

Golden Tulip Farah- Rabat (Morocco), 5 April 2016







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Sessions	Titles		
Session n°1	Regional perspectives		
Coffee/ Tea Break			
Session n°2	Regional SBAS: EGNOS and GAGAN		
Lunch			
Session n°3	Technological developments		
Coffee/Tea Break			
Session n°4	Conclusion and closing Session		







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SESSION 1 REGIONAL PERSPECTIVES			
09:30 - 09:45	ACAC Strategy Overview	Mr. Khalid AL MATRAFI - ACAC Chairman GNSS WG	
09:45 - 10:15	ICAO Global Provisional and Regional Developments related to GNSS	Mr. Raza Gulam - RO CNS ICAO MID Regional	
10:15 - 10:30	Group Photo	ALL	

MODERATOR: MR. MOHAMED REJEB (ACAC)







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SESSION 2	REGIONAL SBAS: EGNOS AND GAGAN		
10:45 - 11:05	EGNOS status and plans	Mr. Ugo CELESTINO -EC	
11:05 – 11:25	EGNOS V2/V3 developments	Mrs Anne Laure Vogel - GSA	
11:25- 11:45	GAGAN status and plans	Mr. RAMASUBRAMANIAN- ISRO	
11:45 - 12:05	Panel Discussion	ALL	

MODERATOR: MR. GULAM RAZA (ICAO MID)







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SESSION 3 TECHNOLOGICAL DEVELOPMENTS			
14:00 - 14:20	EGNOS in EUROMED states/MEDUSA	<u>Ms. Antonella DI FAZIO –</u> <u>Telespazio</u>	
14:20 - 14:40	EGNOS-AFRICA JPO: Support to EGNOS in Africa	Mr. Sémou DIOUF- EGNOS AFRICA JPO	
14:40 – 15:00	GBAS: Current operations and future perspectives	Mr. Mikael MABILLEAU- Egis Avia	

MODERATOR: MR. MOHAMED REJEB(ACAC)







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SESSION 4 CONCLUSIONS AND CLOSING SESSION				
15:30 – 16:00	Conclusions, Recommendation & Open Discussion	Mr. Khalid AL MATRAFI - ACAC Chairman GNSS WG		
16:00 – 16:30	Closing Session	All		

MODERATOR: MR. MOHAMED REJEB(ACAC)







## KSA, Mr, Khalid AL MATRAFI

Job title: Manager, Navaids Engineering Branch (NEB) Systems Engineering Directorate



- Mr. Khalid AL MATRAFI is a Navaids Engineering Manager involved since 1983 in GACA, building upon a solid background in Air Navigation Services.
- Mr Al Matrafi has a big experience in technical aspect
- He is appointed as Chairman GNSS working group (ACAC) since 2014,
- He was a member in a NSP ICAO Panel, GNSS Taskforce (Middle East Region) and NAVISAT (ACAC)







## ACAC, Mr, Mohamed REJEB

Job title: Air Navigation & Air Safety Expert Arab Civil Aviation Commission (ACAC)



- Eng. Mohamed REJEB is currently an Air Navigation and Air Safety Expert of Arab Civil Aviation Commission (ACAC).
- He is a senior aviation manager, he hold a Master's Degree in Engineering in "INDUSTRIAL ENGINEERING" from Engineering School of TUNIS (ENIT) since 1992 and Master's Degree in Aeronautical Operations from National School of Civil Aviation of Toulouse France (ENAC) since 1993. He is ISO, CNS/ATM and SMS Lead Auditor.







## ACAC, Mr, Mohamed REJEB (2/2)

Job title: Air Navigation & Air Safety Expert Arab Civil Aviation Commission (ACAC)



#### **Brief Profile**

• Mr. Mohamed REJEB started his career in Tunisian Civil Aviation and Airport Authority (OACA) in 1992. During his time at OACA he has demonstrated his extensive experience in Air Navigation /Air Safety/ Airworthiness, design - and many studies in management/ Quality/planning/Training - and held a management positions: Air Navigation Director, Air Safety Director and Airworthiness Director t before joining ACAC.







# EC, Mr Ugo Celestino-EC (1/2) Job title: EU Satellite Navigation Programmes

officer



#### **Brief Profile**

Mr. Ugo Celestino works as Policy Officer in the EU Satellite Navigation Programmes (EGNOS & GALILEO) for the European Commission.

He is in charge of downstream applications development and international relationships with EU neighbouring countries.







## EC, Mr Ugo Celestino-EC (2/2)

Job title: EU Satellite Navigation Programmes officer





Mr. Ugo Celestino holds a degree in economics and an MBA from INSEAD.

Since 2007 he has been following the Euromed GNSS programmes as well as other initiatives to leverage the EGNOS & GALILEO technologies in supporting other EU policies (e.g. regional cooperation, industrial policy, transport integration).







### ISRO, Mr. Ramasubramanian (1/2)

Job title: Programme Director
Satellite Navigation Programme
Indian Space Research Organization
India



- Mr. Ramasubramanian is a senior engineer of ISRO Satellite Centre, Bangalore, India leading the Satellite Navigation Programme of Indian Space Research Organization (ISRO).
- He is a Post graduate in the field of Microwaves and has over two decades of experience in the field of microwave and Radio Frequency (RF) communications. He is a senior member of IEEE and member of IEEE Microwave Theory & Techniques (MTT) society.
- He is currently designated as Programme Director, Satellite Navigation Programme.







### ISRO, Mr. Ramasubramanian (2/2)

Job title: Programme Director
Satellite Navigation Programme
Indian Space Research Organization
India



- His responsibilities include providing technical leadership to highly qualified professionals in the area of Navigation, spread across various ISRO centers, for the two Navigation systems of India, namely, GAGAN and IRNSS (Indian Regional Navigational Satellite System).
- Before taking up current position, he was leading a team responsible for design and realization of RF systems for ISRO spacecraft missions. He has to his credit many designs developed for the first time in the center.









## **Brief Profile**

Mrs. Anne-Laure Vogel has been involved in GNSS for more than 12 years at technical, operational and institutional levels.

She is currently working for the European GNSS Space Agency (GSA) on EGNOS operations and maintenance, contributing to the follow-up of EGNOS V2 current and future releases at programme and service provision levels.







# **GSA**, Mrs Anne Laure Vogel-GSA Job title: *EGNOS Exploitation*



### **Brief Profile**

Mrs. Anne-Laure Vogel is also involved in activities related to EGNOS deployments out of Europe.

Anne-Laure well understands the challenges of EGNOS implementation in ACAC & Africa thanks to her contribution to SIRAJ project and involvement in SAFIR as a member of the Project Implementation Team.







## ICAO MID, Raza GULAM

Job title: RO/CNS, ICAO MID Regional office



- Raza is an engineer with over 20 year of aviation systems planning and implementation experience.
- ➤ He Developed and implemented Air navigation State plan and currently working as regional officer CNS
- ➤ At the ICAO MID Office since 9 years, participated in the development of the first MID PBN implementation plan and strategy, as was the secretary of the PBN/GNSS task force. Also participated in the development of the MID Air navigation Strategy.
- ➤ He is a secretary of CNS sub Group and MIDAMC Steering Group.







## <u>Telaspazio</u>, Antonella Di fazio (1/2)

Job title: **Project coordinator Euromed GNSS II project** 



#### **Brief Profile**

• Antonella Di Fazio has a Degree in Physics. She works in Telespazio (a Finmeccanica-Thales company), in the Navigation and Telecommunication Programs, in charge of satellite navigation applications & services. In the last 10 years she has been working in projects and initiatives related to the European GNSS (EGNSS) services and applications, particularly in the transport domain, in Europe and outside Europe in the neighbouring countries around the Mediterranean







## Telaspazio, Antonella Di fazio (2/2)

Job title: **Project coordinator Euromed GNSS II project** 



## **Brief Profile**

• Since 2006, she has been involved in the Euromed GNSS programme, acting as team leader and coordinator of the Euromed GNSS I/METIS and the Euromed GNSS II/MEDUSA projects. In MEDUSA she has carried out the Regulatory Analysis of the Euromed States for the introduction of EGNOS-based operations in aviation.







## Egis Avia, Mikael Mabilleau (1/2)

Job title: Navigation Services Manager Egis Avia



- Mr. Mikael has been involved in GNSS related activities since the last 10 years.
- He is actively participating in activities of the main civil aviation standardisation bodies such as the EUROCAE WG 62 on Galileo, RTCA Special Committee 159 on GPS and ICAO Navigation System Panel in charge of ICAO SARPS.







## Egis Avia, Mikael Mabilleau (2/2)

Job title: navigation services manager Egis Avia



- He is involved in several projects looking at GNSS evolutions for civil aviation operations such as Advanced RAIM technical feasibility analysis for all phases of flight down to precision approach, new over-bounding technics for SBAS, and dual frequency multi-constellation simulator prototypes for ABAS, SBAS and GBAS systems evolutions.
- Mikael has also led analyses of the ionosphere impact in GNSS based civil aviation operations which has led to the development of the ionosphere threat model for GBAS precision approach in Europe. His main fields of interest are GNSS standardisation and integrity monitoring concept for the mitigation of GNSS threats.







## JPO, Mr. Semou Diouf(1/2)

Job title:, **Deputy Director – EGNOS Africa Joint Programme Office** 



- **Mr. Semou Diouf** is the Deputy Director at EGNOS Africa Joint Programme Office. With a wide range of qualifications and extensive experience in both the technical and business fields,
- Sémou Diouf has been involved in technology innovation projects and business development in the aeronautics sector in Africa since the early 90's.
- Diouf spent 17 years of his career with SITA where he held various roles. He was later appointed as Manager, Head of a Department in Aeronautics, Space and Defense Business Unit at Altran Technologies, a leading technology innovation consulting firm.





## JPO, Mr. Semou Diouf(2/2)

Job title:, **Deputy Director – EGNOS Africa Joint Programme Office** 



## **Brief Profile**

 A Senegalese national, Mr. Diouf graduated with an engineering degree from INSA, the National Institute of Applied Sciences in Toulouse (France) in 1984, majoring in automation, electronics and computer science. Through the Paris School of Business (ESCP), he acquired a Diploma, with specialty in Management of Enterprises, Strategic marketing and Management of international affairs.







## Workshop Objectives

- ➤ Give an overview on the latest development and GNSS projects specially linked to SBAS and GBAS;
- ➤ Learn from the African experience related to the GNSS initiatives in aeronautical domain;
- Keep informed on the new EGNOS status and roadmaps;







# Workshop Objectives...

➤ Be aware of some projects launched by European Commission to support the EGNOS extension to tiers countries;

➤ Draw the ACAC GNSS roadmap (Euromed and Peninsula countries);



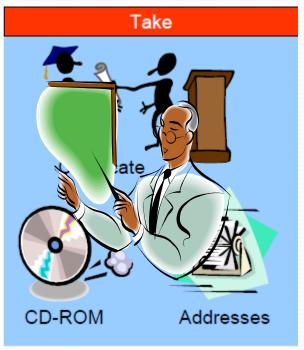




## WS documentations

Workshop material (presentations, on ACAC Web site)











## Logistics

- Free shuttle to and from the venue will be available.
- Break and lunch will be offered by ACAC.
- Wireless is available : Golden Tulip
  - Password: gold55







## Please

- Please do not smoke



Mobile phones and PDA



Participation









