

POLLUX FIELD SYSTEMS

COMMUNICATIONS PLAN

FIELD TEMPLATE

A practical worksheet for building reliable, redundant, and efficient communications.

Organization / Team	
Operation / Event	
Operational Area	
Prepared By	
Effective Date / Time	
Plan Version	

Core Principle

Every critical message should have a primary path, a backup path, and a simple fallback procedure. Build overlap where it adds resilience, but avoid unnecessary complexity.

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0. How to Use This Template

- ☐ Define the mission and who must communicate before selecting equipment or frequencies.
- ☐ Assign a primary, alternate, contingency, and emergency method for each critical communication need.
- ☐ Keep the channel plan simple enough for every operator to follow under stress.
- ☐ Confirm frequency authorization, radio settings, antenna compatibility, power, and coverage before use.
- ☐ Brief the plan, conduct a radio check, document problems, and revise the plan after the operation.

PLANNING NOTE: Legal authority and licensing requirements vary by radio service and location. Use only frequencies, power levels, encryption, and operating practices authorized for your equipment and users.

PACE Framework

Layer	Purpose	Example
Primary	Normal method used most of the time	Local radio net
Alternate	Second practical method if primary degrades	Secondary band or network
Contingency	Less convenient but dependable fallback	Relay station, runner, scheduled check-in
Emergency	Method reserved for urgent or life-safety traffic	Emergency channel, 911, satellite SOS

1. Mission & Operating Context

Start with what communications must accomplish.

Mission / Event Summary: _____

Operational Area / Boundaries: _____

Expected Duration: _____

Team Size / Roles: _____

Known Hazards or Constraints: _____

Critical Communication Requirements

Requirement	Who Sends	Who Receives	Priority	Maximum Delay

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Communications Priorities

- ☐ Life safety / emergency traffic
- ☐ Command and coordination
- ☐ Position / status reporting
- ☐ Logistics and resupply
- ☐ Routine administrative traffic
- ☐ Data, imagery, files, or situational awareness

2. Network Architecture & Redundancy

Map each communication need to multiple usable paths.

Need / User Group	Primary	Alternate	Contingency	Emergency	Failure Trigger

PLANNING NOTE: Different devices on the same tower, internet connection, battery bank, or repeater may not provide true redundancy. Identify shared points of failure.

Shared Dependencies / Single Points of Failure

Dependency	Systems Affected	Impact if Lost	Mitigation / Backup

3. Coverage, Overlap & Relay Plan

Plan where each system works, where it fails, and how gaps are bridged.

Area / Route	Primary Coverage	Backup Coverage	Dead Spots / Obstructions	Relay or Reposition Plan

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Area / Route	Primary Coverage	Backup Coverage	Dead Spots / Obstructions	Relay or Reposition Plan

Relay / Repeater / Gateway Assignments

Asset / Call Sign	Location	Function	Input / Uplink	Output / Downlink	Power / Runtime	Operator

4. Master Channel & Frequency Plan

Record every programmed channel exactly as users will see it.

Ch.	Display Name	Purpose / Net	TX Frequency	RX Frequency	Mode	Bandwidth	Tone / Color Code	TG / Slot	Power	Encryption / Key ID	Notes

PLANNING NOTE: Use plain-language display names. Avoid channel names that only the programmer understands. Keep emergency and command channels easy to locate.

Scanning / Zone / Bank Layout

Zone / Bank	Included Channels	Default Channel	Scan List	Priority Channel	User Group / Radio

5. Call Signs, Nets & Reporting

Standardize who talks, where they talk, and what they report.

Role / Person	Call Sign	Primary Net	Alternate Net	Radio / Device ID	Notes

Net Schedule & Check-In Plan

Net / Channel	Purpose	Start / Check-In Time	Check-In Order	Missed Check-In Action

Standard Reports

Report Type	Required Information	When Sent	Who Receives

6. Equipment, Power & Configuration

Confirm every operator has compatible, tested, and sustainable equipment.

User / Position	Radio / Device	Antenna	Battery Qty.	Expected Runtime	Charger / Power Source	Accessories

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User / Position	Radio / Device	Antenna	Battery Qty.	Expected Runtime	Charger / Power Source	Accessories

Programming & Interoperability Check

- ☐ All radios use the correct channel order and display names.
- ☐ Transmit and receive frequencies match the intended plan.
- ☐ Modes, bandwidth, tones, color codes, talkgroups, and time slots match.
- ☐ Encryption settings and key identifiers match where legally authorized.
- ☐ Cross-band, gateway, repeater, or network paths have been tested end-to-end.
- ☐ Time, GPS, device IDs, contact lists, and scan lists are correct.
- ☐ A printed or offline channel card is available to each operator.

7. Operating Procedures & Lost-Comms Actions

Write procedures simple enough to execute without further instruction.

Situation	Immediate Action	Next Step	Escalation / Time Limit

Recommended Situations to Address

- ☐ No response from an individual
- ☐ Primary net unavailable
- ☐ Repeater or gateway failure
- ☐ Interference or suspected jamming
- ☐ Compromised or missing radio/device
- ☐ Low battery or power failure
- ☐ Separated team / missed movement
- ☐ Emergency traffic / medical incident

8. Pre-Operation Brief & Communications Check

- ☐ Every operator knows the primary channel and emergency method.
- ☐ Call signs and net control are assigned.
- ☐ Channel changes and authentication procedures are understood.
- ☐ Radio checks were completed from realistic operating locations.
- ☐ Coverage gaps and relay points were identified.
- ☐ Spare batteries, charging, adapters, and antennas are available.
- ☐ Sensitive information and lost-device procedures were briefed.
- ☐ The plan is available in print or offline form.

Communications Check Log

Time	From	To	System / Channel	Signal / Quality	Location	Problem / Corrective Action

9. Post-Operation Review

Capture what worked before details are forgotten.

Observation	Impact	Root Cause	Corrective Action	Owner	Due Date

Best-performing system / configuration: _____

Coverage gaps discovered: _____

Equipment or programming changes required: _____

Training needs identified: _____

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Plan version changes for next use: _____

10. Operator Quick Reference Card

Complete this page, print it, and issue it with each radio.

Operator / Call Sign	
Primary Channel	
Alternate Channel	
Emergency Channel / Method	
Net Control	
Check-In Times	
Lost-Comms Rally / Action	
Emergency Contact / Procedure	
Special Instructions	

PLANNING NOTE: Keep the quick reference card concise. Operators should not need the full plan to complete routine actions or move to a backup channel.

IMPORTANT: This template is an educational planning aid and does not grant operating authority. Users are responsible for complying with applicable laws, licenses, frequency coordination, equipment certifications, privacy requirements, and organizational policies.