

DSSG

Defense Science Study Group



2016-2017



IDA



DEFENSE SCIENCE STUDY GROUP 2016-2017

The Defense Science Study Group (DSSG) is a program of education and study that introduces outstanding science and engineering professors to the United States' security challenges and encourages them to apply their talents to these issues. The program was launched thirty years ago is directed by the non-profit Institute for Defense Analyses (IDA) and sponsored by the Defense Advanced Projects Research Agency (DARPA).



Gaining Insights into National Security

Technological advantage is fundamental to our nation's security. To achieve this advantage, amidst rapid change in technology opportunities and defense needs, it is crucial that strong links are developed between the national security community and emerging leaders in the fields of science and technology.

The DSSG seeks to convey to its members an understanding of these issues and an appreciation for the people involved in defending our nation. The program solicits new insights from members and helps facilitate their continuing involvement with the complex technical challenges of safeguarding the United States.

In the Field, Exchanging Ideas

Group members interact with top-level officials from the Department of Defense (DoD), and other Government organizations, various Intelligence agencies, The White House, and Congress. Visits to military bases throughout the United States provide members with a unique perspective of operating forces and allow DSSG members to meet with senior commanders responsible for our nation's defense. Tours of defense laboratories and industrial facilities provide further insight into the technical dimensions of national security.



Integral to the program are studies written by DSSG members, either individually or in small groups, on national security issues of their choice. These “think pieces” allow members to personalize the experience, to focus on a particular area of importance to DoD, to bring their knowledge from an academic environment to bear on issues of concern, and to interact with individuals in DoD with related interests.

The Program

Each group meets for two years for approximately 20 days per year, divided into two week-long sessions each summer and two four-day sessions each academic year. During these eight sessions, members focus on defense policy, related research and development, and they systems, missions, and operations of the armed forces and the intelligence community.

Overview of the Two Year DSSG Program

The first session, held at IDA's headquarters in Alexandria, Virginia, provides members with an overview of the DSSG program. Prominent individuals from the defense and national security arenas, IDA researchers, DSSG mentors, and alumni introduce new members to the defense establishment, the current national security environment, and the role science and technology plays in that environment. Members visit the Pentagon's National Military Command Center, are briefed by such senior Pentagon officials as the Chairman of the Joint Chiefs of Staff, and meet with national security professionals within the Executive Office of the President.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
First Year	Session 1 4 Days At IDA				Session 2 7 Days Site visits			Session 3 9 Days Site visits			Session 4 4 Days In DC area	
Second Year	Session 5 4 Days In DC area				Session 6 7 Days Site visits			Session 7 5 Days In DC area			Session 8 3 Days At IDA	

Overview of the two-year DSSG Program

The second session includes members' first foray into "the field." Members visit Army, Navy, Marine Corps, and Joint Command facilities on the East Coast. This session has included visits to the II Marine Expeditionary Force at Camp Lejeune, North Carolina; the 82nd Airborne Division at Fort Bragg, North Carolina; the U.S. Central Command and U.S. Special Operations Command at MacDill Air Force Base, Florida, and has ended with a tour of a Trident submarine base in Georgia.

The third session focuses on Army, Navy, Marine and Air Force installations and defense industry facility tours on the West Coast and in the Midwest. Past trips have included visits to Boeing, Lockheed Martin, and Northrop Grumman facilities; Nellis, Edwards, Peterson and Offutt Air Force Bases; Fort Irwin National Training Center; Third Fleet, and Marine Corps Air Ground Combat Center at Twentynine Palms.

The fourth session includes visits to intelligence agencies in the Washington, DC, area. Prior classes visited the Office of the Director of National Intelligence, Central Intelligence Agency, National Security Agency, National Counterterrorism Center, and the National Geospatial-Intelligence Agency.

During the fifth session, also held in the Washington, DC area, members discuss their initial ideas for research “think pieces” and meet with key members of the U.S. House of Representatives, the U.S. Senate, and with other senior Government officials involved in national security. They have also visited the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) and Army Research Laboratory.

In the sixth session, DSSG members tour national laboratories. In 2015, DSSG members visited the Air Force Research Laboratory, Lawrence Livermore, Sandia, and Los Alamos National Laboratories.



In the seventh session, members take advantage of the resources available to them at IDA and visit defense and Government offices in the Washington DC area to advance their research. They also visit additional defense related laboratories such as the Naval Research Laboratory and MIT Lincoln Laboratory.

During the eighth and concluding session of the program, members present the results of their “think pieces.” They are also briefed by representatives of Government study boards, including the Defense Science Board, the Air Force Scientific Advisory Board, the Army Science Board, the Naval Research Advisory Council, the Naval Science Board, JASON, and the Information Science and Technology panel. Representatives from these boards provide an overview of their group’s activities and future projects, as well as explaining how members can participate in the work done by these defense advisory organizations.

Selecting New Members

IDA solicits nominations from senior leaders within major universities and from DSSG alumni and current members. Because participation in the DSSG requires acquisition of a security clearance, all members must be U.S. citizens. Selection is based on academic excellence, breadth of interests, references, consideration of discipline and geographic distribution. Members of the DSSG class of 2016-2017 were selected from more than 175 extremely qualified nominations.



Mentors and Advisors Providing Guidance

A group of mentors who have distinguished careers in the military, Government, industry, or academia are closely associated with the DSSG. They help guide IDA’s and DARPA’s conduct of the program, recommend study topics, counsel

and work with the members on their studies, help provide access to places and organizations involved with U.S. security, and suggest ways to become more involved with national security matters.



Alumni – Reaping the Benefits

The DSSG program is an investment in the future. There are over 200 alumni, and IDA and DARPA ensure that each is offered opportunities for involvement in areas of national security. Many engage in science as advisors, consultants, members of boards, study groups, and task forces for organizations that address technological problems of national importance.



DSSG

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DSSG 2014-2015

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