



Massachusetts Institute of Technology

Mission Statement

The Science, Technology, and Global Security Working Group (STGS) is dedicated to making the world a safer and better place for humanity by providing independent and unbiased analyses of scientific and technical questions that affect world peace. These include, but are not limited to, understanding and explaining to the policy makers and the general public the technical issues underlying nuclear disarmament and proliferation. Another important goal of our group is to propose new solutions for technical problems that might stand in the way of nuclear disarmament or prevent the world's nonproliferation regimes from being effectively implemented.

Over the past decade and a half the Science, Technology and Global Security Working Group has established itself as a highly regarded independent center for analysis of technical problems in the international security field. It has unrivaled expertise in nuclear weapons and their effects, sensor technologies, ballistic missiles, early warning systems, basing of nuclear forces, and nuclear fuel cycle issues and how these technical issues shape the political, military and diplomatic dimensions of security. We have ongoing collaborations with technical groups and leading scholars in China, Russia, Germany, India, Israel and Pakistan -- and also have extensive governmental and non-governmental contacts with individuals and organizations in the UK, France, and Norway, in addition to the countries mentioned above.

The Science, Technology and Global Security Working Group believes that public policy is best influenced by sound, non-partisan analysis of the technical issues important to today's security problems. STGS produces and encourages such analysis by conducting research on a number of specialized topics and by helping to build an international community of scientific scholars focused on this work.

The group is based in the Program in Science, Technology, and Society (STS). The objective of the program is to increase understanding of the human-built world. In this world, science and technology have broken through the walls of industry and of the laboratory to become an inextricable and determining element of nature, culture, and history. The STS Program was founded at MIT in 1976 to address this unprecedented and momentous integration of science, technology, and society. Faculty and students in the Program address two basic, interrelated questions: how did science and technology evolve as human activities, and what role do they play in the larger civilization? The STS perspective is crucial to understanding major events of our time (war and conflict, the economy, health, the environment) and to addressing these and other major public issues (privacy, democracy, education). The STGS contributes to the overall STS objective by providing a crucial real-life perspective gained from the group's research and activities geared towards impacting public policy both short and long term.

Below are some of the highlights of the group's recent activities:

- The development and international recognition of a possible new approach to limiting the potential for nuclear weapons proliferation from centrifuge-based Uranium enrichment
- Dramatically expanding the scope and reach of our project called "Nuclear Stability in South Asia" to include Track II discussions and analysis about how to best solve the energy problems that challenge the economic development of both Pakistan and India
- Analysis, lectures, and publication about the impact of US-India civil nuclear cooperation on the non-proliferation regime and the NPT
- Providing unique and detailed analysis to the Congress, press, State Department, foreign governments and Non-Government Organizations about the currently expanding European Missile Defense program

- Critical analysis on Chinese and US anti-satellite programs – including the identification and analysis of revolutionary developments in Chinese anti-satellite capabilities that could have substantial implications for US military space policy
- The only comprehensive technical and policy analysis of a proposed Global Strike System and its potential for causing a major accident involving Russian nuclear forces

Among the group’s activities were two major international conferences that it organized in 2007 and 2008 as follows:

- “Conference on Security and Cooperation in South Asia: *A Global Perspective*,” which was organized jointly with University of Hamburg and the German Federal College for Security Studies, Berlin, Germany, October 8-10, 2007
- “Workshop on Multinational Uranium Enrichment Facilities,” Massachusetts Institute of Technology, Cambridge, MA, October 20-21, 2008

Both conferences were attended by high-level officials from several governments around the world as well renowned experts in the fields of nuclear weapons, nuclear energy and the fuel cycle, non-proliferation, and nuclear disarmament. There were also IAEA officials and Permanent Representatives to the U.N Conference on Disarmament.

In the coming year members of the group will focus on, among other things, the following:

- Analysis and briefings on the group’s proposal on multinational uranium enrichment as a way of solving the Iran crisis
- Review of the safeguards agreements between India and the IAEA and the India-specific exemptions formulated by the Nuclear Suppliers Group
- The nuclear renaissance and the potential for increasing proliferation resistance in nuclear power technology