

4th EUROCONTROL Innovative Research Workshop & Exhibition 2005

**Bretigny-sur-Orge, France
6-8 December 2005**

ISBN: 978-1-5108-0164-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2005) by The European Organisation for Safety of Air Navigation (Eurocontrol)
All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact The European Organisation for Safety of Air Navigation
(Eurocontrol) at the address below.

The European Organisation for Safety of Air Navigation (Eurocontrol)
Rue de la Fusee 96
Brussels 1130
Belgium

Phone: +31 2 729 90 11
Fax: +32 2 729 90 44

infocentre@eurocontrol.int

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

CONTENT

Page

| | | |
|------|--|---------------|
| [01] | ESCALE - ESCALE – Enhanced Speech Tracking of the Air Traffic Control O. Grisvard - Thales TRT | 3 |
| [02] | ANIMS – Animation and Sound for ATM C. Schlienger / C. Mertz – Intuilab | 13 |
| [03] | MODAIR M Dannoot - M3 System | 21 |
| [04] | Interactive & immersive 3D visualization for ATC M. Cooper - Linkoping University | 27 |
| [05] | Behavioral analysis of tower controller activity E. Pinska - Sorbonne university | 43 |
| [05] | Collimation in transparent projection screens for panoramic augmented reality environments S. Peterson - Linkoping University | 49 |
| [05] | Tracking Requirements for Panoramic AR Environments M. Axholt - Linkoping University | 55 |
| [06] | Time line H. Hering - Eurocontrol INO | 61 |
| [07] | Complex System Modeling & Cognition Eurocontrol Joint Research Lab - year I – report M. Bui – CSMC | 67 |
| [07] | Percolation theory Soufian Ben Amor - CSMC | 73 |
| [08] | Paradigm SHIFT – Dual Airspace concept assessment S. Guibert - L. Guichard - Eurocontrol INO / J.-Y. Grau - D. Dohy - Neosys | 81 |
| [09] | Security and passenger rights - RFID technology impact A. Sauty - IFURTA | 95 |
| [10] | Potential of lateral off-set for multi sector planner R. Ehrmantraut - Eurocontrol INO | 101 |
| [10] | Performance parameters of speed control R. Ehrmantraut - F. Jelinek - Eurocontrol INO | 113 |
| [11] | Passenger movement simulation in inter-model air-rail terminal A. Cokasova - Zilina University | 127 |
| [12] | Airport of the future M. Matas - Zilina University | 135 |
| [13] | Preliminary analysis of small aircraft traffic characteristics and its interaction on ATM D. Rohacs - Budapest University | 143 |
| [14] | Hub & Spokes impact E. Hitham - Zilina University | not available |
| [15] | EC FP6 project – ERASMUS M. Brochard - G. Gawinowski - Eurocontrol INO | 151 |
| [16] | EC FP6 project – IFATS C. Letaltec - ONERA | 161 |
| [17] | CRDS PhD - CEATS for traffic synchronization L. Dravecka – CEATS CRDS | 175 |

| CONTENT | | Page |
|----------------|---|-------------|
| [18] | EC FP6 project - 4D Virtual Airspace management System L. Mazzucchelli - NEXT-Ingegneria dei Sistemi | 185 |
| [19] | Resolving conflicts between Pilots and Automation E. Itoh - Tokyo university | 191 |
| [20] | Decentralized control for Label Anti-Overlapping K. Kyriakopoulos - Technical University of Athens | 201 |
| [21] | EC project - Super HighWay N. Suarez - ISDEFE | 209 |
| [22] | Speech Watermarking for the VHF Radio Channel K. Hofbauer - Graz University of Technology | 215 |
| [23] | AIT concept - feasibility analysis and transfer to industry M. Celestin - Eurocontrol HQ - Brussel | 221 |
| [24] | Potentiality of computer assisted speed regulations N. Archambault - DSNA | 225 |
| [25] | Absorption areas and en-route slot allocation F. Ferchaud - Bordeaux University | 233 |
| [26] | Dealing with uncertainties in ATM D. Sohler - Reims University | 241 |
| [27] | ATFM pre tactical planning N. Belouardy - ENST Paris | 247 |
| [28] | Implicit Structures in ATFM C Gwiggner - Polytechnique Paris | 255 |
| [29] | Model Based Conflict Detection and resolution J. Lygeros - Patras University | 259 |
| [30] | Minimizing potential conflict quantity with speed control S. Constant - INRETS | 265 |
| [31] | Optimal routing for dynamic ATFM O. Richard - INRETS | 275 |
| [32] | Complexity for Airspace and Traffic Organization D. Delahaye - DSNA | 281 |
| [33] | Shortest path in plane graph and air route network T Riviere - DSNA (not presented in the conference) | 303 |