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STATEMENT
OF

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BEFORE THE

SUBCOMMITTEE ON RESEARCH AND DEVELOPMENT

COMMITTEE ON ARMED SERVICES

U.S. HOUSE OF REPRESENTATIVES

ON

PROBLEMS ASSOCIATED WITH THE WORLD WIDE

MILITARY COMMAND AND CONTROL SYSTEM

(WWMCCS)

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

INTRODUCTION

We are pleased to appear here today to summarize the
results of our current review of the World Wide Military
Command and Control System (WWMCCS). I have with me
Mr. Donald L. Eirich, Associate Director, Mr. C. O. Smith,
Assistant Director and Dr. Harold J. Podell, Audit Manager,
from our Division, who are primarily responsible for this
effort. The report on this review, which was initiated at
your request and the request of Congressman Downey will be
completed shortly. It is in the process of being finalized
for submission to the Congress with letters of transmittal
to yourself and Congressman Downey. Mr. Chairman, my state-
ment this morning will highlight the information that will
be contained in that report.

Before we present the nature of the problems we have
found with WWMCCS, we would like to discuss the background
and basic concepts of WWMCCS.

BACKGROUND INFORMATION ON THE WWMCCS PROGRAM

WWMCCS was established by the Department of Defense in
1962. It included the existing command and control systems
of the Unified and Specified Commands, WWMCCS related manage-
ment information systems for the Headquarters of the Military
Departments, the command and control systems of the Headquarters
of the Service Component Commands, and the Command and Control
Support Systems of Department of Defense Agencies. In

addition, WWMCCS must be able to exchange information with
non-Department of Defense systems and agencies such as The
White House Situation Room, the Central Intelligence Agency,
and the U.S. Intelligence Board.

WWMCCS, through the National Military Command System,
is intended to provide the National Command Authorities a
capability to:

--receive warning and intelligence information,

--apply the resources of the Military Departments,

--assign military missions, and

--provide direction to the Unified and Specified
  Commands.

In addition, WWMCCS, must support the Joint Chiefs of Staff
in carrying out their responsibilities.

During the 1960's, the WWMCCS structure represented a
loosely knit federation of approximately 158 different computer
systems, using 30 different general purpose software systems in
operation at 81 separate locations. These systems were not
responsive to national level requirements. They were not complete
systems because they were developed separately without sufficient
consideration being given to the information requirements of
other commands with whom they had to exchange information.
The systems lacked growth potential and used incompatible hard-
ware, software, and data base structures. The systems could
not transfer data and information efficiently and it was

extremely difficult to exploit ADP technology because of the vast differences in equipment and software systems.

In addition, independent or decentralized system development efforts were very costly. Multiple equipment procurements were made at single unit prices usually at General Services Administration contract prices instead of consolidating procurements to obtain discount prices. Many of the commands were forced to make an excessive number of sole source procurements to try to keep software conversion costs down. Even so, the commands experienced multiple (duplicative) software development costs, maintenance costs, and logistical support costs because equipment and software had not been standardized.

By January 1966, the magnitude of these problems had been recognized by the Office of the Secretary of Defense and the Joint Chiefs of Staff who began informal discussions for the purpose of improving and standardizing automated data processing activities in support of command and control functions. The WWMCCS ADP Program, resulting from these discussions, was approved by the Deputy Secretary of Defense in June 1970.

In late 1971, Deputy Secretary of Defense David Packard reorganized WWMCCS to make it more responsive to the National Command Authorities. DOD Directive 5100.30 dated December 2, 1971, established the present WWMCCS program. The prin-

cipal objective of the program is to improve the operational effectiveness of equipment and software at less cost than heretofore had been possible with separate and independent equipment procurements and individual software development efforts. The program is intended to simplify the exchange of information throughout the various commands through the use of standard equipment, a standard data management system, standard programs, standard terminology, and standard data formats. Standardization is also expected to facilitate and enhance each command's operational backup capability and personnel training requirements. In addition, the program is intended to centralize the WWMCCS management activities.

Of particular interest is the emphasis the directive placed upon the National Military Command System. Specifically, the directive provided that the National Military Command System ". . . be the most responsive, reliable and survivable system that can be provided with the resources available." (Emphasis added.)

Using this information as a basis for our review we evaluated the current program with a view towards ascertaining the extent to which the DOD has been able to improve its computer and data communications support of their command and control activities.

SUMMARY OF GAO EVALUATION
OF THE WWMCCS PROGRAM

The results of this evaluation showed that the problems associated with automated support of command and control functions, as recognized by the Department of Defense in 1966, are yet to be resolved. Thus, there has been little, if any, improvement realized by the Department of Defense since the inception of the program. It is our view that the Department of Defense's planned future expenditures to continue this program, will not resolve those problems unless the Department initiates major changes in the program's management structure and direction.

Although total costs expended on the program could not be determined, DOD's best estimates indicate that $10-15 billion has been expended of which about $1 billion applies to WWMCCS software development efforts and computer and data communications equipment acquisitions. For fiscal year 1980, DOD is requesting in excess of $140 million to continue this program. However, there are so many different sources from which WWMCCS computer and data communications equipment and software development efforts have been and are being funded that we could not determine the full magnitude of the sums expended or requested for the WWMCCS program.

Now, let me highlight the information we developed during the review that has led us to these conclusions. The Committee and Congressman Downey requested we evaluate nine separate issues associated with the WWMCCS program.

1. ABILITY OF WWMCCS TO MEET COMMAND AND CONTROL NEEDS OF THE NATIONAL COMMAND AUTHORITIES DURING A TIME OF CRISIS

The computers selected by the Department of Defense for use as the standard WWMCCS computer were the Honeywell 6000 series. The original procurement was first approved for a range of 34 to 87 systems with each system to consist of up to 4 central processing units. However, the number of systems was finally set at 35 due to fiscal limitation. Presently, there are 35 systems consisting of 64 central processing units installed in 27 locations world-wide.

These computers were originally designed by and contain essentially the same circuitry as initially used by the General Electric Corporation when they first marketed the computer in May 1964, when it was known as the GE-635. The GE-635 computers now known as the Honeywell 6000 series computers are batch or sequence processing oriented and were not designed to operate in an on-line real-time manner as required in a command and control environment. Commanders and their staff work around this condition using other command and control systems to satisfy their requirements not only during a time of crisis but for day-to-day operation. An example of this situation is the development by the Strategic Air Command of the Command Center Processing and Display System (CCPDS).

The CCPDS is the early warning computer system that provides the National Command Authorities displays of tactical warning and attack assessment information for use in decision making. The equipment consists of on-line real-time Univac computer systems funded, in part, from WWMCCS funds but are not included by DOD as part of the WWMCCS ADP program. DOD refers to this equipment as a WWMCCS executive aid. The CCPDS is presently installed and operating at four locations--The Strategic Air Command; the North American Air Defense Command; the National Military Command Center; and the Alternate National Military Command Center.

2. THE ABILITY OF THE WWMCCS
   SOFTWARE TO SUPPORT
   THE WWMCCS MISSION

In WWMCCS, as in any automated data processing system, there are two types of software--operating systems and application software. Operating systems enable the computer to execute the instructions contained in the application software. Application software is represented by the computer programs written by the user of the computer equipment. In WWMCCS the operating system is known as the General Comprehensive Operating Supervisor (GCOS). The GCOS was originally designed by the General Electric Corporation and subsequently modified by Honeywell for use in the WWMCCS program. Both GCOS and the Honeywell computers are designed to operate in a batch or

sequence mode of operation and are extremely inefficient for use in the WWMCCS program and particularly for use in the WWMCCS Intercomputer Network (WIN). WIN is intended to facilitate the exchange of information between commands and to make the WWMCCS computers reponsive to ad hoc inquiries from all levels. Since neither GCOS nor the Honeywell computers are designed to operate in an on-line real-time mode, the Department of Defense has had to expend considerable time, effort, and money to develop and implement software that attempts to allow on-line real-time data and information to be processed in a batch or sequence mode. The development and implementation of this software was unnecessary because the need for on-line real-time processing capabilities was known to the Department of Defense before the Honeywell computers were purchased and other computers, available at that time, could have provided this capability.

In addition, the Department of Defense has expended considerable effort and money to design, develop, implement, and operate a World Wide Data Base Management System that also operates in a batch or sequence mode. Thus, it has the same deficiencies in its capabilities as does GCOS and the Honeywell computers.

We also found that the Honeywell WWMCCS applications software also has serious deficiencies. WWMCCS application software can be grouped into three categories--WWMCCS

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standard software, software under consideration for use as WWMCCS standard software, and software developed by the various commnds to meet their needs because of deficiencies in WWMCCS standard software.

As of March 1979, the Joint Chiefs of Staff has approved 16 applications as WWMCCS standard software. These applications include such software as the Joint Operation Planning System (JOPS), Nuclear Operations Monitoring System (NOMS), and Computer Directed Training System (CDTS).

Standard software is standard in name only. A command may or may not elect to use these applications as they see fit. As a result, very few of these applications are in use at any one command because they do not meet the needs of these commanders. Usually the information is too old to be useful, not sufficiently detailed for local use, does not contain the right information in the right format, and cannot be retrieved in a timely manner.

Software under consideration as WWMCCS standard software includes such applications as Forces Status and Identity Report System (FORSTAT), Nuclear Contingency Planning System (NCPS), and Fragmentation Order Preparation (FRAG/PREP). We found similar deficiencies in this software as we found in the standard software.

The basic reason for WWMCCS standard software being non-responsive to the needs of the majority of the commands

who are its users, is that the "standard" software is
sponsored and developed independently by a command, such
as U.S. EUCOM, CINCPAC, SAC and NORAD, who may or may not
elect to submit it to the Joint Chiefs of Staff for approval
as a WWMCCS Standard. Thus, WWMCCS standard software is
developed separately without sufficient consideration being
given to the information needs of other commands. This is
one of the problems the current WWMCCS program was intended
to resolve but has not. In addition, the Joint Chiefs of
Staff has defined the data base structure and reporting
formats for applications such as FORSTAT in such a fashion
they cannot be used at the Unified and Specified or sub-
ordinate command levels. The Joint Chiefs of Staff
itself does not use the bulk of the FORSTAT data. Ninety-
five percent of the Joint Chiefs of Staff ad hoc queries of
FORSTAT are run against a much smaller data base called
the FORSTAT strip file. The structure of the strip file
differs from the FORSTAT file in that it contains those
items used most frequently in reporting. However, the size
of the strip file is growing at an alarming rate and is
getting too large to serve its intended purpose efficiently.

Since information processed by WWMCCS standard software
and software under consideration as WWMCCS standard is not
timely, reliable, in the right formats, and cannot be readily

retrieved, each command has developed a substantial number of software applications to support their command and control functions.

Although these locally developed command and control applications meet the needs of the local commander they are very costly to develop, operate, and maintain. They are costly to develop because they are developed separately without sufficient consideration being given to the needs of other commands with whom they must exchange information or who might be able to use the software without expending funds to develop similar applications. Thus, there is considerable similarity of software development efforts within these commands.

These locally developed applications are costly to operate and maintain because they tend to saturate the computer, causing additional equipment to be procured to sustain needed processing capabilities. In addition, these applications are generally incompatible with one another resulting in extensive and costly modifications to facilitate the exchange of information.

In view of these major software deficiencies, we believe that for the near term, consideration should be given to stopping or curtailing the development of new WWMCCS software. Our experience has shown that major software design deficiencies and associated reliability problems cannot be corrected after the fact--even with the expenditure of considerable time, effort, and money.

For the long term, funding should be restricted to completing studies which define the information requirements necessary to support the WWMCCS mission and related command-and control functions. Some of these studies have been completed such as the WWMCCS Architecture Study, some are in process such as those in the European theatre, and some are yet to be initiated, such as those in the Pacific theatre.

Subsequently, these information requirements should be be used as a basis for identifying the operating system requirements, application software needs, the computer equipment that will have the operating characteristics necessary to process and make the information available within required timeframes, and the data communications equipment that will facilitate the timely and reliable exchange of the information between all users.

3. THE DOD MANAGEMENT STRUCTURE FOR THE WWMCCS PROGRAM

We found that the existing management structure is so complex and fragmented that there is no strong central management organization. Yet this was a problem the current program was intended to resolve.

DOD Directive 5100.30 and 5100.79 dated December 2, 1971 and November 21, 1975, respectively, have divided the management responsibilities for the WWMCCS program between the WWMCCS Council; the Chairman, Joint Chiefs of Staff; the Assistant

Secretary of Defense, Communications, Command, Control and Intelligence; the Assistant Secretary of Defense, Comptroller; the Director, Defense Communications Agency; and the three military services in such a fashion that no one organization or individual has a complete overview of the program or the centralized responsibility for its funding, budgeting, or management.

The Defense Science Board has also recognized the complex and fragmented management structure for the WWMCCS program. To resolve this problem, the Board recommended establishing a central agency in DOD to manage command and control activities including WWMCCS. In implementing this recommendation, DOD intends to expand the authority and responsibilities of the Defense Communications Agency.

4. THE PROCESS BY WHICH WWMCCS COMMAND AND
    CONTROL INFORMATION REQUIREMENTS HAVE BEEN
    IDENTIFIED AND ANALYZED TO DETERMINE HOW
    COMPUTER OPERATIONS CAN BEST PROVIDE A
    A TIMELY AND ACCURATE DECISION SUPPORT SYSTEM

The process by which these requirements are identified and analyzed is fragmented throughout the Department of Defense. As a result, there is no single organization in that Department that has either the authority or the responsibility for effectively determining how best to use computers and related equipment to provide a timely and reliable decision support system. Thus, the resulting systems vary considerably in their ability to support the National Command Authorities, the Unified and Specified Commands, and the related management information systems of other DOD components.

For example, each of the major commands in Europe--the U.S. European Command, the U.S. Army Europe, the U.S. Air Force Europe, and the U.S. Naval Forces Europe--have recently completed or have underway studies to determine the information processing capabilities needed to support their command and control activities. Although similar problems exist in the Pacific Theatre none of the major commands in that theatre have initiated studies to identify their command and control information requirements.

The U.S. European Command has developed, possibly, the best approach and completed the most comprehensive such study of any of the commands we visited. This study is divided into four parts each of which are compatible with the basic WWMCCS Architecture Study of 1976. The U.S. EUCOM Command and Control Architecture Study in Part I identifies the critical elements of information the Command considers necessary to support their command and control activities. Part II identifies the Command's existing information collection and processing capabilities. Part III identifies the deficiencies that exist in their current information collection and processing capabilities. These deficiencies were identified by comparing Parts I and II. Part IV of the study identifies and describes the solutions that must be implemented to resolve the known deficiencies.

A study of this nature is a solid first step in identifying the type, nature, and extent of the automated data processing

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support needed by the Command. However, before implementing
the Command's recommended solutions similar studies should be
completed by every command that comprises part of the World
Wide Military Command and Control structure.

Such studies can only be conducted at the level of the
various Commanders-In-Chief because these are the individuals
responsible for carrying out missions assigned by higher au-
tority. Since each of these commanders has a requirement to
exchange information with other commanders it is impossible to
identify and acquire equipment capable of meeting such a require-
ment until the volume and nature of the information to be
exchanged is identified.

Further, to prevent the development of systems separately
without sufficient consideration being given to the information
requirements of other commands with whom information must be
exchanged, the Department of Defense must establish a strong
central management structure with the authority and respon-
sibility to budget for and oversee the implementation of systems
that, when placed into operation, are responsive to the needs
of these commanders. In addition, a strong centralized mange-
ment structure could provide more effective control over the
WWMCCS program to preclude activities such as those underway
at the Defense Communications Agency. The Defense Communications
Agency is implementing the WWMCCS Intercomputer Network (WIN)
while it is studying the need for WIN and before the Commands
have identified their need for it.

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Through the end of fiscal year 1979, the Department of Defense has budgeted about $7 million to determine the operational utility of ADP in support of the WWMCCS. The Department plans to spend approximately an additional $25 million to complete this study even though it will provide them essentially the same information that is contained in the 1976 WWMCCS Architecture and related follow-on studies which cost about $23 million.

5. THE RESPONSIVENESS OF THE LONG-RANGE AND SHORT-RANGE COMPUTER AND DATA COMMUNICATION SYSTEMS PLANNING PROCESS FOR THE WWMCCS PROGRAM

We found that there is no effective formal long-range planning process for the WWMCCS computer and data communication systems. Fragments of a computer long-range planning process exist and conflicts can occur under such a condition.

One of the problems is the tendency of the Joint Chiefs of Staff to represent certain needs of the National Command Authorities in terms of Honeywell computer capabilities. As a result, the WWMCCS Intercomputer Network tends to be heavily Honeywell computer oriented. However, there are two major problems associated with this method of doing business. First, the Honeywell computers are not designed for network processing capabilities and secondly, there is a significant reliability problem with WIN.

We were most concerned about WIN because of the DOD requirement that WWMCCS must be the most responsive, reliable, and survivable system that can be developed within available

resources. An intercomputer network is a key capability for WWMCCS to be responsive in a command and control environment.

During our review we found the overall reliability of Prototype WIN (PWIN) was unsatisfactory during its last major test--The 1977 PRIME TARGET exercise.

The PWIN portion of the 1977 PRIME TARGET exercise showed that four of the six participating WWMCCS sites experienced high percentages of abnormal terminations.

An abnormal termination can be defined as a termination of operations due to software or hardware or combination of software/hardware failures.

The following table shows the experience of the four participating WWMCCS sites:

	Number of Log On's	Number of Abnormal Terminations	%
LANTCOM (Atlantic Command)	295	132	45
EUCOM (European Command)	124	54	44
REDCOM (Readiness Command)	290	247	85
TAC (Tactical Air Command)	63	44	70
CCTC (Command and Control Technical Center) and the NMCC (National Military Command Center)	*	*	*
Totals/Average	772	477	62

*Not Available because statistics were not developed for these locations. A Log On represents an attempt to use the system.

In this exercise, the low reliability level of about 38 percent or less (100%-62%) resulted primarily from problems associated with the computer software particularly the GCOS

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which is unsatisfactory for the WWMCCS on-line real-time response needs because it is batch or sequence oriented.

6. THE DEPARTMENT OF DEFENSE ACTIONS AND PLANS IN RESPONSE TO OUR RECOMMENDATION THAT AN OFFICE WITHIN THE SECRETARY OF DEFENSE BE GIVEN BUDGET AUTHORITY AND RESPONSIBILITY FOR COMPUTER SECURITY

We recommended that this office be given responsibility for:

--Control of all computer security research and development in DOD.

--Review and approval of the computer security requirements for the Army, the Navy, and the Air Force.

--Review and approval of all computer security specifications, the methodology for determining the specifications, and requests for procurements for all WWMCCS computers.

--Review and approval of all computer security long-range plans for WWMCCS and the three services.

We found that the Department of Defense has, in response to our recommendation, started a "Computer Security Initiative" in the Office of the Under Secretary of Defense for Research and Engineering (Communications Command, Control, and Intelligence). This initiative was established in June 1978 to: (1) coordinate ongoing DOD computer security research activities, (2) serve as the technical focus for approval of secure systems within the DOD, and (3) foster the development by the computer manufacturer of secure computer systems using

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a methodology similar to the Kernelized Secure Operating System (KSOS) being implemented by Ford Aerospace and Communications Corporation for the Defense Advanced Research Projects Agency (DARPA).

However, this "Initiative" appears to be only a first step, since the specific budget and managerial controls recommended in our report are not mentioned by DOD.

7. THE DEGREE OF LIFE CYCLE MANAGEMENT CONTROL BEING EXERCISED BY THE DEPARTMENT OF DEFENSE WITH RESPECT TO THE WWMCCS COMPUTER AND DATA COMMUNICATION SYSTEMS

We found that the Department of Defense has interpreted Directive 7920.1 on Life Cycle Management of Automated Information Systems (AIS) (October 17, 1978) to exempt WWMCCS computer and related data communications systems from accountability under this directive.

Our belief is that the criteria in DOD Directive 7920.1 should apply to WWMCCS computer and data communication systems, because life cycle management is essentially a sound management technique that should be applied to any high-cost acquisition. We found no logical reason to exclude WWMCCS computer and data communications systems from its application.

8. <u>THE POSSIBILITY THAT PRESENT ATTEMPTS</u>
   <u>TO STANDARDIZE COMPUTER SYSTEMS AMONG</u>
   <u>ALL WWMCCS COMPONENTS, IRRESPECTIVE OF</u>
   <u>THEIR DISPARATE NEEDS, MAY GIVE RISE TO</u>
   <u>SERIOUS PROBLEMS IN WWMCCS OPERATIONS,</u>
   <u>ESPECIALLY THE NORTH AMERICAN AIR DEFENSE</u>
   <u>COMMAND (NORAD) MISSILE TRACKING SYSTEM</u>

Some efforts of standardization in WWMCCS have indeed
caused serious problems. For example, we reported on
September 21, 1978, (LCD-78-117) that NORAD was required
to use a Honeywell WWMCCS computer system that could not
do the specified computations for missile tracking in the
required timeframe. After the Honeywell WWMCCS computer
systems failed, other alternatives were evaluated. Our point
is that the <u>needs should be determined first</u> and then the
computer system selected to meet those needs.

In our review of the current WWMCCS computer operations,
we found several other examples of the problems caused by
arbitrary standardization regardless of needs. Thus, the
strong desire to standardize equipment and software have been
the driving force behind the WWMCCS program instead of the
information needed to support the functions of command and
control.

9. <u>THE CURRENT RAMIFICATIONS OF THE 1970</u>
   <u>WWMCCS COMPUTER BUY AND WHETHER WWMCCS</u>
   <u>PROCUREMENT POLICIES AND PROCEDURES</u>
   <u>HAVE IMPROVED SINCE THAT TIME</u>

We found the same situation that existed in 1970,
essentially exists today. Specifically, inadequate deter-

minations of need and cost and savings estimates are used by the Department of Defense to justify additional WWMCCS computer equipment acquisitions and to initiate software development efforts. We have attempted to find the actual cost of the WWMCCS computer and data communication systems since 1970. There are virtually no cost controls associated with the WWMCCS program. The estimate given to us by the Department of Defense is that $1 billion has been spent on Honeywell computer and data communication systems since 1970. However, there was inadequate documentation to show what the actual distribution of costs were and whether they were complete.

Another example of the need for sound and reliable cost controls concern the U.S. Air Force Europe's acquisition of WWMCCS computer equipment primarily to be used to process NATO requirements. Air Force officials are concerned that the expenditure of $1.7 million for this equipment, is not in compliance with the International Security Assistance and Arms Export Control Act of 1976 (PL 94-329) which precludes the U.S. from directly funding NATO requirements.

GAO first started reporting on the issue of computer support for WWMCCS on December 29, 1970. We reported to the Chairman, Committee on Appropriations, House of Representatives on a proposed computer system acquisition to support WWMCCS and the closely related Intelligence Data Handling System. Our review of the program for the acquisition of up to 87

computers concluded that it was not adequately planned or

supported by valid cost and savings estimates or determin-

ations of need. Further, we mentioned that the responsibility

for planning and direction of the acquisition program was

fragmented among several organizations, such as the Office

of the Joint Chiefs of Staff and the Directorate of Defense

Research and Engineering in the Department of Defense. Today,

the equivalent research and engineering office with WWMCCS

oversight is the Deputy Under Secretary of Defense for

Research and Engineering (Communications, Command, Control

and Intelligence).

In our 1970 report we mentioned that 15 to 35 standard

computer systems were approved on June 4, 1970, for com-

petitive procurement. Subsequently, 35 computer systems with

64 central processors were acquired by DOD and called "WWMCCS

ADP." Limiting "WWMCCS ADP" to these 35 systems is an in-

complete identification, because there are substantially

more than 35 computer systems necessary to support the

National Command Authorities, the Unified and Specified

Commands, and the WWMCCS related management/information of

other DOD Components, such as the service headquarters.

It is our view that the WWMCCS ADP Program should, in

fact, include these additional command and control computers.

We have found that there are several broad categories of com-

mand and control computer systems in DOD that support the
National Command Authorities, the Unified and Specified
Commands and DOD Components.

--First, there are the 35 Honeywell computer
systems with 64 central processing units
that DOD refers to as "WWMCCS ADP."

--Second, there are other command and control
systems such as the on-line real-time Univac
systems which DOD refers to as the Command
Center Processing and Display System (CCPDS).

--Third, there is an IBM computer system that
generates the Single Integrated Operations
Plan (SIOP) for use in case of nuclear attack.

The IBM system generates the plan in a
format that can be processed by the Honeywell
computers because the Honeywell computers do not
have the processing capacity to generate the plan
within required timeframes. This system is
funded, in part, from Intelligence Data
Handling System funds and is not included by
DOD as part of the WWMCCS ADP Program. The
Commander-in-Chief of SAC is the project
manager for this system. And,

--Fourth, the Unified and Specified Commands and
other DOD Components maintain their own command

and control systems, which can include the above

computers and many additional computer systems.

For example, we reported on the use of certain command

and control computers at the North American Air Defense

Command (NORAD) (LCD-78-117, September 21, 1978). There are

over 80 computers at NORAD that process information in support

of command and control. However, NORAD has only five Honeywell

WWMCCS computer systems containing eight central processors.

Since these various categories of command and control computer

systems support the National Command Authorities, the Unified

and Specified Commands, and other DOD Components in conformity

with the basic 1971 WWMCCS directive, we believe that management

of these vital command and control resources should be integrated

and that the planning and use of these resources should be better

coordinated.

Following our 1970 report on WWMCCS, we have reported on the

program to Congressman Jack Brooks on May 6, 1971 (B-163074),

the Secretary of Defense on July 21, 1975 (LCD-75-116), and on

April 5, 1978 (LCD-78-109), and the Congress on September 21,

1978 (LCD-78-117).

These subsequent reports addressed such issues as:

--the lack of information requirements

   definition,

--fragmented planning and program management, and

--the inability of the GCOS to provide the secure

operating capability needed in the WWMCCS

program.

GAO has not been the only organization to report these
and other substantive issues to DOD. Other organizations
and individuals have studied and reported on command and
control problems in general and WWMCCS in particular. For
example, in November 1977 (R-2252-DCA) the Rand Corporation
issued a study on WWMCCS data management problems. Rand
found that there is a need for reappraisal of the infor-
mation reporting requirements set forth in Joint Chiefs
of Staff Publication 6 with respect to WWMCCS. In another
case, the Institute for Defense Analyses reported in
June 1978 (IDA Paper P-1344) that the Joint Chiefs of Staff
estimates that 95 percent of all responses to ad hoc queries
do not use the FORSTAT data base and structure, but use a
strip file which is not formatted according to JCS
Publication 6. In a report issued during July 1978 and
prepared by the Defense Science Board Task Force, the Task
Force determined that our command and control systems have
not kept up with the changes in the type of warfare or the
changes in weapons and available command and control tech-
nology. Further, the Task Force stated that there is a
strong need for a central organization for military command
and control. In another study requested by the President

in September 1977, Richard C. Steadman (formerly the Deputy Assistant Secretary of Defense for Far Eastern Affairs) reported to the Secretary of Defense, in July 1978, that there are now many detailed reports on the operational readiness and war-fighting capability of the combatant forces. However, he stated that these reports are focused on unit, not joint combatant force capabilities, they use differing standards among the Services; they are not designed to tie into the resource allocation process; and they do not focus on alternative corrective action possibilities.

As with the recommendations in our reports, DOD has taken little action to implement the recommendations in these other reports and what action has been taken has been ineffective for its intended purpose. The problems identified by DOD in 1966 still are yet to be resolved.

10. ACCESS TO RECORDS

We cannot fully discharge our statutory responsibilities or be totally responsive to the Committee's and Congressman Downey's request without access to all pertinent documents and supporting information resulting from internal surveys, reviews, military exercises, and plans. Copies of our correspondence, DOD responses, and our evaluation of those responses are available to the subcommittee concerning our access to records problems during this review. This evaluation shows that we have obtained complete access to and copies of only 60 percent of the documents we consider to be pertinent to this review.

We have been denied access to pertinent documents and people on this review by the Joint Chiefs of Staff. Specifically, the Joint Chiefs of Staff has refused us access to these records primarily on the basis of their determination that the information is outside the scope of our review.

The Joint Chiefs of Staff has forced us to place our requests in writing and then delays the responses. Because of these access to record problems, we cannot obtain source documents for certain issues nor can we completely evaluate the WWMCCS program. For example, during the week of November 13, 1978 and on December 20, 1978, we were denied access to the comments of the U.S. Navy Europe on a major command and control exercise--NIFTY NUGGET.

In another instance, we requested access to operations plans which include the critical elements of information for theater decision making. For example, we requested U.S. Navy Europe Operations Plan 4102. We were denied access ". . . based on a long-standing JCS policy that knowledge of certain details of plans for the conduct of military operations should be limited to planners and those forces implementing the plan." (Emphasis added.)

On January 5, 1979, when we requested access to key people in the Joint Chiefs of Staff, we were advised that a letter requesting access must be transmitted. The letter is to state the general purpose of our intended meeting, including the

topics to be discussed. For example, we were informed that access to selected JCS users relating to the Status of Forces (FORSTAT) and the Joint Operations Planning System (JOPS) would become available only if we made our request in writing, which we did in our letter dated January 9, 1979. We were subsequently granted access to these individuals.

Your letter, Mr. Chairman, to the Secretary of Defense on February 8, 1979, concerning our access to records problems has been of substantial assistance. We have been following up on this letter and working with the Honorable Fred P. Wacker, Assistant Secretary of Defense (Comptroller) to resolve these problems. Presently many of these unresolved problems are critical to the completion of our review and we hope we are able to resolve them.

Mr. Chairman, this concludes my prepared statement. We will try to answer any questions you or other members of the Subcommittee may have.