

VOL. 15, NO. 7/FEBRUARY 14, 1974



Global Alert in Less Than Three Minutes

During the Middle East crisis last October, U.S. intelligence sources reported that the Soviet Union was preparing to send several thousand airborne troops into Egypt on a unilateral basis "to aid" in the ceasefire between the Israelis and the Arabs.

As a result of this information, and other important factors, an emergency meeting was called at the White House for members of the National Scurity Council. A short time after the meeting, Defense Secretary James R. Schlesinger, who is also a Council member, directed the National Military Command Center at the Pentagon to put all active duty forces on global alert.

Through the facilities of the Worldwide Military Command and Control System (WWMCCS), all of the Unified and Specified Commands received this mandate—in less than three minutes.

Although the Worldwide Military Command and Control System was established in the early 1960s, it was not until this decade that former Deputy Defense Secretary David Packard gave impetus to the Pentagon's role of WWMCCS.

At a meeting at the National Press Club in Washington on October 21, 1971, Mr. Packard said, "I've been giving a good deal of attention this last month or so to the whole question of our command/control capability." He reminded his audience of the "Pueblo incident", where there were problems in getting messages back and forth while the U.S. ship was being seized by the North Koreans.

"I have been assessing this, in part, in relation to our program," he said, "where . . . our nuclear capability is dependent not only on the number of missiles we have but also on the viability of our command and control situation. We are making some changes which will, in effect, centralize and improve the management of the Worldwide Military Command and Control System and, more importantly, that portion of the WWMCCS that is called the National Military Command System (NMCS)."

As a matter of definition, the WWMCCS is a term used to describe all of the command and control systems of all of the Unified and Specified Commands; in other words—anyone who has a command and control system necessary for the command or management of his forces.

Mr. Packard noted that the directives that established the WWMCCS concept in the early 1960s gave the Unified and Specified Commands the authority to build up their own command and control systems which were expressed in terms of prerogatives and requirements of their mission. Each commander had the responsibility to build up his command in a way that he thought would be most responsive to his mission.

The original directive stated that it was important to have a national command and control system that supported the national command authorities—The President and the Secretary of Defense, he said.

The former Defense Deputy Secretary stressed that two things were needed: one was warning and intelligence necessary for the President to make a decision, and second, a capability to transmit that decision to the military forces.

"The general guidelines," he said, "were that each one of the commands in the various areas was designed to meet the requirements of its mission and to interface in a way that would provide for the national command authorities.

"One problem that occurred in these cases was that the communications did not work. Messages generally got mixed up in going to the field to the local command and, in some way, did not get into the central communications system which, in fact, worked very well."

He then outlined his plan: "What I am doing is: One is to designate the Chairman of the Joint Chiefs of Staff as the one person responsible for the operation of the overall National Military Command System (NMCS). The second thing is to designate the National Military Command System portion of

WWMCCS as the first priority. In other words, instead of local commanders now having as their first priority to design their command system to meet the requirements of their mission, they first have to have a design to meet the requirements of the national command system and, second, to meet the requirements of their mission."

Mr. Packard then noted that this in itself "would not change anything, but it will focus the attention on the problem. Then, we are doing two other things which are again directed at streamlining the management of the command and control system. We have plans to have an Assistant Secretary for Intelligence (now Albert C. Hall, Assistant Secretary of Defense for Intelligence). With the Deputy Secretary of Defense (now William P. Clements Jr.,) these gentlemen will form the council responsible for the operation of the National Military Command System. (Later at the meeting Mr. Packard announced the Chairman JCS would be the fourth member of the council and the council would be called the WWMCCS Council.) In this way, we will have a smaller number of people in the decision-making process who possess the expertise that is critical to the satisfactory operation of this system, namely, telecommunications, warning and intelligence.

"I believe this will enable us to move ahead with some of the programs which are on the books. . . . This, then, will be managed with the focal point at the top rather than the focal point out in the commands. I'm very confident this will enable us to make some important improvements in the operation of our world system."

Although the Worldwide Military Command and Control System is still in the process of being constantly updated and refined, last October's Middle East crisis offered the opportunity, under worldwide operational readiness conditions, to show that the WWMCCS has come a long way since the days of the "Pueblo incident."

T. C. Reed To Direct New DoD Function



Secretary of Defense James R. Schlesinger has consolidated telecommunications and command and control responsibilities within his immediate office and announced on January 17 the nomination of Thomas C. Reed as Director, Telecommunications and Command and Control Systems.

Such a consolidation was recommended by the President's Blue Ribbon Panel in 1970. The director succeeds to the responsibilities of the former Assistant Secretary of Defense (Telecommunications).

In signing the directive to create the revised office, Secretary Schlesinger stressed that in moving to develop a wider variety of strategic options for the President in crisis situations, increased emphasis must be placed on improving the capabilities of the Worldwide Military Command and Control System (WWMCCS).

In his new post, Reed will be the principal assistant to the Secretary and the Deputy Secretary in this field. He initially joined the Department of Defense in September 1973 as Assistant to the Secretary and to the Deputy Secretary, concentrating on technical management studies and personnel matters.

Reed was previously a resident of San Rafael, California. He received his bachelor of science degree in mechanical engineering from Cornell University, graduating first in his class in 1956.

He was commissioned a second lieutenant in the United States Air Force and served as a technical project officer, Minuteman Re-Entry Vehicle System, with the Air Force's Ballistic Missile Division through 1959. He received his master of science degree in electrical engineering from the University of Southern California in 1959.

He was with the Lawrence Radiation Laboratory of the University of California from 1959 until 1962, engaged in thermonuclear weapons physics. In 1962, he organized Supercon Ltd. of Houston, Texas, as its managing partner. That company developed and produced alloys superconducting at cryogenic temperatures.

Subsequently, that company's efforts diversified into minerals and construction fields. Prior to joining the Department of Defense, Reed was President and Chairman of the Quaker Hill Development Corporation, with agricultural, recreational, and construction projects in California and Colorado.

Reed also served as appointments secretary to Governor Ronald Reagan of California in 1967.

Operations, Training, Costs

The overall objective of the Worldwide Military Command and Control System (WWMCCS) Automatic Data Processing (ADP) Program is to improve the exchange of data among command centers of the WWMCCS through the systematic standardization and improvement of ADP hardware and software supporting the WWMCCS. The program includes the acquisition of a family of 35 new standard computer systems, the development of standard software to meet the common requirements of the WWM-CCS commands and installations, and the multiyear evolutionary development of these systems into an integrated WWMCCS ADP System. The Intelligence Data Handling System (IDHS) is included in the WWMCCS ADP Program to the extent that it makes use of hardware and software procured for the activities that support the WWM-CCS.

Responsibility for the overall management, centralized planning, and direction of the program is assigned to the Joint Chiefs of Staff. Centralized technical support is provided to the Joint Chiefs of Staff and to the WWMCCS commands by the Joint Technical Support Activity, a field activity of the Defense Communications Agency (DCA). Responsibility for centralized support of common ADP training and logistics support is assigned to the Air Force. The Air Force also has contracting responsibility for the WWMCCS contract with Honeywell Information Systems.

Before the advent of the WWMCCS ADP Program, planning for and development of automation in support of WWMCCS was accomplished on a case-by-case basis. The elements of WWMCCS were left much to their own resources and initiative in determining requirements for automation, in acquiring equipment, and in developing and operating their ADP systems.

Before the current update program, the WWMCCS consisted of a loose confederation of subsystems, most of which had been developed independently of one another. The absence of centralized planning had hindered the development of the WWMCCS ADP system. Each command developed its own technical specifications for ADP systems, and each Service negotiated separately with industry for the procurement and maintenance of hardware and the development of much software.

The result was not a real system and did not have the potential for fulfilling the command and control needs of the national command authorities (NCA) and the Joint Chiefs of Staff.

In January, 1966, informal discussions on concrete proposals to correct this situation were begun at the action level between OSD and OJCS. This led to the development of a WWMCCS ADP Update Program. The program was formally initiated in September 1966, when the Secretary of Defense directed the Joint Chiefs of Staff to conduct a

study to determine the feasibility of acquiring computers for the WWMCCS through a multi-year buy instead of on a piecemeal basis.

The approach was determined to be feasible, and specifications for a competitive procurement were developed from April 1967 to February 1968. The original WWM-CCS procurement was first approved for a range of 34 to 87 systems; however, the number was finally set at 35 due to fiscal limitations.

The successful vendor in the competitive procurement was Honeywell Information Systems, and a contract was awarded on October 15, 1971. This update program was a phased acquisition during Fiscal Years 1972 and 1973, to replace existing hardware at selected organizations.

Objectives

Operationally, data exchange throughout the WWMC-CS will be simplified through the use of standard equipment, a standard data management system, standard programs, and standard terminology and formats. The provision of operational backup will also be facilitated as a result of standardization.

Common training and use of standard equipment throughout the system will result in better personnel utilization. Centralized management and development will enable the overall WWMCCS to be treated, designed, and developed as a system. Only off-the-shelf equipment will be used. There will be no research and development of equipment.

Many of the cost objectives of the program have already been achieved. The quantity buy discount and the reduced selection and acquisition costs are a reality. A substantial cost saving was achieved with the hardware and software in the contract being obtained at a discount of 70 per cent from the General Services Administration (GSA) Federal Supply Schedule prices.

Reduced program development costs will be achieved through the use of the Joint Technical Support Activity and by the designation of system standards for application software; thus greatly reducing the current duplication of effort in program development. Reduced logistics and training support costs will be achieved through the efforts of the Single Service Logistics Support Manager and the Single Service Training Manager, working under the overall guidance of the WWMCCS ADP Project Manager.

The contract with Honeywell required the purchase of a minimum of nine systems in FY 72 with the remaining 26 to be purchased in FY 73. The contract also required at least nine systems to be installed by December 31, 1972 and the remainder by December 31, 1973.





Command and control is defined by the Department of Defense as "the exercise of authority and direction by a properly designated commander over assigned forces in the accomplishment of his mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures which are employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of his mission."

Therefore, the purpose of command and control systems is to provide accurate and timely information to commanders in order to enable the rapid dissemination of their decisions for the direction of U.S. military forces. These systems must possess the capability for horizontal and vertical flow of information and decisions within the command and control structure.

The national command authorities (NCA) consists only of the President and the Secretary of Defense or their duly deputized alternates or successors. The chain of command runs from the President to the Secretary of Defense and through the Joint Chiefs of Staff to the commanders of Unified and Specified Commands. The channel of communication for execution of the Single Integrated Operations Plan (SIOP) and other timesensitive operations shall be from the NCA through the Chairman, Joint Chiefs of Staff, representing the Joint Chiefs of Staff, to the executing commanders.

The WWMCCS is the worldwide command and control system that provides the means for operational direction and technical administrative support involved in the function of command and control of U.S. military forces.

The National Military Command System (NMCS) is the priority component of the WWMCCS designed to support the NCA in the exercise of their responsibilities. It also supports the Joint Chiefs of Staff in the exercise of their responsibilities.

Mission, Tasks, and Qualities

The WWMCCS provides the NCA and other appropriate commanders with the capability to exercise operational direction of U.S. military forces in

WWMCCS... Providing Information— Timely and Accurate

peacetime and through all levels of conflict. The primary mission of the WWMCCS is to support the NCA. The secondary mission of the WWMCCS is to support the Joint Chiefs of Staff, the Services, the Unified and Specified Commands, the Service component commands, and DoD agencies on the basis on noninterference with the primary mission.

Command and Control Functional Tasks

The WWMCCS accomplishes its mission by providing the means by which the NCA and appropriate subordinates may:

- Monitor the current situation, to include the status of U.S. and non-U.S. forces;
- Respond to warning and threat assessment;
- Employ forces and execute operations plans;
- Perform attack, strike, and damage assessment;
- Reconstitute and redirect forces; and
- Terminate hostilities and active operations.

These six processes are referred to as the command and control functional tasks.

The effectiveness with which the WWMCCS accomplishes its mission is related to its ability to support the command and control functional tasks. The basic qualities that the WWMCCS must possess are credibility, flexibility, responsiveness, survivability, and secu-



WWMCCS...
provides the
means for
operational
direction . . .
in the
function of
command
and control
of U.S.
military
forces.



ACTION CENTER—Typical activity in the current action center of the National Military Command Center.

rity. These qualities must exist to the maximum extent possible within technological and resource constraints.

Command and Control Systems/ Subsystems

As defined in DoD Directive 5100.30, "The WWMCCS is the worldwide command and control system that provides the means for operational direction and technical administrative support involved in the function of command and control of U.S. military forces."

More specifically, the WWMCCS consists of command and control subsystems which enable the NCA, the Joint Chiefs of Staff, and commanders at appropriate subordinate levels to direct and control the operations of U.S. military forces. It is composed of the designated command and control facilities (including associated data collection/ processing support, selected warning systems, etc.) from which command and control is exercised. These command and control facilities serve the primary and alternate headquarters and emergency relocation sites (ERS) of the organizations supported by the WWMCCS. The WWMCCS also includes those special communications capabilities required by the NCA for the execution of the SIOP and for the conduct of other timesensitive operations.

The WWMCCS consists of subsystems at the national and theater levels. The national level subsystems are the NMCS

(the priority subsystem), the WWMCCSrelated management information systems of the Service headquarters of the Military Departments, and the command and control support systems of Defense agencies. The theater level subsystems are the command and control systems of the Unified and Specified Commands. including command and control systems of subordinate unified commands and joint task forces when established and assigned, and the command and control systems of the headquarters of the Service component commands. The WWMCCS does not include the operating forces; however, it links them with designated communications which:

- Extend from WWMCCS subsystem command control facilities to subordinate commands or operating forces; and
- Extend one echelon below the command and control related facilities of the Defense agencies and the Service headquarters of the Military Departments.

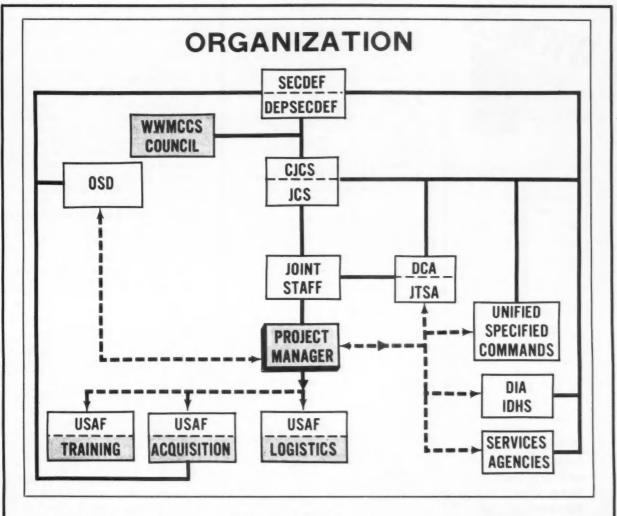
WWMCCS Description

The WWMCCS supports timely decision-making processes at the appropriate levels of command and facilitates the execution of decisions and commands by providing the means for direction and control of the operating forces.

Each commander supported by the WWMCCS has a WWMCCS subsystem. WWMCCS subsystems must be configured and operated for effective support of the NMCS as well as to support the commander's specific missions. The WWMCCS subsystems are the:

- NMCS;
- Command and control systems of the Unified and Specified Commands, including the command and control systems of subordinate unified commands and joint task forces when established and assigned;
- WWMCCS-related management/ information systems of the headquarters of the Military Departments and Services including the U.S. Coast Guard, when assigned.
- Command and control systems of the headquarters of the Service component commands; and
- Command and Control Support





This chart shows the organization of the Department of Defense as it affects the Worldwide Military Command and Control System (WWMCCS) Automatic Data Processing (ADP) program. (The shaded portion indicates unique WWMCCS ADP functions or activities).

The Secretary and his deputy are at the top, followed my the Chairman and the Joint Chiefs of Staff. These are supported by the Joint Staff, comprised of personnel from each of the branches of the Armed Forces. Within the Joint Staff there is a project man-

ager charged with the specific responsibilities and with the authority to task support elements of the Services, Defense Agencies and Unified and Specified Commands. Note that the Air Force is responsible for training, acquisition and logistics. The Joint Technical Support Activity (JTSA) is an element of the Defense Communications Agency (DCA).

Creation of the WWMCCS
Council was one of the final accomplishments of David Packard,
former Deputy Secretary of Defense. This council is chaired by
the Deputy Secretary of Defense

and has the following additional members:

- The Chairman, Joint Chiefs of Staff, and
- The Assistant Secretary of Defense (Intelligence).

The major advantage derived from this management structure is that of centralizing the decision process where the dollar investment is controlled. The council meets regularly and has its own support group chaired by the Deputy Director for Operations (Command and Control), Joint Staff, Major General Lawrence W. Steinkraus, USAF.



If non-DoD capabilities are utilized . . . they also become a temporary functional part of

Systems of the following Defense agencies:

- Defense Civil Preparedness Agency;
- Defense Communications Agency;
- Defense Intelligence Agency;
- Defense Mapping Agency; • Defense Nuclear Agency;
- Defense Supply Agency; · National Security Agency.

The following systems are the baseline warning elements of the WWMCCS:

- Defense Support Program:
- Ballistic Missile Early Warning
- Over-the-Horizon Forward Scatter Radar System; and
- SLBM Detection and Warning System.

The major subsystems listed in subparagraphs above constitute the command and control systems which support the NCA and subordinates in the dayto-day command and control of U.S. military forces, including the special capabilities for communications with strategic offensive and defensive forces. However, the WWMCCS, in operation, may temporarily extend beyond these subsystems.

During crisis situations, the NCA or the Joint Chiefs of Staff may require temporary use of certain non-WWMCCS communications capabilities. When so required and used, these temporarily extend the WWMCCS capability to satisfy the NCA's needs for special communications. Improvements to command and control systems which are planned to support such a temporary extension will be consistent with the objectives of WWMCCS plans.

The WWMCCS also provides capabilities required by the NCA for communications with other departments and elements of the U.S. Government and with other addressees designated by the NCA. If non-DoD capabilities are utilized to meet these requirements, they also become a temporary functional part of the WWMCCS when used by the NCA during crisis situations. Provision for interface capabilities will be included, as appropriate, in all plans for improvements to the WWMCCS.

WWMCCS Responsibilities

The Joint Chiefs of Staff: Subject to the authority and direction of the President and the Secretary of Defense, the Joint Chiefs of Staff have the responsibility:

- To prepare strategic plans and to provide for the strategic direction of the Armed Forces, including the direction of operations conducted by commanders of Unified and Specified Commands and the discharge of any other function of command for such commands directed by the Secretary of Defense:
- To serve as advisers and as military staff in the chain of operational command with respect to Unified and Specified Commands, to provide a channel of communications from the President and Secretary of Defense to Unified and Specified Commands, and to coordinate all communications in matters of joint interest addressed to the commanders of the Unified or Specified Commands by other authority; and
- To advise on the effectiveness of the WWMCCS.

The Chairman, Joint Chiefs of Staff: Under the direction of the Secretary of Defense, the Chairman, Joint Chiefs of Staff, will:

- · Operate, for the Secretary of Defense, the NMCS to meet the needs of the NCA. He will establish operational policies and procedures for all components of the NMCS and insure their implementation:
- Define the scope and components of the NMCS;
- Develop and validate requirements for the NMCS; make recommendations on the design, development, and procurement of systems and prepare, with appropriate DoD component assistance. appropriate planning, programming, and budgeting documents for the NMCS;
- Maintain cognizance of all WWM-CCS programs and capabilities. Validate WWMCCS requirements of the commanders of the Unified and Specified Commands. Develop an overall WWM-CCS objectives plan;
- · Make recommendations to the Secretary of Defense to insure responsiveness, functional interoperability, and standardization of the WWMCCS: make recommendations for changes to the WWMCCS that will increase the effectiveness of the NMCS; and
- Implement decisions of the Secretary of Defense concerning requisite capabilities of the NMCS pertaining to WWMCCS Description paragraph WWMCCS Subsystems.

The Assistant Secretary of Defense (Intelligence): The ASD(I) will have primary staff responsibility in OSD for intelligence collection and reporting systems. This responsibility includes review and advice to the Secretary of Defense on all matters involving warning and intelligence relating to the design, development, procurement (other than Automatic Data Processing (ADP) procurement), and performance of equipment, systems, and technical procedures involved in the WWMCCS, including recommendations made by or through the Chairman, Joint Chiefs of Staff.

The Assistant Secretary of Defense (Comptroller): The ASD(C) will maintain central focal point cognizance of ADP procurement, reporting, and reutilization.

Services and Defense Agencies: The Services and Defense agencies have two

major responsibilities towards the WWMCCS, which are as follows:

- As WWMCCS subsystems they provide the NMCS with command and control information relating to their particular Service or Defense agency;
- The Services and Defense agencies provide personnel, money, and material to operate, maintain, and improve those WWMCCS subsystems for which they are responsible; e.g., all Services support the NMCS, their Service component commands, and the Services support the headquarters of the Unified and Specified Commands assigned in DoD Directive 5100.30: and
- The Services in some cases also support their own components, e.g.; PACAF (Pacific Air Force), USAREUR (U.S. Army Europe), and LANTCOM (Atlantic Command).

SIGHTING—Air Force Lt.
Col. Peter H. Karalus,
acting as the surveillance
officer in the National
Military Command Center,
records a sighting on the
console.



National Military Command Center . . .

HUB of the JCS

National Military Command Posts must be ready for around-the-clock operations in today's increasingly complex political-military environment.

The hub of all Joint Chiefs of Staff activities is located in the National Military Command Center (NMCC) near the River Entrance to the Pentagon—one floor below the Office of the Secretary of Defense. In the event of an emerency, there is an alternate command center in Maryland, and, in the event of an attack on Washington, there is the national emergency airborne command post, an aircraft which is ready 24 hours a day at Andrews Air Force Base, Maryland, to allow the office of the Joint Chiefs of Staff to conduct its operations aloft.

The Pentagon's command center is the hub and terminal of the Worldwide Military Command and Control System. Its sole purpose is to provide national command authorities, through JCS, a medium whereby strategic direction of U.S. military forces anywhere in the world can be assured. The center is in operation 24 hours a day with each duty shift headed by a general of flag officer.

The NMCC provides for effective coordination and liaison with all other U.S. Government agencies or systems, such as the White House Situation Room, State Department, Central Intelligence Agency, and National Security Agency. Military information is provided to associated systems through the center, using direct, secure, and reliable methods of communications. It also provides automated systems for presentation of many kinds of data in the decision-making process and is the command and control facility giving rapid communication links between the National Command Authorities,





11 / COMMANDERS DIGEST / FEBRUARY 14, 1974

the Joint Chiefs of Staff and the Unified and Specified Commands.

Since World War II, developments in weapons systems have created a need for improved methods of command and control. As a result, the worldwide military command and control system concept evolved during the early sixties.

The concept pulled together existing systems and includes the National Military Command System (NMCS). The NMCS, as part of the Organization of the Joint Chiefs of Staff, provides the common connection with other subsystems and is directly responsive to the National Command Authorities (NCA)—the President and the Secretary of Defense.

The mission of the NMCS is to provide the National Command Authorities with the means essential for accurate and timely decisions, including the communications, required for reliable transmission of these decisions with a minimum of delay, for the direction of U.S. military forces under all conditions of peace and war. Inherent in this mission is the requirement for responsive and flexible support for the National Command Authorities-and a survivable command and control system that is capable of performing this mission under any pre-attack or post-attack situation.

The organization to accomplish that mission begins with the Joint Chiefs of Staff. Under the Director, Joint Staff, the Director, J-3, has primary respon-



Vol. 15, No. 7, February 14, 1974

A publication of the Department of Defense to provide official and professional information to commanders and key personnel on matters related to Defense policies, programs and interests, and to create better understanding and teamwork within the Department of Defense.

Published weekly by the American Forces Press Service, 1117 N. 19th St., Arlington, Vo. 22209, a unified activity of the Office of Information for the Armed Forces, OASD (M&RA). Reproduction of content is au-

> Telephone: (202) OXford 4-4912 Autovon 224-4912

sibility for command and control of operations. His principal assistant for matters pertaining to the National Military Command System is Maj. Gen. Lawrence W. Steinkraus, U.S. Air Force, the Deputy Director, J-3, for Command and Control, who commands and supervises the three command centers. The three command centers are: the National Military Command Center in the Pentagon; the Alternate National Military Command Center, in a mountain in Maryland; and the National Emergency Airborne Command Post, an airplane located at Andrews Air Force Base, Maryland.

The National Military Command Center (NMCC), the primary command center, was created on September 15, 1965, and has a general or a flag officer present on duty 24 hours a day, ready to respond to an emergency. The Moscow "hot line" is in the NMCC. The NMCC is staffed

with experts in intelligence and operational matters worldwide. The NMCC is also the only center operated at a national level with representation from all operating agencies. The NMCC is provided full-time representation by the Defense and Central Intelligence Agencies, National Security Agency, State Department, Defense Atomic Support Agency, Defense Communication Agency, the Office of the Assistant Secretary of Defense (Public Affairs), and the Joint Reconnaissance Center.

The services of all the agencies are used to acquire information for dissemination to the NCA. If the information is of such a nature that an implementing directive is required, the NMCC dispatches the directive to the Armed Forces.

The alternate command centers are prepared to perform the duties of the NMCC at any given moment.







The WWMCCS can be more readily placed in the scheme of relationships if the reader is familiar with three recent issues of the Commanders Digest:

Volume 13, Number 32, dated June 14, 1973, "Joint Chiefs of Staff: Organizations, Functions." The Joint Chiefs of Staff are constant users of the WWM-CCS and are responsible to advise on the effectiveness of the WWMCCS. The Chairman of the Joint Chiefs of Staff operates, for the Secretary of Defense, the National Military Command System (NMCS) to meet the needs of the National Command Authorities. The NMCS is the keystone of the WWM-CCS.

Volume 14, Number 16, dated October 18, 1973, "U.S. Southern Command (USSOUTHCOM)." This is one of the Unified and Specified Commands havin operational command of combat-ready forces, which receive orders from the President, as Commander in Chief, and the Secretary of Defense—through the Joint Chiefs of Staff.

Volume 14, Number 20, dated November 15, 1973, "Soviet Military Posture." In this issue, Admiral Thomas H. Moorer, USN, Chairman, Joint Chiefs of Staff, describes the U.S. and U.S.S.R. strategic forces today. The Soviet armed forces are a modern and formidable, well-balanced and organized force capable of conducting both defensive and aggressive offensive operations.

