



IAC-14.E3.P.8

"REACHING A SAFE, SECURE, AND SUSTAINABLE SPACE ENVIRONMENT": THE NECESSITY OF ACCOUNTABILITY IN RELATION TO STATES-ACTIVITIES IN OUTER SPACE
Maria Pozza, 1) University of Otago (New Zealand), New Zealand

IAC-14.E3.P.9

LEGAL ISSUES CONCERNING THE USE OF NATURAL RESOURCES ON THE MOON RISING FROM ADDITIVE MANUFACTURING
Yangzi Tao, Beijing Institute of Technology, China

IAC-14.E3.P.10

GREENSPACE: TOWARDS A SYSTEMATIC, GLOBAL AND INNOVATIVE EVALUATION OF THE ENVIRONMENTAL IMPACT OF SPACE ACTIVITIES FOR A SAFE AND SUSTAINABLE SPACE ENVIRONMENT
Francesco Leonardo Consonni, Politecnico di Milano, Italy

IAC-14.E3.P.11 (withdrawn)

SPACE SECURITY ISSUES IN LEGAL REGIME
Rushi Ghadawala, Aryavarta Space Organization, India

IAC-14.E3.P.12

BASICS OF FINANCIAL SUPPORT OF RESEARCH AND DEVELOPMENT ACTIVITIES IN THE RUSSIAN SPACE INDUSTRY
VALERY ROMANOV, Lavochkin Association, Russia

IAC-14.E3.P.13

ASPECTS AND FACTORS DETERMINING THE SAFETY AND SUSTAINABILITY OF SPACE ACTIVITIES IN OUTER SPACE
Denis Korobushin, Central Research Institute for Machine Building (FGUP TSNIMMASH), Russia

IAC-14.E3.P.14

OUR TURBULENT SUN: EMERGING TOOLS FOR DISASTER MANAGEMENT IN THE GLOBAL SOUTH.
Eren Gorur, International Space University (ISU)/University of South Australia, Australia

IAC-14.E3.P.15

THE CZECH AND POLISH SPACE SECTORS – THE IMPACT OF ESA MEMBERSHIP
Krzysztof Kanawka, kosmonauta.net, Poland

E4. 48th IAA SYMPOSIUM ON HISTORY OF ASTRONAUTICS

Coordinator(s): Ake Ingemar Skoog, Germany; Philippe Jung, Association Aéronautique & Astronautique de France (3AF), France; Christophe Rothmund, Snecma, France; Marsha Freeman, 21st Century Science & Technology, United States;

E4.1. Memoirs and Organisational Histories

September 29 2014, 15:15 — 803A

Co-Chair(s): Marsha Freeman, 21st Century Science & Technology, United States; Susan McKenna-Lawlor, Space Technology (Ireland) Ltd., Ireland;

Rapporteur(s): Theo Pirard, Space Information Center, Belgium; Niklas Reinke, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;

IAC-14.E4.1.1

UKRAINIAN SCIENTIFIC-TECHNICAL SCHOOLS IN ROCKET AND SPACE ENGINEERING
Iryna Fedorenko, National Aerospace Educational Centre of Youth, Ukraine

IAC-14.E4.1.2 (withdrawn)

US-SOVIET COOPERATION IN SPACE: EARLY CONTACTS
William P. Barry, National Aeronautics and Space Administration (NASA), United States

IAC-14.E4.1.3

THE EFFECT OF WERNHER VON BRAUN AND SERGEI KOROLEV ON THE MODERN STATE OF SPACE TECHNOLOGY
Ugur Guven, United States

IAC-14.E4.1.4 (withdrawn)

KEN ATOCK: AUSTRALIA'S FORGOTTEN ROCKETEER
Kerrie Dougherty, Powerhouse Museum, Australia

IAC-14.E4.1.5

A PORTRAIT ON PROF IVÁN ALMÁR - HIS EXPERIENCES AND HIS OPINION ON THE ROLE OF ASTRONAUTICS IN HUNGARY IN THE PERIOD 1957-1980
Paivi Jukala, Aalto University, Finland

IAC-14.E4.1.6

THE AMERICAN ASTRONAUTICAL SOCIETY (AAS), 1954-2014
Michael Ciancone, American Astronautical Society (AAS), United States

IAC-14.E4.1.7

ROCKETRY MENTORS, ROCKETRY PRACTITIONERS AND UNIQUE SPACE PIONEERS
Charles Lundquist, University of Alabama in Huntsville, United States

IAC-14.E4.1.8

A BACKGROUND OF MEMORIES OF WORKING WITH DR.WERNHER VON BRAUN, KRAFFT EHRLICH, AND OTHER MEMBERS OF THE PEENEMÜNDE GROUP
George James, Rocket Research Institute, Inc., United States

E4.2. Scientific and Technical Histories

October 2 2014, 09:45 — 803A

Co-Chair(s): Kerrie Dougherty, Powerhouse Museum, Australia; Hervé Moulin, Institut Français d'Histoire de l'Espace, France; **Rapporteur(s):** Christophe Rothmund, Snecma, France; William Jones, United States;

IAC-14.E4.2.1

THE PEDRO PAULET'S LIQUID PROPELLANT ROCKET ENGINE INVENTION: FIRST STEP IN THE SPACE ROCKETRY
Luis Rojas, Peru

IAC-14.E4.2.2

MEDICO-PSYCHOLOGICAL ASSESSMENTS AND EXPERIMENTS FOR THE FIRST BULGARIAN ASTRONAUT
Anelia Popandreeva, Bulgarian Academy of Sciences, Bulgaria

IAC-14.E4.2.3

COSMONAUT PHAM TUAN AND VIETNAM'S ROAD TO SPACE
Thu Vu Trong, Vietnam

IAC-14.E4.2.4

THE RAILROAD AND THE SPACE PROGRAM REVISITED: HISTORICAL ANALOGUES AND THE STIMULATION OF COMMERCIAL SPACE OPERATIONS
Roger D. Launius, Smithsonian Institution, United States

IAC-14.E4.2.5

AIMING HIGH - FIRST STEPS OF ISRAELI RESEARCH ROCKETS IN THE LATE 1960'S
Tal Inbar, Fisher Institute for Air and Space Strategic Studies, Israel

IAC-14.E4.2.6

DEFA PARCA: EARLY SURFACE-TO-AIR MISSILE FOR THE FRENCH ARMY
Philippe Jung, Association Aéronautique & Astronautique de France (3AF), France

IAC-14.E4.2.7 (withdrawn)

HISTORY OF THE AIR LAUNCH CONCEPT'S LAUNCH SYSTEM PRACTICAL DEVELOPMENT IN FORMER SOVIET UNION AND RUSSIA
Oleg Sokolov, Air Launch Aerospace Corporation, Russia

IAC-14.E4.2.8

THE GENEALOGY OF INFLUENCE: VIKING MARS MISSIONS IMPACTS ON THE FUTURE
Rachel Tillman, United States

IAC-14.E4.2.9

DID THE GERMANS LEARN FROM GODDARD? -- AN EXAMINATION OF WHETHER THE ROCKETRY OF ROBERT H. GODDARD INFLUENCED GERMAN PRE-WORLD WAR II MISSILE DEVELOPMENTS
Frank H. Winter, National Air and Space Museum, United States

E4.3. History of Canadian contribution to astronautics and history on early SETI activities

October 2 2014, 14:45 — 803A

Co-Chair(s): Otfried Liepack, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States; Geoffrey Langedoc, Canadian Aeronautics & Space Institute (CASI), Canada; **Rapporteur(s):** Philippe Cosyn, Belgium;

IAC-14.E4.3.1

100 YEARS OF AEROSPACE HISTORY IN CANADA. FROM MCCURDY TO HADFIELD.
Robert Godwin, Canada

IAC-14.E4.3.2

SPACE FOR CANADIANS – EXPLAINING CANADA'S LOGIC AND MOTIVATION TO BE ACTIVE IN SPACE
Deganit Paikowsky, Tel Aviv University, Israel

IAC-14.E4.3.3

A HISTORY OF THE CANADIAN SPACE PROGRAM: POLICIES THAT GUIDED THE PROGRAM THROUGH ITS FIRST THIRTY YEARS AND LESSONS LEARNED COPING WITH MODEST BUDGETS
Graham Gibbs, Canadian Space Agency (RET), Canada

IAC-14.E4.3.4

BRUCE AIKENHEAD: CANADA'S MOST VERSATILE SPACE PIONEER
Christopher Gainer, Canada

IAC-14.E4.3.5

MESSAGE TO AN INTELLIGENT CIVILIZATION: A HISTORICAL PERSPECTIVE
Stephane Dumas, SETI League, Canada

IAC-14.E4.3.6

CANADIAN CONTRIBUTION TO SETI - PAST AND PRESENT
Lori Walton, Tigerstar Geoscience, Canada

IAC-14.E4.3.7

SETI SCIENCE: THE FIRST 25 YEARS
H. Paul Shuch, The SETI League, Inc., United States

IAC-14.E4.3.8

EVOLUTION OF SETI TECHNOLOGY TO PICK UP MESSAGES FROM ET
Claudio Maccone, International Academy of Astronautics (IAA) and Istituto Nazionale di Astrofisica (INAF), Italy

E5. 25th IAA SYMPOSIUM ON SPACE ACTIVITY AND SOCIETY

Coordinator(s): Geoffrey Langedoc, Canadian Aeronautics & Space Institute (CASI), Canada; Olga Bannova, University of Houston, United States;

E5.1. Space Architecture: technical aspects, design, engineering, concepts and mission planning

October 1 2014, 09:45 — 713B

Co-Chair(s): Olga Bannova, University of Houston, United States; Brent Sherwood, Caltech/JPL, United States; **Rapporteur(s):** Anna Barbara Imhof, Liquifer Systems Group (LSG), Austria;

IAC-14.E5.1.1

SOCIAL-SPACE ANALOGS: EXPLORING THE EMERGING ISSUES OF INTERPLANETARY SETTLEMENT
Scott Yim, United States

IAC-14.E5.1.2

HUMAN LIFE SUPPORT IN PERMANENT LUNAR BASE ARCHITECTURES
Luca Levring, Politecnico di Torino, Italy

IAC-14.E5.1.3 (withdrawn)

THE URBAN SETTLEMENT OF OUTER SPACE
Danijele Ignjatovic Stupar, International Space University (ISU), France

IAC-14.E5.1.4

ORBITAL REFUELING, SPACE DEBRIS, AND ADVANCING A SOLAR SYSTEM ECONOMY
Kent Nebergall, Day Five, LLC, United States

IAC-14.E5.1.5

MODULAR SPACE ARCHITECTURE: DESIGN CONSIDERATIONS FOR TRANS-PLANETARY MANNED EXPLORATION
Nejc Trost, University of Houston, United States

IAC-14.E5.1.6

GREENHOUSE AUTOMATION, ILLUMINATION AND EXPANSION STUDY FOR MARS DESERT RESEARCH STATION
Lucie Poulet, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-14.E5.1.7

ADAPTABLE INTELLIGENT SPACECRAFT MODULES FOR VARIOUS VEHICLE AND HABITAT ARCHITECTURES
Olga Bannova, University of Houston, United States

IAC-14.E5.1.8

ARCHITECTURES FOR ACCOMMODATING LUNAR PLANT GROWTH DEMONSTRATIONS
James Burke, The Planetary Society, United States

E5.2. Models for Successfully Applying Space Technology Beyond Its Original Intent

October 1 2014, 14:45 — 713B

Co-Chair(s): Olga Bannova, University of Houston, United States; Nona Minnifield Cheeks, National Aeronautics and Space Administration (NASA)/Goddard Space Flight Center, United States;

Rapporteur(s): Anna Barbara Imhof, Liquifer Systems Group (LSG), Austria;

IAC-14.E5.2.1

PRACTICAL DESIGN EXAMPLES FOR HUMAN HABITATS IN SPACE, OFF-GRID, AND IN LOW-IMPACT COMMUNITIES
Kent Nebergall, Day Five, LLC, United States

IAC-14.E5.2.2

TECHNOLOGY TRANSFER: CURRENT TRENDS IN INCORPORATING NEW TECHNOLOGIES INTO HOUSING INDUSTRY
Olga Bannova, University of Houston, United States