

## Pre-flight checks for life jackets and compressed air emergency breathing system (CA-EBS)

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### What happened?

Prior to departure on a helicopter to an offshore facility, a passenger observed that despite heliport personnel completing their checks, the Compressed Air Emergency Breathing System (CA-EBS) air supply on a donned lifejacket was turned off. On further investigation NOPSEMA discovered approximately half of the personnel travelling on that flight had the air cylinder valve closed on their CA-EBS. It is likely that previous flights involved similar failures to correctly fit and configure the lifejacket and CA-EBS.

### Why did this happen?

There were a number of contributing factors.

1. Heliport staff advised passengers that they would check that lifejackets had been donned correctly prior to the recorded pre-flight safety briefing. However, the checks did not actually ensure lifejackets had been put on correctly (see points below for further information).
2. Heliport staff did not have adequate knowledge about what was required to ensure the lifejackets were operational and donned correctly. For example, they believed they “only had to check that the pressure shown on the air tank gauge was in the green” for each passengers’ lifejacket.
3. Passengers assumed the lifejackets and CA-EBS were correctly donned and operational after the heliport staff checks.
4. The CA-EBS indicators to show correct pressure was available were misleading. The photograph below shows the air tank has adequate pressure (that it’s ‘in the green’). However, no indicator shows which way the valve should be opened or closed and in this instance the valve was actually closed.



### What could have happened?

Inoperable CA-EBS could have resulted in significant consequences for personnel health and safety during emergency ditching at sea.

### Key lessons

- Prior to departure, lifejackets should be checked by two independent parties to confirm that they are being worn properly, and all safety systems are functional and operable. E.g.
  - A buddy traveling on the same flight as each passenger
  - Heliport personnel (after the buddy check), who have appropriate competency in checking the lifejackets and CA-EBS.
  - Other competent parties as appropriate
- Heliport personnel should have clear understanding of how lifejackets and CA-EBS should be donned and set up to ensure correct operation.
- Lifejackets should have clear markings to ensure the CA-EBS can be checked for correct operation.

### Conclusion

Helicopter crash is a Major Accident Event for offshore facilities with helicopter operations. To mitigate loss of life, caused by a helicopter ditching at sea, operators should ensure personnel are provided with correctly worn and operating lifejackets prior to boarding a helicopter.

### Contact

For further information email [alerts@nopsema.gov.au](mailto:alerts@nopsema.gov.au) and quote Alert 73. NOPSEMA safety alerts are published at [Alerts and bulletins | NOPSEMA](#).