

EIWAC 2017

Drafting Future Skies

November

14th

DAY1

Registration starts on 9:15

Convention Hall

ID	Time	Title	Presenter
L-1	10:15	Lecture: "Airspace Design Optimization: Structure → Capacity"	Daniel Delahaye ENAC
	11:15	Lunch Break	
	13:00	Opening Remarks	Hiroyuki Yamato MPAT
K-1	13:15	Keynote Speech from ICAO	Stephen P. Creamer ICAO
K-2	14:15	Keynote Speech from SESAR JU "Towards a Digital Aviation Infrastructure"	Florian Guillermet SESAR JU
	15:15	Coffee Break	
K-3	15:30	Keynote Speech from FAA "Aviation:A Global Digital Journey"	Pamela Whitley FAA
K-4	16:30	Keynote Speech from JCAB "CARATS Long-term Vision for Air Traffic Systems -the Challenge for realization of Future technology -"	Yasuhiro Iijima JCAB
K-5	17:00	Keynote Speech from ENRI "Perspective on the role of R&D toward the future sky"	Masahiro Kudo ENRI
	17:30	Closing Remarks	Shigeru Ozeki ENRI
	18:00	Welcome Reception@Foyer	

November

15th

DAY2

The rooms open 9:05.

Room 1

Paper ID	Time	Title	Presenter / Chair	
		<u>Organized Session Future Radio Technologies (1)</u>	N. Yonemoto	ENRI
EN-A-082	9:20	Wireless-optical signal converter utilizing stacked-patch antennas and electro-optic substrates	H. Murata	Osaka University
EN-A-075	9:45	Frequency Steerable 60 GHz Multibeam Antennas for 5G Hot-Spots	M. Steeg	University of Duisburg-Essen
EN-A-060	10:10	ADS-B latency estimation technology for surveillance performance assessment	Y. Kakubari	ENRI
EN-A-065	10:35	Jamming and Spoofing Protection for ADS-B Mode S Receiver through Array Signal Processing	J. Naganawa	ENRI
EN-I-080	11:00	90GHz-band FOD detection Radar system for Runway Surveillance	Y. Sato	Hitachi Kokusai Electric Inc.
11:25		Lunch Break		
		<u>Special Speech</u>	T. Koga	ENRI
S-1	12:40	Special Speech 1 "Drafting Future Skies - From SWIM to a fully digitised ATM"	P. Bosman	EUROCONTROL
S-2	13:25	Special Speech 2 "Benefits of Standardisation - EUROCAE activities"	A. V. Groote	EUROCAE
		<u>Organized Session Future Radio Technologies (2)</u>	S. Futatsumori	ENRI
EN-A-079	14:50	Interference mitigation in linear cell FOD radar by using FMCW signal source with different sweep speed	K. Akama	Waseda University
EN-A-027	15:15	Millimeter-wave Imaging for FOD Detection	C. Pichot	Université Côte d'Azur
EN-A-067	15:40	Simulation Evaluation of the Number of MmWave Access Points to Cover the Passenger Car of High Speed Trains	F. Lu	KDDI Research, Inc.
EN-A-081	16:05	Bistatic Radar System in Terahertz Bands Based on Radio Over Fiber Network	A. Kanno	NICT
16:30		Coffee Break		
		<u>Technical Session Trajectory Management</u>	J. Westphal	Jeppesen GmbH
EN-A-033	16:45	Efficient Continuous Descents at Tokyo International Airport	K. Hayashi	The University of Tokyo
EN-A-018	17:10	Trajectory Mathematical Distance Applied to Airspace Major Flows Extraction	D. Delahaye	ENAC
EN-A-074	17:35	Optimization of military missions impact on civilian 4D trajectories	A. Islami	ENAC

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DAY2

The rooms open 9:05.

Room 2

Paper ID	Time	Title	Presenter / Chair	
<u>Technical Session</u> ATM Performance			K. Kageyama	ENRI
EN-A-004	9:20	Air Traffic Management Performance Benchmarking - A disaggregated approach	T. Standfuss	DLR
EN-A-032	9:45	Future airspace design by dynamic sectorization	M. Schultz	DLR
EN-I-014	10:10	Data-Driven Modeling of the Air Traffic Departure Flow Analysis in Multi-Airport Systems	Z. Zhao	NUAA
EN-A-026	10:35	An approach for attribute- and performance-based evaluation of interdependent critical infrastructures	T. Feuerle	Technische Universität Braunschweig
EN-I-061	11:00	Operational resilience of the airport network	X. Xu	NUAA
11:25 Lunch Break				
<u>Technical Session</u> Airport Management			R. Mori	ENRI
EN-I-034	14:50	The role of research organizations in SESAR 2020	H. H. Toebben	DLR
EN-A-023	15:15	Europe's next step in Airport Performance Management Research	F. Piekert	DLR
EN-A-017	15:40	A Study of Tradeoffs in Airport Coordinated Surface Operations	J. Ma	ENAC
EN-A-011	16:05	Reliable aircraft boarding for fast turnarounds	M. Schultz	DLR
16:30 Coffee Break				
<u>Organized Session</u> Space Weather			S. Saito	ENRI
EN-I-036	16:45	Discussion of Space Weather in ICAO and Related Research Activity in Japan	M. Ishii	NICT
EN-I-049	17:10	Warning System for Aviation Exposure to Solar Energetic Particle (WASAVIES)	T. Sato	Japan Atomic Energy Agency
EN-A-063	17:35	HF-START: Application in aid of radio communications/navigation	K.Hozumi	NICT

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DAY2

Room 3

Paper ID	Time	Title	Presenter / Chair	
	11:25 -14:50	Exhibition		
		Research and Development of Airport Surface Foreign Object Debris Detection System	N.Yonemoto	ENRI
		Research and Development of Helicopter Obstacle Detection System	S.Futatumori	ENRI
		ADS-B Signal Propagation Measurement and Application to WAM Constellation Design	J.Naganawa	ENRI
	14:10 -14:50	Poster Session		
EN-A-005		Interactive prediction of airport noise monitoring data based on time-series similarity	L. Chen-hui	NUAA
EN-A-010		Research on the Measure and Division of the Busyness Level of Airspace Waypoints	X. Hua	NUAA
EN-I-012		Dynamic En-route Diversion Approach under Convective Weather	Y. Peng	NUAA
EN-A-030		Design of Domain Specific Ontology to Avoid Miscommunication between Pilots and Ground Control Operator	H. Takahashi	DHA Suffa University
EN-A-054		Research on the architecture of UAV-ATM information platform based on mobile 4G network	Z. Geng, L. Ma	Civil Aviation University of China
EN-A-057		Prediction of Flight Time Uncertainty for 4D Trajectory Management	A. Motodani	Tokyo Metropolitan University
EN-A-068		Online Trajectory Prediction through Updating Aircraft Position and Aircraft Intent	J. Liu	NUAA
EN-A-069		Integrated Arrival & Departure Aircraft Sequencing under the Influence of Sequential Flights	X. M. Dai	NUAA
EN-I-089		Ground and on-board ATM procedures prototyping tools	K. Glagovskiy	GosNIIAS

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DAY3

The rooms open 9:05.

Room 1

Paper ID	Time	Title	Presenter / Chair	
<u>Organized Session GBAS</u>			Y. Fukuda	ENRI
EN-A-078	9:20	Development of a CAT-III GBAS (GAST-D) ground subsystem prototype and its performance evaluation with a long term-data set	T. Yoshihara	ENRI
EN-A-008	9:45	GBAS Interoperability and Multi-Constellation / Multi-Frequency Trials	T. Feuerle	Technische Universität Braunschweig
EN-A-031	10:10	Interoperability of ENRI GAST-D Prototype with Different Airborne Software Implementations	S. Saito	ENRI
EN-I-076	10:35	Assessment of CAT-I GBAS under the ionospheric conditions in Thailand using APAC ionospheric threat model	S. Rungruengwajiake	Civil Aviation Authority of Thailand
EN-I-088	11:00	How to fly all approach types? Airbus xLS concept: from ILS to SLS	F. Belloir	Airbus
11:25 Lunch Break				
<u>Special Speech</u>			T. Sakai	ENRI
S-3	13:00	Special Speech 3 " Japanese space-based PNT system, QZSS. -Services, System and Applications-"	S. Kogure	Cabinet Office Japan
13:45 Coffee Break				
<u>Technical Session Traffic Capacity & Congestion Management</u>			Y. Miyazawa	ENRI
EN-I-071	14:00	The Flow centric approach: an emerging concept from SESAR R&D	P. Souchu	DSNA
EN-A-040	14:25	Results from an Interval Management (IM) Flight Test and Its Potential Benefit to Air Traffic Management Operations	B. Baxley	NASA Langley Research Center
EN-A-083	14:50	Potential Benefits of Speed Control on Delay and Fuel Consumption	Y. Matsuno	JAXA
EN-A-025	15:15	Integrated Bi-level Arrival and Departure Time Assignment for Optimal Trajectories	B. Grüter	Technical University of Munich
15:40 Coffee Break				
<u>Organized Session SWIM</u>			X. Lu	ENRI
EN-I-009	15:55	Collaboration to Implement Air Traffic Flow Management (ATFM) Capabilities in the Region with Multiple Air Navigation Service Providers (ANSPs)	M. Tanino	Federal Aviation Administration (FAA)
EN-I-077	16:20	Geo-Informatics Platform for Aviation	S. Chaimatanan	Geo-Informatics and Space Technology Development Agency
EN-A-053	16:45	Design of a software environment to support machine learning analysis of aircraft trajectories	C. Morales	NATO Eurofighter and Tornado Management Agency
EN-A-056	17:10	Coordinated Validation for SWIM Concept-Oriented Operation to Achieve Interoperability	X. Lu	ENRI

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Room 2

Paper ID	Time	Title	Presenter / Chair	
Technical Session UAS			W. Johnson	NASA
EN-I-084	9:20	Traffic Management of Unmanned Aircraft Systems (TM-UAS) in Urban Environment	W. Chi	ATMRI, Nanyang Technological University
EN-I-006	9:45	The MoNIfly approach to an Unmanned Traffic Management System (UTM)	B.Blom	Technische Universität Braunschweig
EN-I-035	10:10	A Concept for Coordinated UAV Operations Based on Local-Area Differential GNSS Navigation and Guidance	S. Pullen	Stanford University
EN-A-050	10:35	Simulation Techniques for Small Unmanned Aircraft Systems (sUAS) Trajectories including Signal Propagation	D. Toratani	ENRI
EN-A-042	11:00	The Effects of Alert Scoring and Alert Jitter on a Minimum Operations Performance Standards Unmanned Aircraft Systems Detect and Avoid System	R. W. Ghatas	NASA Langley Research Center
11:25 Lunch Break				
13:45 Coffee Break				
Technical Session ATM Modeling (1)			A. Harada	Kochi University of Technology
EN-I-001	14:00	Improving Airline Disruption Management through a Virtual Digital Airline Simulation	J. Westphal	Boeing Global Services
EN-A-003	14:25	Integration of unmanned freight formation flights in the European air traffic management system	T. Luchkova	DLR
EN-A-051	14:50	Design of a Multi-Agent System framework for Decentralized Decision Making in Air Traffic Management	T. Koca	Autonomous University of Barcelona
EN-I-020	15:15	A Conceptual Approach for Efficient Arrival Operations via the Integration of Fixed-Flight Path Angle Descent and GBAS Landing System	N. K. Wickramasinghe	ENRI
15:40 Coffee Break				
Technical Session ATM Modeling (2)			N. Takeichi	Tokyo Metropolitan University
EN-A-024	15:55	From Perfect to Possible: Two Trajectory Based Operation Concepts for Future Terminal Manoeuvring Areas	J. Rataj	DLR
EN-A-044	16:20	Optimal location of temporary military zones within civil aviation traffic	N. WANG	Université de Toulouse
EN-A-055	16:45	Cost Index Estimation via Optimization based Trajectory Prediction	A. Harada	Kochi University of Technology
EN-A-058	17:10	A Possibility of Continuous Descent Operation in the Congested Airspace	T. Wakayama	Kochi University of Technology

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Room 3

Paper ID	Time	Title	Presenter / Chair	
<u>Technical Session Aviation Safety</u>			S. Nagaoka	ENRI
EN-I-087	9:20	What will air traffic controllers (ATCOs) be doing in the future, in a more automated ATM environment?	K. Moebus	skyguide – swiss air navigation services, ltd.
EN-A-022	9:45	Analysis of Positive and Negative Effects of Saliency on the ATC Task Performance	H. Yoshida	The University of Tokyo
EN-A-028	10:10	Aircraft Safety Analysis using Generalized Polynomial Chaos	J. Diepolder	Technical University of Munich
EN-A-029	10:35	Preliminary analysis on safety assessment for off-set routes	J. Han	The Korea Transport Institute (KOTI)
EN-A-059	11:00	Performance Analysis of Shenzhen Airlines' 4D/15 Tracking Demonstration	Z. Zhang	Civil Aviation University of China (CAUC)
11:25 Lunch Break				
13:45 Coffee Break				
<u>Technical Session Aviation Weather</u>			T. Yoshihara	ENRI
EN-A-048	14:00	ATM Performance Analysis considering Minimum Climatology Impact Trajectories	D. Gonz ´alez-Arribas	Universidad Carlos III de Madrid
EN-A-073	14:25	Robust Optimal Trajectory Planning under Uncertain Winds and Convective Risk	D. Gonz ´alez-Arribas	Universidad Carlos III de Madrid
EN-I-085	14:50	Development of 3D Rapid Scanning High Resolution X-Band Phased Array Weather Radar	T. Kashiwayanagi	Japan Radio Co., Ltd.
15:40 Coffee Break				
<u>Technical Session CNS Systems</u>			D. Kuegler	DLR
EN-A-037	15:55	Estimation of 3-dimensional location and velocity using range with bias error and Doppler measurements	Y. Kosuge	ENRI
EN-A-072	16:20	Automatic Detection of Airport Runway Area Based on Super-Pixel PolSAR Image Classification	P. Han	Civil Aviation University of China
EN-I-052	16:45	French DSNA approach to CNS rationalization & evolution	J.M.Loscos	DSNA/DTI