### **TOUR 7:** Remote towers at your service

Remote tower technology draws on a range of advanced technologies, including high-definition, infrared and pan-tilt-zoom cameras to provide visual surveillance augmented by available radar and flight data to deliver additional information in real time. With this sophisticated technology, an out-of-the-window view from the tower is captured and reproduced at a remote facility with the level of detail and accuracy required for controllers to provide safe and expeditious air traffic control services to visual flight rules (VFR) and instrument flight rules (IFR) traffic. This tour will present concrete examples of the deployment of remote towers for a single airport, as well as views of operational and industry stakeholders on the application of remote towers for multiple airports.



#### **TOUR GUIDE: Robin Garrity, SESAR Joint Undertaking**

TRAVEL TIME	TIME	TOUR STOPS	PRESENTATION TITLE	SPEAKER
	10:15	SESAR (890)	CHECK IN	
10:15 -	10:30	SESAR (890)	Welcome & introduction to topic area	Robin Garrity, SESAR  Joint Undertaking
12:15	10:45	DLR/AT-One (951)	First validation of remote tower for multiple airports (PJ05): a research perspective	Jörn Jakobi, DLR
	11:00	HungaroControl (337)	First validation of remote tower for multiple airports (PJ05): an operational perspective	Csaba Gergely, HungaroControl
	11:15	Frequentis (526)	First validation of remote tower for multiple airports (PJ05): an industry perspective	Michael Ellinger, Frequentis
	11:30	SAAB (305)	Remotely-provided air traffic service for multiple aerodromes	Niclas Gustavsson, SAAB
	11:45	DFS (834)	Deploying remote tower control @ DFS	Karoline Trull, DFS
	12:00	NATS (826)	Implementing remote tower at London City Airport	Steve Anderson, NATS
	12:15	END OF TOUR		

# **TOUR 8:** Lights, runway, landing - Enhanced runway operations

It is estimated that by 2035, more than 20 airports in Europe will be operating at 80% or more of capacity on a daily basis, resulting in delays of up to 5-6 minutes. SESAR is delivering technologies and procedures to help airports significantly optimise arrival management and runway throughput, irrespective of meteorological conditions. This tour will hear from SESAR partners about their implementation projects and the benefits that these are bringing in terms of increasing landing rates, while also reducing emissions and noise over densely populated communities. The tour will also show how solutions like runway status lights, initially implemented to improve safety performance, can also help airports optimise their runway capacity.



#### **TOUR GUIDE: Freek de Witte, SESAR Deployment Manager**

TRAVEL TIME	TIME	TOUR STOPS	PRESENTATION TITLE	SPEAKER
11:00 -	<b>11:00</b> 11:15	SESAR (890) SESAR (890)	CHECK IN Welcome & introduction to topic area	Freek de Witte, SESAR Deployment Manager
12:45	11:30	Indra (553)	Ground-based augmentation system (GBAS) CAT III	Hugo Moen, Indra
	11:45	Thales (515)	Time-based separation (TBS)	Marie-Pierre Bettoni, Thales
<i>//</i> \/	12:00	EUROCONTROL (849)	Leading optimised runway delivery (LORD)	Vincent Treve, EUROCONTROL
	12:15	DSNA (480)	Runway status lights system (RWSL) at Paris Charles de Gaulle Airport	Hervé Lespinasse, DSNA Nicolas Perrin, DSNA/Paris- CDG
	12:30	NATS (826)	Time-based separation (TBS); Point merge; Extended arrival management (E-AMAN)	Andy Shand, NATS
	12:45	END OF TOUR		

### **TOUR 9:** Advanced air traffic services (2)

Air traffic is increasing in Europe especially around airports. To meet the forecasted traffic growth, SESAR is developing and deploying a range of solutions to increase the capacity of and extend the terminal manoeuvring areas (E-TMAs) in a safe, cost-effective and environmentally sustainable manner. Solutions include extended arrival management, and its combination with other solutions such as target time of arrival (TTA). The tour will also look at the impact of multiple arrival management systems operating out to an extended range and consider how to balance the needs of those concerned.



#### **TOUR GUIDE: Olivia Nunez, SESAR Joint Undertaking**

TRAVEL TIME	TIME	TOUR STOPS	PRESENTATION TITLE	SPEAKER
	12:30	SESAR (890)	CHECK IN	
12:30 -	12:45	SESAR (890)	Welcome & introduction to topic area	Olivia Nunez, SESAR Joint Undertaking
14:30	13:00	NATS (826)	Enhanced arrivals and departures (EAD - PJ01)	Sian Andrews, NATS
8	13:15	Leonardo (333)	Pj01 - Extended Arrival Management with overlapping AMAN operations	Alessandro Carrozzo, Leonardo Aniello Napolitano, Leonardo
0 0	13:30	DSNA (480)	Cross-border SESAR trials for enhanced arrival management (xStream - PJ25) - Paris-Orly	Etienne Guerin, DSNA & Marc Azoulay, DSNA
	13:45	NATS (826)	London XMAN activities	Sian Andrews, NATS
SEATED	14:00 – 14:30	EUROCONTROL (849)	Free route airspace: becoming a reality in the core area of Europe	Andreas Henn, EUROCONTROL
	14:30	END OF TOUR		

# **TOUR 10:** Connect, communicate, share: enabling technologies in ATM

Terrestrial communications technologies are evolving in ATM with the introduction of standard Internet protocols, which offer users more cost efficiency in terms of maintenance and allow for off-the-shelf commercial services and applications. The tour provides visitors with insights into the advantages of these IP-based infrastructures and examples of their implementation.



#### **TOUR GUIDE: Marouan Chida, SESAR Joint Undertaking**

TRAVEL TIME	TIME	TOUR STOPS	PRESENTATION TITLE	SPEAKER
	13:00	SESAR (890)	CHECK IN	
13:00 - 14:30	13:15	SESAR (890)	Welcome & introduction to topic area	Marouan Chida, SESAR Joint Undertaking Heiko Teper, SESAR Deployment Manager
	13:30	Leonardo (333)	Demonstration of voice over Internet protocol (VOIP) applications	Pierluigi Fantappiè , Leonardo
	13:45	Leonardo (333)	SWIM technical infrastructure	Dario Di Crescenzo, Leonardo
	14:00	DANUBE FAB (973)	Advantages and applications of New pan-European network services (NewPens)	Mihai Spiridonescu, ROMATSA Ivan Hassamski, BULATSA
	14:15	ENAIRE (844)	Implementation of an IP-based ground-ground data communication network	Angel Crespo, ENAIRE
	14:30	END OF TOUR		

### **TOUR 11:** Enabling drone infrastructure

U-space is a set of new services relying on a high level of digitalisation and automation of functions and procedures designed to support safe, efficient and secure access to airspace for large numbers of drones. As such, U-space is an enabling framework designed to facilitate any kind of routine mission, in all classes of airspace and all types of environment even the most congested - while also addressing an appropriate interface with manned aviation and ATC. This tour will present a number of U-space projects underway focusing on ground-based technology architecture and the performance requirements to enable drone operations, particularly VLL operations. The tour will also give participants the chance to hear about what SESAR partners are doing to address aeronautical information sharing requirements for drone operations. The tour will conclude with a presentation of the concept of operations for drones, followed by a feed of live traffic from the Paris area.



#### **TOUR GUIDE: Robin Garrity, SESAR Joint Undertaking**

TRAVEL TIME	TIME	TOUR STOPS	PRESENTATION TITLE SI	PEAKER
14:30	14:30	SESAR (890)	CHECK IN	
- 16:45	14:45	SESAR	Overview of SESAR drone activities	Robin Garrity, SESAR Joint Undertaking
8	15:00	IDS (494)	U-space DREAMS (DRone European AIM Study) project and IDS UTM System	Valerio Paciucci, Giuseppe di Bitonto, IDS
	15:15	ENAIRE (844)	Drone web tool	Javier Fenoll, ENAIRE
	15:30	ENAIRE (844)	Technological European research for RPAS in ATM (TERRA)	Victor Gordo, INECO
	15:45	A³ by Airbus (1105)	Altiscope: future airspace modeling and tools	Karthik Balakrishnan, A <sup>3</sup> by Airbus
SEATED	16:15 - 16:45	EUROCONTROL (849)	The EUROCONTROL UAS operational concept and PODIUM	Mike Lissone, EUROCONTROL, with Unifly
	16:45	END OF TOUR		

### **TOUR 12:** Advanced airport operations

SESAR is making use of advances in technologies to improve airport operations, from arrival/departure management and runway throughput, to surface management and safety nets. This tour will present the activities and demonstrations underway across Europe at airports of different sizes and with very diverse operational environments. Visitors on the tour are expected to get a better understanding of the solutions in the pipeline and the potential benefits they can bring in terms of operational efficiency, increased situational awareness for controllers, improved safety and better access to airports in all weather conditions.



#### **TOUR GUIDE: Roland Kaps-Becker, SEAC**

TRAVEL TIME	TIME	TOUR STOPS	PRESENTATION TITLE	SPEAKER
	15:00	SESAR (890)	CHECK IN	
15:00 -	15:15	SESAR (890)	Welcome & introduction to topic area	Roland Kaps-Becker, SEAC
16:30	15:30	NATS (826)	Enhanced departure concepts	Louisa Smith, NATS
	15:45	DLR/AT-One (951)	Integrated airport operations (IAO-PJ28)	Steffen Loth, DLR
	16:00	DSNA (480)	Safer airports and flights for Europe (SAFE – PJ03b)	Nicolas Leon, DSNA Marc-Antoine Laclautre, DSNA
	16:15	Honeywell (979)	Augmented Approaches to Land: GBAS CAT II with CAT I equipment; EFVS Advanced Operations	Jolana Dvorska, Honeywell
	16:30	END OF TOUR		

### TOUR 13: Delivering tomorrow's ATM platform

Tomorrow's ATM system will rely on the enhanced integration and interfacing between aircraft and ground systems, including ATC and other stakeholder systems. Communications, navigation and surveillance (CNS) systems, SWIM, trajectory management, and common support services must be developed in a coordinated way for application across the ATM system. This tour gives a flavour of these enabling technologies and provides concrete examples of their implementation in Europe.



#### **TOUR GUIDE: Ramon Raposo, SESAR Deployment Manager**

TRAVEL TIME	TIME	TOUR STOPS	PRESENTATION TITLE	SPEAKER
15:30	15:30	SESAR (890)	CHECK IN	
- 17:30	15:45	SESAR (890)	Welcome & introduction to topic area	Ramon Raposo, SESAR Deployment Manager
Q	16:00	Thales (515)	ATFM application and functionalities on stand	Marie-Pierre Bettoni, Thales
	16:15	Frequentis (526)	Common Services (PJ15)	Thomas Lutz, Frequentis
	16:30	BULATSA (973)	AFS initial SWIM Implementation – creating local security operation centre	Daniela Vasileva, BULATSA Ivan Hassamski, BULATSA
	16 :45	DFS (834)	Data link services governance	Carlos Fornas, DFS
SEATED	17:00 - 17:30	EUROCONTROL (849)	Integrated CNS (EECNS - PJ14)	Emilien Robert and Pascal Barret, EUROCONTROL
	17:30	END OF TOUR		