

WEEK PROGRAMME and AGENDA

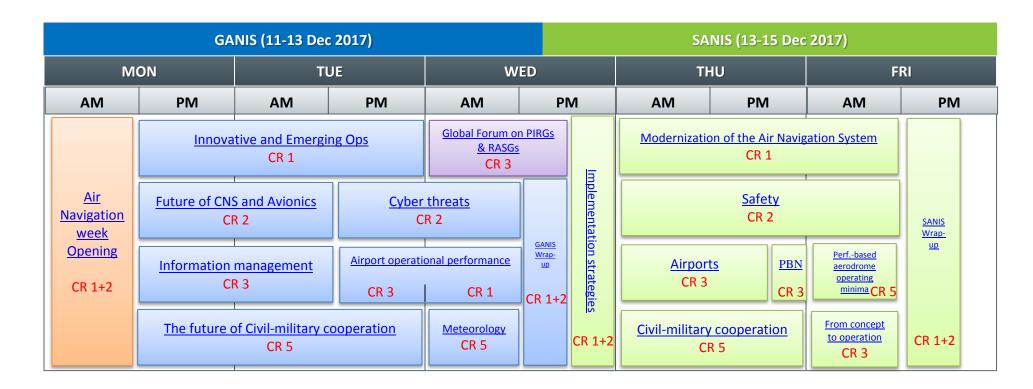
Second Global Air Navigation Industry Symposium (GANIS/2) **First Safety and Air Navigation Implementation** Symposium (SANIS/1)

Montréal, Canada 11-15 December 2017





GANIS/2 – SANIS/1 week overview





	DAY 1 – Monday, 11 December 2017			
09:00 - 10:30	Welcome remarks by the		ouncil, keynote speeches	and ICAO Walter
10:30 - 11:00	Coffee Break — sponsored by : ASBU for FUTURE			
11:00 – 12:30	Air Navigation Week Opening Address by ICAO Secretariat on the Air Navigation and Safety challenges, the GANP and the GASP			
12:30 – 14:00		Lunch	Break	
14:00 – 15:00	Innovative and emerging operations	Future of CNS and avionics	Information Management	The future of Civil/military Cooperation
15:00 – 15:30		AIRPORT	s COUNCIL LATIONAL	
15:30 – 17:00	Innovative and emerging operations	Future of CNS and avionics	Information Management	The future of Civil/military Cooperation
17:30 – 19:30			sponsored by :	

	DAY 2 – Tuesday, 12 December 2017			
09:00 - 10:30	Innovative and emerging operations	Future of CNS and avionics	Information Management	The future of Civil/military Cooperation
10:30 - 11:00	B		- sponsored by :	R
11:00 – 12:30	Innovative and emerging operations	Future of CNS and avionics	Information Management	The future of Civil/military Cooperation
12:30 – 14:00			sponsored by :	
14:00 – 15:00	Innovative and emerging operations	Cyber threats	Airport operational performance	The future of Civil/military Cooperation
15:00 – 15:30		Coffee Break	- sponsored by :	
15:30 – 17:00	Innovative and emerging operations	Cyber threats	Airport operational performance	The future of Civil/military Cooperation
17:30 – 19:30			sponsored by :	5



DAY 3 – Wednesday, 13 December 2017				
09:00 - 10:30	Global Forum on PIRGs and RASGs	Cyber threats	Airport operational performance	Meteorology
10:30 - 11:00		Coffee	e Break	
11:00 – 12:30	Global Forum on PIRGs and RASGs	Cyber threats	Airport operational performance	<u>Meteorology</u>
12:30 – 14:00	Lunch Break			
14:00 – 15:00	Global Forum on PIRGs and RASGs GANIS Symposium Wrap-up Moderated by ICAO Air Navigation Bureau Director			
15:00 – 15:30	Coffee Break			
15:30 – 17:00	Implementation Strategies Keynote address by the ICAO Secretary General			

	DAY 4 – Thursday, 14 December 2017				
09:00 - 10:30	Modernization of the Air Navigation System	<u>Safety</u>	<u>Airport</u>	Civil/Military Cooperation	
		Coffee Break	- sponsored by :		
10:30 - 11:00	Aireon				
11:00 – 12:30	Modernization of the Air Navigation System	<u>Safety</u>	<u>Airport</u>	Civil/Military Cooperation	
12:30 – 14:00	Lunch Break				
14:00 – 15:00	Modernization of the Air Navigation System	<u>Safety</u>	<u>Airport</u>	Civil/Military Cooperation	
15:00 – 15:30	Coffee Break				
15:30 – 17:00	Modernization of the Air Navigation System	<u>Safety</u>	Performance-Based Navigation	Civil/Military Cooperation	

	DAY 5 – Friday, 15 December 2017			
09:00 - 10:30	Modernization of the Air Navigation System	<u>Safety</u>	Performance-based aerodrome operating minima	From concept to operations
10:30 – 11:00			- sponsored by :	
11:00 – 12:30	Modernization of the Air Navigation System	<u>Safety</u>	Performance-based aerodrome operating minima	From concept to operations
12:30 – 14:00		Lunch	Break	
14:00 – 15:00	SANIS Wrap-up Moderated by ICAO Air Navigation Bureau Director			

Note – click on the session title to be directed to the stream detailed agenda



Air Navigation Week Opening

	DAY 1 – Monday, 11 December 2017		
09:00 - 09:05	Administrative address		
09:05 – 09:15	Welcome remarks Dr. Olumuyiwa Benard Aliu, President of the Council of ICAO		
09:15 – 10:25	Ms. Karen McCrimmon, Parliamentary Secretary to the Minister of Transport, Canada Major General Brian S. Robinson, Assistant Deputy Chief of Staff Operations, Headquarters U.S. Air Force Mr. Florian Guillermet, SJU Executive Director, SESAR JU Ms. Angela Gittens, Director General, ACI Mr. Christian Schleifer, Secretary General, EUROCAE Ms. Margaret Jenny, President, RTCA, Inc. Mr. David Silver, Vice President of Civil Aviation Affairs at the Aerospace Industries Association of America (AIA), ICCAIA		
10:25 – 10:30	ICAO Walter Binaghi Air Navigation Commission Laurel Award Hajime Yoshimura, President of the Air Navigation Commission		
10:30 - 11:00	Coffee Break		
11:00 – 11:30	Air Navigation and Safety challenges Stephen Creamer, Director, ICAO Air Navigation Bureau		
11:30 – 12:00	Global Air Navigation Plan Mervyn Fernando, Member of the ANC, ICAO		
12:00 – 12:30	Global Aviation Safety Plan Catalin Radu, Deputy Director, ICAO Air Navigation Bureau		
12:30 - 14:00			



Second Global Air Navigation Industry Symposium (GANIS/2)

Innovative and Emerging Operations

	DAY 1 – Monday, 11 December 2017
12:30 – 14:00	Lunch Break
12:30 - 14:00	Lunch Break Way up there – Concept of operations above FL650 High altitude platforms, sub orbital launches, balloons that will carry people 10s of kilometers into the atmosphere, the re-emergence of supersonic civil transport - these are dreams that are in advanced stages of development and which will become flight-reality over the next few years. In this new frontier there isn't much that is 'traditional'. The trajectories are unconventional. The, velocities and attitudes are off the scales of the instrumentation used by current fleets. The technology may look familiar but not the way it is applied. And many of the companies have never been involved in aviation before. As aviation opens up the upper skies it is clear that regulatory and operational minds need to get together to ensure the safe orderly growth of these operations that will take us to the edge of the atmosphere. Format: Presentation: 5 x 12'
	Alastair Westgarth, Vice President, Google Loon Dan Williams, Senior Advisor for New Entrants, FAA
15:00 – 15:30	Coffee Break

Way up there (cont'd)

Round table discussion on what is takes to make all the concepts a reality

Format:

Moderator:

Nancy Graham, President, Graham Aerospace International 15:30 - 17:00

Speakers/ Panellists:

Etienne Barritault, Manager Of Space Innovation, Thales (Stratobus)

Eli Dourado, Director Of Policy, Boom Supersonic

Martin Gomez, Vice President, Facebook Aguila

Henk Hof, Head of ICAO & Concepts Unit, EUROCONTROL

Prof. Lui Hao, Director of Institute of Aviation Law and Standard, Beihang University

Taber MacCallum, Chief Technical Officer, WorldView

Andrew Tailby, Head of Flight Operations, Airbus HAPS

Alastair Westgarth, Vice President, Google Loon

Dan Williams, Senior Advisor for New Entrants, FAA

17:30 - 19:30Reception

DAY 2 - Tuesday, 12 December 2017

UAS Traffic Management

Unmanned aircraft systems (UAS) traffic management (UTM) is a rapidly developing concept that industry is looking to implement in a matter of months. What does this mean? What is the vision?

09:00 - 10:30

Can the UTM system in one State be interoperable with those in other States? How will interoperability be achieved? What are the roles of States, industry, current airspace users and ICAO in this evolving activity? How can industry collaborate with States to create a fully functional UTM system within a timeline that supports institutional funding?

These questions and more will be addressed by the panel.

	Format: Presentation: 50' Panel session: 40' Moderator: Rob Eagles, Director Air Traffic Management and Infrastructure, IATA Speakers/ Panellists: Cliff Sweatte, Technical Officer and Secretary of ICAO's UAS Advisory Group, ICAO Florian Guillermet, SJU Executive Director, SESAR JU Dr. Hiroko Nakamura, Deputy Director General at JAPAN Unmanned System Traffic & Radio Management Consortium (JUTM)
	Dr. Liu Hao, Vice-Chairman, JARUS Lance King, Senior Policy Advisor, Airworthiness & Airspace Integration, Aerospace Systems, Northrop Grumman Corporation
10:30 - 11:00	Coffee Break
	UAS Traffic Management (cont'd)
	Industry is moving rapidly to implement UTM. What do they need from States and ICAO to enable safe, sustainable, predictable operations? What infrastructure, technologies, processes and procedures are needed to make UTM a reality? What are the operational challenges? Who will provide the technical leadership and share lessons learned? What does industry view as the primary challenges faced from regulators when developing UTM
11:00 – 12:30	Industry is moving rapidly to implement UTM. What do they need from States and ICAO to enable safe, sustainable, predictable operations? What infrastructure, technologies, processes and procedures are needed to make UTM a reality? What are the operational challenges? Who will provide the technical leadership and share lessons learned?

Moderator:

Rob Eagles, Director Air Traffic Management and Infrastructure, IATA

Speakers/ Panellists:

Dr. Parimal Kopardekar, NASA Senior Technologist for Air Transportation, Autonomy Expert, NASA Ames Research Center, United States

Sean Cassidy, Director, Safety & Regulatory Affairs, Amazon Prime Air

Frank Matus, UTM Expert – Director, Strategy & Business Development, Thales

James Burgess, Wing Program Manager, Google X

Dr. Kin Huat Low, Principal Investigator of TM-UAS Programme, Air Traffic Management Research Institute; Professor, Nanyang Technological University, Singapore

12:30 - 14:00**Lunch Break**

Way out there – Commercial Space Transport

There are several initiatives out there in various stages of development and initial operations related to Commercial Spaceflight. These concepts cover a wide range of flight profiles from sub-orbital space tourism to placing satellites into orbit. The regulatory readiness for enabling this sector is a key to its success. To that end the panel will present the latest developments in this sector and discuss the challenges that are faced by both regulators and the private sector.

Format:

Presentation: 5 x 10'

14:00 - 15:00

Moderator:

Dorothy Reimold, Director for Strategic Operations for Commercial Space Transportation, FAA

Speakers:

Dorothy Reimold, Director for Strategic Operations for Commercial Space Transportation, FAA Richard Dalbello, VP Business Development and Government Affairs, Virgin Orbit

Taro Kuusiholma, IAASS

Oscar S. Garcia, Chairman, InterFlight Global Corporation Nico Voorbach, Director, ICAO and Industry Affairs, CANSO

15:00 - 15:30 Coffee Break

Way out there - Concepts that will enable the future of operations for the next 40 years

There are many ideas out there for what the future of transport can look like. These range from point-to-point hypersonic flights, to new types of ground effect vehicles, to multi-modal crafts (e.g. flying cars). While the divergence across the concepts are fantastical, many of the underlying enabling technologies and the innovative uses thereof are common. Artificial Intelligence, for example, is critical to the safety of operations that are beyond human cognitive abilities.

Video Presentation by Charles Bombardier

Followed by a round table discussion on Commercial Space and the other concepts.

Format:

Presentation: 2 x 15'
Panel session: 60'

15:30 - 17:00

Moderator:

Dorothy Reimold, Director for Strategic Operations for Commercial Space Transportation, FAA

Speakers/panelist:

Florian Guillermet, SJU Executive Director, SESAR JU

Additional panellists:

Prof. Lui Hao, Director, Institute of Aviation Law and Standard, Beihang University **Richard Dalbello**, VP Business Development and Government Affairs for Virgin Orbit **Taro Kuusiholma**, IAASS

Oscar S. Garcia, Chairman, InterFlight Global Corporation **Nico Voorbach**, Director, ICAO and Industry Affairs, CANSO

17:30 – 19:30 *Reception*

Future of CNS and avionics

	DAY 1 – Monday, 11 December 2017		
12:30 – 14:00	Lunch Break		
14:00 – 14:10			
	Richard Macfarlane, Deputy Director Air Navigation Capacity and Efficiency, Air Navigation Bureau, ICAO		
	Communication		
	Future ATM operations will be increasingly data link dependent. This has been generally accepted for many years, yet many practical issues remain:		
	1) The trade-off between flexibility and certification. Today a slight change to a CPDLC message requires an entire re-certification of the FMS. If this persists, how are we to adapt and refine CPDLC and other data link applications, when Trajectory-Based Operations are introduced?		
	2) The GANP calls for full TBO in 2031. To meet this objective, work on advanced data link systems must begin now however the operational and performance requirements of the services to be supported, remain unknown. How do we proceed with confidence?		
14:10 – 15:00	3) How do we achieve a reasonable convergence of data link technology and services between Regions, operating environments and even aircraft fleets?		
	4) How do we determine whether to use a standardized communications system, ie: VDL, AeroMACS or a commercial one, ie; 4G LTE, GoGo for safety services? Where does SWIM fit in?		
	Format:		
	Presentation: 4 x 18' Panel session: 28'		
	Moderator:		
	Vaughn Maiolla, Technical Officer Communication, ICAO		
	Speakers/ Panellists:		
	Dan Allen, Managing Director, Flight Technical and Regulatory Compliance, FedEx Charles (Chuck) Stewart, Chief Technical Pilot, Communications, United Airlines		

	David Bowen, Chief ATM, SESAR JU Jérôme Condis, Program Manager for Datalink and FMS products, AIRBUS SAS Tim Murphy, Senior Technical Fellow, Boeing	
15:00 – 15:30	Coffee Break	
15:30 – 16:20	Communication - continued	
16:20 – 17:00	Navigation Current GNSS evolution: developments in GBAS/SBAS. Today's aviation use of GNSS is still firmly based on a single constellation (GPS), operating on one frequency (L1). Developments in the near future will concentrate on the evolution of the existing augmentation systems (GBAS/SBAS). With regard to GBAS, the most significant recent development has been the approval of the ICAO SARPs for Cat II/III operations. With regard to SBAS, the most significant recent development has been the steady expansion of SBAS infrastructure coverage worldwide. This segment will present the latest developments and discuss the issues with global introduction of the services. Format: Presentation: 2x15' Panel session: 10' Moderator: Christian Schleifer, Secretary General, EUROCAE Speakers/panellists Tim Murphy, Senior Technical Fellow, Boeing Eric Chatre, Head of Exploitation and Evolution, EU Satellite Navigation Programmes, DG for Internal Market, Industry, Entrepreneurship and SMEs, European Commission Additional panellists: Ken Alexander, Chief Scientific and Technical Advisor for Satellite Navigation Systems, FAA	
	Paco Salabert, NAV Unit GNSS focal point, EUROCONTROL Jérôme Condis, Program Manager for Datalink and FMS products, AIRBUS SAS	
17:30 – 19:30	Reception	

DAY 2 - Tuesday, 12 December 2017

Navigation - continued

GNSS tomorrow/Dual frequency, multi-constellation (DFMC)

A global DFMC GNSS infrastructure is being deployed today. The established constellations already standardized by ICAO (GPS and GLONASS) are being modernized by introducing new generation of satellites operating on dual frequencies. New constellations (BeiDou and Galileo) are being deployed globally, with built-in dual-frequency capability. This segment will discuss the potential benefits to aviation from these global developments, and the technical, operational and regulatory issues to be addressed to enable full fruition of those benefits.

Format:

Presentation: 15' Panel session: 45'

Moderator:

09:00 - 10:00

Christian Schleifer, Secretary General, EUROCAE

Speaker/Panellist:

Paco Salabert, NAV Unit GNSS focal point, EUROCONTROL

Panellists:

Tim Murphy, Senior Technical Fellow, Boeing

Eric Chatre, Head of Exploitation and Evolution, EU Satellite Navigation Programmes, DG for Internal Market, Industry, Entrepreneurship and SMEs, European Commission

Ken Alexander, Chief Scientific and Technical Advisor for Satellite Navigation Systems, FAA Jérôme Condis, Program Manager for Datalink and FMS products, AIRBUS SAS

Surveillance I

Airborne collision avoidance system (ACAS) evolution

10:00 – 10:30 Existing ACAS is effective in mitigating the risk of mid-air collisions. However, with consideration of the future environment, it is expected to implement an improved ACAS, which should 1) be capable of accommodating reduced separation minima and other new procedures such as 4D trajectory management, 2) minimize "nuisance alerts" while maintaining existing levels of safety, and 3) ensure interoperability with current ACAS operation. This segment will present new ACAS development and



discuss future ACAS operation.

Format:
Presentation: 20'
Q&A: 10'

Speakers/ Panellists:
Christian Aveneau, Senior expert at the "En-route ATM" department, DGAC/DSNA France
Doug Arbuckle, Technical Advisor, FAA Air Traffic Organization/ Surveillance Panel (SP)

Q&A Moderator:
Doug Arbuckle, Technical Advisor, FAA Air Traffic Organization/ Surveillance Panel (SP)

10:30 – 11:00

Coffee Break

Surveillance II
Automatic Dependent Surveillance-Broadcast (ADS-B) improvement

ADS-B is recognized as one of the important enablers of global ATM operational concept and has been

11:00 - 12:10

Format:

globally.

Presentation: 40' Panel session: 30'

Moderator:

Doug Arbuckle, Technical Advisor, FAA Air Traffic Organization/ Surveillance Panel (SP) Chairperson

used by ground ATM systems and some airborne ADS-B IN systems. To expand the benefits driven by operation of ADS-B, further improvements of ADS-B are expected which will enable more efficient and effective aircraft operation. This segment will present innovation and improvements of ADS-B planned

	Speakers/panelists: Vincent Capezzuto, Chief Technology Officer and Vice President of Engineering, Aireon Christophe Hamel, Director, Business Development, L3T-ACSS-Thales Rick Berckefeldt, Senior Program Manager, Surveillance Programs, Advanced Technology, Honeywell Nico de Gelder, Senior Scientist, Cockpit and Flight Operations Dept., Netherlands Aerospace Centre - NLR Additional panelist: Rocky Stone, Chief Technical Pilot - Surveillance, United Airlines Dan Allen, Managing Director, Flight Technical and Regulatory Compliance, FedEx
12:10 – 12:30	ICAO - Standardization Making Organisations agreements signature ceremony Moderator: Stephen Creamer, Director, ICAO Air Navigation Bureau
12:30 – 14:00	Lunch Break

Information Management

DAY 1 – Monday, 11 December 2017		
12:30 – 14:00	Lunch Break	
14:00 – 14:20	The need for global SWIM standards Speaker: Alexander Pufahl, Information Management Technical Officer, ICAO	
14:20 – 14:40	Update on SWIM activities of the United States of America and experiences gained through the Mini Global 2 Demonstration Speaker: Steve Bradford, Chief Scientist, FAA	
14:40 – 15:00	Update on SWIM activities in Europe and experiences gained through the SESAR SWIM Global Demonstration Speaker: Paul Bosman, Head of ATM Strategies Division, EUROCONTROL	
15:00 – 15:30	Coffee Break	
15:30 – 15:50	Update on SWIM activities in the Asia Pacific (APAC) region and the planning for the ASEAN project's SWIM Demonstration Speakers: Dr. Amornrat Jirattigalachote, Strategic Planning Assistant Manager (Engineering), Aeronautical Radio of Thailand Ltd.	

	Update on SWIM activities in the Asia Pacific (APAC) region using the example of CARATS in Japan		
15:50 – 16:10	Speakers/ Panellists:		
	Takafumi Nakada , Senior Program Manager, Strategy and Planning, Electronic Navigation Research Institute (ENRI), Japan		
16:10 – 16:30	A military service provider's perspective of SWIM and experiences gained of initial implementation efforts. Speakers/ Panellists:		
	Michael Frick, Captain, German Air Force		
	Q&A		
	Moderator:		
16:30 – 17:00	Jean-Francois Grout, Assistant Director ICAO relations, IATA, IMP Chair Panellists :		
	Steve Bradford, Chief Scientist, FAA Paul Bosman, Head of ATM Strategies Division, EUROCONTROL Dr. Amornrat Jirattigalachote, Strategic Planning Assistant Manager (Engineering), Aeronautical Radio of Thailand Ltd. Michael Frick, Captain, German Armed Force Takafumi Nakada, Senior Program Manager, Electronic Navigation Research Institute (ENRI)		
17:30 – 19:30	Reception		

DAY 2 – Tuesday, 12 December 2017	
	Overview of Day 2 of the IM session
09:00 - 09:10	Speaker:
	Alexander Pufahl, Information Management Technical Officer, ICAO

09:10 - 09:30	A technologist's perspective of SWIM and experiences gained of various industry implementation efforts. Speaker: David Almeida, Director of ATM Analysis & Engineering, ATM Services Division, LS Technologies	
09:30 - 09:50	A technologist's perspective of SWIM and experiences gained through initial industry implementation efforts Speaker: Emile-Henri Balland, Information Management Expert, ATM Division, Thales	
09:50 - 10:10	A technologist's perspective of SWIM and an assessment of emerging technologies that are available on the market. Speaker: Jim Crabbe, Principle Product Manager, The Boeing Company	
10:10 - 10:30	An airline's perspective of SWIM and experiences gained of initial implementation efforts Speaker: David M. Vogt, General Manager, Air Traffic Management, Delta Airlines	
10:30 - 11:00	Coffee Break	
11:00 – 11:20	An operational perspective of SWIM and the relationship to Trajectory Based Operations Speaker: Dr. Stephane Mondoloni, Senior Principal Engineer, Center for Advanced Aviation System Development, The MITRE Corporation	

11:20 – 11:40	An airline operations center's perspective of SWIM and the benefits of sharing information within the airline. Speaker: Dr. Steve Altus, Technical Fellow, Digital Aviation & Analytics, Boeing Global Services, Jeppesen		
11:40 – 12:00	An avionics manufacturer's perspective of SWIM and the benefits of integrating the airplane as a node within the network. Speaker: Rick Heinrich, Director, Strategic Initiatives, Rockwell Collins		
12:00 – 12:30	Q&A Moderator: Mark Libant, Manager, Flight Information Services Automation & Advanced Cloud Computing, NAV CANADA Speakers/ Panellists:		
12:30 - 14:00	Lunch Break		

The future of Civil/military cooperation

Building together the future of cooperation

DAY 1 – Monday, 11 December 2017		
12:30 – 14:00	Lunch Break	
14:00 – 14:05	The future of Civil/military cooperation stream opening	
	Chris Dalton, Chief Airspace Management and Optimization section, ICAO	
	Civil/military cooperation opening Keynote	
14:05 – 14:20	Major General Brian S. Robinson, Assistant Deputy Chief of Staff Operations, Headquarters U.S. Air Force	
	Airspace, a common resource effectively managed collectively?	
	Reduced (or absence of) civil/military cooperation may have a direct negative impact on safety as well as capacity and efficiency. What is the current status of cooperation and what are the future challenges to increasing flexibility needs on both sides? How can these negative impacts be mitigated against?	
	Format: Panel session: 40'	
14:20 – 15:00	Moderator: Allan Storm, Deputy, Civil-Military Aviation Integration Chief, NextGen Lead Service Office, US DOD	
	Panellists: Colonel Pierre de Goumoëns, Head of Military Aviation Regulation, Swiss Air Force Group Captain Patrick Cooper, Officer Commanding 44 Wing, Royal Australian Air Force Suttipong Kongpool, Executive Vice President, AEROTHAI (CANSO) Cdr Nicholas Slocombe, SO1 Airspace - Defence Airspace and Air Traffic Management, UK MOD Noppadol Pringvanich, ATM Infrastructure – Head of Engineering and Spectrum, IATA	
15:00 – 15:30	Coffee Break	

Mission trajectories

The future will see trajectory-based operations where civil users will plan to more complex, but optimum routing. How will military "mission trajectories" be accommodated in this future environment? How will mixed mode operations for compatible traffic (refuelling, formation and test flights, RPAS, ..) be dealt with? What procedures, training and infrastructure components should be developed and implemented? Could temporary segregation be appropriate temporary solutions and are there requirement for new concepts?

15:30 - 17:00

Format:

Presentations: 4 x 9': 36' Panel session (Q&A): 54'

Moderator:

Michael Standar, Chief Strategy & External Affairs, SESAR JU

Speakers/ Panellists:

Eric Billard, Head of ATM/CMC/ARD Unit, EUROCONTROL CMAC

Klaus Dieter Hermann, Project Manager, Air Dominance, Airbus Defence and Space

Brendan Kelly, Operations Steering Committee Chairman, CANSO Rob Eagles, Director Air Traffic Management and Infrastructure, IATA

17:30 - 19:30Reception

DAY 2 - Tuesday, 12 December 2017

Cyber threats

SWIM participation by military authorities will be key to universalizing the concept and enabling all parts of the community to exchange important and sometimes sensitive information. How will military agencies securely access shared information using SWIM? Are civil and military ground-ground and air-ground cyber-security solutions interoperable? What are the required steps to develop a security policy for CNS and SWIM? How will ICAO Public Key Infrastructure affect the military users?

09:00 - 10:30

Format:

Presentations: 6 x 8': 48' Panel session (Q&A): 42'

Speaker	· and	$N/I \cap d$	lerator:	
SUCAILLI	anu	IVIUU	iciatoi.	

Daniel Johnson, Director, National Aviation Intelligence Integration Office

Speakers/ Panellists:

Timo Blunck, ATM/CNS Security Expert, ATM/CMC/SEC Unit, EUROCONTROL CMAC Daniel Hanlon, Director, Federal, Civil & Homeland Security, Raytheon Philippe Jasselin, ATM Cyber-Security Expert, Thales

10:30 - 11:00

Coffee Break

Interoperability

How can civil-military ATM/CNS interoperability and mixed-mode accommodation be increased? What are the options for military airspace users to seamlessly access the civil network and operate in nonsegregated airspace? What are the options for military users integration? How will civil-military ATM/CNS technology convergence be ensured? How can military capabilities meet civil performance criteria?

Format:

Presentations: 5 x 8': 40' Panel session (Q&A): 50'

11:00 – 12:30 Moderator:

Paul James, Staff Officer Aerospace Capabilities, Defence Investment, NATO

Speakers/ Panellists:

Christophe Vivier, Head of Unit SES/SESAR, European Defence Agency

Lance King, Senior Policy Advisor, Airworthiness & Airspace Integration, Aerospace Systems, Northrop **Grumman Corporation**

Jorge Pereira, Head of ATM/CMCV/CNS Unit, EUROCONTROL CMAC

Warren Beeston, ATM Expert - Operational Authority Director, Thales

Klaus Dieter Hermann, Project Manager, Air Dominance, Airbus Defence and Space

12:30 - 14:00

Lunch Break

SWIM

SWIM participation by military authorities will be key to universalizing the concept and enabling all parts of the community to exchange important and sometimes sensitive information. How will civil-military interoperability for SWIM technical infrastructure be enabled? What are going to be the services, information exchange models and governance for civil-military exchanges in SWIM?

Format:

Presentations: 6 x 5': 30' Panel session (Q&A): 30'

14:00 - 15:00

Moderator:

Jorge Pereira, Head of ATM/CMCV/CNS Unit, EUROCONTROL CMAC

Speakers/ Panellists:

John Bernard, Global Strategy and Business Development Manager, SkyFusion & SWIM International, Harris Corporation

Colonel Yann Pichavant, International Affairs Office, French Military Aviation Authority Emile-Henri Balland, Information Management Expert, ATM Division, Thales

15:00 - 15:30

Coffee Break

RPAS Integration

This session will consider the challenges to integrate RPAS into the global ATM system. How can recent military R&D support the increase of RPAS integration in ATM? Will UAS Traffic Management (UTM) impact State aircraft operations?

Format:

15:30 – 16:15 Panel session (Q&A): 45'

Moderator:

Lance King, Senior Policy Advisor, Airworthiness & Airspace Integration, Aerospace Systems, Northrop **Grumman Corporation**

Panellists:

Christophe Vivier, Head of Unit SES/SESAR, European Defence Agency
Barney Owens, DoD UAS Certificates of Authorization (COA) Manager, US DOD
Paul James, Staff Officer Aerospace Capabilities, Defence Investment, NATO
Brandon Suarez, Technical Director for UAS Civil Airspace Integration, General Atomics

How can civil/military cooperation increase military mission effectiveness?

This session will consider how for military authorities to use civil/military cooperation as an opportunity to increase their military mission effectiveness and even better facilitate their military requirements.

Format:

Panel session: 45'

16:15 - 17:00

Moderator:

Allan Storm, Deputy, Civil-Military Aviation Integration Chief, NextGen Lead Service Office, US DOD

Speakers/ Panellists:

Brigadier Luiz Ricardo, Director Operations, DECEA - Brazil
Group Captain Patrick Cooper, Officer Commanding 44 Wing, Royal Australian Air Force
Cdr Nicholas Slocombe, SO1 Airspace - Defence Airspace and Air Traffic Management, UK MOD
Denis Koehl, Senior Military Advisor, EASA
Eric Billard, Head of ATM/CMC/ARD Unit, EUROCONTROL CMAC

17:30 – 19:30 *Reception*



Cyber threats

DAY 2 – Tuesday, 12 December 2017			
12:30 – 14:00	Lunch Break		
14:00 – 15:00	What cyber threats can do to the aviation industry With the increase in the digital connectivity between ground and air systems, vulnerabilities of the air navigation system also increased. These vulnerabilities must be identified and corrected to maintain the necessary levels of safety and efficiency aviation needs to continue with the confidence of the travelling public.		
	Format: Presentation: 2 x 30' Moderator: Dan Diessner, Senior Engineering Manager - Cyber Security & Software Integration, Boeing		
	Speakers: Daniel Johnson, Director, National Aviation Intelligence Integration Office Prof. Chris Johnson, Head of Computing Science, Glasgow University		
15:00 – 15:30	Coffee Break		
15:30 – 17:00	How to face cyber threats - The strategy for cyber safety To cope with the forecast demand and the new types of aircraft and operations, the aviation system is becoming more and more reliant on digital exchange of data and information between ground-ground and air-ground systems. This communication technology is crucial for the safe and efficient development of civil aviation and must be protected against cyber threats to keep and/or enhance the levels of safety aviation has been experiencing the last years. Format: Presentation: 4 x 15' Panel session: 30'		



Moderator:

Scott Simon, National Intelligence Manager, National Aviation Intelligence Integration Office

Speakers/ Panellists:

Philippe Jasselin, ATM Cyber-Security Expert, Thales

Declan Byrne, President, WiMAX Forum

Dan Diessner, Senior Engineering Manager - Cyber Security & Software Integration, Boeing

Terrance Kirk, Director of Global Operations at the Aviation Information Sharing Analysis Center (Aviation

ISAC)

17:30 – 19:30 *Reception*

DAY 3 - Wednesday, 13 December 2017

Initiatives to assist industry with building globally interoperative resilient system

As a pressing matter, different stakeholders are taking different initiatives to protect their system against cyber threats. In this respect, ICAO is working with all stakeholders to develop a network which will reduce the vulnerabilities inherent to connected systems using internet protocols.

Format:

Presentation: 3 x 20' Panel session: 30'

09:00 - 10:30

Moderator:

Saulo Da Silva, Chief Global Interoperable Systems Section, ICAO

Speakers/ Panellists:

Jerry Hancock, Director Aviation Cybersecurity, Inmarsat

Hillman Mitchell, Director of Enterprise and Architecture, AtFCyber

Terry Davis, Chief Scientist & Founder, AtFCyber **Tony Hain**, Director of Cyber Security, AtFCyber

Rob Segers, Information Security Systems Engineer, FAA

10:30 – 11:00 *Coffee Break*



What have the States achieved so far to building a resilient system?

States face the same cyber challenges as industry; balancing operational needs and cybersecurity requirements, but with the added complexities of managing and maintaining critical infrastructure. Meanwhile, industry continues to quickly adopt advanced widely-impacting technology faster than national policy can be adopted. Learn the coordination efforts and initiatives being taken between industry and governments to maintain the cybersecurity, cyber safety and cyber resilience (both political and operational) of the aviation system while focusing on maintaining aviation's enviable safety record.

11:00 - 12:30

Format:

Presentation: 4 x 15'
Panel session: 30'

Moderator:

Poppy Khoza, Director General, South Africa CAA

<u>Speakers/ Panellists</u>:

Patrick Mana, Centralised Services Programme Project Manager, EUROCONTROL - tentative Jean-Paul Moreaux, Cybersecurity in Aviation Program Manager, EASA Francesco Di Maio, Chair of the ATM Security WG, CANSO

12:30 - 14:00

Lunch Break

Airport operational performance

DAY 2 – Tuesday, 12 December 2017			
12:30 – 14:00	Lunch Break		
14:00 – 14:10	Airport operational performance stream opening Yong Wang, Chief Airport operations and infrastructure section, ICAO		
14:10 – 15:00	Capacity and Efficiency - Role of airport master planning and its impact on capacity and efficiency The rapid growth of air transport is overtaxing the capacity of many airports and giving cause for reconsideration of concepts, processing methods and facilities. An airport masterplan is the most effective framework within which the individual facilities can operate their separate functions at the highest possible level of efficiency. The importance of balancing the respective capacities of the many elements and of ensuring flexibility and expansibility to meet changing demands is vital. Through precise and up-to-date planning of airfield and terminal infrastructure, capacity will be increased and airport delays will be reduced. Format: Presentations: 4 x 12' Moderator: Farid Zizi, Senior Adviser, STAC/DGAC France Speakers/ Panellists: David Stewart, Head, Airport Development, IATA Marco Plarre, Technical Director, Airport Planning, CH2M Hill Martin Landry, Principal, Aviation, Arup Russell Blanck, Associate Vice President, Landrum & Brown		
15:00 – 15:30	Coffee Break		
15:30 – 16:00	Capacity and Efficiency - Role of airport master planning and its impact on capacity and efficiency - Panel Format: Panel discussion: 30'		



Moderator:

Farid Zizi, Senior Adviser, STAC/DGAC France

Panellists:

David Stewart, Head, Airport Development, IATA Marco Plarre, Technical Director, Airport Planning, CH2M Hill Martin Landry, Principal, Aviation, Arup Russell Blanck, Associate Vice President, Landrum & Brown

Capacity and Efficiency – Improved airfield design enhances airport capacity and efficiency

Existing aerodrome design specifications were derived before the advent of modern, new large aircraft. Studies have revealed significant over-provision in certain design specifications making it more difficult to accommodate larger aircraft and increasing traffic in constrained airfield facilities. Overbuilding of airfield infrastructure is burdensome for both initial construction and recurrent maintenance. Updated and improved specifications will preclude unnecessary expansion/relocation and ensure efficient use of land surface particularly at aerodromes where real estate is at a premium. Innovations in technology such as aircraft with folding wings/wingtip, expected to be in commercial service by 2020, is expected to improve congestion at many airports. Other innovations targeted to enhance airfield capacity and efficiency such as the use of "follow the greens" concept introduced at several aerodromes are expected to further assist in timely and important decision-making processes by all stakeholders.

16:00 - 17:00

Format:

Presentation: 3 x 15' Panel session: 15'

Moderator:

Farid Zizi, Senior Adviser, STAC/DGAC France

Speakers/ Panellists:

Willy Pierre Dupont, Director, Airport Operations, Airbus SAS Evanicio Costa, Lead Engineer – Boeing Airport Compatibility Engineering, The Boeing Company Maksood Moidin Kadike, Global Airports Technology Leader, Honeywell Airports Business



17:30 – 19:30 *Reception*

	DAY 3 – Wednesday, 13 December 2017
	Capacity and Efficiency – Total Airport Management System (TAMs)
09:00 – 10:30	Planning and management of airport operations to allow their full integration in air traffic management using performance targets compliant with those of the surrounding airspace. This entails implementing collaborative airport operations planning (AOP) and where needed, an airport operations centre (APOC). ACI has developed the concept of airports as ground coordinators, similar to the conductor of an orchestra, where the airport operator coordinates or facilitates the operational decisions that are needed to keep the airport running smoothly and efficiently in the face of everyday perturbations, and unlock potential reserves of capacity, performance and efficiency in the system. This requires a partnership approach between airlines, ATC and the airport operator, to manage constraints in airspace, runway, and equally terminal and landside capacity. Format: Presentation: 3 x 20'
	Panel session: 30'
	Moderator:
	David Gamper, Director, Safety, Technical and Legal Affairs, Airports Council International
	Speakers/ Panellists:
	Karl-Heinz Keller, Business Manager and TAM Coordinator, DLR Wil MacMillan, Director, A-CDM Implementation, Greater Toronto Airports Authority Luc Laveyne, Senior Adviser -Single European Sky, ACI Europe, ACI-Europe
10:30 – 11:00	Coffee Break
	Aerodrome obstacle management
11:00 – 12:30	In the context of an assured safety environment, the degree of freedom from obstacles at and in the proximity of an aerodrome should be balanced in order to ensure an efficient use of the aerodrome. Existing Annex 14 surfaces requirements mostly reflect considerations applicable before the 1970's, thus resulting in very conservative and strict protection limits. Annex 14 requirements need to be expanded



and enhanced to fit any type of operations required at an airport in both near-term and long-term conditions.

The ICAO Aerodrome Design and Operations Panel (ADOP) and the Instrument Flight Procedures Panel (IFPP) are working closely to address and enhance safety and efficiency in the assessment, control and management of obstacles at and in the vicinity of an aerodrome. An Operational Concept has been developed that serves as a means to lay down the foundation for the revised Annex 14 surfaces, as envisaged. The Operational Concept identifies the deficiencies of the existing system and the impact of those deficiencies on the operations. Additionally, it describes the solution for the indicated issues and the benefits associated with its implementation. This forum will be an important opportunity to gather feedback on the proposed concept and agree on the best way forward to enhance airport operational performance.

Format:

Presentation: 50' Panel session: 40'

Moderator:

Farid Zizi, Senior Adviser, STAC/DGAC France

Speakers/ Panellists:

Fadzil Zakaria, Senior Air Traffic Control Support Manager (ANS Policy and Planning), CAA Singapore **Aubin Lopez**, Project manager in aerodrome safety, Direction Generale de l'Aviation Civile, France **Thomas Meyer**, Managing Director, Regional Aerodromes Association of Germany (IDRF), ACI **Roberta Luccioli**, Technical Officer, ICAO

12:30 – 14:00 Lunch Break

Meteorology

DAY 3 - Wednesday, 13 December 2017

Evolution of aeronautical meteorological (MET) services

Improvements to our understanding of meteorological science are enabling huge advances in the quality and accuracy of forecasts. These are bringing tangible safety and efficiency benefits to aviation. However today's products and services are still being provided to the requirements of the 1950s era (i.e. aircraft with servo-mechanical instrumentation) and delivered using communications based on teletype. Meteorological services can now provide a tremendous amount of high quality weather information, at a high resolution in both time and space, and tailor it to flight planning and decision making requirements as they exist now and as they evolve into the future. In this critical period of change, there is a window of opportunity to further improve meteorological information to better meet the needs of aviation. An overview of these opportunities will be discussed including an examination of the dependency of many GANP objectives upon the availability of corresponding meteorological services.

Format:

Presentation: 3 x 15' Panel session: 45'

09:00 - 10:30

Moderator:

William Maynard, Vice chairman of ICAO Meteorology Panel, Aeronautical Meteorologist, Transport Canada

Speakers/ Panellists:

The Future of Global Aviation Meteorology - a quiet revolution gaining pace now

Peter Lechner, Chairman of the ICAO Meteorology Panel, Chief Meteorological Officer, Civil Aviation Authority of New Zealand

The ICAO Meteorological Information Exchange Model (IWXXM) and the transition to a System Wide **Information Management (SWIM) Environment**

Sue O'Rourke, National Manager Aviation Meteorological Program, Bureau of Meteorology

Advancing weather and climate science to serve aviation's evolving needs

Greg Brock, Scientific Officer, Aeronautical Meteorology Division, World Meteorological Organization



10:30 - 11:00	Coffee Break
10:30 - 11:00	Future aviation MET information delivery It is not sufficient to just provide more and better weather information. We must provide exactly what is needed, exactly when it is needed, in the most straight-forward and most cost-effective manner possible. The delivery method must be seamless and global, while the content must be comprehensive in addressing all current and future flight planning requirements. These themes, along with the pending introduction of Space Weather information services and the expansion of the use of advisories for hazardous meteorological conditions, are presented as case studies for the transition of the future. Format: Presentation: 3 x 15' Panel session: 45'
	Space Weather Services for Aviation, An Emerging Capability Bob Rutledge, Lead of Operations, NOAA Space Weather Prediction Center, United States
12:30 – 14:00	Lunch Break

GANIS wrap-up

DAY 3 – Wednesday, 13 December 2017	
12:30 - 14:00	Lunch Break
14:00 – 15:00	Moderated by ICAO Air Navigation Bureau Director, this panel will address the challenges identified in the different streams and identify the way ahead. Format: Panel session: 60' Moderator: Stephen Creamer, Director, ICAO Air Navigation Bureau Panellists: Nancy Graham, President, Graham Aerospace International Dorothy Reimold, Director for Strategic Operations for Commercial Space Transportation, FAA Christian Schleifer, Secretary General, EUROCAE Jean-Francois Grout, Assistant Director ICAO relations, IATA Allan Storm, Deputy, Civil-Military Aviation Integration Chief, NextGen Lead Service Office, US DOD Farid Zizi, Senior Adviser, DGAC France William Maynard, Vice chairman of ICAO Meteorology Panel, Aeronautical Meteorologist, Transport Canada Daniel Johnson, Director, National Aviation Intelligence Integration Office
15:00 – 15:30	Coffee Break



Global Forum on PIRGs and RASGs



Global Forum on Planning and Implementation Regional Groups (PIRGs) and Regional Aviation Safety Groups (RASGs)

DAY 3 – Wednesday, 13 December 2017	
09:00 - 09:05	Administrative arrangements
09:05 - 09:15	Keynote Speaker Dr. Olumuyiwa Benard Aliu, President of the Council of ICAO
09:15 - 09:30	Speakers Víctor M. Aguado, Representative of Spain on the Council of ICAO Hajime Yoshimura, President of the Air Navigation Commission
	Panel 1 - Efficiencies and Effectiveness in PIRGs and RASGs This panel will discuss enhancing the efficiencies and the effectiveness of the PIRGs and RASGs structures while focusing on performing or functioning in the best possible manner with the least waste and effort, while doing the rights things to produce the intended or expected result.
	Moderator: Halidou Moussa , Representative of Niger to ICAO, Member of the Air Navigation Commission and Chairperson of the AFI Plan Steering Committee
09:30 - 10:30	Speaker/ Panellists: Review Terms Of References Kevin Shum, Director General - Civil Aviation Authority of Singapore and First Vice-Chair of APANPIRG Develop Standardized PIRG/RASG Reports to Measure Performance Phil Roberts, Former Assistant Director Airspace Policy, CAA House, London and Chairperson EANPG Integrate PIRGs and RASGs into one entity where possible to optimize the use of resources Magueye Marame Ndao Director General of Senegal CAA and Chairperson of APIRG
	Sub-Group Participation and Number of Sub-Groups H.M. C Nimalsiri, DGCA & CEO, Civil Aviation Authority of Sri Lanka and Chairperson of RASG-APAC



	Mitigating Logistical Considerations to Improve Participation Ismaeil Al Blooshi, Executive Director of Aviation Safety Affairs Sector, GCAA, UAE and Chairperson RASG-MID Reviewing Internal Organizational Processes Simon Allotey, Director General, Ghana Civil Aviation Authority Telecommunication and Video Conferencing Strategies Nico Voorbach, Director, ICAO and Industry Affairs, CANSO George Firican Deputy Regional Director (EUR/NAT)
10:30 - 11:00	Coffee Break
11:00 – 11:30	Panel 1 - Efficiencies and Effectiveness in PIRGs and RASGs - Continued
11:30 – 12:30	Panel 2 - Alignment of Regional Plans with Global Plans The panel will discuss ways and means to align National, Regional and Global plans in order to improve the monitoring and execution of these plans by moving quickly from strategy planning to strategy execution. Keynote Speaker: Samuel Campbell Lucas, Representative of Australia on the Council of ICAO Moderator: Kirsten L. Riensema, Alternate Representative of the United Kingdom on the Council of ICAO Speakers/Panellists: Increased Collaboration and Input to Updated Versions Of GANP And GASP Haydar Yalçin, Deputy Director General of the Turkish CAA and Vice chair RASG-EUR Ensure PIRG/RASG Strategies Have Clear Alignment Path with Current GANP/GASP Ahmed Al Jallaf, ADG ANS-GCAA United Arab Emirates Harmonizing National, Regional And Global Plans Carlos Cirilo, IATA Regional Director, Safety and Flight Operations, Americas and Co-Chair RASG-PA, IATA Coordination between Air Navigation and Aviation Safety Aspects Level of State's Political Will to Accomplish Implementation Goals Jacques Boursiquot, Director of Air Navigation, Haiti, Chair GREPECAS Resource Issues Preventing GANP and GASP at the State Level Ásgeir Palsson, Isavia Director of Air Navigation Services, Iceland and Chairperson NATSPG

	Best Practices For Achieving Alignment And Where ICAO Should Focus Efforts For Best Results Terry McVenes, Aviation Safety Manager, ICCAIA (Boeing) Prosper Zo'o Minto'o, Deputy Regional Director (WACAF)
12:30 – 14:00	Lunch Break
14:00 – 14:30	Panel 2 - Alignment of Regional Plans with Global Plans - Continued
	Way Forward for the PIRGs/RASGs and Wrap up
	Based on current and future implementation strategies, the functions and roles within the PIRG/RASG structures to be developed including additional deliverable to be achieved will be discussed. New strategies will be developed in alignment with ICAO Strategic Objectives. The forum will also address the related current Council Decisions regarding PIRGs and RASGs and discuss PIRGs/RAGS TORs.
	Moderator: Claude Hurley, Alternate Representative of Canada on the Council of ICAO, President elect of the Air Navigation Commission and Chair ANC AHWG-Implementation
14:30 – 15:00	Speakers: Experience from One region PIRGs/RASGs Philip Roberts, Former Assistant Director Airspace Policy, CAA House, London and Chairperson
	EANPG
	Haydar Yalçin, Deputy Director General of the Turkish CAA and Vice chair RASG-EUR
	Proposed Strategy for Harmonized Implementation for PIRGs/RASGs Erwin Lassooij, Chief Programmes Coordination and Implementation, ICAO
	Keynote Speaker Closing Remarks:
	Raphael Wambura Bokango, Representative of the United Republic of Tanzania on the Council of ICAO
15:00 – 15:30	Coffee Break



First Safety and Air Navigation Implementation Symposium (SANIS/1)

Implementation Strategies

DAY 3 – Wednesday, 13 December 2017	
15:00 – 15:30	Coffee Break
15:30 – 15:40	Keynote address Dr. Fang Liu, Secretary General of ICAO
15:40 – 17:00	Implementation Strategies The importance of developing new implementation strategies in order to manage current and future challenges will be presented. In addition, how to become more effective and efficient in terms of Planning and Follow-up in the development and implementation of SARPs, Global and Regional Plans will be discussed. Keynote speakers: The importance of Regional Planning and Implementation Mechanisms Poppy Khoza, Director of Civil Aviation, South African Civil Aviation Authority Carlos Cirilo, IATA Regional Director, Safety and Flight Operations, Americas and Co-Chair RASG-PA, IATA Challenges in the Implementation of SARPs and GANP/GASP Claude Hurley, Alternate Representative of Canada on the Council of ICAO, President elect of the Air Navigation Commission and Chair ANC AHWG-Implementation From Concept to Tangible Benefits Stephen Creamer, Director, Air Navigation Bureau, ICAO Outcome of the Global Forum on PIRGs and RASGs Catalin Radu, Deputy Director, Safety, Air Navigation Bureau, ICAO

Modernization of the Air Navigation System

DAY 4 - Thursday, 14 December 2017

The GANP as a driver for the evolution of the global Air Navigation System "A good future is not an extrapolation of the past but is born and raised from its challenges"

The GANP is ICAO's strategic document driving global aviation evolution and supporting the regional and national modernization of air navigation systems. This session focuses on the evolution of the global air navigation system. The following topics will be addressed during this session:

- ➤ GANP 2019
- > Future demand
- Current system
- New concepts
- > Traditional concepts related to safety or access and equity

This session discusses about the need for a transformational change, the readiness of the current system for the forecast demand, major constraints for its evolution/progress as well as traditional concepts related to safety or access and equity in this context. The goal is to obtain feedback as we move forward to the Thirteenth Air Navigation Conference.

09:00 - 10:30

Format:

Presentation: 4x15' Panel session: 30'

Moderator:

Henk Hof, Head of ICAO & Concepts Unit, EUROCONTROL

Speakers:

Global Air Navigation Plan (GANP) Evolution and Introduction of the 2019 edition

Steve Bradford, Chief Scientist, NextGen

The Aviation System Block Upgrade Framework- enabling technology, leadership of the aviation sector Don-Jacques Ould-Ferhat, Head of ATM & Ops Efficiency Solutions, NAVBLUE

The future is closer than we think- challenges ahead

Nancy Graham, President, Graham Aerospace International

Traditional concepts such as Safety or access and equity in the future system

Hajime Yoshimura, President of the Air Navigation Commission

10:30 - 11:00

Coffee Break



GANP- Regulators, manufactures, air navigation service providers and airspace users challenges

"The devil is in the details"

The session focuses on the challenges that the evolution of the air navigation system will bring for the different stakeholders, as a continuation of the previous session. The main topics to be addressed during this session are:

- Competing demands
- Interoperability
- > The role and responsibilities of humans

This session discusses the main challenges identified by the different stakeholders and how to mitigate them to be reflected in the GANP. The goal is to obtain feedback as we move forward to the Thirteenth Air Navigation Conference.

Format:

Presentation: 4 X 15' Panel session: 1 x 30'

11:00 - 12:30

Moderator:

Michael Comber, Director, Member and External Relations, ICAO, IATA.

Speakers:

Added value in ensuring customer satisfaction-

Richard Heinrich, Director, Strategic Initiatives, ICCAIA / Rockwell Collins

Ensuring interoperability of ground systems

Francois Delille, Director , ATM Strategy, Thales

End users challenge in the deployment of the GANP. The change on the role of Pilots

Mike Jackson, Representative to ICAO, IFALPA

CAAMS- China's strategy for modernizing air traffic management. Challenges

Cai Kaiquan, Associate Professor with Beihang University, Beijing, China, and deputy director of CNS/ATM Lab., CAAC, China

12:30 – 14:00 Lunch Break

GANP- Supporting the modernization of the air navigation system

"No State and stakeholder left behind"

The session focuses on how in a time of change, the GANP supports more than ever, air navigation implementation in high-income economies and brings new opportunities to low-income economies to leapfrog other countries in air navigation performance by adopting technological innovations that are suitable to their specific needs while ensuring global interoperability and seamlessness. This session discusses about the rationality behind this approach to implementation, including safety and environment benefits. The goal is to obtain feedback as we move forward to the Thirteenth Air Navigation Conference.

Format:

Presentation: 4 X 10' Panel session: 1 x 20'

Moderator:

14:00 – 15:00 William Voss, former Director of the Air Navigation Bureau and USA Air Navigation Commissioner representative.

Speakers:

Modernization of the Air Navigation System. Cost- benefit analysis, environmental impact assessment and Safety Assessment

Mariagrazia La Piscopia, SESAR Deployment Manager/Deputy Director Technical and Operations & Planning Manager

NAANP- From the GANP to the NAANP. The New Southern Sky Concept of Operations 2023.

Mark Hughes, Deputy Director Air Transport and Airworthiness, New Zealand CAA Airspace users expectations.

Rob Eagles, Director Air Traffic Management and Infrastructure, IATA

Leapfrog the more advanced ANS with technological innovation and become international leaders on the provision of air navigation services.

Fola Akinkuotu, Managing Director/CEO Nigerian Airspace Management Agency

15:00 - 15:30 Coffee Break

GANP- The added value of a performance-based approach

"Fall in love with the problem, not with the solution" 15:30 - 17:00

The GANP encourages the adoption of a performance-based approach for a cost effective implementation of air navigation improvements, while ensuring interoperability and harmonization of procedures. This session will address the following topics:



- Performance based approach
 - Analysis of needs
 - Deployment of optimum solutions
- Role of the ASBUs in this approach

A decision-making support tool developed by ICAO for enhancing the performance of the air navigation system based on the deployment of operational improvements outlined in the ASBU framework is presented. This session discusses the advantages and challenges of a performance based approach. The goal is to obtain feedback as we move forward to the Thirteenth Air Navigation Conference.

Format:

Presentation: $4 \times 10' + 1 \times 15'$

Panel session: 1 x 35'

Moderator:

Nico Voorbach, Director, ICAO and Industry Affairs, CANSO

Speakers:

The value of Performance management in the modernization of the Air Navigation System. Advantages and challenges

Hartmut Koelman, Senior Expert, EUROCONTROL

The importance of knowing your system and setting objectives

John Gulding, Manager FAA/ATO Strategic Analysis and Benchmarking, FAA

Assess achievements of objectives

Colonel Abreu, General Project Manager CISCEA, Brazil

AASBU- Decision-making support tool. Select solutions to exploit opportunities and resolve issues

Saulo Da Silva, Chief Global Interoperable Systems Section, ICAO

Mobilizing resources to improve performance of the Air Navigation system

Ambassador Philippe Bertoux, Representative of France to the ICAO Council

Louis Bakienon, Director of Operations of ASECNA

Prosper Zo'o Minto'o, Deputy Regional Director, WACAF, ICAO

DAY 5 – Friday, 15 December 2017

GANP - Collaboration and sharing of best practices- industry partnership and regional initiatives "Working together towards a common future"

In order to ensure global, regional and national alignment in planning the modernization of the air navigation system, a multilayer structure is proposed for the 2019 edition of the GANP. This structure identifies regional and national planning as part of the GANP. This session discusses air navigation implementation initiatives taking place at a regional level focusing on partnership and collaboration. The goal is to obtain feedback as we move forward to the Thirteenth Air Navigation Conference.

Format:

Presentation: 4 x 15' Panel session: 1 x 30'

09:00 - 10:30

Moderator:

Carlos Cirilo, Regional Director, Safety and Flight Operations, The Americas, IATA

Speakers:

Modernisation of the ANS/Working together towards a common future Session: from SJU/SDM on the industrial partnership approach taken here in Europe and its benefits

Heiko Teper, Deployment Plan Realisation Manager, SESAR DM

CANSO/COSESNA approach to the modernization of the Air Navigation System-

Fernando Soto, ATM Officer, Agencia Centroamericana de Navegación Aérea, (ACNA), COCESNA Regional mechanisms for monitoring and reporting performance and implementation

Moti Shmueli, Director of aviation infrastructure division, CAA of Israel

UAE experience and strategic plan for ATM in the MID Region. Collaboration-

Ahmed Al Jallaf, Assistant Director General, ANS, UAE GCAA

10:30 - 11:00

Coffee Break

GANP - The positive impact of a national development plan and national air navigation plan "Aviation as an economic driver"

The development by States of robust National Air Navigation Plans, align with regional and global plans is 11:00 – 12:30 crucial to achieve a global interoperable and seamless system, for all airspace users, during all phases of flight. Furthermore, the national air navigation plans represent an investment opportunity to the States. The adoption of the 2030 Agenda for Sustainable Development recognizes aviation as an enabler of economic progress and social development. This session discusses the relevance of National Air Navigation Plans, combined with National Development Plans, in the performance of the global air navigation system



and the economy of the Nations of the World. The goal is to obtain feedback as we move forward to the Thirteenth Air Navigation Conference.

Format:

Presentation: 4 x 15' Panel session: 1 x 30'

Moderator:

Victor Aguado, Representative of Spain on the Council of ICAO

Speakers:

Prioritizing sustainable aviation in national development plans and the linkages to national air navigation plans

Henry Gourdji, Head, Strategic Planning, Coordination and Partnerships, ICAO

Prioritization of aviation in Iran's national development plan and its links to the national air navigation plan

Arash Khodaei, Vice President Civil Aviation Organization, I.R.IRAN

Prioritization of aviation in Zambia's national development plan and national air navigation plan, progress achieved

Gabriel Lesa, Director General, CAA Zambia

A donors perspective on the importance of having an structure framework for the modernization of the air navigation system

ARUP

12:30 – 14:00 Lunch Break



Safety

	DAY 4 – Thursday, 14 December 2017	
	Global Aviation Safety Plan (GASP) 2020-2022 Edition	
	The GASP is ICAO's strategic document for improving safety. This session will include a discussion on the proposed Goals and Targets for the next GASP, addressing current and emerging safety risks, the role of the regions including RSOOs, and Member States. The Goal is to obtain feedback on the proposed GASP Goals and Targets, as we move forward to the Thirteenth Air Navigation Conference	
	Format: Presentation: 3 X 20' Panel session: 30'	
	Moderator:	
09:00 - 10:30	Catalin Radu, Deputy Director, ICAO Air Navigation Bureau	
	Speakers/ Panellists:	
	European Plan for Aviation Safety: A Regional Safety Strategy Rodrigo Priego, Safety Programmes Section Manager, EASA India's State Safety Plan: implementing the GASP at the National Level Maneesh Kumar, Director Air Safety, Director General of Civil Aviation, India The Global Aviation Safety Plan: Goals and Targets for the Next Decade Martin Maurino, Safety, Efficiency and Operations Officer, ICAO	
	Additional panellists:	
	L.P. Vanstory, Manager, International Aviation Safety Assessment (IASA) Program, FAA Simon Allotey, Director General, Ghana Civil Aviation Authority John Monks, Head of Aviation Safety, Risk, and Compliance, British Airways	
	Joachim Luecking, Head of Aviation Safety Unit, DG for Mobility and Transport, European Commission	
10:30 - 11:00	Coffee Break	
11:00 - 12:30	GASP Implementation at the Regional and National Levels	
	The GASP calls for regional entities, such as the RSOOs, COSCAPs, RASGs, and Member States to implement	

safety plans at the regional, sub-regional and national levels. This session will include discussions on the success stories by the different stakeholders in national/regional safety planning, implementation and monitoring of safety initiatives.

Format:

Presentation: 5x12' Panel session: 30'

Moderator:

Luc Tytgat, Director of the Strategy and Safety Management Directorate, EASA and ASIAP Co-Chair

Speakers/ Panellists:

Oscar Quesada, Acting Regional Director, ICAO Lima

David Gamper, Director, Safety, Technical and Legal Affairs, Airports Council International

Halidou Moussa, Chairperson of the AFI Plan Steering Committee

Sanjiv Gautam, Director General, Civil Aviation Authority of Nepal

Mohammad Al Dossari, Director Air Navigation & Aerodromes Department, General Civil Aviation Authority, United Arab Emirates

12:30 – 14:00 Lunch Break

GADSS – Challenges of implementation

To enable the timely flow of information among stakeholders when an aircraft is in distress.

What is ICAO role/view?

An effective and globally consistent approach to improving the alerting of search and rescue services is essential to rescue survivors after an aircraft accident. The key to achieving this objective is efficient information management.

14:00 - 15:00

Format:

Presentation: 3 x 10' Panel session: 30'

Moderator:

Miguel Marin, Chief Operational Safety, ICAO



Speakers/ Panellists:

Role of information management in GADSS

Henk Hof, Head of ICAO & Concepts Unit, EUROCONTROL

Information distribution

Steve Lett, Head of Secretariat, International Cospas-Sarsat Programme, COSPAS/SARSAT

GADSS enhancement to SAR activities

Dave Edwards, ICAO-IMO, US Coast Guard

15:00 - 15:30

Coffee Break

Improvement of RSOOs and the Establishment of a Global System for the Provision of Safety Oversight

The Forum on Regional Safety Oversight Organizations (RSOOs) for Global Aviation Safety, which was held from 22 to 24 March 2017 in Ezulwini, Swaziland, recognised that there is a need for safety oversight systems to adapt to the future demands of a rapidly expanding aviation industry. To meet these growing challenges the Forum supported a global strategy and action plan including a proposal for a global aviation safety oversight system (GASOS). This session will examine the challenges faced by RSOOs and discuss the establishment of the GASOS.

Format:

Presentation: 30' Panel session: 60'

15:30 - 17:00

Moderator:

Alan Foo, Adviser (Aviation Safety), Office of the Representative of Singapore on the Council of ICAO

Speaker/ Panellist:

Catalin Radu, Deputy Director, ICAO Air Navigation Bureau

Additional panellists:

Jussi Myllarniemi, EASA Representative to ICAO
Jeffrey Wool, Secretary General, Aviation Working Group
LP. Vanstory, Manager, International Aviation Safety Assessment (IASA) Program, FAA
Ben Alcott, Head, International Directorate, UK CAA
Nari Williams-Singh, Director General, Jamaica CAA & Chairman CASSOS



DAY 5 - Friday, 15 December 2017

Emerging Issues

International civil aviation is an extremely dynamic sector, whether from the technological, operational or political perspective. In light of its historic record for rapid adaptation of new innovations, not to mention the new challenges which regularly arise, ICAO must be able to respond quickly and effectively. In this panel we shall discuss three of the emerging issues.

1- Risks posed by the transport of lithium batteries by air

09:00 - 09:15

Lithium batteries are an indispensable part of our daily lives and are essential to industrial, medical and military applications. However, the potential for damaged or defective batteries to catch fire and emit gases that create an explosive atmosphere poses significant risks to aircraft during transport. For this reason, they are currently prohibited for transport as cargo by air on passenger aircraft. Work on developing a comprehensive strategy to address the risks is currently underway. Effective mitigation will involve the work of regulators, operators and everyone involved in the lithium battery supply chain.

Speakers:

Harry Webster, Senior Research Engineer, FAA

2- Positive impact of airports on health

09:15 - 09:45

The potential negative impact of airports on human health has been widely reported. However, there is no or very limited awareness of the potential positive impact of airports on human health. This presentation will discuss some aspects of the positive impact of airports on human health including the management of public health events, preventing transmission of diseases and the 'Healthy Airports' concept & development programme.

Speakers:

Dr. Ansa Jordaan, Chief Aviation Medical Section, ICAO **Prof. Evelyne de Leeuw**, Director, Centre for Health Equity Training, Research & Evaluation (CHETRE) Part of the UNSW Australia Research Centre for Primary Health Care & Equity A Unit of Population Health

3- Cyber Security

09:45 - 10:00

Overview of the current state of cyber risks to aviation and what can be done. Do aviation risk management methodologies also work in the cyber realm? Delve into how traditional IT security and

	aviation are increasingly becoming interrelated and inseparable.
	Speakers:
	Jean-Paul Moreaux, Aviation Cybersecurity Officer, EASA
	Panel on Emerging Issues
	Narrative
	Format: Panel session: 45'
	Moderator:
10:00 - 10:30	Erwin Lassooij, Chief Programmes Coordination and Implementation, ICAO
	Speakers/ Panellists: Dr. Ansa Jordaan, Chief Aviation Medical Section, ICAO Harry Webster, Senior Research Engineer, FAA Jean-Paul Moreaux, Aviation Cybersecurity Officer, EASA – tentative Prof. Evelyne de Leeuw, Director, Centre for Health Equity Training, Research & Evaluation (CHETRE) Part of the UNSW Australia Research Centre for Primary Health Care & Equity A Unit of Population Health
10:30 - 11:00	Coffee Break
11:00 – 12:30	Safety Management
	Given the challenges posed to aviation from innovation, new business models and the need to manage risk using a more holistic approach, safety management provides a proactive approach that is the key to achieving the predicted growth in air traffic without compromising safety performance.
	Format: Presentation: 5 x 10' Panel session: 30' Moderator:
	Stephen Creamer, Director, ICAO Air Navigation Bureau



Speakers/ Panellists:

Integrated Risk Management

Ben Alcott, Head, International Directorate, UK CAA

The management of change at the State level

Dale K Whitmore, SMS Program Office Manager, Flight Standards, FAA

The management of change at the service provider level

Nancy Rockbrune, Assistant Director for Safety Management Systems (SMS), IATA

Interface Management

David Gamper, Director, Safety, Technical and Legal Affairs, ACI

Larry Lachance, Member of the CANSO Safety Steering Committee, NavCanada

12:30 – 14:00 *Lunch Break*

Airport

Airport performance within the Air Navigation System

	DAY 4 – Thursday, 14 December 2017	
	Airport stream opening	
09:00 - 09:10	Speakers:	
	Yong Wang, Chief Airport operations and infrastructure section, ICAO	
	Runway Safety	
09:10 - 10:30	Runway safety remains one of the top safety proprieties, with ICAO delivering its runway safety action plan, with a global runway safety symposium held in November 2017 (Lima). Runway safety can be linked to runway capacity, in particular the implementation of capacity enhancing procedures.	
	This session will present the ICAO runway safety action plan and explore the link between its implementation and performance.	
	Format: Introduction by moderator (5') Presentations: 5 x 12' Panel discussion (15')	
	Moderator:	
	Carlos Cirilo, Regional Director, Safety and Flight Operations, The Americas, IATA Speakers/ Panellists: Brian DeCouto, Implementation Support Officer, ICAO Nico Voorbach, Director, ICAO and Industry Affairs, CANSO Richard Lawrence, ATM Safety Specialist, EUROCONTROL David Gamper, Director, Safety, Technical and Legal Affairs, ACI	
	Michael Brown, Technical Expert , United States delegation to ICAO	
10:30 – 11:00	Coffee Break	

Ground Handling

ICAO working on the development of a Manual on Ground Handling that will address all associated stakeholders, identifying global best practices and procedures.

This session will present the latest version of this material, making a link between ground handling, airport performance, making a link to the wider ATM system.

Format:

Introduction by moderator (5')

11:00 – 12:30 Presentation : 4 x 15'

Panel session: 25'

Moderator:

Andrew Badham, Policy Lead, UK CAA

Speakers/ Panellists:

Nicolas Turcot, Project Manager, Aerodrome Safety and Capacity Division, DGAC France Massimo Cicetti, Manager Ground Operations Standards & Safety, IATA Thomas Romig, Head of Aviation, Genève Aéroport, ACI Jon Conway, Director General, Airport Services Association

12:30 - 14:00

Lunch Break

Airport Certification

Airport certification provides assurance that an airport and its facilities are safe. It can also be used as a tool to identify (and agree) areas in which improvements can be made. ICAO has developed guidance material to help with this process, most recently through its PANS-Aerodromes (Doc. 9981).

14:00 - 15:00

This session will remind the audience of the requirement to certify airports used for international operations, the advantages the certification process can bring and promote awareness of ICAO supporting material (in particular Doc. 9981).

Format:

Introduction by moderator (5')

Presentations (3 x 10')

Panel discussion (25')





	Moderator: Danny Boutin, Senior Manager APEX Programmes, ACI Speakers/ Panellists: Jussi Myllarniemi, EASA Representative to ICAO Alex Barker, Calgary Aviation Manager, Aviation Insurance XL Catlin - Catlin Canada Inc.
15:00 – 15:30	Coffee Break

Civil/military cooperation

How to increase cooperation?

DAY 4 – Thursday, 14 December 2017	
Setting the scene on Civil-Military cooperation implementation	
Format: Presentation: 10'	
Chris Dalton, Chief Airspace Management and Optimization section, ICAO	
How to kick-start civil-military cooperation?	
What are the basic building blocks to achieving effective civil-military cooperation? What are the steps to be taken? How can trust and reciprocal understanding be improved? What is ICAO role to enhance civil-military cooperation?	
Format: Presentations: 5 x 8': 40' Panel session (Q&A): 40'	
Moderator:	
Rafael Quezada, Operations Programme Manager, CANSO	
<u>Speakers/ Panellists</u> : Denis Koehl , Senior Military Advisor, EASA	
Rafael Quezada, Operations Programme Manager, CANSO Michael Steinfurth, Head of ATM/CMC Division, EUROCONTROL	
Christophe Vivier, Head of Unit SES/SESAR, European Defence Agency Allan Storm, Deputy, Civil-Military Aviation Integration Chief, NextGen Lead Service Office, US DOD	
Coffee Break	
Success stories and return of experience	
Building on national and regional approaches, what can be learned from recent experience?	



Format:

Presentations: 7 x 8': 56' Panel session (Q&A): 48'

Moderator:

Sven Halle, Regional Officer ANS (ATM), ICAO EUR/NAT

Speakers/ Panellists:

Colonel Andrei Toroshchin - Head, Russian Federation Airforce Flight Coordination and Control Centre (AFCCC) -Deputy Chief of the Russian Federation National Defense Management Center (NDMC) Group Captain Narin Aranyapool, Assistant Chief of Support and Coordinate Office of Command Center For Resolving Civil Aviation Issues (CRCA), Royal Thai Air Force

Ian Middleton, Director, Maastricht UAC

Cdr Nicholas Slocombe, SO1 Airspace - Defence Airspace and Air Traffic Management, UK MOD Jorge Pereira, Head of ATM/CMCV/CNS Unit, EUROCONTROL CMAC

Colonel Justin Niederer, Commander 821st Contingency Response Group, USAF AMC

12:30 - 14:00**Lunch Break**

Flexible use of airspace and Airspace management tools for collaborative decision making process

What are the different approaches to implementation of dynamic airspace management? What are the tools to improve performance output and simplify daily management and civil/military collaborative decision making?

Format:

Presentations: 6 x 6': 36' Panel session (Q&A): 50'

14:00 - 15:00

Moderator:

Hajime Yoshimura, President of the Air Navigation Commission, Alternate Representative, Delegation of Japan to ICAO

Speakers/ Panellists:

Michael Steinfurth, Head of ATM/CMC Division, EUROCONTROL CMAC Jeoffrey Matshoba, Executive - ATM/CNS Planning, South Africa Air Traffic and Navigation Services Colonel Marcus Abreu, General Manager, Brazilian Air Force – DECEA Brendan Kelly, Operations Steering Committee Chairman, CANSO Swaminathan Subramanian, Technical Expert, Delegation of India to ICAO



	Lieutenant Colonel Luc Antoon, Head of Airspace Sub-Direction, French Military ATM Directorate
15:00 – 15:30	Coffee Break
15:30 – 16:00	Flexible use of airspace and Airspace management tools for collaborative decision making process (continued)
16:00 – 17:00	Advanced cooperation and integration How can working together enhance cooperation? What can shared ATM systems, common systems, joint procurement, data exchange and integration bring to both parties? What are the efficient solutions? What are the potential hurdles? Format: Presentations: 4 x 7': 36' Panel session (Q&A): 33' Moderator: Dave Drake, Airspace/Air Traffic Management Policy Lead - Safety and Airspace Regulation Group, UK CAA Speakers/ Panellists: Francis Schubert, Chief Corporate Officer, Skyguide Group Captain Patrick Cooper, Officer Commanding 44 Wing, Royal Australian Air Force Brendan Kelly, Operations Steering Committee Chairman, CANSO



Performance-Based Navigation

DAY 4 – Thursday, 14 December 2017		
15:00 – 15:30	Coffee Break	
15:30 – 15:45	PBN Implementation Challenges and Success A look at the some examples of recent PBN implementations, with a focus on the lessons learned from these case studies and how these can be more widely applied. Speaker: The state of the world in PBN terms Ian Knowles, PBN Technical Officer, ICAO	
15:45 – 16:30	PBN – Implementation Challenges and Success Format: Presentation: 3x15' Moderator: Jeff Williams, Senior Vice President, Tetra Tech – AMT Speakers: PBN supporting the UN in Mali Andrei Anochkine, Chief Aviation Officer, United Nations Minusma Canadian PBN Successes Anthony MacKay, Director, Flight Operations, NAV CANADA The importance of a harmonised and regional approach to PBN implementation Luc Tytgat, Director of the Strategy and Safety Management Directorate, EASA Successful and cost-effective PBN implementation in France Jean-Marc Loscos, Technical adviser at DSNA/Department of Technique and Innovation, Toulouse	

16:30 – 16:45	PBN – What is ICAO doing to help implementation? Speakers: Ian Knowles, PBN Technical Officer, ICAO
	PBN – Q&A
	Moderator: Jeff Williams, Senior Vice President, Tetra Tech – AMT
16:45 – 17:00	Panelists: Andrei Anochkine, Chief Aviation Officer, United Nations Minusma Anthony MacKay, Director, Flight Operations, NAV CANADA Ian Knowles, PBN Technical Officer, ICAO Luc Tytgat, Director of the Strategy and Safety Management Directorate, EASA Jean-Marc Loscos, DSNA

Performance-Based aerodrome operating minima

DAY 5 - Friday, 15 December 2017

Performance-Based aerodrome operating minima stream opening

Performance-based Aerodrome Operating Minima considers both the ground infrastructure and the aircraft capabilities to determine the useable minima for an approach. It permits a phased-in solution to the implementation of approaches supporting the 'No Country Left Behind' initiative.

09:00 - 09:15

Additionally, this concept will allow increased aerodrome availability and/or less costly infrastructure. As modern aircraft are increasingly equipped with additional systems like HUD, EFVS, auto-land, etc., they can safely operate to lower RVR and/or DH or operate to traditional minima with less reliance on ground facilities. The higher performance capabilities of new and improved avionics mitigate some of the performance requirements of the ground-based navigation equipment.

This stream is split into two sections – the first looks at implementing approaches to aerodromes with limited ground facilities. After the break it continues with a look at the use of advanced aircraft.

Speakers:

lan Knowles, Technical Officer Operations, ICAO

Performance-Based Aerodrome Operating Minima in support of No Country Left Behind

A look at how PB AOM can be used to develop low cost approach guidance to aerodromes with limited or no ground infrastructure, using specific examples.

Format:

Presentation: 2 x 15' Panel session: 60'

09:15 - 10:30

Moderator:

François Collins, Director, National Operations, Transport Canada

Speakers/ Panellists:

A new approach to Land End Ken Ashton, CEO, Nu-Approach



	Providing access to remote Canadian aerodromes Guy Héneault, Program Manager, Aerodrome Standards, Transport Canada Starting from Scratch –bringing instrument approaches back to a devastated airfield Andrei Anochkine, Chief Aviation Officer, United Nations Minusma Additional Panelist: Ian Knowles, Technical Officer Operations, ICAO
10:30 – 11:00	Coffee Break
11:00 – 12:30	Best equipped best served; Advanced aircraft and PB AOM The PB AOM stream continues with a look at the use of advanced aircraft and the benefits that can be obtained from technologies such as HUD and EVS. Format: Presentation: 55′ Panel session: 25′ Moderator: Chris Hope, Manager, Flight Operations Branch, FAA Speakers/ Panellists: The Case for EFVS Dan Allen, Managing Director, Flight Technical and Regulatory Compliance, FedEx Operational Credits: Cornerstones of PB AOM Chris Hope, Manager, Flight Operations Branch, FAA PB AOM: Current and Future Benefits for Large Commercial Operators Tim Price, Manager Regulatory Affairs, British Airways OEM Perspective on Advanced Vision Systems Tony Barber, Principal Engineering Specialist, Bombardier
12:30 – 14:00	Lunch Break



From concept to operation

Implementation experience exchange

DAY 5 – Friday, 15 December 2017		
09:00 - 09:10	Introduction Setting the scene by the ICAO Secretariat	
09:10 – 10:30	Pioneering implementation of conceptual ideas into safe and efficient operations Examples of conceptual ideas rolled-out into operations will be presented. These presentation will cover the processes followed, issues encountered and best practices learned from these implementations. Study cases: London time-based separation on final, free route airspace, remote tower and SWIM demonstrations. Format: Presentation: Michael Standar, Chief Strategy & External Affairs, SESAR JU Speakers/ Panellists: London time-based separation on final case Andy Shand, General Manager Customer Affairs, NATS Free route airspace — an implemented case Mihajlo Jelisavčić, ATM Division Director, Croatia control Free route airspace — planning for cross-FIR implementation Reynir Sigurdsson, Policy and Regulatory Director, Borealis Alliance Remote tower — the implementation challenges from a manufacturer Niclas Gustavsson, Vice President Business development & Governmental affairs, Saab Digital Air Traffic Solutions Remote tower — the implementation challenges from an ANSP Jacob Edholm, Manager Remote Tower Centre Stockholm, Operations Department, LFV SWIM demonstrations Diana Liang, Enterprise Portfolio Manager, FAA	



The network vision - how to ensure safe and performing operations **Joe Sultana**, Director of the Network Manager Directorate, Eurocontrol Implementing new solutions – The controller as a cornerstone to success Jean-Francois Lepage, Representative, ICAO Air Navigation Commission, IFATCA

Coffee Break 10:30 - 11:00

Aeronautical Information Management

The Aeronautical Information Management (AIM) concept implies the origination, management, sharing and integration of time-sensitive, digital aeronautical information among all members of the global Air Traffic Management (ATM) community in a safe, secure and efficient manner. In fact, the ultimate objective of AIM is to provide users with information they can trust.

States have been taking significant efforts to be proactive and aligned to implement processes, procedures and systems that allow the provision of quality-assured, relevant and mutually understood aeronautical information in an interoperable manner; however many challenges remain that State's organizations have to face on daily basis. In order to address those challenges ICAO has developed an AIM Implementation Strategy which aims at understanding "what is missing", identifying the priorities associated with those issues as well the possible solutions for a harmonized implementation. This forum will be an important opportunity to gather feedback on the proposed strategy and identify the best way forward that is beneficial to the AIM community.

11:00 - 11:45

Moderator:

Paul Bosman, Head of ATM Strategies Division, EUROCONTROL

Speakers/ Panellists:

Stephane Dubet, Head of Research and Development, DGAC France Joachim Lennarz, Director Business Unit Information Solutions, Frequentis Jean-Francois Grout, Assistant Director ICAO relations, IATA Roberta Luccioli, Technical Officer, ICAO



Panel

A panel , using the examples presented in the stream, will discuss the approach to implementation. This panel will try to identify key elements necessary to ensure a safe and smooth implementation of new solutions.

Format:

Panel, Q&A: 45 minutes

Moderator:

11:45 - 12:30

Michael Standar, Chief Strategy & External Affairs, SESAR JU

Speakers/ Panellists:

Andy Shand, General Manager Customer Affairs, NATS

Reynir Sigurdsson, Policy and Regulatory Director, Borealis Alliance

Mihajlo Jelisavčić, ATM Division Director, Croatia control

Niclas Gustavsson, Vice President Business development & Governmental affairs, Saab Digital Air Traffic Solutions

Jacob Edholm, Manager Remote Tower Centre Stockholm, Operations Department, LFV

Diana Liang, Enterprise Portfolio Manager, FAA

Paul Bosman, Head of ATM Strategies Division, EUROCONTROL

Joe Sultana, Director of the Network Manager Directorate, Eurocontrol

Jean-Francois Lepage, Representative, ICAO Air Navigation Commission, IFATCA

12:30 – 14:00 Lunch Break

SANIS wrap-up

DAY 5 – Friday, 15 December 2017		
12:30 – 14:00	Lunch Break	
14:00 – 15:00	Moderated by ICAO Air Navigation Bureau Director, this panel will address the challenges identified in the different streams and identify the way ahead. Format: Panel session: 60' Moderator: Stephen Creamer, Director, ICAO Air Navigation Bureau Panellists: David Gamper, Director, Safety, Technical and Legal Affairs, ACI Steve Bradford, Chief Scientist, FAA Ben Alcott, Head, International Directorate, UK CAA Sven Halle, Regional Officer ANS (ATM), ICAO EUR/NAT Michael Standar, Chief Strategy and External Affairs, SESAR JU Chris Hope, Manager, Flight Operations Branch (AFS-410), Flight Standards Service, FAA Prof. Evelyne de Leeuw, Director, Centre for Health Equity Training, Research & Evaluation (CHETRE) Part of the UNSW Australia Research Centre for Primary Health Care & Equity A Unit of Population Health Dave Edwards, ICAO-IMO, US Coast Guard	
15:00	End	