

Submission to ACMA – Standardisation of GPS Location Sharing for UHF CB Radios

To: Australian Communications and Media Authority (ACMA)

Subject: Proposal to Standardise GPS Location Sharing Across UHF CB Radios

Introduction

I propose that the ACMA develop and mandate a standardised protocol for GPS location sharing across all UHF CB radios sold in Australia. Currently, GPS-capable UHF radios use incompatible, proprietary protocols, which undermines interoperability—a key principle of public UHF CB radio.

This standardisation should include:

- A common GPS telemetry format shared across all brands.
- Mandatory support in all future GPS-enabled UHF radios.
- A requirement for firmware-updatable radios to adopt the standard where technically feasible.
- Inclusion of privacy and user-control mechanisms for location sharing.

Issue Overview

CB radio exists as a public, shared communication medium, and UHF radios are often relied on in remote, off-road, emergency, and convoy scenarios where user cooperation is essential. However, the lack of a standard GPS location-sharing protocol has created serious interoperability issues.

Vendor Fragmentation:

- GME XRS™ Series (e.g. XRS-330C, XRS-660):
 - Shares GPS locations using a proprietary telemetry protocol limited to XRS devices.
 - Broadcasts GPS updates over a sub-channel only understood by other XRS models.
 - Offers Bluetooth and app integration, but no open format compatibility.
- Uniden (e.g. XTRAK 50 Pro, UH9080):
 - Uses its own incompatible GPS sharing method.
 - App integration is possible, but inter-brand communication is non-existent.

As a result:

- Users in the same group cannot see each other's locations if using different brands.
- Consumers often assume interoperability that doesn't exist until after purchase.
- In practical scenarios—like convoy travel or bush recovery—this leads to confusion and operational gaps.

Why Standardisation Is Necessary

1. Restores Core CB Values:

- UHF CB was designed for universal access and brand-agnostic communication.
- Proprietary GPS protocols contradict this intent.

2. Improves Safety in Emergencies:

- Shared location data could greatly assist in search and rescue, breakdowns, or medical emergencies in remote areas.
- However, this is only possible if all devices can interpret location signals from one another.

3. Consumer Clarity:

- A common protocol avoids buyer disappointment and improves product transparency.

4. Technically Feasible:

- Most modern radios support firmware updates.
- A base standard could coexist with optional proprietary extensions for brand-specific features.

Recommendations

ACMA should:

- Develop a GPS Location Telemetry Standard for UHF CB (e.g. a lightweight, low-bandwidth open protocol).
- Mandate adoption in new models from a defined future date.
- Require backward firmware support where hardware allows.
- Establish a reference implementation and public spec for manufacturers to follow.

Privacy and Control

To support user privacy and prevent unwanted tracking, the standard must include:

- A simple toggle to enable/disable location sharing.
- A “Group Code” or encryption option to limit location visibility to intended participants.
- Clear indicators showing whether location sharing is active, and who can see it.

This balance of transparency and privacy would ensure safe but controlled use in public or group environments.

Conclusion

A standardised GPS telemetry format for UHF CB radios would realign the technology with the principles of interoperability, public safety, and consumer fairness. It is a necessary step to preserve the usefulness of CB radio in a modern, location-aware environment.

I urge ACMA to consider this proposal as part of any upcoming review of CB spectrum use or radiocommunications device standards.

Submitted by:

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