Attending HCI-Aero 2016...
Program

**Wednesday 14 September 2016**

Location: DGAC (Direction Générale de l’Aviation Civile)  
50, rue Henry Farman  
75720 Paris  
Tel. +3 1 58 09 43 21  
Conference Auditorium

08:00-08:30 Welcome and Registrations

08:30-10:30 HCI-Aero 2016 starts...  
Chair: Bertrand de Courville, Air and Space Academy, France

08:30-09:30 Introductory addresses  
Patrick Gandil, Director General of Civil Aviation, France  
Jean Pinet and Francis Durso, General Co-Chairs of HCI-Aero 2016

09:30-10:30 Keynote: Thirty years of HCI-Aero:  
Evolution from Automation Issues to Tangibility Issues  
Dr. Guy André Boy, Dean  
School of Human-Centered Design, Innovation and Art  
Florida Institute of Technology (FIT)

10:30-11:00 Break

11:00-12:45 Session 1: HCI in the Cockpit

Chairs: Amy Pritchett, Georgia Tech, USA, and Andreas Lüdtke, OFFIS, Germany

11:00-11:30 The Accident of Flight 447 Rio-Paris: A Case Study for HCI Research  
Stéphane Conversy, Stéphane Chatty, Hélène Gaspard-Boulinec,  
Jean-Luc Vinot  
ENAC, France

11:30-12:00 A Three-fold Approach towards Increased Assurance Levels for Interactive Systems: A Flight Control Unit Case Study  
C. Fayollas, J.-C. Fabre, P. Palanque, M. Cronel, D. Navarre, Y. Deleris  
Airbus Operations, ICS-IRIT, LAAS-CNRS, France

12:00-12:30 Future Flight Decks: Impact of G-Force on Touchscreen Usability  
Huseyin Avsar, Joel E. Fischer, Tom Rodden  
University of Nottingham, UK

12:30-12:45 Affordant Guidance for In-Flight Loss of Control:  
The Trajectory Recovery System (TRS)  
Nicholas Kasdaglis, Tiziano Bernard, Lucas Stephane, Guy A. Boy  
Florida Institute of Technology, USA

13:00-14:00 Lunch
14:00-15:30 Panel 1: Human Factors Certification: The Next Frontier

Chair: Ratan Khatwa, Honeywell International, USA

Panelists: Charles Denis, EASA, Germany
Marc Julie, Dassault Aviation, France
Gernot Konrad, Gulfstream Aerospace Corporation, USA
Florence Reuzeau, Airbus, France
Victor Riley, Boeing, USA
Gerard Temme, EASA Consultant

15:30-16:00 Break and Poster Session

16:00-17:30 Session 2: Eye Tracking

Chairs: Lena Mårtensson, KTH, Sweden, and André Vernay, DGAC, France

16:00-16:30 To Look and (Not) See: Predicting the Detection of Automation Failures Based on the Eye Movements of Human Operators
Carmen Bruder, Paul Weber, Catrin Hasse
German Aerospace Center (DLR), Germany

16:30-17:00 Exploratory Study with Eye Tracking Devices to Build Interactive Systems for Air Traffic Controllers
Michael Traouré, Christophe Hurter
LI-ENAC, France

17:00-17:30 Pilot Flying vs. Pilot Monitoring During the Approach Phase: an Eye–Tracking Study
Maxime Raynal, Yvanne Colineaux, André Vernay, Frédéric Dehais
ISAE-SUPAERO and DGAC, France

18:00-20:00 Reception at the DGAC

Thursday 15 September 2016

Location: DGAC Conference Auditorium

Chair: Jean Pinet, Air and Space Academy, France

08:30-09:30 Keynote: The Power of Public Private Partnerships
FAA Centers of Excellence
Dr. Patricia Watts, Director and Fiscal Officer
Air Transportation Centers of Excellence Program
Federal Aviation Administration (FAA)
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<tr>
<th>Time</th>
<th>Session 3: Tangible Interactive Systems</th>
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<tr>
<td>09:30</td>
<td>Chairs: Santosh Mathan, Honeywell, USA, and Stéphane Chatthy, ENAC, France</td>
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<td>09:30-10:00</td>
<td>Could tangibility improve the safety of touch-based Interaction?</td>
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<td>Exploring a new Physical Design Space for Pilot-System Interfaces</td>
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<td>Jean-Luc Vinot, Catherine Letondal, Sylvain Pauchet, Stéphane Chatthy</td>
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<td>10:00-10:15</td>
<td>A Human-Systems Integration Approach</td>
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<td>Sebastien Boulnois, G.A. Boy</td>
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<th>Time</th>
<th>The Acceptance of Different Perspectives</th>
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<td>10:15-10:30</td>
<td>in a Synthetic Vision Navigation Display</td>
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<td>Daniela Schmid, Ralf Graf</td>
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<td>German Aerospace Center (DLR), Germany</td>
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<th>Time</th>
<th>The Aircraft of the Future: Towards the Tangible Cockpit</th>
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<td>10:30-11:00</td>
<td>Juan Angel Lorenzo del Castillo, Nadine Couture</td>
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<td>11:30-13:00</td>
<td>Chairs: Neville Staton, University of Southampton, UK</td>
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<td>Jean-Jacques Speyer, Vrije Universiteit Brussel, Belgium</td>
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<td>11:30-12:00</td>
<td>Iterative Designs of Onboard Context-Sensitive Information System (OCSIS)</td>
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<td>Wei Tan, G.A. Boy</td>
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<th>A Systems Engineering Method for Analysis and Simulation</th>
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<td>12:00-12:30</td>
<td>of Standard Operating Procedures</td>
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<td>Houda Kerkoub Kourdali, Lance Sherry</td>
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<td>George Mason University, USA</td>
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<th>Designing Touch-Enabled Electronic Flight Bags</th>
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<td>in SAR Helicopter Operations</td>
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<td>14:00-15:30</td>
<td>Chair: Francis T. (Frank) Durso, Georgia Institute of Technology, USA</td>
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<td>Panelists: Deborah Boehm-Davis, George Mason University, USA</td>
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<td>Brigitte Daniel-Allegro, System Thinking Expert, France</td>
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15:30-16:00 Break and Poster Session

16:00-17:30 Session 5: Human Factors

Chair: Kathryn Bleckley, FAA, USA, and Wen-Chin Li, Cranfield University, UK

16:00-16:30 The Evaluation of Pilot’s Attention Distributions on the Flight Deck
Wen-Chin Li, Graham Braithwaite, Matthew Greaves,
Chen-Kai Hsu, Shu-Chiang Lin
Cranfield University, UK and Taiwan University of Technology, ROC

16:30-17:00 Cognitive Workload Classification using Eye-tracking and EEG Data
Jesus L. Lobo, Javier Del Ser, Flavia De Simone, Roberta Presta,
Simona Collina, Zdenek Moravek
TECNALIA, Spain and Suor Orsola Benincasa University, Italy
and Honeywell, Czech Republic

20:00-22:00 Banquet Dinner at the Novotel Tour Eiffel
Guest Speaker: To be announced

Friday 16 September 2016

Location: DGAC Conference Auditorium

Chair: Francis T. (Frank) Durso, Georgia Institute of Technology, USA

08:30-09:30 Keynote: Towards 21st Century Disciplines:
Systems Engineering and Human-Centered Design
Alan Harding, President
International Council on Systems Engineering (INCOSE)

09:30-10:30 Session 6: Cyber Physical Systems

Chair: Dirk Schaefer, EUROCONTROL, Belgium & Stéphane Conversy, ENAC, France

09:30-10:00 Initial Impact of Modern Taxiing Techniques on Airport Ground Control
Zarrin Chua, Mathieu Cousy, Mickaël Causse, François Lancelot
ISAE-SUPAERO, ENAC and Airbus Group, France

10:00-10:15 Extending MBSE Methodology and SysML Formalism
to Integrate Human Considerations
Camille Raymond, Daniel Prun
ALTRAN and ENAC, France

10:15-10:30 Establishing Trust in Remotely Reprogrammable Systems
Thomas Gurriet, Mark L. Mote, Aaron Amesz, Eric Feron
Georgia Institute of Technology, USA
10:30-11:00 Break and Poster Session

F 11:00-13:00 Session 7: Industry
R Chair: Florence Reuzeau, Airbus, France and Denis Javaux, Consultant, Belgium
D A 11:00-11:30 Human Factors Approach in DCNS Naval Ships Process
Y Chantal Maïs
   DCNS Research, France
11:30-12:00 Beyond the Push-Button: A study on System Management Operations in the Flight Deck
   Daniel Dreyer, Matthias Oberhouser
   Airbus Group Innovation, Germany
12:00-12:30 Improve Safety by Understanding the Interaction Between Pilot and Operational Context
   Jean Gabriel Charrier and Nicolas Stephane
   Pilots
12:30-13:00 From HCI to HSI – The Journey in a Fast-Jet Cockpit
   Nikolaos Gkikas, Paul Chesham, David Partridge, Edward Ridge
   Eurofighter Typhoon Cockpit Group & Human Factors Shared Services, UK

13:00-14:00 Lunch

F 14:00-15:00 Session 8: Function Allocation
R Chairs: Bernd Korn, DLR, Germany, and Wei Tan, FIT, USA
D A 14:00-14:30 Modeling the Monitoring Inherent Within Aviation Function Allocations
Y Amy R. Pritchett, Raunak P. Bhattacharyya
   Georgia Institute of Technology, USA
14:30-14:45 Modeling Distributed Crewing with STAMP
   Kirsten Revell, Craig Allison, Neville Stanton, Rod Sears
   University of Southampton and Coventry University, UK
14:45-15:00 A User-Centred Approach to Complexity: Toward Development of a Method to Support Simplex Systems Design
   Viviane Perret, Cédric Bach, Guillaume Calvet, Aline Chevalier
   University of Toulouse and Bertin Technologies, France

15:00-16:00 Wrap-up and Announcement of HCI-Aero 2018