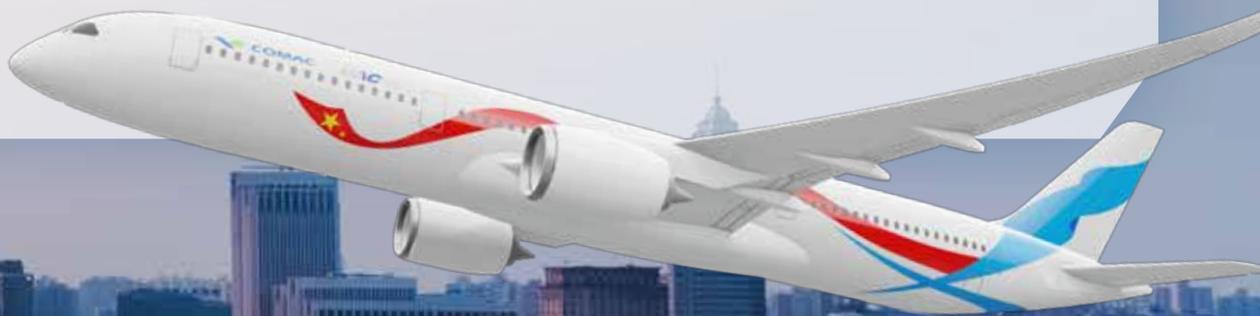




SAE 2017 AVIATION TECHNOLOGY FORUM 航空技术论坛

June 6 - 7, 2017

Doubletree by Hilton Hotel - Shanghai Pudong
www.sae.org/events/atf



EVENT OVERVIEW

With the recent introduction of the COMAC ARJ-21 into revenue service, and the upcoming flight testing of the COMAC C919, the SAE Aviation Technology Forum will provide technical insights into aircraft design and performance. The program brings technical leaders from the global aerospace industry to Shanghai, along with technical experts right here in China, to provide their practical knowledge for design, manufacturing, and maintaining modern commercial aircraft.

This SAE forum provides participants with the awareness of global manufacturers' perspective and approach to the design and support of leading-edge aircraft and systems. With a two-day focus on real-world design and implementation experiences through global certification, engineering practitioners provide their technical expertise from the leading global aerospace community—including airframers, global manufacturers, and component suppliers.

With local leaders from global companies leading the development of the program, the ATF provides attendees with outstanding benefits including:

- Receiving the latest information on industry trend and technology solutions
- Share experiences and potential solutions with other participants
- Network and interact with individuals and supplier companies and other prime manufacturers.

TECHNICAL PROGRAM

Jun 6, Tuesday

09:00 - 10:00 **WELCOME SPEECH**

KEYNOTE - COMAC's Widebody Airplane Project

Yingchun CHEN, *Deputy Chief Designer of C919 - COMAC*

10:00 - 10:30 Tea Break

10:30 - 12:00 **OPERATIONAL & MAINTENANCE REQUIREMENTS FOR CHINA MARKET**

An overview requirements for maintenance and operations in the China market. An overview of the in-service performance of the ARJ-21, expected performance for C919, and how these programs will influence future designs. In addition, maintenance challenges and successes with using the A320 or B737 in the China market.

Operational Performance of ARJ-21, C919 and Future Programs

Dr. Liqing MENG, *Mechanical Engineer - Chengdu Airlines*

Requirements for Aircraft Design / Maintenance

Shanghai Technologies Aerospace Company Limited

IBM Cognitive MRO Solution for China Aviation Industry

IBM

12:00 - 13:00 Lunch & Networking Break

13:00 - 15:00 **PHM FOR THE AEROSPACE VALUE CHAIN**

This session seeks to cover advances in diagnostic, prognostic, and health management technology as applied to aircraft and engine systems to improve operations in the entire value chain. The topics include the use of PHM techniques in system design, testing, manufacturing, operations, and maintenance. World authorities in the area of PHM technologies will tackle topics such as, cost benefit analysis and systems requirements for IVHM systems, PHM of manufacturing systems, design of diagnostics and prognostics analytics, and supply-chain optimization. In this age of highly connected systems, these experts will touch upon the implications of big data and cloud computing for this field.

Ravi Rajamani, *Principal Consultant - dRr2 Consulting*

Dinkar Mylaraswamy, *Fellow - Honeywell Aerospace Advanced Technology*

Leon Ma, *Testability Team Leader, S.R.M & Product Support Department, Shanghai Aircraft Design & Research Institute*

Jay Lee, *University of Cincinnati*

15:00 - 15:30 Tea Break

15:30 - 17:00 **Model-based Systems Engineering**

Model-based systems engineering (MBSE) is the formalized application of modeling to support system requirements, design, analysis, verification and validation activities beginning in the conceptual design phase and continuing throughout development and later life cycle phases. This session will provide practical solutions to engineering problems using MBSE.

MBSE Engineering Applications in the Development of Civil Aircrafts

Dr. Yuhong ZHANG, *Technical Leader - Computation & Simulation Lab (CSL) at COMAC Beijing Aeronautical Science & Technology Research Institute*

Building IMA System Configuration with the Model-Based System Engineering Method

Aviage Systems

Virtual Autonomous Fast-Time Exploration of Large Domains of Complex/Unknown Flight Situations for Safety through Lifecycle: Present, Future, Benefits and Pitfalls

Ivan Burdun, *President & Directeur Scientifique - AIXTREE S.A.S.*

3D Electromagnetic Simulation for Aircraft EMC

Marco Kunze, *Principal Engineer - CST-Computer Simulation Technology a DASSAULT SYSTEMES company*

08:30 - 10:00 **Additive Manufacturing**

The session provides project presentations in the application of Additive Manufacturing to aircraft design and manufacturing, including the solutions realized by the implementation of the technology. The session will focus on the features, benefits and capabilities of the various technologies.

Patrick WANG, *Executive Engineering Site Leader - GE Aviation*
Boeing China (invited)
Honeywell Aerospace Advanced Technology (invited)

10:00 - 10:30 Tea Break

10:30 - 11:30 **Advanced Materials**

This focus of this session is the latest technology developments in materials used for aerospace design, from structures to skin, to include new alloys and composites.

COMAC

11:30 - 12:30 **Aircraft Manufacturing**

This session focuses on the latest technology and processing in manufacturing aircraft, including the use of robotic techniques and proper drilling and machining techniques.

Alexander Rajtschan, *Technical Director/Vice President - Broetje Automation*
Ingersoll (invited)
Honor Seiki (invited)

12:30 - 13:30 Lunch & Networking Break

13:30 - 15:00 **Airplane Certification and Global Challenges**

This session discusses the practices for global certification for aircraft with perspective from both domestic and global regulatory bodies. The presentations will provide insight into how CAAC and the FAA/EASA organizations work together to share certification data and evaluate projects for certification. In addition, SAE will provide an overview of how to navigate the certification process utilizing industry standards.

Bi-lateral Agreements for C919, Findings, Challenges

FAA

Bi-lateral agreements for ARJ-21, findings, challenges

EASA

Organization Overview, collaborative certification w/ FAA - EASA

Yong CAI, CAAC

Comparative Study on CTSO-C153 and ETSO-2C153 on Certification Consideration for Integrated Modular Avionics (IMA) Platform and Modules

Frank XIAO, Certification Engineer - Aviage Systems

15:00 - 15:30 Tea Break

15:30 - 17:00 **Panel - C919 Lessons Learned Towards Achieving First Flight**

This is an interactive panel, featuring members of the certification process, discussing the challenges overcome and the lessons learned in achieving C919's first flight. The discussion will address the development of various certification artifacts and the Safety of Flight Assessment.

Moderator:

Bradley Perrett, *Aviation Week*

Panelists:

COMAC

CAAC

CFM

Honeywell

Aviage Systems

VENUE INFORMATION

DoubleTree By Hilton Shanghai Pudong

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Information of Local Transportation

TRANSPORTATION	DISTANCE	TAXI FEE
To Shanghai Pudong Int'l Airport	around 36 km	around CNY 140.00
To Shanghai Hongqiao Int'l Airport	around 28 km	around CNY 110.00
To Shanghai Railway Station	around 0.6 km	around CNY 14.00

Registration

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Registration Price: CNY 3,500

Includes Tea Breaks, Lunches,
 Receptions, Conference Proceedings,
 Technical Sessions & Exhibit

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