

# LS7 RADIO COMMUNICATIONS



## LS7.1 RADIO COMMUNICATIONS

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### PURPOSE

To outline club/service radio communications requirements for lifesaving operations in Tasmania.

### PROCEDURE

All SLS clubs/services/regions shall meet the SLST radio/communication requirements when undertaking lifesaving operations, including:

- SLST approved radio equipment (types/models)
  - SLST approved radio frequencies (channels)
  - Coordinating through SLST approved SurfCom's
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- All SLS clubs/services/units/regions shall utilise and operate within the SLST approved radio network. No service shall undertake lifesaving operations on alternative networks or establish their own alternative radio communications networks unless authorised by SLST.
  - All SLS clubs/services/units in Tasmania shall utilise a SLST endorsed SurfCom communications/coordination centre for lifesaving operations. No SLS service shall implement their own SurfCom-type entity without the authorisation of SLST.
  - Only SLST approved radio frequencies and channel allocations shall be programmed into SLS radios. No unapproved frequencies or frequency changes shall be permitted without the approval of SLST.
  - SLS radio frequencies are licensed and managed by SLST. No SLS service in Tasmania shall apply for or implement frequencies through the ACMA for lifesaving operations outside of the SLST frequency plan. Additions to the SLST Apparatus Licence needs to be submitted to the Lifesaving and Services Manager for approval.
  - Only SLST approved, licensed agents/service technicians may service or program SLS radios.
  - All SLS services must be contactable via radio if conducting lifesaving operations in regular patrol coverage areas.
  - All SLS radios must meet the minimum SLST radio specifications as outlined in this document.
  - Only approved SLS clubs and units/service officers/personnel (who are currently SLST members/staff) shall utilise and operate lifesaving radio equipment and monitor lifesaving frequencies. External partner agencies/stakeholders shall require written permission to hold, use or monitor SLST radio frequencies.



# LS7.2 RADIO SPECIFICATIONS

## PURPOSE

To outline minimum radio specifications for SLS radios used in Tasmania.

## PROCEDURE

### Definitions

**Base-set/Mobile-Set:** Fixed radio unit-usually located in towers/clubs or ATV/4WD/Marine Rescue Craft

**Portable/Handheld:** Radio units used/carried by individual lifesavers/lifeguards/IRBs

**Lifesaving Operations:** Patrolling/Emergency Response/Training/Events/Carnivals

1. Only SLST approved radio makes or models shall be utilised for lifesaving operations.
2. Radios for lifesaving operations shall be purchased only from SLST approved suppliers/dealers and must be Australian type approved radios.
3. Only SLST approved radio service agents shall be authorised to service or program SLS radios.
4. SLS radios shall only have the SLST schedule of radio frequencies/channels programmed into them (additional frequencies must have SLST written approval and subsequent records updated on the SLST frequency schedule).
5. No one other than authorised SLST personnel shall provide SLST frequencies to other parties, and no other radios other than SLS radios shall hold SLST frequencies without SLST approval in writing.
6. External (non SLS) services with authorisation to hold SLS frequencies shall reapply to SLST annually.
7. SLS clubs/services shall service all radio equipment annually, including frequency/channel alignment.
8. Only those 'special functions' approved by SLST and provided to endorsed radio suppliers/service agents shall be activated on SLS radios.
9. SLS services shall utilise only radios which meet the following specifications to ensure optimal working ability within the SLST radio network for lifesaving operations.

**Figure 7.2.1 - Radio Equipment Minimum Requirements:**

Spectrum	VHF Marine Band
Radio Type	Base-set/Mobile-Set or Portable/hand-held
Radio Mode	Conventional/PMR/DMR TIER II
Frequency Range	VHF 136-174MHz
Power Output	5 Watt (portable/handheld) 25 Watt (base-set/mobile-set)
Channel Spacing	12.5 kHz (narrow)
Channels	36+ minimum
Channel Selection	Push button with LCD (> 50 channel)
Signaling	5 Tone (CCIR) Selcall ANI capable CTCSS encode/decode (sub-tone) capable
Compliance	C Tick approval required

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Scan	Capable
Background Scan	Capable
TX Timeout	Set to 90 seconds
TX Reclaim (Re-Key)	Capable
TX Lockout	Capable
Environmental	IP57 minimum (water ingress + dust resistant) IP67 recommended
Numeric Keypad	Optional – Duty Officer Radios only
Battery	8+ hour shift life 2000+ mAh Li-Ion or NiMH
Charger	Smart
Accessories	Optional external speaker microphone (IP rated)
Parts and Service	National sales and service (5 years). 12 Month Warranty.
Scribed	Permanently marked with club/service name (engraved/other)

**Figure 7.2.2 - Radio Channel Allocations (Statewide)**

Repeater/Frequency	Display	Details
Hobart Repeater	Hobart	Repeater channel for Hobart area patrol duties
Table Cape Repeater	Boat Harbour	Repeater channel for Boat Harbour, Somerset and Burnie patrol duties
	Somerset	
	Burnie	
Penguin Repeater	Penguin	Repeater channel for Penguin area patrol duties
Ulverstone Repeater	Ulverstone	Repeater channel for Ulverstone area patrol duties
Devonport Repeater	Devonport	Repeater channel for Devonport area patrol duties
Port Sorell Repeater	Port Sorell	Repeater channel for Port Sorell area patrol duties
Bridport Repeater	Bridport	Repeater channel for Bridport area patrol duties
Portable Repeater	SAR Repeater	Repeater channel for search and rescue in remote locations
Local point to point	32A	Supplementary channel for patrol duties
VHF Marine Band Frequencies	6, 8, 9, 10, 11, 12, 13, 14, 16, 20, 21, 22, 67, 68, 71, 72, 73, 74, 77, 78, 80, 81, 82	VHF Marine Band channels for communication to other authorities and boating public.



## LS7.3 RADIO EQUIPMENT MAINTENANCE

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### PURPOSE

To outline the recommended maintenance procedures for SLS radios.

### PROCEDURE

#### Radio Servicing/Preventative Maintenance

All radio equipment should be annually serviced by a SLST endorsed service agent/technician to ensure the integrity of equipment and lifesaving service provision.

Equipment needs to be checked for (at a minimum):

- Channel/frequency assignment
- Battery condition
- Transmit power levels
- Correct CTCSS number and format

#### Preseason Radio Tests

Clubs/Services should conduct a series of preseason radio tests with all lifesaving services within the radio repeater coverage area.

Testing should commence no later than one month before the start of the season to enable issues to be identified and rectified so as to not inhibit lifesaving operations.

#### Radio Programming/Frequencies

All radios shall be programmed only by a SLST endorsed licensed technician/agent as per SLST specifications and allocations. Radio frequencies schedules are maintained by SLST and are provided only to endorsed radio service agents. They shall not be provided to other clubs/services or other bodies/ persons. No alterations to radio programming shall be undertaken without SLST authorisation – to ensure adherence to licenses and to ensure radio channels are correctly documented.



## LS7.4 COMMUNICATIONS SECURITY/ STREAMING

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### PURPOSE

To outline expectations and restrictions regarding recording, releasing and streaming of lifesaving communications.

### PROCEDURE

No individual club or service shall record, release, publish or stream any Surf Life Saving radio, phone or written communications without the written authorisation of Surf Life Saving Tasmania.

These restrictions include:

- Recording of SLST radio frequencies and/or provision of recording communications to any other party (internal or external).
- Live streaming of SLST radio frequencies on the internet or any intranet system.
- Recording of any lifesaving operations related phone/mobile communications and/or provision to any other party (internal/external).
- Provision of Surf Life Saving logs or forms to any other party (internal/external) – other than Tasmanian Police/Coroner.
- 'Posting' or publishing any official surf lifesaving logs/forms online or in the media.

### Social Media

Please refer to the separate SLSA Social Media Policy.

### Sensitive Information

Members may be privy to sensitive information during the course of lifesaving duties, particularly those who undertake roles in SurfCom or as Duty Officers. To be clear, all information (and especially that of a sensitive nature) must remain confidential and must not be disclosed via any medium unless authorised by SLST.

Any suspected breaches will be taken seriously and SLST will investigate. Severe consequences may result for any person(s) found to be responsible.

### REFERENCE

SLST SOP – Social Media

SLSA Policy 6.20 - Social Media



# LS7.5 RADIO CALL SIGNS

## PURPOSE

To ensure a consistent and standardised form of communication across Tasmania the following call signs are to be used by and for all radio communications.

## PROCEDURE

### Callsign: 'SurfCom' – All Radio Command Centres

#### Figure 7.5.1 - Club

Units	Call-sign
Patrol Captain or Patrol Base	[Club Name] Patrol
Tower (mobile or fixed)	[Club Name] Tower
Flagged Area (waters-edge)	[Club Name] Flags
Roving Foot/ATV Patrol	[Club Name] Roving or Mobile
IRB*	[Club Name] IRB*

\*Additional units assigned numbers. i.e. "[Club Name] IRB 1" and "[Club Name] IRB 2."

#### Figure 7.5.2 - Lifeguards (ALS)

Units	Call-sign
Patrol Base	[Beach Name] Lifeguard
Tower (mobile or fixed)	[Beach Name] Tower
Flagged Area (waters-edge)	[Beach Name] Flags
Lifeguard RWC	[Beach Name] Support Ski
Roving Foot/ATV Patrol	[Beach Name] Roving or Mobile

#### Figure 7.5.3 - SLST

State Position	Call-sign
Duty Officers	Duty Officer
Rescue Water Craft (Jet Ski)	RWC1, RWC2, RWC3, RWC4,

#### Figure 7.5.4 - Rescue Services and Vessels

Unit	Call-sign
North West Jet Rescue Boat	Jet Boat 1
Northern Jet Rescue Boat	Lifesaver 1
Kingborough Marine Rescue	Kingborough Rescue
Freycinet Marine Rescue	Freycinet Rescue
St Helens Marine Rescue	St Helens Rescue
Tamar Marine Rescue	Tamar Rescue
Ulverstone Marine Rescue	Ulverstone Rescue
Wynyard	Wynard Rescue
Dodges Ferry Marine Rescue	Dodges Ferry Rescue



# LS7.6 RADIO CODES

## PURPOSE

To outline SLST endorsed radio codes and the parameters of use in lifesaving operations.

## PROCEDURE

- Any SLST services wishing to use radio codes shall adhere to the codes below and shall implement their use consistently across the whole service (i.e club).
- No alternative 'codes' shall be used by lifesaving services on SLST frequencies without written authorisation by SLST.
- Club/service personnel should be adequately trained/inducted in the use of codes should that service implement their use.
- If in any doubt services/personnel should always revert to standard English (clear and concise sentences).

Figure 7.6.1 - Radio Codes

Code	Meaning	Further Explanation
Rescue Rescue Rescue	Prefix for emergency transmissions to indicate urgency  + call-sign	Should prefix every initial 'Priority 1' emergency call to notify/request support.  i.e from lifesaver to patrol base/patrol captain
No Duff	A real incident underway during a training exercise	The term 'NO DUFF' is used when a real incident is occurring during a training exercise or simulated event. Every transmission after "No Duff" is treated as legit.  E.g. "No Duff No Duff No Duff, Rescue Rescue Rescue, SurfCom SurfCom this is Ulverstone IRB"
Priority 1	Urgent task	Specific tasking that requires immediate attendance – usually involves life-threatening situation/rescue or serious injuries or several patients.
Priority 2	Non-urgent task	Specific tasking that requires lifesavers to provide emergency care or to undertake rescue operations but not considered life-threatening.
Priority 3	Routine task	Specific task but is not considered urgent. May include administrative, logistics requests.





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Code	Meaning	Further Explanation
Sign On	Commencing of duty (start of shift)	
Sign Off	Ceasing duties (end of shift)	
Secure Radios	Secure radios from public earshot	Prefixing non-urgent but sensitive information to be communicated.
X	Search for submerged patient	More details required in transmission.
1	On duty and available for tasking	
2	On standby and awaiting further instructions at (location)	Used during incident/callout to indicate 'elevated state of readiness' and/or arrival at incident site.
3	On meal break	
4	Beginning to pack up patrol area	The lifesavers commences to pack equipment at the end of shift.
5	Leaving beach, assigned task or use restroom etc	When complete – transmits a 'Code 1.'
6	Entering the water for training	Used when going for a swim, undertaking water based training. When complete – transmits a 'Code 1.'
7	Unavailable to respond to calls (service/equipment)	This code means the service or aspect of the service is contactable but cannot respond at that time. Offer a timeframe if possible. i.e Ulverstone IRB Code 7.
8	Unable to be contacted	More details required in transmission.
9	Entering water to undertake rescue	
10	Search for missing person in water	Provide details, e.g. location, description, etc. "Code X" may be relevant if confirmed (submerged person).
11	Mass Rescue	
12	Lifesaver/Lifeguard in trouble (man-down)	Member/staff has been injured, is in physical danger or is missing. Urgent assistance required. If possible give further information – especially location.
13	CPR Incident	More details required in transmission.
14	Deceased Person	More details required in transmission.
15	Undertaking First Aid (non-life threatening)	
16	Shark Sighting	
17	Shark Attack	More details required in transmission.
18	Indecent Behaviour	More details required in transmission.
19	Undertaking Enforcement Function	

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# LS7.7 RADIO NETWORK FAULT REPORTING

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## PURPOSE

To outline the process and roles/responsibilities of lifesaving services and service providers in resolving radio network issues.

A fully operational and effective radio network is essential to the provision of lifesaving services across the state. The resolution of radio problems must be undertaken in a coordinated manner, to achieve the most time efficient and effective outcome.

## PROCEDURE

### Radio Network Responsibilities

The following parts of the radio network are managed by the following parties:

- a. Base sets, handheld radios, facility antennas – Clubs/Services
- b. SurfCom facilities/equipment – SLST
- c. SurfCom internet lines – SLST
- d. Radio Network Repeaters/VOIP – SLST
- e. Radio Frequencies – SLST
- f. Radio Network SOPs/Procedures – SLST

**Figure 7.7.1 - Radio Transmission Quality Checks – For Use by Lifesaving Services:**

SIGNAL STRENGTH	REPORT ON READABILITY
LOUD – STRENGTH 5	CLEAR
GOOD – STRENGTH 4	READABLE
WEAK – STRENGTH 3	UNREADABLE
VERY WEAK – STRENGTH 2	DISTORTED
FADING – STRENGTH 1	WITH INTERFERENCE

Example: “Reading you Strength 3, with Interference over.”

### Radio Network Maintenance Report Forms

#### FORM 1

- Used by Clubs/Services/units to inform SLST of problem.
- Used by SLST to inform service technician of problem.

#### FORM 2

- Used by service technician to inform SLST of work undertaken (in conjunction with network drawings).



## LS7.7 RADIO NETWORK FAULT REPORTING

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### **RADIO NETWORK MAINTENANCE PROCEDURE**

1. A lifesaving service identifies a problem with their radios:
  - Lifesaving service undertakes radio checks within its own area on at least 2 handhelds and its base set (simplex, main repeater channel, and alternative repeater channel).
  - Lifesaving service undertakes radio checks (on main and alternative repeater channels) with neighboring clubs/services
  - Lifesaving service records the results of these radio checks and contacts SLST.

### **NOTE: ONLY THE SLST LIFESAVING AND SERVICE MANAGER CAN ENDORSE REPAIRS TO THE RADIO NETWORK**

2. SLST contacts radio network service technician and provides "Form 1" and a "Form 2" template + radio network drawings. Quote requested for repair. Purchase Order number supplied.
3. Service provider provides 'quote'. SLST reviews quote and provides direction on whether to progress.
4. Service Provider completes work:
  - Notifies SLST of repair.
  - Completes "Form 2".
  - Updates network drawings.
  - Returns "Form 2" and drawings to SLST with invoice.
5. SLST advises the lifesaving service relevant details and updates its radio network records.
6. Lifesaving service notifies their lifesaving service personnel.

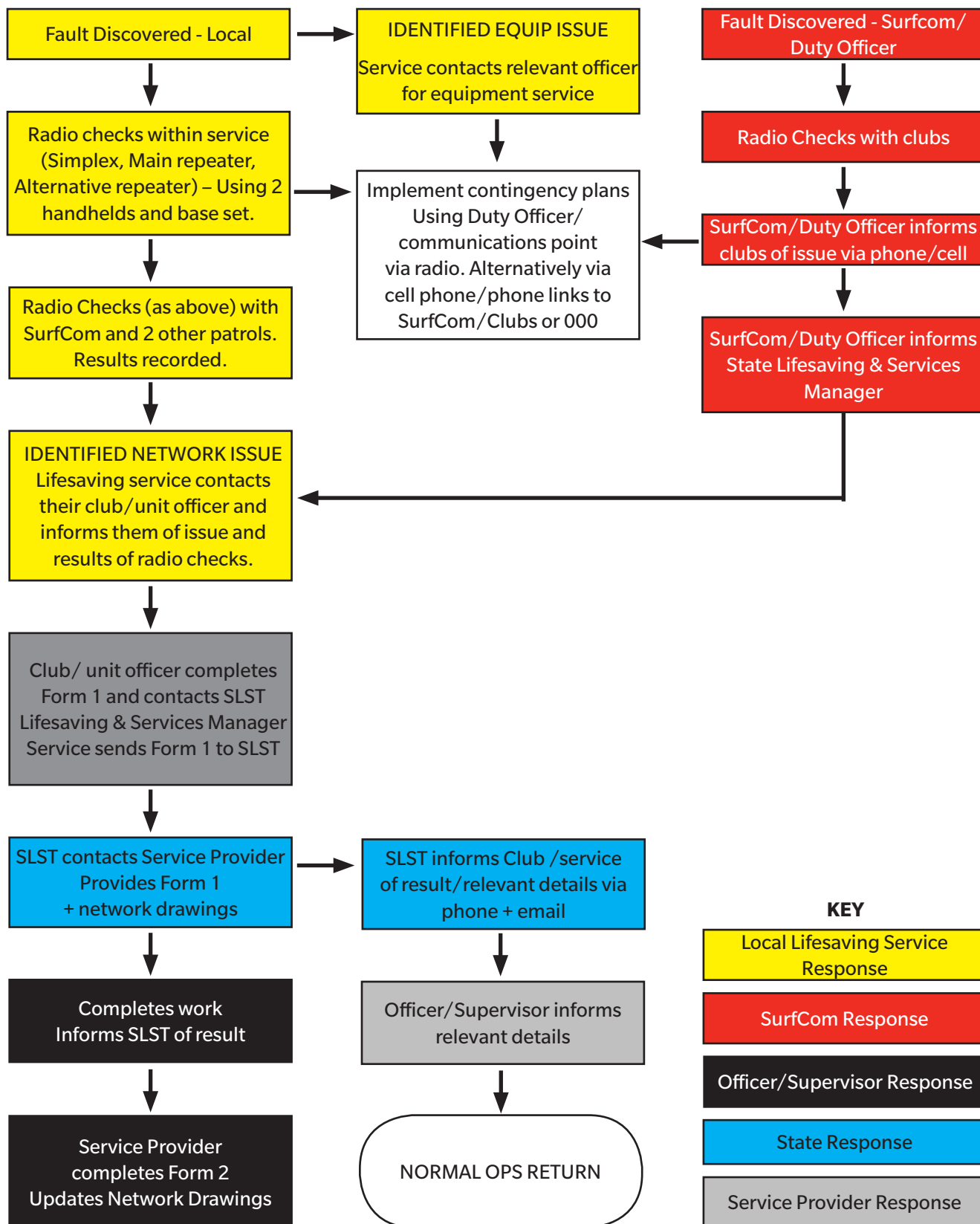
### **REFERENCE**

Radio Fault Reporting – 'Form 1' and 'Form 2'



# LS7.7 RADIO NETWORK FAULT REPORTING

### FIGURE 7.1.2 - RADIO NETWORK MAINTENANCE PROCEDURE



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