WIRELESS INSTITUTE CIVIL EMERGENCY NETWORK — WESTERN AUSTRALIA

WICEN-WA Operations Manual

Emergency Communications Plan (PACE) and operating procedures

DRAFT

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Uncontrolled when printed. Check the revision in the footer against the current issue before relying on this copy.

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Revision history

Revision	Date	By	Changes
0.5	18 October 2026	Phillip Jubb	Committee decisions: rules adopted on self-deployment (Ch 3), relaying public warnings (Ch 15) and personal information over amateur radio (Ch 13, Event Support); domain order added to the Domain Summary, and the missing Long-Haul and Cross-State tiers marked not provided, by decision. "Designated Incident Controller" renamed WICEN Incident Coordinator. The public incident status page removed; how members get incident information is now an open gap (GAP-059). Alerting primary is Discord / Signal (a WICEN WA app is proposed, not built). Training chapter: membership classes and what is expected of members. Job Hazard Analysis renamed Activity Safety Assessment. Known Gaps annex lists open gaps first, then resolved and accepted gaps.
0.4	17 October 2026	Phillip Jubb	Activation Flowchart (Chapter 4) fixed: the final step, HF Activation Net, had fallen outside the diagram.
0.3	17 October 2026	Phillip Jubb	80m night statewide net changed to 3.610 MHz (WIA band plan 2026-1). Hourly net renamed the statewide status net, to keep SITREP for the AIIMS Situation Report. Overview no longer names MeshCore as the Local/Tactical Alternate tier. First revision offered for download on the website.
0.2	16 October 2026	Phillip Jubb	Added Operator Sign-In Sheet and Safety Briefing and Job Hazard Analysis annexes, and a "Running an exercise" section in Chapter 16. Added exercise and safety terms to the glossary.
0.1	16 October 2026	Phillip Jubb	First draft. Compiled from the website PACE plan (chapters 1–16) with annexes: known gaps, glossary, blank message form, station log and checkpoint report, frequency quick reference, General Preparation Checklist, and the archived RATEL manual.

About this manual

This manual brings WICEN WA's emergency communications plan and its supporting forms into one printable document for operators. It follows the **PACE** model — Primary, Alternate, Contingency, Emergency — set out in Chapters 1 and 2.

The plan is a **draft**. Where something is incomplete or waiting on a committee decision, the text carries a gap ID such as `GAP-004`. Annex A lists every gap.

The website is the master copy. To propose a change, raise it with the committee through the PACE Gap Register. When the plan changes, a new revision of this manual is issued and recorded in the table above.

Printed for binding on the left-hand edge, single-sided.

Chapters and website pages

Ch.	Chapter	Website page
1	Overview	https://wicenwa.org/PACE/overview

Ch.	Chapter	Website page
2	PACE Domain Summary	https://wicenwa.org/PACE/domain-summary
3	Activation	https://wicenwa.org/PACE/activation
4	Activation Flowchart	https://wicenwa.org/PACE/activation-flowchart
5	Deployment Model	https://wicenwa.org/PACE/deployment-model
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12	Event Support	https://wicenwa.org/PACE/event-support
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14	Voice Procedure (RATEL)	https://wicenwa.org/PACE/voice-procedure
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1 Overview

Website: https://wicenwa.org/PACE/overview

1.1 WICEN-WA Emergency Communications Plan

Printable copy: WICEN-WA Operations Manual — Rev 0.5 (Draft), 18 October 2026 (PDF) — this whole plan compiled into one A4 document for printing, with the field forms and reference annexes. These web pages are always the latest version; check the revision number on a printed copy before relying on it.

This document describes the communications architecture used by WICENWA during emergency operations.

It does not yet say what WICEN WA can deliver to a supported agency GAP-023, which WA hazards and seasons it prepares for GAP-037, or where in the state it expects to operate GAP-038.

The plan follows the **PACE model**:

Primary
Alternate
Contingency
Emergency

Each layer assumes the previous layer has failed — **with one exception**: within the Local/Tactical Field Comms domain, the Alternate tier (local digital mesh/messaging — technology not yet chosen GAP-009) is run in parallel with Primary as standard practice, not held in reserve. See the Domain Summary (Chapter 2) for why this plan is organised into domains rather than one universal ladder, and for that exception in full.

This document covers:

- Domain Summary (Chapter 2)
- Activation procedures (Chapter 3)
- Operational communications (Chapter 7)
- Radio frequency plans (Chapter 8)
- Message handling (Chapter 13)
- Voice procedure (RATEL) (Chapter 14)
- Incident information distribution (Chapter 15)
- Cross-state coordination (Chapter 11)
- Event support (Chapter 12)
- Training (Chapter 16)
- HF Propagation Plan (Chapter 9)
- Deployment Model (Chapter 5)
- Demobilisation (Chapter 6)
- Activation Flowchart (Chapter 4)
- Digital Messaging Architecture (Chapter 10)
- Known Gaps (Annex A)

2 PACE Domain Summary

Website: https://wicenwa.org/PACE/domain-summary

2.1 Why this page exists

The Overview (Chapter 1) describes PACE as a single ladder: Primary, Alternate, Contingency, Emergency, each layer assumed to only be used once the layer above it has failed.

In practice, WICEN-WA's communications cover several different jobs — alerting members, coordinating an incident, moving long-form traffic statewide, running a field team, liaising interstate, supporting a planned event — and each of those jobs has its own Primary/Alternate/Contingency/Emergency answer. Trying to describe all of them with one ladder is what caused MeshCore (and other local/tactical tools) to have nowhere to sit in the plan.

This page names those **domains** explicitly, so a reader can see the whole shape of the plan in one place instead of piecing it together from several pages. Each domain keeps its own detail page; this page is the map, not a replacement for them.

2.2 Domains

Domain	Scope	Primary	Alternate	Contingency	Emergency
Activation & Alerting (Chapter 3)	Getting members mobilised before/at the start of an incident	Internet Messaging (Discord/Signal; a WICEN WA app is proposed)	Email Distribution	SMS Broadcast	Amateur Radio Alert Net (HF)
Strategic Coordination (Chapter 7)	Incident-level coordination and command, once activated	Internet Collaboration Platform	Amateur Radio Voice Nets	Amateur Radio Digital Messaging	Voice Relay Network
Long-Haul Message Traffic (Chapter 10)	Structured, state/regional-scale message traffic over HF	Winlink (HF)	JS8Call (HF)	*Not provided, by decision* GAP-001	*Not provided, by decision* GAP-002
Local/Tactical Field Comms	Team-level comms for a single field unit or task group	VHF/UHF Voice (simplex/repeater)	Local digital mesh/messaging — technology not yet chosen GAP-009	HF Voice (if the team is remote enough to need it)	Runner / face-to-face GAP-039
Cross-State Coordination (Chapter 11)	Liaison with interstate amateur emergency comms groups	Internet Collaboration Platform	Winlink HF Email	HF Voice Liaison	*Not provided, by decision* GAP-003
Event Support (Chapter 12)	Communications for a planned event, run for the organiser's race control	VHF/UHF net to race control	Simplex relay via intermediate stations	HF NVIS or the event's own UHF CB	Satellite messenger/phone, then runner or vehicle GAP-045

Most Primary tiers depend on internet or mobile networks, which are often the first thing to fail in the incidents WICEN is called to GAP-025. Every tier also depends on power GAP-026.

Local/Tactical Field Comms doctrine (node roles, standing orders, use cases) is still being drafted and does not have its own page yet GAP-008 — see Deployment Model (Chapter 5) for where this domain sits organisationally in the meantime.

Cross-cutting — not a ladder: *Situational Awareness* (APRS position/message beacons, and adverts from whichever local mesh system is chosen) runs alongside whichever tier of whichever domain is currently active, rather than sitting in any one domain's ladder.

Cross-cutting — voice procedure: every voice tier in every domain above — the HF alert net, voice nets, the voice relay network, field VHF/UHF and HF, and interstate HF liaison — uses the same Voice Procedure (RATEL) (Chapter 14). The ladders say which system to use; that page says how to talk on it.

2.3 Order of work

WICEN WA is a small organisation, so the domains are finished and practised in this order:

1. **Event Support** — the work WICEN WA does most.
2. **Local/Tactical Field Comms** — used at every event and every deployment.
3. **Activation & Alerting** — needed before any agency can use WICEN.
4. **Strategic Coordination** — needed once WICEN supports anything bigger than one site.
5. **Later: Long-Haul Message Traffic and Cross-State Coordination.** Their missing tiers are marked *not provided, by decision* rather than left looking unfinished.

2.4 Permanent infrastructure vs portable capability

The table above describes *what* each tier uses, not *whether it's already there or has to be brought in*. Every technology named above can exist as either **standing infrastructure**, in place all the time regardless of activation, or **portable kit**, carried to wherever a deployment needs it — and those two forms have completely different cost and maintenance profiles.

WICEN WA isn't starting from zero on standing infrastructure: South West WA's existing APRS digipeater network and an expanding MeshCore coverage area are both already real, already providing baseline coverage, and neither needed WICEN to build them. A permanently sited AREDN network in major centres, by contrast, would be genuinely new capital investment. Portable capability is a separate question again — a field go-kit could carry any of these technologies regardless of what's permanently sited nearby. These assets are not yet inventoried GAP-015.

2.5 Cascade rule, and the one exception to it

Every domain above follows the Overview's rule — **each layer assumes the layer above it has failed** — with one deliberate exception:

Local/Tactical Field Comms. The Alternate tier — whichever local digital mesh/messaging system is eventually chosen — is run in parallel with the Primary tier (VHF/UHF voice) as standard practice, not held in reserve. This is a deliberate exemption from the cascade rule, for training and validation reasons: a system that's only ever switched on after voice has already failed is a system nobody has practised using under pressure. All other domains keep the strict cascade. This exemption is about *when* the Alternate tier runs, not *which* technology fills it GAP-009.

2.6 Net discipline

Because there are now several domains instead of one ladder, net controllers and operators must name **which domain** they mean, not just the tier. "Field Comms going to Alternate, mesh" is a complete instruction; "going to Alternate" on its own is not — it's ambiguous between six different systems.

2.7 Known gaps

Tier triggers — the defined conditions for stepping from one tier to the next — are not yet set for any domain GAP-004. Some ladders also have tiers that may share an underlying path and so may not be genuinely redundant: Activation & Alerting GAP-005, Strategic Coordination GAP-006 and Long-Haul Message Traffic GAP-007. See Known Gaps (Annex A) for the full list.

2.8 References

This restructure draws on published methodology and comparable organisations' plans, for context rather than as WICEN-WA policy:

- Leveraging the PACE Plan into the Emergency Communications Ecosystem — CISA/NCSWIC, 2023. Source of the Feasible/Acceptable/Suitable/Distinguishable/Complete test and the PACE-triggers concept. Also recommends a separate PACE plan per entity/scope rather than one universal ladder, which is the basis for this domain-based structure.
- WICEN (Vic.) Background Procedures & Techniques Manual — WICEN Victoria, 1994/2000. A sister WICEN organisation's message-handling standard (serial numbers, precedence, date/time groups, prowords) — more detailed than this site's current Message Handling (Chapter 13) page, useful if that page is expanded later.
- AIIMS 2025 — AFAC. The incident management doctrine every domain here ultimately has to fit into if WICEN WA is supporting a fire, emergency, or land management agency. See Deployment Model (Chapter 5).
- West Central Florida Section Emergency Communications Plan 2025 — ARRL ARES, West Central Florida Section. A comparable volunteer amateur emergency comms plan; notable for a four-level activation scale (Routine / Alert / Partial Activation / Full Activation) more granular than this site's current three WICEN Status levels.

3 Activation

Website: https://wicenwa.org/PACE/activation

3.1 Activation Plan

This is the **Activation & Alerting** domain — see the Domain Summary (Chapter 2) for how it relates to the other domains in the plan.

This section defines how members are alerted and mobilised during an incident.

Planned events don't use activation — they follow the Event Support (Chapter 12) engagement lifecycle.

Activation may occur due to:

- Natural disasters
- Requests from emergency services
- Planned public safety operations
- Training exercises

3.2 Activation Authority

Activation may be initiated by:

How a supported agency requests WICEN is not yet defined GAP-018.

- WICEN-WA State Coordinator
- Deputy Coordinator
- WICEN Incident Coordinator — the person the State Coordinator puts in charge of WICEN's part of an incident

3.3 Activation PACE

Triggers for stepping between tiers are not yet defined GAP-004.

Level	Method	Description
PRIMARY	Internet Messaging	Discord / Signal (a WICEN WA app is proposed but not yet built) GAP-005 GAP-044
ALTERNATE	Email Distribution	WICEN-WA email group
CONTINGENCY	SMS Broadcast	Bulk SMS alert
EMERGENCY	Amateur Radio Alert Net	HF activation frequency

Alerts are not yet sent on all channels at once, and acknowledgements are not tracked GAP-040.

3.4 Activation Message Format

All activation messages should follow a consistent structure.

WICEN-WA ACTIVATION

- Event:
- Location:
- Activation Level:
- Reporting Location:
- Primary Net Frequency:

- Where to find updates:
- Next Update Time:

Example:

WICEN-WA ACTIVATION

- Event: Bushfire Communications Support
- Location: Wheatbelt
- Activation Level: Standby
- Primary Net: 7.110 MHz LSB
- Updates: [method to be decided] GAP-059
- Next Update: 1400 WST

3.5 WICEN Status

- Stand By
  - Members are maintaining watch for activations
- On Watch
  - An emergency condition may exist. While not activated, WICEN members are at a higher level of monitoring and preparing for activation. Members should contact the SC with their current capabilities.
- Activated
  - WICEN is activated. All members should check in if not directly activated

Standby to On Watch

In the case that WICEN becomes aware of a possible need our assistance, the State Coordinator or their delagate will place WICEN “On Watch”.

On watch moves all members into a monitoring actively for activations messages. Members actively on watch should turn on and test their equipment. They should prepare their 72 hour kit.

No self-deployment. No member goes to an incident area, or offers WICEN’s services to an agency or the public at an incident, unless tasked by the State Coordinator or the WICEN Incident Coordinator. Being On Watch or Activated means *be ready*, not *go*. A member who is already in an affected area for their own reasons stays a private person until tasked.

The State Coordinator will activate a “Watch Net” on the available frequencies in the comms plan. If necessary, they will nominate a watch station who will monitor the appropriate frequencies.

Each member on watch should check in with the SC or net controller as their status (availablity, capabilities change)

The State Coordinator will activate a digital information station. The digital information station will coordinate the distribution of information in a digital form. How it gets information to members is still to be decided GAP-059. The DIS will also instigate the Information Beacon (APRS,JS8CALL,WINLINK) which will allow members to gather information as they are possible.

“OnWatch” to Activated

As the conditions deteriorate or as requested by a served agency, the State Coordinator or their delagate will move WICEN to “activated”

The requirements of each activation will differ and the SC will need to distribute information as to the requirements for this acivation.

Details should be quickly delivered to the DIS for distribution

3.6 Types of Activations

When activating WICEN, the SC should determine the type of activation. If the activation is in support of a third party, there will be different requirements. The SC should determine the requirements for the activation and relay this information to the members.

- WICEN Activation
- Served Agency Activation
- Training

4 Activation Flowchart

Website: https://wicenwa.org/PACE/activation-flowchart

4.1 Activation Flow

This flow steps through the alerting channels one after another GAP-040.

```
Incident Identified
        |
Coordinator Approves Activation
        |
Alert Sent via Internet Messaging
        |
Email Distribution
        |
SMS Broadcast
        |
HF Activation Net
```

5 Deployment Model

Website: https://wicenwa.org/PACE/deployment-model

Typical field deployment structure.

```
Incident Command
     |
Communications Unit
     |
Field Communications Teams
     |
Supported Agency
```

This hierarchy follows the shape of AIIMS (the Australasian Inter-Service Incident Management System, published by AFAC and used by every fire, emergency, and land management agency in Australia) without currently saying so — the Capability Self-Assessment already states WICEN operates under AIIMS, but this is the only page where that structure actually shows up. WICEN WA does not yet have a formal, agency-recognised place within this structure GAP-014 GAP-036.

Not yet defined:

- Where WICEN sits within the controlling agency's Logistics section and Communications Unit GAP-021
- A WICEN liaison role to the agency's incident management team GAP-022
- A register of members' availability, equipment and location GAP-024
- Rostering and fatigue management GAP-027
- Field safety arrangements GAP-028

When the task ends, see Demobilisation (Chapter 6).

6 Demobilisation

Website: https://wicenwa.org/PACE/demobilisation

> **Draft.** This procedure is a draft and has not yet been adopted, or agreed with any supported agency GAP-034.

6.1 Where this fits in the plan

Every activation ends with demobilisation: WICEN WA stands down its stations, hands back what belongs to the agency, gets its people home safely, and returns to **Stand By** (see Activation (Chapter 3)). A deployment isn't finished until every member is home and accounted for.

Demobilisation planning starts at activation, not at the end — the coordinator should know from the start who will be released first, how far each team has to travel, and what equipment has to come back.

6.2 When demobilisation starts

WICEN WA is demobilised when:

- the controlling agency releases WICEN, or no longer needs WICEN communications;
- for a planned event, race control releases WICEN — see Event Support (Chapter 12); or
- the State Coordinator decides WICEN can no longer safely sustain the task — for example, not enough rested operators, or conditions have become unsafe.

WICEN never stands down a tasked service without first telling the agency or event organiser it is supporting and agreeing a release time.

6.3 Standing down a station or net

1. **Agree the release time** with the agency's communications unit or WICEN's liaison (for an event, with race control).
2. **Clear open traffic.** No message is left unsent or unacknowledged — pass anything outstanding to the agency or to a station that is staying on, and log it.
3. **Close the net.** Net Control announces the closure time and any nets that are continuing, then makes the final log entry.
4. **Finish the records.** Complete and sign station logs, net logs and message forms; for an event, the logs go to the organiser GAP-033.
5. **Account for equipment.** Return agency equipment and record it as returned; pack WICEN and personal kit; note anything damaged or lost.
6. **Sign out** — with the agency, if signed in on arrival, and with the WICEN coordinator.

6.4 Getting people home safely

- Nobody drives home straight after a long shift. Rest first GAP-027.
- Every member reports their safe arrival home to the coordinator, who keeps a list until everyone is accounted for.

6.5 After stand-down

- **Hot debrief** before teams leave: what worked, what didn't, and any safety issues.
- **Welfare follow-up** with each member within a few days. Anyone affected by what they saw or did can also call Lifeline on 13 11 14.
- **Restore readiness** — recharge batteries, replace consumables, repair kit and restock 72-hour kits, so WICEN is ready for the next activation.

- **Formal debrief** within about two weeks, with a short report to the supported agency. Lessons are fed back into this plan GAP-035.
- **Return to Stand By.** The State Coordinator returns WICEN to Stand By, tells members on every alerting channel.

7 Operational Communications

Website: https://wicenwa.org/PACE/operational

7.1 Operational Communications Plan

This is the **Strategic Coordination** domain — see the Domain Summary (Chapter 2) for how it relates to Activation, Long-Haul Message Traffic, Local/Tactical, and Cross-State Coordination.

Once activated, communications must support:

- Voice coordination
- Situation reporting
- Task assignments
- Message passing
- Information distribution

Members may join operations at any time, therefore communications systems must support persistent messaging.

7.2 Operational PACE

Triggers for stepping between tiers are not yet defined GAP-004.

Level	System	Use
PRIMARY	Internet Collaboration Platform	Incident coordination
ALTERNATE	Amateur Radio Voice Nets	Operational communications
CONTINGENCY	Amateur Radio Digital Messaging	Structured message passing GAP-006
EMERGENCY	Voice Relay Network	Station-to-station relay — see Voice Procedure (Chapter 14)'s Relay section

7.3 Internet Collaboration

Primary operational coordination occurs through an online collaboration platform GAP-044.

Recommended channels:

#incident-status #operations #field-teams #logistics #sitrep

Purpose:

incident-status
Official updates from command

operations
Operational coordination

field-teams
Field unit coordination

logistics
Equipment and resource requests

sitrep
Situation reports — see Message Handling (Chapter 13)'s SITREP cycle

7.4 Station Modes

Allocate stations to specific tasks

- Winlink P2P station
  - Dedicated Winlink Email coordinator.
- JS8Call Station
  - Dedicated JS8Call Messaging Station
- APRS Beacon Station
  - APRS messaging station
  - Tactical APRS callsign **GAP-044**
- Voice Net Controller VHF/UHF
  - Runs net discipline and logs every check-in in real time — see Message Handling (Chapter 13)'s Net Control Logging section
- Voice Net Controller HF
  - Same logging responsibility as VHF/UHF Net Control
- Voice Relay Station VHF/UHF
  - Relays using RELAY TO / THROUGH ME, and reports delivery back — see Voice Procedure (Chapter 14)
  - Multiple Stations monitor Local Repeater(s)
- Voice Relay Sation HF
  - Multiple Stations monitoring HF Net stations

8 Radio Network and Frequencies

Website: https://wicenwa.org/PACE/radio-frequency-plans

8.1 Radio Network Structure

8.2 Radio Network Structure

Radio communications operate in a hierarchical structure.

```
State Net Control
    |
Regional Net Control
    |
Field Stations
```

Regions are not yet defined or aligned with emergency management districts GAP-038 GAP-043.

8.3 Net Control Responsibilities

Net Control Stations are responsible for:

- Maintaining orderly communications
- Logging check-ins
- Prioritising traffic
- Passing messages to incident command

Net procedure — directed and free nets, REPORTING INTO NET, handing over with ASSUME CONTROL, frequency changes — is on Voice Procedure (Chapter 14).

8.4 WICENWA Frequency Plan

This plan provides recommended frequencies for statewide and regional communications.

Actual frequencies may vary depending on interference and propagation conditions.

8.5 HF Statewide Net

Purpose: Statewide coordination across Western Australia.

Primary Day Frequency
7.110 MHz LSB

Alternate Day Frequency
7.090 MHz LSB

Night Frequency
3.610 MHz LSB (VK emergency communications frequency, WIA band plan 2026-1)

Digital Messaging
7.078 MHz (digital modes)

8.6 VHF / UHF Regional Nets

Purpose: Local operational communications. A standard WICEN VHF/UHF channel plan for members to program is not yet defined GAP-058.

Typical structure:

Metro / Regional Repeater Net
Primary coordination channel

Field Tactical Simplex
Short range team communications

Example:

Perth Metro Net
Primary Repeater

Field Tactical
Simplex Channel

8.7 Net Schedule

Scheduled nets ensure all stations remain informed.

Example schedule:

00 minutes past hour
Statewide status net — stations report their status. This is not an AIIMS Situation Report (SITREP); see Message Handling (Chapter 13).

30 minutes past hour
Operational coordination net

Additional nets may be scheduled as required.

8.8 Digital Messaging

Digital messaging allows structured message passing when voice channels are busy or unavailable.

Recommended systems:

Winlink JS8Call FLDIGI

8.9 Use Cases

Digital messaging should be used for:

Situation reports

Logistics requests

Resource tracking

Long form messages

Message archiving

9 HF Propagation Plan

Website: https://wicenwa.org/PACE/HF-propagation-plan

9.1 HF Frequency Plan

This frequency plan is designed to provide reliable HF communications across Western Australia during emergency operations.

Propagation conditions vary significantly depending on:

- Time of day
- Solar activity
- Season
- Distance between stations

For this reason multiple bands are defined for different conditions.

Operators should select the most appropriate band based on current propagation.

9.2 HF Propagation Characteristics in Western Australia

WA operations typically involve communication distances of:

200 km – Local regional coverage
500 km – Regional coordination
1000–2500 km – Statewide communications

Typical propagation behaviour:

Daytime

- 40m supports medium distances
- 20m supports long distances
- 80m becomes unreliable

Night

- 80m becomes primary statewide band
- 40m works well for medium distance
- 20m often closes for domestic paths

9.3 Primary HF Net Frequencies

These frequencies are used for statewide coordination.

Band	Frequency	Mode	Purpose
40m	7.110 MHz	LSB	Primary statewide voice net
80m	3.610 MHz	LSB	Night statewide voice net
20m	14.300 MHz	USB	Interstate liaison

9.4 Daytime Operations (0700–1800 WST)

Primary Band: 40m

Frequency	Mode	Purpose
7.110 MHz	LSB	Statewide coordination
7.090 MHz	LSB	Alternate coordination
7.130 MHz	LSB	Tactical operations

Typical daytime coverage on 40m:

Perth → Kalgoorlie
Perth → Geraldton
Perth → Albany
Perth → Pilbara (variable)

Range: 300–1200 km

9.5 Night Operations (1800–0700 WST)

Primary Band: 80m

Frequency	Mode	Purpose
3.610 MHz	LSB	Statewide coordination
3.650 MHz	LSB	Alternate coordination
3.580 MHz	LSB	Tactical operations

Typical night coverage on 80m:

Strong NVIS coverage across most of WA GAP-043.

Reliable paths:

Perth → Southwest Perth → Wheatbelt Perth → Goldfields Perth → Mid West

Range: 200–800 km

9.6 Interstate Coordination

When communicating with eastern states groups, 20m is typically the most reliable band.

Frequency	Mode	Purpose
14.300 MHz	USB	Interstate liaison
14.250 MHz	USB	Alternate liaison

9.7 Digital Messaging Frequencies

These are ideal for structured messages using systems like **Winlink** and **JS8Call**.

9.8 Digital Messaging Frequencies

Band	Frequency	Mode	Use
40m	7.078 MHz	JS8Call / digital	Messaging
40m	7.095 MHz	Winlink VARA	Email over HF
80m	3.595 MHz	digital	Night messaging

9.9 Net Schedule

Regular nets ensure all stations remain informed.

Example schedule:

00 minutes past hour
Statewide status net

30 minutes past hour
Operational coordination

Additional tactical nets may operate continuously.

9.10 Frequency Change Procedure

If interference or poor propagation occurs:

1. Net Control orders the change: CHANGE TO (frequency)
2. All stations acknowledge
3. Net Control gives the separate command: CHANGE NOW
4. Only then does the net move — nobody changes on the order alone

Example:

“ALL STATIONS, THIS IS (NCS), CHANGE TO 7.090, OVER.” (each station acknowledges) “CHANGE NOW, OUT.”

This follows WICEN’s RATEL procedure — see Voice Procedure (Chapter 14).

9.11 Quick Band Selection Guide

Distance < 300 km
Use 80m or VHF

Distance 300–800 km
Use 80m NVIS or 40m

Distance 800–2000 km
Use 40m

Interstate
Use 20m

10 Digital Messaging

Website: https://wicenwa.org/PACE/digital-messaging-architecture

10.1 Digital Messaging Architecture

This is the **Long-Haul Message Traffic** domain — see the Domain Summary (Chapter 2) for how it relates to the other domains in the plan. This domain covers structured, state/regional-scale message traffic over HF; it is separate from Strategic Coordination's day-to-day operational traffic and from Local/Tactical's team-level field comms.

10.2 Long-Haul Message Traffic PACE

Triggers for stepping between tiers are not yet defined GAP-004.

Level	System	Use
PRIMARY	Winlink (HF)	Structured, email-style messaging with forms and attachments
ALTERNATE	JS8Call (HF)	Weak-signal, store-and-forward messaging GAP-007
CONTINGENCY	*Not provided, by decision* GAP-001	Long-Haul is a later-stage domain; the committee chose not to build these tiers yet
EMERGENCY	*Not provided, by decision* GAP-002	As above

Digital messaging provides resilient, structured communications during emergency operations.

Advantages of digital messaging:

- Messages are not lost if operators miss a voice transmission
- Messages can be stored and forwarded
- Long text messages can be transmitted reliably
- Message history can be archived
- Messages can be relayed automatically between stations

This architecture uses two complementary systems:

Winlink – structured email-style messaging
JS8Call – low bandwidth store-and-forward messaging

10.3 System Overview

The WICENWA digital messaging network operates in three layers.

```
Internet Messaging Layer
    |
HF Gateway Stations
    |
Field Radio Stations
```

10.4 System Roles

10.5 Station Roles

Three station types are used.

Gateway Stations Relay digital traffic across Western Australia.

Regional Relay Stations Provide regional coverage and relay traffic.

Field Stations Portable stations used by deployed teams.

10.6 Winlink System

Winlink provides email-style messaging over radio.

Capabilities:

- Send email over HF radio
- Structured emergency forms
- Attachments
- Message routing
- Message storage

Messages can be sent to:

Other Winlink users

Internet email addresses

Emergency coordination centres

10.7 Winlink Station Types

RMS Gateway

Permanent stations connected to the Winlink network.

RMS Relay

Stations that relay traffic across RF without internet.

Field Winlink Stations

Portable stations used by operators in the field.

10.8 Western Australia Winlink Topology

Suggested gateway locations:

Perth Pilbara Goldfields Southwest Midwest

These stations provide overlapping coverage across the state.

10.9 Message Flow

Field Operator

creates message

↓

Message transmitted via HF

↓

Regional Relay Station

↓

Winlink Gateway

↓

Destination

Field station
Incident command
Internet email

10.10 Suggested WA Winlink Frequencies

40m Day Operations

7.095 MHz

80m Night Operations

3.595 MHz

20m Interstate Messaging

14.095 MHz

10.11 Recommended Emergency Forms

ICS-213 General message

ICS-214 Activity log

Situation report

Resource request

10.12 JS8Call System

JS8Call provides very resilient HF messaging.

Advantages:

Extremely weak signal capability

Store-and-forward messaging

Automatic relays

Beacon capability

Position reporting

10.13 JS8Call Relay Network

The network uses automatic relays.

Example topology:

```
Pilbara Relay
     |
Goldfields Relay
     |
Perth Relay
     |
Southwest Relay
```

10.14 Message Types

Direct Message

Station to station messaging.

Group Message

Message sent to a defined group.

Store and Forward

Message held until the destination station is available.

Heartbeat

Automatic signal availability reporting.

10.15 JS8Call Frequencies

40m Primary

7.078 MHz

80m Night

3.578 MHz

20m Interstate

14.078 MHz

10.16 Store and Forward Messaging

JS8Call allows messages to be stored until the receiving station becomes available.

Example:

Station A sends message to Station C

Station B receives message

Station B stores message

When Station C becomes available the message is delivered

10.17 Priority Levels

Under review GAP-012.

EMERGENCY

Threat to life or safety

PRIORITY

Urgent operational traffic

ROUTINE

Normal communications

10.18 Logging Requirements

All digital traffic should be logged.

Required log information:

Message number

Origin station

Destination station

Time sent

Time received

Operator

10.19 Voice and Digital Integration

Voice nets remain the primary coordination method.

Digital messaging should be used for:

Long messages

Formal reports

Resource requests

Message archiving

Voice Net Control

requests SITREP

↓

Station sends report via Winlink

↓

Net Control receives formatted message

10.20 Portable Digital Station

Recommended equipment:

HF transceiver

Laptop computer

Digital interface

Portable antenna

Battery power GAP-026

10.21 Training Requirements

10.22 Operator Training

Operators using digital messaging should be trained in:

Winlink message creation

JS8Call message routing

Radio propagation awareness

Message handling procedures

11 Cross-State Coordination

Website: https://wicenwa.org/PACE/cross-state-coordination

11.1 Cross State Coordination

This is the **Cross-State Coordination** domain — see the Domain Summary (Chapter 2) for how it relates to the other domains in the plan.

WICENWA may coordinate with interstate amateur radio emergency communications groups.

Communication methods:

Primary
Internet collaboration platform

Alternate
Winlink HF email

Contingency
HF voice liaison stations

Emergency
Not provided, by decision GAP-003 — Cross-State is a later-stage domain

Triggers for stepping between tiers are not yet defined GAP-004.

11.2 National context

Interstate and Commonwealth disaster coordination at the government level runs through the Australian Government Crisis Management Framework and COMDISPLAN (the Australian Government Disaster Response Plan), both administered by the National Emergency Management Agency (NEMA). WICEN WA's interstate liaison with other WICEN entities is a separate, amateur-radio-level relationship — it doesn't plug into COMDISPLAN directly — but it is the government-level mechanism this domain sits alongside, and is relevant if WICEN WA is ever asked to support a Commonwealth-coordinated response.

12 Event Support

Website: https://wicenwa.org/PACE/event-support

> **Draft.** This domain is a draft and has not yet been reviewed, tested or adopted GAP-045.

This is the **Event Support** domain — see the Domain Summary (Chapter 2) for how it relates to the other domains in the plan.

12.1 What this domain covers

Communications that WICEN WA provides **for someone else's planned event**: multi-day canoe races, car rallies, endurance rides, community walks and similar. The organiser is the customer, and the organiser's **race control** (or event control) is in charge — much as a controlling agency's incident management team is in charge during an emergency.

It differs from the other domains in three ways:

- **It's planned, not reactive.** Events are booked months ahead, so the Activation (Chapter 3) statuses (Stand By, On Watch, Activated) don't apply. Events follow the engagement lifecycle below instead.
- **WICEN runs the network for the organiser,** and reports to their race control, not to a WICEN coordinator.
- **The main traffic is competitor tracking** — bib numbers and times through checkpoints — rather than formal messages.

What an organiser needs from WICEN WA comes down to one thing: **knowing where every competitor is, and getting help to one fast when something goes wrong.**

12.2 Event Support PACE

Level	System	Use
PRIMARY	VHF/UHF voice net to race control (repeater, or a portable repeater on high ground)	Checkpoint reports, incidents, coordination
ALTERNATE	Simplex relay through intermediate stations	Same traffic, relayed — see Voice Procedure (Chapter 14)'s Relay section
CONTINGENCY	HF NVIS (40/80m), or the event's own UHF CB	Deep valleys and remote stages beyond VHF/UHF reach
EMERGENCY	Satellite messenger or satellite phone, then a runner or vehicle to the nearest staffed point	Incident reports when every radio path has failed

Triggers for stepping between tiers are not yet defined GAP-004.

12.3 Engagement lifecycle

1. **Request.** The organiser contacts WICEN WA's single point of contact.
2. **Scope.** Agree what WICEN will and won't do: which sites, which days, how many operators, what the organiser provides (access, food, shelter, power) GAP-046.
3. **Agreement.** Confirm scope, responsibilities and insurance in writing. Check what the licence conditions allow GAP-053.
4. **Coverage survey.** Visit the course and test every site and path before the event. Plan relays and portable repeaters where needed GAP-052.
5. **Communications plan.** A written plan the organiser can attach to their event safety plan: every site, every channel, every contact, and what happens when each tier fails GAP-047.
6. **Briefing.** Operators, race control and key event staff briefed together, including the escalation and missing-competitor procedures.

7. **Operate.** Run the net for race control. Over multiple days, stations move ahead of the field, and some stay out overnight GAP-054.
8. **Demobilise and report back.** See Demobilisation (Chapter 6). Logs go to the organiser, and both sides debrief.

12.4 Network structure

```
Race Control
     |
Net Control (WICEN)
     |
Checkpoint, relay and sweep stations
```

Net Control sits beside race control, not in a separate location, wherever possible. The organiser's marshals and sweep crews often use their own UHF CB or hired business radios; WICEN may need to bridge between those and the WICEN net GAP-039.

12.5 Competitor tracking

Every checkpoint reports competitors through, in order, and race control must be able to ask "where is number 214?" at any time and get an answer. Between days, the finishers of one day must reconcile with the starters of the next.

A draft checkpoint report GAP-048:

> CHECKPOINT (name), TIME (hhmm) — THROUGH: (bib numbers) — WITHDRAWN: (bib number, reason) — SWEEP PASSED: (yes/no)

Bib numbers are read digit by digit (*"Two One Four"*) and read back by Net Control. On busy checkpoints, report in batches at fixed intervals rather than one competitor at a time. Competitor names and medical details are personal information and are not sent by voice — use the bib number (see Personal information (Chapter 13)).

12.6 Missing or overdue competitors

The organiser owns the decision to search. WICEN's job is to raise the alarm early and supply the facts: last checkpoint passed, time, and who passed them. A competitor is treated as overdue when they haven't reached the next checkpoint within the time agreed with race control GAP-049.

12.7 Incidents and escalation

- **Threat to life:** anyone with a working phone calls 000 immediately. If there's no phone coverage, the operator passes the incident to race control at the highest precedence GAP-012, and race control calls 000.
- **Every incident report includes:** location (checkpoint, distance along the course, or grid reference), bib number, what happened, the competitor's condition, and the help needed.
- Who calls 000, and who meets ambulances at access points, is agreed with the organiser before the event GAP-050.

If police or ambulance take control of an incident, the event becomes, at least in part, an emergency. WICEN keeps supporting race control unless told otherwise, and takes no tasking from emergency services except through race control or a WICEN liaison GAP-051.

12.8 Why this domain matters beyond events

Planned events are what WICEN WA does most, and they are its most realistic exercises: real, multi-day, long-distance deployments with a customer depending on the network. Each event is a chance to test the power standard GAP-026, rostering GAP-027, field safety GAP-028 and tier triggers in practice. A well-run event is also the

strongest evidence of reliability WICEN WA can show to a Local Emergency Management Committee or a supported agency.

13 Message Handling

Website: https://wicenwa.org/PACE/message-handling

All formal messages should follow a standard format.

This ensures clarity and traceability. The page also describes the fuller RATEL formal message below; which format is used when is not yet stated GAP-057.

13.1 Standard Message Format

MESSAGE NUMBER: PRIORITY: FROM: TO: TIME: DATE:

TEXT:

SIGNATURE:

13.2 Priority Levels

EMERGENCY
Immediate threat to life

PRIORITY
Urgent operational information

ROUTINE
Normal traffic

The precedence levels are under review GAP-012.

13.3 Types of message

From the RATEL manual — see Voice Procedure (Chapter 14) for how each is passed on air:

- **Conversation** — back-and-forth voice between two users.
- **Informal message** — a question or piece of information given to the operator verbally or written down, with just the text and who it's for.
- **Formal message** — written on a message form, signed by a releasing officer, given a serial number, sent, logged and filed.

13.4 Formal messages (RATEL)

WICEN's RATEL manual defines a fuller formal message than the format above. Its message form (Annex A of the RATEL PDF) adds:

- **Serial number** — IN or OUT, as *message number* / *date*, e.g. **05/15**. Numbers run consecutively for the whole event; the date part changes at midnight. The sender gives the next OUT number from the log; a received message gets the next IN number. The serial number is separate from the originator's own reference number.
- **Date-time group** — when the message was written, filled in by the originator.
- **Info addressees** — stations that should know about the message but aren't asked to act, normally at ROUTINE.
- **Operator blocks** — at the foot of the form, *R* (received) or *D* (despatched) with date, time, system and operator. Always completed.

Before sending, check the message can be read, has no obvious errors, has everything needed to send it, and any abbreviations are clear.

Sending order — any part left blank is skipped:

1. Transmission instructions (e.g. READ BACK, RELAY TO)
2. Serial number
3. Precedence
4. Date-time group
5. Originator's number
6. FROM
7. TO
8. BREAK — the text — MESSAGE ENDS

Example: "VK6BB, message number zero five slant one five, routine, TIME one five one one three zero hotel, OPS one six, from Bloggs, to Jones, BREAK, PARA ONE, do you have any batteries, FULL STOP, para two nil return required, FULL STOP, MESSAGE ENDS, OVER."

13.5 Personal information

Amateur radio is in the clear: anyone with a receiver can listen, and messages cannot be encrypted.

Do not send names, addresses, phone numbers, medical details or the condition of an identified person by voice. Use a bib number, a tag, a location or a pre-agreed reference instead (for example, *"Runner 214 needs assistance at Checkpoint 3"*). Where a supported agency or organiser needs personal details passed, use the means they agree — normally their own phone or radio, or a digital message with the minimum detail needed — and record what was sent. If in doubt, ask the receiving station to call by phone.

This rule is confirmed with each supported agency or event organiser as part of the event support agreement GAP-046.

Received messages are rewritten onto a form (in duplicate if needed), given an IN serial number, logged, and the original goes to the addressee. Sent and received copies are filed separately.

13.6 Call Sign Identification

The Radiocommunications Licence Conditions (Amateur Licence) Determination 2025 (ACMA, commenced 30 September 2025) requires a station's call sign to be transmitted at the start and end of a transmission, and at least once every 30 minutes during any transmission or series of transmissions lasting longer than that — **explicitly including emergency services operations and training exercises**, not just routine operating. Net Control and operators on any extended net must identify on this schedule regardless of message priority.

13.7 Station and Net Logs

A message format records one message. A log records everything a station did. This site's message format doesn't replace the need for a log — modelled on the ICS-309 Communications Log standard used across Australian and international emcomm practice.

The log stays with the station, not the operator, so it survives a shift or operator change. How long logs are kept, and handover to the controlling agency, are not yet defined GAP-033.

Record for every transmission:

- Time
- Station worked (from/to)
- Message number, if applicable
- Summary of content

Keep entries brief — the log is a record of who did what, when, not a full transcript.

WICEN's own archived log sheet (Annex B of the RATEL PDF) records the same thing — Time, From, To, Serial No., Brief Summary — with the station call sign, location, operators, event and date at the top.

13.8 Net Control Logging

Net Control Stations carry an additional logging responsibility, separate from the station log above:

- Log every check-in — call sign, time, and role — in real time wherever possible
- On busier nets, split the role: one operator runs the net, a separate Net Logger transcribes, so the NCS's hands stay free
- If an Alternate NCS is appointed, they keep an independent duplicate log — a second original, not a copy of the primary — so there is no single point of failure in the record

Dedicated net-logging software (e.g. NCLog, built specifically for ARES/RACES/public-service net logging) can export directly to ICS-214/309/205-style forms GAP-017

13.9 Situation Reports (SITREP)

WICEN WA operates under AIIMS, not the US ICS forms culture — AIIMS's primary recurring documentation artifact is the **Situation Report (SITREP)**, not a numbered form. The hourly statewide *status net* on Radio Frequencies (Chapter 8) is not a SITREP: it is a regular check-in, while a SITREP is a reviewed summary of the incident.

A SITREP is published at a fixed interval — commonly every 24 hours for an extended incident, more often for a fast-moving one. Each functional area (Operations, Logistics, Planning, and so on) updates its own section; those sections roll up into one master SITREP, reviewed before release.

The `#sitrep` channel already named on the Operational Comms (Chapter 7) page exists to support this cycle; who compiles the master SITREP, at what interval, and who reviews it before release is not yet defined GAP-011.

13.10 Compatibility with ICS forms

Some supported agencies, and some of the software already named in this plan (such as Outpost's built-in ICS-213 generator), use FEMA ICS forms rather than AIIMS's SITREP cycle. WICEN WA operators should be able to produce either on request — ICS-213 (General Message), ICS-214 (Activity Log), and ICS-205/205A (Radio Communications Plan / Communications List) are the ones most likely to be asked for.

14 Voice Procedure (RATEL)

Website: https://wicenwa.org/PACE/voice-procedure

14.1 Voice Procedure (RATEL)

> **Draft.** This page adapts WICEN WA's archived *Radiotelephone (RATEL) Procedure for Operators in WICEN* (about 2002) for the current plan. It has not yet been formally adopted GAP-013. The original scanned manual is available on the Members page (PDF).

14.2 Where this fits in the plan

The PACE ladders on the Domain Summary (Chapter 2) say **which system** to use. This page says **how to talk** once you're on a voice system. It applies to every voice tier in every domain:

- Activation & Alerting — the HF alert net (Emergency tier)
- Strategic Coordination — amateur radio voice nets (Alternate) and the voice relay network (Emergency)
- Local/Tactical Field Comms — VHF/UHF voice (Primary) and HF voice (Contingency)
- Cross-State Coordination — HF voice liaison (Contingency)

RATEL's stated aim was "maximum compatibility with Emergency Services", which is still the reason to use it: served-agency radio operators use the same family of procedure.

14.3 Spelling, numbers and punctuation

- Use the standard phonetic alphabet. Spell difficult words with **I SPELL**, saying the word before and after if you can pronounce it: *"Catenary — I SPELL Charlie Alpha … — Catenary."*
- Numbers are sent digit by digit, except exact hundreds and thousands. Use **FIGURES** before numbers that could be mistaken for words.

Number	Spoken as
44	Fo-wer Fo-wer
90	Niner Zero
136	Wun Thuh-ree Six
500	Fi-yiv Hundred
1478	Wun Fo-wer Seven Ate
16000	Wun Six Thousand

- Write zero as **Ø** on message forms. A decimal point is spoken **DAY-SEE-MAL**.
- Mixed groups use both prowords: 31AB7 is *"FIGURES Three One — I SPELL Alpha Bravo — FIGURES Seven."*
- Punctuation is spoken: COMMA, FULL STOP, OPEN BRACKETS / CLOSE BRACKETS, SLANT (/), HYPHEN.

14.4 Calls and answers

A call is: **their call sign — THIS IS — your call sign — text — ending**.

- *"VK6XX, THIS IS VK6YY, are you ready to move, OVER."* — an answer is needed.
- *"VK6XX, THIS IS VK6YY, move now, OUT."* — no answer needed.

Ending words:

Proword	Meaning
OVER	My transmission is finished; reply.

Proword	Meaning
OUT	My transmission is finished; no reply. Never say “over and out”.
WAIT	I must pause for up to 5 seconds. No one else transmits.
WAIT OUT	I must pause for longer. Others may transmit; I will call you back.
OUT TO YOU	Finished with you; I’m calling another station straight away. No one else transmits.

Signal reports

Good strength and readability is assumed unless you say otherwise. Ask with **RADIO CHECK**; answer briefly, combining terms as needed:

Proword	Meaning
ROGER / LOUD AND CLEAR	Loud and clear
READABLE	Satisfactory
WEAK / VERY WEAK	Readable with difficulty
WITH INTERFERENCE / DISTORTED / FADING	Say what the problem is
UNREADABLE	Can’t be read

“VK6XX, THIS IS VK6YY, RADIO CHECK, OVER.” — “VK6YY, WEAK BUT READABLE, OVER.” — “READABLE, OUT.”

Abbreviated and full procedure

- **Abbreviated procedure** is normal: after the first call and answer, drop the other station’s call sign and any proword that isn’t needed.
- **Full procedure** is used when conditions are poor enough that shortcuts are causing repeats. Call signs and prowords that were optional become mandatory. Net Control orders it with **USE FULL PROCEDURE**, and back again with **USE ABBREVIATED PROCEDURE**.
- If conditions get worse still, use **WORDS TWICE**: send every call sign, word and phrase twice.

These are the steps *within* a voice tier before the channel is abandoned — the first rungs of the tier triggers the plan still needs (see the Domain Summary (Chapter 2) methodology check).

Call-sign identification. Whatever procedure is in use, stations must still identify as required by their licence conditions — see Message Handling (Chapter 13). [CHECK: confirm how abbreviated procedure sits with the ACMA identification rule for a series of transmissions.] During exercises, say **“exercise only”** before your call sign every time GAP-056.

14.5 Passing messages

- **Offer** a message before sending when it must be written down, when conditions are poor, or on a directed net: *“VK6AA, THIS IS VK6BB, MESSAGE, OVER.” — “SEND, OVER.”*
- **LONG MESSAGE** — anything taking more than about 30 seconds. Send in 30-second sections, each ending **MORE TO FOLLOW**. The receiver acknowledges each section. Pause a few seconds so urgent traffic can get in, then continue with **ALL AFTER** and the last word sent.
- **Corrections: CORRECTION** then the last correct word, and carry on. If the mistake is found later, identify it: *“CORRECTION, WORD BEFORE street, Blue.”*
- **Repeats: SAY AGAIN**, alone or with ALL AFTER, ALL BEFORE, WORD AFTER, WORD BEFORE, or FROM … TO. Reply with **I SAY AGAIN**.
- **READ BACK** — when accuracy matters or conditions are poor, the receiver reads the whole message back; the sender answers **CORRECT** or **WRONG**.
- **VERIFY** — ask the originator to check a message; the reply starts **I VERIFY**.
- **SPEAK SLOWER** — you’re going too fast to write down.

- **DISREGARD THIS TRANSMISSION** — cancels a transmission before OVER or OUT. A message already sent can only be cancelled by another message (**CANCEL**).
- **ACKNOWLEDGE** — the addressee (not just the operator) confirms receipt.
- **FETCH** — ask for a specific person to come to the radio: *"FETCH Ambulance Officer."* They answer *"Ambulance Officer SPEAKING."*

Formal message layout and serial numbers are on Message Handling (Chapter 13).

14.6 Relay

When two stations can't hear each other, a third station that can hear both relays. This is how the **voice relay network** — Strategic Coordination's Emergency tier on Operational Comms (Chapter 7) — actually works.

- **RELAY TO** — "please pass this to …"
- **THROUGH ME** — "I can reach them; send it through me."
- **RELAY THROUGH** — "send your message through (call sign)."

VK6BB can't raise VK6AA, but VK6XX can hear both:

> VK6XX, THIS IS VK6BB, RELAY TO VK6AA, move now, OVER. VK6BB, WAIT, OUT TO YOU. VK6AA, THIS IS VK6XX, FROM VK6BB, move now, OVER. VK6XX, ROGER, OUT. VK6BB, THIS IS VK6XX, FROM VK6AA, ROGER, OVER. ROGER, OUT.

The relay station always reports back that the message was delivered. Relay introduces errors, so use READ BACK for anything important.

14.7 Running a net

Net Control Station duties are listed on Radio Frequencies (Chapter 8). The prowords:

Proword	Meaning
THIS IS A DIRECTED NET	From now, stations call Net Control, not each other, unless given permission
THIS IS A FREE NET	Stations may call each other directly
REPORTING INTO NET	A station joining a working net: *"(NCS), THIS IS VK6AA, REPORTING INTO NET, OVER."*
ASSUME CONTROL	Net Control hands the net to another station, e.g. the Alternate NCS
I AM ASSUMING CONTROL	The new Net Control announces it has taken over
NOTHING HEARD	No reply from the station called
UNKNOWN STATION	A caller whose call sign was lost: *"UNKNOWN STATION, THIS IS VK6AA, SAY AGAIN CALLSIGN, OVER."*
REQUEST TIME CHECK / TIME CHECK AT	Synchronise clocks — useful at the start of any log
CLOSE DOWN / CLOSING DOWN	Stations called close when told / this station is closing

Changing frequency

A frequency change has two parts: an order, then a separate command to go. **Nobody moves on the order alone.**

> NCS: ALL STATIONS, THIS IS VK6BB, CHANGE TO 7.090, OVER. *(each station acknowledges: "change to 7.090, OVER")* NCS: CHANGE NOW, OUT.

The HF Propagation Plan (Chapter 9)'s frequency change procedure follows this.

14.8 Position, grid and time

- **LOCSTAT** — a location report. Ask with *"SEND LOCSTAT"*, or give one unprompted: *"LOCSTAT, turn-off to Canning Dam."*
- **GRID** — before any grid reference: *"LOCSTAT, GRID 123456."*
- **TIME** — before any time: *"returning at TIME one four hundred hours."*

14.9 Quick proword list

The abbreviated list from the original manual. The full list, with alternative meanings, is in Annex C of the PDF.

Proword	Meaning
ACKNOWLEDGE	Confirm you've received this message
ALL AFTER / ALL BEFORE	The part of the message after / before …
CANCEL	Cancel a message or part of one
CLOSE DOWN / CLOSING DOWN	Stations called close when told / I am closing
CORRECT	What you sent is correct
CORRECTION	I made an error; the correct version follows
FETCH	Bring (person) to the radio
FIGURES	Numbers follow, digit by digit (not used for call signs, grids, times)
GRID	A grid reference follows
I SPELL	I'll spell the next word phonetically
LOCSTAT	Location report
MESSAGE / LONG MESSAGE	A message to be written down follows
MORE TO FOLLOW	More of this long message comes next
NOTHING HEARD	No reply from the station called
OUT / OUT TO YOU	Finished, no reply / finished with you, calling another
OVER	Finished; reply
RADIO CHECK	How do you hear me?
READ BACK	Repeat the message back to me exactly
RELAY TO	Pass this message to …
ROGER	Received satisfactorily
SAY AGAIN / I SAY AGAIN	Repeat / I am repeating
SEND	Ready to receive your message
VERIFY	Check with the originator and send the correct version
WAIT / WAIT OUT	Pause up to 5 seconds / pause longer, others may transmit
WILCO	Received, understood, will comply (never with ROGER)
WORD AFTER / WORD BEFORE	Identifies part of a message
WORDS TWICE	Conditions are poor; send everything twice
WRONG	That's wrong; the correct version is …

14.10 What changed from the original

- Gender-neutral wording, and small errors corrected (duplicate paragraph numbers, “7075 MHz” for 7.075 MHz, READBACK / READ BACK).
- Military teletype and security-classification fields left out.
- Precedence is covered on Message Handling (Chapter 13), where precedence is under review GAP-012.
- Linked to the PACE domains and to the call-sign identification rule, neither of which existed when the manual was written.

15 Incident Information

Website: https://wicenwa.org/PACE/incident-information-handling

15.1 Incident Information Distribution

Once WICEN is On Watch or Activated, members need the latest operational information in one place they can rely on: WICEN's status, the nets and frequencies in use, situation updates and deployment instructions.

How that information is distributed to members is not yet decided GAP-059. A public incident status page on the WICEN WA website was considered and dropped: keeping it current needs website skills and access the coordinator may not have during an incident, and it would publish operational detail to anyone.

15.2 Relaying public warnings

WICEN WA does not issue public warnings or advice. Emergency WA and ABC radio, as the emergency broadcaster, are the authoritative sources.

If WICEN relays a warning — for example, to a relief centre that has lost other communications — it is passed word for word, naming the issuing agency and the time it was issued, and the recipient is told the authoritative source is Emergency WA or ABC radio. WICEN members do not summarise, interpret or add to a warning, and do not post warnings on WICEN's own website or social media except as a link to the issuing agency.

15.3 Relationship to WA's Emergency Public Information arrangements

Western Australia's actual governing document for public warnings and information during an emergency is the State Support Plan – Emergency Public Information, maintained by the State Emergency Management Committee (SEMC). This chapter is about WICEN's own information to its members, not that state-level function — and WICEN WA doesn't currently appear in the State Support Plan itself. GAP-014

16 Training and Exercises

Website: https://wicenwa.org/PACE/training

16.1 Training and Exercises

Regular exercises ensure operational readiness.

Recommended schedule:

Quarterly radio exercises

Annual statewide activation exercise

Digital messaging training sessions

16.2 Membership and what's expected

WICEN WA's Constitution (adopted at the 2026 AGM) has two classes of membership.

	Ordinary member	Associate member
Who	A licensed amateur operator, or someone holding a qualification the committee accepts	Anyone who has registered an interest in supporting WICEN WA's activities. Members under 18 can only be associates
Fee	Annual membership fee, by the due date the committee sets	No fee
Voting and office	Votes at general meetings; can stand for the committee	No vote; can't hold office
Activities	Any role they are trained for	Any role they are trained for

Membership class is about governance — voting and fees. It doesn't decide what a member can do in the field. That depends on training: every role needs the units listed for it, and radio roles need an amateur licence.

What WICEN WA expects of every member

1. **Complete the induction (F1)** within three months of joining, and before taking part in any event, exercise or deployment. Meetings, nets and training sessions are open before then.
2. **Complete the Capability Declaration** at the induction, and send a quick update whenever your contact details, licence, equipment or availability change.
3. **Confirm your details once a year** at the pre-season readiness check GAP-037.
4. **Follow the code of conduct** GAP-055 and acknowledge it on joining.
5. **Wait to be tasked.** Never self-deploy (see Activation (Chapter 3)).
6. **Train for the role before taking it.** You are only tasked to a role once you hold its units, and you stay in that role while you stay current.

Taking part in at least one WICEN activity a year — an event, exercise or training session — is encouraged. It isn't a condition of membership, but members who aren't current aren't tasked to field roles until they have refreshed.

What members can expect from WICEN WA

- **Training for the role,** assessed and recorded, and a personal training plan showing what to do next.
- **A safety briefing** at every exercise, event and deployment. You are never asked to work beyond your training, you can decline any tasking, and anyone can stop an activity for a safety concern.
- **Straight answers about insurance.** WICEN WA holds public liability insurance, which also protects members acting for WICEN WA against claims by other people. It doesn't cover your own injuries GAP-029.

- **Your personal details kept private,** held only by the committee members who need them and never sent over the air.
- **No cost to volunteer** beyond the membership fee. WICEN WA never charges for its services and no member is paid; donations go to WICEN WA, not to individuals.

16.3 Operator baseline

A code of conduct for members is not yet adopted GAP-055.

Every operator should know WICEN's Voice Procedure (RATEL) (Chapter 14) — calls and answers, prowords, spelling and numbers, relay, and passing a formal message — before taking a net or field role. It's the procedure every voice tier in the plan uses.

A standard field go-kit list is not yet defined GAP-016, and nor is a power standard GAP-026.

Agency access and entry requirements — insurance, inductions, ID, fireground training and protective clothing — are not yet defined GAP-029.

Preparing for non-amateur users (UHF CB, marine VHF) is not yet covered GAP-039.

16.4 Running an exercise

Every exercise, and every field deployment, starts the same way:

1. **Conditions check.** The exercise controller checks the fire danger rating, any Total Fire Ban, the weather and the sites, and makes a go / no-go decision.
2. **Sign-in.** Every participant signs the Operator Sign-In Sheet, confirming they are fit for duty, and signs out before leaving.
3. **Safety briefing.** The safety officer briefs everyone from the Safety Briefing and Activity Safety Assessment, adds any site-specific hazards, and each participant signs the briefing record.

Exercise traffic starts and ends with **EXERCISE** GAP-056. A real emergency during an exercise is called with **NO DUFF**, which stops all exercise traffic. Anyone can stop the exercise for a safety concern.

Both forms are printable annexes of the WICEN-WA Operations Manual.

Annex A Known Gaps

This manual is a draft. Where a chapter is incomplete or waiting on a decision, the text is marked with a gap ID such as GAP-004. Gaps are discussed and decided by the committee in the PACE Gap Register (a members' working document); the current list is also at https://wicenwa.org/PACE/known-gaps.

ID	Gap	Domain	Status
GAP-001	Long-Haul Message Traffic has no Contingency tier	Long-Haul Message Traffic	Accepted
GAP-002	Long-Haul Message Traffic has no Emergency tier	Long-Haul Message Traffic	Accepted
GAP-003	Cross-State Coordination has no Emergency tier	Cross-State Coordination	Accepted
GAP-004	No domain defines triggers for stepping between PACE tiers	All domains	Open
GAP-005	Activation & Alerting Primary and Alternate share the same internet/cellular path	Activation & Alerting	Open
GAP-006	Strategic Coordination Contingency and Emergency tiers not confirmed as distinguishable	Strategic Coordination	Open
GAP-007	Long-Haul Primary and Alternate are both HF — distinguishability not confirmed	Long-Haul Message Traffic	Open
GAP-008	Local/Tactical Field Comms has no doctrine page	Local/Tactical Field Comms	Open
GAP-009	Local/Tactical Alternate tier technology not chosen	Local/Tactical Field Comms	Open
GAP-010	Overview names MeshCore as the Local/Tactical Alternate tier, but no technology has been chosen	Local/Tactical Field Comms	Resolved
GAP-011	SITREP compiler, interval and reviewer not defined	Strategic Coordination	Open
GAP-012	Message precedence — EMERGENCY or IMMEDIATE — not settled	All voice and message traffic	Open
GAP-013	Voice Procedure (RATEL) not formally adopted	All voice tiers	Open
GAP-014	No formal, agency-recognised place for WICEN WA (AIIMS structure, State Support Plan)	Deployment / Incident Information	Open
GAP-015	Existing standing infrastructure (APRS digipeaters, MeshCore coverage) not inventoried	All domains	Open
GAP-016	No standard field go-kit defined	Local/Tactical Field Comms	Open
GAP-017	No standard net-logging or messaging software	Strategic Coordination / Long-Haul	Open
GAP-018	No pathway for an agency to request WICEN — who can request, 24/7 contact point, request verification	Activation & Alerting	Open
GAP-019	No explicit rule against self-deployment	Activation & Alerting	Resolved
GAP-020	"Incident Controller" used as a WICEN role, which conflicts with the AIIMS role of the same name	Activation & Alerting	Resolved
GAP-021	Deployment model doesn't place WICEN within the controlling agency's Logistics section / Communications Unit	Deployment	Open
GAP-022	No WICEN liaison role to the agency's incident management team or Incident Support Group	Deployment	Open

ID	Gap	Domain	Status
GAP-023	No capability statement — deployable team types, what each delivers, and response times	Deployment	Open
GAP-024	No resource register of members' availability, equipment and location	Deployment	Open
GAP-025	Primary tiers depend on internet/mobile networks — the first thing to fail in the incidents WICEN is called to	All domains	Open
GAP-026	No power standard — operating endurance off mains power, power sources, and standard power distribution (Anderson Powerpole, 12 V DC, fusing)	All domains	Open
GAP-027	No rostering or fatigue management for sustained operations	Deployment	In discussion
GAP-028	No field safety arrangements — welfare check-ins, lone operators, agency safety inductions	Deployment	In discussion
GAP-029	No access and entry requirements — insurance, agency induction, ID for road closures, fireground training and protective clothing	Deployment / Training	Open
GAP-030	Incident page is designed to publish operational detail (frequencies, deployment instructions) publicly	Incident Information	Resolved
GAP-031	No rule for relaying public warnings — Emergency WA is the authoritative source	Incident Information	Resolved
GAP-032	No rule on sending personal or sensitive information over amateur radio, which cannot be encrypted	Message Handling	Resolved
GAP-033	No retention of logs and message records, or handover to the controlling agency	Message Handling	Open
GAP-034	Demobilisation procedure is a draft and not yet adopted or agreed with agencies	Deployment	Open
GAP-035	No lessons-management process — debrief findings are not fed back into the plan	All domains	Open
GAP-036	WICEN WA not listed in any Local Emergency Management Arrangements, and not taking part in LEMC exercises	Deployment	Open
GAP-037	No hazard or seasonal readiness — bushfire (south), cyclone and flood (north), pre-season checks	All domains	Open
GAP-038	Operating area expectations not defined — where WICEN will deploy, response times by area, regions aligned with emergency management districts	All domains	Open
GAP-039	No interoperability with non-amateur users — UHF CB, marine VHF, VKS-737, agency radios	Local/Tactical Field Comms	Open
GAP-040	Activation alerting steps through channels in sequence — no simultaneous send, acknowledgement tracking or escalation	Activation & Alerting	Open
GAP-041	Incident page channel list doesn't match the frequency plan	Radio Frequencies	Resolved
GAP-042	"SITREP" used for both the hourly net and the AIIMS Situation Report	Strategic Coordination	Resolved
GAP-043	80m night coverage overstated — northern WA needs its own regional net control	Radio Frequencies	Open
GAP-044	Internet platform and tactical APRS callsigns not yet chosen	Activation / Strategic Coordination	Open
GAP-045	Event Support domain and its PACE ladder are a draft — not yet reviewed, tested or adopted	Event Support	Open
GAP-046	No standard event support agreement — scope, responsibilities, single point of contact, insurance, costs	Event Support	Open

ID	Gap	Domain	Status
GAP-047	No communications plan template for an organiser's event safety plan	Event Support	Open
GAP-048	No checkpoint report format or logging tool for competitor tracking	Event Support	Open
GAP-049	No overdue or missing competitor procedure agreed with organisers	Event Support	Open
GAP-050	No event incident escalation procedure — who calls 000, location reporting, meeting ambulances	Event Support	Open
GAP-051	No handover procedure when an event incident becomes an emergency-service-controlled incident	Event Support	Open
GAP-052	No course coverage survey method, or approach to temporary relays and portable repeaters	Event Support	Open
GAP-053	Licence conditions for event support not confirmed — payment or donations, carrying organisers' traffic	Event Support	Open
GAP-054	Multi-day station moves (leapfrogging) and overnight remote stations not planned	Event Support	Open
GAP-055	No code of conduct for members	All domains	Open
GAP-056	Two different conventions for marking exercise traffic	All voice and message traffic	Open
GAP-057	Message Handling has two message formats without saying which is used when	Message Handling	Open
GAP-058	No standard VHF/UHF channel plan for members to program	Local/Tactical Field Comms	Open
GAP-059	No method for distributing incident information to members	Incident Information	Open
GAP-060	Member expectations not defined — membership classes, what WICEN expects of members and what members can expect	All domains	Resolved

Annex B Glossary

ACMA	Australian Communications and Media Authority — regulates amateur radio licensing
AFAC	Australasian Fire and Emergency Service Authorities Council — publisher of AIIMS
AIIMS	Australasian Inter-Service Incident Management System — the incident management system used by Australian emergency services
APRS	Automatic Packet Reporting System — position and short-message system on VHF
ASA	Activity safety assessment — tasks, hazards, risk ratings and controls (Annex G)
AREDN	Amateur Radio Emergency Data Network — Wi-Fi-based amateur mesh network
DFES	Department of Fire and Emergency Services (WA)
DIS	Digital Information Station — distributes incident information to members (Chapter 3)
DNF	Did not finish — a competitor withdrawn from an event
DTG	Date-time group — when a message was written
ENDEX	End of exercise
HF	High frequency (3–30 MHz) — long-distance radio
ICS	Incident Command System (US) — source of the ICS-2xx forms
IMT	Incident management team — the controlling agency's team running an incident
ISG	Incident Support Group — agencies supporting an incident management team
JS8Call	Weak-signal HF keyboard messaging mode with store-and-forward
LEMC	Local Emergency Management Committee — a local government's emergency management committee
LSB / USB	Lower / upper sideband — HF voice modes
NCS	Net Control Station
NO DUFF	Prefix for a real emergency during an exercise — stops all exercise traffic
NVIS	Near-vertical incidence skywave — HF propagation for regional (roughly 0–800 km) coverage
PACE	Primary, Alternate, Contingency, Emergency — the plan's layered communications model
RATEL	Radiotelephone procedure — WICEN's voice procedure (Chapter 14)
RCD	Residual current device — safety switch on 240 V circuits
RMS	Radio Message Server — a Winlink gateway station
SC	State Coordinator (WICEN WA)
SEMC	State Emergency Management Committee (WA)
SITREP	Situation report — the regular AIIMS summary of an incident
TFB	Total Fire Ban
UHF CB	UHF citizens band radio (476–477 MHz), licence-free; channels 5 and 35 are emergency channels
VARA	HF modem used by Winlink
VHF / UHF	Very / ultra high frequency — local and repeater radio
WIA	Wireless Institute of Australia
WICEN	Wireless Institute Civil Emergency Network
Winlink	Radio email system using HF and VHF gateways

Annex C Message Form

Based on the RATEL message form (Annex A of the archived manual, Annex J). See Chapter 13 for how to complete and send it.

SERIAL NUMBER IN / OUT _____ / _____	PRECEDENCE GAP-012 □ ROUTINE □ PRIORITY □ EMERGENCY	DATE-TIME GROUP
ORIGINATOR'S NUMBER	TRANSMISSION INSTRUCTIONS (E.G. READ BACK, RELAY TO)	
FROM		
TO		
INFO		
TEXT		
RELEASING OFFICER — NAME AND SIGNATURE		TIME RELEASED

	Date	Time	System / frequency	Operator
R — received				
D — despatched				

Annex D Station and Net Log

STATION CALL SIGN	LOCATION	DATE
EVENT / INCIDENT		**SHEET** ____ of ____
OPERATORS		

Log every transmission — time, stations, serial number and a brief summary. The log stays with the station. Net Control also logs every check-in (Chapter 13).

Time	From	To	Serial no.	Brief summary	Op

Annex E Event Checkpoint Report

EVENT		DATE / DAY
CHECKPOINT	OPERATOR / CALL SIGN	SHEET ____ of ____

Read bib numbers digit by digit (“Two One Four”); Net Control reads them back. Report in batches at the agreed interval, and report the sweep as it passes. Do not send competitor names or medical details over the air. Draft format GAP-048 — see Chapter 12.

Time	Bib no.	Through / Withdrawn	Notes (reason for withdrawal, condition)	Sent to net

Annex F Operator Sign-In Sheet

EXERCISE / EVENT		DATE	SHEET
			____ of ____
LOCATION	**EXERCISE CONTROLLER**	**SAFETY OFFICER**	**FIRST AIDER**

Fitness for duty. By signing in, I confirm I am fit to take part — not impaired by fatigue, alcohol, drugs, medication or illness — that I have received the safety briefing, and that I will sign out before leaving. I will tell the safety officer privately about any medical condition they should know of.

#	Name	Call sign	Mobile	Role / site	Emergency contact — name and phone	Vehicle rego	Briefed	Time in	Signature	Time out
1							☐			
2							☐			
3							☐			
4							☐			
5							☐			
6							☐			
7							☐			
8							☐			
9							☐			
10							☐			
11							☐			

This sheet holds personal information. The exercise controller keeps it, uses it for roll calls and emergencies only, and stores or destroys it securely after the exercise GAP-032 GAP-033.

Annex G Safety Briefing and Activity Safety Assessment

Complete before every exercise or field deployment. The exercise controller and safety officer check the conditions and the site-specific hazards; the safety officer gives the briefing; every participant signs the briefing record. Draft — the hazard list is for committee review GAP-028.

EXERCISE / EVENT		DATE
LOCATION / SITES	EXERCISE CONTROLLER	SAFETY OFFICER

1 Conditions on the day

Fire Danger Rating (today, for the area)	
Total Fire Ban in force?	☐ No ☐ Yes — restrictions:
Weather — wind, heat, thunderstorms	
Site access and landholder permission	
Mobile coverage at each site	
Nearest hospital	
Ambulance access point	
Assembly point / way out	
Check-in interval	every _____ minutes
Safety officer	
First aider(s)	

GO / NO-GO DECISION	EXERCISE CONTROLLER — SIGNATURE AND TIME
☐ GO ☐ GO WITH CHANGES ☐ NO-GO	

2 Briefing order

☐ Exercise aims, limits and timings

☐ EXERCISE at the start and end of every exercise message; **NO DUFF** for a real emergency; ENDEX ends the exercise

☐ **Anyone can stop the exercise** for a safety concern — no questions asked

☐ Sign-in, fitness for duty, and sign-out before leaving

☐ Hazards and controls in this assessment, including today's site-specific hazards

☐ Weather and fire danger, and what would cancel or stop the exercise

☐ Check-in schedule and what happens if a check-in is missed

☐ First aid, emergency numbers, nearest hospital and assembly point

☐ Questions

3 Emergency information

Real emergency on air	**NO DUFF, NO DUFF, NO DUFF** — then the message. All exercise traffic stops.
Emergency services	**000** (112 from a mobile). Use the Emergency+ app for your location.
Nearest hospital	
Assembly point	

Safety officer / first aider	

4 Risk matrix

Likelihood ↓ Consequence →	**1** Insignificant	**2** Minor	**3** Moderate	**4** Major	**5** Catastrophic
A Almost certain Expected to happen during the exercise	**Medium**	**High**	**High**	**Extreme**	**Extreme**
B Likely Will probably happen	**Medium**	**Medium**	**High**	**High**	**Extreme**
C Possible Might happen	**Low**	**Medium**	**High**	**High**	**Extreme**
D Unlikely Could happen but not expected	**Low**	**Low**	**Medium**	**High**	**High**
E Rare Only in exceptional circumstances	**Low**	**Low**	**Medium**	**Medium**	**High**

Low	Manage with routine procedures
Medium	Controls in place and briefed before starting
High	Safety officer approves the controls before starting
Extreme	Do not proceed — change the plan

Risk is written as likelihood and consequence, e.g. **C4** = possible, major. Consequence: **1** insignificant — no injury; **2** minor — first aid only; **3** moderate — medical treatment; **4** major — serious injury, hospital; **5** catastrophic — death or permanent disability.

5 Standard hazards and controls

#	Task	Hazard	Risk	Controls	Risk after controls	Who
1	Travel to and from sites	Vehicle crash — fatigue, unsealed roads, wildlife, towing trailers	C4 High	• Plan the route and times • Rest before driving; no driving straight after a long shift • Drive to conditions; 4WD only where needed • Report safe arrival at the site and at home	D4 High	Each driver
2	Site set-up and pack-up	Manual handling — batteries, generators, masts, equipment cases	C3 High	• Team lift anything over 20 kg • Use trolleys; split heavy battery banks • Lift with the legs, not the back	D2 Low	All
3	Raising masts and antennas	Contact with overhead powerlines	D5 High	• Look up before raising anything — Look Up and Live • Site masts and wire antennas so they cannot reach a powerline if they fall, swing or blow over • Never throw a line over a tree near powerlines • If in doubt, move the antenna	E5 High	Site lead
4	Raising masts and antennas	Falling mast or antenna, guy lines, strong wind	C3 High	• Two people to raise a mast • Keep everyone clear by the mast's height while raising • Guy and peg masts; flag guy lines • Don't raise or work on masts in strong wind	D2 Low	Site lead
5	Weather	Lightning	D5 High	• Check the forecast before leaving • Stop antenna work and disconnect feed lines when thunder is heard • Shelter in a hard-top vehicle • Resume 30 minutes after the last thunder	E5 High	Safety officer
6	Weather	Heat stress, sunburn, dehydration	B3 High	• Bring enough water for the day plus a reserve • Shade at every operating position • Hat, sunscreen, long sleeves • Regular breaks; watch each other for heat illness	D2 Low	All
7	Weather	Cold, wet, wind, working at night	C2 Medium	• Warm and waterproof clothing • Shelter at each operating position	D1 Low	All
8	Bushfire	Fire started by a generator, vehicle or hot equipment; fire approaching a site	C4 High	• Check the Fire Danger Rating and any Total Fire Ban before leaving — cancel or move on Extreme or Catastrophic, or where a ban restricts generator use • Park vehicles and run generators on cleared ground • Fire extinguisher at each generator • Know the way out; monitor Emergency WA	D4 High	Exercise controller
9	Generators and fuel	Carbon monoxide poisoning	D5 High	• Never run a generator in a vehicle, tent, annex or any enclosed space • Place generators downwind of operating positions	E5 High	Site lead

#	Task	Hazard	Risk	Controls	Risk after controls	Who
10	Generators and fuel	Burns and fuel fires when refuelling	**C3 High**	• Shut down and let the generator cool before refuelling • Approved fuel containers only; no smoking • Extinguisher within reach	**D2 Low**	Site lead
11	Electrical	Electric shock from 240 V equipment	**D4 High**	• RCD on every 240 V outlet • Tested and tagged leads; no damaged leads • Keep connections off the ground and dry	**E4 Medium**	Site lead
12	Electrical	Battery short circuit; lithium battery fire	**C3 High**	• Fuse at the battery and at each device • Anderson Powerpole connectors, insulated terminals • Don't charge or use damaged lithium batteries • Secure batteries for transport	**D3 Medium**	Equipment owner
13	Radio operation	RF exposure near transmitting antennas	**D3 Medium**	• Antennas away from people and walkways • Never touch an antenna while it may transmit • Lowest power that does the job; follow the ARPANSA RF exposure standard	**E2 Low**	Operators
14	Moving around sites	Slips, trips and falls — uneven ground, cables, darkness	**B2 Medium**	• Walk the site before setting up • Cover or tape cables across walkways • Enclosed boots; head torch after dark	**C1 Low**	All
15	Moving around sites	Snake bite, insect stings, severe allergic reaction	**C4 High**	• Boots and long trousers; watch where you step and reach • First aid kit with pressure-immobilisation bandages at each site • Know who has a severe allergy and where their adrenaline auto-injector is	**D4 High**	First aider
16	Remote and lone operation	Injury or illness with no one nearby to help	**C4 High**	• Work in pairs wherever possible • Check in with Net Control at the agreed interval • Missed check-in: Net Control calls twice, then sends someone or escalates • Satellite messenger or PLB at sites without mobile coverage	**D3 Medium**	Net Control
17	Roadside sites	Struck by traffic	**D5 High**	• Set up well clear of the road • Vehicles fully off the carriageway • Hi-vis vest when near a road	**E5 High**	Site lead
18	Sites near water	Falling into a river, dam or the sea	**D5 High**	• Stay back from banks and edges • Life jacket when working close to water	**E5 High**	Site lead
19	Long operating periods	Fatigue — errors, falls, driving while tired	**C4 High**	• Agreed shift lengths and breaks • Rotate roles • Rest before driving home	**D3 Medium**	Exercise controller
20	Exercise traffic	Exercise traffic mistaken for a real emergency, or a real emergency missed	**C4 High**	• Start and end every exercise message with EXERCISE • A real emergency is called NO DUFF — it stops the exercise immediately • Use only the exercise channels in the comms plan	**E4 Medium**	Net Control

#	Task	Hazard	Risk	Controls	Risk after controls	Who
21	Any task	Injury or illness on site	C4 High	• Named first aider and first aid kit at each site • Call 000 (112 from a mobile); the Emergency+ app gives your location • Know the nearest hospital and the access point for ambulances	D3 Medium	First aider

6 Site-specific hazards for this exercise

Task / site	Hazard	Risk	Controls	Risk after controls	Who

7 Briefing record

I have been briefed on the hazards and controls in this document, I know how to call a real emergency (NO DUFF) and that I can stop the exercise for a safety concern.

Name	Call sign	Signature	Time	Name	Call sign	Signature	Time

BRIEFING GIVEN BY — NAME AND SIGNATURE	REVIEWED BY SAFETY OFFICER — NAME AND SIGNATURE	DATE

Annex H Frequency Quick Reference

Compiled from Chapters 8–10. Frequencies may change with interference and propagation; Net Control directs any change. GAP-041

Use	Day (0700–1800 WST)	Night (1800–0700 WST)	Mode
Statewide coordination	7.110 MHz	3.610 MHz	LSB
Alternate coordination	7.090 MHz	3.650 MHz	LSB
Tactical operations	7.130 MHz	3.580 MHz	LSB
Interstate liaison	14.300 MHz (alternate 14.250 MHz)		USB

Digital	40m	80m	20m (interstate)
JS8Call	7.078 MHz	3.578 MHz	14.078 MHz
Winlink (VARA)	7.095 MHz	3.595 MHz	14.095 MHz

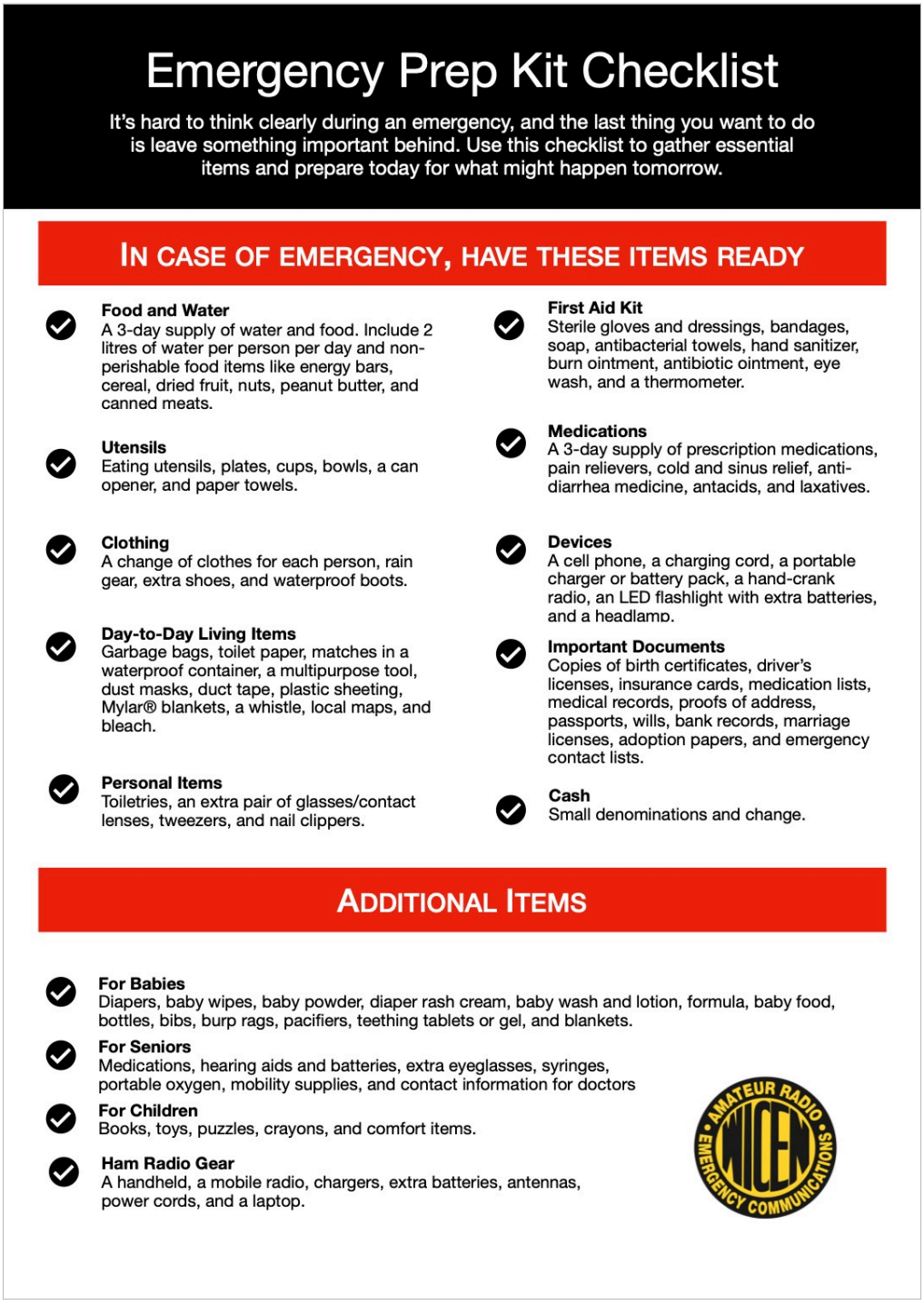
Net schedule	
On the hour	Statewide status net GAP-042
Half past the hour	Operational coordination net

Band selection	
Under 300 km	80m or VHF
300–800 km	80m NVIS or 40m
800–2000 km	40m
Interstate	20m

Changing frequency: Net Control orders CHANGE TO (frequency); all stations acknowledge; Net Control gives CHANGE NOW. Nobody moves on the first order alone.

Annex I General Preparation Checklist

WICEN WA's General Preparation Checklist, reproduced as issued.



Emergency Prep Kit Checklist

It's hard to think clearly during an emergency, and the last thing you want to do is leave something important behind. Use this checklist to gather essential items and prepare today for what might happen tomorrow.

In case of emergency, have these items ready

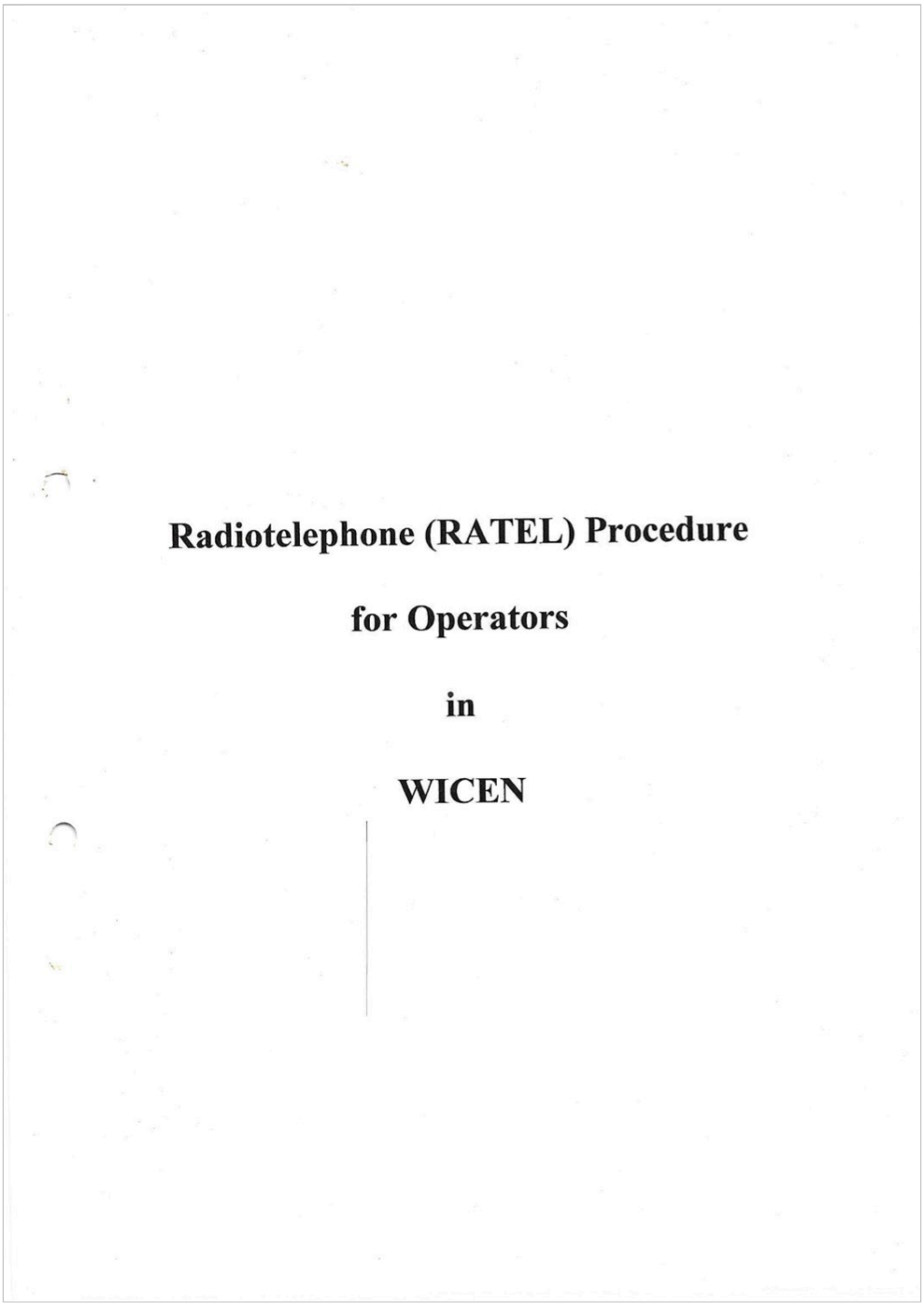
- **Food and Water** — A 3-day supply of water and food. Include 2 litres of water per person per day and non-perishable food items like energy bars, cereal, dried fruit, nuts, peanut butter, and canned meats.
- **Utensils** — Eating utensils, plates, cups, bowls, a can opener, and paper towels.
- **Clothing** — A change of clothes for each person, rain gear, extra shoes, and waterproof boots.
- **Day-to-Day Living Items** — Garbage bags, toilet paper, matches in a waterproof container, a multipurpose tool, dust masks, duct tape, plastic sheeting, Mylar® blankets, a whistle, local maps, and bleach.
- **Personal Items** — Toiletries, an extra pair of glasses/contact lenses, tweezers, and nail clippers.
- **First Aid Kit** — Sterile gloves and dressings, bandages, soap, antibacterial towels, hand sanitizer, burn ointment, antibiotic ointment, eye wash, and a thermometer.
- **Medications** — A 3-day supply of prescription medications, pain relievers, cold and sinus relief, anti-diarrhea medicine, antacids, and laxatives.
- **Devices** — A cell phone, a charging cord, a portable charger or battery pack, a hand-crank radio, an LED flashlight with extra batteries, and a headlamp.
- **Important Documents** — Copies of birth certificates, driver's licenses, insurance cards, medication lists, medical records, proofs of address, passports, wills, bank records, marriage licenses, adoption papers, and emergency contact lists.
- **Cash** — Small denominations and change.

Additional Items

- **For Babies** — Diapers, baby wipes, baby powder, diaper rash cream, baby wash and lotion, formula, baby food, bottles, bibs, burp rags, pacifiers, teething tablets or gel, and blankets.
- **For Seniors** — Medications, hearing aids and batteries, extra eyeglasses, syringes, portable oxygen, mobility supplies, and contact information for doctors
- **For Children** — Books, toys, puzzles, crayons, and comfort items.
- **Ham Radio Gear** — A handheld, a mobile radio, chargers, extra batteries, antennas, power cords, and a laptop.

Annex J Archived RATEL Procedure (c. 2002)

WICEN WA's archived *Radiotelephone (RATEL) Procedure for Operators in WICEN* (about 2002), reproduced for reference. Where it differs from Chapter 14, Chapter 14 applies.



Radiotelephone (RATEL) Procedure

for Operators

in

WICEN

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CHAPTER 1.

INTRODUCTION

Aim

101. The aim of this pamphlet is to standardise the radiotelephone (RATEL) procedure for operators in WICEN in a form which provides maximum compatibility with Emergency Services.

Phonetic Alphabet

102. The standard phonetic alphabet is to be used. Difficult words or groups within the text of messages may be spelled using the phonetic alphabet and preceded by the proword I SPELL. If the operator can pronounce the word to be spelled, he will do so before and after the spelling to identify the word.

Example A: (A pronounceable word)
"Catenary - I SPELL Charlie Alpha etc. - Catenary"

Example B: (An unpronounceable abbreviation)
"Move to WA State HQ" is transmitted as:
"Move to - I SPELL - Whiskey Alpha - State - I SPELL - Hotel Quebec"

Numerals

103. To distinguish numerals from words similarly pronounced the proword FIGURES may be used before such numbers. Numbers will be transmitted digit by digit except that exact multiples of hundreds and thousands may be spoken as such.

Number	Spoken as	Number	Spoken as
44	Fo-wer Fo-wer	1478	Wun Fo-wer Seven Ate
90	Niner Zero	7000	Seven Thousand
136	Wun Thuh-ree Six	16000	Wun Six Thousand
500	Fi-yiv Hundred		

104. The figure Zero is written as Ø.

105. The decimal point is spoken as DAY-SEE-MAL.

Mixed Groups

106. When giving a mixed group of letters and figures the prowords FIGURES and I SPELL are used as in the example:

31AB7 is sent as:
FIGURES - Three One - I SPELL - Alpha Bravo - FIGURES - Seven.

Punctuation

107. Punctuation is sent as:

Symbol	Spoken as
Comma	COMMA
Full Stop	FULL STOP
Brackets	OPEN BRACKETS/CLOSE BRACKETS
Oblique stroke	SLANT
Hyphen	HYPHEN

CHAPTER 2

RADIO NETS AND CALLS

Calling and Answering

201. A call consists of the following parts:
Callsign - THIS IS - Callsign - Text - OVER.

Example A: VK6XX - THIS IS - VK6YY - Move now - OUT.
Note. An answer is not required.

Example B: VK6XX - THIS IS - VK6YY - Are you ready to move - OVER.
Note. An answer is required.

202. An answer consists of the following parts:

Callsign - THIS IS - Callsign - Text - Ending Sign.

Note: An ending sign may be:

a.	OVER or OUT.	(But not together. They are contradictory)
b.	WAIT	I must pause for up to 5 seconds. No other station may transmit.
c.	WAIT OUT	I must pause for more than 5 seconds. Another station may transmit.

Example:
VK6XX - THIS IS VK6YY - Are you ready to move - OVER.
VK6XX - WAIT - (pause of 5 secs max.) ROGER - OUT.

Signal Strength and Readability

203. A station is understood to have good signal strength and readability unless otherwise advised. A station that wishes to inform another of his signal strength is to do so by means of a short and concise report such as "weak but readable". The following prowords are for use when initiating and answering queries concerning signal strength and readability:

a. ROGER	means loud and clear
b. READABLE	means satisfactory
c. WEAK	means with difficulty
d. WITH INTERFERENCE	means with interference
e. UNREADABLE	means unreadable

204. Any combination of the above may be used.

205. A station requiring to know his signal strength will use the proword RADIO CHECK.

VK6XX - THIS IS - VK6YY - RADIO CHECK - OVER.

VK6XX - WEAK BUT READABLE - OVER.

(VK6YY) - You are READABLE - OUT.

Abbreviated Procedure

206. Under normal working conditions, use is made of abbreviated procedure to save time by omitting the callsign of the called station other than in the initial call, and any non-essential proword. In a single call, all callsigns may be omitted after the initial call and reply.

207. Those parts of a call or prowords which may be omitted are shown in brackets through the remainder of this pamphlet. The following example illustrates abbreviated procedure:

VK6AA - THIS IS - VK6BB - Move now - OVER.

VK6AA - I cannot move at this stage - OVER.

(VK6AA) - When can you move - OVER.

(VK6BB) - In ten minutes - OVER.

(VK6AA) - ROGER - OUT.

Full Procedure

208. When conditions deteriorate to such a degree that the use of abbreviated procedure is causing unnecessary repetitions, stations are to use full procedure. The use of callsigns and prowords that were previously optional, then become mandatory.

VK6AA - THIS IS VK6BB - Move now - OVER.

THIS IS - VK6AA - I cannot move at this stage - OVER.

THIS IS - VK6BB - When can you move - OVER.

THIS IS - VK6AA - In FIGURES one zero minutes - OVER.

THIS IS - VK6BB - ROGER - OUT.

Arranging a Radiotelephone Conversation

209. A person may speak to a specific individual at another station by calling the person concerned to the set. The operator can arrange this by asking for the name or title of the person.

Someone says to you, "I want to speak to the ambulance"

You say:
VK6XX - THIS IS - VK6YY - FETCH Ambulance Officer - OVER.

Assuming he is not at the set, the operator would say:
VK6XX - WAIT - OUT.

When he is available the operator would say:
VK6YY - THIS IS - VK6XX - Ambulance Officer SPEAKING - OVER.

Transmission of Messages

210. An offer is a preliminary call made to warn a station that a message follows. Messages are offered when:

a. It is necessary to be written down,
b. In difficult conditions it is necessary for the sender to satisfy himself that comms are sufficiently good for the message to be received.
c. When a net is directed.

211. Messages may be offered by means of:

a. The abbreviated offer which uses no proword,
b. The proword MESSAGE or LONG MESSAGE.

a. Abbreviated Offer.

VK6AA - THIS IS - VK6BB - OVER.

VK6AA - OVER.

(THIS IS) - (VK6BB) - The aircraft has departed - OVER.

(THIS IS) - (VK6AA) - ROGER - OUT.

b. Use of proword.

VK6AA - THIS IS - VK6BB - MESSAGE - OVER.

(THIS IS) - VK6AA - SEND - OVER.

(THIS IS) - (VK6BB) - Move to etc. - OVER.

(THIS IS) - (VK6AA) - ROGER - OUT.

The use of the proword simply means the message is to be written down.

Long Message Procedure

212. If a message will take more than half a minute to send, the following procedure is to be used.

a. Use the proword LONG MESSAGE.

b. The message is to be sent in sections each lasting 30 seconds and terminating in the use of the proword MORE TO FOLLOW.

c. Receiving stations are to acknowledge each section and if necessary request repeats.

d. After receiving a receipt, the sender is to pause for several seconds to allow any other station to transmit urgent traffic.

e. If there is no interruption the next section is sent by using the proword ALL AFTER followed by the last word or phrase of the section previously transmitted.

f. The procedure is used until the complete message is sent.

213. More details on message handling procedure can be found in Chapter 3.

Corrections During Transmission

214. When an error is made by the transmitting operator, the proword CORRECTION is to be transmitted followed by the last word or group correctly transmitted; transmission then continues:

VK6AA - THIS IS - VK6BB - Convoy will arrive - CORRECTION - will depart at noon - OVER.

(THIS IS) - VK6AA - ROGER - OUT.

215. When an error in transmission is made and is not discovered immediately, but is discovered before the ending sign is transmitted, a correction is to be transmitted before the ending sign. When making a correction, the word or group to be corrected is to be properly identified as follows:

VK6AA - THIS IS - VK6BB - Move to Brown street - CORRECTION - WORD BEFORE street - Blue - OVER.

(THIS IS) - VK6AA - (ROGER) - OUT.

216. If a station has sent a message and later realises that a mistake has been made, a further message identifying the message and the portion to be corrected is transmitted as shown below:

VK6AA - THIS IS - VK6BB - Reference move - CORRECTION - Blue avenue - OVER.

(THIS IS) - VK6AA - (ROGER) - OUT.

Repetitions

217. When words are missed or are in doubt, repetitions are to be requested and given before receipting of the message. The proword SAY AGAIN used alone or in conjunction with ALL AFTER, ALL BEFORE, FROM...TO..., WORD AFTER, WORD BEFORE or other suitable word (e.g. CALLSIGN, TIME, GRID) is to be used for this purpose. In complying with requests for repetitions, the transmitting station is to identify that portion which is being repeated. It is normal

with short messages to use the proword SAY AGAIN rather than ask for one or two words to be repeated.

VK6AA - THIS IS - VK6BB - we require a re-supply of batteries at headquarters before tomorrow morning- OVER

(THIS IS) - VK6AA - SAY AGAIN ALL AFTER headquarters - OVER.

(THIS IS) - (VK6BB) - I SAY AGAIN ALL AFTER headquarters before tomorrow morning - OVER.

(VK6AA) - ROGER - OUT.

Speed of Transmission

218. If a receiving station has difficulty in recording a written message because the operator is speaking too rapidly, the receiving operator may request a reduction in the speed of the transmission by the use of the proword SPEAK SLOWER.

Verifications

219. When verification of all or part of a message has been requested, the originating station is to verify the accuracy with the originator and send the correct version. An example of verification is as follows:

VK6AA - THIS IS - VK6BB - reference your locstat - VERIFY - OVER.

VK6AA - WAIT - OUT.

The operator checks and establishes that the grid reference previously sent was incorrect, then transmits:

VK6BB - THIS IS - VK6AA - reference my locstat CORRECTION GRID 147857 - OVER.

VK6BB - ROGER - OUT.

Acknowledgement of Messages

220. An acknowledgement is a message from the addressee informing the originator that the message has been received. An acknowledgement should not be confused with a reply or receipt. A prompt reply referring to the message may serve instead of an acknowledgement. It is the prerogative of the originator to request an ACKNOWLEDGEMENT to a message. This request is usually included in the text of that message.

VK6AA - THIS IS - VK6BB - search area to the South - ACKNOWLEDGE - OVER.

VK6AA - WAIT - OUT.

The operator shows the message to the addressee who authorises him to acknowledge.

VK6BB - THIS IS - VK6AA - Reference your last - OUT.

Cancelling Transmissions and Messages

221. During the transmission of a message and prior to the transmission of the proword OVER or OUT, the transmission may be cancelled by the use of the prowords DISREGARD THIS TRANSMISSION - OUT.

VK6AA - THIS IS - VK6BB - MESSAGE - OVER

VK6AA - SEND - OVER

(VK6BB) - When the move to the new location is complete you are - DISREGARD THIS TRANSMISSION - OUT.

222. A message which has been completely transmitted may only be cancelled by another message.

VK6BB - THIS IS - VK6AA - CANCEL my movement instructions - OVER

VK6BB - ROGER - OUT

Relay Procedure

223. If communications between any two stations fail messages may be sent through a third station that is in contact with both of them. Prowords are RELAY THROUGH, RELAY TO, RELAY FROM, THROUGH ME.

VK6AA - THIS IS - VK6BB - move now - OVER
Communications cannot be established but VK6XX can communicate with both stations...

VK6XX - THIS IS VK6BB - RELAY TO VK6AA - move now - OVER

VK6XX - WAIT OUT TO YOU - VK6AA - THIS IS - VK6XX - FROM VK6BB - move now - OVER

VK6AA - ROGER - OUT

VK6XX then goes back to VK6BB to inform him that the message has been passed.

VK6BB THIS IS - VK6XX - FROM VK6AA - ROGER - OVER

VK6BB - ROGER - OUT

224. The following example is of a station offering to relay by using the proword THROUGH ME

VK6AA - THIS IS - VK6BB - MESSAGE - OVER
No contact is made but VK6XX knows he is in contact with VK6AA so he offers to relay the message...

VK6BB - THIS IS - VK6XX - THROUGH ME - OVER

VK6BB - RELAY TO - VK6AA - move now - OVER

VK6XX - WAIT - OUT TO YOU - VK6AA - THIS IS - VK6XX - FROM - VK6BB - move now - OVER

VK6AA - ROGER - OUT
VK6XX then goes back to VK6BB to tell him the message has been received.

VK6BB - THIS IS - VK6XX - FROM VK6AA - ROGER - OVER

VK6BB - ROGER - OUT

Read Back

225. Read Back procedure is used when a sender wishes to ensure that his message has been received correctly. This is necessary when the text is very complicated, when accuracy is very important or when conditions are poor.

226. If it is desired that a message be read back, the proword READ BACK is sent immediately following the call.

VK6AA - THIS IS - VK6BB - MESSAGE - OVER

VK6AA - SEND - OVER

(VK6BB) - READ BACK - move to GRID 123456 - OVER

(VK6AA) - I READ BACK - move to GRID 123456 - OVER

(VK6BB) - CORRECT - OUT

Words Twice

227. When conditions are poor, callsigns, words and phrases should be transmitted twice. This is indicated by the use of the prowords WORDS TWICE.

VK6AA - THIS IS - VK6BB - do you have any apples - OVER
Conditions are very poor.

VK6BB - THIS IS - VK6AA - SAY AGAIN - WORDS TWICE - OVER

VK6AA - VK6AA - THIS IS - VK6BB - THIS IS - VK6BB - do you have - do you have - any apples - any apples - OVER - OVER

(VK6AA) - ROGER - OUT

Changing Frequency

228. Frequency changes may be ordered because of deteriorating conditions (atmospherics, interference) or to keep a call channel free (moving to a working frequency). The following procedure is to be used. Note that the change does not occur until the NCS gives the executive command.

VK6AA - THIS IS VK6BB - change to 7075 MHz - OVER

VK6AA - change to 7075 MHz - OVER

(VK6BB) - change now - OUT

It is very important that stations do not change on the preparatory command but wait for the executive.

Joining a Working Net

231. When joining a working net, the prowords REPORTING INTO NET are used.

VK6BB - THIS IS - VK6AA - REPORTING INTO NET - OVER

VK6BB - ROGER - OUT

Location Reports

230. It is often necessary to ascertain the position of a particular station. The proword LOCSTAT is used.

VK6AA - THIS IS - VK6BB - SEND LOCSTAT - OVER

VK6AA - LOCSTAT - turn off to Canning Dam - OVER

(VK6BB) - ROGER - OUT

231. A station may wish to report his position without being asked.

VK6BB - THIS IS - VK6AA - LOCSTAT - turn off to Canning Dam - OVER

VK6BB - ROGER - OUT

Unknown Station

232. Sometimes due to interference the callsign of the station calling is lost. The called station uses the prowords UNKNOWN STATION to reply.

VK6AA - THIS IS - crackle - OVER

UNKNOWN STATION - THIS IS - VK6AA - SAY AGAIN CALLSIGN - OVER

VK6AA - THIS IS - VK6BB - OVER

VK6AA - ROGER - OUT

Grid References

233. When transmitting a grid reference the proword GRID is used.

VK6AA - THIS IS - VK6BB - SEND LOCSTAT - OVER

VK6AA - LOCSTAT - GRID 123456 - OVER

(VK6BB) - ROGER - OUT

Times

234. Times are sent using the proword TIME.

VK6AA - THIS IS - VK6BB - I will be returning at TIME one four hundred hours - OVER

VK6AA - ROGER - OUT

CHAPTER 3

SECTION 1

Introduction

301. The aim of this chapter is to present all the information necessary for you to send and receive formal messages.

Types of Messages

302. There are three types of messages:

a. Conversations.
These are a series of alternate voice transmissions between two users in which subjects may be discussed, questions answered and information exchanged.

b. Informal messages.
A user may frequently wish to ask a question and send information without discussion. He can do this by giving his message verbally to the operator or by writing it down for transmission. An informal message consists simply of the user's text with an indication of the addressee.

c. Formal messages.
A formal message is one which is written down on a message form, signed by a releasing officer, registered and passed to the operator for transmission and filing.

SECTION 2

USE OF STANDARD MESSAGE FORM

Introduction

303. The message form shown in Annex A to Section 3 is the form used by Emergency services and by WICEN . The following information will enable you to check/complete a message ready for transmission.

Top shaded section

304. This area is normally used by teletype operators in the armed services. We use it to write the message serial number in or out. e.g. 05/24

Security Classification

305. Not usually used. If it were it would probably be CONFIDENTIAL.

Precedence-Action

306. This is the precedence of the message. There are three precedences which you may encounter:

a. ROUTINE. These are transmitted in order of receipt.

b. PRIORITY. Transmitted in order of receipt before any Routine traffic not already being transmitted.

c. IMMEDIATE. Transmitted in order of receipt before any Priority traffic not already being transmitted.

Precedence-Info Routine

307. This applies to any Info addressees, e.g. the message is sent to Albany but Bunbury needs to be aware of it. It is normally ROUTINE but it may be crossed out and a higher precedence inserted.

Date-Time Group

308. This is filled in by the originator when the message is written. It is written as a six figure number followed by a letter, e.g. 061800Z AUG 02. This is 1800 UTC on the 6 August 2002.

Message Instructions

309. Seldom used but handy if there are any.

Sig/Orig Number

310. They fill this in. It is their reference number.

From and To

311. Self explanatory.

For Ops Use

312. These blocks are important and must always be completed. The R blocks are used for an incoming message. The D blocks are used for outgoing messages.

SECTION 3

MESSAGE HANDLING SEQUENCE

Introduction

313. This section will detail the sequence of transmission and procedures with received messages.

Messages Received for Transmission

314. When a message is given to you for transmission you should check that:

a. It can be read.
b. It contains no obvious errors.
c. It has all the necessary information for its transmission.
d. The meaning of any abbreviations is clear.

315. It is given the next OUT serial number from the log book.

Message Serial Numbers

316. Messages are given serial numbers, either IN or OUT, so that some sort of filing system can exist. This number has no relationship to the Originators Number.

317. The number consists of two parts, the message number and the date, e.g. 05/15. The message number continues consecutively until the end of the exercise/event. The date changes at midnight. This could be UTC or local depending on the time zone being used. These numbers are entered into the log book in the appropriate columns. You generate the OUT numbers while the IN number is obtained from the incoming message.

Prowords

318. The most common prowords used during message transmission are listed below.

MESSAGE
LONG MESSAGE
WAIT
WAIT OUT
SEND
FULL STOP
BREAK
TIME
READ BACK TEXT
CORRECT
WRONG
MESSAGE ENDS

Initial Call

319. In the initial call you must indicate what is to follow e.g. message, long message, so that the receiving station can be prepared:

VK6AA - THIS IS - VK6BB - MESSAGE - OVER

VK6AA - SEND - OVER

Transmission Sequence

320. The message is transmitted in the following sequence. Any part not filled in is ignored:

a. Transmission instructions, e.g. READ BACK TEXT, RELAY TO
b. Message out number
c. Precedence/s
d. Date-Time group
e. Security classification
f. Originators number
g. From
h. To
i. Text

321. The sample message shown in Annex A would be sent as:

VK6AA - THIS IS - VK6BB - MESSAGE - OVER

VK6AA - SEND - OVER

VK6BB - message number zero five slant one five, routine, TIME one five one one three zero hotel, OPS one six, from Bloggs, to Jones, BREAK, PARA ONE, do you have any batteries, FULL STOP, para two nil return required, FULL STOP, MESSAGE ENDS - OVER

VK6AA - ROGER - WAIT OUT.

322. This message is sent using abbreviated procedure and assumes good working conditions. The message contains only the information commonly sent.

Sending a Long Message

323. The offer LONG MESSAGE is used and the message is sent in short sections after which the prowords MORE TO FOLLOW are used. If no repetitions are necessary and after a short pause to allow other stations to send urgent traffic, the remainder of the message is sent.

Messages Sent/Received

324. Once a message given to you is sent, the D block at the bottom of the message is completed together with the Log Book. It is then filed in the OUT folder.

Messages Received via Radio

325. When a message is received over the radio, it is usually necessary to re-write it (This may be in duplicate depending on the situation). It is given an IN serial number (from the Log Book), the details are entered into the Log and the R block completed at the bottom of the message. The original is given to the addressee. If a carbon copy was kept it should be filed in the IN folder.

326. A sample Log Sheet is shown in Annex B.

Sample Message Form **Annex A**

MESSAGE FORM	**WICEN**		
PRECEDENCE -ACTION	PRECEDENCE - INFO	DATE – TIME GROUP	WICEN SERIAL NO.
FROM			SIG / ORIG NUMBER
TO			SIGNATURE

PAGE NO		DRAFTER'S NAME AND TITLE			PHONE NUMBER				REF FILE NO	
NO OF PAGES		RELEASER'S NAME AND TITLE			SIGNATURE				DATE	
FOR OP'S USE	**R**	DATE	TIME	SYSTEM	OPERATOR	**D**	DATE	TIME	SYSTEM	OPERATOR

Sample Log Sheet **Annex B**

WICEN

Log Sheet

Callsign .....

Location .....

Operators .....

Event ..... Date ....

Time	From	To	Serial No.	Brief Summary of Message

Page ..... of .....

20

RATEL PROWORDS

Prowords

ACKNOWLEDGE	(a) Instruction to a station on the net to acknowledge that it has heard a message which was not specifically addressed to it. (b) When used in the text of a message, an instruction to the addressee that the message must be acknowledged.
ALL AFTER	The portion of the message that I have referenced is all that which follows.....
ALL BEFORE	The portion of the message that I have referenced is all that which precedes.....
ANSWER AFTER	The station called is to answer after callsign ..... when answering transmissions.
ASSUME CONTROL	You will assume control of this net until further notice.
BREAK	The text is beginning or ending. Used only for formal messages.
CALLSIGN	That which is follows is a callsign.
CHANGE NOW	Change frequency now .....
CHANGE TO	Change frequency to .....
CLOSE DOWN	Stations called are to close down when indicated. Acknowledgements are required.
CORRECT	You are correct, or, what you received is correct. This proword is used as a response in READBACK procedure.
CORRECTION	(a) An error has been made in this transmission. The message will continue with the last word correctly transmitted. (b) An error has been made in this transmission (or message indicated. The correct version is …….. (c) That which follows is a corrected version in answer to your request for verification

DISREGARD THIS TRANSMISSION	This transmission is in error. Disregard it. This proword shall not be used to cancel any message that has been transmitted and for which acknowledgment has been received.
DISTORTED	Your signals are distorted.
FADING	At times your signal strength fades to such an extent that continuous reception cannot be relied upon.
FETCH	The person indicated is to be called to the communications area to PERSONALLY communicate with the transmitting station.
FIGURES	Figures or numerals follow.
FORMAL MESSAGE	Formal message of precedence indicated follows.
FROM	The details of the originator follow.
FROM ..... TO	The portion of the message referred to is contained between the words indicated by FROM and TO.
GOOD	Your signal strength is good.
GRID	The portion following is a grid reference.
I AM ASSUMING CONTROL	I am assuming control of this net.
INFO	The addressees immediately following are adressed for information (used in formal message procedure).
INTERFERENCE	Having trouble reading you due to interference.
I READ BACK	The following is the message as received at this station.
I SAY AGAIN	I am repeating all or portion of message indicated.
I SPELL	I shall spell the next word phonetically.
I VERIFY	The following has been verified at your request and is repeated. To be used only as a reply to VERIFY.
LONG MESSAGE	The message which follows is long, use attachment sheets of paper as required.
LOUD & CLEAR	The readability of your signals is of excellent quality.
MESSAGE	A message which requires recording is about to follow.

MORE TO FOLLOW	Used in Long Message Procedure to indicate that a further portion of the message follows when the transmission is resumed.
NOTHING HEARD	To be used when no reply is received from a called station.
OUT	This is the end of my transmission to you and no answer is required or expected.
OUT TO YOU	Used to indicate that this is the end of my transmission to you and no answer is required or expected. I am about to call another station immediately. No other station is to transmit in the meantime.
OVER	This is the end of my transmission to you and a response is necessary. Go ahead and transmit.
PRIORITY	Precedence; PRIORITY.
RADIO CHECK	What is my signal strength and readability. That is, how do you hear me?
READABLE	Your transmission is readable.
READBACK	Repeat this entire transmission (or portion indicated) back to me exactly as received.
RELAY THROUGH	Relay your message through callsign .....
RELAY TO	Transmit this message to all addressees (or addressees immediately following this proword).
REQUEST TIME CHECK	I wish to synchronise time. Please transmit a time check.
ROGER	(a) As an answer to normal transmissions - I have received your last transmission satisfactorily. (b) As an answer to a Radio Check - I have received your last transmission satisfactorily. The omission of comment on signal strength and readability is understood to mean that reception is loud and clear.
ROUTINE	Precedence; ROUTINE.
SAY AGAIN	Repeat your last transmission (or portion nominated).
SEND YOUR	I am ready to receive your .....(message).... , SITREP, etc.

SERVICE	The following message is a service message and relates to net integrity.
SPEAKING	..... is speaking.
SPEAK SLOWER	Your spoken transmission is too fast.
THIS IS	This transmission is from the station whose address designator immediately follows.
THIS IS A DIRECTED NET	From now until further notice, this net is directed.
THIS IS A FREE NET	From now until further notice, this net is free.
THROUGH ME	Relay your message through me.
TIME	(a) When passing a formal message. That which follows is the time date-time group of the message. (b) When synchronising time. The time now is .....
TIME CHECK	The time will be ..... hours when I transmit the proword TIME. Used when answering a request for a time check.
TIME CHECK AT	The time will be ..... hours when I transmit the proword TIME. Used when NCS initiates a time check.
TO	The addressees immediately following are addressed for action.
UNKNOWN STATION	The identity of the station with whom I am attempting to establish communication is unknown.
USE ABBREVIATED CALLSIGNS	Until further notice callsigns are to be abbreviated.
USE ABBREVIATED PROCEDURE	As conditions are normal, all stations are to use abbreviated procedure until further notice.
USE FULL CALLSIGNS	Until further notice callsigns are to be sent in full.
USE FULL PROCEDURE	As conditions are NOT normal, all stations are to use full procedure until further notice.
VERIFY	Verify entire message (or portion indicated) with the originator and send correct version. To be used only at the discretion of, or by, the addressee to which the questioned message was directed.

VERY WEAK	Your signal strength is very weak.
WAIT	I must pause for up to maximum of five seconds. No other station is to transmit during this pause. When used in conjunction with OUT TO YOU, means I will contact you later on this subject.
WAIT - OUT	I must pause (you must wait) for more than five seconds. Any station is free to transmit unless otherwise indicated in this transmission or by the prevailing circumstances, such as a directed net. You must wait until called again.
WEAK	Your signal strength is weak.
WILCO	I have received your signal, understood it and will comply. To be used only by the addressee. Since the meaning of ROGER is included in that of WILCO, the two prowords are never used together.
WORD AFTER	The word of the message to which I have referenced is that which follows..... .
WORD BEFORE	The word of the message to which I have referenced is that which precedes..... .
WORDS TWICE	Communication is difficult. Transmit each phrase (or each code group) twice. This proword may be used as an order, request or as information.
WRONG	Your last transmission was incorrect. The correct version is .....

The following prowords and meanings are an abbreviated list.

ACKNOWLEDGE	Instruction to a station to acknowledge that it has heard a message.
ALL AFTER ALL BEFORE	Used for making repetitions.
CANCEL	Cancel a message or part of a message or transmission.
CLOSE DOWN	Stations called are to close down when indicated.
CLOSING DOWN	This station is closing down.
CORRECT	You are correct or what you have transmitted is correct.

CORRECTION	An error has been made in transmission. The correct version follows.
FETCH	Used in conjunction with a name or appointment.
FIGURES	Used before sending figures digit by digit in difficult conditions. Not used for Callsigns, grid references, times, date time groups.
GRID	Used before any grid reference.
SAY AGAIN I SAY AGAIN	Used for repetitions.
I SPELL	Used when spelling out a word.
MESSAGE	Used when a message is to be written down.
NOTHING HEARD	Indication that no signals have been heard from a particular station.
OUT	This is the end of my transmission. No reply is expected.
OUT TO YOU	This is the end of my transmission to you and a call to another station follows immediately.
OVER	This is the end of my transmission to you and a reply is expected.
RADIO CHECK	Report how you receive my transmissions.
READ BACK	Repeat this entire transmission back to me exactly as you received it.
RELAY TO	Instruction to a station to relay a message
ROGER	I have received your last transmission satisfactorily.
SEND	I am ready to receive your message.
VERIFY	Verify portion indicated with originator and send correct version.
WAIT	I must pause for up to five seconds. No other station is to transmit even though I am not.
WAIT OUT	Your transmission is received. A further transmission on the same subject will follow later. Other stations may transmit as normal.
WORD AFTER WORD BEFORE	Used to identify part of a message.
WORDS TWICE	Communication is difficult. Transmit each phrase twice.
WRONG	What you have said is wrong. Correct version is...