

Read, compose and understand MECP

A complete guide to the Mesh Emergency Communication Protocol, its codes, and the way PhryktorCore and PhryktorNET display structured radio reports.

“It works like a multilingual phrasebook that happens to be machine-parseable.”

— MECP project, maintained by [xiang-dev-1](#)

MECP assigns agreed meanings to short codes. Phryktor uses the developer’s language dictionary to show those meanings alongside the original message. Written details retain the sender’s wording.

[App & site guide](#)

[Read public rooms](#)

[Open the original MECP tool](#)

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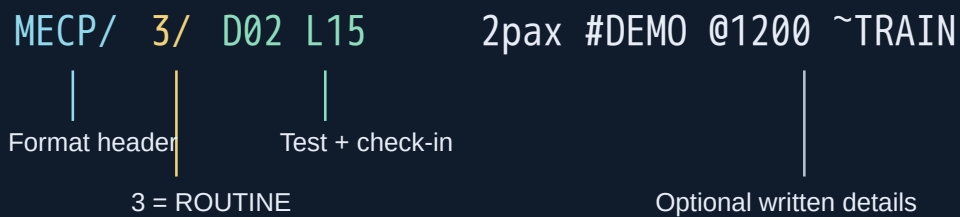
PhryktorCore 1.0.0 · Android build 2012 · ARM64 · Android 7.0+

[Download the signed APK](#) · [Release hash record](#)

SHA-256: c8cb373831eb442ab235c884b2f38376c82f05f55c9b322d52991c0d3cbab913

1. The format, piece by piece

MECP/<severity>/<codes> [details]



Put all uppercase codes first. Add details afterward. Check the destination's byte budget.

Diagram: a routine test check-in. Codes come first; optional details follow.

1. **MECP/** tells a compatible reader to interpret structured text.
2. **0, 1, 2 or 3** is the sender's chosen severity.
3. **Codes** are an uppercase category letter followed by two digits. Separate codes with spaces and keep them together before any written details.
4. **Details** provide context such as people, coordinates, an incident reference and a short description. These words are carried as text.

Example to read locally: MECP/3/D02 L15 2pax #DEMO @1200 ~TRAIN. D02 identifies a test; L15 is a check-in; 2pax means two people. This page does not transmit the example.

The MECP composer has a 200 UTF-8 byte ceiling. A destination's available radio text budget can be smaller after sender and encryption overhead. PhryktorCore displays the applicable budget and rejects an oversized structured report. Keep an MECP report in one packet; shorten details rather than separating its header from its codes.

Ordering matters: MECP/3/D02 L15 P05 2pax 0.00000,0.00000 places every code before details. Once details start, a later code-like word remains detail text in the current Phryktor readers. The coordinates here are fictional training values.

2. Choose the correct severity

Value	Label	Use
0	MAYDAY	A reported immediate threat to life.
1	URGENT	A serious report requiring timely attention.

Value	Label	Use
2	SAFETY	A hazard or safety advisory.
3	ROUTINE	Ordinary information, check-ins and non-emergency traffic.

Training and corrections

D01 means drill; D02 means test. Both produce a visible training label in Phryktor. D03 marks the end of a drill; D04 says a previous message was sent in error. Use D01 or D02 throughout practice exchanges. Removing a training label changes the meaning of the report.

Responses and beacons

R01 acknowledges a report, R02 says help is coming, and R07 reports resolution. B01 reports an active automated distress beacon, B02 acknowledges it, and B03 cancels it. These are statements made by the sender. A decoder does not activate a beacon or verify a rescue. Keep a matching incident reference when replying; confirm the original sender, location and current situation before treating a response as actionable.

3. Optional details and conventions

Text	Meaning	How to use it
2pax	Two people	A positive whole number immediately followed by pax.
0.00000,0 .00000	Latitude, longitude	Decimal degrees, latitude first. Add P05 to the codes. Valid latitude is -90 to 90; longitude -180 to 180.
#DEMO	Incident reference	One to four letters or digits. Carry the same reference in related replies.
@1200	1200 UTC / Zulu	Four-digit 24-hour UTC clock. The token has no date; interpret it with the message timestamp.
@en	English language hint	A two-letter language hint; it does not translate additional details.
~TRAIN	Sender callsign	One to nine letters or digits. This is sender-supplied text.
R03 and 15	Estimated arrival in 15 minutes	Put R03 among the codes and the number first in the details.

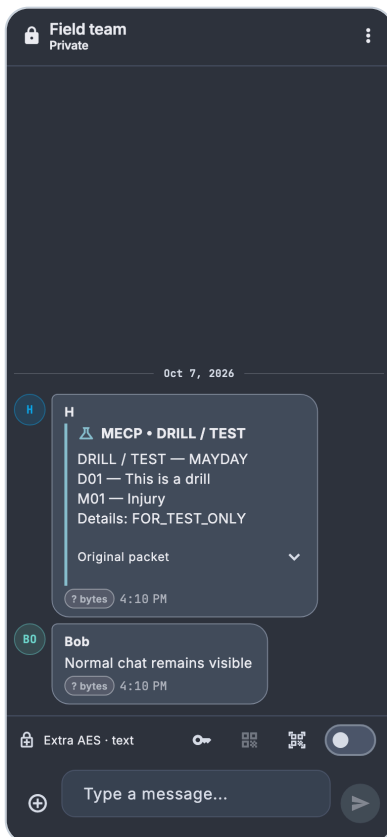
The original MECP tool recognizes these conventions. PhryktorCore provides dedicated people, coordinates and incident-ID fields, and shows the remaining text literally. PhryktorNET's room card shows every recognized code and the original details; the practice reader below also explains these conventions.

MECP is a text format. MeshCore supplies transport, routing and channel encryption separately. Public hashtag channels are shared community conversations; avoid including information you would not share publicly. Compatible language dictionaries decode codes offline. This website needs connectivity to load new radio observations.

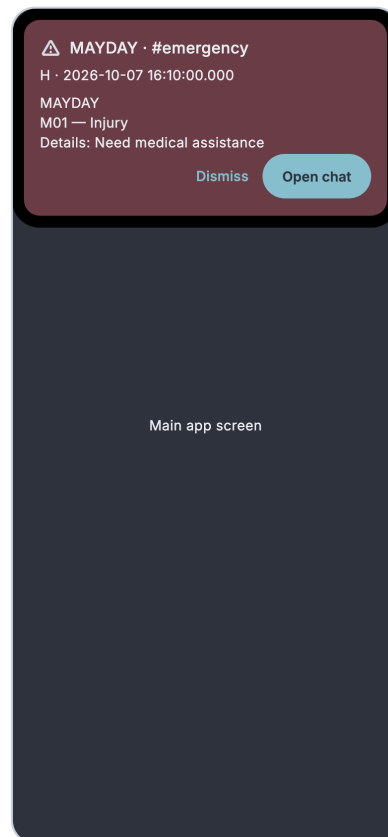
4. Use MECP in PhryktorCore

1. **Install the APK and connect a companion.** Download above or from [Grow the mesh](#). Grant the connection permissions, connect your MeshCore companion radio and wait for channels and contacts to synchronize.
2. **Open the intended conversation.** In a channel or supported chat, open the plus menu and select **Structured message**. Confirm the destination before composing.
3. **Start with a practice report.** The composer starts with routine severity and its drill option on. Select a category and the descriptions that apply.
4. **Add precise context.** Use People, coordinates and Incident ID where relevant. GPS adds P05. Use short additional details and check the location source; a configured radio position can be old.
5. **Review both previews.** Check the readable meaning, original wire text and byte counter. Keep the drill option on for a test. Send only when the selected conversation and content are correct.
6. **Check the receiver.** Ask another connected participant to confirm the received original text and interpretation. A send action alone does not establish mesh-wide receipt.

For offline preparation, open **Settings** → **Tools** → **Structured emergency message**. With no conversation selected, **Copy packet** copies the reviewed text. It does not send a radio message.



App test-build screenshot: a drill's readable codes and Original packet control.



App test-build screenshot: an example priority popup; this is not a current incident.

Read received reports

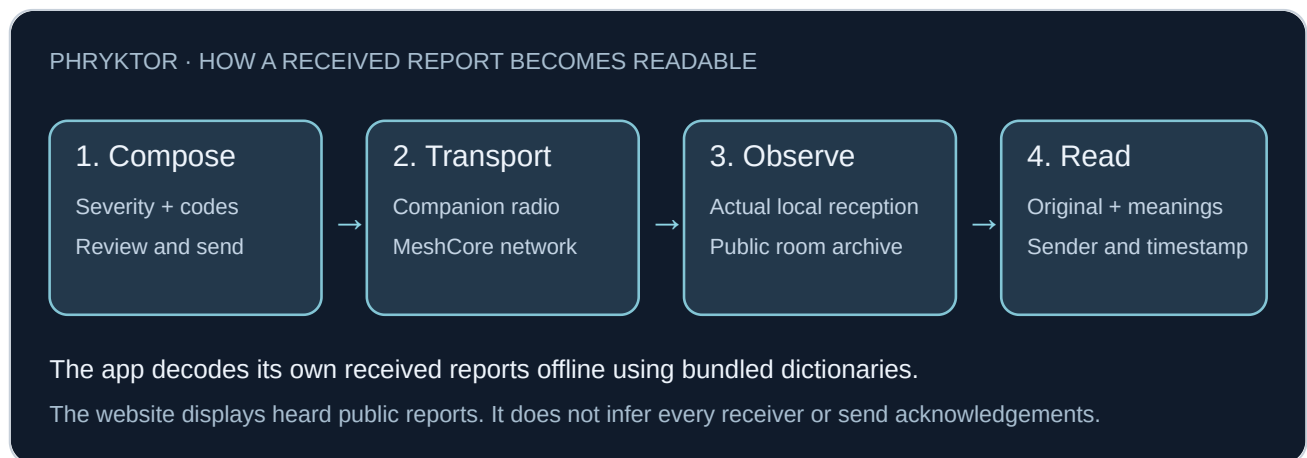
Supported incoming MECP messages display code descriptions using the app's language pack, with English fallback. Expand **Original packet** to inspect or copy the exact text. Unknown identifiers remain visible. Open **Settings** → **Tools** → **Emergency inbox** for reports in the currently loaded channel and contact histories; use its priority and drill filters, open the original chat or copy the visible report log.

Test visibility and phone alerts

Settings → **App Settings** → **Messaging** → **Hide test messages** starts on. Turn it off to view retained practice reports; hiding them does not delete history. The inbox's **Include drills** chip controls that view. Under **Notifications**, configure **Emergency popups in the app** and **Emergency phone notifications** separately. Live valid severity 0, 1 and 2 reports can qualify; drills and testing-room traffic do not. Phone notifications also require the general notification switch and Android permission.

Replies from the emergency inbox prepare an acknowledgement for you to review and explicitly send. Received reports and acknowledgements are peer communications. PhryktorCore does not turn them into an official warning.

5. Read MECP on PhryktorNET



Observation flow: the website can display reports that its receivers actually hear.

1. Open [MeshCore](#) and select or tag a public room. MECP reading works across monitored public rooms.
2. Use the room's follow control to keep new arrivals at the bottom, or search retained conversation history.
3. Read the original message, sender and source time. A recognized report receives an English MECP card underneath.
4. Read each code and its meaning, plus the sender's written details. Check the drill label and ask the sender to explain unknown codes.
5. Use [the original developer tool](#) for a separate local composition or decode preview. Copying there does not transmit.

The live room feed checks for new arrivals approximately every three seconds; RF reception, processing and connectivity affect when a message appears. Private direct-message histories are excluded from the public archive.

Packet orbs visualize received route metadata with usable node matches. A readable MECP report is not automatically matched to an encrypted packet by timing, and its coordinates do not identify the private observer. The website sends no acknowledgements from its reader and creates no official emergency banner from a community MECP report.

Home warning popups use current official weather and agency sources. Customize those separately with **Weather alert area** → **ZIP + distance**, a city, county or the visible map. Community radio reports keep their own sender attribution.

6. Practice the reader locally

Paste a packet or choose a training example. This reader runs in your browser and has no send control.

MECP packet

```
MECP/3/D02 L15 2pax #DEMO @1200 ~TRAIN
```

7. Full English code reference

All 108 codes in the installed MECP dictionary, organized into 12 categories. Search an identifier or its meaning. The category is part of the identifier, so M01 and T01 mean different things.

108 codes / 12 categories

Code	Category	English meaning
M01	Medical	Injury
M02	Medical	Unconscious person
M03	Medical	Breathing difficulty
M04	Medical	Cardiac event
M05	Medical	Hypothermia
M06	Medical	Severe bleeding
M07	Medical	Fracture / immobile
M08	Medical	Burns

Code	Category	English meaning
M09	Medical	Multiple casualties
M10	Medical	Deceased
M11	Medical	Animal bite / sting
M12	Medical	Allergic reaction / anaphylaxis
M13	Medical	Poisoning / toxic exposure
M14	Medical	Persons located alive
M15	Medical	Area searched, no victims found
T01	Terrain / Infrastructure	Road blocked
T02	Terrain / Infrastructure	Bridge out
T03	Terrain / Infrastructure	Building collapsed
T04	Terrain / Infrastructure	Flooding
T05	Terrain / Infrastructure	Landslide
T06	Terrain / Infrastructure	Power out
T07	Terrain / Infrastructure	Fire
T08	Terrain / Infrastructure	Avalanche
T09	Terrain / Infrastructure	Path impassable
T10	Terrain / Infrastructure	Shelter available
T11	Terrain / Infrastructure	Drowning / water rescue needed
T12	Terrain / Infrastructure	Water contamination
T13	Terrain / Infrastructure	Earthquake
T14	Terrain / Infrastructure	Gas leak
T15	Terrain / Infrastructure	Chemical spill / HAZMAT
T16	Terrain / Infrastructure	Vehicle accident
T17	Terrain / Infrastructure	Vehicle fire

Code	Category	English meaning
W01	Weather / Environment	Storm approaching
W02	Weather / Environment	Visibility zero
W03	Weather / Environment	Extreme cold
W04	Weather / Environment	Extreme heat
W05	Weather / Environment	Air quality danger
W06	Weather / Environment	Tsunami / tidal surge warning
S01	Supplies	Need water
S02	Supplies	Need food
S03	Supplies	Need medication
S04	Supplies	Need battery / power
S05	Supplies	Need fuel
S06	Supplies	Need tools / equipment
P01	Position / Movement	Stranded / stuck
P02	Position / Movement	Evacuating toward
P03	Position / Movement	Sheltering in place
P04	Position / Movement	En route to
P05	Position / Movement	At GPS coordinates
P06	Position / Movement	Lost
P07	Position / Movement	Group separated
C01	Coordination	Send rescue
C02	Coordination	Need transport
C03	Coordination	Relay this message
C04	Coordination	Confirm received
C05	Coordination	How many people

Code	Category	English meaning
C06	Coordination	What is status
C07	Coordination	Can you reach
C08	Coordination	Rendezvous at
R01	Response	Acknowledged
R02	Response	Help coming
R03	Response	ETA [minutes]
R04	Response	Cannot assist
R05	Response	Redirecting to
R06	Response	Stand by
R07	Response	Situation resolved / all clear
D01	Drill / Test	This is a drill
D02	Drill / Test	This is a test
D03	Drill / Test	End of drill
D04	Drill / Test	Ignore previous — sent in error
L01	Life / Leisure	Beer / drinks
L02	Life / Leisure	Coffee
L03	Life / Leisure	Food ready
L04	Life / Leisure	Summit reached
L05	Life / Leisure	At camp
L06	Life / Leisure	Running late
L07	Life / Leisure	Good signal here
L08	Life / Leisure	Photo opportunity
L09	Life / Leisure	Wildlife spotted
L10	Life / Leisure	Beautiful view

Code	Category	English meaning
L11	Life / Leisure	Trail conditions good
L12	Life / Leisure	Trail conditions bad
L13	Life / Leisure	Need a break
L14	Life / Leisure	Heading home
L15	Life / Leisure	Good morning / check-in
L16	Life / Leisure	Good night
L17	Life / Leisure	Thank you
L18	Life / Leisure	Having fun
L19	Life / Leisure	Festival / event here
L20	Life / Leisure	Node test / ping
X01	Threat / Security	Dangerous person / threat nearby
X02	Threat / Security	Area unsafe — avoid
X03	Threat / Security	Gunfire / explosions heard
X04	Threat / Security	Civil unrest / crowd danger
X05	Threat / Security	Theft / looting reported
X06	Threat / Security	Authorities / emergency services present
X07	Threat / Security	Checkpoint / road closure (authority)
H01	Have / Offer Resources	Have water available
H02	Have / Offer Resources	Have food available
H03	Have / Offer Resources	Have medical supplies
H04	Have / Offer Resources	Have power / charging
H05	Have / Offer Resources	Have fuel
H06	Have / Offer Resources	Have tools / equipment
H07	Have / Offer Resources	Have shelter / space for [N]pax

Code	Category	English meaning
H08	Have / Offer Resources	Have transport / vehicle
B01	Beacon	Automated distress beacon active — sender may be unresponsive
B02	Beacon	Beacon acknowledged — reduce transmission rate
B03	Beacon	Cancel beacon — I am OK

8. Developer, sources and licenses

MECP is maintained by [xiang-dev-1](#). The quotation above is from the project README. This guide documents Phryktor's installed dictionary and current integration, reviewed 11 October 2026. Phryktor does not claim authorship of MECP or endorsement by its developer.

- [Developer's comprehensive protocol reference](#)
- [Installed English language dictionary](#) · [CC BY 4.0 language-pack license](#). Code labels are reproduced unchanged with attribution to xiang-dev-1/MECP.
- [Locally hosted original browser tool and its source](#) · [GPL-3.0 tool license](#)
- [CC0 protocol dedication](#) · [Installed upstream revision and source notes](#)

App screenshots show development test fixtures with example data, not a live emergency or a physical-device verification. Website screenshots and diagrams are supplied by Phryktor. Installation and hardware troubleshooting are covered in the [App & site guide](#).