



**PNT National Advisory Board
Panel Discussion on LightSquared
November 9, 2011**

Scott Burgett

Garmin Participation on the LightSquared Issue

Garmin is supportive of broadband

Garmin has cooperated consistently throughout the entire LightSquared process

- Active participant in the FCC mandated Technical Working Group sub-teams of General Location/Navigation and Aviation.
- Participated in the “Live Sky” testing in Las Vegas
- Participated fully in the NTIA’s subsequent testing at White Sands Missile Range

At the end of the TWG testing process, LightSquared represented that over 99% of the installed GLN user base and cell phones were free from interference

- The math is specious. Only 29 of the many thousands of installed GLN devices were tested. Moreover, the 99% claim is based on:
 - A harmful interference definition of 6 dB degradation of receiver C/N_0 instead of the commonly accepted 1 dB standard.
 - A propagation model that is unsuited for interference analysis.
- LightSquared's 99% figure presumes use of only the lower 10 MHz of frequencies.
- The vast majority of devices fail at the upper 10 MHz.

The reality is that there is a major jamming issue with the installed base of GLN devices using the lower 10 MHz frequencies

There Is No Retro-fit Option for GLN and Aviation Devices

The solutions proposed to date are targeted at high precision receivers

Virtually all GLN devices, including non-certified aviation devices, cannot be retro-fitted. The antennas, filters, amplifiers, etc. are integral to the devices, which cannot be opened and reassembled.

To retro-fit FAA-certified devices requires lengthy FAA approval processes and then time-consuming and expensive design and installation steps.

GLN devices have a long life with consumers. Many Garmin consumers are still using our products 8 – 10 years or more after purchase.

It is impossible to design new products compatible with LightSquared's proposed system without knowing its technical end-state.

- Use of the upper 10 MHz of frequencies is incompatible with GPS, yet the FCC's conditional authorization remains in force, and the use of the upper 10 MHz is in LightSquared's long-term plans
- There are still myriad unanswered questions concerning handsets
 - Out of band emissions
 - Aggregate effects of multiple handsets in close proximity