

## **2020**

- \* Secure Computation for Business Data (November 2020; JSR 20-2E)
- \* Impacts of Large Satellite Constellations on Optical Astronomy (September 10, 2020; Letter Report JSR-20-2H-L2)
- \* Managing the Risk From COVID-19 During a Return to On-Site University Research (July 2, 2020; JSR-20-NS1)
- \* Formal Privacy Methods for the 2020 Census (April 2020; JSR-19-2F)
- \* Space Assembly (March 2020; JSR-19-2J)

## **2019**

- \* [Letter Report summarizing 2019 JASON summer study of pit aging] (November 23, 2019; JSR-19-2A)
- \* Fundamental Research Security (December 2019; JSR-19-2I)
- \* [Topics: Congressionally-mandated independent assessments of electronic warfare plans and programs, and plutonium aging and the lifetime of plutonium pits in nuclear weapons]

## **2018**

- \* Prospects for Low Cost Fusion Development - Executive Summary (November 2018; JSR-18-011)
- \* [Topic: Summer study on health effects suffered by US embassy personnel in Havana 2016-2017]
- \* [Topic: Satellite Performance] (For National Reconnaissance Office)

## **2017**

- \* Artificial Intelligence for Health and Health Care (For HHS, December 2017; JSR-17-Task-002)
- \* Perspectives on Research in Artificial Intelligence and Artificial General Intelligence Relevant to DoD, (January 2017); JSR-16-Task-003)

## **2016**

- \* Enhanced Capabilities for Subcritical Experiments (Letter, October 7, 2016; JSR-16-Task-011)
- \* Low-Enriched Uranium (LEU) for Potential Naval Nuclear Propulsion Application (redacted) (November 2016; JSR-16-Task-013)
- \* Alternative Futures for the Conduct of the 2030 Census (For Census Bureau, November 2016, JSR-16-Task-009)
- \* Perspectives on Research in Artificial Intelligence and Artificial General Intelligence Relevant to DoD (January 2017; JSR-16-Task-003)
- \* Genome Editing (2016, JSR-16-010)
- \* [Topic: Ways to remotely detect crop yields] (For USDA)

## **2015**

- \* Respondent Validation for Non-ID Processing in the 2020 Decennial Census (November 2015; JSR-15-Task-015)
- \* Counterspace (15-Task-010; restricted FOUO)
- \* Counterspace Appendix (15-Task-010A; classified SCI)

## **2014**

- \* Technical Considerations for the Evolving U.S. Nuclear-Weapons Stockpile Executive Summary (January 2015; JSR-14-Task-006E)
- \* Data for Individual Health (For HHS, November 2014; JSR-14-TASK-007)
- \* Military Requirements for the Evolving U.S. Nuclear-Weapons Stockpile (JSR-14-Task-016)
- \* Military Requirements for the “3+2” Stockpile Strategy (JSR-14-Task-016) [Apparently an alternate title.]
- \* Open and Crowd-Sourced Data for Treaty Verification (October 2014; JSR-14-Task-015)
- \* Subsurface Characterization Letter Report (September 2014; JSR-14-TASK-013)
- \* Space Tools (14-Task-014; classified SCI)

## **2013**

- \* Enhanced Geothermal Systems (December 2013; JSR-13-320)
- \* A Robust Health Data Infrastructure (November 2013; JSR-13-700)
- \* Technical Challenges of Exascale Computing ( April 2013; JSR-12-310)
- \* Space Intelligence (13-420; classified SCI)

## **2012**

- \* Compressive Sensing for DoD Sensor Systems (November 2012; JSR-12-104)
- \* JASON B61 Life Extension Program Nuclear Scope Review (Letter, August 9, 2012)
- \* Superconducting Computing (For NSA; February 22, 2012; JSR-11-120; FOUO )
- \* Domestic Nuclear Detection Surge Operations (2012; JSR-11-315)

## **2011**

- \* Application of New Technologies to Arms Control Monitoring and Verification (November 2011 Meeting; TS)
- \* Medical Device Security (November 2011 Meeting; U)
- \* Tritium Production (November 2011 Meeting; U)
- \* Expanding Genetic Language to Program Cells (November 2011 Meeting; U)
- \* Living Foundries (November 2011 Meeting; U)
- \* C-IED Architecture & Strategy (November 2011 Meeting; S)
- \* Global Phase-Out of Non-Weapons HEU? Technical and Political Challenges (November 2011 Meeting; U)
- \* Nuclear Reactor Safety (November 2011 Meeting; U)
- \* FMV ON-Target (November 2011 Meeting; U)
- \* Counter-Unmanned Aerial Systems Feasibility Studies (November 2011 Meeting; TS/SCI)
- \* On Choosing...The Analytical Framework (November 2011 Meeting; TS/SCI)
- \* Uranium (November 2011 Meeting; TS/SCI/NF)
- \* Tritium (November 2011; JSR-11-345)
- \* Hydrodynamic and Nuclear Experiments (redacted) (November 2011; JSR-11-340)
- \* Impacts of Severe Space Weather on the Electric Grid (November 2011; JSR-11-320)
- \* Methods for Remote Determination of CO2 Emissions (January 2011; JSR-10-300)
- \* High Speed Tactical Weapons (JSR-11-105)
- \* Modern Electronic Warfare (JSR-11-100)

## **2010**

- \* The \$100 Genome: Implications for the DoD (December 2010; JSR-10-100)
- \* Science of Cyber-Security (November 2010; JSR-10-102)
- \* MDA Discrimination (August 2010; JSR-10-620)
- \* Optical Metamaterials (2010 Summer Study)
- \* [Topic: Nuclear Weapons Surety] (2010; JSR-10-103)

## **2009**

- \* North Korea Centrifuge Capabilities (Summer 2009; JSR-09-510; TS)
- \* Rare Events (October 2009; JSR-09-108)
- \* Lifetime Extension Program (LEP) (August 2009; JSR-09-334)
- \* Science and Technology for National Security (May 2009; JSR-08-146)
- \* Assuring Delivery of Capabilities Currently Provided by Space Systems (2009 Summer Study)
- \* [Topic: Ocean Gravity Wave-Capillary Wave Interactions] ( Winter Study January 2009; Summer Study 2009; Winter Study November 2009)
- \* [Topic: Nuclear weapons boosting] (Summer Study 2009)
- \* [Topic:National Ignition Campaign] (Winter Study January 2009)

## **2008**

- \* DTRA National Ignition Facility (NIF) (September 2008; revised June 2009; JSR-0800-08)
- \* Data Analysis Challenges (December 2008; JSR-08-142)
- \* Current Spreading in Long Objects (October 2008; JSR-08-531)
- \* High Frequency Gravitational Waves (October 2008; JSR-08-506)
- \* The Quest of Truth: Deception and Intent Detection (October 2008; JSR-08-143)
- \* Power Grid Security (January 2008; JSR-07-125)
- \* Microbial Forensics (2008; JSR-08-512)
- \* JASON Study Report for U.S. National Counterterrorism Center (August 2007; JSR-07-508)
- \* Human Performance (March 2008; JSR-07-625)
- \* Power Grid Security (January 2008; JSR-07-125)
- \* Wind Farms and Radar (January 2008; JSR-08-125)
- \* [Topic: High-Performance Computing, including massive storage] (Summer Study 2008)
- \* [Topic: Large Data (may be the same as the above)] (Summer Study 2008)

## **2007**

- \* Navy Ship Underwater Shock Prediction and Testing Capability Study (October 2007; JSR-07-200)
- \* Reliable Replacement Warhead Executive Summary (September 2007; JSR-07-336E)
- \* Synthetic Viruses. (Classified report for National Counterterrorism Center) (August 2007; JSR-07-508)
- \* Pit Lifetime (January 2007; JSR-06-335)
- \* Ocean and Riverine Depth [including bathymetry] (Summer Study 2007)

## **2006**

- \* DAHRT [Dual-Axis Radiographic Hydrodynamic Test Facility at LANL?] (October 2006; JSR-06-330)
- \* Engineering Microorganisms for Energy Production (June 2006; JSR-05-300)
- \* Reducing DoD Fossil-Fuel Dependence (September 2006; JSR-06-135)
- \* [Topic: Energetic Materials] (JSR-06-130)
- \* Army MANET [Mobile Ad hoc NETworking](2006; JSR-05-135)

## **2005**

- \* [Topic: Prompt Global Conventional Strike] (July 2005; JSR-05-450)
- \* National Ignition Facility|NIF Ignition (June 2005; JSR-05-340)
- \* Tactical Infrasound (May 2005; JSR-03-520)
- \* Quantifications of Margins and Uncertainties (March 2005; JSR-04-330)
- \* High Performance Biocomputation (March 2005; JSR-04-300)
- \* Sensors to Support the Soldier (Feb. 2005; JSR-04-210)
- \* Emerging Viruses (2005; JSR-05-503; classified)
- \* Emerging Viruses (2005; JSR-05-502; classified)
- \* BioEngineering (2005; JSR-05-130)
- \* [Topic: Verification and Validation of Simulation Codes as Currently Employed by the Advanced Simulation and Computing(ASC) Program for Nuclear Weapons Stockpile Maintenance (2005 Summer Study)]

## **2004**

- \* Horizontal Integration: Broader Access Models for Realizing Information Dominance (December 2004; JSR-04-312)
- \* Active Sonar Waveform (June 2004; JSR-03-200)
- \* DNA Barcodes and Watermarks (For U.S. Dept.of Energy) (May 2004; JSR-03-305)
- \* The Computational Challenges of Medical Imaging (February 2004; JSR-03-300)
- \* Horizontal Integration: Broader Access Models for Realizing Information Dominance (2004; JSR-04-132)
- \* Radiological Weapons Appendix VI (2002; JSR-02-340)

## **2003**

- \* Concealed Nuclear Weapons (December 2003; JSR-03-130)
- \* Requirements for Advanced Simulation and Computing Program|ASCI (October 2003; JSR-03-330)
- \* Portable Energy for the Dismounted Soldier (June 2003; JSR-02-135)
- \* Turbulent Boundary Layer Drag Reduction (May 2003; JSR-00-135)
- \* High Power Lasers, Tech. rep., (2003; JSR-02-335)
- \* High Power Lasers (April 2003; JSR-02-224)
- \* Biodetection Architectures (February 2003; JSR-02-330)

## **2002**

- \* Opportunities at the Intersection of Nanoscience, Biology and Computation (November 2002; JSR-02-300)
- \* Atmospheric Radiation Measurement (ARM) Program (April 2002; JSR-01-315)
- \* Non-GPS Methods of Geolocation (January 2002; JSR-00-105)
- \* Radiological Weapons (2002; JSR-02-340)
- \* Autonomous Sensors for Underwater Surveillance and ASW (2002; JSR-02-205)
- \* [Topic: Hypersonics] (Summer Study 2002)

## **2001**

- \* Moletronics II (June 2001; JSR-00-120)
- \* Biofutures (June 2001; JSR-00-130)
- \* Spintronics (February 2001; JSR-99-115)
- \* Intelligence Missions of Future Subs (2001; JSR-01-225)
- \* Biosensing (2001; JSR-01-100)
- \* [Topic: Taggants(?)] (Summer Study 2001)

## **2000**

- \* Imaging Infrared Detectors II (October 2000; JSR-97-600)
- \* Advantage of Base-Line Redundancy in Sparse Apertures (September 2000; JSR-2000-551)
- \* Space Infrastructure for 2020 (September 2000; JSR-99-125)
- \* Imaging Infrared Detectors II (June 2000; JSR-97-500)
- \* Molecular Electronics: Interfacing the Nano- and Micro-Worlds (May 2000; JSR-99-120)
- \* Power Sources for Ultra Low Power Electronics (June 2000; JSR-98-130)
- \* 100 LBS TO Low Earth Orbit (LEO): Small-Payload Launch Options (January 2000; JSR-98-140)
- \* Civilian Biodefense (January 2000; JSR-99-105)
- \* Data Mining and the Human Genome (January 2000; JSR-99-310)
- \* Counter BW (for the CIA Clandestine MASINT Operations Center)(2000; JSR-00-505)
- \* Distributed Denial of Service - A New Threat (2000)

## **1999**

- \* Primary Performance Margins (unclassified introduction) (December 1999; JSR-99-305)
- \* System-Level Flight Tests December 1999; JSR-98-310)
- \* Remanufacture (of Nuclear Weapons) (October 1999; JSR-99-300)
- \* Army Battlefield Communications (September 1999; JSR-96-605)
- \* Discoverer II (June 1999; JSR-98-120)
- \* Characterization of Underground Facilities (April 1999; JSR-97-155)
- \* Non-destructive Evaluation and Self-Monitoring Materials (April 1999; JSR-98-145)
- \* Electro Thermal Chemical Gun Technology Study (March 1999; JSR-98-600)
- \* Fast Transoceanic Transport (1999; JSR-99-215)
- \* [Topic: Review of information relating to leak of W88 warhead information to China]

## 1998

- \* Exploiting the Genome (September 1998; JSR-98-315)
- \* Letter review of plans for the Advanced Climate Prediction Initiative (August 1998; JSR-98-330)
- \* Small Unit Operations (June 1998; JSR-97-142)
- \* Signatures of Aging Revisited (March 1998; JSR-98-320)
- \* Atmospheric Radiation Enhanced Shortwave Experiment (ARESE) (February 1998; JSR-96-310)
- \* Signatures of Aging [of nuclear weapons] (January 1998; JSR-97-320)
- \* Advanced Radar Technology for Wide Area Surveillance and Fire Control Quality Tracking (January 1998; JSR-95-230)
- \* Counterproliferation (January 1998; JSR-94-140)
- \* Insonification for Area Denial (January 1998; JSR-97-120)
- \* Sonar Signal - Gain Limits from Internal Waves (1998??)
- \* [Topic: Information Protection] (1998 Summer Study)

## 1997

- \* High Energy Density Explosives (October 1997; JSR-97-110)
- \* Human Genome Project (October 1997; JSR-97-315)
- \* Nanoflyer (October 1997; JSR-97-115)
- \* Small Scale Propulsion: Fly on the Wall, Cockroach in the Corner, Rat in the Basement, Bird in the Sky (September 1997; JSR-97-135)
- \* An Unconventional, Highly Multipath-Resistant, Modulation Scheme (September 1997; JSR-97-160)
- \* High Performance Computer-Human Interfaces (September 1997; JSR-96-130)
- \* Digital Beam Synthesis (DBS) for a High Capability Opto-Electronic Radar (HICAPOR) (September 1997; JSR-97-230)
- \* Subcritical Experiments (March 1997; JSR-97-300)
- \* [Topic, possibly titled: Biological Threats Enabled by Molecular Biology (Summer Study 1997)
- \* Advanced Radar Technology for Wide Area Surveillance and Fire Control Quality Tracking (January 1997; JSR-95-230)
- \* Rapid Synchronization in an Anti-Jam Environment without Accurate Clocks (JSR-97-145)
- \* Unattended Ground Sensor for Counterproliferation Applications (1997; JSR-94-140A)
- \* Biological Threats Enabled by Molecular Biology (1997; JSR-97-105)

## 1996

- \* Advanced Computing (December 1996; JSR-94-130)
- \* New Technological Approaches to Humanitarian Demining (November 1996; JSR-96-115)
- \* Use of the Fast Flux Test Facility for Tritium Production (October 1996; JSR-96-325)
- \* Boundaries of Computing Quantum computer|Quantum Computing (July 1996; JSR-95-115)
- \* Ultrasound (May 1996; JSR-95-145)
- \* Unconventional Systems Integration (May 1996; JSR-95-120)
- \* Inertial Confinement Fusion (ICF) Review (March 1996; JSR-96-300)

## 1995

- \* Atmospheric Radiation Measurement Program 1995 Summer Review (October 1995; JSR-95-135)
- \* DNA Computing (October 1995; JSR-95-116)
- \* JASON Nuclear Testing Study: Summary and Conclusions, (August 1995; JSR-95-320)
- \* Biomedical Imaging (August 1995; JSR-94-120)
- \* Subsurface Science (July 1995; JSR-94-330)
- \* [Topic: ARM, Climate Change] (July 1995; JSR-95-317)
- \* Accelerator Production of Tritium - 1995 review (June 1995; JSR-95-310)
- \* SAR [Synthetic Aperture Radar] (April 1995; JSR-93-170)
- \* Accelerator Based Conversion of Plutonium (March 1995; JSR-94-310)
- \* Security and Privacy in the NII (February 1995; JSR-94-150)
- \* Microsurveillance of the Urban Battlefield (February 1995; JSR-95-125)
- \* Jason Final Report, January 1995; JSR-94-105)

- \* JASON Nuclear Testing Study: Summary and Conclusions (1995; JSR-95-320)
- \* Technologies for Monitoring Proliferation of Weapons of Mass Destruction: Detection of Underground Facilities (1995; JSR-93-140)
- \* Future Tagging Program. Tagging Explosives for Detection (1994; JSR-89-750)

## 1994

- \* LIDAR (September 1994; JSR-93-310)
- \* Science Based Stockpile Stewardship (November 1994; JSR-94-345)
- \* Counter Proliferation /draft/ (August 1994; JSR-94-140)
- \* MTPE /draft/ (August 1994; JSR-94-750)
- \* Atmospheric Radiation Measurement (ARM) /draft/ (July 1994; JSR-94-300)
- \* CO2 Greenhouse Mitigation (May 1994; JSR-93-340)
- \* Underwater Explosions ONR/DNA/NAVSEA /draft/ (January 1994; JSR-94-220)
- \* [Topic: Advanced Computing] (1994; JSR-94-130)
- \* [Topic: Biomedical Imaging] (1994; JSR-94-120)
- \* [Topic: Biomedical Imaging] (1994; JSR-94-121)
- \* [Topic: Counter Proliferation] (1994; JSR-94-141)
- \* [Topic: Covert Communication] (1994; JSR-94-540 (S))
- \* [Topic: Electromagnetic Launchers] (1994; JSR-94-600)
- \* [Topic: Facility Location] (1994; JSR-94-530 (S))
- \* [Topic: FBI Liaison] (1994; JSR-94-360 (S))
- \* [Topic: Hydrotesting] (1994; JSR-94-340)
- \* [Topic: IR Phenomenology] (1994; JSR-94-520)
- \* [Topic: LOSAT (Line of Sight Testing)] (JSR-94-360)
- \* [Topic: Low Observable Vehicles and Camouflage] (1994; JSR-94-610)
- \* [Topic: Magnetic Effects] (1994; JSR-94-241 (S))
- \* [Topic: Mission to Planet Earth] (1994; JSR-94-751)
- \* [Topic: Rapid Detection of CBW] (1994; JSR-94-620)
- \* [Topic: Review of Audio Program] (for FBI) (1994; JSR-94-350)
- \* [Topic: SAR Change Detection] (1994; JSR-94-510)
- \* [Topic: SAR Change Detection] (1994; JSR-94-511 (S))
- \* [Topic: SAR Lite] (1994; JSR-94-170)
- \* [Topic: Security and Privacy in the NII (National Information Infrastructure)] (1994; JSR-94-150)
- \* [Topic: Science Based Stockpile Stewardship] (1994; JSR-94-346)
- \* [Topic: Subsurface Science] (1994; JSR-94-330)
- \* Small Satellites for Tactical Operations (1994; JSR-93-610)

## 1993

- \* JASON Encryption/Privacy Study (August 1993; JSR-93-520)
- \* A Preliminary Review of Global CO2 Exchange Between Ocean and Atmosphere (March 1993)
- \* Advanced Over-The-Horizon Radar (February 1993; JSR-90-105)
- \* Clouds and Radiation - a Premier [sic] (January 1993; JSR-90-307)
- \* Verification of Dismantlement of Nuclear Warheads and Controls on Nuclear Materials (January 1993; JSR-92-331)
- \* Structural Acoustics: A General Form of Reciprocity Principles in Acoustics (January 1993; JSR-92-193)
- \* Small Satellites and RPVs (January 1993; JSR-91-197)
- \* Review of the OptiMetrics computational vision model. (1993; JSR-93-610)
- \* SAR and GPS in Precision Strike (1993; JSR-92-171)
- \* Precision Strike (1993; JSR-92-170)
- \* Review of Selected Remediation Technologies for the Hanford Waste Storage Complex. (1993; JSR-93-345)
- \* Shock Obliquity and Stability in Inertial Confinement Fusion (1993; JSR-91-325)
- \* [Topic: Chemical Sensors] (JSR-93-140)

## 1992

- \* Self-Focusing Instabilities Induced by OTH Radars (December 1992)
- \* CHAMMP (December 1992; JSR-91-310)
- \* Small Satellites and RPAs in Global-Change Research (December 1992; JSR-91-330)
- \* Drag Reduction by Polymer Additives (October 1992; JSR-89-720)
- \* Acoustic Warfare: Bubble Clouds (October 1992; JSR-91-113)
- \* JASON Global Grid Study (July 1992; JSR-92-100)
- \* New Ideas for Experimental Simulation of X-ray Effects [of nuclear weapons] (July 1992; JSR-89-445)
- \* Global Change and the Dark of the Moon (June 1992; JSR-91-315)
- \* Recovery of SAR Images with One Dimension of Unknown Phases (March 1992; JSR-91-175)
- \* Effective Medium Theory for the Elastic Properties of Composites and Acoustics Applications (February 1992; JSR-91-112)
- \* Persistence in Climate (February 1992; JSR-91-340)
- \* Continuum Approaches for Describing Solid-Gas and Solid-Liquid Flow (February 1992; JSR-92-310)
- \* CHAMMP [Computer Hardware, Advanced Mathematics and Model Physics (For climate change prediction)] Review (January 1992; JSR-92-306)
- \* Small Satellites and RPAs in Global Change Research, Summary and Conclusions (January 1992; JSR-91-330A)
- \* Accelerator Production of Tritium (January 1992; JSR-92-310)
- \* Statistics of Extreme Events with Application to Climate (1992; JSR-90-305)
- \* Mines in the Surf Zone /draft/ (1992; JSR-92-180)
- \* ARM Review – 1991 (January 1992; JSR-91-300)

## 1991

- \* Issues in Predictability (December 1991; JSR-90-320)
- \* A Wavelet Primer (October 1991; JSR-90-150-P)
- \* ARM Review 1991 /draft/ (September 30, 1991; JSR-91-300)
- \* Small Satellite and RPAs in global change research /draft/ (August 1991; JSR-91-330-12)
- \* Small Satellites (August 3, 1991; JSR-91-330-10)
- \* Atmospheric Radiation Measurement|ARM /draft/ (July 1991; JSR-91-300)
- \* Advanced Accelerators (April 1988; JSR-85-302)
- \* U.S. Special Operations Command (March 1991; JSR-90-195)
- \* Wavelets (1991; JSR-90-150)
- \* Review of the DARPA Laser Verification Program (1991; JSR-91-160)
- \* Imaging Infra-red Detectors (1991; JSR-91-600)

## 1990

- \* Verification Technology: Unclassified Version (October 1990; JSR-89-100A)
- \* Cellular Automata and Parallel Processing for Practical Fluid-Dynamics Problems (September 1990; JSR-86-303)
- \* High Gain Arrays /draft/ (July 1990; JSR-90-210)
- \* Prospects for a Special-Purpose Lattice Gas Computer (June 1990)
- \* Detecting the Greenhouse Signal (May 1990; JSR-89-330)
- \* Some Comments on the Acoustic Coupling of Elements in an Array (May 1990)
- \* A Note on the Statistics of Laser Speckle (March 1990; JSR 87-977A)
- \* Effects of Small-Scale Heterogeneities on Regional Propagation (January 1990; JSR-89-151)
- \* The DARPA Laser Verification Program (1990; JSR-90-185)

## 1989

- \* JASON Review of Brilliant Pebbles, Vol. I, Executive Summary (September 1989; JSR-89-900)
- \* Spectra of Surface Waves (March 1989; JSR-88-130)
- \* Los Alamos XUV free electron laser proposal (March 1988; JSR-87-301)
- \* Sea Surface Films (1989; JSR-86-105)
- \* [Topic: ADI Statistics (Perhaps having to do with OTH radar)] (1989)
- \* [Topic: Brilliant Pebbles] (1989)

## 1988

- \* Proceedings of JASON Workshop on Lattice Gas Methods for Solving Partial Differential Equations [June, 1988] (1988; JSR-88-120)
- \* Neutrino Detection Primer (March 1988; JSR-84-105)
- \* Airships (1988; JSR-88-230)
- \* Detection of Liquid Explosives (1988; JSR-88-850)
- \* Surface Film Effects in Ocean Remote Sensing Phenomenology (1988; JSR-87-202)

## 1987

- \* Topics in Speech (May 1987; JSR-84-101)
- \* Early-Time HANE [High-Altitude Nuclear Effect] Simulation and Experiment (May 1987; JSR-85-405)
- \* Heavy Ion Fusion III (March 1987; JSR-86-302)
- \* Occultation Summer Study (February 1987; JSR-86-108)
- \* [Topic: Wake-Field Particle Accelerator Design] (1987; JSR-86-109)
- \* [Topic: OTHB Radars] (1987; JSR-87-801)
- \* Detection of Plastic Guns (1987; JSR-87-825)
- \* Note Concerning: Turbulent and Vortex Wakes of Surface Ships (1987; JSN-87-8501)

## 1986

- \* Artificial Gill (November 1986; JSR-86-104)
- \* Development Stability of Strategic Defenses (October 1986; JSR-85-926)
- \* [Topic: Sea Surface Glitter Analysis] (August 1986; JSR-86-203)
- \* Report on the Workshop for Automated Software Programming (February 1986)
- \* Taggants for Detection Blasting Cap Tagging Schemes (1986; JSR-86-825)
- \* [Topic: Nuclear-Decay Powered Batteries] (1986??; JSR-86-503)
- \* High-Altitude Nuclear Effects|HANEs 1986 (1986; JSR-86-401)
- \* Some Surface Wave Modulation Mechanism [sic] Relating to the JOWIP and SARSEX Observations (1986; JSR-85-203)

## 1985

- \* [Topic: Neutrino detection] (July 1985; JSR-85-210)
- \* Submarine Detection: Acoustic Contrast versus Acoustic Glow (July 1985; JSR-85-108)
- \* Relativistic Effects in the Global Positioning System (May 1985; report of 1984 summer study)
- \* Seismic Discrimination (April 1985; JSR-84-117)
- \* Bispectra (January 1985; JSR-83-204)
- \* SEASAT Report (January 1985; JSR-83-203)
- \* Infinite Computing (January 1985)
- \* Suppression of Capillary Waves by Surface-Active Films (1985; JSR-85-206)
- \* Acid Deposition (1985; JSR-83-301)

## 1984

- \* Multiple Scattering Effects in Radar Observations of Wakes (August 1984; JSR-84-203B)
- \* [Topic: Neutrino detection] (August 1984; JSN-84-1000)
- \* SEASAT III & IV (August 1984; JSR-84-203)
- \* Radical Computing II (June 1984; JSR-83-701)
- \* Radical Computing (May 1984; JSR-82-701)
- \* Speech Research (May 1984; JSR-82-601)
- \* Space Power System Study (May 1984; JSR-82-801)
- \* SEASAT Report (March 1984; JSR-83-203)
- \* Reversible Logic as a Strategy for Computing (January 1984; JSR-83-112))
- \* [Topic: Sodium Guide Star Atmospheric Compensation] (1984; JSR-84-109)



## **1983**

- \* Blue-Green Lasers and Electrodeless Flashlamps (August 1983; JSR-83-101)
- \* Direct Course and Dust Experiments (April 1983)
- \* High-Power Generation of Microwave and Infrared Radiation (February 1983; JSR-82-975)
- \* [Topic: Sodium Guide Star Atmospheric Compensation] (1983)

## **1982**

- \* Reliable-Acoustic-Path Sonobuoy Assist to SSKs (November 1982; JSN-82-13)
- \* Letter to Andreassen & Harper (Concerning radar imaging of the sea surface) (1982; JSN-83-01)
- \* [Topic: Laser Guide Star Adaptive Optics; origin of sodium guide star concept] (1982; JSR-82-106)
- \* Heavy Ion Fusion (1982; JSR-82-302)
- \* [Topic: Counter-Stealth] (1982)

## **1981**

- \* Drag Reduction and Adaptive Boundary Conditions (November 1981; JSR-81-17)
- \* Long Path Solar Pumped Lasers (Sept 1981; JSR-81-07)
- \* Fish RAGU (Fish, Radio-Receiving and Generally Useful) (August 1981; JSN-81-64)
- \* Underwater Facilities Inspections and Assessments at Refit Piers 1 & 2 Trident Refit Facility, Bangor, Washington (June 1981)
- \* Underwater Facilities Inspections and Assessments at Explosive Handling Wharf 1, Strategic Weapons Facility, Pacific, Bangor, Washington (June 1981)
- \* Studies on the Effect of Striations on Radio Communications (1981; JSR-81-31)
- \* Climatic Effects of Minor Atmospheric Constituents (1981; JSR-81-27)
- \* The Physics and Chemistry of Acid Precipitation (1981; JSR-81-25)
- \* Bombs That Squeak (1981)

## **1980**

- \* Visible Chemical Lasers (December 1980; JSR-80-14)
- \* Underwater Facilities Inspections and Assessments at Marginal Wharf Trident Refit Facility, Bangor, Bremerton, Washington (October 1980)
- \* Smallsub Underwater Mobile Basing of ICBMs (September 1980; JSR-80-03)
- \* Irregularities in Ionospheric Plasma Clouds: Their Evolution and Effect on Radio Communication (September 1980; JSR-80-15)
- \* Advanced Fission Reactor Program Objectives (August 1980; JSR-80-12)
- \* Tunnel Detection (April 1980; JSR-79-11)
- \* Free Electron Lasers with Variable Parameter Wigglers (February 1980; JSR-79-01)
- \* The Carbon Dioxide Problem: DOE Program and a General Assessment (1980; JSR 80-06)
- \* Regional-Seasonal Weather Forecasting (1980; JSR-80-05)
- \* Telluride lectures on free electron lasers (1980; JSR-79-15)
- \* Ion propagation in reactors (1980)

## **1979**

- \* Emittance and Transport of Electron Beams in a Free Electron Laser (December 1979; JSR-79-10)
- \* Report and Recommendations on Underwater Damage Assessment Pier Lima Naval Station, Guantanamo Bay, Cuba (September 1979)
- \* Laser-Induced Photochemistry (February 1979; JSR-78-11)
- \* The Long Term Impact of Atmospheric Carbon Dioxide on Climate: Preliminary Report (1979; JSR-78-07; JSR-79-04)
- \* Impact Fusion with a Segmented Rail Gun (1979; JSN-79-05)
- \* Counter-Rotating Disk Homopolar Generator (GRDHG)(1979; JSN-79-03)
- \* Free Electron Lasers with Variable Parametric Wiggles (1979)
- \* Transverse Boost Requirements for ICBM Targeting of a Maneuvering Aircraft (1979; Appendix A from JSR-79-03)

## **1978**

- \* Sonic Boom Report (November 1978; JSR-78-09)
- \* Features of Energy-Budget Climate Models: An Example of Weather-Driven Climate Stability (September 1978)
- \* Heavy-Ion-Driven Inertial Fusion (February 1978; JSR-77-41)
- \* Magnet-Gun Igniter for Controlled Thermonuclear Fusion (1978; JSN-77-20)
- \* Problems in Transition from Laminar to Turbulent Flow II (1978; JSR-77-18)
- \* [Topic: Review of DARPA artificial intelligence program] (late 1970s)
- \* [Topic: Related to ICBM survivability and/or Midgetman] (1978 JASON Summer Study)

## **1977**

- \* Laser Propulsion Study (Summer 1977; JSR-77-12)
- \* Limits on Coherent Processing Due to Internal Waves (June 1977; JSR-76-14)
- \* Sound Transmission Through a Fluctuating Ocean (May 1977; JSR-76-39)
- \* Path Integrals for Waves in Random Media (1977; JSR-76-1)
- \* Preliminary Report on Ocean Acoustic Monitoring.(Summer 1977?; JSN-77-8)

## **1976**

## **1975**

- \* Calculation of the Effect of Internal Waves on Oceanic Sound Transmission (August 1975; JSR-74-8)
- \* [Topic: Detection of radioactivity in the wake of a nuclear submarine] (Summer, 1974)
- \* Low Frequency Sound Propagation in a Fluctuating Infinite Ocean II (June 1975; JSR-74-6)
- \* High-energy Visible and Ultraviolet Lasers [apparently including free electron lasers] (March 1975; JSR-74-1)
- \* Theory of Optical Image Improvement [On adaptive optics] (March 1975; JSR-73-11)
- \* D-Star Direct Sea to Air Refueling (1975 or 1976)

## **1974**

- \* Low Frequency Sound Propagation in a Fluctuating Infinite Ocean (April 1974; JSR-73-10)

## **1973**

- \* Numerical Simulation of Turbulence (November 1973; JSR-73-3)
- \* The Effect of Surface Currents on the Equilibrium Surface Wave Spectral Energy Density (October 1973; JSR-73-2)
- \* Comments on 'Lulejain and Assoc. Int. Tech. Report' (June 1973)
- \* Final Stages of Wake Collapse in a Stratified Fluid (January 1973)
- \* Multiphoton Detachment of Negative Ions [laser propagation in air] (1973)
- \* Lithospheric Propagation for Undersea Communication (1973; JSR-73-5)

## **1972**

- \* Comments on Sub-LF Satcom Technology Development Program (December 1972; Note N-820)
- \* The Detection of Surface Strain in an Internal Wave Background (SECRET) (October 1972; P-934)
- \* Effect of Various Arms Limitation Options on SSBN Survivability" (SECRET) (September 1972; S-408)
- \* Interim SANGUINE Systems (September, 1972)
- \* Collected Working Papers on Internal-Surface Wave Interactions and Related Problems (August 2, 1972; JASON-72-Working Paper no.33)
- \* Internal-Surface Wave Interactions and Related Problems (August 1972; N-818)
- \* Internal Wave-Surface Wave Interactions Revisited (March 1972; Paper P-853)

## **1971**

- \* Acoustic Backscatter from Microstructure (December 1971; Paper P-886)
- \* Surface Waves in the Presence of an Internal Wave (November 1971)
- \* Report of the 1971 JASON Laser Summer Study. Volume I. Recommendations and Conclusions (1971)
- \* Report of the 1971 JASON Laser Summer Study. Volume II. Supporting Appendices A-M (1971)
- \* Critique of Proposed Modifications of U.S. Offensive Missile Systems (1971)
- \* Some Considerations of Moscow ABM Radars and SAM Upgrade (1971)

## **1970**

- \* Considerations of SAM upgrade to ABM (SECRET) (November 1970; S-372)
- \* Effect of Surface Roughness on the Surface Temperature of the Sea (September 1970; P-666)
- \* Considerations of SAM Upgrade to ABM (1970)
- \* [Topic: Formulating a national laser program] (1970 Summer Study)

## **1969**

- \* Generation and Airborne Detection of Internal Waves from an Object Moving through a Stratified Ocean, Vol I (SECRET) (April 1969; S-334)
- \* Generation and Airborne Detection of Internal Waves from an Object Moving through a Stratified Ocean, Vol II (UNCLASSIFIED)(April 1969; S-334)
- \* Air Traffic Control (1969)
- \* [Topic: Enhancement of exotic photography and NRO photographic products]

## **1968**

- \* Oil Pollution in the Sea: Problems for Future Work (June 1968; P-432)
- \* Project SEESAW (February 1968; S-307)
- \* IDA JASON BMD Discriminant Physics Study (January 1968)
- \* Transient effects in stimulated Raleigh scattering [high-power laser beam propagation in the atmosphere] (1968)

## 1967

- \* JASON Review of STRAT-X Report (July 1967)
- \* The Airplow (April 1967)
- \* Tactical Nuclear Weapons in Southeast Asia (March 1967)
- \* Air Sown Mines for Specialized Purposes (1967)
- \* Manned Barrier Systems -- A Preliminary Study (1967)
- \* Inspection and Control of Nuclear and Biological Weapons (1967)
- \* [Topic: Thermal Pollution Study (1967)]
- \* The M.A.D. Report (1967)
- \* Project SEESAW (1967)
- \* REDEYE Countermeasures (1967)
- \* Mechanism for the Production of [sic] Submarines of an Observable Wake (1967)
- \* JASON Laser Summer Study (1967)
- \* JASON Thailand Summer Study (1967)

## 1966

- \* Tactical Nuclear Weapons in Southeast Asia: Questions Requiring Further Study (November 1966)
- \* Tactical Nuclear Weapons in Southeast Asia (August 1966)
- \* The Effects of U.S. Bombing in North Vietnam [Joint paper] (August 1966)
- \* VC/NVA Logistics and Manpower (August 1966)
- \* An Air-Supported Anti-Infiltration Barrier ;ASAFB (Short Title: ) (August 1966; S-255)
- \* Summary of Results, Conclusions and Recommendations [of Vietnam studies] (August 1966)
- \* General Theory of Resistive Beam Instabilities (May 1966)
- \* A Study of Data Related to Viet Cong/ North Vietnamese Army Logistics and Manpower [Possibly supporting the "Barrier" study] (1966)
- \* LDIHMG (1966)
- \* Explosively Produced Flechettes [Nuclear-driven explosively formed projectiles for terminal ABM defense] (1966; 66-121)
- \* Interdiction of Trucks from the Air at Night (1966)
- \* Hose Results (1966) [Probably "hose" instabilities in particle beams]
- \* Relaxation Processes in Gas Streams (1966)
- \* Commenting on Limited Nike-X Deployment Proposal (ca. 1966)

## 1965

- \* Seismic Signals from Nuclear Explosions in Overdriven Cavities (June 1965; Journal of Geophysical Research Vol. 71, No.3, April 15, 1966)
- \* Some Aspects of Hypersonic Airflow Over Cones (March, 1965)
- \* Water Waves from Large Nuclear Explosions (SECRET) (July 1964, issued April 1965; P-137)
- \* Whistlers as a Launch Phase Early Warning System (SECRET)(February 1965; P-146)
- \* Drag and Propulsion of Large Satellites in the Ionosphere; An Alfvén Propulsion Engine in Space (Phys. Rev. Lett. 14, 171 – Published 8 February 1965)
- \* RF Breakdown Near a Conical Re-Entry Body (1965)
- \* [Topic: Feasibility of laser weapons for ballistic missile defense] (1962 to 1965)

## 1964

- \* The Hose Instability Dispersion Relation (1964)
- \* [Topic: Electromagnetic fields generated by pulses of relativistic electrons] [Relates to particle beam weapons/Project SeeSaw] (1964)

## **1963**

- \* Some Comments on the White Sands Interferometry Experiments (SECRET) (September 1963; P-71)
- \* Instability of an Intense Optical Beam (1963)
- \* Radar Analysis of Waves by Interferometer Techniques (1963)
- \* [Possible JASON summer study chaired by Keith Bruckner at Woods Hole on DoD interest in lasers as weapons]

## **1962**

- \* [Topic: Laser ABM] Summer Study 1962

## **1961**

- \* The Eikonal Method in Magnetohydrodynamics (1961)

## **1960**

- \* Multiple Scattering in Arrays of Small Objects (1960)

## **1959**

## **1958**

- \* [Topic: Nuclear-powered long-range torpedo] [Pre-JASON summer study]

### Unknown or uncertain dates

- \* [Topic: Use of non-electronic data to improve personal health and protect privacy] (For HHS, ca. 2014)
- \* [Topic: Possible detection of a nuclear event in September 1979 (presumably the “Vela Incident”)]; (Existence of a 1994 summer study uncertain)
- \* [Topic: Study of effectiveness of Vietnam sensors on Mexican border] (ca. 1989)
- \* [Topic: Analysis of the nuclear explosive driven X-ray laser] (ca. 1985-1986)
- \* [Topic: MX basing] (late 1970s?)
- \* [Topic: Adaptive optics for imaging satellites] (ca. 1972)
- \* [Topic: Atmospheric compensation techniques for imaging satellites] (ca. 1972)
- \* Vulnerability of Submarines to Underwater Nuclear Explosions (1971-1972)
- \* [Topic: Study on effects of nuclear weapon use by local powers in the Middle East] (Perhaps associated with 1967 or 1973 wars)
- \* Working Paper on Internal Warfare (Vietnam-related, probably 1964 or 1965)
- \* Night Vision for Counterinsurgents (Vietnam-related, probably 1964 or 1965)
- \* [Topic: Several studies on counterinsurgency/Vietnam] (1964 onward)
- \* Two Stream Instability in Finite Beams (No later than September 1961)
- \* Finite Beam Instability (No later than September 1961)
- \* Scheme for detecting nuclear test [in space via LF monitoring] (Perhaps early-mid 1960s)
- \* Radiation Escape from a High Altitude Fireball (1960s)
- \* [Topics: Satellite and aircraft reconnaissance systems] (1960s and perhaps forward)
- \* [Topic: Securing US Embassy in Moscow from technical intelligence compromise] (ca. 1960)
- \* [Topic: Effect of infrared radiation from a nuclear explosion on satellite IR sensors] (1960s?)
- \* [Topic: Several studies on laser and particle beam weapons] (1960s)
- \* [Topic: Several studies on ABM-related problems] (1960s)
- \* [Topic: Several studies on mesospheric chemistry related to reentry physics and high altitude nuclear explosions] (1960s)
- \* [Probable] A Method of Concealing Underground Nuclear Explosions (Journal of Geophysical Research, 1961)
- \* [Probable] The Effect of Plasticity on Decoupling of Underground Explosions (Journal of Geophysical Research, 1961)