SPACE SECURITY: CIVILIAN AND MILITARY POLICY AND PRACTICE

PRACTITIONER AND INDUSTRY SEMINAR (CPD*)
TUESDAY 10 SEPTEMBER 2013
THE GORDON ROOM (ROOM 34)
SENATE HOUSE, MALET STREET, LONDON WC1E 7HU

THE RELEVANCE OF SPACE SECURITY

Space assets, including their terrestrial elements and infrastructure, provide many of the services and capabilities on which we increasingly rely. These include navigational systems, guiding drones or helping rescuers reach a stranded climber, providing time signals for banking transactions and managing telecommunication data packages.

Space security is concerned with maintaining and protecting these assets and the services and capabilities they provide. Although the world will certainly not come to a grinding halt, the loss of space capabilities will cause disruption and great inconvenience, particularly in the more technologically advanced societies. Even in the developing world, maintenance of many communication systems rely heavily on satellites and on space-based time signals.

There are many areas in which space security and sustainable use are crucial. The use of weapons in space would pose risks to societies dependent on space assets. The creation of debris is a lasting menace and a significant factor in planning commercial space projects. Space-based telecommunication infrastructures are essential to established and emerging economies, and are critical to government, business and virtually every other part of our lives.

FOCUS OF THE SEMINAR

This Seminar will consider both civilian and military aspects of space security. The discussion will cover arms control in space; recent developments in technical and regulatory measures to combat debris and other security vulnerabilities; the importance of cyber security in relation to space; and the considerations relevant to formulating a space security policy, including the interaction between civilian and military priorities.

The morning will include presentations by 4 speakers. The abstract of each presentation and biographical details of the presenters are set out in the program below.

WHO SHOULD ATTEND

The Seminar will inform and engage those involved in space activities, policy makers and lawyers who advise them, as well as scholars in related fields. There will be ample time for questions and discussion.

The Seminar will be of particular relevance for those engaged in the design and operation of space systems, their advisers, insurers and military and civilian security specialists.

* CPD credit will be available for Solicitors under SRA rules, and for members of the Bar (to be confirmed). Other professionals should check with their respective professional bodies to confirm whether this seminar is accepted for CPD.

VENUE

Please note that this seminar will not be held at the Institute as is normally the case, but at Senate House, Gordon Square, London, Malet Street, London WC1E 7HU. The closest Underground stations are Russell Square and Goodge Street. More information is available on the University of London website, here.

REGISTRATION

To register, please send your full name and institute or affiliation in an email to: Events@Space-Institute.org. Please put "Security Seminar" in the subject line.

We will reserve your place and send payment details. Registration will be confirmed when payment has been received.

The Seminar Fees are:	Delegate	£ 75
	Academic and Government	£ 40

Information about ISPL's other courses, seminars and events may be found on our website, www.space-institute.org. We welcome suggestions for future events.

LONDON INSTITUTE OF SPACE POLICY AND LAW

PRACTITIONER AND INDUSTRY SEMINAR
9 AM TO 12.30 PM TUESDAY 10 SEPTEMBER 2013

THE GORDON ROOM (ROOM 34)
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SPACE SECURITY: CIVILIAN AND MILITARY

9.00 – 9.10 Welcome and Introduction by the Chairman

Professor Sa'id Mosteshar, Director of ISPL

9.10 – 9.50 International Law and the Prevention of an Arms Race in Outer Space

Maria Pozza, *Lauterpacht Visiting Fellow, Lauterpacht Centre for International Law, University of Cambridge*

This presentation will concern the need to prevent an arms race in outer space, and examine the various legal approaches that might be adopted by the international community. The presentation will draw on material from the restricted archives of the New Zealand Ministry of Foreign Affairs and Trade to shed light whether or not international law can prevent an arms race in outer space.

The speaker will provide perspective on the international law pertaining to outer space arms control, including the Outer Space Treaty 1967 prohibition of nuclear weapons and weapons of mass destruction (WMD). She will examine the proposal by the Chinese and Russian delegations for a new ban on weapons in outer space, reflecting changes to the international law of arms control in outer space, and to global security in the post-Cold War era. She will also discuss an alternative approach advocated by EU and US delegates: the Code of Conduct (COC) in Space, focusing on voluntary space debris management to increase security, survivability and sustainability, and Transparency Confidence Building Measures (TCBMs) that aim to promote geo-security in outer space.

9.50 – 10.30 Vulnerability of Space Systems to Cyber Attacks and their Protection

Mark Roberts, Programme Manager, Atkins

The speaker will discuss the importance of cyber security in space. Virtually everything we do as individuals, government and businesses relies on computers and the internet, and space systems such as satellites and ground communication links. Cyber security involves protecting these assets and information, by preventing, detecting, and responding to risks or attacks.

10.30 – 10.50 *Coffee & Tea Break*

10.50 – 11.25 Governance Structures in Support of Space Security

Professor Richard Crowther, Chief Scientist, UK Space Agency; ISPL Advisory Board

This talk will outline the main governance structures relating to space security, and report on recent developments on initiatives such as the UN Group of Governmental Experts on Transparency and Confidence Building Measures in Outer Space and the EU proposal for an International Code of Conduct for space activities.

11.25 – 12.10 Considerations in Formulating Civilian and Military Space Security Policy

Group Captain Martin 'Sheepy' Johnson, RAF; Space Security Policy, Ministry of Defence

The speaker will address aspects of space security. Our national dependence on space capabilities requires a holistic approach in addressing our space security considerations. However, underpinning all activities in meeting the range of space security challenges is the need for a thorough understanding of all the relevant issues.

12.10 – 12.30 Discussion, Delegate contributions and concluding remarks

Professor Sa'id Mosteshar, Chairman

SPEAKERS:

Professor Richard Crowther is Chief Engineer at the UK Space Agency. He was Head of the Space Technology Division at the Rutherford Appleton Laboratory until 2008 with primary research interests in man-made orbital debris, planetary protection, and near Earth objects (asteroids and comets that pass close to the Earth). He is currently Head of the UK delegations to the Inter-Agency Debris Committee and the United Nations Committee on Peaceful Uses of Outer Space (UN COPUOS), in the past acting as Chair of the UN Working Group on Near Earth Objects within COPUOS. Professor Crowther also leads the UK delegation to the European Space Agency's International Relations Committee, and Space Situational Awareness Programme Board. He is one of the fifteen members of the Group of Governmental Experts appointed by the United Nations in 2012 to examine transparency and confidence building measures in outer space. He is a Chartered Engineer, a Fellow of the Royal Aeronautical Society, and was recently elected to the International Institute of Space Law and the International Academy of Astronautics.

Group Captain Martin 'Sheepy' Johnson graduated from the Royal Air Force College Cranwell in 1990 as a Fighter Control (now renamed Aerospace Battle Management) officer. His operational experience includes a number of tours as a weapons controller in the UK, deployed operations to the Balkans embarked in HMS Ark Royal, and an operational planning role with ISAF in Afghanistan. Other appointments include an operational planner with the Joint Forces Air Component Command and the Permanent Joint Headquarters as well as responsibility for training and HR issues for all personnel within his specialisation. His command experience includes

Operations Squadron at RAF Buchan in the early 2000s and more recently having the privilege of commanding RAF Fylingdales, home to the UK's Missile Warning and Space Surveillance system. He was appointed as the military representative to the Cabinet Office team responsible for drafting the National Space Security Policy in 2011, and is currently Deputy Head for Space Policy at the Ministry of Defence.

Maria Pozza specialises in international law and space law. She has submitted her PhD to the Faculty of Law of the University of Otago, New Zealand. It concerns international law and policy of outer space with a new perspective on arms control, and draws from restricted archival material made available by the New Zealand Ministry of Foreign Affairs and Trade. She has spoken at conferences and universities worldwide, and has been invited to discuss space law and policy with national and governmental institutions in New Zealand. She is presently the Lauterpacht Visiting Fellow at the Lauterpacht Centre for International Law, University of Cambridge, working on international arms control law in outer space. She is a Member of the Bar of England and Wales, and has undertaken the New Zealand Law and Practice Examines towards recognition as a New Zealand Lawyer. She completed a Postgraduate Diploma in Legal Skills and Research, and holds a Masters in International Studies and an LL.B Law (Hons). She has held a number of representative positions in relation to her university career, and was an external moot court judge for the Manfred Lachs Moot Competition of the IISL. She is a member of Women in Aerospace and the International Astronautical Federation.

Mark Roberts, CBE, MBA, FCMI is Programme Manager at Atkins Global, a design, engineering and project management consultancy. Prior to joining the company, he was Head of Capability, Deep Target Attack with the MOD (2010-2012), SRO for 3 large equipment programmes, and Director Air Staff, Royal Air Force, responsible for strategy development, operations policy, national and international stakeholder engagement and RAF transformation. He was Station Commander at Lossiemouth (2005 -2007), and from 1984 to 2005 undertook a variety of roles, including Project Manager responsible for new equipment projects, Tornado Squadron Commander, HR Manager, and Operational Pilot. He was educated at The Open University and at Kings College London/UK Defence Academy, in Defence Studies. He was awarded the MBE in 2000, and CBE in 2008.