Avionics Distinguished Institution Award

The plaque reads:

> "In recognition of outstanding achievements and invaluable contributions to developing and transferring critical technologies that address national priorities through research, technology development, and systems integration and for their generous support to the success of the AIAA Digital Avionics Technical Committee and the annual Digital Avionics Systems Conference."

This year's award was presented by John Gonda of The MITRE Corporation/CAASD, DATC Chair to:

Tom Redling, on behalf of

L-3 Communications Integrated Systems Group

The David Lubkowski Memorial for Advancement in Digital Avionics Best of Conference Paper Award

The Awards Committee of the Digital Avionics Technical Committee of the AIAA forms a selection committee made up of AIAA and IEEE members. This committee selects the David Lubkowski Memorial for Advancement in Digital Avionics Best Paper Award of the 27th DASC based on technical content, application to the real world, understandability, and effective presentation. The award is sponsored by The MITRE Corporation's Center for Advanced Aviation System Development (CAASD).

This year's award was presented by David Hamrick of The MITRE Corporation/CAASD to:

Jochum Tadema, Netherlands Defence Academy

and

Erik Theunissen, Delft University of Technology

For their paper

"A Display Concept for UAV Autoland Monitoring: Rationale, Design and Evaluation"

Best of Track Paper Awards

Track 1 - Integrated Modular Avionics	*The MILS Component Integration Approach to Secure information Sharing"*	Carolyn Boettcher, Rance DeLong, John Rushby, Wilmar Sifre
Track 2 – Communications, Navigation, Surveillance (CNS) Systems	*"Interference Mitigation for Broadband L-DACS"*	M. Schnell, S. Gligorevic, M. Walter, C. Rihacek, M. Sajatovic, B. Haindl
Track 3 – Air Traffic Management (ATM)	*"Estimating Taxi-Out Times with a Reinforcement Learning Algorithm"*	Poornima Balakrishna, Rajesh Ganesan, Lance Sherry, Benjamin S. Levy
Track 4 – Avionics Applications	*"A New Ecological Primary Display Concept"*	Tony Lambergts, Richard Rademaker, Erik Theunissen
Track 5 – Avionics Design	*"Design and Evaluation of a GUI for Operator Involvement in Airborne Conflict Detection and Resolution"*	J. Tadema, Den Helder, E. Theunissen
Track 6 – Poster Papers	*"Research on Improvement of Position Accuracy for Satellite Navigation"*	Wang Zhipeng, Zhang Jun

Best of Session Paper Awards

Track 1 - Integrated Modular Avionics		
Session A - IMA Open Architectures	*Design Considerations for Systems Hosted on Integrated Modular Avionics Platforms"*	Christopher B. Watkins, Randy Walter
Session B - IMA Integration and Optimization	*"IMA Resource Allocation Process"*	Dan Mazuk
Session C - Information Assurance & Security	*"The MILS Component Integration Approach to Secure information Sharing"*	Carolyn Boettcher, Rance DeLong, John Rushby, Wilmar Sifre
Session D - Communications Infrastructure	*"Distributed & Remote Control of Flight Control Actuation Using Power Line Communications"*	John O'Brien, Amit Kulshreshtha
Session E - IMA Certification & Open Standards	*"Certification Concerns of Integrated Modular Avionics (IMA) Systems"*	Gregg Bartley, Barbara Lingberg
Track 2 – Communications, Navigation, Surveillance (CNS) Systems		
Session A - Integrated CNS Systems	*"Analysis of Advanced Flight Management Systems (FMS) Flight Management Computer (FMC) Field Observation Trials, Radius-to-Fix Path Terminators"*	Albert A. Herndon, Michael Cramer, Kevin Sprong
Session B - Communications	*Interference Mitigation for Broadband L-DACS"*	M. Schnell, S. Gligorevic, M. Walter, C. Rihacek, M. Sajatovic, B. Haindl
Session C - CNS Research and Technology Development	*"Procedures for Off-Nominal Cases: Very Closely Spaced Parallel Runway Operations"*	Savita Verma, Sandy Lozito, Thomas Kozon, Deborah Ballinger, Herbert Resnick
Session D - Surveillance	*Time Shifting Beacon Radar Reports in Recorded Air Traffic Data*	Robert D. Oaks, Mike M. Paglione
Session E - Networks & Operational Security	*"Link-Layer Quality of Service in the L-Band Digital Aeronautical Communication System B-AMC"*	T. Gräupl, M. Ehammer, C.-H. Rokitansky
Track 3 – Air Traffic Management (ATM)		
Session A - Trajectory-Based Operations & 4-Dimensional Trajectories	*"Role of Avionics in Trajectory Based Operations"*	Michael R. C. Jackson
Session B - Airspace Design	*"Analysis of an Optimal Sector Design Method"*	Michael Drew
Session C - ADS-B, Capacity & Conflict Management	*"Multiple Target Estimation and Tracking for ADS-B Radar System"*	Ming-Shih Huang, Ram M. Narayanan, Arthur Feinberg
Session D - En Route and Traffic Flow Management Performance Enhancements	*"Estimating Taxi-Out Times with a Reinforcement Learning Algorithm"*	Poornima Balakrishna, Rajesh Ganesan, Lance Sherry, Benjamin S. Levy
Session E - Arrival/Departure Management	*"A New Modeling Capability for Airport Tracking Analysis"*	George J. Couluris, Robert K. Fong, Michael B. Downs, Nathan Mittler, David Signor, Ari Stassart

Track 4 - Avionics Applications		
Session A - Human Machine Interface & Human Factors	*A New Ecological Primary Display Concept"*	Tony Lambergts, Richard Rademaker, Erik Theunissen
Session B - Flight Deck Systems 1	*"Symbology Evaluation for Strategic Weather Information on the Flight Deck"*	Thomas Grasse, Christina Schilke, Dr. Jens Schiefele
Session C - Unmanned Aircraft Systems 1	*Unmanned Aircraft Research in Support of NextGen Trajectory Based Operations"*	Kevin McEntee, Bill Nix, Geoff Lloyd
Session D - Unmanned Aircraft Systems 2 & Flight Deck Systems 2	*"UAS in Civil Airspace: Demonstrating "Sense & Avoid" Capabilities in Flight Trials"*	Bernd Korn, Christiane Edinger
Track 5 - Avionics Design		
Session A - System Integration	*"Design and Evaluation of a GUI for Operator Involvement in Airborne Conflict Detection and Resolution*	J. Tadema, Den Helder, E. Theunissen
Session B - Software Design	*"On MC/DC and Implementation Structure: An Empirical Study"*	Mats P. E. Heimdahl, Michael W. Whalen, Ajitha Rajan
Session C - Systems Engineering	*"Model-Based Design Analysis of an Avionics Fuel Distributed Control System"*	Carlos C. Insaurralde, Miguel A. Seminario, Juan F. Jiménez, José M. Giron-Sierra
Session D - Flight Critical Systems	*"Demonstration of a Formal Method for Incremental Qualification of IMA Systems"*	Jonas Elmqvist, Simin Nadjm-Tehrani, Kristina Forsberg, Stellan Nordenbro

Student Paper Awards

First Place - Tie	*"Multiple Targets Estimation and Tracking for ADS-B Radar System"*	Ming-Shih Huang, Ram M. Narayanan, Arthur Feinberg
	"Comparison of See-And-Avoid Performance in Manned and Remotely Piloted Aircraft"	Ryan J. Kephart, Michael S. Braasch
Second Place	*"Killing Gateways: Applying the RTSframework To Improve Avionics Systems Performance"*	Emilia M. Colonese, João C. Nobre, Laércio S. Anjos, José M. P. Oliveira
Best Undergraduate	*"A Low-Cost Modular Avionics and Telemetry Software System for the CReSIS Meridian Uninhabited Aerial System"*	Robert Burns