# November 1981 The Sedco Phillips SS Hyperbaric Lifeboat Chamber incident



David Hutchinson 9th November 2021 NUI International Diving Seminar Bergen The Sedco Phillips SS was a multi-role Sedco 700 series semi-sub which worked in Ekofisk between 1978 and 1985/6
Oceaneering ran the sat dive spread on contract to Phillips Petroleum Co Norway for the first 6 years

All year round SAT and Air diving, plus large welding & machine shops, firefighting spread

- PSS moored alongside installations using an 8point anchor system; two from each corner.
- PSS could get close enough for divers to swim across into the jackets from the bell
- In bad weather PSS would pull back away from the platform as far as she could on her anchors. That was only a few hundred metres normally.



#### 6-diver main chamber, wet pot connecting through to a 4-bunk HLC.





Over-side launch bell,



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I Joined the job about 5 months into the contract in June 1978. I was 22 at the time. I worked on there over a period of 6 years

#### 22 November 1981 at Ekofisk's TOR 2/4E Installation

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- We had been down on weather for a few days; four guys were decompressing in the lifeboat chamber which was always used for deco, and there were 4 divers (2 x two-man teams) in the 6-man main chamber



#### Commitment to Sat

2300hrs. The nightshift supervisor, Brian Williams, decided to put Spike (Rob) Kelly and me in during the night through the bell. So we blew down in the bell and went straight to the bottom. The weather was still well up, but it had eased a little and we all thought he was doing us a favour getting us into the bin. I had only been locked out for about an hour when I was called back. Weather from astern. Massive heave on the bell. The dive was aborted.

## Back in the main Living Chamber approx. 01:00hrs 23/11/1981

- The vessel was ballasted down to survival draft
- The seas were hitting the bottom of the main deck and there was a massive amount of pitch and roll
- Just as Spike & I had finished our supper, the LSS, Pete Powell, came on the comms and said 'Dave, Spike, wake the others, get warm gear on, you're going into the lifeboat.'
- Storage for the 6 of us in the main chamber was 52m and the other 4 had reached about 15m in decothey asked to be brought straight out on emergency decompression, but the answer was negative – no time. They were immediately blown down to our depth. We were through in just a few minutes.
- Pete told us that we were in imminent danger of hitting the platform, as all but one of the eight mooring lines had failed



Blow down – as soon as we got into the Lifeboat chamber, and closed the door, they blew us down below bottom depth. Then disconnected the HLC & hauled it out of the hangar onto the main deck.

- Comms Crucial for morale
- **Getting Organised in the Lifeboat** –
- There were 10 of us in the 4-man chamber. In the lockers under the two bottom bunks were 10 heli survival suits We were cold, so we all put them on. With them on we quickly organised a a bunk roster. We took it in turns to lay head-to-toe on the bunks, and the spare two had to sit on the deck plates.
- No seatbelts, no crash hats, no plan
- ▶ No drills or training for this scenario.



On deck clear of the hanger and onto the deck area for lift-off, we could see some of what was happening outside through a port in the entry lock. Pictures by diver Ross Auld who took a Nikonos out of the store!

#### Some Points

- Training / drills
- Fitness of the system for local environmental conditions we were cold, and still on deck
- Launch system crane only or float off!
- Psychological impact very confined, very frightening (apart from Spike)
- Communications with outside crucial but hampered by conditions
- If launched we'd have been on our own
- Outside we learned later of disagreement about launching
- Modern SPHL systems bear little resemblance to that float-off chamber. But HLC's are still in use around the world



## Some further Points

#### • Ensure that:

- Your procedures & drills provide for a range of reasonably-foreseeable scenarios - in addition to standard deployment processes
- Your OMs and Masters have at least discussed scenarios, and preferably have been exposed to testing exercises in which they both are obliged to make decisions which affect outcomes
- SPHL Cockpit crews carry appropriate competencies for craft operation and life support



## Some further Points

- Is your SPHL or HLC fit for the local climatic conditions? Has the vendor tested it with full occupancy at any point? What gives you assurance?
- Split sat or teams in deco.
  - e.g. 6 in deco at 5m/ 12 at 140m storage
  - What does your diving manual say?
  - Do you have performance standards for blowdown & transfer to SPHL?

- If you have two SPHLs for redundancy – is there a situation where you might launch both?
  - If so do you have a model for crewing them and for hyperbaric reception?
- If your reception facility contract requires life support personnel from the diving contractor
  - How are you assured of their availability? Have you modelled and exercised a scenario?
  - How are they competent to operate the HRF?

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# Have there been other incidents involving a potential or actual hyperbaric evacuation?

- 1. Two O.I. divers in the bell of the TW 58 adrift the same night as PSS
- 2. The Huichol sank in 1985 killing all the divers in sat
- 3. The DB29 sank in 1991 all four divers in sat lost
- 4. The Koosha 1 sank in 2011 all six divers in sat lost
- 5. The Seaforth Clansman launched their SPHL in the Falklands in 1983, but recovered it again when the emergency was resolved
- 6. A DSV collided with a platform in the Dutch sector in 2011 divers in sat
- 7. A DSV ran aground in Lerwick in 2011 12 divers in sat
- 8. Stena Workhorse had a major fire with 4 divers in sat and two divers subsea in the bell
- 9. The DSV Samudra Suraksha collided with a platform in 2005 and was abandoned by all crew but the 6 divers in Sat
- 10. The Stephaniturm collided with a platform in the SNS late 1990's. Divers in sat
- 11. Significant DSV fire UK 2018. Divers in sat
- The list of collisions, DP incidents, fires does continue even the ones we're not supposed to know about.....

# Back to the PSS in trouble in the big storm:

#### How did we survive that night?

Our attendant anchor handler, 'Tender Power', had recently taken delivery of a rocket-launched rescue line and they got a tow-line onto us and steamed into the weather. The emergency went on for many hours; we were convinced for most of that time that we were not getting out of it. We all found out what

colour adrenalin is that night. I imagine the platform did too.....







#### 'Tender Power'





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The incident as depicted by my friend the late Frank Wright Presented to the 8-man crew of the 'Tender Power' by a grateful PSS Crew

- In 1981 standards were different and any form of escape chamber was considered to be an advancement over cramming into the bell
- Generally though, we were not as well prepared as today but IMHO there are still a lot of assumptions and room for improvement in peripheral issues like planning, modelling and training for a variety of scenarios
- Forty years later, many DSV's have two self-propelled hyperbaric lifeboats and arrangements in place for reception and transfer to onshore facilities
- If you used two SPHL's have you a plan/model for reception?
- ▶ Norway's ERRV's fantastic. If only the UK industry had the same...

Power failures and fires do still happen. Say you're in a storm Force 10, 150km out with 18 in sat. Suddenly there's no power The vessel is rolling and threatening to broach – do you launch the SPHL? You have to decide.....

# Thank You

## Any Questions or Observations?