

Memorandum

SAFETY NOTICE - Lithium-ion batteries in SLS Radios

Attention: Branch Directors of Lifesaving, Club Captains, Club Gear & Equipment Officers, ALS and AUAVS Supervisors

Date: 19th October 2023

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As with all lightweight “intelligent” batteries provided with portable electronic devices, most radios currently in service and all recommended for purchase by SLSNSW are fitted with lithium-ion batteries.

These batteries are energy-dense and contain chemicals that are highly flammable. As has been documented in the media over past months, these batteries may, on rare occasions and under circumstances quickly deteriorate to the point of swelling, smoking and ultimately combusting.

There are several situations that can lead to lithium-ion batteries catching fire, including:

- Overcharging.
- Use of non-compliant charging equipment.
- Overheating or exposure to heat or extreme temperatures.

Recently a radio that had been used in an IRB for a training session was inadvertently left in its waterproof bag, in the bottom of the IRB for several hours where it was exposed to direct sunlight with little ventilation, resulting in the following damage.



It should be noted that these batteries are generally safe and unlikely to fail, so long as there are no defects, and the batteries are not damaged or mistreated. The ACCC recently published this [Consumer Product Safety Report](#) on the use, storage, disposal and potential dangers of lithium-ion batteries.

General consumer advice on the use, storage and disposal of these batteries is as follows:

- Monitor charging times of lithium-ion products and disconnect products from chargers once they are fully charged. Consider setting timers as a reminder to unplug products.
- Keep lithium-ion batteries out of household garbage or recycling bins and kerbside hard waste collections.
- Charge lithium-ion batteries and products away from combustible materials such as beds, sofas or carpet.
- Store batteries and lithium-ion products in cool, dry places and out of direct sunlight, including while charging.
- Do not use batteries, products or chargers that are overheating or showing signs of failure such as swelling, leaking or venting gas.
- Check the charger you are using is suitable for the product being charged.
- Allow time for batteries to cool after use and before charging.

In the event of a fire or battery failure, it is recommended that the following be undertaken:

- If charging, turn off the power outlet and unplug.
- Avoid inhaling any smoke or fumes.
- If indoors and safe to do so, relocate the radio to an outside area away from any combustible material and away from windows or doorways.
- The radio can be dropped into a bucket of clean water to cool if this can be done safely.
- Small flames can be doused with a bucket of water or a garden hose to stop the fire spreading to nearby objects. Make sure the device is not plugged in to mains power or near other powered equipment when applying water.
- Use a nearby fire blanket or if trained, a fire extinguisher (dry chemical powder or carbon dioxide), only attempt to use them from a safe distance away from any smoke or vapours. These may be used to prevent the spread of fire to the surroundings but are not likely to fully extinguish a lithium-ion battery fire.
- Call the State Operations Centre during operational hours or Triple Zero (000) outside operational hours even if you no longer see visible smoke or flames. There is a good chance that the battery might reignite if it has not been sufficiently cooled.

Please distribute to all relevant personnel and display in Patrol Rooms/Areas.