



Euromed GNSS II project/MEDUSA: *Tunisia national workshop*



Euromed GNSS II national workshop, Tunis, 29 November 2012

Agenda

MORNING SESSION

Welcome

Introduction

Session on all domains (road/maritime/rail/freight transport and logistics/geodesy and mapping/research)

Presentations and discussions

Conclusions and way forward

13.00 – 14.30 Lunch

AFTERNOON SESSION

Session on civil aviation

Presentations and discussions

Conclusions and way forward

17.00 – 17.30 Closure of the meeting and networking coffee

EGNOS SoL main principles (1/2)

- ✓ **Designed in accordance to the ICAO SARPs criteria**
- ✓ **Compliant to RTCA Minimum Operational Performance Standards (MOPS) for airborne navigation equipment using the GPS augmented by SBAS**

- ✓ **Supporting RNAV**
- ✓ **Enabling Performance Based Navigation (PBN)**
- ✓ **Providing Category I (CAT I) Vertical guidance at any qualifying runway**
 - Localizer Performance with Vertical Guidance (LPV)**
 - Not requiring the installation or maintenance of ground-based landing system navigation aids**

- ✓ **Certified airborne equipment**
- ✓ **Subject to regulation/approval by “EASA system” (including NSAs)**

EGNOS SoL main principles (2/2)

✓ **Added value:**

Providing the opportunity to cover very large areas of airspace and areas not served by other navigation aids

Adding increased capability, flexibility, and often, more cost-effective navigation options than legacy ground-based navigation aids

✓ **Benefits:**

Safety improving

Efficiency improving

RWY capacity increasing (reducing the ground navigation aid infrastructures and coping with increased traffic)

Environmental impact reducing (noise and CO2 emissions)

EGNOS SoL use for aviation examples of facts and figures in Europe (1/3)

Presently EWAs (EGNOS Working Agreement) have been signed with 7 ANSPs, including Austro Control (Austria), DSNA (France), DFS (Germany), ENAV (Italy), NATS (UK), skyguide (Switzerland) and Guernsey Airport (Bailiwick of Guernsey, in the Channel Islands). As a result of such actions, the publication of EGNOS based approach procedures has been possible in many different European airports.

PBN one of the key enablers of SES

EGNOS SoL use for aviation examples of facts and figures in Europe (2/3)

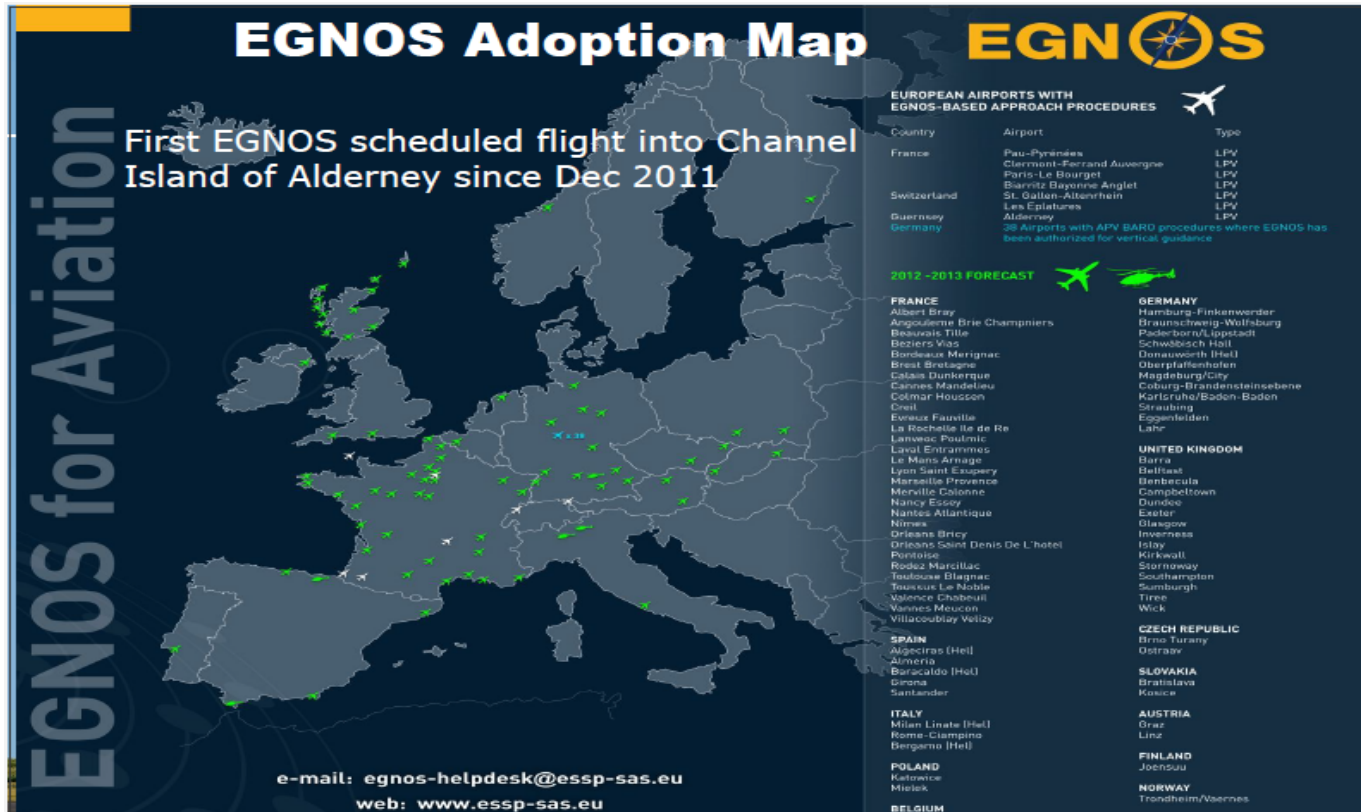
Status of the EGNOS implementation in aviation
EGNOS LPV procedures already published in Europe

Country	Airports	LPV Procedures	APV baro Procedures
France	13	16	0
Switzerland	2	2	0
Guernsey	1	2	0
Germany	38	0	81
Total	54	20	81

Source: ESSP

EGNOS SoL use for aviation

examples of facts and figures in Europe (3/3)



Source: ESSP

MEDUSA EGNOS SoL service demonstration in Tunis

- ✓ **Developing the main enablers to support the operational use in Monastir (OACA)**
- ✓ **Template for the country's agreement to be established for the use of EGNOS in Civil Aviation (similarly to the EWA)**
- ✓ **Procedure design**
- ✓ **Safety assessment (risks assessment and mitigation measures)**
- ✓ **Flight demonstrations**
- ✓ **Technology proof-of-concept**
- ✓ **Benefits verification**
- ✓ **Business case analysis**
- ✓ **Analysis of certification and standardization procedures needed for the publication of the procedure**
- ✓ **Training**
- ✓ **Final workshop for all Euromed countries**

What's next?

- ✓ **Questionnaire for the strategy**
- ✓ **Contacts (key stakeholders)**
- ✓ **Questionnaire circulation**
- ✓ **Dedicated interviews**
- ✓ **Various iterations for the strategy elaborations**
- ✓ **Proposal for a further workshop**

- ✓ **Feedbacks/recommendations**

- ✓ **Planning activities for demonstration in Tunis**



Questions?



Thank you for your attention

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FRA http://www.euromedtransport.eu/Fr/groupe-de-travail-aaognssaau_20_9_54

EN http://www.euromedtransport.eu/En/working-group-aaognssaau_20_9_54

METIS Demonstrations





State of play – Civil Aviation

Different Conference/Commissions, ICAO Regions and Regional Groups

ICAO Regional Groups responsible for strategies for GNSS

Each State responsible for implementation

	Civil Aviation Conference/Commission		ICAO Region		Regional Group (planning and implementation)		
	ECAC	ACAC	EUR/NAT	MID	MIDANPIRG	APIRG	EANPG
Algeria							
Egypt							
Israel							
Jordan							
Lebanon							
Morocco							
Pal. Authority							
Syria							
Tunisia							
Turkey							