



EGNOS, it's there. Use it.

EGNOS Program Update

EGNOS Service Provision Workshop
Copenhagen
29 September 2015



European
Global Navigation
Satellite Systems
Agency



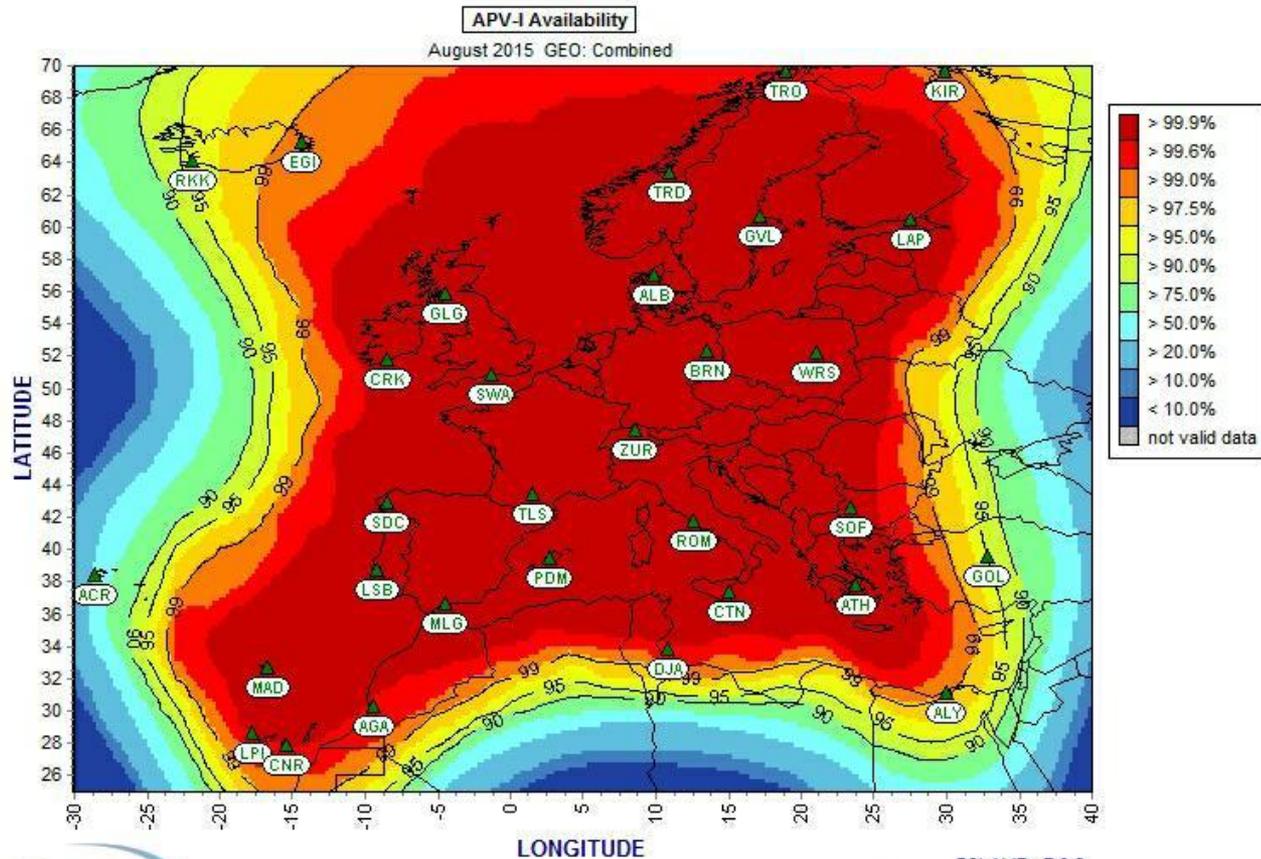
Precise navigation,
powered by Europe



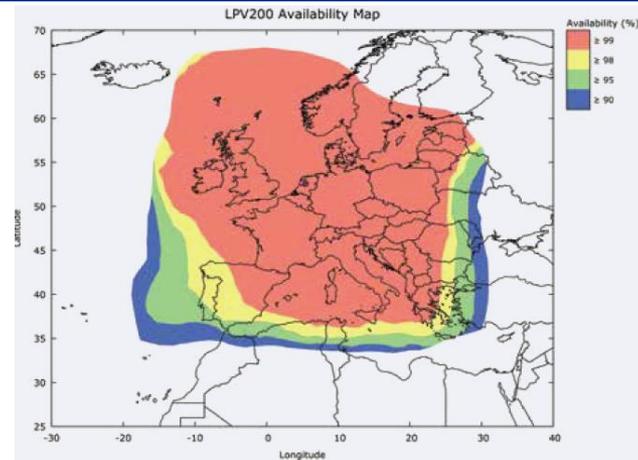
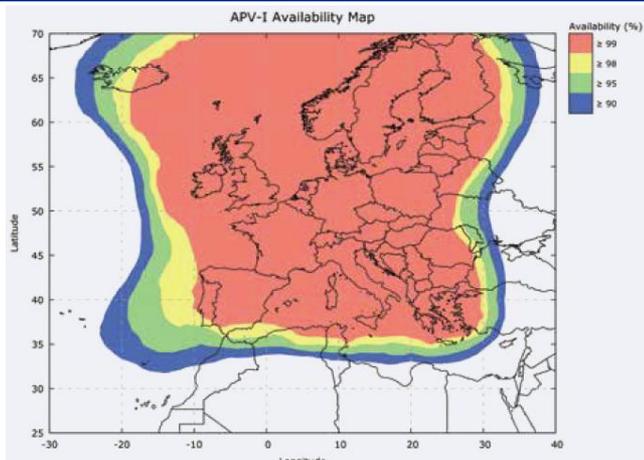
EGNOS Operational configuration

- Space Segment:
 - 2 Operational GEOs:
 - PRN120 – Inmarsat 3F2
 - PRN136 – SES-5
 - 1 GEO in TEST / BACK-UP
 - PRN126 – Inmarsat 4F2
- Ground Segment: System Release **2.4.1M** (since August 2015)
 - 39 RIMS sites (Ranging and Integrity Monitoring Stations)
 - NLES sites: Aussagel, Burum, Fucino, Betzdorf, Redu
 - Mission Control Centers: Ciampino, Torrejon
 - System Operations and Service Provision Centers: Toulouse, Torrejon
- New ESR **2.4.1N** under development:
 - New GEO (ASTRA-5B) into operations in 2016

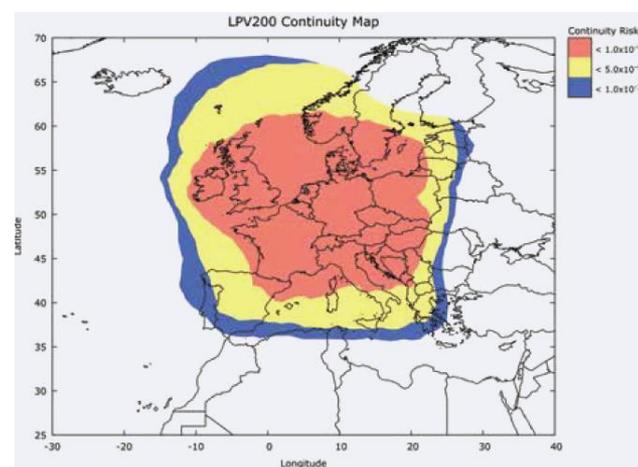
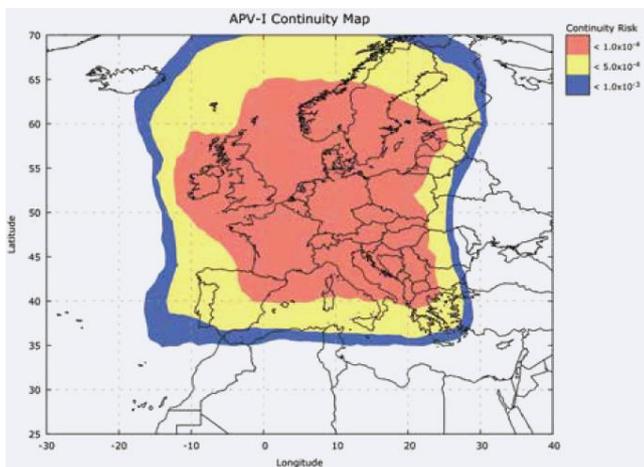
Service Provision – August 2015



SoL Service Definition Maps

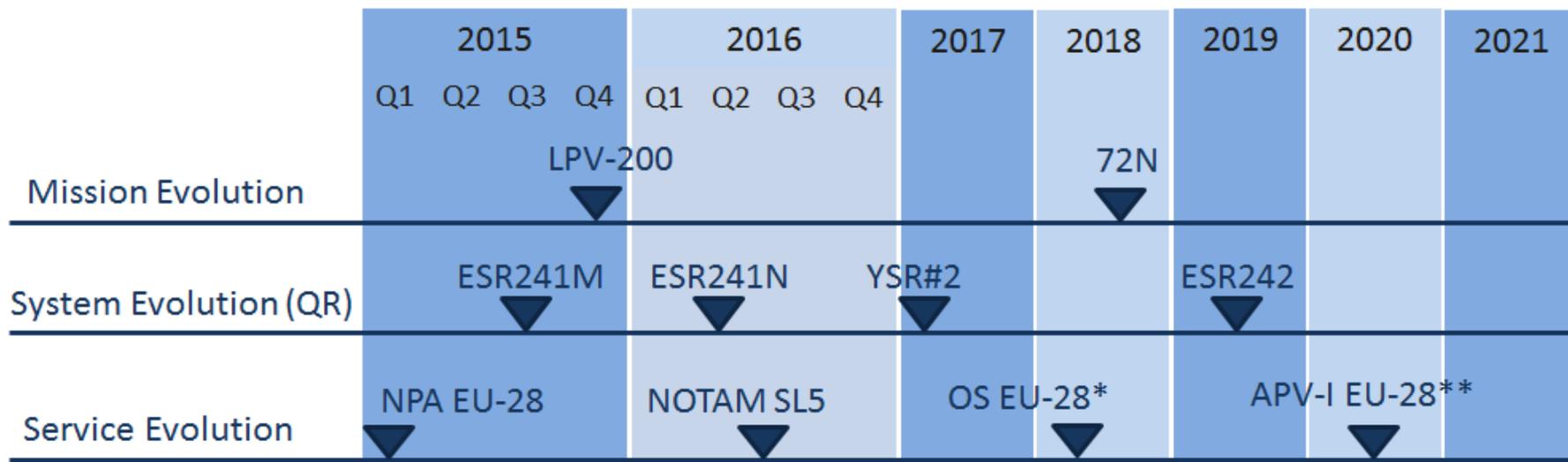


APV-I



LPV-200

Service Evolution Plan



** except Azores, ** except Azores, Madeira, Canary*

Note 1: Minor System Evolution 1 planned to accelerate extension to 72N.

Note 2: Coverage extension to EU-28 within ESR 2.4.2 with 4 new RIMS

System Evolution Plan

Release	V241M (with YSR1)	V241N	Minor release (with YSR2&3)	V242
Qualification Review	July 2014	March 2016	Q1 2017	2018-19
Entry in operations	August 2015	August 2016	2017	2019
OS SDD	January 2016	NA	2018	2019-20
SOL SDD	July 2016	NA	2018	2020
Features	<ul style="list-style-type: none"> • GEO-1 (SES-5) Qualification • LPV-200 service declaration • Continuity improvements 	<ul style="list-style-type: none"> • GEO-2 (ASTRA-5B) Qualification 	<ul style="list-style-type: none"> • RIMS Haifa qualified • Extension of EGNOS Service Area to 72° latitude 	<ul style="list-style-type: none"> • CPF & RIMS new HW solves obsolescence • 4 new RIMS
			New procurements	

EGNOS V3 - Status

- On-going transition from R&D to Exploitation:
 - EGNOS V3 Phase B studies within ESA « EGEP » Program
 - PDR until Q4 2015
 - EGNOS V3 Phase C/D within GSA EGNOS Exploitation Program
 - Developed through GSA-ESA Working Arrangement (signed in July 2015)
 - Mission requirements:
 - Legacy L1-only service
 - Dual-Frequency services: L1-L5
 - Multi-constellation augmentation: GPS-Galileo
 - Standardisation preparation:
 - DFMC Definition Doc. and SBAS L5 ICD iterated with SBAS service providers
 - Next steps: EUROCAE/RTCA MOPS preparation
- EGNOS V3 entry in operations estimated date: 2022

THANK YOU

