Cospas-Sarsat
Homing and On-scene Locating
Correspondence Working Group

NOAA Beacon Manufacturers Workshop
RTCM Annual Meeting
Annapolis, MD
8 May 2015
Background

- Developing new Second-Generation Beacons
  - Wideband (Spread-spectrum) Signal
  - 250 mW 121.5 MHz Homing Signal
  - No narrow-band 406 MHz signal to DF
- Competing DF/Locating Protocols
  - Automatic Identification System (AIS)
  - Digital Selective Calling
  - 406 MHz Direction Finding
  - 121.5 MHz Direction Finding
Homing CWG

• CSC-51 established a Correspondence Working Group (CWG) to define/validate C/S G.008 Homing Requirements

• Cospas-Sarsat Joint Committee (JC-28) asked the Homing CWG to continue work for defining performance requirements for potential 406 MHz homing signal
Progress

• Presentation of conceptual Interleaved Homing Signal Schema at JC-28 (June 2014)
• Results of JC-28 reviewed at CSC-53; Homing CWG to continue efforts to define interleaved schema
• Homing CWG developed draft interleaved homing signal schema & performance specification
Interleaved Concept

Homer Type 1 – Low power 406 MHz
Homer Type 2 – High power 406 MHz
Other Homing frequencies/formats:
- 121.5 MHz
- 243.0 MHz
- AIS
- DSC
Current Status

• TG-1/2015 held from 23 – 27 FEB 2015
  – 3 Papers submitted and discussed:
    • Summary of Homing CWG activities since JC-28 (JUN 2014)
    • Testing proposal for a 121.5 MHz homing signal at 33% duty-cycle
    • Draft language defining a 406 MHz homing signal
  – Homing and Intelligent Transmit Schedule Working Groups merged
    • Inter-dependencies (battery endurance, transmission schedules)
    • Synergy of work
Planned Activities

Work activities planned:

• 121.5 MHz Test Plan
• 121.5 MHz Test Activities
• 121.5 MHz Test Results Review, Analysis, and Conclusions
• Document assumptions for Interleaved Homing
• Interleaved Homing Implementation Proposal
• Draft Interleaved Homing Specification for T.018
• Define Intelligent Transmit Schedule for 30 + minutes
• Battery Capacity Endurance Analysis to meet all requirements
• Prepare papers for submission to JC-29 and JWG-SAR (121.5 Test Results)
Meetings

Schedule of future meetings:
#10  JUN 03
#11  JUN 24
#12  JUL 15
#13  JUL 29
#14  AUG 19
#15  SEP 02

To join the group, send an e-mail to:
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Questions ?