Project on Nuclear Issues

2009 Fall Conference
October 26 – 27
Royal Society, London

MONDAY, OCTOBER 26TH
Welcome Trust Lecture Hall

8:00 TEA AND CONFERENCE CHECK-IN
City of London Rooms One and Two

8:50 CONFERENCE WELCOME
Cdre. David Jarvis, Strategic Systems Analyst, Lockheed Martin

9:00 SESSION 1: TECHNICAL AND OPERATIONAL CHALLENGES
Moderator: Professor Peter Roberts, Head of Plasma Physics, Atomic Weapons Establishment

- **The Myth of Knowledge Transfer: A Perspective on Future Technical Competency at the US National Laboratories**
  Mr. Matthew Cowan, Deputy Program Manager, Defense Technologies Engineering Division, Lawrence Livermore National Laboratory

- **Recycling Nuclear Designs: An Examination of Yield to Weight Concerns**
  Dr. Benn Tannenbaum, Associate Program Director, Center for Science, Technology and Security Policy American Association for the Advancement of Science

- **De-Alerting Nuclear Weapons**
  Mr. Stuart Mackie, Deterrence Policy Officer, UK Ministry of Defence

10:30 BREAK

10:45 SESSION 2: RESPONDING TO THE POTENTIAL SPREAD OF DANGEROUS MATERIALS AND TECHNOLOGIES
Moderator: Mr. Owen Price, Group Leader for Applied Technologies, Atomic Weapons Establishment

- **Fissile Material Cut-Off Treaty Verification Utilizing International Atomic Energy Agency Verification Methodologies**
  Ms. Elizabeth Meek, Next Generation Safeguards Initiative Intern, Los Alamos National Laboratory

- **The Current International Approach to Securing Radioactive Materials: Challenges and Prospects for the Future**
  Mr. Benjamin Hautecouverture, Research Fellow, Center for International Security and Arms Control Studies

- **The Global Nuclear Detection Architecture (GNDA)**
  Mr. Ryan Connelly, Architecture Directorate, Domestic Nuclear Detection Office, U.S. Department of Homeland Security

- **The Proliferation Security Initiative under the Obama Administration**
  Mr. Derek D. Smith, Associate, Latham & Watkins

- **The Use of Unmanned Aerial Vehicles (UAVs) in Response to Nuclear/Radiological Terrorism**
  Mr. Daniel Dalton, General Engineer, U.S. Department of Energy

12:30 LUNCH
Address by Jon Day, Director General Security Policy, UK Ministry of Defence
City of London Rooms One and Two

1:30 SPECIAL ADDRESS FROM THE ROYAL SOCIETY
Lord Martin Rees, President, Royal Society

1:40 SESSION 3: PREVENTING NUCLEAR PROLIFERATION
Moderator: Dr. Bernard Sitt, Director, Center for International Security and Arms Control Studies

- **Extended Deterrence and Assurance as a Nonproliferation Tool**
  Ms. Jessica Yeats, Research Assistant and Program Manager, Defense and National Security Group, Center for Strategic and International Studies

- **The Iran Nonproliferation Act of 2000: Issues and Options since March 2005**
  Ms. Susan Turner, Sr. Program Manager, Strategic and Special Programs, Y-12 National Security Complex

- **Friends Don't Let Friends Proliferate: Evidence from Sanctions and Lessons for Disarmament**
  Dr. Scott Helfstein, Assistant Professor and Associate, Combating Terrorism Center, United States Military Academy

- **Positive Incentives and Nonproliferation: Myths, Realities, and Policy Options**
  Dr. Jeffrey Fields, Foreign Affairs Officer, Office of Strategic Planning, Bureau of International Security and Nonproliferation, U.S. Department of State

3:10 BREAK

3:20 SESSION 4: SURVEYING THE FUTURE NUCLEAR LANDSCAPE
Moderator: Cdre. David Jarvis, Strategic Systems Analyst, Lockheed Martin

- **Technology and Global Nuclear Security**
  Dr. Stephen Hughes, Senior Scientist, Computational Physics Group, Atomic Weapons Establishment, Aldermaston

- **The Path to Base Camp**
  Dr. Tom Tierney, Foreign Affairs Science Advisor and IEEE/AAAS Science & Diplomacy Fellow, U.S. Department of State

- **Zero?**
  Mr. Rashad Hussain, Electronic Engineer, Atomic Weapons Establishment

4:45 **BREAKOUT DISCUSSION: What are the roles of nuclear weapons in 21st century global security?**

5:45 **END OF DAY ONE**

6:00 **RECEPTION**
City of London Rooms One and Two

6:30 **DINNER**
Address by Professor Mark Welland, Chief Scientific Advisor, UK Ministry of Defence
City of London Rooms One and Two

TUESDAY, OCTOBER 27TH
Welcome Trust Lecture Hall

8:45 **TEA AND BISCUITS**
City of London Rooms One and Two

9:00 **SESSION 5: KEY ISSUES AFFECTING UK NUCLEAR POSTURE**
Moderator: Prof. Malcolm Chalmers, Professorial Fellow, Royal United Services Institute

- **Scale and the UK Deterrent**
  Mr. Paul Dack, Team Leader, Software & Simulation Team, Air and Weapons System Department, Defence Science and Technology Laboratory, UK Ministry of Defence

- **How Could Britain Operate a Scaled Down Deterrent?**
  Mr. Paul Higson, Organisation Development Specialist, Atomic Weapons Establishment

- **The Impact of the US withdrawal from the ABM Treaty on "Other" Nuclear Nations**
  Mr. Gary Axton, Systems Engineer, Systems and Software Organisation, Lockheed Martin

- **Ballistic Missile Defense: Utility of Wargaming**
  Mr. Andrew Ash, Space, Surveillance & Defence Technology Systems, Air and Weapons System Department, Defence Science and Technology Laboratory, UK Ministry of Defence

10:30 BREAK

10:45 SESSION 6: DRIVERS OF CHANGE IN NATIONAL NUCLEAR POLICIES
Moderator: Sir Richard Mottram, Visiting Professor, London School of Economics and Political Science and Former Permanent Secretary, UK Ministry of Defence

- **International Perceptions of U.S. Nuclear and Nonproliferation Policies**
  Dr. Kerry M. Kartchner, Acting Director, Office of Strategic Planning and Outreach, U.S. Department of State

- **Iran's Nuclear Program: The Four Pitches**
  Mr. Raja Karthikeya, Researcher, Hills Program on Governance, Center for Strategic and International Studies

- **On Japan**
  Dr. Richard White, Technical Strategy & Capability Assessment, Chief Scientist Group, Atomic Weapons Establishment

- **Framing China's Strategic Nuclear Posture: Stripping the Chaff, Returning to the Core Issue of the DF-5A**
  Mr. Graham Gerard Ong-Webb, Associate, Center for Science and Security Studies, Department of War Studies, School of Social Sciences and Public Policy, King's College London

12:15 LUNCH AND BREAKOUT RECAP
City of London Rooms One and Two

1:30 END OF CONFERENCE