

# Who can see my location on the mesh?

## How Position Data Spreads

When position reporting is enabled on a Meshtastic node, GPS coordinates are broadcast as position packets on the mesh. These packets travel through the network like any other message and are visible to all nodes that receive them.

## Who Can See Your Position

- **Anyone on your channel** - If you're on the default channel, anyone with Meshtastic within a few hops can see your position in their node list and on their map
- **meshmap.net** - If you have MQTT uplink enabled to the public Meshtastic broker, your position appears on the global map
- **MQTT operators** - Anyone subscribed to the same MQTT topic receives your position packets

## Controlling Position Privacy

### Option 1: Disable Position Reporting

Turn off GPS or disable position broadcasts entirely:

```
meshtastic --set position.gps_mode DISABLED  
meshtastic --set position.position_broadcast_secs 0
```

Your node will still relay messages and appear in node lists (by node ID), but without location data. Note that disabling position only hides your GPS coordinates: the node still transmits its node ID and (by default) its name, and the transmitter itself can be located by radio direction-finding. For

OPSEC-sensitive field or shelter operations, also anonymize the node name, minimize transmissions, and remember that the mere presence of a radio signal is detectable.

## Option 2: Use Position Precision Reduction

Broadcast a less precise location rather than exact GPS coordinates:

```
meshtastic --set position.position_precision 10
```

The `position_precision` value sets how many bits of latitude/longitude are shared, which maps to a much coarser ground radius than the raw number suggests. Approximate values (per the Meshtastic `precision_bits` reference): 32 = full precision; 19  $\approx \pm 46$  m; 16  $\approx \pm 365$  m; 13  $\approx \pm 2.9$  km; 11  $\approx \pm 11.7$  km; 10  $\approx \pm 23$  km; 0 = position never sent. Note these are coarser than they appear - for example, precision 16 still exposes a roughly 365 m radius, not 1 km, so choose conservatively. With precision 10 ( $\pm 23$  km) you appear somewhere in a wide area around your city rather than at your exact street address.

## Option 3: Private Channel with No MQTT

Create a private channel and disable MQTT uplink. A private channel with MQTT disabled keeps your position content out of the encrypted payload that reaches the public maps, so your coordinates don't appear there. It is not total invisibility, though: position packets still travel over RF, and unencrypted header fields (node IDs, hop data) remain observable to any radio listener. Privacy also depends on every node on the channel keeping MQTT/uplink disabled - if any participant later enables MQTT or bridges to the internet, position can leak.

## Fixed Position vs GPS

For fixed infrastructure nodes (repeaters), configure a static position manually rather than using GPS. This gives you explicit control over what coordinates you publish, and you can choose a slightly offset position if you prefer not to reveal your exact rooftop address.

---

Revision #4

Created 2026-05-03 05:53:12 UTC by Mesh America Admin

Updated 2026-06-08 19:44:49 UTC by Mesh America Admin