



4 February 2008

**Maritime Safety**  
Queensland

Queensland **Transport**

**To: Information Management Work-Group**

**Subject: GPS Synchronisation**

Maritime Safety Queensland has incorporated and endorsed the use of marine signal lantern synchronisation in most major ports throughout Queensland for many years.

Synchronising major shipping channel beacons has improved the effectiveness of the lighting systems and been well accepted by the Queensland Marine Pilots and the shipping industry at large.

The original form of synchronisation was an internally designed radio controlled UHF transmitter and receiver system which is now being superseded with GPS satellite synchronisation.

Since changing from a radio controlled system to GPS Synchronisation Maritime Safety Queensland has experienced intermittent problems with lights dropping out of sync (for extended periods) which is affecting the reliability of its lighting systems and causing the State's Marine Pilots some concern.

I should mention that this problem is not specific to one particular manufacturer or brand of lantern and while we appreciate that lights will occasionally drop out of sync it is starting to become a regular occurrence. The problem is also common across the state and is not restricted to any particular area.

We have reviewed the IALA publications and cannot find a definition or standard/guideline on the synchronisation of marine signal lanterns. There are references to synchronisation in some of the documents but no specific technical information on the benefits or advantages of using the system.

Since GPS superseded the radio controlled or hard wired system of synchronisation manufacturers have introduced it as a standard or optional extra in their (latest) range of LED signal lanterns without providing specific operational or technical information/guidance for the end-user.

To help alleviate Maritime Safety Queensland's navigational safety concerns I would be grateful for your advice on any issues or problems that you or any other users/organisations have experienced and how they might have been addressed and rectified.

Thank you for your assistance in addressing this issue and please direct any comments or feedback through the "AtoN Regulators Discussion Forum" to Andy Bell, Maritime Safety Queensland's Senior Advisor Nav-Aids.

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