Civil GPS Service Interface Committee

U.S. State and Local Government Subcommittee

Ms. Karen Van Dyke on behalf of
Mr. James Arnold, U.S. Department of Transportation

25 September 2017
09:00  **Introduction** – Mr. James Arnold  
*U.S. Department of Transportation*

09:10  **Oregon Department of Transportation's Virtual Corridor** –  
Mr. Chris Harris, Engineering Technology Advancement  
Group Oregon Department of Transportation

09:30  **Boeing's Experimental Landing System at Moses Lake** –  
Mr. Roger Friedman, Senior Engineer  
Boeing Company

10:20  **Use of Precision GNSS in Large Scale Asset Management** –  
Mr. Mark Congdon, Regional Manager  
Western Region, Hydromax USA

10:20  **Break**
U.S. State and Local Government Subcommittee

10:50  Standardization of GNSS Threat Reporting and Receiver Testing (STRIKE3 Project) – Mr. Mark Dumville
      General Manager, NSL

11:10  Using GPS to Generate Forest Management Maps
      Mr. Jon Aschenbach
      Summerlake Enterprises

11:30  Group Discussion

12:00  Session End
Oregon Department of Transportation's Virtual Corridor

360° Images + Survey Grade 3D Point Cloud

Central Server

DTM & Asset Extraction in CAD

Highway Assets

Asset Databases

360° DVL + Accurate Measurement Tools

Virtual Highway
Runway 08 BJNU:
4 deg G/S  1000’ Displaced Threshold

Problem #1: MISS Pedersen Hill!
Elevations enhanced x3
STRIKE3 Global Monitoring Network

At a range of infrastructures
- Major City Centres
- City-ring roads
- National timing labs
- Motorways/Road network
- Airports
- GNSS infrastructures
- Power stations
- Railway
- EU Borders
- Ports

At a range of locations
- United Kingdom
- Sweden
- Finland
- Germany
- France
- Poland
- Czech Republic
- Spain
- Slovakia
- Slovenia
- Netherlands
- Belgium
- Croatia
- Latvia
- India
- Vietnam
- Thailand
- Malaysia
- New Zealand
- Canada
- Singapore (pending)

30+ monitoring sites
STRIKE3 “Database” [215,000 events]

Start of project until 31/03/2017
Using GPS to Generate Forest Management Maps

Why Collecting GPS Data Is Hard:

- Tall trees (100’ to 160’) provide dense canopy cover
- Best timber grows in Canyon Bottoms (steep mountains)
- Brush and lower stand vegetation can block satellite signals
- Bid due date usually only 20 to 30 days out
- It is frequently raining (sometimes very very hard)
- Limited Cell Phone Coverage precludes Real Time Corrections except for WAAS
Sellers Polygon - Buyers Polygon

Road Removed
Non-Stocked Areas Removed
Boundary Set at Tree Boles, not Drip Line.
Thank You