UK Oil and Gas Helicopter Task Group update
Reintroduction of PLBs on helicopter flights
3rd June 2009

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
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.

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