

Appendix

National Science Foundation Awards in Fiscal Year 2002 related to Homeland Security

Principal Investigator	Award	Institution	Title
AWARDS FROM THE DIRECTORATE FOR ENGINEERING			
Blatchley	BES 0210350	Purdue University	SGER: Inactivation of Biological Warfare Agents by Physical Disinfectants
Guroi	BES 0206861	San Diego State University	SGER: Application of Gaseous Ozone for Inactivation of Bacterial Spores
Mainelis	BES 0212007	Rutgers University	SGER: Inactivation of Airborne Microorganisms Using Electrical Fields: a Feasibility Study
Parlange	BES 0211625	John Hopkins University	SGER: Measurements of Particle Emissions from World Trade Center Site in New York City
Pereira da Cunha	BES 0233463	University of Maine	SGER: Detection of Bioterrorism-linked Microbial Pathogens Using Surface Acoustic Wave Liquid Sensors
Tepper	BES 0229026	Virginia Commonwealth University	SGER: Biosensing in the Gas Phase: A New Approach Based on Imprinted Nanoparticles of a Linear Polymer
Wei	BES 0228143	Purdue University	SGER: Antibody-conjugated Nanoparticle Films as Spectroscopic Sensors of Chemical Agents
Astaneh	CMS 0139542	University of California Berkeley	SGER: World Trade Center Post-Disaster Reconnaissance and Perishable Structural Engineering Data Collection
Bloomquist	CMS 0139382	University of Florida	SGER: Infrastructural Damage Assessment Using Land-Based Laser Swath Mapping Technology
Frost	CMS 0139258	Georgia Institute of Technology	SGER: Digital Data Collection for Damage Assessment at World Trade Center
Garg	CMS 0228784	Duke University	SGER: A Multi-sensor-fused Intelligent Biomimetic Microrobot
Grigg	CMS 0139878	Colorado State University	Condition and Security Indicators for Interdependent Infrastructure Systems
Harrald	CMS 0139309	George Washington U	SGER: Observing and Documenting the Inter-Organizational Response to the 9/11 Terror Attacks

Harrald	CMS 0219953	George Washington U	Terrorism and Corporate Crisis Management: The Strategic Effect of the September 11 Attacks
Hendrickson	CMS 0223255	Carnegie Mellon University	Analyzing Critical Infrastructure Dependencies: Security & Survivability Effects in the Service Sector
Holguin-Veras	CMS 0205188	CUNY City College	SGER: Impacts of Extreme Events on Passenger Travel Behavior
Lee	CMS 0240691	SUNY Buffalo	US-PRC Workshop on Protection of Urban Infrastructure and Public Facilities Against Natural and Manmade Disasters
Lindell	CMS 0219155	Texas A&M University	Develop an Evacuation Management Decision Support System
Mileti	CMS 0139024	University of Colorado Boulder	Natural Hazards Research Application and Information Center (supplement)
Miller-Hooks	CMS 0218621	Pennsylvania State University	Emergency Preparedness Planning and On-Line Evacuation of Large Buildings
Mowrer	CMS 0139568	University of Maryland	SGER: World Trade Center Post-Disaster Fire Reconnaissance and Perishable Data Collection
Murphy	CMS 0229809	University of South Florida	SGER: Adaptive Shoring for Robot-assisted Search and Rescue
O'Rourke	CMS 0207266	Cornell University	SGER: Improved Security And Management Of Underground Infrastructure Systems: Lessons Learned From September 11, 2001
Phillips	CMS 0229389	Jacksonville State University	Organization-based Post Disaster Sheltering and Housing of Low Income and Minority Groups
Reid	CMS 0238991	National Academy of Engineering	Management of Precursors (w/DMII and SBE)
Rosenbloom	CMS 0215588	U of Southern California	Digital Government: Responding to the Unexpected (workshop through CISE)
Rubin	CMS 0231624	Claire Rubin & Assoc.	SGER: Analysis of Major Terrorist Disasters Affecting the U.S. (1988-2001)
Sozen	CMS 0204537	Purdue University	SGER: Gathering and Archiving Data on the Response of a Reinforced Concrete Building Subjected to Impact and Fire Loads
Stehr	CMS 0234100	Washington State University	The Implementation of Disaster Assistance in New York in the Aftermath of September 11: The Dynamics of Multiorganizational Response
Wallace	CMS 0139306	Rensselaer Polytech Institute	SGER: Impact of World Trade Center Disaster on Critical Infrastructure Interdependence
Yeh	CMS 0213686	University of Washington	International Travel Grant to Support U.S. Involvement in HAZARDS-2002
Zimmerman	CMS 0203371	New York University	Workshop on Research Related to the World Trade Center Disaster

Zimmerman	CMS 0204660	New York University	SGER: Urban Infrastructure Services in a Time of Crisis: Lessons from September 11th
Zimmie	CMS 0226864	Rensselaer Polytech Institute	SGER: Surface Blast Effects on Embankments and Dikes
Barat	CTS 0233582	New Jersey Institute of Technology	Terahertz Imaging System for Sensing of Chemical and Biological Agents
Janata	CTS 0207142	Georgia Institute of Technology	The New Challenges of Chemical and Biological Sensing (Workshop: January 9-10, 2002; funded through CHE in MPS)
Auerbach	DMI 0215158	EMTEL	SBIR Phase I: Remote Radio Frequency Measurements for Pipeline Monitoring - FloWatch911
Berg	DMII 0226831	Rensselaer Polytechnic Institute	SGER: Exploratory Research to Define Streamlining Opportunities for Construction Permitting in Disaster Recovery
Bier	DMII 0228204	U of Wisconsin Madison	Optimal and Near-Optimal Resource Allocation for Information Security and Critical Infrastructure Protection
Dong	DMI 0212035	NanoTek, Inc.	SBIR Phase I: Nanofabricated Gas Chromatography Column-Oven System
Drukier	DMII 0214853	BioTraces Inc.	SBIR Phase I: New Methods for Detecting Bioterrorism
Farquharson	DMII 0214280	RTA	SBIR Phase I: Anthrax Detector for Mail Sorting Systems
Fernandez	DMII 0215192	Ciencia Inc.	SBIR Phase I: Biosensor for Label-free, Real-time Monitoring of Environmental Pathogens
Forbes	DMII 0215159	VTK	SBIR Phase I: Flexible Displays for Radio Frequency Identification (RFID) Applications
Hunter	DMII 0214847	Physical Sciences Inc.	SBIR Phase I: Fast Response Sensor for Airborne Biological Particles
Jacobson	DMII 0114499	U of Illinois Urbana- Champaign	Collaborative Research: Aviation Access Control Security Systems
Kittrell	DMI 0215008	KSE Inc.	SBIR Phase I: Homeland Security: Photocatalytic Destruction of Air-Borne Bacteria
Kobza	DMII 0114046	Texas Tech University	Collaborative Research: Aviation Access Control Security Systems
Kosal	DMII 0215088	ChemSensing	SBIR Phase I: Colorimetric Sensor for Real-Time Detection of Nitroaromatic Explosives
Li	DMII 0213614	Genex Technologies, Inc.	SBIR Phase I: A Novel Large Depth of Field and High Resolution Imaging Scanner

Meisner	DMI 0213982	Titan	SBIR Phase I: Ultra-sensitive Charge-coupled Device Technology: A Photon Counting Camera
Mlcak	DMII 0215119	Boston Micro Systems, Inc.	SBIR Phase I: Rapid Reagent-less Multi-channel Biological Agent Detector
Morton	DMII 0228419	U of Texas Austin	Stochastic Network Interdiction Models for Homeland Security
Nelson	DMII 0215147	Aerodyne Research	SBIR Phase I: Development of a High Precision, Autonomous Quantum Cascade Laser-Based Detector for Methane and Nitrous Oxide
Rindova	DMII 0218029	U of Maryland, College Park	SGER: Evolving Dynamic Capabilities in Times of Dramatic Environmental Change
Schafer	DMII 0228246	Johns Hopkins University	Optimal Structural System Design for Catastrophic Unforeseen Events
Schlueter	DMII 0215299	Intellicon	SBIR Phase I: Preventive, Corrective, and Emergency Control for Equipment Outages Producing Voltage Collapse and Blackout
Thompson	DMI 0216574	RealTronics	SBIR Phase II: A High Frequency Beam Steered Electromagnetic Impulse Radar to Locate Human Targets Through Opaque Media
Vispute	DMI 0215175	Blue Wave	SBIR Phase I: Low Cost Visible Blind Ultra Violet Photodetectors on Glass and Polyimide
Wallace	DMII 0228402	Rensselaer Polytech Institute	Disruptions in Independent Infrastructures
Worsnop	DMII 0215061	Aerodyne Research	SBIR Phase I: Development of a Time of Flight Aerosol Mass Spectrometer for Atmospheric Aerosol Analysis
Zhang	DMII 0131228	JunTech, Inc.	SBIR Phase II: A New Digital Video Surveillance System
Lee	EEC 0139621	MCEER at SUNY Buffalo	Multidisciplinary Center for Earthquake Engineering Research (supplement)
Grimes	ECS 0225346	Pennsylvania State University	Integrated Sensing: Integrated Smart-sensor Networks for Monitoring Aqueous Environments

AWARDS FROM THE DIRECTORATE FOR SOCIAL, BEHAVIORAL AND ECONOMIC SCIENCES

Barrett	SBE 0204431	Boston College	SGER: Mechanisms of Resilience in the Face of On-Going Threat
Barman	SBE 0140024	Columbia University	SGER: Narrative Networks: The World Trade Center Tragedy

Birnbaum	SBE 0202448	California State University Fullerton	SGER: Effects of Terrorism on Judgments and Decisions Concerning Civil Liberties
Bonanno	SBE 0202772	Columbia University	SGER: The Costs and Benefits of Self-Enhancement: Coping with the Terrorist Attack on the World Trade Center
Bozorgmehr	SBE 0140271	CUNY Graduate School	SGER: How Support Organizations Respond to Crises: Middle Eastern and South Asian American Organizations in the Aftermath of September 11
Brewer	SBE 0201511	George Washington U	SGER: Crisis and Confidence
Burkhardt	SES 0218007	U of Illinois at Urbana- Champaign	Dissertation Research: Reimagining Anthrax: Constructing the Threat and Science of Biological Warfare at Fort Dietrick, 1943-1969
Conway	SBE 0139292	University of Illinois Chicago	A Test of Flashbulb Memory: Tuesday, September 11, 2001
Goodwin	SBE 0203970	Purdue University	SGER: American Identity Under Siege: Re- categorization at Ground Zero
Huddy	SBE 0201650	SUNY Stonybrook	SGER: The Dynamic, Multi-Faceted Effects of Threat on U.S. Domestic and Foreign Policy Attitudes
Inglehart	SBE 0140566	University of Michigan	SGER: Islam and the West: Clash of Civilizations or Traumas of Modernization?
Jenkins-Smith	SBE 0234119	Texas A&M University	SGER: Public Responses to Terrorism
Krantz	SES 0136872	Columbia University	Understanding and Improving Protective Decision Making
Lecci	SBE 0204846	U of North Carolina Wilmington	SGER: A Social Cognitive Model for Processing Health Risk Information About Anthrax Fears
Lerner	SBE 0201525	Carnegie Mellon University	SGER: Emotional and Cognitive Carry Over from the September 11 Attacks
Lustick	SES 0218397	University of Pennsylvania	ITR: Development and Applications of the PS-I Computational Modeling Platform for Problems of Ethnic Conflict, Globalization, State Stability and Terrorism
Moaddel	SBE 0139908	Eastern Michigan University	SGER: A Post-Crisis Analysis of the Attitudes and Value Orientations of the Islamic Publics in Egypt, Iran and Morocco
Moore	SBE 0201149	University of Connecticut	SGER: Terror, Immigration, and Civil Liberties in the United States
Morrow-Jones	SBE 0202231	Ohio State University	SGER: The Impact of the September 11, 2001, Terrorist Attacks on American Metropolitan Household Decisions to Stay in the Same Residence, to Remodel, or to Move

Moskowitz	SBE 0213693	Lehigh University	Control over Stereotype Activation by Preconscious and Temporary Goals
O'Loughlin	SBE 0203087	U of Colorado Boulder	SGER: The Impacts of the September 11, 2001, Attacks and Response on Russian Geopolitical Culture
Rasinski	SBE 0139964	National Opinion Research Center	SGER: Public Response to a National Tragedy
Richardson	SBE 0200619	Association of American Geographers	SGER: The Geographical Dimensions of Terrorism: A Research Agenda for the Discipline
Rosenbloom	SBE 0215588	U of Southern California	Digital Government: Responding to the Unexpected (workshop through CISE)
Rubinstein	SBE 0129762	Syracuse University	Dissertation Research: Defending the Homeland: The Cultural Construction of U.S. Defense in Everyday Practice
Rubinstein	BCS 0129762	Syracuse University	Dissertation Research: Defending the Homeland: The Cultural Construction of U.S. Defense in Everyday Practice
Schuman	SBE 0206472	University of Michigan	SGER: Collective Memories Over The Life Course
Silver	SBE 0214143	Michigan State University	Attack on American Civil Liberties Trade-offs, and Ethnic Tolerance: Panel Survey
Silver	SBE 0211039	University of California Irvine	SGER: Coping with Community-based Traumatic Events: National Response to September 11, 2001
Silver	SBE 0140541	Michigan State University	SGER: The Attack on America, Civil Liberties Trade-offs and Ethnic Tolerance
Silver	SBE 9910223	University of California Irvine	SGER: Coping with Community-based Traumatic Events: The Columbine High School Shootings and the 9/11 Terrorist Attacks (supplement)
Skitka	SBE 0210053	University of Illinois Chicago	SGER: Understanding Political Intolerance: A Test of Deonance Theory
Thompson	SBE 0233978	Pomona College	SGER: Restoring Assumptions of Safety and Control Following the 2001 Terrorist Attacks
Wayment	SBE 0202652	Northern Arizona University	SGER: Predicting Affective Reactions to Collective Loss
Weisband	SBE 0218304	University of Arizona	The Role of Technology on Work Practices in Police Departments
Williams	SBE 0220979	Massachusetts Institute Technology	SGER: Workshop: Rethinking Technology After September 11 (March 2002)

AWARDS FROM OTHER DIRECTORATES

Cantley	BIO 0209454	Beth Israel, Harvard	SGER: Discovery of Substrates and Inhibitors of the Anthrax Lethal Factor using Peptide Libraries
Fraser	BIO 0202304	The Institute for Genomic Research	Genomic Diversity of Bacillus Anthracis Strains
Ammar	EIA 0131079	West Virginia University	Digital Government: Automated Dental Identification
Bhargava	IIS 0209059	Purdue University	Formalizing Evidence and Trust for User Authorization
Blumenthal	ANI 0238609	NAS	Telecommunications Research and Development
Dawes	CISE 0221927	SUNY Albany	SGER: Turning to Digital Government in a Crisis: Coordinating Government Business and Non-Profit Services in Response to the World Trade Center Attacks of September 11, 2001
DeFanti	EIA 0224306	University of Illinois Chicago	CISE Research Resources: Matching Advanced Visualization and Intelligent Data Mining to High-performance Experimental Networks
Fan	IIS 0208539	U of North Carolina Charlotte	A Novel Approach to Video Database Indexing via Semantic Classification
Goldberg	CISE 0204758	Rensselaer Polytechnic Institute	SGER: The Impact of Breakdowns of Physical Infrastructure on Social Networks
Hou	ANI 0221357	U of Illinois at Urbana- Champaign	Data Centric Sensor Networks
Markowsky	ANI 0210619	University of Maine	ANYWHERE, ANYTIME, ANYSIZE, ANY SIGNAL: Scalable Remote Information Sensing and Communications Systems
Murphy	EIA 0224401	University of South Florida	CISE Research Resources: R4: Rescue Robots for Research and Response
Rosenbloom	CISE 0215588	University of Southern California	Digital Government: Responding to the Unexpected (workshop with CMS and SBE)
Sastry	CISE 0239511	University of California Berkeley	Workshop on Critical Infrastructure Protection: September 23-24, 2002; Leesburg, VA
Sekar	CCR 0208877	SUNY Stony Brook	A New Approach for Securing Systems Using Automated Adaptive Intrusion Response
Silverstein	CCR 0208830	University of Virginia	Adaptive Digital Signal Processing for Spatial and Temporal Sampled Coherent Imaging Systems

Singh	ANI 0125728	Portland State University	Using Smart Antennas for Ad Hoc Networking
Sirer	EIA 0203449	Cornell University	CRCD: The Ad Hoc Classroom: Integrating Emerging Wireless Communications and Networking Technologies into Mainstream Computer Science and Electrical Engineering Curricula
Freiman	GEO 0229030	United Engineering Foundation	Conference: Risk-based Decision Making in Water Resources X
Olsen	GEO 0210001	University of Massachusetts Boston	SGER: Exploratory Research on the Environmental Impact of the World Trade Center: Attack on Sediment Quality and Dynamics in New York Harbor
Clarke	MPS 0139876	Purdue University	Kinetics and Mechanisms of Rapid Reactions in Solution
Collins	MPS 0211065	Carnegie Mellon University	SGER: Activated Hydrogen Peroxide Detoxification of Chemical-Biological Warfare Agents
Fenselau	MPS 0223645	University of Maryland College Park	Analytical Chemistry for Homeland Defense and National Security, ACS Meeting, Boston, MA, August 18-22, 2002
Janata	MPS 0207142	Georgia Institute of Technology	The New Challenges of Chemical and Biological Sensing (Workshop: January 9-10, 2002; funded with CTS in ENG)
Lehmann	MPS 0228797	Princeton	SGER: An Optical Fiber Resonator for Cavity Ring-down Spectroscopic Detection and Measurement of Trace Species
Becchetti	PHY 0214631	University of Michigan	2002 Symposium on Radiation Measurements and Applications, Ann Arbor, May 21-23, 2002
Friedman	DMS 0204029	Stanford University	Topics in Predictive and Descriptive Data Mining
Wang	CHE 0209707	New Mexico State University	Characterization of DNA-linked Nanoparticle Networks for Advanced Genetic Testing
Zoski	CHE 0210315	Georgia State University	GOALI: Addressable Multielectrode Arrays Based on Membrane Templates: Fabrication, Characterization and Instrumentation
Lewis	MPS 0228141	Caltech	Supplement: Achieving Molecular Level Control over the Chemical, Electrochemical, and Electrical Properties of Crystalline Si Surfaces
Lopez	MPS 0230818	U. New Mexico	SGER: Fluorescence Lifetime-Based Measurements of Biosensor Arrays Using Closed Loop Auto-Oscillating Systems
Majda	MPS 0228639	U. California- Berkeley	Supplement: Dynamics of Lateral Processes at the Air/Water Interface

Penner	MPS 0229434	U. California- Irvine	Supplement: Chemical Sensors Based on Electrodeposited Metal Nanowires
Rabolt/Chase	MPS 0228839	U. Delaware/Dupont	SGER: Ultra-Fast Infrared Spectroscopy Using a Focal Plane Array for the Real Time Detection of Chemical and Biological Agents
Sadik	MPS 0210968	SUNY Binghamton	SGER: Molecular Design of Intelligent Sensors for Selected Chemical Warfare Agents Using Support Vector machines
Solouki	MPS 0228971	U. Maine	SGER: Improving Performance Characteristics of Hyphenated Preconcentrator GC Fourier Transform Ion Cyclotron Resonance Mass Spectrometry: A "Gold Standard" for Sensor Development
Weidman	MPS 0215714	National Academy of Sciences	The Role of Mathematical Sciences in Homeland Defense
Kennedy	EHR 0236753	Morgan State University	Infrastructure Building to Develop a Center for Biological and Chemical Sensors Research
LaBar	EHR 0206350	Liberty Science Center	Skyscraper: Achievement and Impact - A Permanent Exhibition
Richardson	OIA 0236908	Potomac Institute for Policy Studies	Shaping Science and Technology to Serve National Security
Rippen	OIA 0234636	Rand Corporation	Data, Information and Recommendations Regarding Emergency Worker Safety and Health During Disaster Responses - CDC-NIOSH

**AWARDS MADE THROUGH THE NSF/CMS-FUNDED
NATURAL HAZARDS RESEARCH AND APPLICATIONS
INFORMATION CENTER (NHRAIC),
UNIVERSITY OF COLORADO–BOULDER**

Cutter	University of South Carolina	Assessing the Use of Geographical Information Technology in Responding to the September 11 Terrorist Attack in New York City
Eads	University of Colorado Boulder	Marginalized Groups in Times of Crisis: Identity, Needs and Response
Edwards	East Carolina University	Social Capital and Advocacy Organization Response to a Suddenly Imposed National Disaster
Gilham	University of Colorado Boulder	Non-Profit Sector Responses to a Terrorist Attack While Preparing for Mass Demonstrations in Washington DC, September 2001
Grant	University of Akron	Downing of the UA Jet in PA: "Terrorism in Shanksville: A Study in Preparedness and Response
Hays	University of Colorado Boulder	The Role of Police Organizations During a Domestic Terrorist Attack

LeDuc	University of Oregon	Evaluation of Intergovernmental Communication in a Post Disaster Environment
Lowe	University of Colorado Boulder	Community Response in Terrorist Disasters
Michaels	University of Colorado Boulder	How Communications Technology Firms Responded in the Immediate Aftermath of the September 11, 2001 Explosions
O'Brien	California State University at Stanislaus	Institutional Warning Response Following the World Trade Center Attack
Peek-Gottschlich	University of Colorado Boulder	Ethnic Issues on University Campuses Following An Act of Terrorism: Middle Eastern Student Preparation and Response
Rodrigue	California State University Long Beach	Patterns of Media Coverage of The Terrorist Attacks on The United States In September of 2001
Rubin	George Washington University	The Events of Sept. 11, 2001: Immediate Ramifications for Federal Policy (\$500 travel supplement)
Sattler	Western Washington University	Psychological Reactions following the Terrorist Attacks in New York City and Washington, D.C.
Simpson	University of Louisville	An Examination of the Process and Nature of Victim Identification Immediately Following the World Trade Center Collapse
Sutton	University of Colorado Boulder	Role of Faith Communities' Responses to Terrorist Attacks in New York City
Weber	University of North Texas, Denton	Public/Private Communication and Cooperation after a Recent Disaster Event: An Assessment of Coordination

Data provided by the National Science Foundation, June 2003