



Operational Safety Challenges To Service

ALPA Operations at Remote Airports
Conference

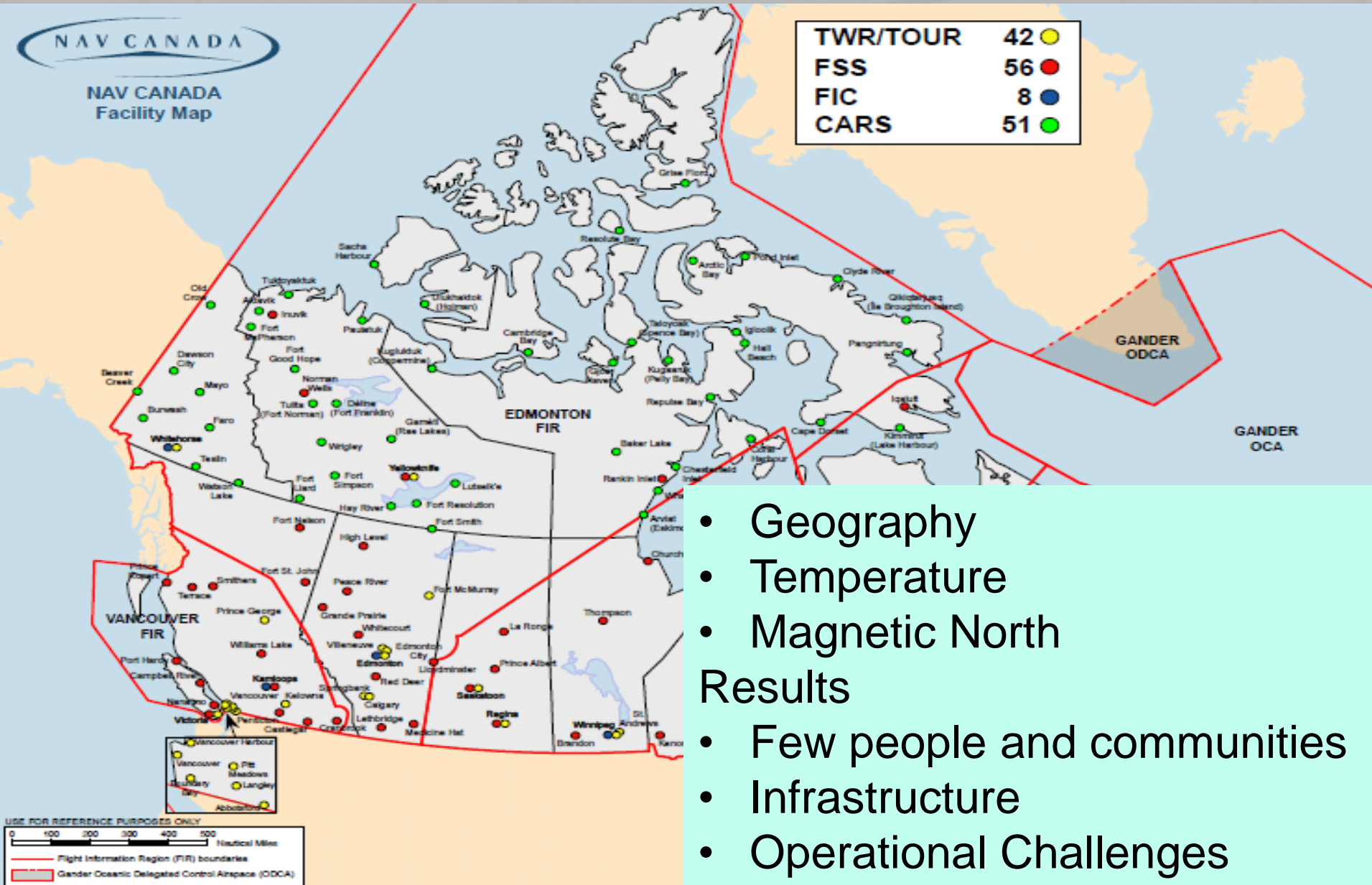
May 29, 2013

S E R V I N G A W O R L D I N M O T I O N



- **What Creates Remote**
- **Safety Mitigations**
- **Technology**
- **Terminal Design**
- **Operators**

What makes the North Remote?



Safety Mitigations

- Technology
- Operational Discipline

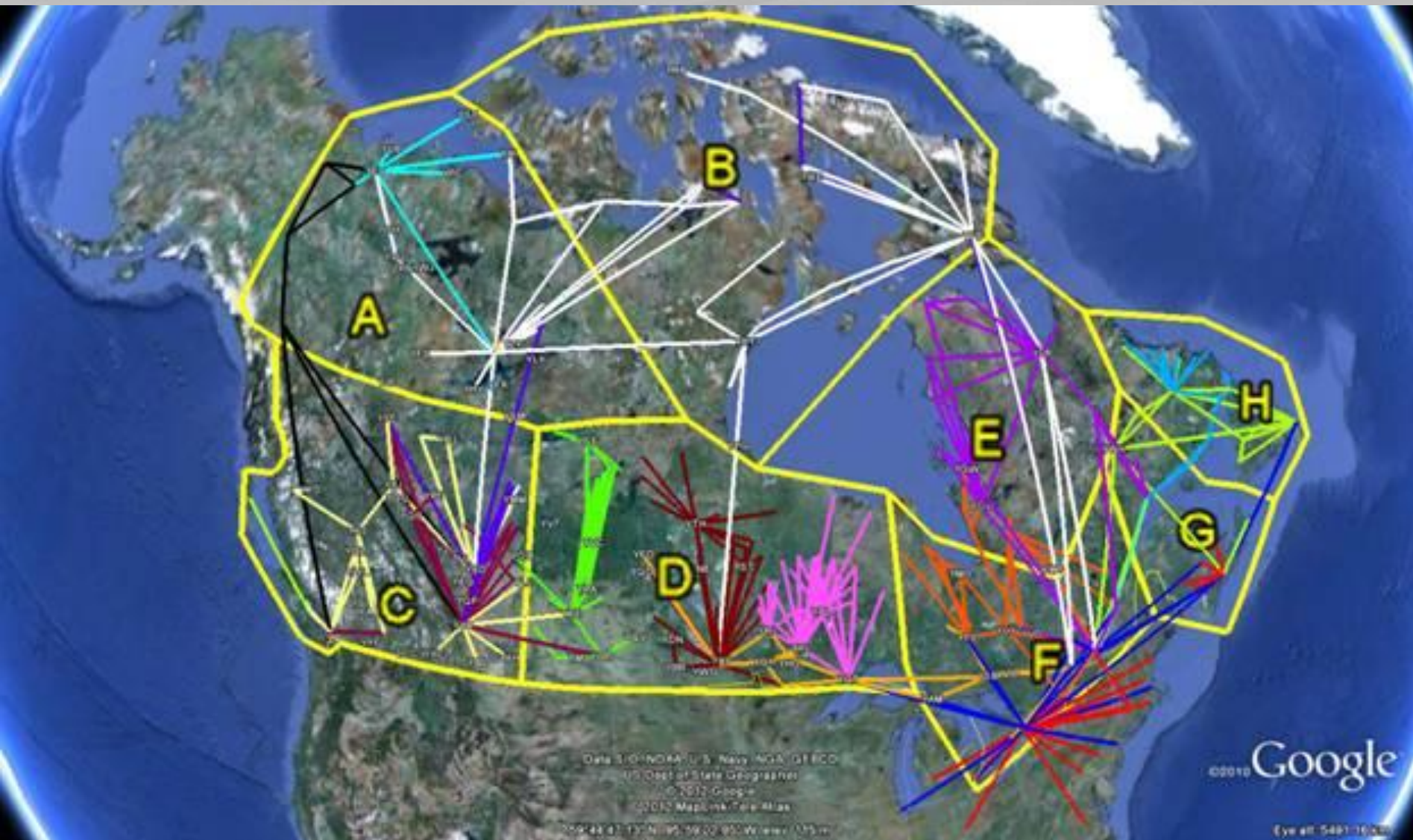
Technology

- ARINC 424
 - Resolved LPV and NDB data issues in Northern Domestic airspace (AEEC 424)
 - Test RNP procedures in NDA to determine the issues with certified leg types. For RTCA to review and amend in DO 236C.
 - Working with Jeppesen : Pre AIRAC validation of terminal procedures
 - Education

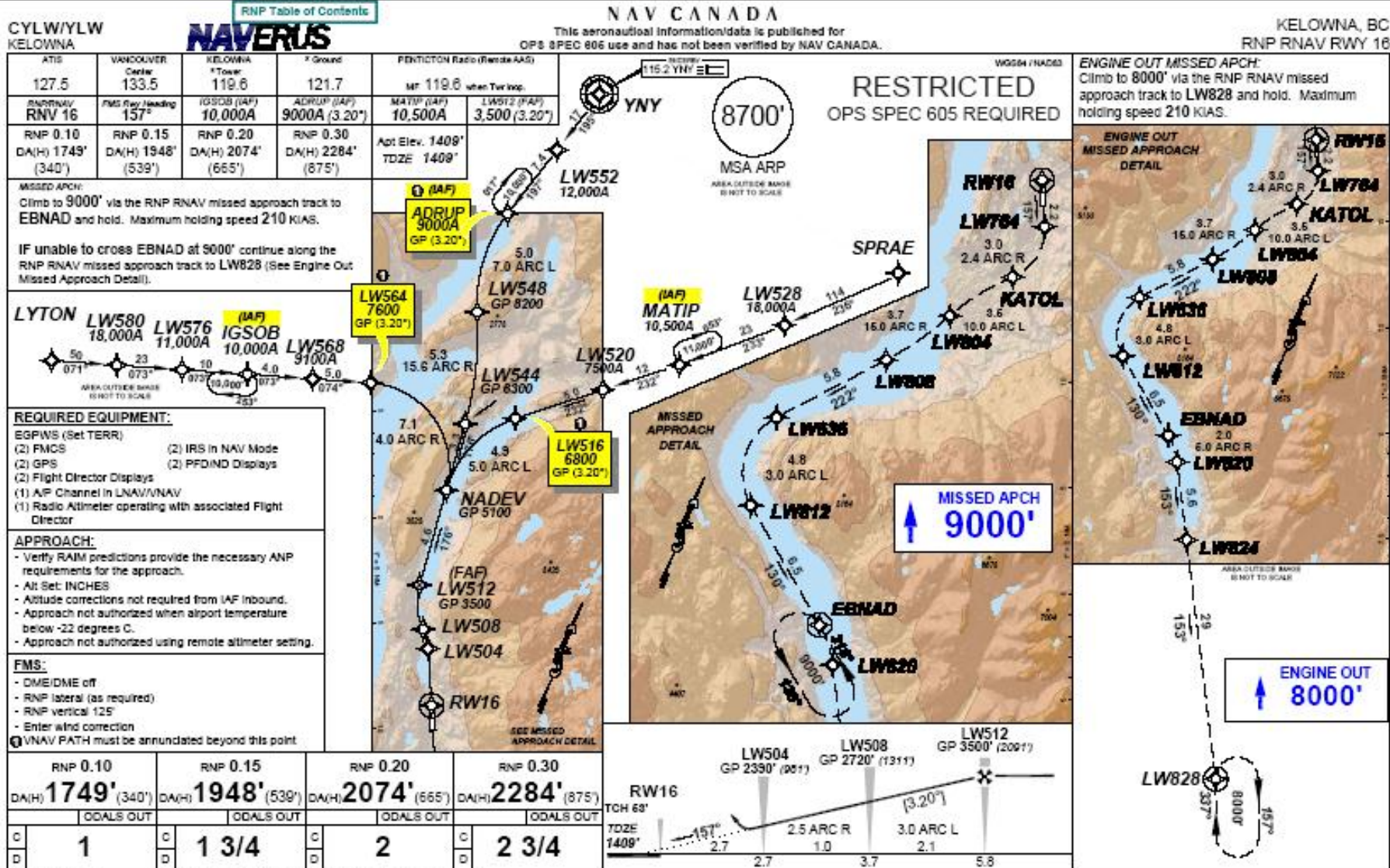
Technology Cont'd

- EGPWS
 - Resolve airport and terrain data issues (Smithers AIC)
- NAV CANADA RSC Reporting
- Satellite
 - Datalink
 - Surveillance
- Airports
 - AWOS, LWIS, HWOS, Cameras, New ILS
 - Lighting, Mandatory friction measurement

Regional GNSS Program



Regional RNP Program



Operators

- HGS and dual thread navigation systems
 - IRU, FMS, AHRS using MEMS Technology to ignore Mag inputs
- Move to modern cockpit technology
 - Reduce analog instrumentation
- Cockpit Standardization
- Rule Harmonization
- Disciplined procedures and training

Questions?

SMITHERS, BRITISH COLUMBIA TERRAIN ON LPV RWY 33 APPROACH EGPWS DATABASE

During the flight validation of the new LPV 33 approach to Smithers, British Columbia, the flight test aircraft received “CAUTION TERRAIN” and then “TERRAIN TERRAIN PULL UP” messages from the EGPWS system.

Investigation of the issue revealed that the approach was correctly designed but the terrain database in the Honeywell Mark V EGPWS was using terrain tiles at the Smithers airport that were 30 ARC SECONDS in size. This resulted in terrain west of the final approach path appearing to impinge on the approach within the EGPWS database.

Honeywell has revised their terrain database around the Smithers airport to reduce the size of the tiles to 15 ARC SECONDS, thus clearing the approach of terrain in the EGPWS database. Honeywell will be releasing the new terrain database, version 469, for the Mark V EGPWS on 07 June 2013. This new terrain database should be available across the Honeywell EGPWS product line. Operators of other EGPWS equipment should check with their EGPWS manufacturer for the resolution of their terrain database at the Smithers airport.

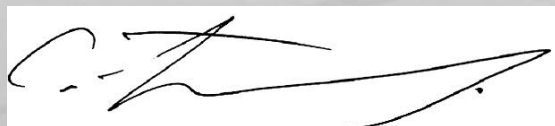
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