

International Conference | June 5–7, 2016 Prague, Czech Republic

SPACESECURITY.EU

CONFERENCE CONCEPT PAPER

BACKGROUND

The inception of the PSSI's Space Security conference series dates back to 2010. The first conference, held in Prague in June 2011 and co-sponsored by the European Space Agency, sought to establish space security as a policy priority directly relevant to the broader defense and strategic dialogue among Europe, the U.S. and Japan. The second conference, convened in Tokyo in October 2013 and co-sponsored by Japan's Office of National Space Policy, examined more concrete elements of collaboration that would enhance each partner's national and space security interests. It also sought to assess how best to combine their capabilities to prevent and/or preempt various space security threats from materializing, including the deliberate actions of one space-faring nation against another.

There have been major developments in the security policy portfolio since the beginning of this conference series. These include the first Comprehensive Dialogue on Space between the U.S. and Japan in March 2013, the convening of the first EU-Japan Space Dialogue in October 2014, and the new U.S.-Japan defense guidelines of April 2015. Accordingly, the Third PSSI Space Security Conference will focus on the growing intersection of space security and terrestrial geopolitical events/ conflicts. It will review steps that have been taken by European countries, the EU, the U.S. and Japan to address nationally and internationally the increasingly complex and fast moving space security developments, including efforts to align national space security priorities with various multilateral efforts.

CONFERENCE GOAL

The key aim of the conference series is to advance common space security interests, and help strengthen existing links among the relevant entities responsible for the development of the Europe-U.S.-Japan space security partnership, as well as the bilateral and multilateral interactions of the participating countries. We believe that the establishment of proper management procedures – particularly in a crisis environment -- is crucial in successfully coping with various space security contingencies. In this connection, private industry should likewise have an important role in crafting the space security architecture of the future.

This third conference will seek to foster discussions concerning the deployment of dual-use space technologies for national security applications, as well as the latest developments in Space Situational Awareness and sensitive data sharing. It will likewise seek to identify:

- 1. ways to bring together the seemingly fragmented approaches to the governance of space activities;
- 2. the prospects for a comprehensive Space Traffic Management (STM) system; and
- 3. more efficient, interoperable means to address emerging man-made threats to space infrastructure.

The topics of this year's conference will include:

- Trilateral Cooperation to Strengthen Space Resilience
- Implications of Hostile Acts on Sustainability of Outer Space Activities
- Threats of Radiofrequency Spectrum Interference and Other Reversible Counterspace Actions
- International Norms of Behavior to Promote Space Protection
- Authorizing and Supervising In-Space Operations
- Dual-Use Aspects of Debris Remediation Techniques



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CONFERENCE PROGRAM

SUNDAY, 5 JUNE 2016

Venue: Villa Grébovka, Havlíčkovy sady 58, Prague

18:00–20:00 OPENING RECEPTION (by special invitation only) Welcome Remarks: Roger W. Robinson Jr., PSSI Chairman and Co-Founder Michael K. Simpson, Executive Director, Secure World Foundation (SWF)

MONDAY, 6 JUNE 2016

Venue: Ministry of Foreign Affairs of the Czech Republic, Czernin Palace, Loretánské nám. 5., Prague

- 8:30–9:00 COFFEE AND REGISTRATION
- 9:00–9:30 OPENING SESSION Welcome Remarks: Roger W. Robinson Jr., PSSI Chairman and Co-Founder Opening Remarks: Ivo Šrámek, Deputy Minister of Foreign Affairs for Security and Multilateral Issues, Czech Republic Francois Rivasseau, Special Envoy for Space, Head of Security Policy and Space Policy Division, European External Action Service (EEAS)
- 9:30–10:45 PANEL 1: TRILATERAL COOPERATION TO STRENGTHEN SPACE RESILIENCE Moderator: Scott Pace, Director, Space Policy Institute, George Washington University Panelists: Col. Jerome Bernier, Chief of Staff, Joint Space Command, Ministry of Defence, France Pierre Delsaux, Deputy Director General, Internal Market, Industry, Entrepreneurship and SMEs (DG GROWTH), European Commission Douglas L. Loverro, Deputy Assistant Secretary of Defense for Space Policy Mikio Shiokawa, Principal Deputy Director-General, Cabinet Satellite Intelligence Center (CSICE), Japan

10:45–11:00 **COFFEE BREAK**

11:00–12:30	PANEL 2: IMPLICATIONS OF HOSTILE ACTS ON SUSTAINABILITY OF OUTER SPACE ACTIVITIES Moderator: Frank Asbeck, Principal Advisor, European External Action Service Panelists:
	Peter L. Hays, Associate Director, Eisenhower Center for Space and Defense Studies
	Peter Huessy, Senior Defense Consultant to the Mitchell Institute of the
	Air Force Association & President, GeoStrategic Analysis
	Thomas Karako, Senior Fellow, Center for Strategic and International Studies (CSIS)
	Xavier Pasco, Senior Research Fellow, Fondation pour la Recherche Stratégique (FRS)
12:30–12:45	SPECIAL ADDRESS:
	Jakub Landovský, Deputy Minister of Defense of the Czech Republic – Head
	of the Defense Policy and Strategy Division
	Introduced by: Andrew K. Davenport, Deputy Executive Director, PSSI Washington
12:45–14:00	BUFFET LUNCHEON
	Keynote Speech: Lt. Gen. David J. Buck, Commander, 14th Air Force (Air Forces Strategic),
	Air Force Space Command; and Commander, Joint Functional Component
	Command for Space, U.S. Strategic Command
	Introduced by: Jakub Landovský, Deputy Minister of Defense of the Czech
	Republic – Head of the Defense Policy and Strategy Division
14:00–15:30	PANEL 3: THREATS OF RADIOFREQUENCY SPECTRUM INTERFERENCE
	AND OTHER REVERSIBLE COUNTERSPACE ACTIONS
	Moderator: Kazuto Suzuki, Associate Professor of International Political
	Economy, Public Policy School, Hokkaido University, Japan Panelists:
	Robert Crane, Senior Homeland Security Advisor, National Coordination Office for Space-
	Based Positioning, Navigation and Timing, U.S. Department of Homeland Security
	Atsuo Suzuki, Deputy Director General, Bureau of Defense Policy, Ministry of Defense, Japan
	Todd Harrison, Director, Defense Budget Analysis, Center for Strategic and International Studies (CSIS)
15:30–15:45	COFFEE BREAK
15:45 – 17:30	PANEL 4: INTERNATIONAL NORMS OF BEHAVIOR TO PROMOTE SPACE PROTECTION
	Moderator: Michael Simpson, Executive Director, Secure World Foundation (SWF)
	Panelists:
	Frank Asbeck, Principal Advisor, European External Action Service
	Toshiro lijima, Ambassador (Policy Planning, International Security Policy),
	Foreign Policy Bureau, Ministry of Foreign Affairs, Japan
	Mallory Stewart, Deputy Assistant Secretary of State for Arms Control,
	Verification, and Compliance, U.S. Department of State
19:30	GALA DINNER (BY SPECIAL INVITATION ONLY)
venue: Miynec	Restaurant, Novotného lávka 9, Prague

Keynote Speech: General C. Robert "Bob" Kehler, former Commander of the U.S. Strategic Command Introduced by: Roger W. Robinson Jr., Chairman and Co-Founder of PSSI



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TUESDAY, 7 JUNE 2016

Venue: The Ministry of Foreign Affairs of the Czech Republic, Czernin Palace, Loretánské nám. 5., Prague

7:45–8:15 COFFEE AND REGISTRATION

8:15–9:00 **OPENING SESSION**

Opening Remarks:

Stefano lannitti, Head of Security Department, European Global Navigation Satellite Systems Agency (GSA) **Hiromichi Moriyama,** Director, National Space Policy Secretariat (NSPS), Cabinet Office, Government of Japan

9:00 – 10:15 **PANEL 5: AUTHORIZING AND SUPERVISING IN-SPACE OPERATIONS**

Moderator: Peter Marquez, Vice President for Global Engagement, Planetary Resources, U.S. Panelists: Eric Stallmer, President, Commercial Spaceflight Federation

Jennifer Warren, Vice-President, Technology Policy & Regulatory Affairs, Lockheed Martin Travis Langster, Vice President, Space Situational Awareness Business, Analytical Graphics, Inc. (AGI) Amnon Ginati, Head of Integrated Applications Department, European Space Agency, inv.

10:15 – 11:15 PANEL 6: CONCLUDING PANEL AND OUTLOOK WITH SESSION MODERATORS Moderator: Jana Robinson, Space Security Program Director, PSSI Panelists: Frank Asbeck, Principal Advisor, European External Action Service Peter Marquez, Vice President for Global Engagement, Planetary Resources, U.S. Scott Pace, Director, Space Policy Institute, George Washington University Michael K. Simpson, Executive Director, Secure World Foundation (SWF) Kazuto Suzuki, Associate Professor of International Political Economy,

Public Policy School, Hokkaido University, Japan

11:15–12:30CLOSING LUNCHEON

Keynote Speech: Dan Ťok, Minister of Transport of the Czech Republic Introduced by: Jana Robinson, PSSI Space Security Program Director

BIOGRAPHIES OF THE SPEAKERS

Frank Asbeck

is the Principal Adviser for Space and Security Policy at the European External Action Service (EEAS), dealing with matters such as space policy and cyber security. He started his professional career at the International Institute for Strategic Studies in London, dealing with military usage of space and arms control. He then joined the German public service to deal with arms control, CBRN proliferation and East-West technology transfer. Following his assignment to the German Embassy in Brussels, he became Deputy Director of the Western European Union Satellite Center in Torrejón, Spain. From 2001 onwards, Mr. Asbeck worked at the European Commission as Director of the newly created Security Directorate. In 2005, he moved back to Torrejón as the Director of the EU Satellite Centre. He studied Physics, Law and Political Science in Germany and War Studies in London.

Jérôme Bernier

is Chief of Staff at French Joint Space Command since 2014. Before his current post, Mr. Bernier was Space Advisor at the Joint Operations Center, specializing in use of space assets for operations, and Head of Operational Use and Coordination Office at French Joint Space Command. He has also been Space Advisor for French Joint Staff and Head of Communication and Information Systems Office at French Air Defence and Operations Command. Before, he served in the French Air Force as Squadron Commander. Mr. Bernier studied at Ecole de l'Air de Salon de Provence and Collège interarmées de Défense.

Lieutenant General David J. Buck

is a Commander in the 14th Air Force (Air Forces Strategic), Air Force Space Command, where he leads more than 19,500 personnel responsible for providing missile warnings, space superiority, space situational awareness, satellite operations, space launch and range operations; and the Commander of the Joint Functional Component Command for Space, U.S. Strategic Command, Vandenberg Air Force Base, where he directs all assigned and attached USSTRATCOM space forces providing tailored, responsive, local and global space effects in support of national, USSTRATCOM and combatant commander objectives. General Buck has experience in wide variety of command, operations, and staff assignments. He has commanded at the squadron, group, and wing levels. His operational experience includes missile operations, space launch and range operations, satellite command and control, space force enhancement, and space control. General Buck served on The Joint Staff as the principal military advisor to The Chairman of The Joint Chiefs of Staff for Coalition Management. In 2010, he was deployed to Southwest Asia as the Director of Space Forces for U.S. Air Forces Central. Prior to assuming his current position, General Buck was the Vice Commander of the Air Force Space Command.

Robert Crane

is the Senior Homeland Security Advisor to the National Coordination Office for the U.S. Policy on Space-Based Positioning, Navigation and Timing (PNT) in Washington, D.C.. The National Coordination Office serves the interagency of the Deputies Executive Committee, and facilitates interagency collaboration and transparency about PNT, including GPS, programs, policies, budgets, and activities. Since joining the Department of Homeland Security in 2005, Mr. Crane is responsible for coordinating and aligning national policy on space, the Global Positioning System and its augmentations with geospatial intelligence, information sharing, infrastructure protection, cyber-security and resilience strategies of the Department. Mr. Crane has previously served as the Deputy Director of the Department's National Security Systems program, advisor to the U.S. Coast Guard and the Department on the maritime information sharing environment, and Reserve Commander in the Coast Guard, holding a number of active duty positions in maritime homeland defense, contingency, and workforce management prior to his retirement in 2004. He also serves as an adjunct professor in Business Continuity, Crisis Management and Infrastructure Studies at the University of Central Missouri.



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Andrew K. Davenport

is Deputy Executive Director of PSSI Washington, the Washington, DC-based affiliate to the Prague Security Studies Institute. He is also Chief Operating Officer of RWR Advisory Group, a risk management, software and open source intelligence firm that specializes in the nexus of national security, global finance and international business concerns. Mr. Davenport previously served as Vice President and co-founder of Conflict Securities Advisory Group, a leading provider of research on corporate ties to sanctioned states and related compliance products. Mr. Davenport has extensive experience analyzing corporate and banking activity in countries of security concern, the role of stateowned enterprises in the projection of soft power by nation states and providing related risk management and policy advisory services to government agencies as well as multinational corporations, fund managers and institutional investors from around the world.

Pierre Delsaux

is the Deputy Director General at the European Commission Directorate General for the Internal Market, Industry, Entrepreneurship and SME's. Mr. Delsaux was the Legal Secretary at the European Court of Justice, before joining the Directorate General for Competition at European Commission in 1991. There, he was appointed Director, responsible for regulating the financial services and later as Deputy Director General with responsibilities for the Single Market in the EU. Since December 2015, he has been in charge of Space Policy and Defence. Mr. Delsaux studied Law at the University of Liège and obtained his Master of Law at the Northwestern University, Chicago.

Amnon Ginati

is currently the Head of Telecommunication and Integrated Applications Directorate at the European Space Agency. The directorate is responsible for co-ordinating, shaping and supporting innovation in satellite telecommunications and for the promotion of applications that involve the combined use of space-based systems.

Prof. Ginati joined the European Space Agency (ESA, ESTEC) in 2000 as Head of the Earth Observation Future Programmes Department. He was in charge of the EO future programmes, Earth science Explorer missions, Earth applications missions' preparation and Earth Observation instruments pre-development for future missions. Thereafter, he was special adviser to ESA Director General, Head of the Inter Directorate Taskforce responsible for the initiation and development of the Integrated Applications Promotion (IAP) programme.

Todd Harrison

is the Director of Defense Budget Analysis and a Senior Fellow in the International Security Program at CSIS, where he leads the Center's efforts to provide in-depth, nonpartisan research and analysis of defense funding issues and provides expert analysis on space security issues. Mr. Harrison joined CSIS from the Center for Strategic and Budgetary Assessments, where he was a senior fellow for defense budget studies. He previously worked at Booz Allen Hamilton where he consulted for the Air Force on satellite communications systems. Prior to Booz Allen, Mr. Harrison worked for AeroAstro Inc. developing advanced space systems and technologies and as a management consultant at Diamond Cluster International. Mr. Harrison served as a Captain in the U.S. Air Force Reserves from 1998 to 2003. He is a graduate of the Massachusetts Institute of Technology with both a B.S. and an M.S. in Aeronautics and Astronautics.

Peter L. Hays

is a Senior Space Policy Analyst with Falcon Research supporting the Principal DoD Space Advisor Staff. He helps to develop and implement space policy and strategy initiatives. Dr. Hays holds a Ph.D. from the Fletcher School and was an honor graduate of the USAF Academy. He served internships in the White House Office of Science and Technology Policy and at the National Space Council. Dr. Hays also taught space policy courses at the USAF Academy, School of Advanced Airpower Studies, and National Defense University. He currently teaches at the George Washington University.

Peter Huessy

is President of his own defense consulting firm, GeoStrategic Analysis, and a Fellow at the Institute for Corean-American Studies (ICAS). Previously, Mr. Huessy was the senior defense consultant at the National Defense University Foundation for 22 years. Since 2011 he has been the Senior Defense Consultant at the Mitchell Institute of the Air Force Association where he annually hosts over 40 Congressional Breakfast Seminars on Space, Nuclear Deterrence, Proliferation, Missile Defense and Defense Policy. Mr. Huessy also hosts on behalf of the Mitchell Institute and AFA two nuclear Triad symposiums each year, one in Washington, D.C. and the other at a US nuclear related military base. He graduated in 1975 from the Columbia University School of International Affairs and studied at the School of Law. He graduated with degrees in Anthropology, International Relations and National Security Policy from Beloit College in 1972, while also having studied from 1969-70 at Yonsei University in Seoul, Korea as part of Beloit's study abroad program.

Stefano lannitti

is Head of Security Department at European Global Navigation Satellite Systems Agency (GSA). He took up his current position at the GSA in October 2015. Prior to this role, Mr lannitti was the GNSS Security and Standards Manager at the GSA between 2014 and 2015, in charge of the management of the security requirements of both the Galileo and EGNOS programmes. Prior to that, he worked at the Agenzia Spaziale Italiana where he was appointed as Head of Galileo PRS Unit. From 2007 to 2011 he worked at the GSA as Security Accreditation Officer for the establishment of the Galileo security accreditation process and of the Security Accreditation Board for European GNSS systems. Mr Iannitti holds a Master degree in IT and Network Security, a PhD in Systems Engineering and a Degree in Computer Engineering from "La Sapienza" University of Rome.

Toshiro lijima

Is an Ambassador in charge of Policy Planning and International Security Policy, and Deputy Director-General at Foreign Policy Bureau at the Ministry of Foreign Affairs in Japan. Mr. Iijima has substantial experience working at the Ministry of Foreign Affairs: over the years he has served as the Director of Economic Policy, International Trade and Western Europe Divisions. Before, he was the First Secretary for the Permanent Mission of Japan in Geneva and Counselor at the Embassy of Japan in Berlin. More recently, Mr. Iijima was Deputy-Director General at the Japan Institute of International Affairs. He is a graduate of Waseda University in Japan and Georg August Universitaet Goettingen in Germany.

Thomas Karako

is a Senior Fellow at the International Security Program and the Director of the Missile Defense Project at the Center for Strategic and International Studies (CSIS). His research focuses on national security, U.S. nuclear forces, missile defense, and public law. Mr. Karako is also an Assistant Professor of Political Science and Director of the Center for the Study of American Democracy at Kenyon College. For 2010–2011, he was selected to be an American Political Science Association Congressional Fellow, during which time he worked with the professional staff of the House Armed Services Committee on U.S. strategic forces policy, nonproliferation, and NATO. Mr. Karako received his Ph.D. in Politics and Policy from Claremont Graduate University and his B.A. from the University of Dallas.

General C. Robert Kehler

retired from the United States Air Force in December 2013 after almost 39 years of distinguished service. From January 2011 until November 2013 he served as the Commander, United States Strategic Command (USSTRATCOM), where he was directly responsible to the Secretary of Defense and President for the plans and operations of all U. S. forces conducting strategic deterrence, nuclear alert, global strike, space, cyberspace and associated operations. General Kehler's military career encompassed progressively important operational, command, and staff assignments. His military awards include the Defense Distinguished and Superior Service Medals, the Distinguished Service Medal (2 awards), Legion of Merit (3 awards), and the French Legion of Honor (Officer). He entered the Air Force in 1975 as a Distinguished Graduate of the Pennsylvania State University R.O.T.C. program, has Master's Degrees in Public Administration and National Security and Strategic Studies, and completed executive development programs at Carnegie-Mellon University, Syracuse University, and Harvard University.

Jakub Landovský

is Deputy Minister – Head of the Defense Policy and Strategy Division at the Ministry of Defense and Armed Forces of the Czech Republic. Prior to current post, Mr. Landovský served as an Attorney in Law, specializing in private and public international law, Adviser to the Foreign Affairs Committee at the Parliament of the Czech Republic Chamber of Deputies and Project Coordinator at Forum 2000 Foundation. He has also been the Assistant to the Ambassador at Large at the process of preparation of background papers on Balkan countries' preparation for EU accession and Assistant to UN Special Rapporteur on Human Rights in the Former Republic Yugoslavia. He has a Bachelor and Master's degree in Political Science and Ph.D in Philosophy from Charles University in Prague as well as a Master's degree in Law from the University of West Bohemia in Pilsen.



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Travis Langster

is the Vice President of Analytical Graphics, Inc., DoD and Intel Space Business Development. He is responsible for strategy and business development within the national security space community. Mr. Langster has more than 20 years of professional experience in business development, program strategy and capture, strategic planning, corporate initiatives, technical management, systems engineering and operations support. His most recent position was serving as Director of Space Situational Awareness Business Development. Mr. Langster began his aerospace career as an engineer with General Electric Aerospace, where he focused on the launch and on-orbit operations of Air Force satellite systems. He was then a systems engineer with Lockheed Martin Astro Space, during which time he performed engineering analysis on satellite subsystems and payloads, mission planning and orbit analysis software tools. Mr. Langster holds a Bachelor of Science degree in Aeronautical and Astronautical Engineering with a minor in Mathematics from Purdue University.

Douglas L. Loverro

is a member of the Senior Executive Service and the Deputy Assistant Secretary of Defense for Space Policy, responsible for establishing policy and guidance to assure U.S. and allied warfighters the benefits of Space capabilities and to help guide the Department's strategy for addressing spacerelated issues. Mr. Loverro most recently served as the Executive Director for Air Force Space Command's Space and Missile Systems Center where he also served as the Air Force's Deputy Program Executive Officer (PEO) for Space. In that capacity, he was responsible to the commander and PEO for the development, deployment, and sustainment of all Department of Air Force space systems and was a key spokesman for addressing the growing importance of space systems and the steps needed to assure them for the future. Mr. Loverro holds a BS in Chemistry from the United States Air Force academy, an MS in Physics from the University of New Mexico, an MS in Political Science from Auburn University, as well as an MBA from the University of West Florida.

Peter Marquez

is the Vice President for Global Engagement at Planetary Resources and owner of Ascending Node, a consulting firm specializing in space policy. Before his current positions, Mr. Marguez served at the White House in the National Security Council as the Director for Space Policy, where he oversaw the development, implementation, and coordination of the space policies in both the Bush and Obama Presidential Administrations. Mr. Marguez's policy responsibilities, in addition to space, included critical infrastructure protection, and military intelligence activities. While at the White House, he began the initiative that created the U.S.-Japan strategic space cooperation. He has also worked in the Office of the Secretary of Defense for Space Policy. Mr. Marquez received Bachelor's degree in Political Science and Master's degree in Science and Technology Policy from George Washington University.

Hiromichi Moriyama

is the Director of the National Space Policy Secretariat in Japan. Mr. Moriyama previously served as First Secretary of Delegation of Japan to the Organisation for Economic Co-operation and Development (OECD), as Director for International Energy Strategy at the Agency for Natural Resources and Energy and as Director for International Affairs for the Small Medium Enterprise Agency. He holds a BA degree in Law from the University of Tokyo and a MA degree in Public Administration from SIPA, Columbia University.

Scott Pace

is the Director of the Space Policy Institute and a Professor of the Practice of International Affairs at George Washington University's Elliott School of International Affairs. Dr. Pace is also a member of the faculty of the Trachtenberg School of Public Policy and Public Administration. Before his current assignments, he served as the Associate Administrator for Program Analysis and Evaluation at NASA, and as the Assistant Director for Space and Aeronautics in the White House Office of Science and Technology Policy (OSTP). Dr. Pace has also worked for the RAND Corporation's Science and Technology Policy Institute (STPI) in the past. He received a Bachelor of Science degree in Physics from Harvey Mudd College; Masters degrees in Aeronautics & Astronautics and Technology & Policy from the Massachusetts Institute of Technology and a Doctorate in Policy Analysis from the RAND Graduate School. In 2008, he received the NASA Outstanding Leadership Medal.

Xavier Pasco

is a Senior Research Fellow at the Fondation pour la Recherche Stratégique (FRS) based in Paris where he is in charge of the Department "Technology, Space and Security". His research is currently focused on space and high technology policies, more specifically, the European and U.S. policies and their impact on the transatlantic relationship in the space activity, both in the civilian and military domains. Dr. Pasco is also an Associate Research Fellow at the Space Policy Institute in the George Washington University and the European Editor of the international academic review Space Policy as well as a lecturer in the French Military School in Paris and at the Institute of Political Studies in Paris. Before, Dr. Pasco was a researcher at CREST (Center for Research and Evaluation of the relationships between Strategies and Technology) associated with the Ecole Polytechnique in France. He received his PhD in Political Science from the University of Paris-Sorbonne.

François Rivasseau

is the Deputy Chief of Delegation of the European Union to the United States and the Head of Security Policy and Space at the European External Action Service. Among other posts, Dr. Rivasseau has served as the Minister Counselor at the French Embassy in Washington, Chair of the European Defence Attaches Group in the USA, as a Board Member of the Centre of Policy and Security of Geneva and as a Board Member of the Centre for the Foreign Press in Paris. He graduated from the Bordeaux Institute of Political Studies and holds a PhD in Law from the University of Bordeaux I as well as a degree of Roman Languages from the University of Bordeaux III.

Jana Robinson

is currently the Space Security Program Director at the Prague Security Studies Institute (PSSI). She previously served as Space Policy Officer at the European External Action Service (EEAS) in Brussels. She was also a Space Security Advisor to the Czech Foreign Ministry, seconded to the EEAS. From 2009 to 2013, Ms. Robinson worked as Resident Fellow at the European Space Policy Institute (ESPI), seconded from the European Space Agency (ESA), leading the Institute's Space Security Research Programme. Prior to joining ESPI, she served as Development Director at PSSI from 2005 to 2009, and administered its affiliate organization in Washington DC, PSSI Washington. Ms. Robinson is an elected member of the International Institute of Space Law (IISL) and the International Academy of Astronautics (IAA). She is presently a PhD Candidate (2016) at the Charles University's Faculty of Social Sciences, Institute of Political Studies. She holds an MA in Asian Studies and Space Policy from George Washington University's Elliott School of International Affairs, and an MA in Asian Studies from Palacky University. She received scholarships to attend the International Space University's (ISU) 2009 Space Studies Program (SSP09), the 2008 Summer Training Course at the National Taiwan Normal University in Taipei, and a one-year course of study at Shanghai University in 1999-2000.

Roger W. Robinson, Jr.

has served as President and CEO of RWR Advisory Group since 1985 and of the Conflict Securities Advisory Group, Inc. between 2001 and 2009. He is also the Chairman and Co-founder of the Prague Security Studies Institute (PSSI). Mr. Robinson also served as Chairman and Vice Chairman of the Congressional mandated U.S.-China Economic and Security Review Commission from 2001 to 2006. He was a Senior Director of International Economic Affairs at the National Security Council (NSC) from March 1982 until September 1985. Mr. Robinson has published extensively on security related risk in the global capital markets and East-West economic, energy and financial relations. He has served as an expert witness on numerous occasions both before Senate, and House Committees.

Mikio Shiokawa

is the Principal Deputy Director-General of Cabinet Satellite Intelligence Center in Japan. Before the current post, Mr. Shiokawa worked for the National Police Agency as the Director of Counter International Terrorism Division and Director of Security Planning Division. He has also served as Counselor for Cabinet Intelligence and Research Office as well as the Deputy Director General of Security Bureau for the Tokyo 2020 Olympic and Paralympic Games at National Police Agency. Mr. Shiokawa has been the Chief in Shimane and Hyogo Prefectural Police Headquarters. He is a graduate of the University of Tokyo.



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Michael K. Simpson

is the Executive Director of the Secure World Foundation. Dr. Simpson joined SWF as the Senior Program Officer in September 2011 following seven and a half years as President of the International Space University (ISU). Besides his current post, Dr. Simpson holds a post as a Professor of Space Policy and International Law at ISU and is a Senior Fellow at the International Institute of Space Commerce. He currently serves on the Commercial Spaceflight Safety and Space Security Committees of the International Astronautical Federation (IAF) and is the Vice Chair of the Hague Space Resources Governance Working Group. Dr. Simpson also sits on the governing board of the World Space Week Association, and is a governor of the National Space Society in the United States. He received his Bachelor's Degree from Fordham University, Master's of Business Administration from Syracuse University; two Master of Arts degrees from The Fletcher School and completed his Ph.D. at Tufts University.

lvo Šrámek

is the Deputy Minister of Foreign Affairs for Security and Multilateral Issues at the Ministry of Foreign Affairs of the Czech Republic. Mr. Šrámek has long experience working in the Ministry of Foreign Affairs. Before taking up his current post, he served as Deputy Minister of the European Section, Political Director and General Director of the Multilateral Section, and Director of the UN Department. He has also been the Ambassador of the Czech Republic to the Kingdom of Belgium, Ambassador to the Political and Security Committee of the EU, and Deputy Permanent Representative of the Czech Republic to NATO and the UN. He has a degree in Economy and Civil Engineering from Czech Technical University in Prague.

Eric Stallmer

is the President of the Commercial Spaceflight Federation, the largest trade organization dedicated to promoting the development of commercial spaceflight industry. Prior to his current position, Mr. Stallmer served as the Vice President of Government Relations at Analytical Graphics Inc. (AGI) and worked for The Space Transportation Association (STA), a non-profit industry trade organization providing government representation to companies with a vested interest in the U.S space launch industry. For the past two decades, Mr. Stallmer has served as an Officer in the United States Army and Army Reserves. He was awarded the Bronze Star Medal for meritorious service while engaged in combat operations during Operation Iraqi Freedom. Mr. Stallmer is currently assigned to the Pentagon in the office of the Deputy Chief of Staff Army. He earned a Bachelor of Arts Degree in Political Science and History from Mount Saint Mary College and a Master of Arts Degree in Public Administration from George Mason University.

Mallory Stewart

is the Deputy Assistant Secretary of State for Emerging Security Challenges and Defense Policy in the Bureau of Arms Control, Verification, and Compliance (AVC), where she is responsible for the management of the Office of Emerging Security Challenges and the Office of Chemical and Biological Weapons Affairs. Ms. Stewart joined the State Department in 2002 as an attorney in the Legal Adviser's Office, where she represented the United States before the Iran-U.S Claims Tribunal as an attorney in the Office of Claims and Investment Disputes. She worked on numerous legal issues related to nonproliferation sanctions, conventional weapons and weapons of mass destruction, missile defense, and space in the Office of Nonproliferation and Arms Control. Ms. Stewart was the State Department lawyer for the U.S. delegation that negotiated the Ballistic Missile Agreements with Poland and Romania, and she was the lead lawyer on the 2013 U.S.-Russian Framework for the Elimination of Syrian Chemical Weapons. In 2014, Ms. Stewart was a recipient of the Secretary's Award for Excellence in International Security Affairs for her work on the international effort to eliminate Syrian chemical weapons. She is a graduate of Harvard College and Stanford Law School.

Atsuo Suzuki

is currently Deputy Director General at the Bureau of Defense Policy in Japan. Mr. Suzuki entered the Japan Defense Agency in 1985, since then he has held the positions of the Director of Defence Operations Division in the Japan Defense Agency, Director of the International Operations Division at the Ministry of Defence as well as the Director of the Defence Intelligence Division. Before taking up his current assignment, Mr. Suzuki was Deputy Director General at the Defense Intelligence Headquarters (DIH) of Japan. He graduated from Waseda University with a BA and then Georgetown University with an MA.

Kazuto Suzuki

is a Professor at the Public Policy School of Hokkaido University. Before moving to the current post, Dr. Suzuki worked for the Panel of Experts on Iran sanctions at the United Nations from 2013 to 2015 and at the University of Tsukuba from 2000 to 2008. As an expert of space policy, he is a member of Space Security Working Group at Committee of National Space Policy of Japan, and has worked as an advisor for the Space Development Committee of Liberal Democratic Party of Japan and as a Senior Policy Researcher for the Japan Aerospace Exploration Agency (JAXA). Dr. Suzuki also has been closely involved in the development of the Japanese space decision-making process, including the establishment of the Basic Law for Space Activities of 2008 and the Mid-term Plan for Space Activities of 2009. He graduated from the Department of International Relations, Ritsumeikan University, and received Ph.D. from Sussex European Institute, University of Sussex

Dan Ťok

is Minister of Transport of the Czech Republic since 2014. Before taking up the current post, he served as Chairman of the Board and Managing Director of Skanska a.s., the fourth largest development and construction group in the world, for six years. Mr. Tok was also a member of the Scientific Board of the Brno University of Technology, the Regional Business Chamber in Brno as well as President of the American Chamber of Commerce. Before Skanska, he was Managing Director of KKCG Industry B.V. responsible for its further expansion, and Chairman of the Board and Business Director of Jihomoravské plynárenské, a.s. He graduated from the Brno University of Technology, Faculty of Engineering, Department of Thermal and Nuclear Machinery and Equipment.

Jennifer A. Warren

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The Prague Security Studies Institute

The Prague Security Studies Institute (PSSI) is a non-profit, non-governmental organization established in early 2002 to advance the building of just, secure, democratic, free market societies in the Czech Republic and other post-communist states. PSSI's mission is to build an ever-growing number of informed and security-minded policy practitioners dedicated to the development of democratic values and institutions, as well as protecting them, from various traditional and asymmetric threats. PSSI offers programs that help meet the critical requirements associated with

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In the fall of 2006, the Prague Security Studies Institute Washington (PSSI Washington) was established in Washington, DC. Its mission is to strengthen U.S. understanding of the security

challenges facing Central and Eastern Europe, and other post-communist states. PSSI Washington also seeks to enrich the public policy debate on both sides of the Atlantic with respect to the connectivity between transatlantic security issues and those confronting our allies in the Asia-Pacific region. It is also a leading resource in the expanding fields of space security and economic and financial statecraft and is seeking to partner more closely with the Center for Strategic and International Studies (CSIS). PSSI Washington is committed to helping communicate, explain and predict official U.S. perceptions and policy options concerning key global flashpoints. It will continue to convene periodic, cosponsored conferences and roundtables and fulfill its role as the first Czech non-governmental security policy organization to establish a presence in the United States.

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The European Space Agency (ESA) is an international organisation with 22 Member States. ESA is Europe's gateway to space. Its job is to configure the European space programme and carry it

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Analytical Graphics, Inc. (AGI) provides commercial software solutions to model, analyze and visualize space, defense and intelligence systems. AGI's Space Situational Awareness (SSA)

solutions are utilized by commercial, civil and government satellite operators and space operations centers around the world. In early 2014, AGI achieved initial operations of the Commercial Space Operations Center (ComSpOC). The ComSpOC fuses data from a continually growing global network of commercial sensors to deliver SSA and mission assurance services in the areas of space flight safety, space traffic management, and space protection. These ComSpOC services are critical enablers of robust space security. **agi.com**

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