

IMCA Safety Flash 08/09

June 2009

These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learnt from them. The information below has been provided in good faith by members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of the IMCA safety flash system depends on receiving reports from members in order to pass on information and avoid repeat incidents. Please consider adding the IMCA secretariat (imca@imca-int.com) to your internal distribution list for safety alerts and/or manually submitting information on specific incidents you consider may be relevant. All information will be anonymised or sanitised, as appropriate.

A number of other organisations issue safety flashes and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at www.imca-int.com/links. Additional links should be submitted to webmaster@imca-int.com

I Near Miss – Dropped Clump Weight

A member has reported an incident in which a clump weight was inadvertently dropped to the seabed. The incident occurred during diving operations when operating a deck mounted tool deployment A-frame which incorporated two tigger winch systems and a downline powered sheave. Each tigger winch wire had an 88kg clump weight attached. One tigger was operational, deployed subsea with a downline secured to the wire at 10m intervals and the other inactive with the clump weight suspended just below the snatch block.

While recovering the tigger wire with downline to the surface, it was noticed that the winch wire clump weight could potentially foul the guard rails on the A-frame. The decision was made to boom out the A-frame further. As the A-frame was boomed out, the clump weight on the inactive wire rode up into the snatch block (because the tigger winch was not paid out as the boom was extended). The winch wire parted and the clump weight dropped to the seabed.

The clump weight landed on a protection structure approximately 10m from the divers who were working in an adjacent manifold. No one was injured and no equipment was damaged but there was a high potential for serious injury to the divers and for damage to subsea assets.



A-frame with tigger winch, snatch block and powered sheave arrangement



Position of deck crew during downline/tugger wire recovery

Following investigation it was discovered that the following factors contributed to the high potential near miss:

- ◆ The supervisor in charge of the operation on deck was himself operating the winch and A-frame rather than supervising 'hands off';
- ◆ The task risk assessment in place for the operation was not complete and did not cover all aspects of hazard and risk;
- ◆ There was no limit switch or proximity device fitted to safeguard against collision;
- ◆ The second tugger clump weight assembly was too close to the A-frame snatch block (when it should have been stowed with sufficient slack to take up any extension);
- ◆ There was a lack of awareness regarding the position of the second tugger winch clump weight and of the potential consequences of letting out the boom on the A-frame.

The following corrective/preventative actions were taken:

- ◆ Review of operating procedures and risk assessments for the use of lifting appliances incorporating independent hydraulic ram and winch controls, including:
 - awareness of hook/load position when operating A-frame
 - position of divers – exclusion zone for divers to be determined from dropped object analysis and this should be written into operating procedures and risk assessments
 - warning notices to be posted on A-frames
 - deck crew to be familiarised and deemed competent to operate equipment;
- ◆ Supervisors should remain 'hands off' and in a position to monitor and control operations;
- ◆ Operations requiring the over-boarding of anything when divers are in the water should require a dedicated toolbox talk to discuss and review over-boarding task risk assessment;
- ◆ Full communication and agreement between the deck supervisor controlling the deck over boarding operation and the dive supervisor regarding:
 - the imminent over-boarding of a load
 - that divers are clear of the dropped object exclusion zone.

2 Reintroduction of Personal Locator Beacons on Helicopter Flights

Members' attention is drawn to the attached announcement from Oil & Gas UK regarding recent developments with personal locator beacons (PLBs) for passengers in helicopters, which states that it has been agreed that PLBs should be reintroduced on offshore helicopter flights from mid-July. This follows an earlier announcement from the UK Civil Aviation Authority stopping the use of PLBs, which was covered in IMCA safety flash 05-09.

3 Fall From Height

A member has reported an incident in which a person was injured in a fall from a different level. A saturation diver used the transfer under pressure (TUP) access hatch to come out of the saturation chamber while unloading equipment. To re-enter the chamber the diver held on to the top dogging bar of the chamber. The dogging bar rotated towards him causing him to lose his grip and fall approximately five feet on to the bell skid leading to muscle contusion and hairline fractures of his right forearm and right thigh.

Further investigation revealed the following:

- ◆ In normal circumstances the presence of the diving bell at this TUP access hatch made access and egress safe. When the diving bell was removed, there was less edge protection around the platform;
- ◆ The injured person did not recognise the lack of protection and increased risk of falling;
- ◆ The injured person used an incorrect handle (dogging bar) to pull himself into the chamber.

The following recommendations were made:

- ◆ Reinforce the importance of management of change procedures;
- ◆ Ensure the correct fixed handholds are used when accessing or exiting a saturation chamber;
- ◆ Ensure all relevant personnel are aware of the location and use of the correct handholds;
- ◆ Construct a removable platform with additional edge protection to facilitate access to and from the chamber when the bell is not present (see second picture).

Grip used by diver when entering

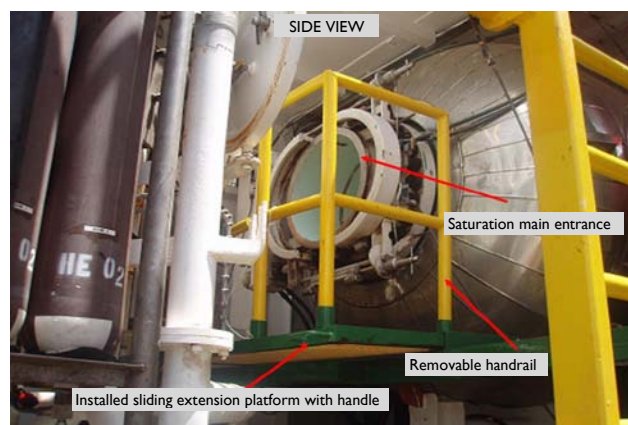
Temporary ladder used by divers – tied off to platform

Base of diving bell rests on deck here and mated with flange here when not in use



Fixed entrance platform ladder

Saturation chamber from which diver fell



Movable platform to allow safe access to saturation chamber

4 Sodasorb Burn Injury

A member has reported that a diver has sustained a serious Sodasorb burn to his wrist.

After investigation by the member, the following was found:

- ◆ The spare bell scrubber basket had been filled with Sodasorb and sealed in a polythene bag which was in the bell for two days before it was used. During this period it appears that seawater had entered the container;
- ◆ When the diver lifted the basket, liquid ran out causing chemical burns to his wrist, the severity of which required that the diver be decompressed;
- ◆ The polythene bag had either not been properly sealed or had been damaged.

It is recommended that the polythene bag should be checked for seal and integrity before use, ensuring that it stays dry and that dive team members are reminded of the importance of safe handling practices of Sodasorb and other diving system chemicals.

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UK Oil and Gas Helicopter Task Group update

Reintroduction of PLBs on helicopter flights

3rd June 2009



Oil & Gas UK 

the voice of the offshore industry

Following a meeting on 2 June 2009 between the CAA, helicopter operators, the health and safety executive and Oil & Gas UK, it has been agreed that personal locator beacons should be reintroduced on offshore helicopter flights from mid July. To find out more about the outcomes of the meeting, the background and the technical challenges that will need to be overcome, please read on below.

Background

Following the ditching of an offshore helicopter in the UK sector in February, investigations by the UK Air Accidents Investigation Branch (AAIB) found that interference from the personal locator beacons – or PLBs – worn by passengers had effectively switched off the “smart” long range rescue beacons that were fitted to the life rafts. This could have impacted the effectiveness of the search and rescue operation.

The smart technology fitted to the life raft beacons is designed to shut the beacon down if it detects another beacon signal within a certain radius. This is supposed to ensure that the aircraft can easily be homed in on by Search and Rescue (SAR) aircraft by having only one high-powered aircraft beacon transmitting at a time. However, in the ETAP ditching, the lower powered passenger PLBs (non-smart) were detected by the smart beacons, which caused all of the aircraft and life raft beacons to power down.

As a result, the UK Civil Aviation Authority (CAA) instructed offshore helicopter operators within the UK to stop carrying personal beacons in ‘stand by’ mode because of the risk of them being accidentally switched on, interfering with the aircraft’s safety systems and shutting down its long-range beacons.

Following this instruction, it was agreed that the carriage of PLBs offshore would be temporarily halted until a solution to the issue could be found. This was to ensure a consistent approach, and also because PLBs carried in the ‘off’ mode are difficult (and for some models impossible) to activate whilst they are being worn.

The beacons can still, however, be worn on board offshore platforms, especially for work being done over the side.

Current position within the UK sector

The PLB Workgroup, established in March this year, has been working with the helicopter operators and CAA to find a solution to these issues and have PLBs returned to use offshore as soon as possible. This was identified as a priority by the Helicopter Task Group.

Following a series of discussions, a high level meeting was held on 2nd June 2009 between the CAA, Health and Safety Executive (HSE), helicopter operators and Oil & Gas UK representatives to agree a timeline for the reintroduction of PLBs.

The group discussed the following issues:

- Accidental activation of PLBs – in order for the CAA and helicopter operators to accept the reintroduction of PLBs, it must be demonstrated for each different type of PLB that they are unlikely to go off accidentally (for example if dropped on the floor or tampered with during the flight)
- Smart beacon interference – To prevent the PLBs interfering with and shutting down the life raft beacons (as happened in the ETAP ditching), the life raft beacons must be switched back to a non-smart mode, so that they do not automatically switch off if they detect another

To find out more about the work of the helicopter task group and other important areas of work, please click [here](#)

A short summary of the other work fronts can be found below:

Flight following system

This new multilateration system enables helicopter positions to be displayed to the air traffic controllers on their radar display without using radar.

Improvements to VHF voice rebroadcasting

2009 will see the completion of a project to revolutionise voice communication with offshore helicopters.

Helideck lighting trials

Trials for enhanced helideck lighting are currently being carried out on installations across the UKCS.

Implementation of advanced HUMS system

The industry is committed to the early application of advanced anomaly detection data analysis for existing helicopter Health and Usage Monitoring Systems.

The new system will be able to detect faults that are not being highlighted by current HUMS analysis.

Offshore meteorological observation and reporting

Oil & Gas UK is liaising with CAA and the Met Office to progress CAA recommendations, including the requirement for aeronautical meteorological stations on offshore installations and formal training of personnel making meteorological observations.

beacon going off nearby.

- Direction Finding (DF) equipment – This is the equipment used on board search and rescue helicopters and marine vessels to locate and home in on emergency beacons (including PLBs). Testing needs to be done to identify if any of this equipment needs upgrading so it can home in on an area if several beacons/PLBs are transmitting in that area.

The outcomes of the meeting for each of these issues are summarised below:

Personal Locator Beacons

There was general agreement by all parties that PLBs should be reintroduced for use on helicopters by the middle of July; to that end the following actions were agreed:

- Each PLB model will go through a series of tests which have been approved by the CAA to demonstrate that the PLB in question is unlikely to activate accidentally (for example if dropped or knocked). Once a particular PLB has passed all these tests, the results will be reviewed by the CAA, helicopter operators and Oil & Gas UK in order to reach agreement for reintroduction on offshore flights.
- Helicopter operators will develop a standard pre-flight briefing for PLBs. The briefing DVD will also be revised.
- Helicopter operators will install 121.5mhz (the frequency PLBs transmit on) receivers onshore to check that no PLBs have been accidentally activated before boarding. Installation operators will install similar receivers offshore.
- Oil & Gas UK will convene a meeting at the end of June with the CAA and helicopter operators to agree the final steps towards PLB reintroduction in July.

Smart Locator Beacons

- The CAA will be writing to the helicopter operators to confirm the CAA's expectation that the smart locator beacons in the life rafts will be replaced by non-smart beacons.
- Helicopter operators will produce a timetable for the replacement of smart locator beacons and share this with Oil & Gas UK.
- The CAA will host a technical meeting with all parties during early June to discuss smart beacon issues and any other issues arising linked to the reintroduction.

Additional issues

It was also agreed that further tests will be carried out to confirm the ability of Direction Finding equipment to home in on multiple beacon sources. This work will not need to be completed before reintroduction of PLBs.

For further information please contact Britta Hallbauer at bhallbauer@oilandgasuk.co.uk or on 01224 577 250.

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