

1st International Symposium

“Hypersonic flight: from 100.000 to 400.000 ft”

Rome, Italy, 30 June-1 July 2014

Monday, 30 June 2014

08.30 - 09.00 Registration/coffee

09:00 – 09:30 OPENING REMARKS

Welcome by G. Sciandra, President of the Italian Air Force Association

Welcome by N. Cardinali, Director, CESMA

Introductory notes by G. Cornacchia, coordinator

09.30 - 09.50 KEYNOTE ADDRESS – Jean-Pierre Darnis, Istituto Affari Internazionali

Concepts for civil and defence applications

Technical Framework, Enabling Technologies – Chairman: Francesco Langella, ARMAEREO

09.50 - 11.00 *Guidance, Navigation and Control Technologies for Hypersonic Flight*, F. Corrado, CIRA

Hypersonic Technologies and Atmospheric Entry Missions at ESA, L. Marraffa, ESA/ESTEC,

Propulsion Systems for Hypersonic Vehicles, S. Borrelli, CIRA

Zr-, Hf- and Ta-based Ultra High Temperature Ceramics for Thermal Protection Systems, G. Cao, Università di Cagliari

11.00-11.20 Coffee break

11.20-12.30 *Aerothermodynamic Design of JAXA's Hypersonic Passenger Aircraft (Hikari project)*, A. Ueno, JAEA, Japan

Aerothermodynamic Analysis of Innovative Hypersonic Deployable Re-entry Capsules, R. Savino, Università "Federico II" di Napoli

IXV Development: An Integrated Approach for Performance Characterization, M. Sudars, Thales Alenia Space

Ultra-high temperature ceramics for thermal protection systems and propulsion, D. Sciti, CNR-ISTEC, National Research Council of Italy - Institute of Science and Technology for Ceramics

Hypersonics Research at the University of Queensland, R. Morgan, The University of Queensland, Australia

Recent activities in Italy on MHD interaction for hypersonic flow control, A. Cristofolini, Università di Bologna

Regulatory framework – Chairman: Vittorio Argento, RAI

12.30-13.00 *Memorandum of Cooperation in the Development of Commercial Space Transportation between FAA (USA) and ENAC (Italy), B. Marasà, ENAC*

13.00-14.30 **Buffet**

14.30-15.00 *Aviation Law or Space Law for Suborbital Flights? The Jurist Point of View, G. Catalano-Sgrosso, Università di Roma*

Environment Protection, F. Persiani, Università di Bologna

15.00-15.15 **KEYNOTE ADDRESS, Pasquale Preziosa, Italian Air Force Chief of Staff**

The Italian Air Force in the Aerospace Domain; from Roots to a New Vision

15.15-16.00 *Safety of Commercial Suborbital Human Spaceflight, T. Sgobba, International Association for the Advancement of Space Safety, The Netherlands*

The European Market Potential for Commercial Suborbital Spaceflight, L. Scatteia, STRATEGY&, The Netherlands

16.00-16.20 Coffee break

Hypersonic flight programs – Chairman: Marcello Onofri, Università di Roma

16.20-18.00 *The European Experience: Past and Present Programs on Atmospheric Re-entry Vehicles, M. Onofri, Università di Roma,*

Thales Alenia Space Experiences and Perspectives in Hypersonic Flights, F. Massobrio, Thales Alenia Space

The opportunities disclosed by Avio capabilities and Vega LV availability in the field of hypersonic vehicles technologies, P. Bellomi, Avio S.p.A.

The Spacegate Study for point-to-point flights and ESA Intermediate Experimental Vehicle (IXV) Ground Segment, F. Santoro, ALTEC

The IXV Program, M. Cosmo, Agenzia Spaziale Italiana (ASI)

Hypersonic concept for Long Range High Speed Vector- MURALM, T. Genito, MBDA

18.00 - 18.10 Closing Remarks

Tuesday, 1 July 2014

08.30 - 09.00 Registration/coffee

09.00 - 09.10 Welcome address, Roberto Battiston, President, ASI

Hypersonic flight programs – Chairman: Ludovico Vecchione, CIRA

09.10–10.50 Hypersonic studies and related technology programs/perspectives, F. A. Fossati, Aviospace/AIRBUS Defence & Space

Dream Chaser Space Vehicle (U.S. National Hypersonic strategy), J. Olson, Sierra Nevada Space Systems

Hypothesis for Hypersonic Flight development, S. Chiesa, M. Fioriti, R. Fusaro, Politecnico di Torino

Hypersonic Test Facility at NASA Plum Brook Station, D. Stringer, Director, NASA Plum Brook Station

HEXAFLY project: the experience of small/medium enterprises, S. Cardone, Tecnosistem

Certification, Airspace Control and Management, C.Cifaldi, ENAC, G. Torre, ENAV (tbc)

10.50 - 11.10 Coffee break

11.10 - 12.50 Round table - Promoting synergies and cooperation - Chairman: Giovanni Bertolone, CTNA

Participants:

P. Magro (Deputy Chief of Staff, Italian Air Force)

L. Guerriero (Università di Bari)

V. Argento, RAI

M. Cosmo (ASI)

C. Romanelli (President, ALTEC)

D. Giachino (Alenia Aermacchi)

R. Provera (Director, Thales Alenia Space)

L. Vecchione (CIRA)

S. Rossignoli (President, AERO SEKUR)

M. Comparini (President, SPIN-IT)

B. Mazzetti (President, ACARE Italia)

13.00 – 13.15 Closing remarks