



# MEOSAR Coverage and SGB Readiness

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## MEOSAR Global Coverage

- **First-Generation Beacons (FGB)**
- **FGB ELT(DT)**
- **Second-Generation Beacons (SGB)**
- **SGB ELT(DT)**





# MEOSAR Coverage Analysis

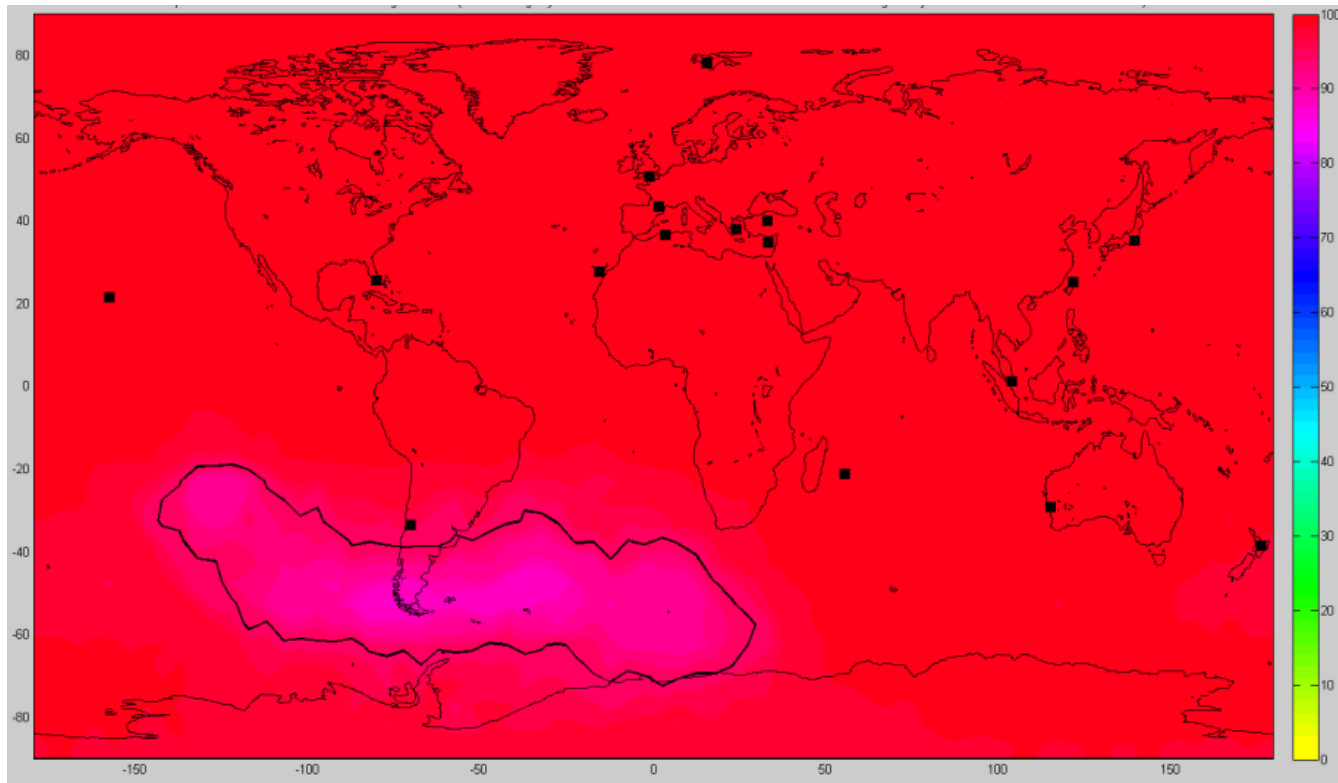


- **Cospas-Sarsat convened the Experts Working Group on Evaluation of MEOSAR Coverage (EWG-2C)**
  - Recently reported to Council CSC-67 in October 2022:
    - Evaluation criteria used for simulations
    - Simulation results for the ground segment equipment expected as at 01 October 2022:
      - MEOSAR FGB detecting & independent locating
      - MEOSAR FGB ELT(DT) detection & distribution only
      - MEOSAR SGB detecting & independent locating
      - MEOSAR SGB ELT(DT) detection & distribution only





# First-Generation Beacons (FGB)

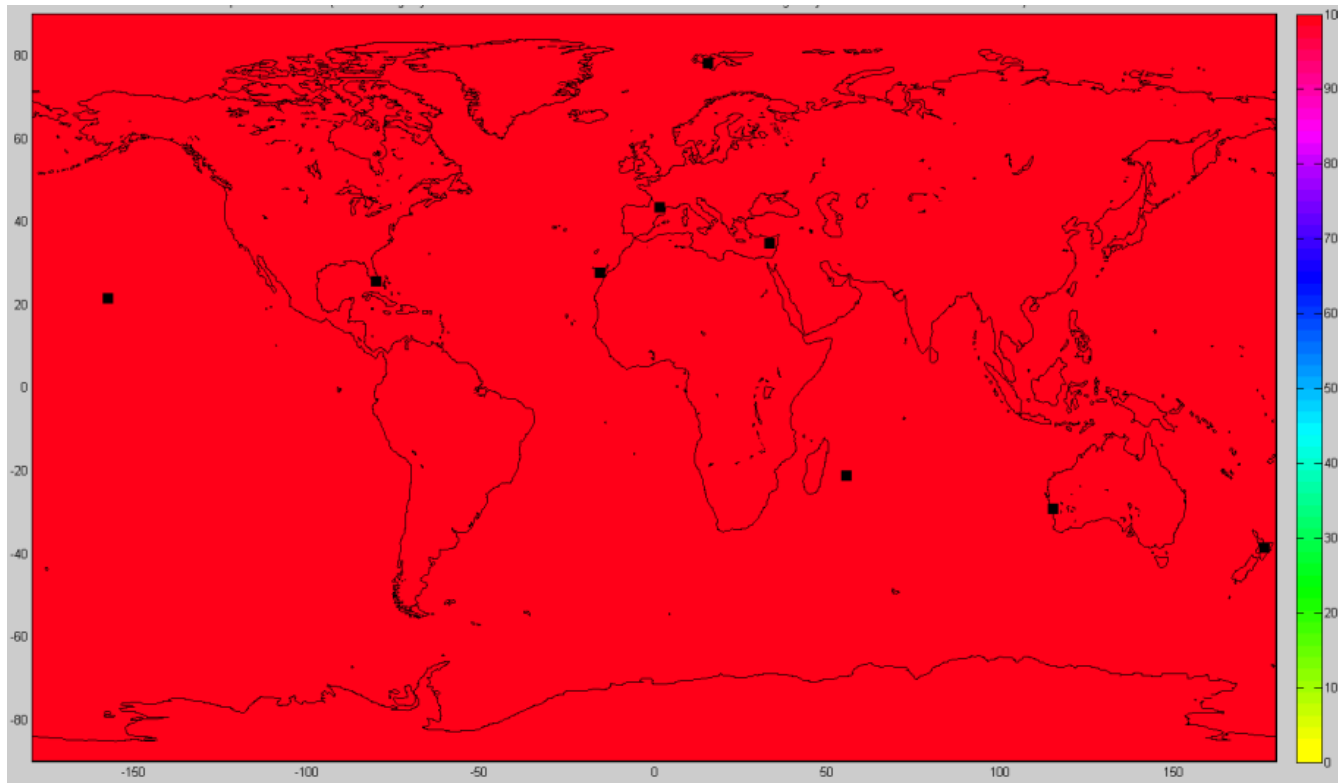


FGB Slow-Moving < 7 km 95% - 12 Bursts - 17 MEOLUTs (92.0%)





# FGB ELT(DT)

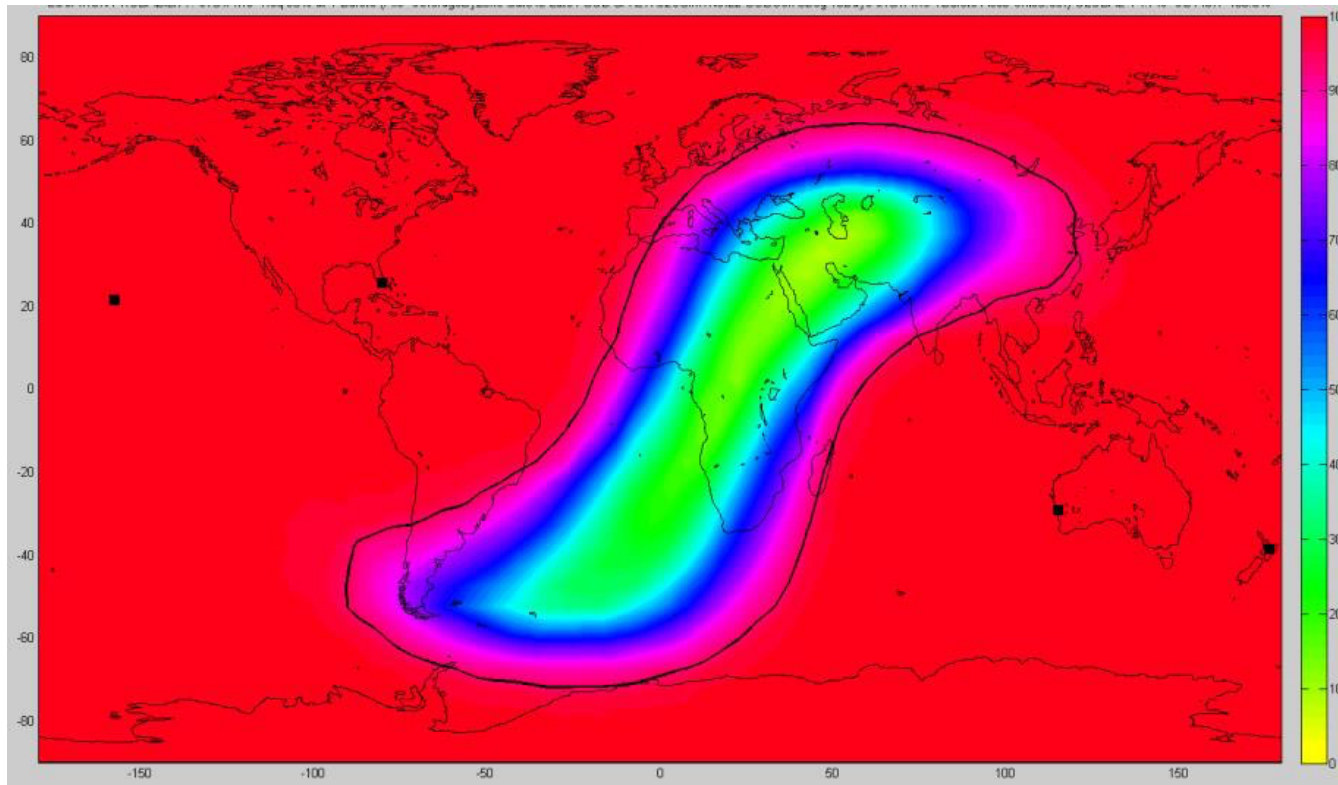


FGB ELT(DT) Coverage – Detection Probability 99% – 1 Burst – 9 MEOLUTs (100%)





# Second-Generation Beacons (SGB)

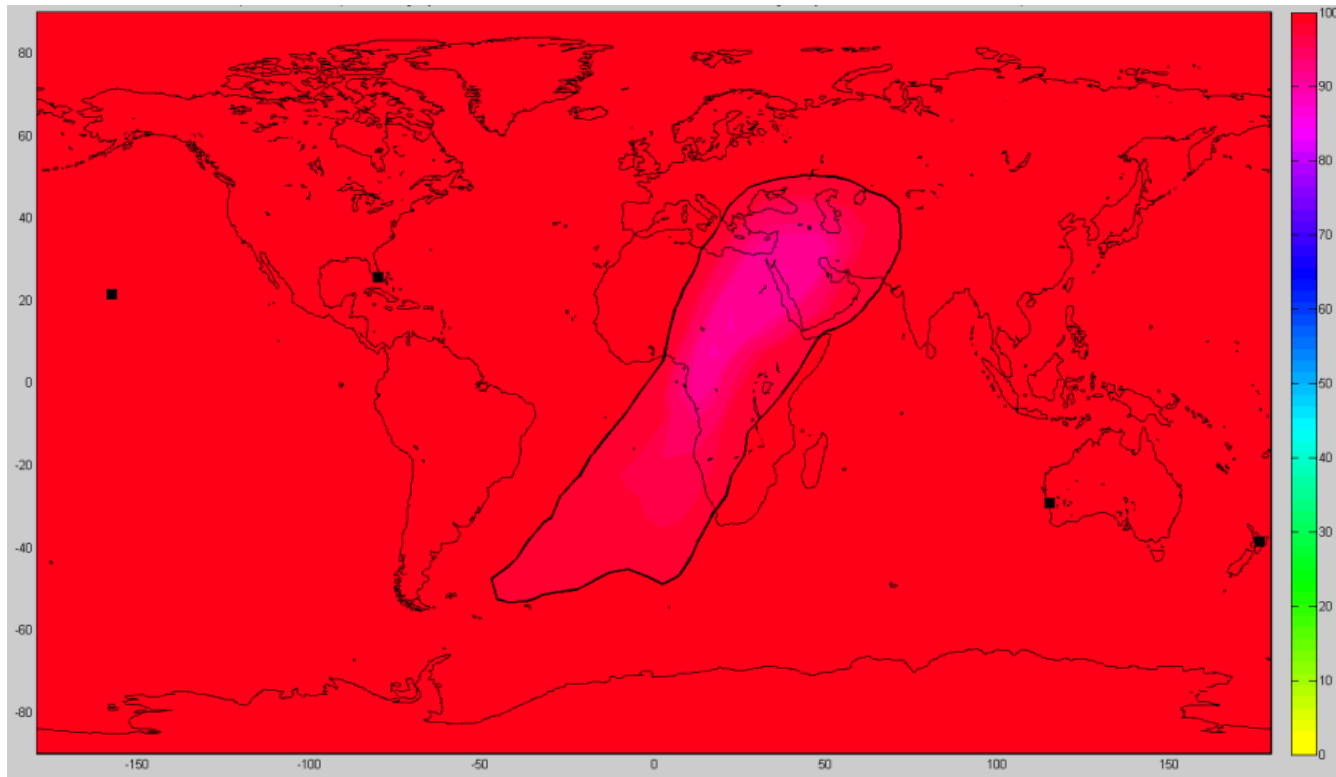


SGB Location Probability 95% - 1 Burst – 4 MEOLUTs (74.7 %)





# SGB

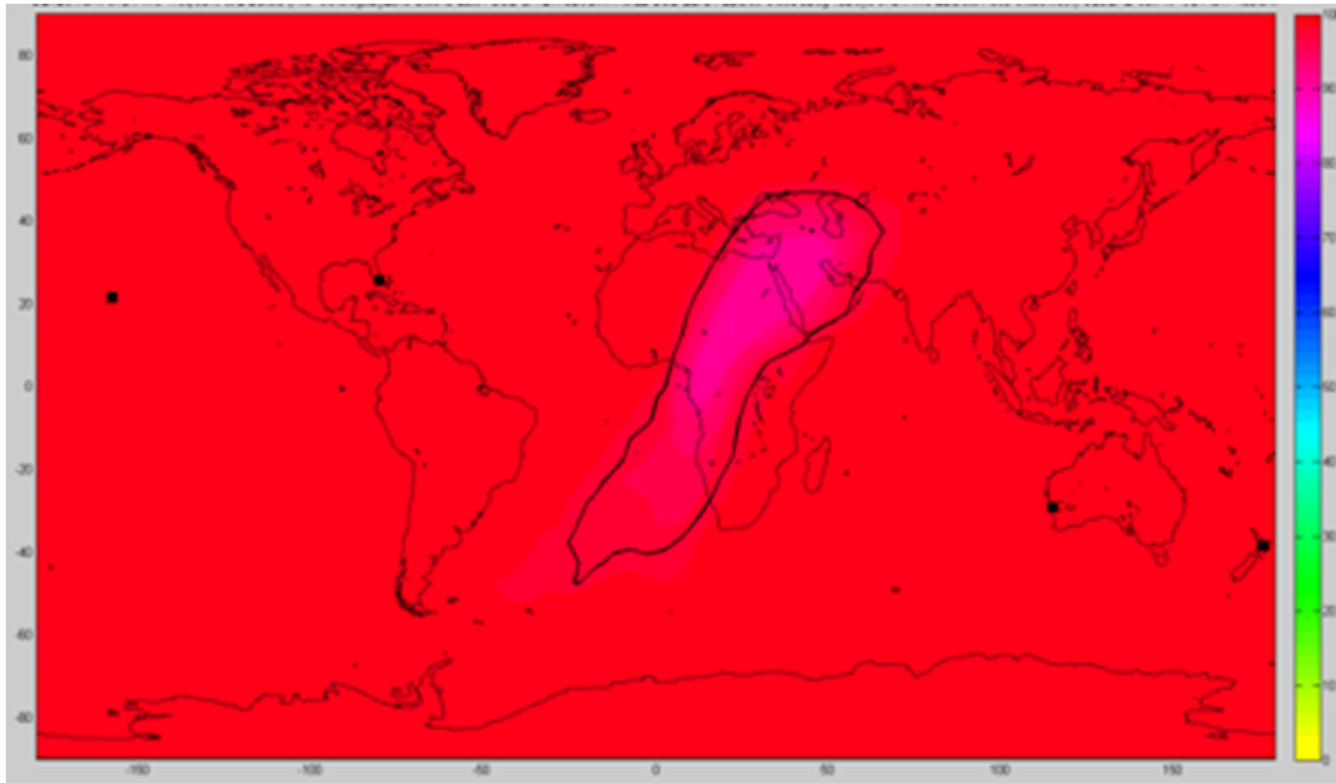


SGB Detection Probability 99.9% - 6 Bursts – 4 MEOLUTs (90.3%)





# SGB ELT(DT)



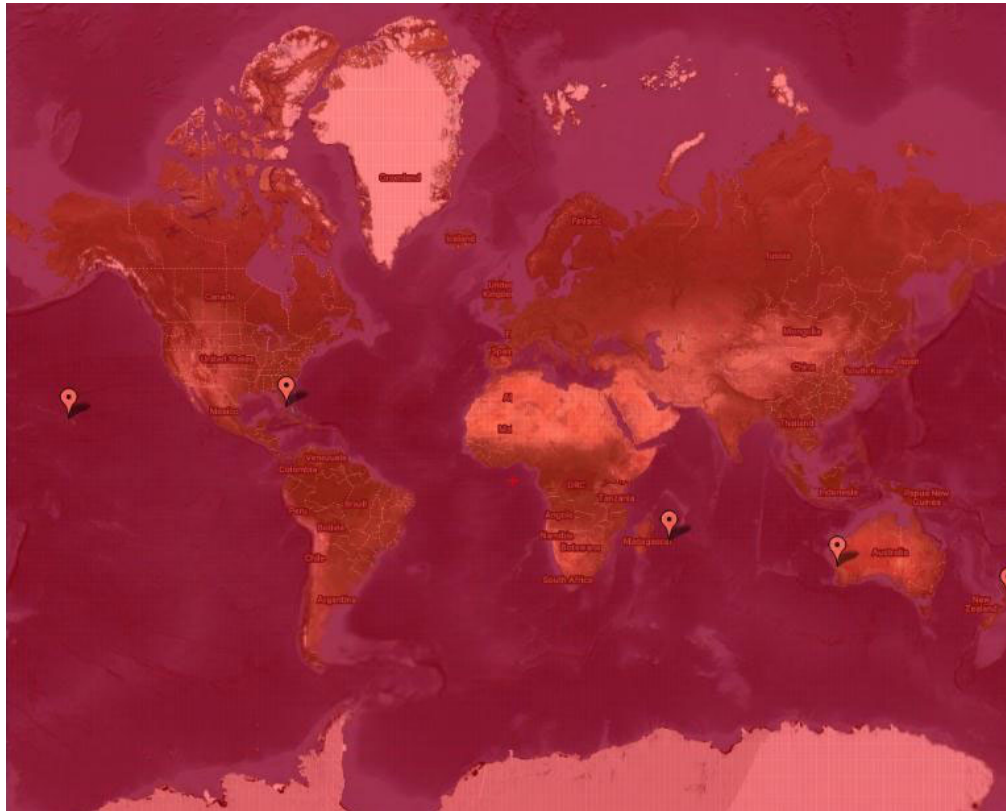
SGB ELT(DT) Coverage – Detection Prob. 99% – 2 Bursts – 4 MEOLUTs (93.7%)







# SGB ELT(DT)



SGB ELT(DT) coverage with five MEOLUTs (H, F, L, M, T) Coverage = 100 %





# Next Steps

- **Council CSC-68 declared MEOSAR at IOC in April 2023**
- **EWG-2C will meet 28-29 June**
  - Update ground segment configuration to reflect the projected October 2023 status, to include:
    - Australia & New Zealand
    - Brazil
    - Togo
    - Toulouse & Le Réunion Island, France
  - Run simulations for the agreed ground segment configuration
  - Report results to Council CSC-69





# Conclusions



- **MEOSAR SGB coverage status**
  - Global coverage for SGB ELT(DT) almost achieved
    - Le Réunion Island or Togo commissioned would suffice
    - Brazil and/or Toulouse add redundancy
  - MEOSAR SGB global coverage requires some additional commissioned ground segment sites:
    - Australia & New Zealand, Brazil, Togo, Toulouse & Le Réunion Island





# Questions?

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