Incidental Paper

Seminar on Intelligence, Command, and Control

Guest Presentations, Spring 1995:
Michael L. Brown, William A. Owens,
R.C.M. (Mark) Baker, Arthur V. Grant, Jr.,
A. Jay Cristol, Robert Lawrence,
Albert Edmonds, John A. Leide

**Program on Information
Resources Policy**

Harvard University
Center for Information Policy Research
Cambridge, Massachusetts

An incidental paper of the Program on Information
Resources Policy

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Acknowledgments

Introduction

The papers in this volume are lightly edited transcripts of presentations and discussions ordered in the sequence in which they took place. The informality of oral exposition interrupted by questions or comments has been preserved. Only pauses and repetitions have been eliminated and tripping sentences smoothed. Substance has, as far as possible, been left unaltered. All guests made their presentations in an open forum, forewarned that neither classified nor proprietary matters are appropriate in a university classroom.

Much of the 1995 seminar series focused on new demands being placed on the United States and the new world order resulting from dramatic changes in the international geopolitical picture in recent years—breakup of the former Soviet Union and continued turbulence in that regime, a volatile peace in Southwest Asia following the Persian Gulf War and new conflicts that threaten global peace and stability. Many of the speakers emphasized new threats to U.S. national security caused by the changing global geopolitical landscape. The promise of emerging technologies and of the concept of information warfare in responding to these threats served as a central underlying theme, while each speaker highlighted final concerns that are forcing not only widesweeping organizational changes in the U.S. defense establishment, but also a significant shift in the conceptual framework of DoD's doctrine and the strategy of National Command Authorities that drives U.S. national security policy. Each emphasized the ever-increasing importance of good intelligence and of effective command and control and interoperability of forces in the success or failure of future armed conflict.

Proceedings of the Harvard Seminar on Intelligence, Command, and Control

John F. Kennedy School of Government
Harvard University

Anthony G. Oettinger, Professor of Information Resources Policy, has had a continuing interest in the ways in which institutions draw on systems of people, policies, and technologies to gather and use information for survival and growth. Since 1980 his graduate seminar on intelligence, command, and control has explored this topic with a series of guest speakers from military organizations, civil government, and businesses. While the guest speakers tend to be practitioners of the decision-making process, some are theoreticians who attempt to see patterns in the chaos of day-to-day crises. Taken as a whole, the series chronicles the recent history of this field.

The following descriptions of previous volumes identify the speakers' roles at the time of their presentations.

Guest Presentations, Spring 1994. [267 pages; January 1995/Incidental Paper: I-95-3]
This year's seminar series continued to focus on new demands being placed on the United States and the new world order resulting from dramatic changes in the international geopolitical picture in recent years. The promise of emerging technologies in responding to the issues served as a central, underlying theme, while each speaker highlighted concerns forcing not only widespread organizational changes in the U.S. defense establishment but also a significant shift in the conceptual framework of DOD doctrine and the strategy of the National Command Authorities, which drives U.S. national security policy.

Col. William R. Clontz, USA, Military Adviser to the U.S. Permanent Representative to the United Nations: "C^{3}I Issues from a United Nations Perspective."

James Davis, Assistant Deputy Chief of Staff for Intelligence, U.S. Army: "The Role of Army Intelligence in the National Foreign Intelligence Program."

Lt. General Albert Edmonds, USAF, Director for C^4 Systems (J6), The Joint Staff: "C^{4}I Issues."

Keith R. Hall, Deputy Assistant Secretary of Defense for Intelligence Collection Center, DIA: "Intelligence Needs in the Post Cold War Environment."

Col. Richard L. Layman, USAF, Commander, Second Space Warning Squadron: "Survivability and Space-Based Missile Warning Capabilities."

Major General John A. Leide, USA, Director, National Military Intelligence: "Intelligence Analysis in Coalition Warfare."

Thomas P. Quinn, Deputy Assistant Secretary of Defense for Command, Control & Communications: "Acquiring C^3 Systems for the Department of Defense: Process and Problems."

Col. Richard T. Reynolds, USAF, CADRE/RIR: "Formal and Informal C^{3}I Structures in the Desert Storm Air Campaign."

John E. Rothrock, (Col. USAF, Ret), Director—Center for Global Security Planning, SRI International: "The Challenge of Leverage in the Post-Cold War Era."

Col. Lewis Wallace, Jr., USAF Fellow, Institute for the Study of Conflict, Boston University: "From the Soviet Union to Russia: Contradictions and Implications."

Guest Presentations, Spring 1993. [164 pages; August 1994/Incidental Paper: I-94-5]
This year's seminar series focused on new demands being placed on the United States and the new world order resulting from dramatic changes in the international geopolitical picture in recent years. Many speakers emphasized new threats to U.S. national security caused by the changing global geopolitical landscape and each emphasized the ever-increasing importance of effective command and control and interoperability of forces in the success or failure of future armed conflict.

Randall M. Fort, Deputy Assistant Secretary for Functional Analysis and Research, Bureau of Intelligence and Research, Department of State: "The Role of Intelligence in Economic and Other Crises."

Barry M. Horowitz, President and CEO, MITRE Corporation: "The Emergence of Data Systems: Cost and Technical Change in Military Systems."

Walter Jajko, Director, Special Advisory Staff, Office of the Under Secretary for Policy, Department of Defense: "Defense Intelligence: Adaptability, Character, and Capability."

Major General Gary W. O'Shaughnessy, Commander, Air Force Intelligence Command and Director, Joint Electronic Warfare Center: "The Structure and Missions of the Air Force Intelligence Command."

Read Admiral Edward D. Sheafer, Director of Naval Intelligence: "Naval Intelligence in the Post-Cold War Era."

Nina J. Stewart, Executive Assistant to the Director of Central Intelligence: "Infrastructure for Security."

Vice Admiral Jerry O. Tuttle, Director of Space and Electronic Warfare: "The Copernican Pull."

Michelle K. Van Cleave, Esq., Assistant Director for National Security Affairs and General Counsel, White House Office of Science and Technology Policy: "Intelligence: The Science and Technology Connection."

Guest Presentations, Spring 1992. [186 pages; August 1994/Incidental Paper: I-94-4]
This year's seminar series focused on evolving threats to U.S. national security as Congress and National Command Authorities struggled to redefine America's global geopolitical interests and the organizational changes needed to meet them. Several speakers emphasized the stakes for new and advanced technologies in this national debate.

Roscoe M. Cougill, Director, Command, Control, Communications and Computer Systems Directorate: "C^3 During Desert Shield and Desert Storm."

Richard L. Haver, Assistant to the Secretary of Defense for Intelligence Policy: "The Process of Reorganization within the U.S. Intelligence Community."

James J. Hearn, Deputy Director for Information Systems Security, NSA: "Information Systems Security."

Frank B. Horton, Deputy Chief of Staff/Intelligence, HQ Strategic Air Command: "Command Plan and C^3I."

Richard J. Kerr, Deputy Director of Central Intelligence: "The Evolution of the U.S. Intelligence System in the Post-Soviet Era."

Albert R. Lubarsky, Director, C^{3}I for Counternarcotics, Department of Defense: "C^{3}I in Transition."

Richard C. Macke, Director, Command, Control, Communications and Computer Systems, The Joint Staff: "C^{4}I for the Warrior."

John M. McConnell, Director for Joint Staff Intelligence, J2: "The Role of the Current Intelligence Officer for the Chairman of the Joint Chiefs of Staff."

Guest Presentations, Spring 1991. [208 pages; February 1993/Incidental Paper: I-93-1]
This year's seminar series stressed the role of intelligence in organizations. A number of speakers addressed the challenges confronting the U.S. intelligence apparatus in the Post-Cold War political environment.

Lt. Col. C. Kenneth Allard, USA, Special Assistant to the Under Secretary of Defense (Acquisition): "Thinking About Command and Control."

Duane P. Andrews, Assistant Secretary of Defense (C^{3}I): "Restructuring the World of C^{3}I."
John H. Cushman, Sr., Lt. Gen. USA (retired): "Desert Shield/Desert Storm and the Future of Force Projection."

Carnes Lord, Assistant to the Vice President for National Security Affairs: "Bureaucratic Problems in Formulating National Strategy."

Eugene B. Lotochinski, Vice President, Marketing, Northern Telecom World Trade: "Global Communications Capabilities for the Banking Industry."

David Y. McManis, National Security Agency/CSS representative to DOD: "Technology, Intelligence and Command."

John M. Ruddy, Vice President, The MITRE Corporation: "Military Use of Satellite Communications."

Paul R. Schwartz, Major General, USA: "Coalition Command and Control in Desert Shield/Desert Storm."

Charles L. Stiles, President, Technology and Planning Assoc. Inc.: "The U.S. Sinai Support Mission."

Joseph S. Toma, Chief, Special Action Division, Joint Staff J6-A: "C^3: A View from Inside the Joint Staff."

Guest Presentations, Spring 1990 [146 pages; December 1991/Incidental Paper: I-91-3]
This year's seminar series stressed the role of intelligence in organizations. A number of speakers addressed the challenges confronting the U.S. intelligence apparatus in the Post-Cold War political environment.

Lt. Gen. James Cassity, Jr., USAF, Director, Command, Control & Communications (J-6), Joint Chiefs of Staff: "Restructuring Military Policy to Reflect Worldwide Political Changes."

Kenneth M. Duberstein, President and CEO of The Duberstein Group, formerly Chief of Staff to President Reagan: "The White House Information Process."

Thomas K. Latimer, Staff Director, House Permanent Committee on Intelligence, U.S. House of Representatives: "The Congressional Intelligence Committees."

James W. Lucas, Dean, School of Professional Studies, Defense Intelligence College: "The Information Needs of Presidents."

Gordon Negus, Executive Director, Defense Intelligence Agency: "Intelligence in Support of U.S. Foreign Policy."

Vice Admiral W.O. Studeman, Director, National Security Agency: "The Philosophy of Intelligence."

Major Gen. C. Norman Wood, Assistant Chief of Staff/Intelligence, U.S. Air Force: "The Policy Aspect of Intelligence."

Col. Joseph Zadarecky, II, Chief, Tactical Command and Control Division, Directorate of Operations, HQ U.S. Air Force: "The Role of the Air Force in U.S. Counternarcotics Policy."

Guest Presentations, Spring 1989 [132 pages; August 1990/Incidental Paper: I-90-3]
This year's presentations included continuing assessments of the Defense Reorganization Act of 1986, a look at the impact of new technologies on C^3I planning and perspectives on intelligence, command and control activities in some civilian domains.

James M. Fox, Assistant Director in Charge, New York City, Federal Bureau of Investigation: "Crisis Management at the FBI."

Robert T. Herres, General, USAF, and Vice Chairman, Joint Chiefs of Staff: "The Role of the Joint Chiefs After the 1986 Defense Reorganization Act."

Stuart E. Johnson, Director, Strategic Concepts Development Center, INSS, National Defense University: "Command and Control Education and Research."

John F. Magee, Chairman of the Board, Arthur D. Little, Incorporated: "Some Business Analogies to C^3I."

David Y. McManis, Director, Operations Security Organization, National Security Agency: "National Security and the 'Democratization' of Information."

John T. Myers, Lieutenant General, USA, and Director, Defense Communications Agency: "Future Directions for Defense Communications."

Charles A. Zraket, President and CEO, The MITRE Corporation: "Four Vital Issues in C^3I."

Guest Presentations, Spring 1988 [176 pages; March 1989/Incidental Paper: I-89-1]
Speakers in this series addressed a variety of topics, but two themes predominated. The first of these was the reorganization of the U.S. Department of Defense in accordance with the Goldwater-Nichols Reorganization Act of 1986. The second major theme was the role of Special Operations Forces and Low Intensity Conflict (SOF/LIC) in defense planning and organization.

Frank J. Breth, Brigadier General, USMC, Director of C^4I2 Department/Director of Intelligence: "Getting in Front of C^4I2 Problems."

Ruth M. Davis, President, Pymatuning Group, formerly an Assistant Secretary of Energy and Deputy Under Secretary of Defense: "Putting C^3I Development in a Strategic and Operational Context."

Robert T. Herres, General, USAF, and Vice Chairman, Joint Chiefs of Staff: "Strengthening the Chairman of the Joint Chiefs of Staff."

Rae M. Huffstutler, Deputy Director for Administration, formerly Director, National Photographic Interpretation Center, Central Intelligence Agency: "Intelligence Sources and Their Applications."

Robert C. Kingston, General, USA, (ret.), formerly Commander-in-Chief, United States Central Command: "The Special Operations Command: Structure and Responsibilities."

James R. Locher, III, Professional Staff Member, Senate Committtee on Armed Forces: "Special Operations and Low Intensity Conflict: A Congressional Perspective."

Earl F. Lockwood, President and Chief Executive Officer, Betac Corporation: "The Evolution of Special Operations Forces."

John F. McLaughlin, Executive Director, Program on Information Resources Policy, Harvard University: "The Rise in Low Intensity Conflict: A Theory."

Richard L. Thornburgh, Director, Institute of Politics, Kennedy School of Government, Harvard University, formerly Governor of Pennsylvania: "Three Mile Island: A Case Study in C^{3}I for Crisis Management."

Jerry O. Tuttle, Vice Admiral, USN, and Director, Command, control and Communications Organization of the Joint Chiefs of Staff (J-6): "Tailoring C^{3}I Systems to Military Users."

Guest Presentations, Spring 1987 [192 pages; May 1988/Incidental Paper: I-88-1]
Speakers explored the information requirements of national, military, and business organizations at a time of technological and organizational change in the military and civilian worlds. The reorganization of the U.S. Department of Defense in accordance with the Goldwater-Nichols Defense Reorganization Act of 1986 was the occasion for analysis and re-evaluation.

Archie D. Barrett, professional staff, House Armed Services Committee, formerly military staff assistant to the Executive Secretary of the Defense Organization Study: "Defense Reorganization: A View from the House."

Robert L. DeGross, provost, Defense Intelligence College: Teaching Intelligence."

Fred R. Demech, Jr., captain, U.S. Navy, formerly executive director, the President's Foreign Intelligence Advisory Board: "Making Intelligence Better."

Greg Foster, senior fellow, Institute for National Strategic Studies, National Defense University: "The National Defense University's Command and Control Program."

James R. Locher, III, professional staff, Subcommittee on Projection Forces and Regional Defense, Senate Committee on Armed Services: "Defense Reorganization: A View from the Senate."

George C. Lodge, professor, Harvard Graduate School of Business Administration, formerly director of information, U.S. Department of Labor and Assistant Secretary of Labor for International Affairs: "Ideology and National Competitiveness."

Eugene B. Lotochinski, vice president, market development, Northern Telecom Inc.: "The Information Management Marketplace."

Rodney B. McDaniel, executive secretary, National Security Council: "C^{3}I: A National Security Council Perspective."

Michael J. Zak, vice president, marketing, Concord Communications, Inc.: "Coming of Age in C^{3}I."

Guest Presentations, Spring 1986 [168 pages; February 1987/Incidental Paper: I-87-1]
The speakers this year addressed a variety of topics, with two predominant themes. The first was the manner in which organizations—military, diplomatic, business—obtain and use intelligence. The second theme was how organizations protect information from the growing threat of electronic interception.

Robert Conley, formerly Deputy Assistant Secretary for Advanced Technology and Analysis and Acting Assistant Secretary for Electronic Systems and Information Technology, Department of the Treasury: "Data Security in the Information Age."

Harold Daniels, Deputy Director for Information Security at the National Security Agency, formerly Assistant Deputy Director for Communications Security: "The Role of the National Security Agency in Command, Control and Communications."

John Grimes, Director of National Security Telecommunications and Director of Defense Programs (C^3) of the National Security Council: "Information Technologies and Multinational Corporations."

Bobby R. Inman, president and chief executive officer, Microelectronics and Computer Technology Corporation, formerly Director of the Office of Naval Intelligence, Director of the National Security Agency, and Deputy Director of Central Intelligence: "Technological Innovation and the Cost of Change."

Richard J. Levine, editorial director, data base publishing, Dow Jones & Company: "Data Base Publishing for Business Intelligence."

Mark Lowenthal, acting director, Office of Strategic Forces Analysis, Bureau of Intelligence and Research, Department of State: "The Quest for 'Good' Intelligence."

Clarence E. McKnight, Director for Command, Control, and Communications Systems, Organization of the Joint Chiefs of Staff, formerly Commanding General, U.S. Army Communications Commmand: "C^{3}I Systems at the Joint Level."

Lionel Olmer, formerly Under Secretary for International Trade, U.S. Department of Commerce, heading the International Trade Administration; currently member of Paul, Weiss, Rifkind, Wharton & Garrison, an international law firm: "Intelligence Techniques for the American Business Community."

Guest Presentations, Spring 1985 [180 pages; April 1986/Incidental Paper: I-86-1]
These presentations examined the link between defense organization and the efficacy of command, control, communications and intelligence, within the context of current debate over reorganization of the Joint Chiefs of Staff.

Archie D. Barrett, professional staff, House Armed Services Committee, formerly military staff assistant to the Executive Secretary of the Defense Organization Study: "Politics and the Military—The Climate for Reform."

Richard D. DeLauer, president, Orion Group Limited, formerly Under Secretary of Defense for Research and Engineering: "A Consultant's View."

Lincoln Faurer, formerly Director of the National Security Agency and Chief, Central Security Service, Fort Meade, Maryland: "The Role of Intelligence Within C3I."

Robert T. Herres, Commander in Chief, unified U.S. Space Command, Aerospace Defense Command, and North American Aerospace Defense Command, and Commander of the Air Force Space Command: "A CINC's View of Defense Organization."

Robert Hilton, consultant specializing in national and international security affairs and political risk analysis; formerly Vice Director for Operations, Joint Chiefs of Staff: "Roles of the Joint Chiefs of Staff in Crisis Management."

Samuel P. Huntington, director, Center for International Affairs, Harvard University, formerly Coordinator of Security Planning for the National Security Council: "Centralization of Authority in Defense Organizations."

Donald Latham, Assistant Secretary of Defense, C3I: "A View from Inside OSD."

Richard G. Stilwell, chairman, Department of Defense Security Review Commission; formerly Deputy Under Secretary of Defense for Policy: "Structure and Mechanisms for Command and Control."

Guest Presentations, Spring 1984 [125 pages; February 1985/Incidental Paper: I-85-2]
These presentations explored the roles of communication, information, and warning systems in peacekeeping, crisis management, and economic security.

Richard S. Beal, until his death in 1984, Special Assistant to the President for National Security Affairs and Senior Director for Crisis Management Systems and Planning: "Decision Making, Crisis Management, Information and Technology."

Stuart E. Branch, Deputy Assistant Secretary for Communications in the Department of State and member, National Communications System and U.S. Communications Security Board of the National Security Council: "C3I and Crisis Management."

Leo Cherne, executive director, Research Institute of America: "Television News and the National Interest."

Hubert L. Kertz, formerly president and managing director, American Bell International, Inc., with **Anthony G. Oettinger**: "With AT&T in Iran."

David McManis, National Intelligence Officer for Warning and Director, National Warning Staff: "Warning as a Peacekeeping Mechanism."

Robert A. Rosenberg, Vice Commander in Chief for the North American Aerospace Defense Command and Assistant Vice Commander for the U.S. Air Force Space Command: "Strategic Defense: A Challenge for C3I."

James W. Stansberry, formerly Commander of the Air Force Electronic Systems Division: "Cost-Effective Rearmament."

W. Scott Thompson, director of programs for the American Security Council Foundation and president, Strategic Research Associates: "U.S. - U.S.S.R. Information Competition."

(The seminar was not held during 1983.)

Guest Presentations, Spring 1982 [181 pages; December 1982/Incidental Paper: I-82-3]
This series of C3I sessions emphasized national security issues, exploring policy and planning as

well as procurement and implementation perspectives. Guests discussed not only the impact within the defense community of rapidly expanding technology but also the public consequences—national and international—of intelligence gathering and use.

Richard D. DeLauer, Under Secretary of Defense for Research and Engineering: "The View from the Hot Seat."

Hillman Dickinson, Director for Command, Control and Communications Systems, Joint Chiefs of Staff: "Planning for Defense-Wide Command and Control."

Gerald P. Dinneen, corporate vice president, Science and Technology, Honeywell, Inc., formerly Assistant Secretary of Defense for Communications, Command, and Control, and Intelligence: "C3 Priorities."

Richard H. Ellis, formerly commander in chief, Strategic Air Command: "Strategic Connectivity."

R. Thomas Marsh, commander, Air Force Systems Command: "Air Force C3I Systems."

Thomas H. McMullen, deputy commander, Tactical Air Command: "A Tactical Commander's View of C3I."

William G. Miller, associate dean and professor of international politics, Fletcher School of Law and Diplomacy, Tufts University: "Foreign Affairs, Diplomacy and Intelligence."

Richard G. Stilwell, Deputy Under Secretary of Defense for Policy: "Policy and National Command."

Guest Presentations, Spring 1981 [214 pages; December 1981/Incidental Paper: I-81-9]
The perspective in this volume encompasses the Congress, combatant commands, defense contractors, and technological innovators. As part of an ongoing open forum on C3I, the sessions brought together the intersecting vantage points of industrial suppliers and innovators, government funders and decision makers, and principals in military intelligence.

William O. Baker, formerly chairman, Bell Laboratories, Inc.: "The Convergence of C3I Techniques and Technology."

John H. Cushman, lieutenant general, U.S. Army, (ret.), management consultant, : "C3I and the Commander: Responsibility and Accountability."
Richard D. DeLauer, executive vice president, TRW, Inc.: "A Major Contractor's View of C3I."

B.R. Inman, Deputy Director of Central Intelligence: "Issues in Intelligence."

James M. Osborne, formerly senior vice president, E-Systems, Inc.: "Meeting Military Needs for Intelligence Systems."

David C. Richardson, vice admiral, U.S. Navy (ret.); consultant, Defense Intelligence Review Panel, the Defense Science Board, and other panels: "The Uses of Intelligence."

Charles Rose, U.S. representative; chairman, Policy Group on Information and Computers: "Congress and C3I."

Charles W. Snodgrass, vice president, Financial Planning and Management, Electronic Data Systems Corp., formerly assistant secretary of the Air Force for financial management: "Funding C3I."

Table of Contents

Glossary

ACC	Air Combat Command, formerly Tactical Air Command
ACOM	U.S. Atlantic Command, aka USACOM or LANTCOM
ACSI	Assistant Chief of Staff, Intelligence (U.S. Air Force)
AECC	aeromedical evacuation control center
AFCC	Air Force Component Commander
AFFOR	Air Force Forces commander
ALCC	airlift coordination center
AMC	Air Mobility Command (formerly Military Airlift Command)
AME	air mobility element
AMHS	automated message handling system
AMOG	air mobility operations group
AMTO	air mobility task order
AOC	air operations center
APCC	aerial port control center
API	applications programming interface
ARPA	Advanced Research Projects Agency (formerly DARPA)
ASD	Assistant Secretary of Defense
ASIF	Airlift Support Industrial Fund
ATACMS	Army Tactical Missile System
ATO	air tasking order
AUTODIN	automatic defense intelligence network
AUTOSEVOCOM	automatic secure voice communications
AUTOVON	automatic voice network
BCE	battlefield control/coordinating element
BOS	base operating support
BT	British Telecom
C^3I	command, control, communications and intelligence
C^4I	command, control, communications, computers and intelligence
CCT	contingency communications team
CIA	Central Intelligence Agency
CIC	combat information center (Israel)
CINC	commander in chief
CINCCENT	Commander in Chief, U.S. Central Command
CINCEUR	Commander in Chief, U.S. European Command
CINCPAC	Commander in Chief, U.S. Pacific Command
CINCPACFLT	Commander in Chief, Pacific Fleet
CINCSOUTH	Commander in Chief, U.S. Southern Command
CINCUSNAVEUR	Commander in Chief, U.S. Navy, Europe
CIO	Central Imagery Office
CMS	Community Management Staff (intelligence community)
CNN	Cable News Network
CNO	Chief of Naval Operations
COE	common operating environment
COMNAVFOR	Commander of Naval Forces
CPA	Chairman's Program Assessment
CSG	Communications Services Group (AT&T)

Glossary

CSS	combat support system
CTAPS	Contingency Theater Automated Planning System
DAB	Defense Acquisition Board
DBOF-T	Defense Business Operating Fund—Transportation
DCI	Director of Central Intelligence
DCSINT	Deputy Chief of Staff, Intelligence (U.S. Army)
DCTN	Defense Communications Telecommunications Network
DDR&E	Defense Development, Research and Engineering
DIA	Defense Intelligence Agency
DII	Defense Information Infrastructure
DIRMOBFOR	Director, Mobility Forces (USTC)
DISA	Defense Information Services Agency (formerly Defense Communications Agency)
DMS	Defense Messaging System
DMZ	demilitarized zone
DNI	Director of Naval Intelligence
DOD	Department of Defense
DSN	Defense Systems Network
EC	electronic commerce
ECCM	electronic counter-countermeasures
ECM	electronic countermeasures
EDI	electronic data interchange
EDS	Electronic Data Services
EUCOM	U.S. European Command
FBI	Federal Bureau of Investigation
FBIS	Foreign Broadcast Information Service
FCC	Federal Communications Commission
FORSCOM	U.S. Forces Command
FTS	Federal Telecommunications System
GATT	General Agreement on Tariffs and Trade
GCCS	Global Command and Control System
GDIP	General Defense Intelligence Program
GDP	gross domestic product
GDSS	Global Decision Support System
GKS	Graphics Kernel System
GLO	ground liaison officer
GPS	Global Positioning System
GSA	General Services Administration
HAWS	Hawaii area wideband system
HPSCI	House Permanent Select Committee on Intelligence
HUMINT	human intelligence
ICAO	International Civil Aeronautics Organization
IDF	Israeli Defense Forces
INFOSEC	information security
INR	Bureau of Intelligence and Research (U.S. State Department)
IPR	in-process review

Glossary

IR	infrared
JCS	Joint Chiefs of Staff
JDAM	joint deep area munitions
JFAC	Joint Forces Air Component
JROC	Joint Requirements Oversight Council
JSOW	joint standoff weapon
JULLS	Joint Uniform Lessons-Learned System (AMC)
JWCA	Joint Warfare Capabilities Assessment
LMR	land-mobile radio
MAISRC	Major Automated Information System Review Council
MASINT	measurement and signals intelligence
MFJ	modified final judgment (breaking up AT&T in 1984)
MI	mobile interdiction
MIPS	millions of instructions per second
MISREP	mission report
MISSI	Multilevel Information System Security Initiative
MLRS	Multiple Launch Rocket System
MMTC	Military Traffic and Management Command
MNC	multinational corporation
MPO	military personnel office
MRC	major regional conflict
MSE	mobile subscriber equipment
MTB	motor torpedo boat
NATO	North Atlantic Treaty Organization
NAVCOMSTA	Naval Communications Station
NAVFOR	Naval Forces Commander
NCA	National Command Authorities
NCS	National Communications System
NEACP	National Emergency Airborne Command Post
NFIP	National Foreign Intelligence Program
NIST	National Institute of Standards and Technology (formerly National Bureau of Standards)
NRO	National Reconnaissance Office
NSA	National Security Agency
NSEP	national security emergency preparedness
O&M	operations and maintenance
ODA	office document architecture
ODIF	office data interchange format
OODA	observation, orientation, decision, action
OPCON	operational control
OPREP	operational report
OPSEC	operational security
ORI	operational readiness inspection
OSA	operational support aircraft
OSD	Office of the Secretary of Defense
OTS	Oahu Telecommunications System

Glossary

PEO	program executive officer
PF2K	Post FTS 2000
PHIGS	Programmer's Hierarchical Interactive Graphics Standard or System
PIM	point of intended movement
POM	program objectives memorandum
PRC	People's Republic of China
PSA	Principal Staff Advocate
PTT	postal, telephone, and telegraphy authority
RPV	remotely piloted vehicle
SADBU	Small and Disadvantaged Business Utilization
SEAL	member of a Navy Sea-Air-Land unit
SHF	superhigh frequency
SOF	Special Operations Forces
SPIN	special intelligence network
SSCI	Senate Select Committee on Intelligence
STACCS	Simplified Tactical Air Command and Control System
TACAN	tactical air navigation
TACC	Tanker Airlift Control Center (USTC)
TAFIM	Technical Architecture Framework for Information Management
TALCE	Tanker Airlift Control Element (AMC)
TDY	temporary duty
TEL	transporter/erector/launcher
TIARA	tactical intelligence and related activities
TOW	tube-launched, optically tracked, wire-guided [missile]
TQM	Total Quality Management
TRANSCOM	U.S. Transportation Command, aka USTC
TRANSLO	Transportation Liaison Office
TSP	technical support plan
U&S	unified and specified
UAV	unmanned air vehicle
UNPROFOR	U.N. Protection Force (Bosnia)
USTC	U.S. Transportation Command; aka TRANSCOM
VHF	very high frequency
VTC	video telecommunications
WWMCCS	Worldwide Military Command and Control System