Incidental Paper

Seminar on Command, Control, Communications, and Intelligence

Guest Presentations, Spring 1990:
Thomas K. Latimer, James W. Lucas, C. Norman Wood,
Kenneth M. Duberstein, James Cassity, Jr., Gordon Negus,
W. O. Studeman, Joseph Zadarecky II

**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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John F. McLaughlin

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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 have been smoothed. Substance has, as far as possible, been left unaltered. All guests made their presentations in open forum, forewarned that neither classified nor proprietary matters are appropriate in a university classroom.

The central theme of the seminar, as in previous years, was the manner in which institutions structure intelligence, command, and control activities to serve as their organizational nervous systems. Each of our speakers addressed some aspect of how organizations gather and use information in order to survive and prosper in a hostile world.

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, and John F. McLaughlin, Executive Director of the Program on Information Resources Policy, have 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 their 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 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^4I^2 Department/Director of Intelligence: "Getting in Front of C^4I^2 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^3I 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^3I 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: "C3I: A National Security Council Perspective."

Michael J. Zak, vice president, marketing, Concord Communications, Inc.: "Coming of Age in C3I."

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 (C3) 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: "C3I 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."

Guest Presentations, Spring 1980. [183 pages; December 1980/Incidental Paper: I-80-6] These first presentations in the series described C3I principally from the perspective of national policymaking in the executive branch.

William E. Colby, counsel, Reid & Priest, formerly Director of Central Intelligence: "The Developing Perspective of Intelligence."

B.R. Inman, director, National Security Agency and chief, Central Security Service: "Managing Intelligence for Effective Use."

William Odom, military assistant to the President's assistant for National Security Affairs: "C3I and Telecommunications at the Policy Level."

Lionel Olmer, Director of International Programs, Morotola, Inc; formerly acting executive secretary, President's Foreign Intelligence Advisory Board: "Watchdogging Intelligence."

Lee Paschall, consultant, formerly director, Defense Communications Agency and manager, National Communications System: "C3I and the National Military Command System."

Robert A. Rosenberg, policy assistant to the President for National Security Affairs, National Security Council Staff: "The Influence of Policy Making on C3I."

Raymond Tate, formerly Deputy Assistant Secretary of the Navy and Deputy Director of the National Security Agency: "Worldwide C3I and Telecommunications."

A.K. Wolgast, manager, Planning and Analysis Dept., EXXON International: "Oil Crisis Management."

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Glossary

ACDA	Arms Control and Disarmament Agency	FEMA	Federal Emergency Management Agency
ADP	automated data processing	GIDEP	Government-Industry Data Exchange Program
AFB	air force base		
AWACS	Airborne Warning and Control System	GSA	General Services Administration
		HPSCI	House Permanent Select Committee on Intelligence
C³I	command, control, communications, and intelligence	HUMINT	Human Intelligence
CBRN	Caribbean Basin Radar Network	IC	intelligence community
CFE	conventional forces in Europe	ICBM	intercontinental ballistic missile
CIA	Central Intelligence Agency	IFF	identification friend or foe
CINCLANT	Commander in Chief, Atlantic	IMINT	Imagery Intelligence
CINCNORAD	Commander in Chief of the North American Aerospace Defense Command	INF	intermediate nuclear force
		Joint STARS (or JSTARS)	Joint Surveillance Target Attack Radar
CINCSAC	Commander in Chief, Strategic Air Command	JTF	Joint Task Force
COIC	Combat Operations Intelligence Center	JVIDS	Joint Visual Information Display System
COMINT	Communications Intelligence	LEA	law enforcement agency
CNN	Cable News Network	MAJCOM	Major Command
DCI	Director of Central Intelligence	MARS	Military Affiliate Radio System
DDI	Deputy Director of Intelligence, CIA	MATS	measurement of time and space
		MCEB	Military Communications — Electronics Board
DEA	Drug Enforcement Agency		
DIA	Defense Intelligence Agency	MTI	moving target indicator
DMR	Defense Management Review	NAVLANT-COM	Navy Atlantic Command
DNI	Director of National Intelligence		
DSCS	Defense Satellite Communication System	NFIB	National Foreign Intelligence Board
DST	defense space talk	NFIP	National Foreign Intelligence Program
EACIC	Echelon Above Corps Intelligence Center	NIE	National Intelligence Estimates
EDS	electronic data systems	NMCC	National Military Command Center
EPIC	El Paso Intelligence Center	NORAD	North American Aerospace Defense Command
EUCOM	European Command		
FBI	Federal Bureau of Investigation	NORMAL	National Organization for Reform of Marijuana Laws
FEBA	forward edge of battle		

NSA	National Security Agency	RF	radio frequency
NSC	National Security Council	SAC	Strategic Air Command
NSPG	National Security Planning Group	SDI	Strategic Defense Initiative
OMB	Office of Management and Budget	SIF	Selective Identification Feature
PAC	political action committees	SIGINT	Signal Intelligence
PACOM	Pacific Command	SIOP	single integrated operational plan
PDF	Panamanian Defense Force	SOUTHCOM	Southern Command
PEM	Program Element Monitor	SSCI	Senate Select Committee on Intelligence
PERT	program evaluation and review techniques	START	Strategic Arms Reduction Talks
PFIAB	President's Foreign Intelligence Advisory Board	TIARA	Tactical Intelligence and Related Activities
PLO	Palestine Liberation Organization	TWT	traveling wavetube
PME	professional military education	WIS	WWMCCS Information System
POM	program objectives memorandum	WWMCCS	Worldwide Military Command and Control System