

International Symposium

Enhanced Solutions
for
Aircraft and Vehicle Surveillance Applications

ESAVS 2018

Berlin, Germany
18 - 19 October, 2018

Programm



organised by the

German Institute of Navigation
Deutsche Gesellschaft für Ortung und Navigation e. V. (DGON)

in cooperation with



German Aerospace Center
Deutsches Zentrum
für Luft- und Raumfahrt e.V. (DLR)



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Wednesday 17 October 2018

19:00 – 21:00 Ice Breaker in the hotel lobby

Thursday 18 October 2018

09:00 Registration and Welcome Coffee

10:00 Conference Opening and Welcome Address

Werner LANGHANS, Maurizio SCARAMUZZA, Symposium Chairmen

10:15 Key Note Address

Norbert LOHL, Chairman of the Board of the German Association for Unmanned Aviation UAV DACH, former Certification Director of EASA

Session 1 **Space-based ADS-B**

Co-Chair: Pascal DIAS

Co-Chair: Maurizio SCARAMUZZA

11:00 A Compilation of Measured ADS-B Performance Characteristics from Aireon's On-Orbit Test Program

Michael A. GARCIA, John DOLAN, Andy HOAG, Dennis DIEKELMAN, Aireon, McLean, USA

11:30 Aireon Independent Validation of Aircraft Position via Space-Based ADS-B

John DOLAN, Michael A. GARCIA, Aireon, McLean, USA

12:00 Identifying Collision Avoidance Resolution Advisories and Anomalies in Aircraft Avionics Globally with Space-based ADS-B Data Observations

Andy HOAG, Michael A. GARCIA, John DOLAN, Aireon, McLean, USA

12:30 Multi-source ADS-B for reduced Separation Minima Results from the Salsa Project

Tim Heiko STELKENS-KOBSCHE, Thorsten MÜHLHAUSEN
German Aerospace Center (DLR), Braunschweig, Germany

13:00 Lunch

Session 2 **Unmanned Aerial Systems (UAS) and Drone Surveillance**

Co-Chair: Cristiano BALDONI

Co-Chair: Erich KLOCK

14:30 Requirements of civil aviation to the detection of drones

Werner LANGHANS, Austro Control GmbH, Vienna, Austria

15:00 Drone detection: technological answers to the requirements of civil aviation

Christian LOEW, Thales Austria GmbH, Vienna, Austria

15:30 Surveillance information for remote virtual towers and the subsequent use case of drone integration

Markus KLOPF, Peter GRIDLING, Jan ZIEGLER, Frequentis AG, Vienna, Austria

16:00 SSR-based Infrastructure Measurements using UAS

Jochen BREDEMEYER, FCS Flight Calibration Services GmbH, Braunschweig, Germany
Steffen MARQUARD, DFS Deutsche Flugsicherung GmbH, Langen, Germany
Thorsten SCHRADER, Physikalisch-Technische Bundesanstalt (PTB), Braunschweig, Germany

16:30 Wrap-Up Day 1

18:00 – 21:00 Conference Dinner

Session 3 Testing & Performance Analysis

Co-Chair: Andrea MOTTA

Co-Chair: Holger NEUFELDT

08:00 Registration and Welcome Coffee

08:30 Performance Model of ADS-B Position Verification by TDOA

Junichi NAGANAWA, Hiromi MIYAZAKI,
National Institute of Maritime, Port and Aviation Technology, Chofu, Tokyo, Japan

09:00 Extension of a Surveillance Service with Partial Measurements

Adolf MATHIAS, Klaus POURVOYEUR, Ha Son NGUYEN, DFS Deutsche Flugsicherung GmbH, Langen, Germany

09:30 Security functions in cooperative surveillance sensors

André SCHÜTTPELZ, Holger NEUFELDT, Thales Deutschland GmbH, Ditzingen, Germany
Stefan STANZEL, DFS Deutsche Flugsicherung GmbH, Langen, Germany

10:00 Model-based Performance Assessment of a Multilateration System

Arberita KUSARI, Holger NEUFELDT, Diego JIMENEZ-OROSTEGUI, André SCHÜTTPELZ,
Thales Deutschland GmbH, Ditzingen, Germany

10:30 Coffee

Session 4 Sensor and Data Processing Systems, new System Concepts, Architecture

Co-Chair: Dario GRGURIC

Co-Chair: Wolfgang NEUMEISTER

11:00 A Cost-Effective Surveillance Solution for Multi Remote Tower

Klaus POURVOYEUR, Adolf MATHIAS, DFS Deutsche Flugsicherung GmbH, Langen, Germany
André SCHÜTTPELZ, Holger NEUFELDT, Thales Deutschland GmbH, Ditzingen, Germany
Werner WOHLFAHRT, Frequentis AG, Vienna, Austria
Thomas OSTER, Eurocontrol, Brussels, Belgium

11:30 The Ultimate Surveillance Chain

Bernard CUSTINNE, Torsten DÖRNBACH, Eurocontrol, Brussels, Belgium

12:00 Aircraft and Vessel Surveillance System by DTTB Signal Delays

Junichi HONDA, Masato WATANABE, Yoshio MAKITA, Takuya OTSUYAMA
National Institute of Maritime, Port and Aviation Technology, Chofu, Tokyo, Japan

12:30 Radio Direction Finding Concept for Upper Airspace Control

Patrick BARDET, Torsten DÖRNBACH, Bernard CUSTINNE, Eurocontrol, Brussels, Belgium

13:00 Plenary Summary and Closing Remarks

13:30 Lunch

15:00 End of Conference

Venue

Meliá Hotel Berlin
Friedrichstrasse 103
10117 Berlin, Germany
Tel +49 30 2060790 114
www.melia.com/de/hotels/deutschland/berlin/melia-berlin

Conference Office

The Conference Office will be open as follows:

Thursday	18 October 2018	08:00 - 17:00 hrs
Friday	19 October 2018	08:00 - 16:00 hrs

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Programme is subject to change.