In 1983 HMAS OVENS was conducting formal safety sea training in the East Australian Exercise Areas with the Submarine Sea Training Group (SSTG). At the end of the day's sea training, a flood exercise was initiated whilst the boat was deep. Main Ballast and D tanks were blown iaw EOPs. As the boat ascended an outstation reported that the flood was isolated.The CO ordered Main Vents opened, full dive on the planes, and reduced speed to Half Ahead Together. He didn't tell anyone why (although it was presumably in an attempt to regain control of the submarine and prevent surfacing). The momentum could not be overcome and the submarine subsequently surfaced doing about 8 kts. CO then ordered SlowAhead Together Group Up (armatures inparallel). At some stage during the ascent the helmsman reversed the planes to full rise.The CO manned the forward periscope on surfacing and after a quick look ordered the OOW and Lookout to the Bridge. The CO retained the Conn. Soon after personnel arrived on the bridge the CO saw that the boat was very low in the water aft. He ordered the aft MBTs blown again for 5 seconds or so. As this appeared to have no effect, the CO then ordered Half Ahead Together.The effect of main vents being open, increased ahead propulsion and full rise on the planes resulted in the boat descending with a bow up angle. Water soon started to pour into the submarine through the conning tower. The flow of water through the tower became a full bore. The Control Room deck had about 15 cm of water on it. Water was rapidly flooding into the AMS causing electrical earths, short circuits and equipment failures.The helm and OOW panels became 'live' causing significant difficulties for the crew to manage ship control without being electrocuted.The submarinewent to Emergency Stations.The bulkhead doors either side of the Control Room were shut. Engine Room staff shut 77 Watertight Bulkhead Door and witnessed water rise over the level of the door's central sight glass. Main Ballast tanks were emergency blown.Engine Room watchkeepers noticed that Main Vents were indicating open and tried to inform the Control Room. TheEngine Room pipes were not heard in the Control Room.

The Navigator realised that Main Vents that Main Vents were still open."The Surfacing OOW and Lookout saw a frightening whirlpool of water going through the conning tower. Their first reaction was for the lookout to proceed down to shut the upper lid but it was clear that this would not be safe. The OOW could not establish communications with the Control Room.

The OOW and Lookout, who did not have life jackets, discussed their options in case the boat went down, should they swim towards shore (several miles) or hope to hold onto an indicator buoy (and how they could keep their smokes dry). The submarine continued to descend, the only things keeping it up were speed and rise on the planes. The Navigator realised that Main Vents were still open, he ordered them shut and MBT blown with the little HP air that remained. Before this blow could take effect the submarine dived to about 15m.Although a lanyard was fitted to the lower lid, the force of the full bore of water made it impossible to grasp. Despite the enormous water pressure on his body, the Engineer (assisted by the Navigator) somehow climbed the Control Room ladder to the Conning Tower Lower Lid and pulled it shut, injuring himself in the process. The lid, which was being held open by the pressure of water, slammed shut after it was pulled far enough to put pressure on its top side.

The Conning Tower lower lid rubber sealing ring had been displaced by the water so the hatch was not fully sealed. The dovetailed groove in the hatch coaming was later found to have been machined oversize during refit.

The submarine successfully surfaced. The Ballast Pump had been sucking from the AMS bilge from the start of the incident. The operator lost count of the flowmeter readings, but it was later estimated that at least 2100 gallons (over 11 tonnes) of water was pumped from the boat. Repairs to the boat's control room, fwd periscope and AMS equipment took a full week of crew, FIMA and dockyard shift work to repair. Lessons Learnt: · Tell personnel what you are doing and why. If the Captain's intentions had been shared the incident may have been averted.· A procedural change required the panel watchkeeper to keep his hands on the Main Vent

Switches whilst the Main Vents were Open.· A Team approach to submarining was reinforced. Specific direction was given to encourage all personnel to report anything untoward regardless of the situation or circumstances.· SSTG procedures and oversight audited and amended – evolution planning was subsequently
required for safety/contingency planning in the event of safeguard mishaps.
· There's a good reason for having a lifejacket when on the casing or bridge – you never know what may happen.
Footnote: The next day in harbour, it was noticed that some clown had glued a measuring tape up the side of the helm station with a sign 'OVENS depth gauge'.N
This is a frightening story. There are parallels between this incident and the Greeneville/ Ehime Maru disaster – the CO had the Conn in both cases. Ed.