

<b>Monday September 20<sup>th</sup> Morning Sessions</b>		
<b>From 08:00 REGISTRATION</b>		
<b>09:00 – 10:00 OPENING SESSION</b>		
<b>10:00 – 11:00 ICAS DANIEL &amp; FLORENCE GUGGENHEIM MEMORIAL LECTURE (INVITED) - Chairman: I. Poll, ICAS President, United Kingdom: M. Laroche, Safran, France: IMPROVING ENGINE DEVELOPMENT THROUGH GLOBAL MODELING (ICAS 2010-0.1)</b>		
<b>11:00 – 11:30 BREAK</b>		
<b>11:30 – 12:00</b>	<b>12:00 – 12:30</b>	<b>12:30 – 13:00</b>
ICAS 2010-1.1 Future Aircraft Concepts I: Chairs: V. Gollnick, DLR, DE; V. Zhuravlev, MAI, RU		
ICAS 2010-1.1.1 COMPARISON OF POWERED-LIFT TURBO-FAN AIRCRAFT WITH CONVENTIONAL TURBO-PROP AIRCRAFT FOR ESTOL APPLICATION C. Gologan, D. Schmitt Bauhaus Luftfahrt, Germany	ICAS 2010-1.1.2 AIRCRAFT AND SYSTEMS INTEGRATION COMPARISON OF FUEL BURN AND NOISE CHARACTERISTICS OF NOVEL AIRCRAFT CONFIGURATIONS J. P. Fielding, P. Stocking, H. Smith Cranfield Univ., UK	ICAS 2010-1.1.3 DISTRIBUTED PROPULSION VEHICLES H. Kim NASA Glenn, USA
ICAS 2010-2.1 CFD for Unsteady Flow: Chairs: J.-J. Thibert, ONERA, FR		
ICAS 2010-2.1.1 NUMERICAL SIMULATION OF DROPLET IMPINGEMENT ON A HELICOPTER IN FORWARD FLIGHT K. Szilder, E. P. Lozowski* NRC/IAR; *Univ. of Alberta, Canada	ICAS 2010-2.1.2 THREE-DIMENSIONAL NUMERICAL STUDY ON UNSTEADY AERODYNAMIC EFFECTS OF WING-BODY INTERACTIONS IN INSECTS' FLAPPING FLIGHT J. Kim, K. Lee, C. Kim Seoul National Univ., Korea	ICAS 2010-2.1.3 AERODYNAMIC ANALYSIS OF HELICOPTER ROTOR IN HOVER AND FORWARD FLIGHT USING THE TIME-DOMAIN PANEL METHOD S. Lee, H. Choi, L. Cho, et al Hanyang Univ., Korea
ICAS 2010-3.1 Micro UAV testing: Chairs: S. Ueno, Yokohama National Univ., JP; R. Galbraith, University of Glasgow, UK		
ICAS 2010-3.1.1 THRUST MEASUREMENT FOR FLAPPING-FLIGHT COMPONENTS W. Send, F. Scharstein ANIPROP GbR, Germany	ICAS 2010-3.1.2 EXPERIMENTAL STUDY ON FLOW INTERACTION BETWEEN FORE- AND HINDWINGS OF DRAGONFLY IN HOVERING AND FORWARD FLIGHT H. Nagai, K. Isogai, T. Fujimoto Nippon Bunri Univ., Japan	ICAS 2010-3.1.3 DYNAMIC BEHAVIOR OF VORTEX SHEDDING FROM AN OSCILLATING THREE-DIMENSIONAL AIRFOIL H. Hasegawa, K. Nakagawa Akita Univ., Japan
ICAS 2010-4.1 Fans, Compressors & Turbines I: Chairs: R. Parker, Rolls-Royce, UK; J. Brochet, Turbomeca, FR		
ICAS 2010-4.1.1 AERODYNAMIC STUDIES IN HIGH-SPEED COMPRESSORS DEDICATED TO AERONAUTICAL APPLICATIONS F. Leboeuf, I. Trebinjac, X. Ottavy, et al Ecole Centrale de Lyon, France	ICAS 2010-4.1.2 SNECMA COUNTER ROTATING TURBO FAN AERODYNAMIC DESIGN LOGIC & TESTS RESULTS J. Talbotec, M. Vernet Snecma, France	ICAS 2010-4.1.3 THE FLOW ON THE SURFACE OF ROTATING PROPELLER BLADE IN LOW REYNOLDS NUMBER REGION N. Arai, K. Hiraoka Tokai Univ., Japan
ICAS 2010-5.1 Operations and Noise: Chairs: M. Eijkman, NLR, NL		
ICAS 2010-5.1.1 AN AIRCRAFT ENGINE NOISE SIMULATION ENVIRONMENT, SUITABLE FOR THE DEVELOPMENT OF NOISE ABATEMENT PROCEDURES A. de Bruin, M. Tuinstra NLR, Netherlands	ICAS 2010-5.1.2 ASSESSMENT OF A 3D NOISE ABATEMENT PROCEDURE FOR COMMUNITY NOISE IMPACTS BASED ON MEASUREMENTS AND SIMULATIONS E. Anton, M. Basner*, L. Bertsch*, et al RWTH Aachen; *DLR, Germany	ICAS 2010-5.1.3 IMPACT OF AIRPORT NOISE REGULATIONS ON NETWORK TOPOLOGY AND DIRECT OPERATING COST OF AIRLINES P. N. Dikshit, D. A. DeLaurentis, W. A. Crossley Purdue Univ., USA

ICAS 2010-6.1 UAV Rotorcraft: Chairs: S. Henbest, DSTO, AU		
<p>ICAS 2010-6.1.1 VIRTUAL AUTOPILOT SYSTEM FOR HELICOPTERS UAV MISSIONS J. M. Lema, P. Royo, J. López, et al Technical Univ. of Catalonia, Spain</p>	<p>ICAS 2010-6.1.2 TACTILE ASSISTANCE SYSTEM FOR MANUAL HOVERING OF TELE-OPERATED UAV HELICOPTERS K. Friedl, Y. Zemba Univ. of Tokyo, Japan</p>	<p>ICAS 2010-6.1.3 ROTORCRAFT CONCEPTS FLIGHT PERFORMANCES EVALUATION AND OPTIMIZATION BY SIMULATION P.-M. Basset, A. Guillé* ONERA; *ISAE, France</p>
ICAS 2010-7.1 Navigation Systems: Chairs: C. Delaveau, Thales Group; FR		
<p>ICAS 2010-7.1.1 TECHNOLOGICAL TRENDS FOR FUTURE NAVIGATION SYSTEMS M. Mary, P. -J. Clemenceau THALES, France</p>	<p>ICAS 2010-7.1.2 AN AHRS BASED ON A KALMAN FILTER FOR THE INTEGRATION OF INERTIAL, MAGNETOMETRIC AND GPS DATA E. Denti, R. Galatolo, F. Schettini Univ. of Pisa, Italy</p>	<p>ICAS 2010-7.1.3 INTERACTING MULTIPLE MODEL ADAPTIVE UNSCENTED KALMAN FILTERS FOR NAVIGATION SENSOR FUSION D. Jwo, M. Chen, C. Tseng National Taiwan Ocean Univ., Taiwan, China</p>
ICAS 2010-8.1 Nano Composites: Chairs: P. Czarnocki, Warsaw University of Technology, PL		
<p>ICAS 2010-8.1.1 INVITED PROCESSING AND PROPERTIES OF AMORPHOUS AND NANO-STRUCTURED MATERIALS WITH APPLICATIONS IN AERONAUTICS C. Bolfarini Univ. of São Paulo, Brazil</p>	<p>ICAS 2010-8.1.2 NANOPARTICLES AND CNTS IN HIGH PERFORMANCE CFRPS FOR AEROSPACE &amp; SPACE APPLICATIONS: SOME TRULY BENEFITS &amp; MECHANISMS C. Arlt, U. Riedel, H.G. Wulz* DLR; *EADS Astrium GmbH, Germany</p>	<p>ICAS 2010-8.1.3 SUPERSURFACES FROM CONDUCTIVE POLYMERS FOR ENVIRONMENTAL F. Guittard, T. Darmanin, E. Taffin de Givenchy, et al Univ. Nice Sophia Antipolis, France</p>
ICAS 2010-9.1 Dynamic Loading/Impact I: Chairs: D. Liu, ZONA Technology Inc., US		
<p>ICAS 2010-9.1.1 RESEARCH OF PROTECTIVE PROPERTY AIRCRAFT STRUCTURE UNDER UNCONTAINED ENGINE DEBRIS IMPACT A. Chernov TsAGI, Russian Federation</p>	<p>ICAS 2010-9.1.2 BIRD STRIKE QUALIFICATION OF THE EXTERNAL STORES OF THE NEW DLR RESEARCH AIRCRAFT HALO C. Kindervater, D. Schwinn, A. Reiter DLR, Germany</p>	<p>ICAS 2010-9.1.3 CRASHWORTHINESS OF ISOFIX AND LATCH CHILD RESTRAINT SYSTEMS IN TRANSPORT CATEGORY AIRCRAFT A. Shrimpton RMIT Univ., Australia</p>
ICAS 2010-10.1 Fault Tolerant Control: Chairs: C. Michaut, ONERA, FR		
<p>ICAS 2010-10.1.1 IMMUNE : INTELLIGENT MONITORING AND MANAGEMENT OF UNEXPECTED EVENTS C. Doell, A. Varga*, C. Kappenberger* ONERA, France; *DLR, Germany</p>	<p>ICAS 2010-10.1.2 USING SIMULATION-BASED FILTERING APPROACHES FOR IN-FLIGHT MONITORING OF CONTROL SURFACES C. Kappenberger DLR, Germany</p>	<p>ICAS 2010-10.1.3 ON-LINE PARAMETER IDENTIFICATION FOR IN-FLIGHT AIRCRAFT MONITORING G. Hardier, A. Bucharles ONERA, France</p>
ICAS 2010-11.1 Airport Modeling: Chairs: J. Reichmuth, DLR, DE		
<p>ICAS 2010-11.1.1 ADSIM+: AN UPDATED AND ENHANCED VERSION OF THE AIRFIELD DELAY SIMULATION MODEL P. Lucic, D. He, J. Post* CSSI, Inc.; *FAA, USA</p>	<p>ICAS 2010-11.1.2 HOW TO ASSESS EFFICIENCY IMPROVEMENTS UNDER PARTICULAR CONSIDERATION OF ATM NETWORK EFFECTS T. Günther, H. Fricke TU Dresden, Germany</p>	<p>ICAS 2010-11.1.3 ENABLING AIRCRAFT PERFORMANCE STUDIES IN AIRPORT AIRSIDE SIMULATIONS P. M. Böck TU Munich, Germany</p>

Monday September 20 <sup>th</sup> Afternoon Sessions								
14:00 – 14:30	14:30 – 15:00	15:00 – 15:30	15:30- 16:00	16:30 – 17:00	17:00 – 17:30	17:30 – 18:00	18:00 – 18:30	
<b>ICAS 2010-1.2 Future Aircraft Concepts II:</b> <b>Chairs: D. Schmitt, Bauhaus Luftfahrt, DE; H. Nakamura, Tokyo University, JP</b>				<b>ICAS 2010-1.3 UAS Concepts:</b> <b>Chairs: R. J. Williams, BAE Systems, UK; Y. Miyazawa, Kyushu University, JP</b>				
ICAS 2010-1.2.1 HYDROGEN POWERED FREIGHTER AIRCRAFT – THE FINAL RESULTS OF THE GREEN FREIGHTER PROJECT K. Seeckt, W. Heinze*, D. Scholz Hamburg Univ. of Applied Sciences; *TU Braunschweig, Germany	ICAS 2010-1.2.2 TORUS-TYPE AIRSHIP AIMING AT HIGH AIRWORTHINESS QUALITY H. Suefuku, T. Hirayama, Y. Hirakawa, et al Yokohama National Univ., Japan	ICAS 2010-1.2.3 AEROMOBILE AIR TRANSPORT SYSTEM DESIGN AND TESTING S. Klein, A. Pistek*, L. Smrcek** Academy of Fine Art & Design, Slovakia; *TU BRNO, Czech Republic; **Univ. of Glasgow, UK	ICAS 2010-1.2.4 SPORT AVIATION OF THE FUTURE. POSSIBLE CONCEPTS FOR FUTURE SPORT AIRCRAFT USING DIFFERENT ENVIRONMENTAL FRIENDLY PROPULSION CONCEPTS C. Jouannet, D. Lundström, K. Amadori, et al Linköping Univ., Sweden	ICAS 2010-1.3.1 INVITED THE ADOPTION OF UAS TECHNOLOGY IN THE UK SECURITY MARKET R.J. Williams BAE Systems, UK	ICAS 2010-1.3.2 MULTI-DISCIPLINARY OPTIMISATION OF A SOLAR-POWERED HIGH ALTITUDE LONG ENDURANCE UAV O. Montagnier, L. Bovet CReA (French Air Force), France	ICAS 2010-1.3.3 THE DEVELOPMENT OF A UAV SYSTEMS INTEGRATION LABORATORY AND MODULAR RESEARCH UAV J. S. Monk CSIR, South Africa	ICAS 2010-1.3.4 ACQUIRING TEAM-LEVEL PERFORMANCE FOR UAS MISSION S. Lacheze, V. Ferrari CReA (French Air Force), France	
<b>ICAS 2010-2.2 CFD Algorithms:</b> <b>Chairs: N. Kroll, DLR, DE; TBD</b>				<b>ICAS 2010-2.3 CFD Low Speed Applications:</b> <b>Chairs: B. Richards, Univ. of Glasgow, UK; TBD</b>				
ICAS 2010-2.2.1 STUDY OF AN EDGE-BASED FINITE VOLUME SCHEME AT WING TRAILING EDGE AND THE INFLUENCE ON THE OVERALL ACCURACY L. Tysell FOI, Sweden	ICAS 2010-2.2.2 IMPLEMENTATION OF AN ERROR ESTIMATION AND GRID ADAPTATION MODULE INTO THE DLR TAU CODE J. Ponsin, A. Caloto, E. Andrés INTA, Spain	ICAS 2010-2.2.3 CONSTRUCTION OF VERY HIGH ORDER RESIDUAL DISTRIBUTION SCHEMES FOR COMPRESSIBLE FLOW PROBLEMS R. Abgrail INRIA and IPB, France	ICAS 2010-2.2.4 APPLICATION OF DISCONTINUOUS GALERKIN METHOD FOR EXTERNAL AERODYNAMIC FLOWS A. Wolkov, S. Lyapunov, C. Hirsch* TsAGI, Russian Federation; *NUMECA International, Belgium	ICAS 2010-2.3.1 NUMERICAL OPTIMIZATION OF LEADING-EDGE DEFLECTION ANGLES FOR AN SST CONFIGURATION AT LOW SPEED Z. Lei, D. -Y. Kwak* Tokyo Univ. of Science, Suwa; *JAXA, Japan	ICAS 2010-2.3.2 PREDICTION OF MULTI-ELEMENT AEROFOIL, HIGH-LIFT AERODYNAMICS AT LOW-SPEED AND TRANSONIC FLOW CONDITIONS L. J. Johnston Univ. of Salford, UK	ICAS 2010-2.3.3 A STUDY OF DIFFERENT MESH GENERATION APPROACHES TO CAPTURE AERODYNAMIC COEFFICIENTS FOR HIGH-LIFT CONFIGURATIONS A.P. Antunes, R.G. Silva*, J.L.F. Azevedo ITA; *Univ. of São Paulo, Brazil	ICAS 2010-2.3.4 PROPELLER POWER EFFECTS MODELING IN A LOW-ORDER PANEL CODE M. K. Rwigema Univ. of the Witwatersrand, South Africa	
<b>ICAS 2010-3.2 Low Speed Aerodynamics Testing:</b> <b>Chairs: H. Consigny, ONERA, FR; B. Barzegar, Airbus UK, UK</b>				<b>ICAS 2010-3.3 Aero Testing Techniques I:</b> <b>Chairs: M. George, NASA Ames Research Center, US; F. Munteanu, INCAS, RO</b>				
ICAS 2010-3.2.1 WIND TUNNEL INVESTIGATION FOR OSCILLATORY BLOWING ON HIGH LIFT SYSTEMS C. Nae INCAS, Romania	ICAS 2010-3.2.2 WIND TUNNEL INVESTIGATION OF FLOWFIELD ON THE FOWLER FLAP AND IN THE COVE USING PIV METHOD Z. Patek, M. Zabloudil VZLU, Czech Republic	ICAS 2010-3.2.3 TESTING OF ADAPTIVE AIRFOIL CONTROL FOR UNMANNED AERIAL VEHICLES USING SHAPE MEMORY ALLOY ACTUATORS E. Abdullah, C. Bil, S. Watkins RMIT Univ., Australia	ICAS 2010-3.2.4 AERODYNAMIC PERFORMANCE OPTIMIZATION OF A WING TUNNEL MORPHING WING MODEL SUBJECT TO VARIOUS FLOW CONDITIONS M. Mamou, Y. Mébarki, M. Khalid, et al NRC/IAR, Canada	<b>B R E A K</b>	ICAS 2010-3.3.1 STRUCTURAL DESIGN GUIDELINES FOR WIND TUNNEL MODELS MADE BY RAPID PROTOTYPING E. Kroll, D. Artzi, G. Raibag Technion, Israel	ICAS 2010-3.3.2 A PROTOTYPE SYSTEM TOWARDS EFD/CFD INTEGRATION: DIGITAL/ANALOG-HYBRID WIND TUNNEL S. Watanabe, S. Kuchi-ishi, T. Aoyama JAXA, Japan	ICAS 2010-3.3.3 QUANTITATIVE 3D DENSITY MEASUREMENT OF SUPERSONIC FLOW BY COLORED GRID BACKGROUND ORIENTED SCHLIEREN (CGBOS) TECHNIQUE M. Ota, K. Hamada, K. Maeno Chiba Univ., Japan	ICAS 2010-3.3.4 EXPERIMENTAL STUDY OF JET FLOW FIELD BY DUAL HOLOGRAM INTERFEROMETRY P. Lv, X. Wang, Z. Chen NPU, China
<b>ICAS 2010-4.2 Fans, Compressors &amp; Turbines II:</b> <b>Chairs: P. Marquez, I.T.P., ES; S. V. Pankov, CIAM, RU</b>					<b>ICAS 2010-4.3 Combustion:</b> <b>Chairs: M. Mulero, INTA, ES; TBD</b>			
ICAS 2010-4.2.1 NUMERICAL DESIGN AND OPTIMIZATION OF A NEW CASING TREATMENT FOR SHROUDED FANS L. Soulat, P. Ferrand, S. Aubert*, et al LMFA; *Fluorem SAS., France	ICAS 2010-4.2.2 NUMERICAL AND EXPERIMENTAL INVESTIGATIONS OF CRF WITH SIMULATION OF FLOW NON-UNIFORMITY IN THE BASIC FLIGHT CONDITIONS I. A. Brailko, V. I. Mileshein, A. M. Volkov, et al CIAM, Russian Federation	ICAS 2010-4.2.3 NUMERICAL AND EXPERIMENTAL INVESTIGATIONS OF A HIGH-LOADED TYPICAL MIDDLE STAGE MODEL OF HPC V. I. Mileshein, I. K. Orekhov, S. V. Pankov, et al CIAM, Russian Federation	ICAS 2010-4.2.4 FORWARD SWEPT ROTOR STUDIES IN MULTISTAGE FANS INCLUDING THE EFFECT ON PERFORMANCE WITH INLET DISTORTION A. Wadia GE Aviation, USA	ICAS 2010-4.3.1 A COMPUTATIONAL STUDY OF SCRAMJET COMBUSTION C. Fureby FOI, Sweden	ICAS 2010-4.3.2 PULSE DETONATION AS AN OPTION FOR FUTURE INNOVATIVE GAS TURBINE COMBUSTION TECHNOLOGIES: A CONCEPT ASSESSMENT F. Giuliani, A. Lang Graz Univ. of Technology, Austria	ICAS 2010-4.3.3 A NEW TEST RIG FOR LASER OPTICAL INVESTIGATIONS OF LEAN JET ENGINE BURNERS D. Schneider, T. Aumeier, T. Behrendt, et al DLR, Germany	ICAS 2010-4.3.4 DETAILED INVESTIGATION IN DEVELOPMENTAL PROCESS OF FULL ANNULAR COMBUSTOR FOR SMALL AIRCRAFT JET ENGINE M. MAKIDA, H. YAMADA, K. SHIMODAIRA JAXA, Japan	
<b>ICAS 2010-5.2 Environmental Noise:</b> <b>Chairs: Y. Khaletskiy, CIAM, RU; A. M. Rolt, Rolls-Royce, UK</b>				<b>ICAS 2010-5.3 Handling Quality &amp; Stability:</b> <b>Chairs: A. Efremov, MAI, RU; F. Quagliotti, Politecnico di Torino, IT</b>				
ICAS 2010-5.2.1 MODELING OF ATMOSPHERIC EFFECT ON SONIC BOOM S.L. Chernyshev, A.Ph. Kiselev, P.P. Vorotnikov TsAGI, Russian Federation	ICAS 2010-5.2.2 WING LEADING EDGE CONCEPTS FOR NOISE REDUCTION A. Shmilovich, Y. Yadlin, D. Pitera The Boeing Company, USA	ICAS 2010-5.2.3 ANALYTIC DESCRIPTION OF THE NOISE RADIATION FROM SINGLE- AND CONTRA-ROTATING PROPELLERS H. Brouwer NLR, Netherlands	ICAS 2010-5.2.4 STUDY OF INFLUENCE OF ENGINE CONTROL LAWS ON TAKEOFF PERFORMANCES AND NOISE AT CONCEPTUAL DESIGN OF SSBJ PROPULSION SYSTEM P. Ryabov CIAM, Russian Federation	ICAS 2010-5.3.1 MATHEMATICAL STUDY OF LINEAR AND NONLINEAR ROTORCRAFT PILOT COUPLINGS S. Kolb, M. Menet CReA (French Air Force), France	ICAS 2010-5.3.2 PECULIARITIES OF MOTION CUEING FOR PRECISION CONTROL TASKS AND MANEUVERS L. E. Zaichik, Y. P. Yashin, P. A. Desyatnik TsAGI, Russian Federation	ICAS 2010-5.3.3 ANALYTICAL STUDY OF STABILITY OF WING ROCK MODELS R. M. U. Entz, L. G. N. Correa, F. D. Marques, et al Univ. of São Paulo, Brazil	ICAS 2010-5.3.4 LONGITUDINAL STABILITY AUGMENTATION DESIGN WITH TWO DEGREE OF FREEDOM CONTROL STRUCTURE AND HANDLING QUALITY REQUIREMENT F. J. T. Vargas, P. Paglione*, F. J. de Olivei Moreira EMBRAER; *ITA, Brazil	

<b>ICAS 2010-6.2 UAV Control I:</b> <b>Chairs: W. Anemaat, DARCORP, US; S. Sasa, JAXA, JP</b>				<b>ICAS 2010-6.3 UAV Control II:</b> <b>Chairs: C. Clarkson, BAE Systems, UK; Y. Kim, Seoul National Univ., KR</b>			
<b>ICAS 2010-6.2.1</b> SMART UAV RESEARCH PROGRAM STATUS UPDATE: ACHIEVEMENT OF TILT-ROTOR TECHNOLOGY DEVELOPMENT AND VISION AHEAD O. S. Ahn, J. M. Kim, C. H. Kim Korea Aerospace Research Institute, Korea	<b>ICAS 2010-6.2.2</b> DEVELOPMENT OF FLIGHT MECHANICAL MODELS AND CONTROL LAWS FOR THE AUTONOMOUS HELICOPTER SKELDAR P. Weinerfelt, O. Härkegård, E. Backlund Saab AB, Sweden	<b>ICAS 2010-6.2.3</b> RESEARCH ON FLIGHT CONTROL METHOD OF MORPHING UCAV BASED ON REINFORCEMENT LEARNING Z. X. Yao Shenyang Aircraft Design and Research Institute, China	<b>ICAS 2010-6.2.4</b> STUDY ON CONTROL EFFECTIVENESS OF A DUCTED-FAN UAV A. Maqsood, Y. G. Tiau Hiong Nanyang Technological Univ., Singapore	<b>ICAS 2010-6.3.1</b> A SOFTWARE ARCHITECTURE FOR AUTONOMOUS UAV MISSION MANAGEMENT AND CONTROL P. Gunetti, T. Dodd, H. Thompson Univ. of Sheffield, UK	<b>ICAS 2010-6.3.2</b> THEORETICAL AND EXPERIMENTAL INVESTIGATIONS OF AERODYNAMICS AND FLIGHT DYNAMICS FOR MICRO-UAVS V. Brusov, V. Petruclik, Yu. Tiumentsev Moscow Aviation Institute, Russian Federation	<b>ICAS 2010-6.3.3</b> DEVELOPMENT OF A MORPHING FLYING PLATFORM FOR ADAPTIVE CONTROL SYSTEM STUDY T. Mulyanto, M. L. I. Nurhakim, R. A. Sasongko Institute of Technology Bandung, Indonesia	<b>ICAS 2010-6.3.4</b> NONLINEAR ROBUST DESIGN OF UNMANNED COMBAT AIR VEHICLE AUTOMATIC CONTROL SYSTEM A. S. Neamtu, A. M. Stoica* Univ. Politehnica Bucuresti and INCAS; *Univ. Politehnica Bucuresti, Romania
<b>ICAS 2010-7.2 Safety of Systems:</b> <b>Chairs: G. Rayczyk, Liebherr, DE; O. Savin, Dassault Aviation, FR</b>				<b>ICAS 2010-7.3 Methodology for Systems Design:</b> <b>Chairs: P. Froment, Safran, FR; TBD</b>			
<b>ICAS 2010-7.2.1</b> AVIONICS OF ZERO MAINTENANCE EQUIPMENT V. Bukov, V. Kutahov*, A. Bekkiev* Institute Aircraft Equipment, Russian Federation; *State Corp. "Rostechologii", Russian Federation	<b>ICAS 2010-7.2.2</b> EFFECTS OF ICE ACCRETION IN THE PERFORMANCE OF AIRCRAFT FUEL FEEDING SYSTEMS C. P. Lawson, S. Baena, J. Lam* Cranfield Univ.; *Airbus, UK	<b>ICAS 2010-7.2.3</b> CONCEPTUAL DESIGN OF A HARD LANDING INDICATION SYSTEM USING A FLIGHT PARAMETER SENSOR SIMULATION MODEL P. Sartor, D.A. Bond*, R.K. Schmidt**, et al Univ. of Sheffield; *Messier-Dowty Ltd., UK; **Messier-Dowty S.A., France	<b>ICAS 2010-7.2.4</b> REDUNDANT HYDRAULIC SECONDARY FLIGHT CONTROL SYSTEMS BEHAVIOR IN FAILURE CONDITIONS L. Borello, G. Villero, M. Dalla Vedova Politecnico di Torino, Italy	<b>ICAS 2010-7.3.1</b> MODELING AND SIMULATION OF SAAB GRIPENS VEHICLE SYSTEMS, CHALLENGES IN PROCESSES AND DATA UNCERTAINTIES. S. Steinkellner, H. Andersson, H. Gavel, et al Saab AB, Sweden	<b>ICAS 2010-7.3.2</b> EFFICIENT INTEGRATION OF TRANSIENT CONSTRAINTS IN THE DESIGN OF AIRCRAFT DYNAMIC SYSTEMS L. L. Phan, D. N. Mavris, J.-J. Carrier*, et al Georgia Institute of Technology, USA; *Hispano-Suiza (Safran Group), France	<b>ICAS 2010-7.3.3</b> THE APPLICATION OF CONFIDENCE INTERVAL IN THE EVALUATION OF ELECTRIC ACTUATION DUTY CYCLE D. Blanding, M. R. Sexton, M. Segal The Boeing Company, USA	<b>ICAS 2010-7.3.4</b> CONTROL LOOP USES OF HIERARCHICAL TEMPORAL MEMORY ALGORITHMS J. Sherwin Georgia Institute of Technology, USA
<b>ICAS 2010-8.2 Impact Damage Assessment:</b> <b>Chairs: C. Kindervater, DLR, DE; D. Nouailhas, ONERA, FR</b>				<b>ICAS 2010-8.3 Damage Tolerance:</b> <b>Chairs: F. Abdi, Alpha STAR Corporation, US; TBD</b>			
<b>ICAS 2010-8.2.1</b> ANALYSIS AND TESTS OF IMPACT DAMAGED SYMMETRIC AND BALANCED LAMINATES M. J. Wallin Helsinki Univ. of Technology, Finland	<b>ICAS 2010-8.2.2</b> EFFECT OF THE IMPACT DAMAGE TO STRENGTH OF FIBROUS COMPOSITE I. Pavelko, V. Pavelko, M. Smoljaninov Riga Technical Univ., Latvia	<b>ICAS 2010-8.2.3</b> IMPACT AND COMPRESSION-AFTER-IMPACT DAMAGE TOLERANCE OF NOVEL AEROSPACE SANDWICH COMPOSITE STRUCTURES A. Zammit, J. Bayandor, M. Garg*, et al RMIT Univ., Australia; *Alpha STAR Corporation, USA	<b>ICAS 2010-8.2.4</b> INNOVATIVE NDT TECHNIQUE – DETECTION OF SURFACE CRACKS IN NON-FERROMAGNETIC MATERIALS BY FERROFLUID DEPOSITION J. I. Rojas, D. Crespo EPSC-UPC, Spain	<b>ICAS 2010-8.3.1</b> NUMERICAL SIMULATION OF DAMAGE BEHAVIOUR OF TEXTILE REINFORCED COMPOSITES IN AIRCRAFT STRUCTURES P. Linde, P. Middendorf*, B. van den Broucke*, et al Airbus; *EADS IW, Germany	<b>ICAS 2010-8.3.2</b> ANALYSIS OF DAMAGE DEVELOPMENT IN CFRP NOTCHED COUPONS WITH ENERGY-BASED MULTI-AXIAL FAILURE DATA A.J. Litchfield, A.C. Orifici*, J.G. Michopoulos**, et al RMIT Univ., Australia; *CRC-ACS Ltd, Australia; **Naval Research Laboratory, USA	<b>ICAS 2010-8.3.3</b> ADVANCED DAMAGE TOLERANCE AND RISK ASSESSMENT METHODOLOGY AND TOOL FOR AIRCRAFT STRUCTURES CONTAINING MSD/MED M. Liao, Y. Bombardier, G. Renaud, et al NRC/IAR, Canada	<b>ICAS 2010-8.3.4</b> PATCH MATERIALS SELECTION FOR AGEING METALLIC AIRCRAFT STRUCTURES USING DIGITAL QUANTITATIVE MATERIALS SELECTION METHODS A. Abedian, K. Fayazbakhsh, E. Fouladi Sharif Univ. of Technology, Iran
<b>ICAS 2010-9.2 Structural Analysis &amp; Design I:</b> <b>Chairs: J. Wiggeraad, NLR, NL; TBD</b>				<b>ICAS 2010-9.3 Dynamic Loading/Impact II:</b> <b>Chairs: J. Nakamichi, JAXA, JP; TBD</b>			
<b>ICAS 2010-9.2.1</b> DESIGN OF AN INTEGRAL PRE-PROCESSOR FOR AIRCRAFT MULTI-MODEL GENERATION C. Cooper, T. Chiciudean TU Delft, Netherlands	<b>ICAS 2010-9.2.2</b> ON THE COUPLING OF A REANALYSIS TECHNIQUE WITH A HYBRID DESIGN OPTIMIZATION METHOD D. Akcay Perdahcioglu Univ. of Twente, Netherlands	<b>ICAS 2010-9.2.3</b> COMPARISON OF UNCERTAINTY QUANTIFICATION AND RELIABILITY ANALYSIS METHODS APPLIED TO AIRCRAFT STRUCTURES J. Diaz, S. Hernandez, L. E. Romera, et al Univ. of La Coruña, Spain	<b>ICAS 2010-9.2.4</b> STRUCTURAL DESIGN OF A MEDIUM-SIZED JOINED-WING C. Cuerno, R. Martinez-Val, E. Perez E.T.S.I. Aeronauticos (UPM), Spain	<b>ICAS 2010-9.3.1</b> EXPERIMENTAL AND ANALYTICAL TECHNIQUES FOR ACCURATE PREDICTION OF HIGH STRAIN RATE AND IMPACT BEHAVIOUR IN COMPOSITE M. K. Kim, J. Bayandor, I. Herszberg*, et al RMIT, Australia; *CRC-ACS Ltd, Australia	<b>ICAS 2010-9.3.2</b> A MULTI-BODY APPROACH TO AIRCRAFT DYNAMIC GROUND LOADS COMPUTATION V. Sohoni, F. Engelsen*, J. Wang MSC Software Corp, USA; *The Boeing Company, USA	<b>ICAS 2010-9.3.3</b> FINITE ELEMENT SIMULATION OF SHOCK ENHANCEMENT IN CELLULAR STRUCTURES UNDER IMPACT LOADING T. Suo NPU, China	<b>ICAS 2010-9.3.4</b> OPTIMIZATION INVERSION ON CONSTITUTIVE MODEL PARAMETERS OF BIRD IN THE SIMULATION OF BIRD STRIKE ON THE AIRCRAFT J. Liu, Y. Li NPU, China
<b>ICAS 2010-10.2 Airworthiness &amp; Risk Analysis:</b> <b>Chairs: C. Cifaldi, ENAC, IT; TBD</b>				<b>ICAS 2010-10.3 Wake Vortex Problems:</b> <b>Chairs: E. Coustols, ONERA, FR; A. Flaig, Airbus, FR</b>			
<b>ICAS 2010-10.2.1</b> DEFINITION OF AIRWORTHINESS CATEGORIES FOR UNMANNED AIRCRAFT SYSTEMS (UAS) R. A. Clothier, R. A. Walker, J. Palmer* Queensland Univ. of Technology; *DSTO, Australia	<b>ICAS 2010-10.2.2</b> RISK ANALYSIS OF UNMANNED AIRCRAFT SYSTEMS (UAS) OVERFLYING POPULATED AREAS P. Wu, R. Clothier, R. Walker ARCAA, Queensland Univ. of Technology, Australia	<b>ICAS 2010-10.2.3</b> FORMAL VERIFICATION OF SAFETY BUFFERS FOR STATE-BASED CONFLICT DETECTION AND RESOLUTION H. Herencia-Zapana, J.-B. Jeannin*, C. Munoz** National Institute of Aerospace; *Cornell Univ.; **NASA Langley, USA	<b>ICAS 2010-10.2.4</b> ON THE THREE-DIMENSIONAL COLLISION PROBABILITIES RELEVANT TO AIR TRAFFIC MANAGEMENT. L.M.B.C. Campos, J.M.G. Marques CCTAE, Portugal	<b>ICAS 2010-10.3.1</b> ANALYSIS OF TWO 2005 WAKE VORTEX ENCOUNTER INCIDENTS C. Schwarz DLR, Germany	<b>ICAS 2010-10.3.2</b> TOOLS FOR DYNAMIC ADJUSTMENT OF AIRCRAFT SEPARATIONS IN WAKE VORTICES L. Planckaert, P. Coton, M. Balesdent ONERA, France	<b>ICAS 2010-10.3.3</b> REAL TIME MATHEMATICAL MODELING OF THE AERODYNAMIC CHARACTERISTICS OF AN AIRCRAFT ENCOUNTERING VORTEX WAKES A. Gaifullin, A. Korniyakov, Y. Sviridenko TsAGI, Russian Federation	<b>ICAS 2010-10.3.4</b> EXPERIMENTAL AND NUMERICAL INVESTIGATIONS OF THE WAKE VORTEX SYSTEM OF A DELTA-CANARD-CONFIGURATION J. Klar, C. Breitsamter, N. A. Adams TU Munich, Germany
<b>ICAS 2010-11.2 ATM I:</b> <b>Chairs: D. Kügler, DLR, DE; M. Bloem, NASA, US</b>				<b>ICAS 2010-11.3 ATM II:</b> <b>Chairs: S.J. Zelinski, NASA, US; C. Pusch, Eurocontrol, FR</b>			
<b>ICAS 2010-11.2.1</b> EPISODE3: NEW APPROACHES IN ATM CONCEPT VALIDATION P. Lepplae EUROCONTROL, France	<b>ICAS 2010-11.2.2</b> DEFINING DYNAMIC ROUTE STRUCTURE FOR AIRSPACE CONFIGURATION S. Zelinski NASA Ames, USA	<b>ICAS 2010-11.2.3</b> CONFIGURING AIRSPACE SECTORS WITH APPROXIMATE DYNAMIC PROGRAMMING M. Bloem, P. Gupta* NASA Ames; *San Jose State University Research Foundation, USA	<b>ICAS 2010-11.2.4</b> EVALUATION OF NAUTICAL MINUTE DISCRETISATION FOR CONTROL OF CONTINENTAL ENROUTE AIRSPACE P. Simon, C. Bil, L. Thompson RMIT Univ., Australia	<b>ICAS 2010-11.3.1</b> SECTORLESS ATM – ANALYSIS AND SIMULATION RESULTS B. Korn, C. Edinger, T. Puetz*, et al DLR; *DFS - Deutsche Flugsicherung, Research and Development, Germany	<b>ICAS 2010-11.3.2</b> METHODS TO INTEGRATE MULTIPLE STAKEHOLDER PERSPECTIVES INTO AIR TRANSPORTATION EFFICIENCY METRICS T. Kotegawa, D. DeLaurentis, G. Harden, et al Purdue Univ., USA	<b>ICAS 2010-11.3.3</b> FMS AUTOMATION ISSUES FOR FUTURE ATM INTEGRATION G. W. Flathers, G. T. Spence, D. J. Allerton Univ. of Sheffield, UK	<b>ICAS 2010-11.3.4</b> SYSTEM ANALYSIS FOR FUTURE LONG-RANGE OPERATION CONCEPTS S. Langhans, F. Linke, P. Nolte, H. Schneider* DLR, * Airbus Deutschland GmbH (retired), Germany

Tuesday September 21 <sup>st</sup> . Morning Sessions				
08:00 – 09:15 GENERAL LECTURE I (INVITED) - Chairman: D. Mueller-Wiesner, Chairman ICAS Programme Committee, Germany J. Botti, EADS, Germany; M. Ganz., The Boeing Company, US: AVIATION AND THE ENVIRONMENT (ICAS 2010-0.2 and ICAS 2010-0.3)				
09:15 – 09:30 BREAK				
09:30 – 10:00	10:00 – 10:30	10:30 – 11:00	11:00 – 11:30	11:30 – 12:00
ICAS 2010-1.4 Aircraft Design Methods I: Chairs: R. Del Rosario, NASA, US; W. Kimmel, NASA, US				
<p>ICAS 2010-1.4.1 WHY JET COMMERCIAL AIRPLANES CRUISE AT 30 000 FT ? CONCEPTUAL OPTIMAL CRUISE ALTITUDE J.-L. Boiffier, L. Bovet* Isae-SupAéro and Onéra; *Airbus, France</p>	<p>ICAS 2010-1.4.2 AIRCRAFT MISSION AND SYSTEM FAILURE CONSIDERATIONS FOR FUNCTIONAL INDUCTION BASED CONCEPTUAL ARCHITECTURE DESIGN M. J. Armstrong, C. de Tenorio, E Garcia, et al; Georgia Institute of Technology, USA</p>	<p>ICAS 2010-1.4.3 CST PARAMETRIZATION FOR UNCONVENTIONAL AIRCRAFT DESIGN OPTIMIZATION P.D. Ciampa, T. Zill, B. Nagel DLR, Germany</p>	<p>ICAS 2010-1.4.4 RELATING &amp; COMPARING OPERATING EFFICIENCIES OF CIVIL AIRCRAFT &amp; MILITARY TRANSPORTS (JETS &amp; TURBO-PROPS) R. K. Nangia, C. Zeune*, W. B. Blake* Nangia Aero Research, UK; *USAF-AFRL, USA</p>	<p>ICAS 2010-1.4.5 POSTER PROMOTIONS</p>
ICAS 2010-2.4 Advanced CFD Applications: Chairs: C-C. Rossow, DLR, DE; Y. Nakamura, Nagoya University, JP				
<p>ICAS 2010-2.4.1 SONIC-BOOM PREDICTION USING EULER CFD CODES WITH STRUCTURED/UNSTRUCTURED OVERSET METHOD H. Ishikawa, K. Tanaka*, Y. Makino**, et al Sanko Soft Co. Ltd.; *Ryoyu Systems Co. Ltd.; **JAXA, Japan</p>	<p>ICAS 2010-2.4.2 AUTOMATIC GRID GENERATION FOR ACCURATE NAVIER-STOKES SIMULATIONS P. R. Lahur, A. Hashimoto*, K. Murakami*, et al Research Center of Computational Mechanics, Inc.; *JAXA, Japan</p>	<p>ICAS 2010-2.4.3 FROM GEOMETRY TO CFD-BASED AERODYNAMIC DERIVATIVES - AN AUTOMATED APPROACH M. Tomac, D. Eller KTH, Sweden</p>	<p>ICAS 2010-2.4.4 NUMERICAL SIMULATIONS OF TECHNOLOGICAL EFFECTS ENCOUNTERED ON TURBOMACHINERY CONFIGURATIONS WITH THE CHIMERA TECHNIQUE L. Castillon, S. Peron, C. Benoit ONERA, France</p>	<p>ICAS 2010-2.4.5 POSTER PROMOTIONS</p>
ICAS 2010-3.4 Aero Testing Techniques II: Chairs: D. Hunter, ARA, UK; TBD				
<p>ICAS 2010-3.4.1 SAO PROJECT - USING CFD CODES TO REDUCE UNCERTAINTIES OF WIND TUNNEL EXPERIMENTS G. Boyet, M. Lyonnet, S. Mouton ONERA, France</p>	<p>ICAS 2010-3.4.2 LOCALISING AIRCRAFT NOISE SOURCES WITH LARGE SCALE ACOUSTIC ANTENNA C. Cariou, O. Delverdier Airbus, France</p>	<p>ICAS 2010-3.4.3 EXPERIMENTAL RESEARCH FOR AERODYNAMIC INTERFERENCE BY UPPER MOUNTED ENGINE EXHAUST JET ON SST CONFIGURATIONS D. Y. Kwak, T. Hirotani, M. Noguchi, et al JAXA, Japan</p>	<p>ICAS 2010-3.4.4 AIRFRAME NOISE MEASUREMENTS BY USING SIMPLIFIED HIGH LIFT MODEL H. Ura, Y. Yokokawa, T. Imamura, et al JAXA, Japan</p>	<p>ICAS 2010-3.4.5 POSTER PROMOTIONS</p>
ICAS 2010-4.4 Noise, Vibrations & Acoustics I: Chairs: D. Juvé, Ecole Centrale de Lyon, FR; D. Collin, Snecma, FR				
<p>ICAS 2010-4.4.1 CEPRA19 : REDUCING THE JET NOISE : THE ACTIVE TECHNOLOGIES SYSTEM O. PICCIN, P. LECONTE, J.D. JOUTEAU ONERA, France</p>	<p>ICAS 2010-4.4.2 NUMERICAL TOOLS FOR CONTRA ROTATING OPEN-ROTOR PERFORMANCE, NOISE AND VIBRATION ASSESSMENT M. Laban, J. C. Kok, B. B. Prananta NLR, Netherlands</p>	<p>ICAS 2010-4.4.3 SEMI-BURIED ENGINES INSTALLATION: THE NACRE PROJECT EXPERIENCE J.-L. Godard ONERA, France</p>	<p>ICAS 2010-4.4.4 ANIBAL: A SUCCESSFUL AERO-ACOUSTIC OPTIMIZATION OF CARBON FIBER PROPELLER FOR LIGHT AIRCRAFT T. Lefebvre, S. Canard, C. Le Tallec, et al ONERA, France</p>	<p>ICAS 2010-4.4.5 POSTER PROMOTIONS</p>
ICAS 2010-5.4 Flight Control I: Chairs: L. Zaichik, TsAGI, RU; M. Yanagihara, JAXA, JP				
<p>ICAS 2010-5.4.1 IMMUNE : CONTROL REALLOCATION AFTER SURFACE FAILURES USING MODEL PREDICTIVE CONTROL L. Lafourcade, C. Cumer, C. Doll ONERA, France</p>	<p>ICAS 2010-5.4.2 FLIGHT TRAJECTORY CONTROL BASED ON REQUIRED ACCELERATION N. Yoshitani Teikyo Univ., Japan</p>	<p>ICAS 2010-5.4.3 ADAPTIVE CONTROL USING SUPPORT VECTOR REGRESSION FOR HYPERSONIC AIRCRAFT CONTROL SYSTEM J. Shin, H. J. Kim, Y. Kim Seoul National Univ., Korea</p>	<p>ICAS 2010-5.4.4 AN ADAPTIVE CONTROL TECHNOLOGY FOR IMPROVED FLIGHT SAFETY G. Crespo, M. Matsutani*, A. Annaswamy* National Institute of Aerospace; *MIT, USA</p>	<p>ICAS 2010-5.4.5 POSTER PROMOTIONS</p>

<b>ICAS 2010-6.4 UAV Formation Flying: Chairs: M. Hagström, FOI, SE; L. Vecchione, CIRA, IT</b>				
<b>ICAS 2010-6.4.1 INVITED IMPLEMENTATION OF DECONFLICTION IN MULTIVEHICLE AUTONOMOUS SYSTEMS</b> A. Melander, J. Vian, K. Morgensen, N. Powel, et al The Boeing Company, USA	<b>ICAS 2010-6.4.2 AUTONOMOUS FORMATION FLIGHT USING BIFURCATING POTENTIAL FIELDS</b> M. Suzuki, K. Uchiyama, D. J. Bennet*, et al; Nihon Univ., Japan; *Univ. of Strathclyde, UK	<b>ICAS 2010-6.4.3 DECENTRALIZED CONTROLLER DESIGN FOR FORMATION FLIGHT WITH UAV FAILURE DETECTION LOGIC</b> J. Seo, Y. Kim Seoul National Univ., Korea	<b>ICAS 2010-6.4.4 SIMPLE FORMATION CONTROL SCHEME TOLERANT TO COMMUNICATION FAILURES FOR SMALL UNMANNED AIR VEHICLES</b> T. Hino Univ. of Tokyo, Japan	<b>ICAS 2010-6.4.5 POSTER PROMOTIONS</b>
<b>ICAS 2010-7.4 More Electrical Systems I: Chairs: M. Sinai, The Boeing Company, US; P. Krus, Linköping University, SE</b>				
<b>ICAS 2010-7.4.1 KEY ENABLERS FOR POWER OPTIMIZED AIRCRAFT</b> J. Bosson THALES, France	<b>ICAS 2010-7.4.2 OBJECT-ORIENTED MODELLING OF FLIGHT CONTROL ACTUATION SYSTEMS FOR POWER ABSORPTION ASSESSMENT</b> G. Di Rito, E. Denti, R. Galatolo Univ. of Pisa, Italy	<b>ICAS 2010-7.4.3 ACTIVE RECTIFIER COMBINED WITH ENERGY STORAGE DEVICES FOR AN ELECTRICAL SUB NETWORK</b> J. Simon Hispano-Suiza, France	<b>ICAS 2010-7.4.4 A LANDING GEAR ACTUATOR USING A DUAL-OUTPUT POWER CONVERTER BASED MOTOR DRIVE</b> T. Wijekoon, L. Empringham, P. Wheeler, et al Univ. of Nottingham, UK	<b>ICAS 2010-7.4.5 POSTER PROMOTIONS</b>
<b>ICAS 2010-8.4 Advances in Aerospace Materials: Chairs: A. Blom, FOI, SE; J. Komorowski, NRC, CA</b>				
<b>ICAS 2010-8.4.1 COMPOSITE REPAIR FOR METALLIC AIRCRAFT STRUCTURES, DEVELOPMENT &amp; QUALIFICATION ASPECTS</b> G. Günther, A. Maier EADS, Germany	<b>ICAS 2010-8.4.2 Z-PIN COMPOSITES: AEROSPACE STRUCTURAL DESIGN CONSIDERATIONS</b> A. Mouritz RMIT Univ., Australia	<b>ICAS 2010-8.4.3 MATERIALS EVOLUTION IN HOT PARTS OF AERO TURBOENGINES</b> J.Y. GUEDOU Snecma, France	<b>ICAS 2010-8.4.4 USE OF STEEL IN AERONAUTIC JET ENGINES AND EQUIPMENTS FOR SAFRAN GROUP</b> L. Ferrer Snecma, France	<b>ICAS 2010-8.4.5 POSTER PROMOTIONS</b>
<b>ICAS 2010-9.4 Structural Analysis &amp; Design II: Chairs: M. Jackson, Lockheed Martin, US; T. Mulyanto, Institute Technology Bandung, ID</b>				
<b>ICAS 2010-9.4.1 SIMULATION OF FAILURE AND COLLAPSE LOAD PREDICTION OF POST-BUCKLED CFRP AIRCRAFT WING RIBS</b> L. E. Romera, S. Hernández, J. Díaz, et al Univ. of La Coruña, Spain	<b>ICAS 2010-9.4.2 STUDY ON BUCKLING BEHAVIOUR OF LAMINATED SHELLS UNDER PULSE LOADING</b> E. Eglitis, K. Kalnins, C. Bisagni* Riga Technical Univ., Latvia; *Politecnico di Milano, Italy	<b>ICAS 2010-9.4.3 ANALYTICAL METHOD FOR LIMIT LOAD CAPACITY CALCULATION OF THIN WALLED AIRCRAFT STRUCTURES</b> A. Pistek Brno Univ. of Technology, Czech Republic	<b>ICAS 2010-9.4.4 FINITE ELEMENT MODELING AND ANALYSIS OF MULTI-LAYER PIEZOELECTRIC ENERGY HARVESTER</b> C. De Marqui Univ. of São Paulo, Brazil	<b>ICAS 2010-9.4.5 POSTER PROMOTIONS</b>
<b>ICAS 2010-10.4 ATM &amp; Human Factors: Chairs: A. Leger, Thales, FR; TBD</b>				
<b>ICAS 2010-10.4.1 SAFETY WINDOW: S KNOWLEDGE MAPS FOR ACCIDENT PREDICTION AND PREVENTION IN MULTIFACTOR FLIGHT SITUATIONS</b> I. Burdun INTELONICS Ltd., Russian Federation	<b>ICAS 2010-10.4.2 AN ASSESSMENT FOR UAS TRAFFIC AWARENESS OPERATIONS</b> E. Pastor, X. Prats, L. Delgado, et al Technical Univ. of Catalonia, Spain	<b>ICAS 2010-10.4.3 A DATA AUTHENTICATION SOLUTION OF ADS-B SYSTEM BASED ON X.509 CERTIFICATE</b> Z. Feng, W. Pan*, Y. Wang Sichuan Univ.; *Air Traffic Management College, China	<b>ICAS 2010-10.4.4 INVESTIGATIONS ON A NON-INVASIVE METHOD FOR PILOT AND ATC OPERATOR WORKLOAD MONITORING</b> J. Luig, Ch. Kranzler, A. Sontacchi, et al Univ. of Music and Performing Arts Graz, Austria	<b>ICAS 2010-10.4.5 POSTER PROMOTIONS</b>
<b>ICAS 2010-11.4 Trajectories: Chairs: S. Conway, The Boeing Company, US; TBD</b>				
<b>ICAS 2010-11.4.1 ARRIVAL TIME CONTROLLABILITY OF A CONSTRAINED TAILORED ARRIVAL PATH AND ITS OPTIMIZATION</b> N. Takeichi, D. Inami, M. Kudo*, et al Nagoya Univ.; *ENRI, Japan	<b>ICAS 2010-11.4.2 HUMAN-IN-THE-LOOP SIMULATION OF TRAJECTORY-BASED TERMINAL-AREA OPERATIONS</b> T. Callantine, E. Palmer*, M. Kupfer San Jose State Univ. / NASA Ames; *NASA Ames, USA	<b>ICAS 2010-11.4.3 HUMAN IN THE LOOP TO ASSESS 4D TRAJECTORY MANAGEMENT WITH CONTRACT-OF-OBJECTIVES</b> S. Guibert, L. Guichard, JY. Grau* EUROCONTROL; *INEOVA, France	<b>ICAS 2010-11.4.4 A FIELD TEST OPERATING CONCEPT FOR TRAJECTORY BASED OPERATIONS WITH AIR/GROUND DATA LINK COMMUNICATIONS</b> D. McNally, S. E. Sahlman* NASA Ames; *Univ. of California, Santa Cruz, USA	<b>ICAS 2010-11.4.5 POSTER PROMOTIONS</b>

**Tuesday September 21<sup>st</sup>. Afternoon Sessions**

13:30 – 14:15							GENERAL LECTURE II (INVITED) - Chairman: R. Bengelink, USA S. Chernychev, TsAGI, Russia: PROGRESS IN RUSSIAN AVIATION - PROBLEMS AND SOLUTIONS (ICAS 2010-0.4)						
14:15 – 14:30							BREAK						
14:30 – 15:00		15:00 – 15:30		15:30 – 16:00		16:30 – 17:00		17:00 – 17:30		17:30 – 18:00		18:00 – 18:30	
<b>ICAS 2010-1.5 Aircraft Design Methods II:</b> Chairs: M. R. Kirby, Georgia Tech., US; E. Jesse, ADSE, NL							<b>ICAS 2010-1.6 Aircraft Design and Flight Testing I:</b> Chairs: F. Collier, NASA, US; F. Marulo, Università di Napoli "Federico II", IT						
<p>ICAS 2010-1.5.1 COST-RANGE TRADE-OFF IN THE DESIGN AND OPERATION OF LONG RANGE TRANSPORT AIRPLANES R. Martinez-Val, E. Perez, C. Cuerno, et al E.T.S.I. Aeronauticos (UPM), Spain</p>		<p>ICAS 2010-1.5.2 AIRCRAFT DESIGN FOR LOW COST GROUND HANDLING – THE FINAL RESULTS OF THE ALOHA PROJECT P. Krammer, O. Junker*, A. Dengler**, et al Hamburg Univ. of Applied Sciences; *Airport Research Center GmbH; **Airbus Operations GmbH, Germany</p>		<p>ICAS 2010-1.5.3 TOWARDS A META MODEL FOR CONCEPTUAL AIRCRAFT DESIGN M. Glas Bauhaus Luftfahrt, Germany</p>		<p>ICAS 2010-1.6.1 INVITED ENVIRONMENTALLY RESPONSIBLE AVIATION – REAL SOLUTIONS FOR ENVIRONMENTAL CHALLENGES FACING AVIATION F. Collier; NASA, USA</p>		<p>ICAS 2010-1.6.2 DESIGN AND FLIGHT TESTING OF A 5TH GENERATION FIGHTER K. Amadori, D. Lundström, I. Staack, et al; Linköping Univ., Sweden</p>		<p>ICAS 2010-1.6.3 VUT 001 MARABU: UNIVERSAL EXPERIMENTAL AIRCRAFT A. Pistek, J. Hlinka Brno Univ. of Technology, Czech Republic</p>		<p>ICAS 2010-1.6.4 ENFICA-FC: DESIGN, REALIZATION AND FLIGHT TEST OF ALL ELECTRIC 2-SEAT AIRCRAFT POWERED BY FUEL CELLS G. Romeo, F. Borello, G. Correa Politecnico di Torino, Italy</p>	
<b>ICAS 2010-2.5 Turbulence Modeling:</b> Chairs: P. Eliasson, FOI, SE							<b>ICAS 2010-2.6 CFD for Design and Optimization:</b> Chairs: K. Fujii, JAXA, JP; TBD						
<p>ICAS 2010-2.5.1 NUMERICAL SIMULATION AND MODELLING OF HIGH-LIFT AERODYNAMICS IN GROUND-EFFECT M. Barth, B. Calmels, B. Aupoix* Airbus; *ONERA, France</p>		<p>ICAS 2010-2.5.2 THE EFFECT OF UNSTRUCTURED GRID TOPOLOGY AND RESOLUTION ON SIMULATIONS OF DECAYING TURBULENCE C. Winkler, A. Dorgan, M. Mani The Boeing Company, USA</p>		<p>ICAS 2010-2.5.3 DETAILS OF TURBULENCE MODELING IN NUMERICAL SIMULATIONS OF A SCRAMJET INTAKE T. Nguyen, G. Schieffer RWTH Aachen, Germany</p>		<p>ICAS 2010-2.6.1 CAD-BASED AERODYNAMIC SHAPE DESIGN OPTIMIZATION WITH THE DLR TAU CODE M. Martin, E. Andres, M. Wildhalm* INTA, Spain; *DLR, Germany</p>		<p>ICAS 2010-2.6.2 FAST CFD FOR SHAPE AND FLOW PARAMETERIZATION WITH META-MODELS BUILT ON HIGH ORDER DERIVATIVES. FAST DESIGN APPLICATIONS P. Ferrand CNRS, France</p>		<p>ICAS 2010-2.6.3 INFLUENCE OF PARAMETERIZATION AND OPTIMIZATION METHOD ON THE OPTIMUM AIRFOIL B. G. Marinus Royal Military Academy - von Karman Institute, Belgium</p>		<p>ICAS 2010-2.6.4 USER-PREFERENCE PARTICLE SWARM ALGORITHM FOR AIRFOIL DESIGN ARCHITECTURE R. Carrese, H. Winarto, J. Watmuff, et al RMIT Univ., Australia</p>	
<b>ICAS 2010-3.5 Aerothermodynamics:</b> Chairs: S. Tatsumi, MHI, JP; B. Reinartz, RWTH Aachen Univ., DE							<b>ICAS 2010-3.6 Flow Control I:</b> Chairs: D. Tordella, Politecnico di Torino, IT; W. Nitsche, TU Berlin, DE						
<p>ICAS 2010-3.5.1 SHOCK WAVE IMPINGEMENT ON BOUNDARY AND ENTROPY LAYERS OF A BLUNT PLATE Y. V. Borovov, V. I. Egorov, S. A. Skuratov TsAGI, Russian Federation</p>		<p>ICAS 2010-3.5.2 NUMERICAL SIMULATION OF RECEPTIVITY AND STABILITY OF A SUPERSONIC BOUNDARY LAYER V. Soudakov, I. Egorov, A. Fedorov, et al TsAGI, Russian Federation</p>		<p>ICAS 2010-3.5.3 HYPERSONIC AERODYNAMICS OF TOROIDAL BALLUTES V. V. Riabov Rivier College, USA</p>		<p>ICAS 2010-3.6.1 THE EFFECT OF PLASMA SYNTHETIC WALL JET ON THE LAMINAR BOUNDARY LAYER B. Gibson, M. Arjomandi, R. Kelson Univ. of Adelaide, Australia</p>		<p>ICAS 2010-3.6.2 PERFORMANCE AND OPTIMIZATION OF AERODYNAMIC PLASMA ACTUATOR FOR AGILE AIRCRAFT T. Matsuno, K. Ota, T. Kanatani, et al Tottori Univ., Japan</p>		<p>ICAS 2010-3.6.3 PROPORTIONAL POSITION CONTROL OF TURBULENCE G. M. Di Cicca Politecnico di Torino, Italy</p>		<p>ICAS 2010-3.6.4 APPLICATION OF THE PASSIVE CONTROL OF THE SHOCK WAVE TO THE REDUCTION OF THE HELICOPTER ROTOR HIGH-SPEED IMPULSIVE NOISE O. Szulc, P. Doerffer Institute of Fluid-Flow Machinery, Poland</p>	
<b>ICAS 2010-4.5 Noise, Vibrations &amp; Acoustics II:</b> Chairs: D. Collin, Snecma, FR							<b>ICAS 2010-4.6 Engine Performance &amp; Numerical Simulations I:</b> Chairs: M. Benzakein, The Ohio State University, US; J. Brochet, Turbomeca, FR						
<p>ICAS 2010-4.5.1 APPLICATION OF RANDOM FOREST TO ENGINE HEALTH MONITORING J. Ricordeau, J. Lacaille Snecma, France</p>		<p>ICAS 2010-4.5.2 AERODYNAMIC AND AEROACOUSTIC INVESTIGATION OF ROUND AND RECTANGULAR FREE JET CHARACTERISTICS H. Fleischer EADS Deutschland GmbH, Germany</p>		<p>ICAS 2010-4.5.3 SIMULATION OF THE SHAFT OVER-SPEED IN A TWO-SPOOL GAS TURBINE M. Ferlauto, R. Marsilio Politecnico di Torino, Italy</p>		<p>ICAS 2010-4.6.1 A REVIEW OF COMPLETE, GAS TURBINE ENGINE SIMULATIONS R. Claus, S. Townsend* NASA Glenn; *ASRC Aerospace Corp, USA</p>		<p>ICAS 2010-4.6.2 OPTIMIZATION OF A NOVEL ROCKET-BASED COMBINED-CYCLE PROPULSION SYSTEM BY GENETIC ALGORITHM G. Chorkawy, J. Etele Carleton Univ., Canada</p>		<p>ICAS 2010-4.6.3 ASSESSMENT OF NEW AERO ENGINE CORE CONCEPTS AND TECHNOLOGIES IN THE EU FRAMEWORK 6 NEWAC PROGRAMME A. M. Rolt, M. Andreoletti*, K. Kyprianidis** Rolls-Royce plc, UK; *Snecma, France; **Cranfield Univ., USA</p>		<p>ICAS 2010-4.6.4 INNOVATIVE ENGINE ARCHITECTURES: SNECMA ANSWER TO ENVIRONMENTAL CHALLENGES L. Mbengue Snecma, France</p>	
<b>ICAS 2010-5.5 Flight Optimization I:</b> Chairs: T. Tsuchiya, University of Tokyo, JP; J-P. Jung, ONERA, FR							<b>ICAS 2010-5.6 Climate Impact and Metrics:</b> Chairs: R. Gardner, Manchester Metropolitan University, UK; TBD						
<p>ICAS 2010-5.5.1 INVITED DEVELOPMENT AND EVALUATION OF TRAJECTORY PREDICTION MODEL Y. Fukuda, M. Shirakawa, A. Senoguchi ENRI, Japan</p>		<p>ICAS 2010-5.5.2 SUB-OPTIMAL MISSILE GUIDANCE WITH PULSE-MOTOR CONTROL LOGIC USING THE SINGULAR PERTURBATIONS METHOD E. Sigal, J. Z. Ben-Asher Technion, Israel</p>		<p>ICAS 2010-5.5.3 OPTIMAL CONTROL OF CRUISE FLIGHT AT CONSTANT ALTITUDE A. Franco, A. Valenzuela, D. Rivas Univ. de Sevilla, Spain</p>		<p>ICAS 2010-5.6.1 INVITED CLIMATE IMPACT OF AVIATION AT SHORT AND LONG TIME SCALES U. Schumann DLR, Germany</p>		<p>ICAS 2010-5.6.2 THE U.S. STRATEGY FOR TACKLING AVIATION CLIMATE IMPACTS L. Maurice, C. Burleson, M. Gupta FAA, USA</p>		<p>ICAS 2010-5.6.3 AN INVESTIGATION OF THE POTENTIAL IMPLICATIONS OF CO2 EMISSION METRICS ON FUTURE AIRCRAFT DESIGNS M. R. Kirby, T. Nam, G. A. Burdette, et al Georgia Institute of Technology, USA</p>		<p>ICAS 2010-5.6.4 THE CLEAN SKY "SMART FIXED WING AIRCRAFT INTEGRATED TECHNOLOGY DEMONSTRATOR": TECHNOLOGY TARGETS AND PROJECT STATUS J. Koenig, T. Hellstrom* Airbus Operations GmbH, Germany; *SAAB AB, Sweden</p>	

<b>ICAS 2010-6.5 Sense and Avoid:</b> <b>Chairs: R. Walker, Queensland University of Technology, AU</b>			<b>ICAS 2010-6.6 UAV Mission Planning:</b> <b>Chairs: L. Dopping-Hepenstal, BAE Systems, UK; U. Ciniglio, CIRA, IT</b>			
ICAS 2010-6.5.1 INVITED UAS MID-AIR COLLISION AVOIDANCE SYSTEM FOR EUROPE J. Pellebergs Saab, Sweden	ICAS 2010-6.5.2 HUMAN IN THE LOOP SIMULATION MEASURES OF PILOT RESPONSE DELAY M. Consiglio, D. Wing, J. Murdoch NASA Langley, USA	ICAS 2010-6.5.3 SENSE AND AVOID SYSTEM FOR UAS M. G. Rousseau THALES, France	ICAS 2010-6.6.1 MISSION OPTIMISATION AND MULTI- DISCIPLINARY DESIGN OF HYBRID UNMANNED AERIAL SYSTEMS (UAS) USING ADVANCED NUMERICAL TECH J. Hung, L. F. Gonzalez, R. Walker ARCAA, Queensland Univ. of Technology, Australia	ICAS 2010-6.6.2 A MOBILE AIRCRAFT TRACKING SYSTEM IN SUPPORT OF UNMANNED AIR VEHICLE OPERATIONS M. Wilson Boeing Research & Technology Australia, Australia	ICAS 2010-6.6.3 DEVELOPMENT OF AN PATH PLANNING ALGORITHM FOR UAVS IN DYNAMIC ENVIRONMENT USING DIFFERENTIAL GEOMETRY AND PROBABILITY FUNCTIONS S. Moon, H. Shim KAIST, Korea	ICAS 2010-6.6.4 TOWARDS AN UAV VISUAL AIR-TO- GROUND TARGET TRACKING IN AN URBAN ENVIRONMENT Y. Watanabe, P. Fabiani, G. Le Besnerais ONERA, France
<b>ICAS 2010-7.5 More Electrical Systems II:</b> <b>Chairs: S. Dubois, Thales Group, FR; Y. Fu, BUAA - Beihang University, CN</b>			<b>ICAS 2010-7.6 Physics phenomena and Systems:</b> <b>Chairs: P. Monclar, Messier-Dowty, FR</b>			
ICAS 2010-7.5.1 SIC TECHNOLOGY, A WAY TO IMPROVE AEROSPACE INVERTER EFFICIENCY S. Viellard Hispano Suiza, France	ICAS 2010-7.5.2 ELECTRICAL POWER DISTRIBUTION SYSTEM (EPDS), FOR APPLICATION IN MORE ELECTRIC AIRCRAFT I. Izquierdo, A. Azcona EADS, Spain	ICAS 2010-7.5.3 DESIGN OF ALL ELECTRIC SECONDARY POWER SYSTEM FOR FUTURE ADVANCED MALE UAV S. Chiesa, S. Farfaglia*, N. Viola Politecnico di Torino; *Alenia Aeronautica S.p.A., Italy	ICAS 2010-7.6.1 DEVELOPMENT OF A PNEUMATIC SYSTEM TO ENABLE FLIGHT WITHOUT CONVENTIONAL CONTROL SURFACES C. P. Lawson, G. Monterzino Cranfield Univ., UK	ICAS 2010-7.6.2 CALCULATION OF THE HEAT TRANSFER AND TEMPERATURE ON THE AIRCRAFT ANTI-ICING SURFACE W. Dong, J. J. Zhu, X. H. Min Shanghai Jiaotong Univ., China	ICAS 2010-7.6.3	ICAS 2010-7.6.4
<b>ICAS 2010-8.5 Crack Propagation:</b> <b>Chairs: C. York, University of Glasgow, UK</b>			<b>ICAS 2010-8.6 Materials &amp; Composites I:</b> <b>Chairs: A. Blom, FOI, SE; TBD</b>			
ICAS 2010-8.5.1 VALIDATION OF CRITICAL CRACK LENGTH ESTIMATES THROUGH FULL-SCALE TESTING FOR LARGE MILITARY TRANSPORT AIRCRAFT M. Laubach, J. Karnes, L. Braden, et al National Institute of Aviation Research, USA	ICAS 2010-8.5.2 THREE DIMENSIONAL PROGRESSIVE DAMAGE PROGNOSIS OF FASTENED COMPOSITE JOINTS M. Chishti, J. Bayandor, R. Thomson* RMIT Univ.; *CRC-ACS Ltd, Australia	ICAS 2010-8.5.3 PROBABILISTIC ANALYSIS ON CRACK GROWTH LIFE OF TURBINE DISK UNDER LCF-CREEP THROUGH EXPERIMENTAL DATA D. Y. Hu, R. Q. Wang, X. L. Shen, et al Beihang Univ., China	ICAS 2010-8.6.1 SURROGATE MODELLING FOR EFFICIENT DESIGN OPTIMISATION OF COMPOSITE AIRCRAFT FUSELAGE PANELS W. J. Vankan, R. Maas NLR, Netherlands	ICAS 2010-8.6.2 MULTILEVEL APPROACH FOR STRENGTH AND WEIGHT ANALYSES OF COMPOSITE AIRFRAME STRUCTURES A Shanygin, G Zamula, V Fomin TsAGI, Russian Federation	ICAS 2010-8.6.3 AEROTHERMOELASTIC SHAPE OPTIMIZATION OF A HYPERSONIC STRUCUTRE M. Bhatia Virginia Polytechic Institute and State Univ., USA	ICAS 2010-8.6.4 BIOMIMETIC DESIGN OF AEROSPACE COMPOSITE JOINTS L. Burns RMIT Univ., Australia
<b>ICAS 2010-9.5 Structural Modeling &amp; Simulation:</b> <b>Chairs: C. Babish, USAF, US</b>			<b>ICAS 2010-9.6 Aeroelasticity I:</b> <b>Chairs: V. Giavotto, Politecnico di Milano, IT; TBD</b>			
ICAS 2010-9.5.1 AN EXPERIMENTAL METHOD AND NUMERICAL SIMULATION FOR COMPOSITE MATERIALS ENERGY ABSORPTION DETERMINATION F. Garattoni, E. Troiani Univ. of Bologna, Italy	ICAS 2010-9.5.2 3D FINITE ELEMENT MODELING OF SINGLE-LAP SHEAR BOLTED JOINTS A. Selvarathinam, J. Frailley, J. Eisenmann Lockheed Martin Aeronautics, USA	ICAS 2010-9.5.3 A GENERAL APPROACH FOR THE COUPLING OF EXISTING SIMULATIONS COMPONENTS INTO A GENERAL MULTIPHYSICS ENVIRONMENT. M. G. Zielonka, S. C. Rennich MSC.Software Corp, USA	ICAS 2010-9.6.1 REDUCED UNCERTAINTIES IN THE ROBUST FLUTTER ANALYSIS OF THE AEROSTRUCTURES TEST WING S. Lung, C.-G. Pak* Tybrin Corporation; *NASA Dryden, USA	ICAS 2010-9.6.2 A DEMONSTRATION OF PITCH- PLUNGE FLUTTER SUPPRESSION USING LQG CONTROL A. N. Sutherland CSIR, South Africa	ICAS 2010-9.6.3 PANEL FLUTTER SIMULATION CONSIDERING TURBULENT BOUNDARY LAYER A. Hashimoto, T. Aoyama JAXA, Japan	ICAS 2010-9.6.4 EXPERIMENTAL TESTING AND NUMERICAL SIMULATION TO DESIGN AN INNOVATIVE BLAST RESISTANT TEXTILE LUGGAGE CONTAINER R. Dotoli, A. Bozzolo*, A. Tyas**, et al Consorzio Cetma; *D'Appolonia S.p.A., Italy; **Blastech Ltd, UK
<b>ICAS 2010-10.5 Safety Tools I:</b> <b>Chairs: J. van Toor, EADS, DE</b>			<b>ICAS 2010-10.6 Structural Monitoring and Sensors:</b> <b>Chairs: T. Aoki, University of Tokyo, JP; TBD</b>			
ICAS 2010-10.5.1 A NEW METHODOLOGY FOR SOFTWARE RELIABILITY AND SAFETY ASSURANCE IN ATM SYSTEMS F. Matarese, D. Dell'Amura SESM, Italy	ICAS 2010-10.5.2 SOFTWARE VERIFICATION WORK AIMED AT AIRCRAFT SOFTWARE AIRWORTHINESS Y. Wu, B. Liu, F. Sun Beihang Univ., China	ICAS 2010-10.5.3 APPLICATION OF RELIABILITY, MAINTAINABILITY AND SUPPORTABILITY CAD BASED ON DIGITAL PLATFORM W. J. Zhang, Y. F. Sun, L. Ma, et al Beijing Univ. of Aeronautics and Astronautics, China	ICAS 2010-10.6.1 THE ON-BOARD LOAD DIAGNOSIS CHAIN - AN APPROACH TO AIRFRAME HEALTH MONITORING M. Gojny, L. Bensch, O. Lindenau* Airbus Operations GmbH; *HEAD GmbH on behalf of AIRBUS Operations GmbH, Germany	ICAS 2010-10.6.2 PROBLEMS OF STRUCTURAL HEALTH MONITORING OF AIRCRAFT V. Pavelko, E. Ozolinsh, I. Ozolinsh, et al Riga Technical Univ., Latvia	ICAS 2010-10.6.3 DETECTABILITY COMPARISON OF THE SENSORS EMBEDDED IN GLASS-EPOXY WOVEN COMPOSITE LAMINATES W. -G. Guo, X. -Q. Zhang NPU, China	ICAS 2010-10.6.4 ACOUSTIC EMISSION MONITORING OF COMPOSITE WING SEGMENT DURING FATIGUE TESTS J. Juracka Brno Univ. of Technology, Czech Republic
<b>ICAS 2010-11.5 Arrivals sequencing:</b> <b>Chairs: P. U. Lee, NASA, US; R. de Boer, NLR, NL</b>			<b>ICAS 2010-11.6 Airport I:</b> <b>Chairs: B. Lamiscarre, ONERA, FR; TBD</b>			
ICAS 2010-11.5.1 INVITED CONFLICT-FREE ARRIVAL SEQUENCING FOR NEXTGEN ATM H. Erzberger Univ. of California at Santa Cruz, USA	ICAS 2010-11.5.2 FUTURE AIR GROUND INTEGRATION: A SCALABLE CONCEPT TO START WITH GREEN APPROACHES TODAY A. Kuenz DLR, Germany	ICAS 2010-11.5.3 IMPROVING METROPLEX OPERATIONS EFFICIENCY USING SPEED SEGREGATION AND TRAJECTORY FLEXIBILITY H. Idris Engility Corporation, USA	ICAS 2010-11.6.1 APPLICATION OF ENVIRONMENTAL MODELS IN THE CONTEXT OF TOTAL AIRPORT MANAGEMENT COLLABORATIVE PLANNING F. Piekert, S. Kaltenhaeuser, H. Feldhaus, et al AT-One (DLR), Germany	ICAS 2010-11.6.2 VIRTUAL BLOCK CONTROL & SEPARATION BUBBLES - INCREASING TAXIWAY THROUGHPUT IN LOW VISIBILITY CONDITIONS V. Mollwitz, F. J. van Schaik* AT-One (DLR), Germany; *AT-One (NLR), Netherlands	ICAS 2010-11.6.3 TOWARDS WAKE VORTEX SAFETY AND CAPACITY INCREASE: INTEGRATED FUSION APPROACH AND ITS DEMANDS ON MODELS AND SENSORS S. Schoenhals, M. Steen, P. Hecker TU Braunschweig, Germany	ICAS 2010-11.6.4 THE IMPLEMENTATION OF TAXI- CPDLC FUNCTIONALITY WITHIN THE EU PROJECT EMMA2 T. Ludwig, K. Werner, M. Biella DLR, Germany

**Wednesday September 22<sup>nd</sup> Morning Sessions**

**08:00 – 09:00**

**GENERAL LECTURE III (INVITED) - Chairman: S. Ying, US  
G. Wu, COMAC, China: THE ARJ21 REGIONAL JET PROGRAM (ICAS 2010-0.5)**

**09:00 – 09:30**

**BREAK**

**09:30 – 10:00**

**10:00 – 10:30**

**10:30 – 11:00**

**11:00 – 11:30**

**11:30 – 12:00**

**ICAS 2010-1.7 Supersonic Aircraft Concepts: Chairs: S. Chernyshev, TsAGI, RU; P. De Saint Martin, Dassault Aviation, FR**

**ICAS 2010-1.7.1  
DESIGN STUDY OF A MACH 1.6  
SUPERSONIC BUSINESS JET WITH  
VARIABLE SWEEP WING  
E. Jesse, J.E. Dijkstra  
ADSE b.v., Netherlands**

**ICAS 2010-1.7.2  
MULTI-POINT OPTIMIZATION STUDY OF  
HYDROGEN FUELED LOW BOOM  
SUPERSONIC TRANSPORT  
T. Yuhara, K. Rinoie  
Univ. of Tokyo, Japan**

**ICAS 2010-1.7.3  
MULTIDISCIPLINARY DESIGN  
OPTIMIZATION OF A THREE-  
DIMENSIONAL SUPERSONIC BIPLANE  
BASED ON METHOD OF  
CHARACTERISTICS  
Y. Utsumi  
Tohoku Univ., Japan**

**ICAS 2010-1.7.4  
MULTIDISCIPLINARY DESIGN  
OPTIMIZATION OF SUPERSONIC  
TRANSPORT WING USING SURROGATE  
MODEL  
N. Seto  
Tokyo Metropolitan Univ., Japan**

**ICAS 2010-1.7.5  
ECONOMIC SUPERSONIC TRANSPORT  
G. F. Fournier  
GFIC, France**

**ICAS 2010-2.7 Aerodynamic Optimization: Chairs: J. Rokicki, WUT, PL; TBD**

**ICAS 2010-2.7.1  
FAST AERODYNAMIC DESIGN  
TECHNOLOGIES  
V. V. Vyshinsky, E. A. Dorofeev, Y. N.  
Sviridenko\*  
Moscow Institute of Physics and  
Technology; \*TsAGI, Russian Federation**

**ICAS 2010-2.7.2  
DIRECT OPTIMIZATION METHOD AND  
AERODYNAMIC SHAPE DESIGN AT  
SUPERSONIC FLIGHT CONDITIONS  
S. A. Takovitskii  
TsAGI, Russian Federation**

**ICAS 2010-2.7.3  
AERODYNAMIC OPTIMIZATION OF  
COAXIAL ROTOR IN HOVER AND AXIAL  
FLIGHT  
O. Rand, V. Khromov  
Technion, Israel**

**ICAS 2010-2.7.4  
MULTIOBJECTIVE OPTIMIZATION  
PROCEDURE FOR THE WING DESIGN AT  
CRUISE AND LOW-SPEED CONDITIONS  
M. A. Gubanova  
TsAGI, Russian Federation**

**ICAS 2010-2.7.5  
MULTIPOINT MULTI-OBJECTIVE  
OPTIMIZATION DESIGN OF LOW-  
REYNOLDS-NUMBER AIRFOILS FOR THE  
PROPELLER OF LOW-DYNAMIC  
AIRCRAFT  
R. Ma, B. Zhong\*, D. Drikakis\*, et al  
Beihang Univ./Fluid Mechanics Institute, China;  
\*Cranfield Univ., UK**

**ICAS 2010-3.7 Flow Control II: Chairs: A. Baron, Politecnico di Milano, IT; I. Peltzer, TU Berlin, DE**

**ICAS 2010-3.7.1  
NUMERICAL SIMULATION OF FLOW  
CONTROL BY SYNTHETIC JET  
ACTUATION  
E. van der Weide, H. de Vries, H.  
Hoeijmakers  
Univ. of Twente, Netherlands**

**ICAS 2010-3.7.2  
APPLICATION OF TANGENTIAL JET  
BLOWING FOR SUPPRESSION OF  
SHOCK-INDUCED FLOW SEPARATION AT  
TRANSONIC SPEEDS  
A. V. Petrov, V. D. Bokser, G. G. Sudakov,  
et al  
TsAGI, Russian Federation**

**ICAS 2010-3.7.3  
SEPARATION POSTPONEMENT BY  
MEANS OF PERIODIC SURFACE  
EXCITATION  
L. Veldhuis, M. van der Jagt  
TU Delft, Netherlands**

**ICAS 2010-3.7.4  
DYNAMIC ROUGHNESS AS A MEANS OF  
LEADING EDGE FLOW CONTROL  
P. D. Gall, W. W. Huebsch  
West Virginia Univ., USA**

**ICAS 2010-3.7.5  
AN INNOVATIVE TECHNIQUE FOR FLOW  
SEPARATION CONTROL  
X. Ming, Y. Bai, L. Zhou  
Nanjing Univ. of Aeronautics and  
Astronautics, China**

**ICAS 2010-4.7 Operations and Climate: Chairs: C. Goodchild, University of Glasgow, UK; TBD**

**ICAS 2010-4.7.1  
SIMULATION AND OPTIMIZATION  
METHODS FOR ASSESSING THE IMPACT  
OF AVIATION OPERATIONS ON THE  
ENVIRONMENT  
B. Sridhar, N. Chen\*, H. Ng\*  
NASA Ames; \*Univ. of California, Santa  
Cruz, USA**

**ICAS 2010-4.7.2  
POTENTIAL OF OPERATIONAL CHANGES  
TO MITIGATE ENVIRONMENTAL IMPACTS  
OF AVIATION  
T. G. Reynolds, K. B. Marais\*, R. J.  
Hansman  
MIT; \*Purdue Univ., USA**

**ICAS 2010-4.7.3  
AIRLINE ROUTE NETWORK DESIGN  
CONSIDERING ENVIRONMENTAL AND  
ECONOMICAL TARGETS  
M. Braun, A. Koch, K. Dahlmann, et al  
DLR, Germany**

**ICAS 2010-4.7.4  
ENVIRONMENTAL BENEFIT OF NEW  
CONTINUOUS DESCENT OPERATIONS  
AT LOS ANGELES INTERNATIONAL  
AIRPORT  
S. Liu, W. White, R. Nehl  
FAA, USA**

**ICAS 2010-4.7.5  
ATMOSPHERIC UNCERTAINTY ON CLEAN  
TAKE-OFF FLIGHT PATHS FOR CIVIL  
AIRCRAFT  
R. Torres  
Airbus, France**

**ICAS 2010-5.7 Parameter Identification: Chairs: V. Malyshev, MAI, RU; M. Sato, JAXA, JP**

**ICAS 2010-5.7.1  
REAL-TIME SYSTEM IDENTIFICATION OF  
AIRCRAFT DYNAMICS USING TIME-  
FREQUENCY WAVELET ANALYSIS  
M. Naruoka, T. Hino, T. Tsuchiya  
Univ. of Tokyo, Japan**

**ICAS 2010-5.7.2  
IDENTIFICATION OF PARAMETERS  
DESCRIBING UNSTEADY  
AERODYNAMICS OF AN AEROBATIC  
AIRPLANE  
B. Gáti, F. Holzapfel\*  
Budapest Univ. of Technology and Economics,  
Hungary; \*TU Munich, Germany**

**ICAS 2010-5.7.3  
DEVELOPMENT OF AN ONLINE PARAMETER  
ESTIMATION CAPABILITY FOR AIRCRAFT  
P. -D. Jameson  
Cranfield Univ., UK**

**ICAS 2010-5.7.4  
ANALYTICAL NONLINEAR ANALYSIS  
METHODOLOGY FOR REDUCED  
AIRCRAFT DYNAMICAL SYSTEMS  
A. Omran, B. Newman  
Old Dominion Univ., USA**

**ICAS 2010-5.7.5  
POSE ESTIMATION OF AN LOW  
ALTITUDE AERIAL VEHICLE USING  
QUATERNION THEORY AND KALMAN  
FILTER  
G. Anitha, S. Aravindan  
Madras Inst. of Technology, India**

<b>ICAS 2010-6.7 Human/Machine Modeling: Chairs: H. Andersson, Saab AB, SE; H. J. Kim, Seoul National University, Korea</b>				
<b>ICAS 2010-6.7.1</b> A VERSATILE SIMULATION ENVIRONMENT OF FTC ARCHITECTURES FOR LARGE TRANSPORT AIRCRAFT D. Ossmann, S. Hecker, A. Varga DLR, Germany	<b>ICAS 2010-6.7.2</b> DEVELOPMENT OF A PILOT MODEL SUITABLE FOR THE SIMULATION OF LARGE AIRCRAFT M. M. Lone, A. K. Cooke Cranfield Univ., UK	<b>ICAS 2010-6.7.3</b> DEVELOPMENT OF PILOT MODELING AND ITS APPLICATION TO MANUAL CONTROL TASKS A. Efremov, V. Alexandrov, A. Koshelenko, et al Moscow Aviation Institute, Russian Federation	<b>ICAS 2010-6.7.4</b> VERIFICATION OF SAIL-FLIGHT TESTING PROCEDURES OF WING-IN-SURFACE EFFECT CRAFT ON ENGINEERING FLIGHT SIMULATOR D. Jatiningrum, Y. I. Jenie*, H. Muhammad*, et al Agency AAT; *Institute of Technology Bandung, Indonesia	<b>ICAS 2010-6.7.5</b> EFFECT OF CONTROL ALLOCATION ON PILOT-INDUCED OSCILLATION (PIO) OF AIRCRAFTS WITH MULTIPLE CONTROL EFFECTORS Y. Liu, S. Yan, Z. Gao NPU, China
<b>ICAS 2010-7.7 Through Life Support: Chairs: O. Candell, SAAB, SE; K. Iijima, SJAC, JP</b>				
<b>ICAS 2010-7.7.1 INVITED</b> SERVICE THINKING STYLES IN THE SUSTAINMENT OF COMPLEX AERONAUTICAL PRODUCTS L. Wood Univ. of Adelaide, Australia	<b>ICAS 2010-7.7.2</b> CIVIL AVIATION TECHNICAL ASSISTANCE INCLUDING TECHNICAL PROCUREMENT, AS AN INTEGRAL COMPONENT OF DEVELOPMENT COOPERATION C. Everard RAeS, Austria	<b>ICAS 2010-7.7.3</b> EVALUATION OF MAINTENANCE PROCEDURES BY INTRODUCING CANNIBALIZATION AND COMPONENTS COMMONALITY AS A LEGITIMATE PROCEDURE A. A. Ghobbar, N. de Oliveira TU Delft, Netherlands	<b>ICAS 2010-7.7.4</b> EMERGENCE OF THE INTELLIGENT SYSTEMS SUPPORT SUPPLIER L. Webb, C. Bil RMIT Univ., Australia	<b>ICAS 2010-7.7.5</b> A SIMULATION-BASED STUDY OF INVENTORY DISTRIBUTION NETWORK Z. Wang The Boeing Company, USA
<b>ICAS 2010-8.7 Fatigue: Chairs: M. Rodzewicz, TU Warsaw, PL; G. Sala, Politecnico di Milano, IT</b>				
<b>ICAS 2010-8.7.1</b> CORROSION TREATMENTS AND FATIGUE OF AIRCRAFT STRUCTURAL JOINTS A. Jaya, U. Tiong, R. Mohammed, et al RMIT Univ., Australia	<b>ICAS 2010-8.7.2</b> EFFECT OF PITTING CORROSION ON FATIGUE AND CRACK GROWTH BEHAVIOR OF BOTH ALUMINUM ALLOY 2024-T62 AND ITS PANEL J. Liu, B. Chen, X. Ye, et al Beijing Institute of Aeronautical Materials, China	<b>ICAS 2010-8.7.3</b> PLATFORM SUSTAINMENT – LESSONS LEARNT ON AN AGEING AIRCRAFT P. van Staden Boeing Defence Australia Ltd., Australia	<b>ICAS 2010-8.7.4</b> AN EXPERIMENTAL TECHNIQUE FOR VERIFICATION FATIGUE CHARACTERISTICS OF LAMINATED CONSTRUCTIONS FROM COMPOSITE MATERIALS: B. Rasuo Univ. of Belgrade, Serbia	<b>ICAS 2010-8.7.5</b> MEASUREMENT OF THE STRAIN AND BENDING MOMENT ON THE WING OF A AIRCRAFT AND USING OF THESE FINDINGS FOR FATIGUE TEST I. Jebacek Brno Univ. of Technology, Czech Republic
<b>ICAS 2010-9.7 Aeroelasticity II: Chairs: M. Zichenkov, TsAGI, RU; M. Spieck, DLR, DE</b>				
<b>ICAS 2010-9.7.1</b> AEROELASTIC SCALING LAWS WITH CONSIDERATIONS TO THE DESIGN OF AN EXPERIMENTAL SLENDER WING MODEL E. Cestino, G. Frulla, P. Marzocca* Politecnico di Torino, Italy; *Clarkson Univ., USA	<b>ICAS 2010-9.7.2</b> INNOVATIVE AIRCRAFT AEROLASTIC MODELLING AND CONTROL E. Cestino, G. Frulla, M. Battipede, et al Politecnico di Torino, Italy	<b>ICAS 2010-9.7.3</b> STRENGTH/AEROELASTICITY RESEARCH AT MULTIDISCIPLINARY STRUCTURAL DESIGN OF HIGH ASPECT RATIO WING S. Kuzmina, V. Chedrik, F. Ishmuratov TsAGI, Russian Federation	<b>ICAS 2010-9.7.4</b> EFFECT OF PIEZOELECTRIC ENERGY HARVESTING ON THE RESPONSE OF A GENERATOR WING TO A TURBULENCE GUST M. J. Maria, C. De Marqui Junior Univ. of São Paulo, Brazil	<b>ICAS 2010-9.7.5</b> APPLICATION OF COMPUTATIONAL AEROELASTICITY TO DESIGN OF HELICOPTER ROTOR BLADES M. Righi Zurich Univ. of Applied Sciences, Switzerland
<b>ICAS 2010-10.7 Safety &amp; Systems: Chairs: J-V. Legrand, SAFRAN, FR; TBD</b>				
<b>ICAS 2010-10.7.1</b> DESIGN AND PILOT EVALUATION OF A DIRECTIVE RUNWAY CONFLICT ALERTING AND RESOLUTION SYSTEM D. Zammit-Mangion, A. Sammut*, B. Zammit*, et al Cranfield Univ., UK; *Univ. of Malta, Malta	<b>ICAS 2010-10.7.2</b> PILOT LANDING CONTROL ANALYSIS USING NEURAL NETWORKS UNDER SEVERE FLIGHT CONDITIONS R. Mori, Y. Yamaguchi*, S. Suzuki* ENRI; *Univ. of Tokyo, Japan	<b>ICAS 2010-10.7.3</b> THE MULTI-COLLISION DISPLAY: RELATIVE POSITION VECTORS FOR THE DETECTION OF CONFLICTING AIR TRAFFIC S. Gaukrodger, B. L. W. Wong, B. Fields, et al; Middlesex Univ., UK	<b>ICAS 2010-10.7.4</b> PROCESS BREAKDOWN MODEL AND HHM BASED INTEGRATED PFMEA IN SYSTEM SAFETY N. Zhao, T. Zhao, B. Wang Beihang Univ., China	<b>ICAS 2010-10.7.5</b> DEVELOPMENT OF A LONG RANGE AIRBORNE DOPPLER LIDAR H. Inokuchi, H. Tanaka*, T. Ando* JAXA; *Mitsubishi Electric Corporation, Japan
<b>ICAS 2010-11.7 Separation Management: Chairs: S. Nagaoka, ENRI, JP; TBD</b>				
<b>ICAS 2010-11.7.1</b> MODELING AND SIMULATION OF IN-TRAIL FOLLOWING AIRCRAFT UNDER AIRBORNE SEPARATION ASSISTANCE SYSTEM E. Itoh, M. Everdij*, G. J. Bakker*, et al ENRI, Japan; *NLR, Netherlands	<b>ICAS 2010-11.7.2</b> FUNCTIONAL ALLOCATION WITH AIRBORNE SELF-SEPARATION EVALUATED IN A PILOTED SIMULATION D. Wing, J. Murdoch NASA Langley, USA	<b>ICAS 2010-11.7.3</b> SEPARATION MANAGEMENT APPROACHES DURING PERIODS OF COMMUNICATION FAILURE S.J. Fan, J.J. Ford, L.F. Gonzalez ARCA, Queensland Univ. of Technology, Australia	<b>ICAS 2010-11.7.4</b> EVALUATION OF SEPARATION PROVISION FOR EN-ROUTE SECTOR E PINSKA-CHAUVIN EUROCONTROL, France	<b>ICAS 2010-11.7.5</b> AUTOMATED AIRCRAFT TRACKING AND CONTROL IN CLASS G AIRSPACE R. Baumeister, i. Estkowski, t. Spence* The Boeing Company, USA; *Univ. of Sheffield, Switzerland

<b>Wednesday September 22<sup>nd</sup> Afternoon Sessions</b>						
<b>13:30 – 14:15 ICAS HENRI FABRE LECTURE FOR INOVATION IN AERONAUTICS (INVITED) - Chairman: M Scott, Australia Innovation Award Recipient: J. –C. Hironde, Dassault, France: INNOVATIVE SHAPE AND CONTROL CONFIGURATIONS (ICAS 2010-0.6)</b>						
14:30 – 15:00	15:00 – 15:30	15:30 – 16:00	16:30 – 17:00	17:00 – 17:30	17:30 – 18:00	18:00 – 18:30
<b>ICAS 2010-1.8 Air Launched Space Systems: Chairs: C. Stavrinidis, ESA, NL</b>			<b>ICAS 2010-1.9 Laminar Flow Applications (Invited session) Chairs: J. Hefner, NASA (retired), US</b>			
ICAS 2010-1.8.1 AIR LAUNCH INTERNATIONAL AEROSPACE PROJECT A. Karpov ALAC, Russian Federation	ICAS 2010-1.8.2 AIRCRAFT MEANS APPLICATION FOR SUBORBITAL TOURIST FLIGHTS AND COMMERCIAL SATELLITES LAUNCHING INTO AN ORBIT E. Dudar, A. Bruk* NPO Molniya; *Myasishchev Design Bureau, Russian Federation	ICAS 2010-1.8.3 PROPOSAL FOR ONE-TIME USE WINGS FOR SMALL FIXED-WING SPACE SHUTTLES M. Tanaka Trsut Tech, Japan	ICAS 2010-1.9.1 INVITED DESIGN STUDIES ON NLF AND HLFC APPLICATIONS AT DLR A. Seitz and K.- H. Horstmann DLR, Germany	ICAS 2010-1.9.2 INVITED AIRCRAFT CONCEPTUAL DESIGN WITH NATURAL LAMINAR FLOW E. Allison, I. Kroo, P. Sturdza, Y. Suzuki, and H. Martins-Rivas Desktop Aeronautics, Palo Alto, USA	ICAS 2010-1.9.3 INVITED INVESTIGATION OF A HEALTH MONITORING METHODOLOGY FOR FUTURE NATURAL LAMINAR FLOW TRANSPORT AIRCRAFT D. N. Mavris and H. Ran, W. S. Saric*, M. J. Belisle*, M. J. Woodruff*, H. L. Reed* Georgia Institute of Technology, *Texas A&M University, USA	ICAS 2010-1.9.4 INVITED LAMINAR FLOW TECHNOLOGY - THE AIRBUS VIEW Heinz Hansen Airbus, Germany
<b>ICAS 2010-2.8 Supersonic Aerodynamics: Chairs: T. Ohnuki, JAXA, JP; I. Egorov, TsAGI, RU</b>			<b>ICAS 2010-2.9 Flapping Wing Aerodynamics: Chairs: R. Rzadkowski, IMP, PL; TBD</b>			
ICAS 2010-2.8.1 EXTENSION OF BUSEMANN BIPLANE THEORY TO THREE DIMENSIONAL WING FUSELAGE CONFIGURATION K. Matsushima, D. Maruyama* Univ. of Toyama; *Tohoku Univ., Japan	ICAS 2010-2.8.2 CONCLUDING REPORT OF FLIGHT TEST DATA ANALYSIS ON THE SUPERSONIC EXPERIMENTAL AIRPLANE OF NEXST PROGRAM BY JAXA K. Yoshida, D-Y. Kwak, N. Tokugawa, et al; JAXA, Japan	ICAS 2010-2.8.3 AERODYNAMIC SHAPE OPTIMIZATION OF HYPERSONIC AIRLINERS CONSIDERING MULTI-DESIGN-POINT A. Ueno, H. Taguchi, K. Suzuki* JAXA; *Univ. of Tokyo, Japan	ICAS 2010-2.9.1 EFFECT OF FLAPPING MODES ON THE AERODYNAMICS OF A SEAGULL WING IN LEVEL FLIGHT C. Han Chungju National Univ., Korea	ICAS 2010-2.9.2 EXTRACTING POWER IN JET STREAMS: PUSHING THE PERFORMANCE OF FLAPPING WING TECHNOLOGY M.F. Platzer, M.A. Ashraf*, J. Young*, et al AeroHydro Research & Technology Associates, USA; *Univ. of New South Wales at ADFA, Australia	ICAS 2010-2.9.3 TETRA PTERA- EMPIRICAL AND EXPERIMENTAL INVESTIGATION OF STUDENT DESIGNED AND FLOWN FLAPPING WING MAV S. Benjamin, L. Glassner, Z. Saltzman, et al Technion, Israel	ICAS 2010-2.9.4 FLUID-STRUCTURE COUPLING RESEARCH FOR MICRO FLAPPING- WING W. Q. Yang, B. F. Song, W. P. Song NPU, China
<b>ICAS 2010-3.8 Fluid Dynamics: Chairs: J.-J. Thibert, ONERA, FR</b>			<b>ICAS 2010-3.9 Aeroacoustics: Chairs: S. Becker, University of Erlangen, DE; TBD</b>			
ICAS 2010-3.8.1 NUMERICAL ANALYSIS OF A ROTATING CYLINDER WITH SPANWISE DISCS N. Thouault, C. Breitsamter, J. Seifert*, et al TU Munich; *Bauhaus Luftfahrt e. V., Germany	ICAS 2010-3.8.2 AERODYNAMIC EFFICIENCY STUDY UNDER THE INFLUENCE OF HEAVY RAIN VIA TWO-PHASE FLOW APPROACH T. Wan, S.P. Pan Tamkang Univ., Taiwan, China	ICAS 2010-3.8.3 DETECTION OF LAMINAR-TURBULENT TRANSITION IN A FREE-FLIGHT EXPERIMENT USING THERMOGRAPHY AND HOT-FILM ANEMOMETRY P. Schreivogel Univ. of Dresden, Germany	ICAS 2010-3.9.1 MODELLING AND CONTROL OF CAVITY INSTABILITIES AND NOISE K. Knowles, B. Khanal, D. Bray, et al Cranfield Univ., UK	ICAS 2010-3.9.2 SIMULATION OF NOISE GENERATED BY FLOWS OVER AIRFOILS USING A HIGH-ORDER IMMERSERD BOUNDARY METHOD R. Lauterjung Queiroz, M. A. Ortega, R. F. M. Bobenrieth Miserda*, et al ITA; *Univ. de Brasilia, Brazil	ICAS 2010-3.9.3 ON THE PROPAGATION OF SOUND IN A HIGH-SPEED NON-ISOTHERMAL SHEAR FLOWS L. M. B. C. Campos, M. H. Kobayashi CCTAE/IST, Portugal	ICAS 2010-3.9.4 FLOW INSTABILITY AROUND A 2D AIRFOIL INDUCED BY ACOUSTIC DISTURBANCES AT LOW REYNOLDS NUMBERS T. Atobe, T. Ikeda JAXA, Japan
<b>ICAS 2010-4.8 Supersonic/Hypersonic Technologies I: Chairs: H. Helm, General Electric, UK</b>			<b>ICAS 2010-4.9 Supersonic/Hypersonic Technologies II: Chairs: E. Prisell, FMV, SE; TBD</b>			
ICAS 2010-4.8.1 MINIMIZING ENVIRONMENTAL IMPACT OF CIVIL SUPERSONIC AC BY VARIABLE CYCLE ENGINES AND IMPLICATIONS FOR CERTIFICATION M. Plohr DLR, Germany	ICAS 2010-4.8.2 GSP PERFORMANCE SIMULATION OF AN IDEAL MIXER-EJECTOR TURBOFAN ENGINE FOR A SUPERSONIC BUSINESS JET E.R. Rademaker NLR, Netherlands	ICAS 2010-4.8.3 HYPERSONIC INTAKE DESIGN AND OFF-DESIGN PERFORMANCE A.M.Z. AlmelDein Inst. of Aviation Engineering and Technology, Egypt	ICAS 2010-4.9.1 DESIGN OF TOP MOUNTED SUPERSONIC INLET FOR SILENT SUPERSONIC TECHNOLOGY DEMONSTRATOR S3TD Y. Watanabe, A. Murakami JAXA, Japan	ICAS 2010-4.9.2 EXPERIMENTAL INVESTIGATION ON MIXING ENHANCEMENT MECHANICS OF RAMP INJECTORS IN SUPERSONIC FLOW W.D. LIU, S P Zhang National Univ. of Defense Technology, China	ICAS 2010-4.9.3 INVESTIGATION OF SONIC JET MIXING IN A STREAM OF SUPERSONIC TRANSVERSE FLOW USING LES AND HRM Z.A. Rana, B.J.R. Thornber, D. Drikakis Cranfield Univ., UK	ICAS 2010-4.9.4 DESIGN OPTIMISATION FOR INLET STARTING OF AXISYMMETRIC SCRAMJETS H. Ogawa, R.R. Boyce, Univ. of Queensland, Australia
<b>ICAS 2010-5.8 Emissions: Chairs: F. Haselbach, Rolls-Royce, UK</b>			<b>ICAS 2010-5.9 : ISABE Session Chairs: TBD</b>			
ICAS 2010-5.8.1 CRUISE NOX EMISSION REDUCTION BY THE RATIONAL CHOICE OF SUPERSONIC BUSINESS JET ENGINE DESIGN VARIABLES A. Mirzoyan CIAM, Russian Federation	ICAS 2010-5.8.2 COMPREHENSIVE ANALYSIS OF MECHANISMS OF GASEOUS AND PARTICULATE POLLUTANT FORMATION IN ELEMENTS OF GAS TURBINE ENGINE AND IN THE EXHAUST PLUME A. Starik, A. Savel'ev, N. Titova CIAM, Russian Federation	ICAS 2010-5.8.3 CHEMICAL IMPACT OF AVIATION IN AIRPORTS AREAS W. Ghedhaifi ONERA, France	ICAS 2010-5.9.1 PAPER TITLE TBD SPEAKER TBD	ICAS 2010-5.9.2 PAPER TITLE TBD SPEAKER TBD	ICAS 2010-5.9.3 PAPER TITLE TBD SPEAKER TBD	ICAS 2010-5.9.4 PAPER TITLE TBD SPEAKER TBD

<b>ICAS 2010-6.8 Flight Modeling:</b> <b>Chairs: K. Rein-Weston, The Boeing Company, US</b>			<b>ICAS 2010-6.9 Flight Testing:</b> <b>Chairs: J. Pellebergs, SAAB, SE; D. Kubo, JAXA, JP</b>			
ICAS 2010-6.8.1 MODEL BASED AIRCRAFT CONTROL SYSTEM DESIGN AND SIMULATION R. C. M. Venkata, M. Tarkian, C. Jouannet Linköping Univ., Sweden	ICAS 2010-6.8.2 A DYNAMIC REAL TIME MODEL FOR AIR-TO-AIR REFUELING P. Weinerfelt, A. Nilsson Saab AB, Sweden	ICAS 2010-6.8.3 HIGH ANGLE OF ATTACK FLIGHT CHARACTERISTICS OF A WING-IN-PROPELLER-SLIPSTREAM AIRCRAFT D. Kubo, K. Muraoka, N. Okada JAXA, Japan	ICAS 2010-6.9.1 A METHOD TO VALIDATE WAKE VORTEX ENCOUNTER MODELS FROM FLIGHT TEST DATA D. Kubo, K. Muraoka, N. Okada DLR, Germany	ICAS 2010-6.9.2 IEP: A MULTIDISCIPLINARY FLYING TESTBED FOR NEW AIRCRAFT CONCEPTS P. Schmollgruber, H. W. Jentink* ONERA, France; *NLR, Netherlands	ICAS 2010-6.9.3 DEVELOPMENT OF AN LIGHT WEIGHT AND AFFORDABLE DATA ACQUISITION SYSTEM FOR MODEL AIRCRAFT FLIGHT TESTING I. Staack, D. Lundström, K. Amadori, et al Linköping Univ., Sweden	ICAS 2010-6.9.4 IMPROVING THE DIRECTIONAL STABILITY OF TAILLESS AIRCRAFT USING MINIATURE TRAILING EDGE EFFECTORS S. -H. Yoon, Hak-Tae Lee*, David Hyunhul Shim KAIST, Korea; *HAACKWORKS, USA
<b>ICAS 2010-7.8 Systems Analysis:</b> <b>Chairs: O. Reichert, Sagem, FR</b>			<b>ICAS 2010-7.9 Systems Design &amp; Modeling:</b> <b>Chairs: M. Nordlund, Emersom Tank Radar, SE; TBD</b>			
ICAS 2010-7.8.1 WHEN THE OBVIOUS IS NOT OBVIOUS: USING MULTIREOLUTION MODELING TO DISCOVER HIDDEN FACTORS IN DECISION MAKING J. N. Nixon, P. T. Biltgen* Integrative Engineering; *BAE Systems, USA	ICAS 2010-7.8.2 CREATING SUCCESSFUL CABIN PRODUCTS THROUGH OPEN INNOVATION I. Wuggetzer Airbus Operations GmbH, Germany	ICAS 2010-7.8.3 THEORY RESEARCH AND ENGINEERING APPLICATIONS ON THE ANALYSIS AND EVALUATION FOR DEVELOPMENT RISK OF AIRCRAFT J.X. Xie, B.f. Song*, W.p. Shi China Aerospace Engineering Consultation Center; *NPU, China	ICAS 2010-7.9.1 INVITED SYSTEMS DESIGN AND MODELING - A VISUAL ANALYTICS APPROACH D. Mavris Georgia Institute of Technology, USA	ICAS 2010-7.9.2 CONFIGURATION MANAGEMENT OF MODELS FOR AIRCRAFT SIMULATION H. Andersson, S. Steinkellner, H. Erlandsson, et al Saab AB, Sweden	ICAS 2010-7.9.3 A ROUTE TOWARD VIRTUAL CERTIFICATION OF AIRCRAFT O. H. Tabaste MSC.Software, France	ICAS 2010-7.9.4 ONTOLOGICAL MODELLING OF THE AEROSPACE COMPOSITE MANUFACTURING DOMAIN W. J. C. Verhagen, R. Curran TU Delft, Netherlands
<b>ICAS 2010-8.8 Smart Structures:</b> <b>Chairs: D. Graham, DSTO, AU</b>			<b>ICAS 2010-8.9 Materials &amp; Composites II:</b> <b>Chairs: E. Ingram, Lockheed Martin, US; TBD</b>			
ICAS 2010-8.8.1 SELECTIVELY DEFORMABLE STRUCTURES FOR DESIGN OF ADAPTIVE WINGS G. A. Amiryants, V. A. Malyutin, V. P. Timohin, et al TsAGI, Russian Federation	ICAS 2010-8.8.2 EXPERIMENTAL TESTING OF AN ADAPTIVE LEADING EDGE HIGH LIFT DEVICE FOR COMMERCIAL TRANSPORTATION AIRCRAFTS M. Kintscher, H. P. Monner DLR, Germany	ICAS 2010-8.8.3 PRESSURE ADAPTIVE HONEYCOMB: A NOVEL CONCEPT FOR MORPHING AIRCRAFT STRUCTURES R. Vos, R. M. Barrett* TU Delft, Netherlands; *The Univ. of Kansas, USA	ICAS 2010-8.9.1 OPTIMAL WEIGHT DESIGN OF LAMINATED COMPOSITE PANELS WITH DIFFERENT STIFFENERS UNDER BUCKLING LOADS E. Barkanov, S. Gluhih, O. Ozolinsh, et al Riga Technical Univ., Latvia	ICAS 2010-8.9.2 BUCKLING OF FUNCTIONALLY GRADED PLATES (FGP) UNDER SHEAR AND IN-PLANE DIRECTIONAL LOADING M. Badiey, M. A. Kouchakzadeh Sharif Univ. of Technology, Iran	ICAS 2010-8.9.3 THERMO-MECHANICAL COUPLING IN MULTILAYERED PLATES AND SHELLS E. Carrera, S. Brischetto Politecnico di Torino, Italy	ICAS 2010-8.9.4 CHARACTERISATION OF THREE-DIMENSIONAL WOVEN PREFORMS USING FINITE ELEMENT MODELS BUILT FROM MICROCT SCANS L. P. Djukic, I. Herszberg*, D. H. Mollenhauer** Univ. of New South Wales; *CRC-ACS Ltd, Australia; **AFRL-WFAB, USA
<b>ICAS 2010-9.8 Experimental Investigations:</b> <b>Chairs: R. Eastin, FAA, US</b>			<b>ICAS 2010-9.9 Multidisciplinary Analysis:</b> <b>Chairs: E. Bigarella, Embraer, BR; TBD</b>			
ICAS 2010-9.8.1 DYNAMIC AND QUASI-STATIC CRUSH TESTING OF CLOSED CARBON-FIBRE/EPOXY ELEMENTS A. Jackson, M. David*, A. J. Gunnion**, et al Univ. of New South Wales, Australia; *DLR, Germany; **CRC-ACS Ltd, Australia	ICAS 2010-9.8.2 CRASHWORTHINESS ASSESSMENT IN AIRCRAFT DITCHING INCIDENTS S. Shah, J. Bayandar, J. Watmuff RMIT Univ., Australia	ICAS 2010-9.8.3 THE DEVELOPMENT OF 3 DOF WING SECTION MODEL FOR AEROELASTIC AND ACTIVE CONTROL WIND TUNNEL EXPERIMENTAL TESTS R. Adhy Sasongko, L. Gunawan Institute of Technology Bandung, Indonesia	ICAS 2010-9.9.1 MANOEUVRE-LOADS COMPUTATIONS USING CFD-BASED STATIC AEROELASTIC SIMULATIONS FOR MULTIPLE STORE CONFIGURATIONS B. Prananta, R. Veul, O. Boelens NLR, Netherlands	ICAS 2010-9.9.2 NUMERICAL SIMULATION OF WING FLUTTER BASED ON MULTIGRID METHOD B. Zhu, Z. D. Qiao, W. P. Song NPU, China	ICAS 2010-9.9.3 AEROTHERMODYNAMIC ANALYSIS OF A CAPSULE VEHICLE FOR MANNED EXPLORATION MISSIONS TO MARS A. Viviani, G. Pezzella* Seconda Univ. di Napoli (SUN), Italy; *CIRA, Italy	ICAS 2010-9.9.4 NUMERICAL SIMULATION OF FLOW FIELDS IN LARGE-SCALE SEGMENTED-TYPE ARC HEATERS Y. Takahashi, H. Kihara, K. Abe Kyushu Univ., Japan
<b>ICAS 2010-10.8 Safety Tools II:</b> <b>Chairs: A. Mauritz, EADS Innovation Works, DE</b>			<b>ICAS 2010-10.9 Security &amp; Safety Equipment:</b> <b>Chairs: J-C. Derrien, SAFRAN, FR; TBD</b>			
ICAS 2010-10.8.1 AVIATION ACCIDENTS AETIOLOGY FROM CATASTROPHE THEORY POINT OF VIEW K Sibilski, M Lasek* Air Force Institute of Technology; *The State Commission of Aircraft Accidents Investigation, Poland	ICAS 2010-10.8.2 EXPERIMENTAL STUDY ON DECISION MAKING OF JET AIRLINER PILOTS -A CASE OF WIND SHEAR- A.Kono, H. Hatake*, K. Rinoie Univ. of Tokyo; *All Nippon Airways Co., Ltd., Japan	ICAS 2010-10.8.3 PC TOOL DEVELOPMENT FOR SIMULATING FLIGHT MANAGEMENT PROCESS OF JET AIRLINER PILOTS A. Tezuka, H. Hatake*, K. Rinoie** Waseda Univ.; **All Nippon Airways; **Univ. of Tokyo, Japan	ICAS 2010-10.9.1 PASSIVATION OF MISUSED AIRCRAFT TO PROTECT PASSENGERS, AIRPORTS AND INFRASTRUCTURE D. -R. Schmitt, H. Többen, H. Philippens* AT-One (DLR), Germany; *42 Solutions, Netherlands	ICAS 2010-10.9.2 DEVELOPMENT OF A NOVEL CONCEPT OF EXPLOSION-RESISTANT CARGO CONTAINER FOR NARROW-BODY AIRCRAFTS D. Zangani, S. Ambrosetti, P. Frantizza*, et al D'Appolonia S.p.A., Italy; *STFI, Germany	ICAS 2010-10.9.3 A TRANSAURAL BEAMFORMER AS ADVANCED AIR TRAFFIC CONTROL COMMUNICATION SET UP M. Guldenschuh, A. Sontacchi, H. Hering* Univ. of Music and Performing Arts Graz, Austria; *Eurocontrol Experimental Center, France	ICAS 2010-10.9.4 RAMP SAFETY REVISITED R. Walton, I. Sinka Embry-Riddle Aeronautical Univ., USA
<b>ICAS 2010-11.8 Delays:</b> <b>Chairs: H. Jimenez, Georgia Tech., US</b>			<b>ICAS 2010-11.9 Airport II:</b> <b>Chairs: C. Michaut, ONERA, FR; TBD</b>			
ICAS 2010-11.8.1 AIR TRANSPORTATION DELAY IMPLICATIONS OF A LOCAL GPS OUTAGE IN THE U.S.: A SIMULATION STUDY J. Post, K. Noonan, J. Barrer* FAA; *The MITRE Corporation, USA	ICAS 2010-11.8.2 EVALUATING THE BENEFIT OF AIRCRAFT OPERATORS BY MARGINAL REDUCTION OF GROUND OR AIRBORNE DELAYS M. Kreuz DLR, Germany	ICAS 2010-11.8.3 THE POTENTIAL FOR AN AIR-TAXI BUSINESS IN JAPAN'S SKIES K. Izumi JAXA, Japan	ICAS 2010-11.9.1 A HOLISTIC APPROACH TO DEFINITION AND ASSESSMENT OF AIRPORT FLEXIBILITY AND PREDICTABILITY F. J. Vormer, A. Marsden, V. Duong EUROCONTROL Experimental Centre, France	ICAS 2010-11.9.2 DEVELOPMENT OF AN OPTIONS-BASED APPROACH TO THE SELECTION OF AIRPORT CAPACITY-ENHANCING TECHNOLOGY PORTFOLIOS O. J. Pinon, E. Garcia, D. N. Mavris Georgia Institute of Technology, USA	ICAS 2010-11.9.3 HIGHER-LEVEL SERVICES OF AN ADVANCED SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEMS (A-SMGCS) M. Roeder, J. Jakobi, M. Biella DLR, Germany	ICAS 2010-11.9.4 FAST: FUTURE AIRPORT STRATEGIES I. Laplace, N. Lenoir*, B. Badanik** M3 SYSTEMS; *The French Civil Aviation Univ. (ENAC), France; **Univ. of Zilina, Slovakia

Thursday September 23 <sup>rd</sup> Morning Sessions				
08:00 – 09:30 GENERAL LECTURE IV (INVITED) - Chairman: F. Abbink, Netherlands P. Ky, Eurocontrol/SESAR, Belgium; V. Cox, FAA, US: FUTURE AIR TRAFFIC MANAGEMENT – SAFE AND EFFICIENT (ICAS 2010-0.7 and ICAS2010-0.8)				
09:30 – 10:00 BREAK				
10:00 – 10:30	10:30 – 11:00	11:00 – 11:30	11:30 – 12:00	12:00 – 12:30
ICAS 2010-1.10 MDO and its application: Chairs: M. Speick, DLR, DE; K. C. Wong, AU				
ICAS 2010-1.10.1 THE NEW MDO FRONTIER, THE MULTIDISCIPLINARY DESIGN ORGANIZATION CHALLENGE M. Ravachol, P. Thomas Dassault-Aviation, France	ICAS 2010-1.10.2 MULTI-DISCIPLINARY OPTIMISATION CAPABILITY DEVELOPMENT FOR THE PRELIMINARY DESIGN PHASE R. Johnson Airbus, France	ICAS 2010-1.10.3 MULTI-DISCIPLINARY OPTIMIZATION INCLUDING ENVIRONMENTAL ASPECTS APPLIED TO SUPERSONIC AIRCRAFTS J. Brezillon, G. Carrier*, M. Laban** DLR, Germany; *ONERA, France; **NLR, Netherlands	ICAS 2010-1.10.4 COOPERATION AND COMPETITION IN A MULTIDISCIPLINARY OPTIMIZATION FOR AERONAUTICAL DESIGN J. A. Désidéri, R. Duvigneau INRIA, France	ICAS 2010-1.10.5 THE MAXIMUM PRINCIPLE APPLICATION FOR DECOMPOSITION OF THE AIRCRAFT MULTIDISCIPLINARY OPTIMIZATION PROBLEM A. S. Filatyev, A. A. Golikov TsAGI, Russian Federation
ICAS 2010-2.10 Aerodynamic Configuration Design: Chairs: I. Kroo, Stanford Univ., UK; Y. Chen, Comac, CN				
ICAS 2010-2.10.1 DESIGN, WIND TUNNEL TESTING, AND VERIFICATION OF CAL POLY'S 10 FOOT SPAN HYBRID WING-BODY LOW NOISE CESTOL AIRCRAFT K. Jameson, D. Marshall, R. gaeta*, et al California Polytechnic State Univ.; *Georgia Tech Research Institute, USA	ICAS 2010-2.10.2 OVER-THE-WING-NACELLE-MOUNT CONFIGURATION FOR NOISE REDUCTION D. Sasaki, R. Yoneta, K. Nakahashi Tohoku Univ., Japan	ICAS 2010-2.10.3 LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A BUSEMANN-TYPE SILENT SUPERSONIC BIPLANE H. Kawazoe, S. Abe, T. Matsuno, et al: Tottori Univ., Japan	ICAS 2010-2.10.4 AERODYNAMIC INVESTIGATIONS ON AN AEROELASTOFLEXIBLE MORPHING WING CONFIGURATION B. Beguin, C. Breitsamter, N. Adams TU Munich, Germany	ICAS 2010-2.10.5 A MULTI-POINT INVERSE DESIGN APPROACH OF NATURAL LAMINAR FLOW AIRFOILS L. Deng, Z. D. Qiao, J. T. Xiong* NPU, China; *Univ. of California, USA
ICAS 2010-3.10 Boundary Layers: Chairs: L. De Luca, Università di Napoli "Federico II", IT; TBD				
ICAS 2010-3.10.1 DIRECT TRANSITION TO TURBULENCE IN A 3D BOUNDARY LAYER B. Viaud, E. Serre*, J. M. Chomaz** CReA (French Air Force); *M2P2 (CNRS); **LadHyX (CNRS), France	ICAS 2010-3.10.2 STRUCTURE OF HIGH REYNOLDS NUMBER ADVERSE PRESSURE GRADIENT TURBULENT BOUNDARY LAYER M. Tutkun, W. K. George*, M. Stanislas** FFI, Norway; *Chalmers Univ., Sweden; **UMR CNRS, France	ICAS 2010-3.10.3 EXPERIMENTAL AND NUMERICAL STUDY OF THE INTERACTION BETWEEN T-S WAVES AND AN ISOLATED WALL ROUGHNESS I. B. de Paula, W. Würz, L. F. Souza* Univ. Stuttgart, Germany; *Univ. de Sao Paulo, Brazil	ICAS 2010-3.10.4 IMPLEMENTATION AND TESTING OF A CORRELATION BASED TRANSITION-PREDICTION METHOD FOR AIRFOIL COMPUTATIONS M. Tomac, A. Rizzi KTH, Sweden	ICAS 2010-3.10.5 THE UNSTEADY PRESSURE SIGNATURE OF TRANSONIC SHOCK WAVE/BOUNDARY LAYER INTERACTION S. Pirozzoli, M. Bernardini, F. Grasso Univ. of Rome "La Sapienza", Italy
ICAS 2010-4.10 Climate Challenges & Trade-offs: Chairs: B. Glover, The Boeing Company, US; TBD				
ICAS 2010-4.10.1 INVITED Paper title TBD R Gardner Manchester Metropolitan University, UK	ICAS 2010-4.10.2 ASSESSING THE CO2 CHALLENGE FACING AVIATION J. I. Hileman, E. de la Rosa Blanco, P. A. Bonnefoy, et al MIT, USA	ICAS 2010-4.10.3 OPERATIONAL IMPLICATIONS OF CRUISE SPEED REDUCTIONS FOR NEXT GENERATION FUEL EFFICIENT SUBSONIC AIRCRAFT A. Bonnefoy, J. Hansman MIT, USA	ICAS 2010-4.10.4 DEVELOPMENT OF AN INTERACTIVE CAPABILITY TO RAPIDLY TRADE OFF NEW TECHNOLOGIES AND AIRCRAFT TO REDUCE AVIATION ENVIRONME M. R. Kirby, K. Becker, T. Nam, et al Georgia Institute of Technology, USA	ICAS 2010-4.10.5 ENVIRONMENTAL TRADEOFF ANALYSIS OF OPERATIONAL CONCEPTS AND AIRCRAFT TECHNOLOGIES H. Jimenez, H. J. Pfaender, D. N. Mavris Georgia Institute of Technology, USA
ICAS 2010-5.10 Flight Control II: Chairs: J. L. Vian, The Boeing Company, US; L. A. Mirzoyan, MAI, RU				
ICAS 2010-5.10.1 BENCHMARKING CEASIOM SOFTWARE TO PREDICT FLYING QUALITIES AND DESIGN FLIGHT CONTROL FOR THE B-747 J. Ooppelstrup, T. Richardson*, C. McFarlane*, et al KTH, Sweden; *Univ. of Bristol, UK	ICAS 2010-5.10.2 PILOT-IN-THE-LOOP INFLUENCE ON CONTROLLED TILTROTOR STABILITY AND GUST RESPONSE M. Gennaretti, D. Muro, J. Serafini Univ. Roma Tre, Italy	ICAS 2010-5.10.3 GUST LOAD ALLEVIATION ON A LARGE BLENDED WING BODY AIRLINER A. Wildschek EADS Innovation Works, Germany	ICAS 2010-5.10.4 DYNAMIC MODELING AND CONTROL SYSTEM FOR A SHROUDED PROPELLER SYSTEM Y. D. Jeong, G. H. Kim, D. H. Shim, et al KAIST, Korea	ICAS 2010-5.10.5 COMPLETE FLIGHT CONTROL SYSTEM INTEGRATION AND OPTIMISATION FROM A CONCEPTUAL DESIGN PHASE C. S. Beaverstock, A. Maheri*, T. S. Richardson, et al Univ. of Bristol; *Northumbria Univ., UK

<b>ICAS 2010-6.10 UAV Configuration Aerodynamics: Chairs: J. Fielding, Cranfield University, UK; TBD</b>				
<p><b>ICAS 2010-6.10.1</b> EXPERIMENTAL AND COMPUTATIONAL STUDY OF TWO FLAPPED AIRFOILS AT LOW REYNOLDS NUMBERS N. Yililammi, A.V.G. Cavaliere*, E. Soinne Helsinki Univ. of Technology, Finland; *ITA, Brazil</p>	<p><b>ICAS 2010-6.10.2</b> COMPARISONS OF TWO UCAV WING DESIGNS INCLUDING LOW-SPEED EXPERIMENTAL VERIFICATION R. K. Nangia, O. J. Boelens*, M. Tormalm** Nangia Aero Research, UK; *NLR, Netherlands; **FOI, Sweden, Sweden</p>	<p><b>ICAS 2010-6.10.3</b> PROGRESS IN THE GUST RESISTANT MAV PROGRAMME C. Galinski Warsaw Univ. of Technology, Poland</p>	<p><b>ICAS 2010-6.10.4</b> EFFECT OF WING GEOMETRY ON THE AERODYNAMIC FORCES AND FLOW STRUCTURES GENERATED BY AN INSECT-LIKE FLAPPING WING IN HOVER N. Phillips, K. Knowles Cranfield Univ., UK</p>	<p><b>ICAS 2010-6.10.5</b></p>
<b>ICAS 2010-7.10 Complex Systems: Chairs: J. Hlinka, Brno University of Technology, CZ; J. Parizi, Embraer, BR</b>				
<p><b>ICAS 2010-7.10.1</b> INTELLIGENT &amp; COMMUNICATING AIRCRAFT IN 2030 : TECHNICAL AND SCIENTIFIC CHALLENGES P. Fossier THALES, France</p>	<p><b>ICAS 2010-7.10.2</b> TOWARDS THE IMPLEMENTATION OF VISION-BASED UAS SENSE-AND-AVOID SYSTEM L. Mejias, J. Ford, J. Lai ARCAA, Queensland Univ. of Technology, Australia</p>	<p><b>ICAS 2010-7.10.3</b> ASSESSMENT OF THE USE OF ELECTRONIC FLIGHT BAGS FOR DISPLAYING ENHANCED TRAFFIC AND WEATHER INFORMATION S. Wu, J. Lachter, W. Johnson*, et al NASA Ames / San Jose State Univ.; *NASA Ames, USA</p>	<p><b>ICAS 2010-7.10.4</b> INFORMATION TECHNOLOGY AND AERIAL WARFARE: IMPROVING DECISION-MAKING IN EXTREME ENVIRONMENTS J. F. Lebraty, C. Godé-Sanchez* GREDEG Laboratory, France; *CREA (French Air Force), France</p>	<p><b>ICAS 2010-7.10.5</b> DECISION SUPPORT FOR THE GRIPEN NG AIRCRAFT AND BEYOND S. Molander, J. Alfredson, A. Lundqvist, et al Saab AB, Sweden</p>
<b>ICAS 2010-8.10 Student Finalists: Chairs: G.M. Carlomagno, Università di Napoli "Federico II", IT; C. Bil, RMIT, AU</b>				
<p><b>ICAS 2010-8.10.1</b></p>	<p><b>ICAS 2010-8.10.2</b></p>	<p><b>ICAS 2010-8.10.3</b></p>	<p><b>ICAS 2010-8.10.4</b></p>	<p><b>ICAS 2010-8.10.5</b></p>
<b>ICAS 2010-9.10 Aeroelasticity III: Chairs: S. Kuzmina, TsAGI, RU; TBD</b>				
<p><b>ICAS 2010-9.10.1</b> FURTHER DEVELOPMENT OF UNIFIED BOUNDARY ELEMENT FORMULATION FOR AERODYNAMIC-ACOUSTIC-STRUCTURE H. Djojodihardjo, M. Akbar*, L. Gunawan*, et al Univ. Putra, Malaysia; *Institute of Technology Bandung, Indonesia</p>	<p><b>ICAS 2010-9.10.2</b> HIGH-TEMPERATURE MODAL SURVEY OF A HOT-STRUCTURE CONTROL SURFACE N. Spivey NASA Dryden, USA</p>	<p><b>ICAS 2010-9.10.3</b> AEROELASTIC BEHAVIOR OF TYPICAL SECTIONS WITH STRUCTURAL NONLINEARITY IN TRANSONIC FLOW E. Camilo, J.L.F. Azevedo CTA/IAE/ALA, Brazil</p>	<p><b>ICAS 2010-9.10.4</b> FREQUENCY DOMAIN FLUTTER SOLUTION TECHNIQUE USING COMPLEX MU-ANALYSIS Y. S. Gu, Z. C. Yang NPU, China</p>	<p><b>ICAS 2010-9.10.5</b> DETERMINATION OF TWIN TURBOPROP UTILITY AIRCRAFT WHIRL FLUTTER STABILITY BOUNDARIES J. Cecrdle VZLU, Czech Republic</p>
<b>ICAS 2010-10.10 Maintenance &amp; Organization: Chairs: R. Henke, RWTH Aachen University, DE; TBD</b>				
<p><b>ICAS 2010-10.10.1</b> ASSESSING ORGANISATIONAL FACTORS IN AIRCRAFT ACCIDENTS: METHODOLOGIES AND LIMITATIONS J. Debrincat, C. Bil, G. Clark RMIT Univ., Australia</p>	<p><b>ICAS 2010-10.10.2</b> TARGETING ZERO ERROR: INTRODUCING AVIATION MAINTENANCE SAFETY PROACTIVE MONITORING PROCESS H. Rashid, S. Place, G. Braithwaite Cranfield Univ., UK</p>	<p><b>ICAS 2010-10.10.3</b> DEVELOPING A SYSTEMIC INVESTIGATION METHOD FOR KLM ENGINEERING AND MAINTENANCE ERROR TAXONOMY A. A. Ghobbar, P. M. Van Meer TU Delft, Netherlands</p>	<p><b>ICAS 2010-10.10.4</b> OPTIONS FOR INTERCONNECTION OF SAFETY ASSESSMENT METHODS AND RELIABILITY CENTERED MAINTENANCE IN GENERAL AVIATION J. Hlinka, A. Weisman, J. Finda Brno Univ. of Technology, Czech Republic</p>	<p><b>ICAS 2010-10.10.5</b> ADVANCED MONITORING SYSTEM BASED ON UNMANNED AERIAL VEHICLES; FLEET AND INTEGRATED LOGISTIC SYSTEM SIZING BY MONTE-CARLO SIMULATION S. Chiesa, S. Corpino, A. Chiesa* Politecnico di Torino; *S.P.A.I.C. srl, Italy</p>
<b>ICAS 2010-11.10 Human factors: Chairs: B. Sridhar, NASA, US; TBD</b>				
<p><b>ICAS 2010-11.10.1</b> AN INTEGRATED TOOL SUITE FOR EN ROUTE RADAR CONTROLLERS IN NEXTGEN J. Mercer, T. Prevot, M. Kupfer, et al San Jose State Univ. / NASA Ames, USA</p>	<p><b>ICAS 2010-11.10.2</b> AN EXPRESSION OF AIR TRAFFIC CONTROLLER'S WORKLOAD BY RECOGNITION-PRIMED DECISION MODEL H. Aoyama, H. Iida*, K. Shiomi ENRI; *Institute of Science of Labor, Japan</p>	<p><b>ICAS 2010-11.10.3</b> TASK-BASED WORKLOAD MODELS FOR THE EVALUATION OF CONCEPTUAL CHANGES IN AIR TRAFFIC CONTROL S. Herr, M. Teichmann DFS GmbH, Germany</p>	<p><b>ICAS 2010-11.10.4</b> EDUCATIONAL BENEFITS OF 3D DISPLAYS IN EARLY CONTROLLER TRAINING. M Cooper, M Andel, A. Fridlund, et al Linköping Univ., Sweden</p>	<p><b>ICAS 2010-11.10.5</b> USER CENTERED DESIGN OF A HUMAN-MACHINE-INTERFACE FOR THE TOWER CONTROLLER J. Bergner, H. Ebert*, T. Hofmann** DFS GmbH; *delair Air Traffic Systems GmbH; **TU Darmstadt, Germany</p>

Thursday September 23 <sup>rd</sup> Afternoon Sessions		
14:00 – 14:30	14:30 – 15:00	15:00 – 15:30
ICAS 2010-1.11 Aircraft Design and Flight Testing II: Chairs: C. Atkin, City Univ. London, UK		
<p>ICAS 2010-1.11.1  DESIGN AND INTEGRATION OF FLEXI-BIRD - A LOW-COST SUB-SCALE RESEARCH AIRCRAFT FOR SAFETY AND ENVIRONMENTAL ISSUES  Z. Goraj, K. Kittmann*, R. Voit-Nitschmann*, et al  Warsaw Univ. of Technology, Poland; *Stuttgart Univ., Germany</p>	<p>ICAS 2010-1.11.2  AIRCRAFT AND SYSTEMS INTEGRATION DEVELOPMENT OF THE DEMON TECHNOLOGY DEMONSTRATOR UAV  J. P. Fielding, C. P. Lawson, R. M. Pires  Cranfield Univ., UK</p>	<p>ICAS 2010-1.11.3  THE ROLE OF RAPID PROTOTYPING AND MANUFACTURING FOR UAVS: FROM WIND TUNNEL TO REAL TIME ACQUISITION  M. A. Barcala-Montejano, F. Gandía-Agüera, A. A. Rodríguez-Sevillano, et al  Universidad Politécnica de Madrid, Spain</p>
ICAS 2010-2.11 Applied Aerodynamics: Chairs: I. Lipatov, TsAGI, RU; J. Zoltak, ILOT, PL		
<p>ICAS 2010-2.11.1  WATER-DROPPING AERODYNAMICS FOR FIRE-FIGHTING AMPHIBIAN  T. Ito, H. Kato, Y. Goda*, et al  JAXA; *ShinMaywa Industries Ltd., Japan</p>	<p>ICAS 2010-2.11.2  PERFORMANCE INVESTIGATION OF A BLENDED-WING-BODY AIRCRAFT UNDER THE INFLUENCE OF HEAVY RAIN CONDITION  T. Wan, H. Yang  Tamkang Univ., Taiwan, China</p>	<p>ICAS 2010-2.11.3  BASIS FUNCTION APPROXIMATION OF TRANSONIC AERODYNAMIC INFLUENCE COEFFICIENT MATRIX  W. Li, C. Pak  NASA Dryden, USA</p>
ICAS 2010-3.11 CFD for Unsteady Flow and Acoustics: Chairs: J. R. Meneghini, University of Sao Paulo, BR		
<p>ICAS 2010-3.11.1  SMALL DISTURBANCE NAVIER-STOKES COMPUTATIONS EMPLOYING THE WILCOX K-OMEGA TURBULENCE MODEL  A. Pechloff, B. Laschka  TU Munich, Germany</p>	<p>ICAS 2010-3.11.2  INSTABILITY OF SHOCK WAVES ON AIRFOILS IN TRANSONIC FLIGHT  A. Kuzmin  St Petersburg State Univ., Russian Federation</p>	<p>ICAS 2010-3.11.3  NUMERICAL SIMULATION AROUND AIRFOIL WITH TONAL NOISE GENERATION  T. Kurotaki, T. Sumi, J. Hiyama  JAXA, Japan</p>
ICAS 2010-4.11 Engine Performance & Numerical Simulations I: Chairs: N. Youssef, Pratt & Whitney, CA		
<p>ICAS 2010-4.11.1  OBJECTIVES, PLANS &amp; FIRST ACHIEVEMENTS OF THE SUSTAINABLE AND GREEN ENGINES ITD OF THE CLEAN SKY JTI  A. LEBRUN, M. PACEY*  Snecma, France; *Rolls-Royce, UK</p>	<p>ICAS 2010-4.11.2  EVOLUTION OF ENGINES NEW GENERATION AIRPLANES:PROBLEMS AND SOLUTION  V. S. Baklanov  Tupolev Design Bureau, Russian Federation</p>	<p>ICAS 2010-4.11.3  A STUDY ON GENERATION OF GAS TURBINE COMPONENT MAPS USING PERFORMANCE TEST DATA  C. Kong, S. Lim, K. Kim  Chosun Univ., Department of Aerospace Engineering, Korea</p>
ICAS 2010-5.11 Flight Optimization II: Chairs: S. Ueno, Yokohama National Univ., JP; M-J. Tahk, KAIST, KR		
<p>ICAS 2010-5.11.1  OPTIMAL COLLISION AVOIDANCE TRAJECTORIES FOR WING IN GROUND EFFECT CRAFT  C. Grillo, M. Ciarcia, C. Gatto  Univ. of Palermo, Italy</p>	<p>ICAS 2010-5.11.2  OPTIMIZATION OF AIR RACE TRAJECTORIES  F. Fisch, J. Lenz, F. Holzapfel, et al  TU Munich, Germany</p>	<p>ICAS 2010-5.11.3  A NEW HYBRID DYNAMIC PROGRAMMING APPROACH IN PERFORMANCE OPTIMIZATION OF AN AEROSPACE PLANE  T. Hanaoka  Atomi Univ., Japan</p>
ICAS 2010-6.11 : RESERVE: Chairs:		
<p>ICAS 2010-6.11.1</p>	<p>ICAS 2010-6.11.2</p>	<p>ICAS 2010-6.11.3</p>

<b>ICAS 2010-7.11 Systems Architecture: Chairs: M. Nordlund, Emersom Tank Radar, SE</b>		
<b>ICAS 2010-7.11.1</b> SYSTEM INTEGRATION AND RISK PROPAGATION IN AN AERONAUTICAL SYSTEM-OF-SYSTEMS M. Mane, D. DeLaurentis Purdue Univ., USA	<b>ICAS 2010-7.11.2</b> PRELIMINARY DESIGN OF FUTURE RECONFIGURABLE IMA PLATFORMS P. Bieber, E. Noulard, C. Pagetti, et al ONERA, France	<b>ICAS 2010-7.11.3</b> A CONCEPT FOR SEMANTIC-BASED INFORMATION MANAGEMENT FOR CONTROL ROOM DEVELOPMENT D. Eier, E. Gringinger*, D. Merkl** Frequentis USA Inc., USA; *Frequentis AG; **Vienna Univ. of Technology, Austria
<b>ICAS 2010-8.11 RESERVE: Chairs:</b>		
<b>ICAS 2010-8.11.1</b>	<b>ICAS 2010-8.11.2</b>	<b>ICAS 2010-8.11.3</b>
<b>ICAS 2010-9.11 Aeroelasticity IV: Chairs: L. Tichy, DLR, DE</b>		
<b>ICAS 2010-9.11.1</b> HIGHLY EFFICIENT HIGH-FREQUENCY FINITE ELEMENTS FOR STRUCTURAL DYNAMICS AND ACOUSTICS L. Morino, F. Cetta* Univ. Roma Tre; *Univ. of Pisa, Italy	<b>ICAS 2010-9.11.2</b> MAJOR IMPROVEMENTS IN STORES SEPARATION ANALYSIS USING FLEXIBLE AIRCRAFT H. Wallenius, A. Lindberg Saab AB, Sweden	<b>ICAS 2010-9.11.3</b> COMBINED SCALAR AND VECTOR VELOCITY POTENTIAL FOR COMPUTATION OF AERODYNAMIC AND ACOUSTIC INFLUENCE IN ACOUSTO-AEROELAST H. Djodjodhardjo Univ. Al Azhar Indonesia, Indonesia
<b>ICAS 2010-10.11 RESERVE: Chairs:</b>		
<b>ICAS 2010-10.11.1</b>	<b>ICAS 2010-10.11.2</b>	<b>ICAS 2010-10.11.3</b>
<b>ICAS 2010-11.11 Descent trajectories: Chairs: S. Levedag, DLR, DE</b>		
<b>ICAS 2010-11.11.1</b> TRAJECTORY PREDICTION UNCERTAINTY MODELING FOR CONTINUOUS DESCENT APPROACHES G. Enea, R. Vivona, D. Karr Engility Corporation, USA	<b>ICAS 2010-11.11.2</b> FLIGHT TESTING OF STEEP PRECISION APPROACHES BASED ON GBAS R. Geister DLR, Germany	<b>ICAS 2010-11.11.3</b> DEVELOPMENT AND TESTING OF AUTOMATION FOR EFFICIENT ARRIVALS IN CONSTRAINED AIRSPACE R. A. Coppenbarger NASA Ames, USA
<b>15:30 – 16:00</b>	<b>BREAK</b>	
<b>16:00 – 17:00</b>	<b>VON KARMAN LECTURE (INVITED) - Chairman: C. Mari, Messier-Bugatti, France J. Szodruich, Germany; F. Quentin, France: ACARE- ADVISORY COUNCIL FOR AERONAUTICS IN EUROPE (ICAS 2010-0.9)</b>	
<b>17:00 – 17:30</b>	<b>CLOSING CEREMONY</b>	
<b>Friday 24<sup>th</sup>.</b>	<b>TECHNICAL VISITS</b>	