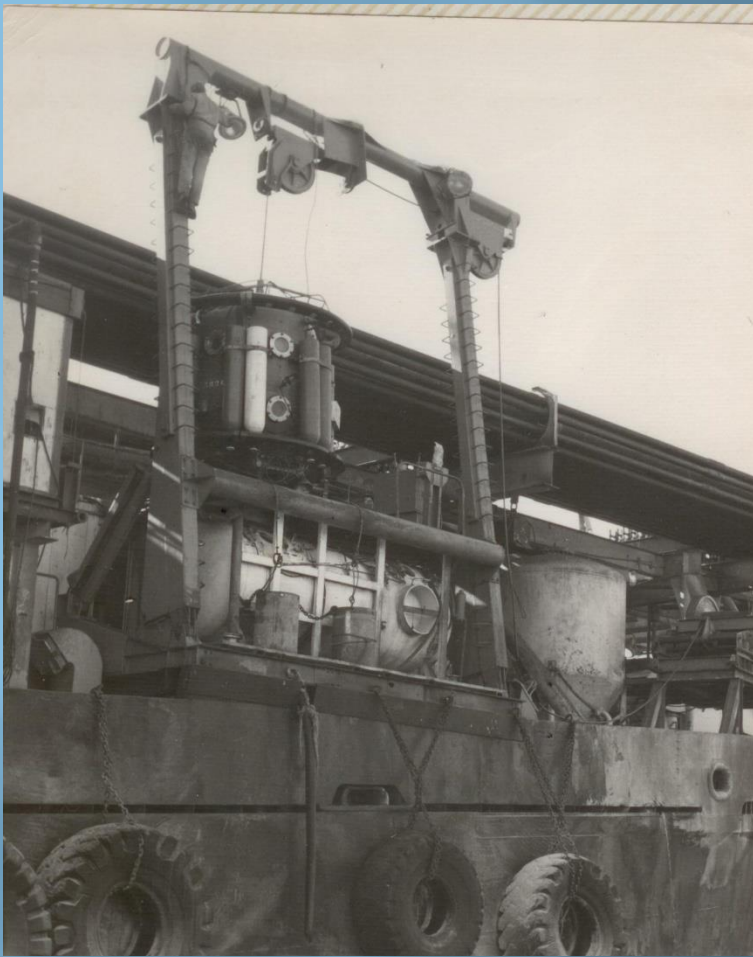
Fellow of the Society for Underwater Technology.

Schematic of Saturation system

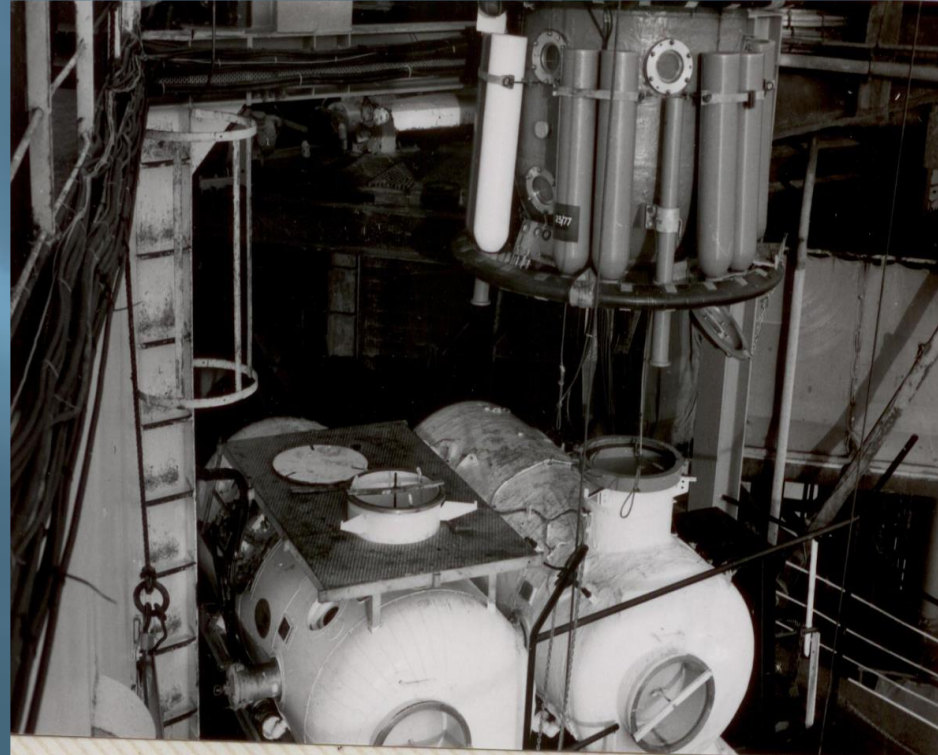


A version of the Standard Diving Helmet first used 168 years ago designed by Augustus Siebe and still used in places today versus the Kirby Morgan equivalent of today. You'll also notice it was compulsory to grow a moustache to be a diver.





The first “Bounce Systems” were very basic no-frill affairs. Photo on right was taken on BP’s Sea Quest in the early days of development of the “Forties Field”



Divers were expected to blow themselves to working depth often going from surface to working depth in a matter of minutes. But it produced problems.

A modern modular system, note the curser, bull bars, plenty of onboard gas in case of emergency.



A single lift and weighs about 55 tons. We see the Bell, TUP, Living Chamber and winch drums.



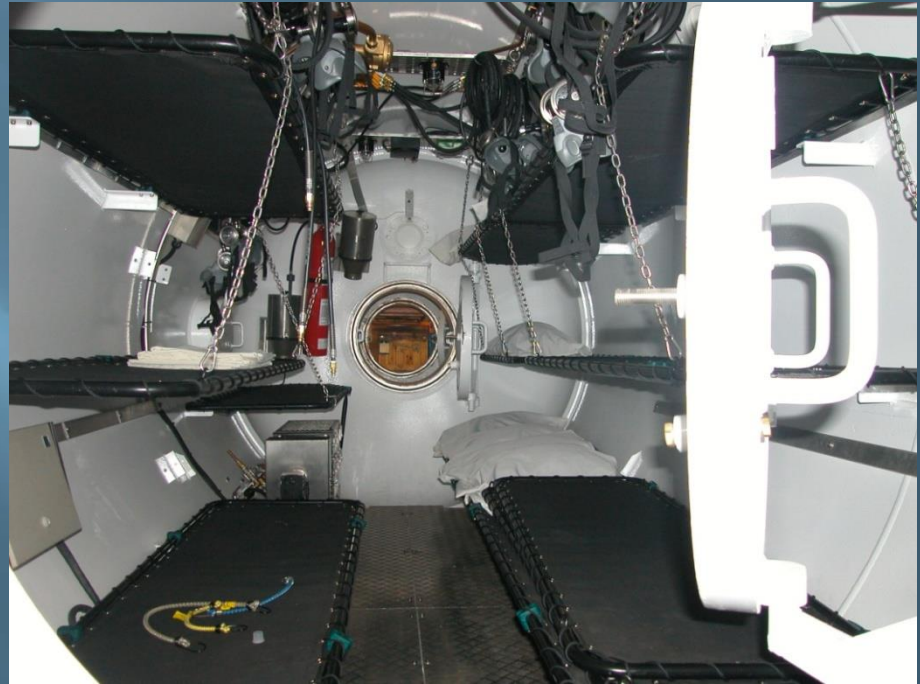


The system is re-assembled on a frame so all the compartments and containers line up.

The HRC is an emergency rescue facility which is designed to float as shown.



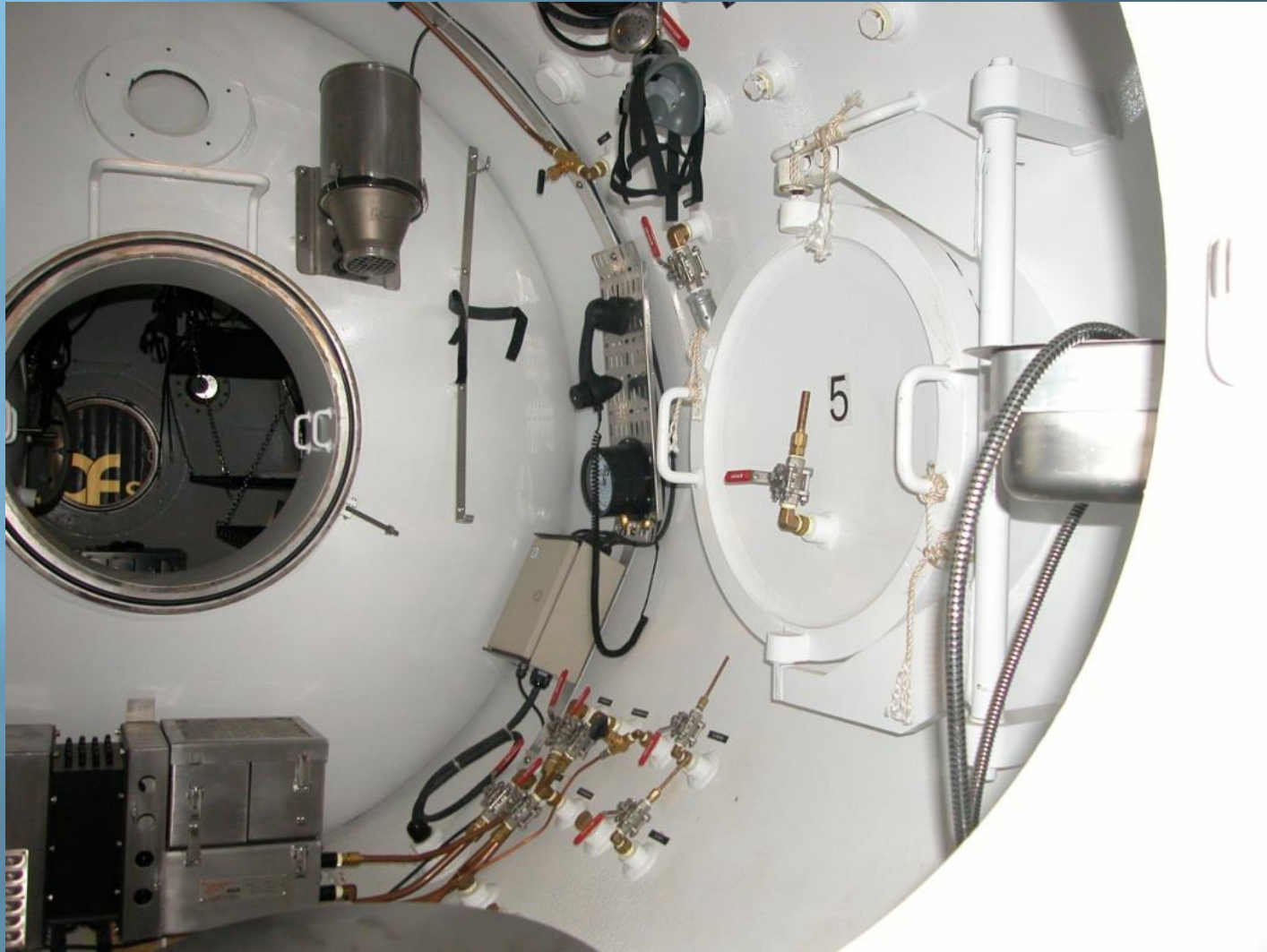
The Hyperbaric Rescue Facility (HRF). This is onshore and is the receiving decompression chamber for the HRC. 10 beds shown of 12.





The Bell is about to be put in the water, the stand off frame (clump weight) has been lowered, the bell outer door is dogged and the locking hooks will be disengaged prior to lowering the bell.

Looking inside a chamber you see the sound powered phone, BIBS, heater, internal depth gauge, scrubbers etc



Saturation Diving Bell - Illustration

THE DIVING BELL. A DEEP-WATER LIFT

When a dive is limited to ten or twenty minutes and to a depth of less than fifty meters (165 ft.), the diver enters the water at the surface. When the dive lasts longer and the depth is greater, as is usually the case, the divers are taken from the surface to the worksite by a diving bell.

The diving bell is a steel enclosure with a sealed hatch in the bottom, suspended from a carrier cable attached to the top. An umbilical cable supplies it with breathing

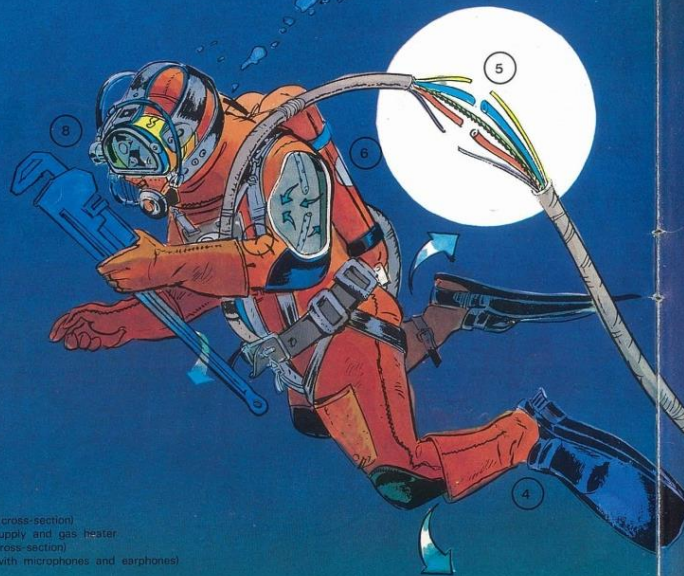
gases, electricity and hot water from the surface, and transmits intercom messages and some measurements. It has room for three fully equipped men: a bellman and two divers.

When the bell has reached the working depth, its internal pressure is brought to the same value as that of the ambient pressure. The hatch which was sealed by the effect of the external pressure then opens effortlessly and the divers, with the help of the bellman, can go out into the water. All the time they are in the water, they are connected to the bell by an umbilical which supplies them with breathing gas and hot water. The hot water first, passes through a gas heater which warms the diver's breathing gas and then diffuses through his suit, therefore

preventing both respiratory and cutaneous heat loss. The umbilical is also the channel by means of which the divers are in continuous contact with the bellman and with the surface, which receives at the same time the constantly changing depth values of each diver.

The bellman stays in the bell and checks the gas supply going to the divers, as well as maintaining their umbilicals at a length that enables them to work easily and without hindrance. He maintains direct contact with the diver at all times, even if hidden in a shadow or has moved outside the bellman's range of vision, by skillfully tending the diver's umbilical.

Under normal circumstances the bellman would not take part in underwater work, he only leaves the bell to help a diver in trouble.

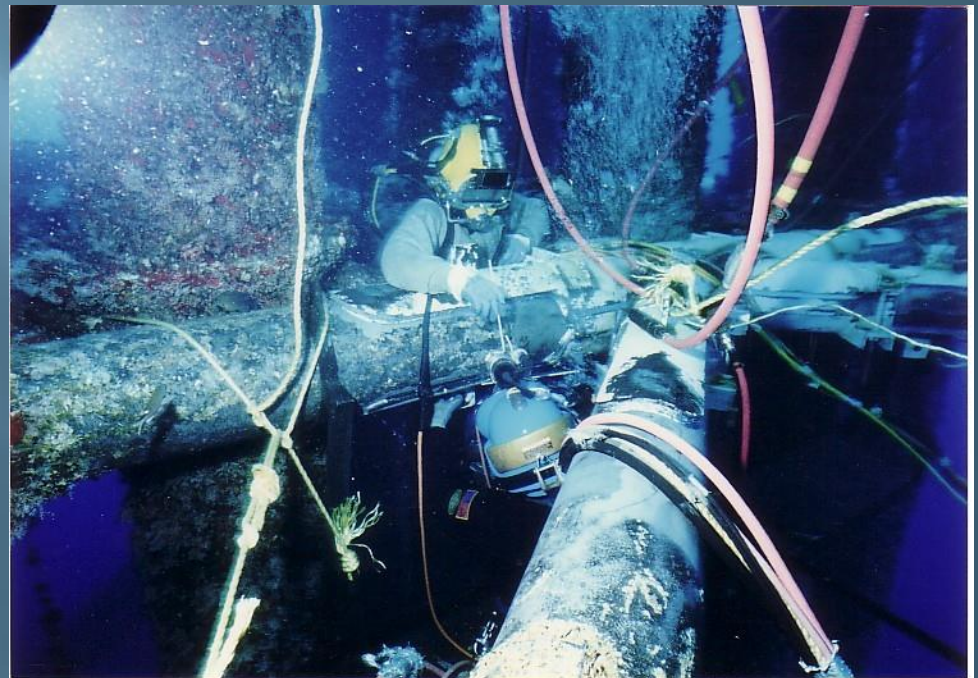


- 1 - Carrier cable
- 2 - Bell umbilical
- 3 - Bellman
- 4 - Diver
- 5 - Diver's umbilical (cross-section)
- 6 - Emergency gas supply and gas heater
- 7 - Hot water suit (cross-section)
- 8 - Full face mask (with microphones and earphones)





Avoid asking the impossible and
sometimes divers do get hung up.



1974 - 2015

- ▣ Divers were sourced from the military or sports diving clubs
- ▣ The only training was done by Comex and cost GBP70 which you got back if you passed the course.
- ▣ Fort William later got in on the act (76) still 26 divers died in 1979 alone.
- ▣ Making calls ashore meant going to the Bridge and waiting for the “Radio Officer” to fit you in
- ▣ Very few women worked offshore, and usually in the kitchen
- ▣ Working offshore often meant being “offshore” for 3 months at a time

1974 - 2015

- ▣ Working offshore often meant being “offshore” for 3 months at a time
- ▣ 12 hour shifts were a guideline not a right, meals were often taken “on the run”
- ▣ Drink and play hard, no testing for alcohol or drugs
- ▣ There were no “Subsea Engineers”
- ▣ No specific subsea engineering courses.
- ▣ THANKYOU - QUESTIONS ????