

# You're in

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Congratulations, you're part of a small group of operators getting hands on Radio Messenger before it goes public. We're trying to do something that hasn't really been done well before: make messaging over amateur radio feel like a real messaging app.

The build is preview quality. It will change quickly. Threads, contacts, settings, and keys may be reset between updates. Don't rely on it for anything you actually need. In exchange, the bugs your report, the copy nitpicks, feature ideas, gripes, all of it lands directly with me, writing the code and incorporating your feedback.

## What's in the app

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The big additions since the last round:

- **Location** — share your current location or drop a labeled pin from inside a conversation. You decide when, unlike traditional beaconing.
- **Offline Maps** — shared locations are backed by tiles cached around your area and around recent shares, so they keep working when you're off-grid.
- **Presence** — set an emoji and short status that rides along with your beacons, so people can see you're actually around and not just a tracker.
- **Inbox search** — find conversations by name, callsign, or room; search inside message text and jump straight to a hit in the thread.
- **APRS services** — known bots (WxBot, SMS gateway, QRX, and others) show catalog names and avatars; command suggestions appear when you message them over APRS.
- **Radio disconnect** — release the Bluetooth or Wi-Fi link for other apps without forgetting your paired radio; reconnect when you're ready.
- **Inbox management** — pin threads, mute alerts per conversation, bulk select and delete.
- **Enhanced Messaging** — a modern messaging mode for direct chats. Verifiable sender identity, tamper detection, full Unicode, longer messages (up to 229 characters), automatic retries, delivery acks, read receipts.
- **File & Image Sharing** — send photos and documents inside an Enhanced Messaging conversation. Recipient gets a notification and can accept or decline before anything transfers.
- **Reactions** — emoji reactions on any Enhanced Messaging message, with ack and retry like a regular send.

A product web site lives at [radiomessenger.app](https://radiomessenger.app) and will get frequent updates, so be sure to reference it. This guide focuses on what to bang on.

## Two modes, one app

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- **APRS Messaging** — works with the existing APRS ecosystem. Short messages, delivery acks, retries, optional Internet Assisted Delivery so messages still find you when you're away from the radio.

- **Enhanced Messaging** — verifiable identity, reactions, files, location, read receipts, longer messages. **Radio only.** No Internet Assisted fallback, both stations need to be on the same frequency, app running, radio on.

Mode is picked automatically based on the frequency your radio is tuned to.

## Bring a friend

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Most of what's new in this build is way more fun with someone on the other side. Enhanced Messaging, reactions, files, photos, and read receipts only work radio-to-radio. Internet Assisted Delivery doesn't carry them. So if you've got a licensed friend or a buddy from a club, somebody on iOS you'd actually want to chat with on a Saturday morning, drag them in.

Send them this guide along with the TestFlight invite: [testflight.apple.com/join/7tCwUaSQ](https://testflight.apple.com/join/7tCwUaSQ). Two operators with this app on the same frequency is when it starts to feel like the future.

## What to test

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These aren't scripts. Pick a few, try them in the order that fits your setup, and tell us when something feels off, even if it technically "works".

### Getting on the air

- Walk through the first-time flow: disclaimer, callsign, SSID, radio info, pairing (or skip), notifications prompt. Note anywhere the wording or order felt unclear.
- Try pairing with a Bluetooth radio. Then try a deliberately broken pair (radio off, radio out of range, wrong device) and confirm the app recovers and doesn't pretend you're connected.
- If you have a USB-C audio adapter (Digirig Lite, AIOC), plug it in cold and confirm the integrated modem picks it up without you babysitting it.
- With Bluetooth radio connected, tap **Disconnect** in the radio panel. Auto-reconnect should pause and another app should be able to use the radio. Tap **Reconnect to {radio}** in the disconnected banner when you want the link back — you shouldn't need to pair from scratch.

### Messages inbox & search

- Tap **search** in the inbox (iPhone: magnifying glass; iPad: search field when not in Edit mode). The radio panel hides on iPhone so the list has room.
- Search by **contact name, callsign**.
- Search **words inside messages**. Results group into **Conversations** and **Messages**; tap a message hit and confirm the app jumps to that message in the thread (the bubble should briefly highlight).
- Tap **Edit** in the inbox: select multiple threads and bulk delete. From a single thread's context menu, try **Pin, Mark as Read / Mark as Unread**, and **Hide Alerts / Show Alerts**. Muted threads should stop pushing notifications for that callsign (synced across your devices when Internet Assisted Delivery is on).

### APRS services & bots

- Open or start a thread with a known APRS service like WxBot or QRX.
- Confirm the **catalog name and avatar** show in the inbox row, conversation header, and station profile.
- In an APRS conversation with a bot, use the **command helper** above the compose bar: tap a suggestion to insert syntax, open and close the drawer with the chevron.
- Open the bot's **profile**: read the description, follow **Learn More** if present, and note any **Active**, **Pending**, or **Down** health badge.
- Send a real command and confirm delivery status and the bot's response feel sane.

## Direct messages — APRS

- Send a short message to a callsign you know is alive, a weather bot, an APRS gateway, or a friend. Watch the bubble cycle through sent, heard, acked.
- Type a longer reply in the compose field. It should grow vertically (up to about four lines, then scroll inside the field).
- Force a failure: turn the radio off, send anyway. You should see the red ! next to the bubble. Tap it to retry once the radio is back.
- Toggle **Internet Assisted Delivery** off in Settings and try the same thing with the radio off. Sends should be blocked cleanly, not silently swallowed. Turn it back on and confirm messages can reach you when the phone is locked.
- Share a **location** in an APRS conversation (+ → **Location**) and confirm it sends and displays on the other end.

## Direct messages — Enhanced

- Tune to a frequency that isn't the local APRS channel and have a Radio Messenger friend join you there.
- Send a long message (more than 67 characters), throw in emoji and accented characters, and confirm it arrives intact on both ends.
- Turn on **Settings → Enhanced Messaging → Send Read Receipts**. Open a message the other side sent and confirm they see the read indicator on their copy.
- If a send fails, retry manually and confirm it goes out with a fresh signature. Enhanced messages should also retry automatically when the recipient doesn't acknowledge.

## Verifiable identity

- Open **Settings → Enhanced Messaging → My Public Key** and share your key via QR with a friend. Try **Identity Backup** export/import if you run two devices.
- On their device, **Public Keys → Import** and scan yours. Swipe the row and **Mark as trusted**.
- Send each other a few messages. Verified messages should carry a green check. A message from a callsign whose key you haven't trusted yet should show as unknown.
- In the conversation header, look for the **shield**: grey when a public key is known, green when you trust it.
- Revoke trust and confirm the badges update on existing messages. Re-trust and confirm they come back.
- Long tap to bring up **Message Details** on a few messages. IDs, retry count, and verification info should read sensibly; failed verification should explain why (signature mismatch, timestamp too old, etc.).

## Location

- In a conversation, tap **+** → **Location**. Try both modes.
  - **My Location** — needs a GPS fix. Try sending with no fix yet (the send button should stay disabled). Switch iOS Location to **Approximate** for the app and confirm the on-map ring and the “Approximate” chip both show up before you send.
  - **Pin** — drag the map under the red teardrop. Add a label up to 40 characters, send. Try sending without a label too.
- On the receiving side, tap the inline map to open the full sheet and confirm the navigate options work.

## File & image sharing

- Send a photo from the camera, a photo from the library, and a document from Files, three separate sends to the same conversation.
- On the receiving phone, accept some and decline others. Try accepting from the foreground, and try accepting from the lock-screen notification when the app is closed.
- Pick a large photo. The resize sheet should offer reasonable options instead of trying to push the whole thing over the air. Send the “smaller” option, then the original, and compare arrival time.
- Cancel a transfer mid-flight, from both the sender and the receiver side. The conversation should land in a sane state, not stuck.

## Reactions

- Long-press a message and pick an emoji. The badge should appear on both ends, the inbox preview should describe the reaction (e.g. liked “hello”), and the unread dot should tickle the recipient.
- Replace your reaction with a different one (you only get one per message). Then clear it.
- React to a message in a thread you don’t currently have open and confirm the notification feels right (not too noisy, but you know something happened). On iPad, if the inbox already shows the reaction, you shouldn’t get a duplicate alert.

## Rooms (plain group chat)

- Join an active UNPROTO room or start one. Send a message and confirm others see it. Remember, there are no acks or retries here, it’s an open channel.
- Long-press the conversation name to edit the via path. These are packet digipeaters, not APRS digipeaters.

## On Air and Presence

- Let some traffic come in on the **On Air** tab. Sort by **Last Heard**, **Name**, and **Callsign**. Open a station and confirm the profile loads, including a map if they’ve been heard with a position. Opening a profile should clear that station’s new indicator (row dot and tab badge).
- While viewing a station profile, keep the On Air list updating — the profile should stay put instead of popping back to the list when someone new is heard.
- Scroll, sort, and open profiles while iCloud is syncing (especially if you use multiple devices). Report any crash or blank screen.
- In Settings, turn on **Send Presence Over Radio**. Pick an emoji and a short status (under 50 characters). Set a clear-after time. Confirm the presence strip on the inbox shows what you set, your

profile shows it, and someone hearing you sees the emoji next to your callsign.

- On a non-APRS frequency with the radio link ready, try editing presence from the inbox strip (emoji, text, clear-after).
- Edit your status without a radio paired. It should still be possible to compose; it just won't go out until you're back on the air.

## Offline Maps

- Open **Settings** → **Maps** → **Offline Maps**. Pick a cache limit, tap **Refresh Home Area** with a fresh location fix.
- Put the phone in airplane mode (keep Bluetooth on if you're using a BT radio). Receive a location share — the inline map should still render from the cached tiles.
- Toggle **Allow Cellular Downloads** off and confirm new map areas won't pull data when you're off Wi-Fi.
- **Clear Offline Maps**, then go somewhere with connectivity and confirm the cache repopulates around your home area on its own.

## Notifications

- For each of these, the recipient should get a notification when they're not looking at that conversation: incoming text, incoming reaction, incoming location, incoming file offer.
- Try with the app foregrounded (a different thread), backgrounded, and with the phone locked. No duplicate alerts, no ghost alerts after you've opened the thread.
- **Hide Alerts** on a thread (context menu in the inbox) and confirm notifications stop for that callsign until you turn alerts back on.

## Settings worth poking

- Toggle **Internet Assisted Delivery** and **Callsign Name Lookup** a few times. Nothing should loop, crash, or get stuck.
- Change your **Callsign** or **SSID** mid-session. The app may need to restart its radio link. That's fine, just confirm it comes back clean.
- Open **Settings** → **Monitor** with a radio connected. Scroll a bunch, change the text size, save the log to a file.
- Spot-check **Preferred Radio**, **Frequency Presets**, **Digipeaters**, **Identity Backup**, **Public Keys**, and **Audio Levels** (when an analog adapter is connected).

## iPad layout

- Use the three-column layout: radio sidebar, inbox, conversation. Show and hide the radio sidebar with the sidebar button; drag column dividers and confirm the conversation reflows immediately.
- Search works when not in Edit mode; Edit mode switches to multi-select instead.
- Run inbox and conversation side-by-side, start a new message from the list, and send with an external keyboard (**Enter** should send).

## Mean tests

We learn the most from these.

- Disconnect the radio mid-send. Then mid-receive. Then mid file-drop. The app should stay stable and pick back up when the link returns.
- Force-quit the app while a file is coming in. Reopen and see what state things land in.
- Switch your radio between an APRS frequency and a plain frequency while a thread is open. Retry behavior should adapt to the mode that's active right now. You shouldn't be able to retry an Enhanced send over APRS, or vice versa.

## Two devices & iCloud

- Sign in with the same Apple ID on an iPhone and an iPad (or two phones). Let messages sync over iCloud while push is active.
- Receive a push on one device while the other is syncing. Tap the notification to open the thread — it should open cleanly, not crash or show a stale row.
- Browse **On Air**, scroll the inbox, and keep a conversation open while sync is active. Send and retry Enhanced messages during sync.
- Report anything that crashes, flashes blank, or loses messages between devices.

## Copy and polish

If wording reads weird, jargon-heavy, condescending, or just wrong, flag it. We care a lot about how this thing talks to people.

# Supported Devices

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- iPhone or iPad on iOS 18 or later.

## With Frequency Control

- BTECH UV-PRO
- BTECH UV-50PRO (not tested)
- VGC VR-N76
- VGC VR-N7600 (not tested)
- RADIODITY GA-5WB (not tested)
- RADIODITY DB50-B (not tested)
- Kenwood TH-D74 with a B.B. Link adapter
- Kenwood TH-D75 with a B.B. Link adapter
- PicoAPRS V4 (not tested)

## No Frequency Control

- Mobilinkd TNC3
- Mobilinkd TNC4
- Digirig Lite
- AIOC
- DigiPi (Dire Wolf TCP TNC)
- LiNK500 TNC (not tested)

# How to send feedback

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Easiest path: take a screenshot (volume up + side button), then in TestFlight choose **Share Beta Feedback**. Describe what you saw, attach more screenshots if helpful.

For longer notes, suggestions, or anything that doesn't fit a screenshot, email **aloha@islandmagic.co**.