

GNSS Augmentation Systems R&D Activities in Chinese Taipei

For APEC GIT 15

Supported by CAA, Chinese Taipei

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RAIM Systems

- RAIM prediction system: A RAIM performance analysis uses a predetermined GPS satellite constellation to clear which areas of the airspace will be affected by a satellite fails or is taken out of service for maintenance.
- RAIM: A civil aviation GPS/SBAS receiver is required to detect satellite faults with redundant GPS measurement (a real time process).

RAIM Prediction System

RAIM Prediction System

GPS Status Availability Tool NPA Tool Visibility Tool Help

Mask Angle: 10.0 degree
Typical Operation: Terminal
Check Availability

User Input

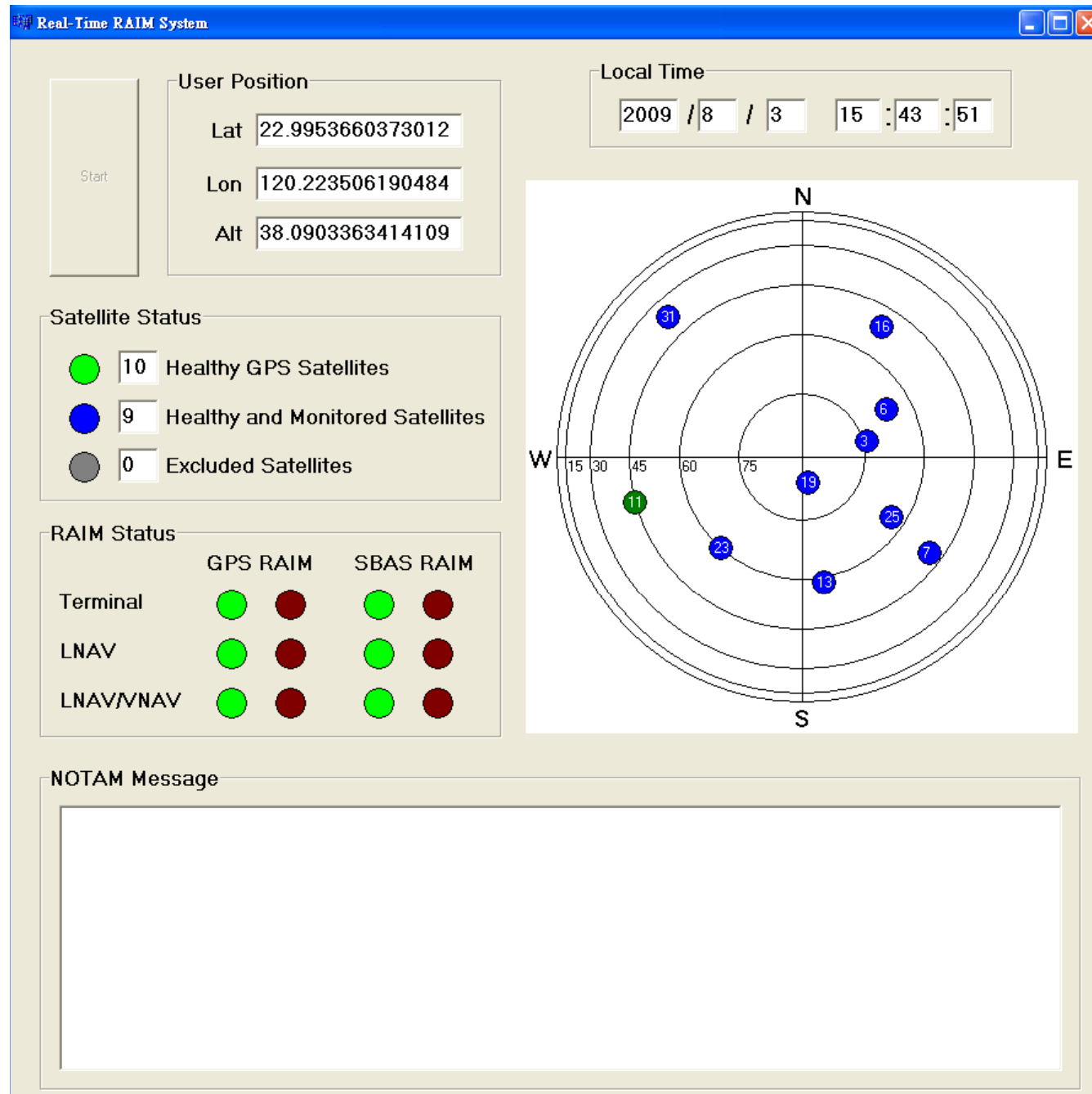
Lat	E117	E118	E119	E120	E121	E122	E123	E124
29	Green	Green	Green	Green	Green	Red	Red	Red
28	Green	Green	Green	Green	Green	Green	Green	Red
27	Green	Green	Green	Green	Green	Green	Green	Green
26	Green	Green	Green	Green	Green	Green	Green	Green
25	Green	Green	Green	Green	Green	Green	Green	Green
24	Green	Green	Green	Green	Green	Green	Green	Green
23	Green	Green	Green	Green	Green	Green	Green	Green
22	Green	Green	Green	Green	Green	Green	Green	Green
21	Green	Green	Green	Green	Green	Green	Green	Green

Longitude

Latitude

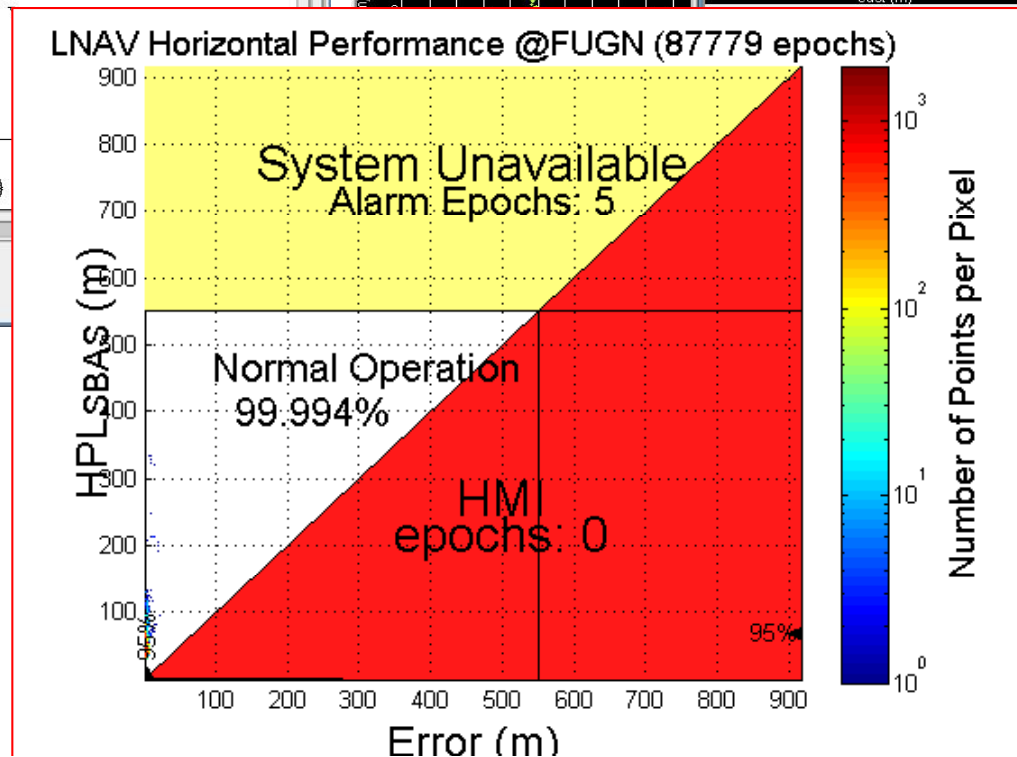
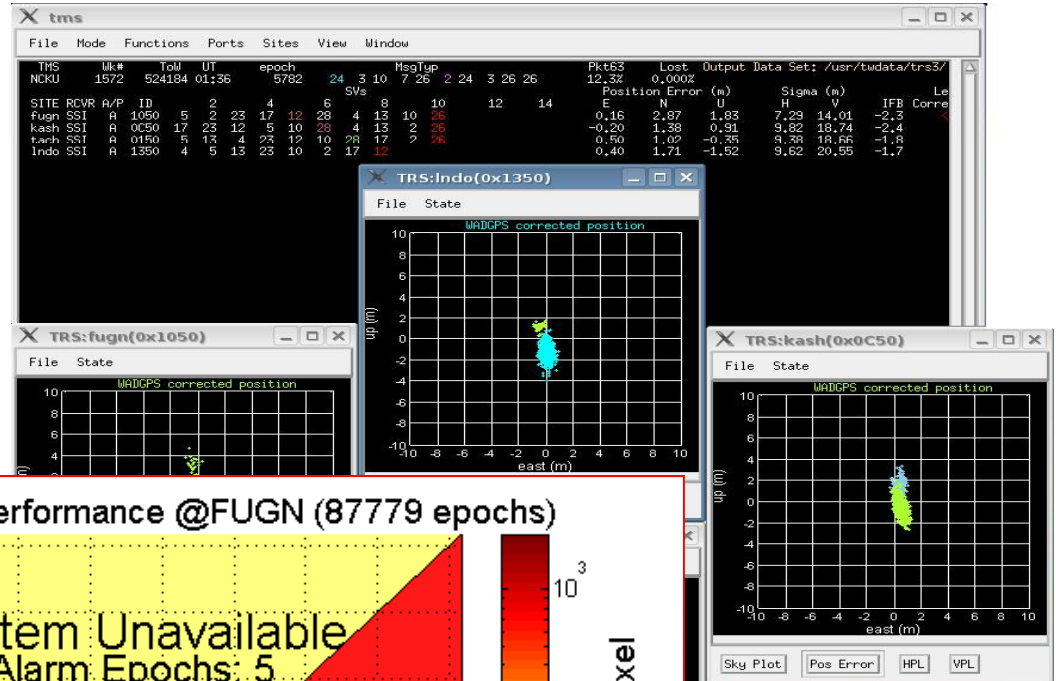
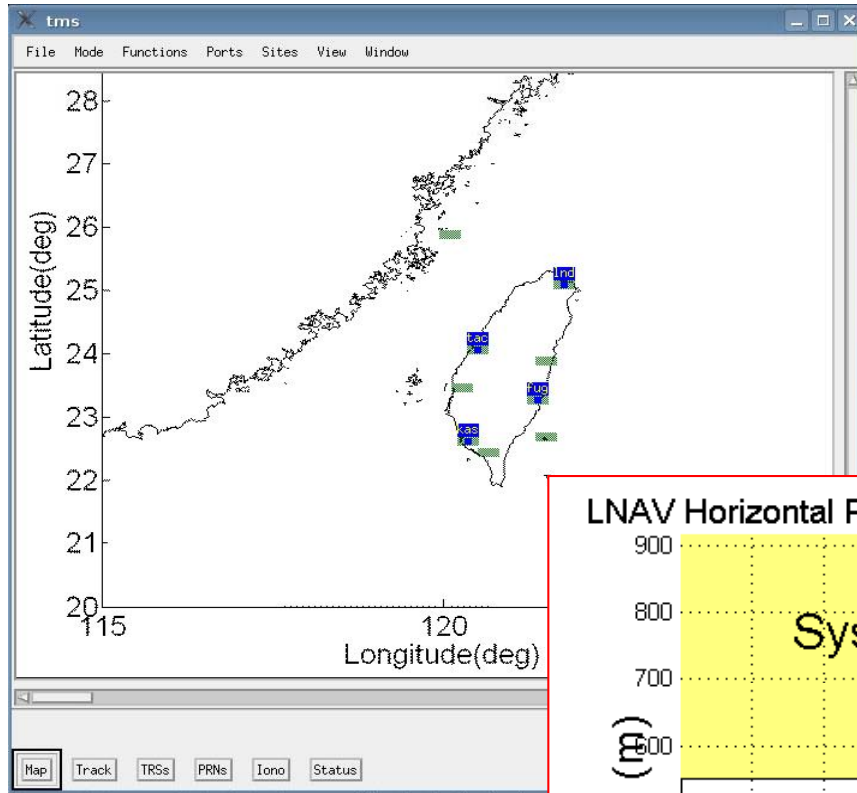
System available location

System unavailable location



Real Time RAIM System

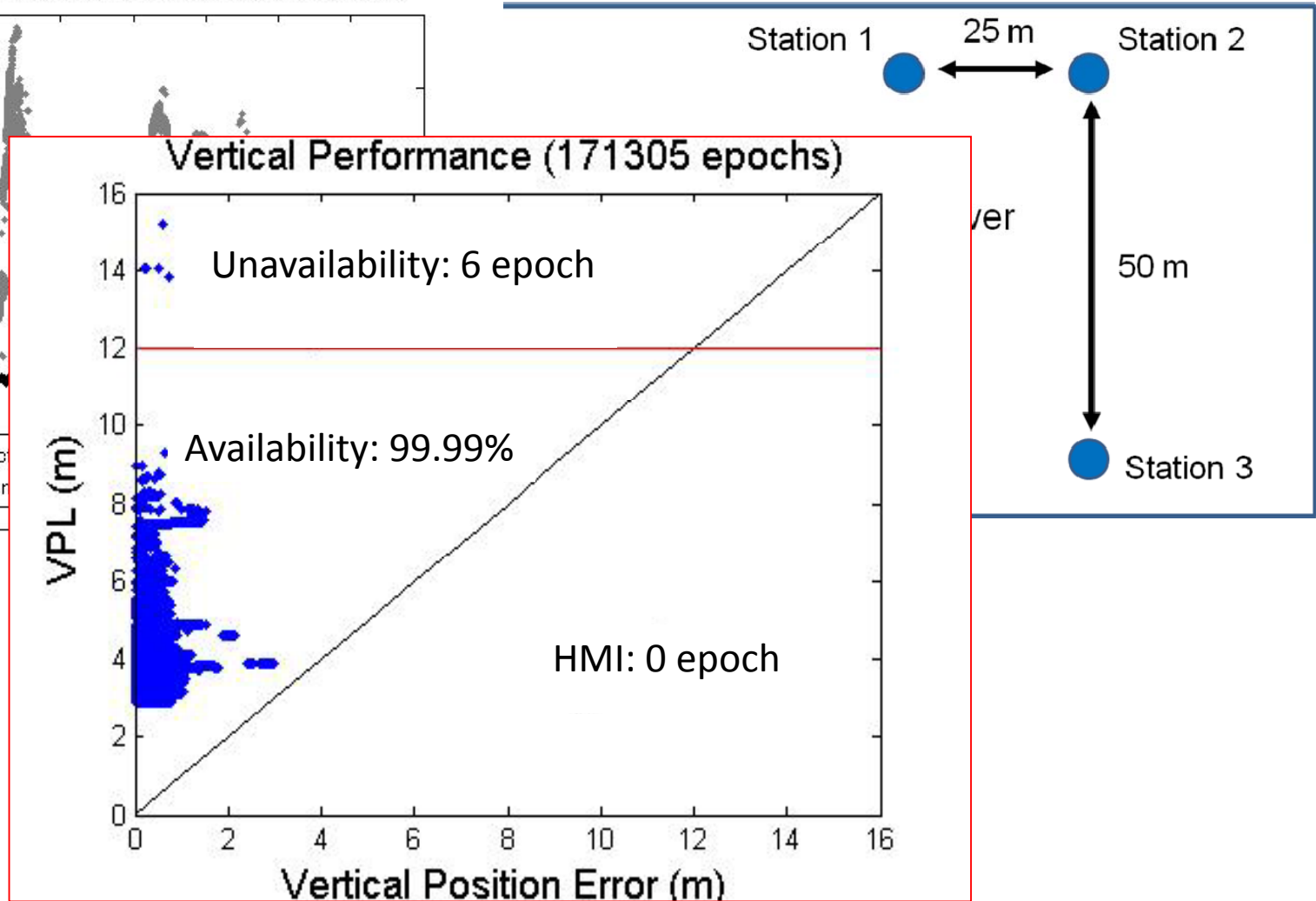
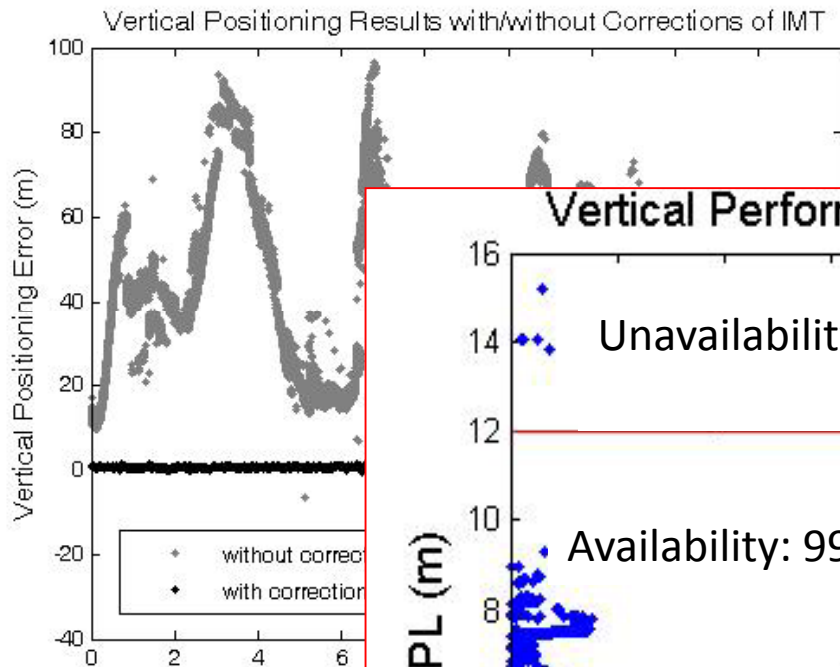
SBAS Prototype in Taipei FIR



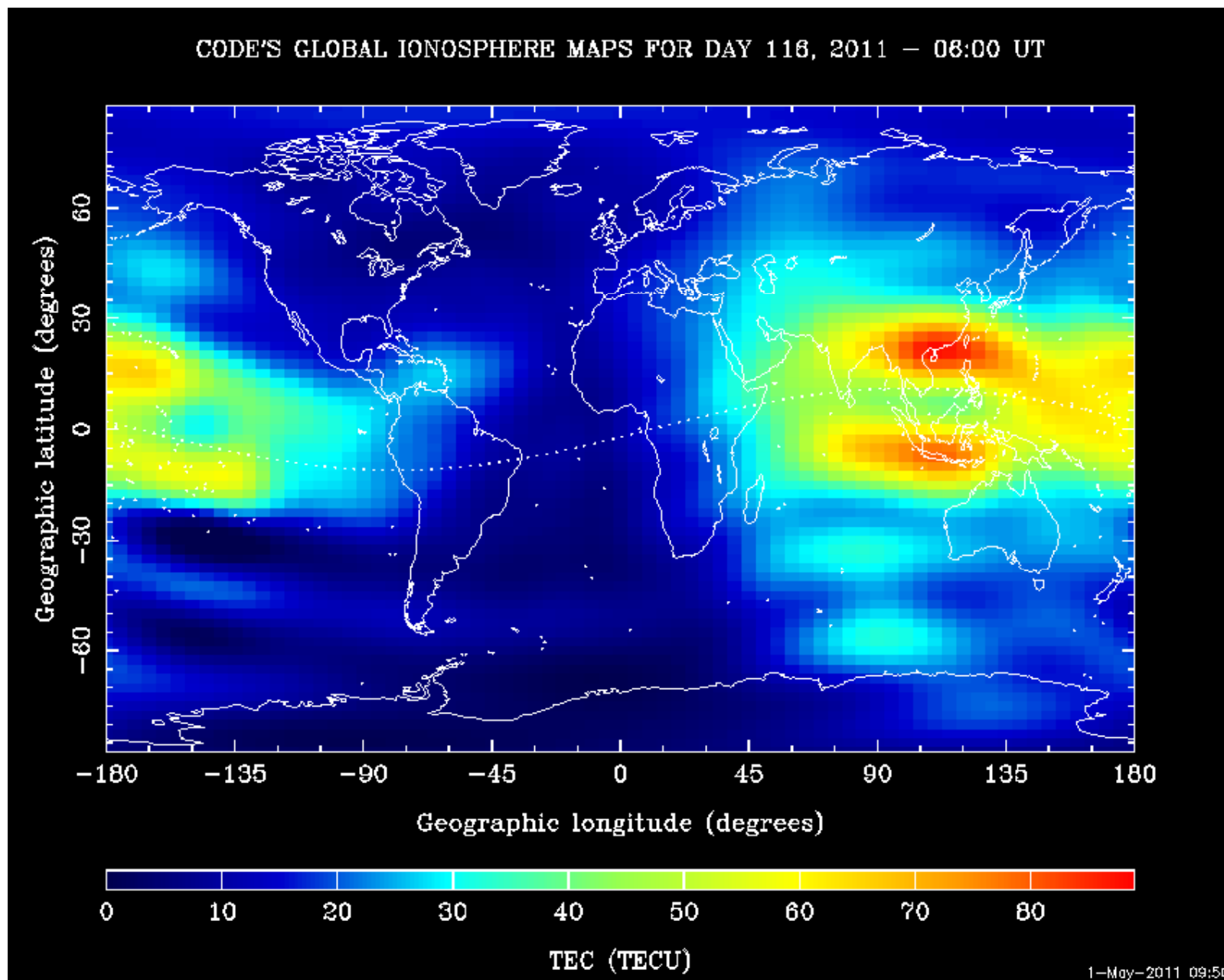
成功大學

GBAS Prototype in Taipei FIR

Dept. of Aero. and Astro.



Ionosphere



Concluding Remark – Challenge

