

## Near-miss: Failure of diving helmet communications module

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A member has reported an incident where the communications module on a Kirby Morgan KM 37 diver's helmet failed at the interface between the threaded section and the main module.

### What happened?

The incident occurred during a dive to 12 msw. The diver was able to reduce the loss of air from his helmet by placing his hand over the partial opening and return to the surface in a controlled manner. The module did not fall out of the aperture in the helmet. There were no injuries.



### Our member's investigation revealed the following:

- The module had never been removed from the helmet.
- The helmet had been in storage for several years since purchase with minimal use.
- Water temperature was less than 2Â°C; Depth: 12 msw.
- No tool marks were found on the securing nut to suggest over tightening.

The failed module was sent to the supplier for inspection and analysis. The supplier inspected the part and performed in-house testing of off the shelf inventory overstressing at worst case levels. It was reported the parts withstood extreme stress tests at elevated and sub-freezing temperatures and passed all inspection criteria. The supplier found that failure of the module appeared to be an isolated case and referred the member to Kirby Morgan Bulletin #1 of 2009.

## Our member took the following actions:

- Supplier would include, in checklists, that the module should be regularly loosened and retightened during checks, by hand.
- Inspection of all such communications modules -none found with potential failure indications, even in older helmets in more frequent use.
- A recommended inspection/check process was initiated.

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