Audit Report

OFFICE OF THE INSPECTOR GENERAL

WORLDWIDE MILITARY COMMAND AND CONTROL SYSTEM CONSOLIDATION IN THE PACIFIC THEATER

Report No. 93-126 June 25, 1993

Department of Defense

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Acronyms

AFB	Air Force Base
ASD(C3I)	Assistant Secretary of Defense (Command, Control, Communications and Intelligence)
CIM	Corporate Information Management
DPS 8000	Distributed Processing System 8000
DPS 8/70	Distributed Processing System 8/70
DSSO	Defense System Support Organization
JIEO	Joint Interoperability and Engineering Organization
JOPES	Joint Operations Planning and Execution System
SDN	System Development Notification
SPAWAR	Space and Naval Warfare Systems Command
USPACOM	U. S. Pacific Command
WAM	Worldwide Military Command and Control System Automatic Data Processing Modernization
WIS	Worldwide Military Command and Control System Information System
WWMCCS	Worldwide Military Command and Control System

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

June 25, 1993

MEMORANDUM FOR COMMANDER IN CHIEF, U.S. PACIFIC COMMAND

SUBJECT: Audit Report on the Worldwide Military Command and Control System Consolidation in the Pacific Theater (Report No. 93-126)

We are providing this final report for your information and use. It discusses DoD Hotline allegations that the consolidation plan for the Worldwide Military Command and Control System (WWMCCS) host computer sites in the Pacific Theater is not cost-effective.

A draft of this report was provided to USPACOM for comment on January 28, 1993. Comments on the draft report were provided on April 7, 1993. Based on documentation provided by USPACOM in response to the draft report, a recommendation to reduce one-time consolidation costs by $21,000 was dropped from this final report. For the two remaining recommendations, USPACOM nonconcurred with Recommendation 1. and the associated potential monetary benefits and concurred with Recommendation 2. but failed to provide an implementation date for the corrective action. Details on the unresolved issues are discussed in Part II of the report.

DoD Directive 7650.3 requires that audit recommendations and potential monetary benefits be resolved promptly. Recommendations and potential monetary benefits are subject to resolution in accordance with DoD Directive 7650.3 in the event of nonconcurrence or failure to comment. Therefore, the USPACOM is requested to provide comments on the unresolved matters in this final report by July 26, 1993.

We appreciate the courtesies extended to the audit staff. If you have any questions on this audit, please contact Ms. Mary Lu Ugone on (703) 692-3320 (DSN 222-3320) or Ms. Cecelia Miggins on (703) 692-2897 (DSN 222-2897). Appendix C lists the distribution of this report.

Robert J. Lieberman

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 93-126
Project No. 2RE-8003

June 25, 1993

WORLDWIDE MILITARY COMMAND AND CONTROL SYSTEM CONSOLIDATION IN THE PACIFIC THEATER

EXECUTIVE SUMMARY

Introduction. The Pacific Command, through its subordinate commands, operated four Worldwide Military Command and Control System (WWMCCS) host computer sites and planned to establish a fifth site in FY 1993. In February 1992, the U.S. Pacific Command proposed consolidating the five host computer sites into two sites: one at the U.S. Army Pacific, Fort Shafter; and one at the U.S. Pacific Air Forces, Hickam Air Force Base.

Objective. The audit objective was to evaluate the validity of a Hotline allegation that the U.S. Pacific Command's WWMCCS consolidation plan was not cost-effective.

Audit Results. The allegation was not substantiated and we determined that the plan, reflected in the System Development Notification (SDN), was cost-effective. However, one-time consolidation costs of $6,495,310 were overstated by $582,250 and annual operating costs of $2,424,600 for the consolidated sites were understated by $209,400. In addition, the plan included about $1.8 million to acquire computer equipment to support WWMCCS program requirements that were terminated subsequent to preparation and submission of the plan. Accordingly, the processing capacity of the DPS 8000/84 in the plan is not necessary and should not be acquired.

Internal Controls. Internal controls were not assessed in this audit.

Potential Benefits of Audit. This report identifies $2.4 million in funds that could be put to better use in the fiscal year in which the consolidation plan is implemented (Appendix A).

Summary of Recommendations. We recommended that the U.S. Pacific Command amend the SDN to delete the $1.8 million for hardware for the terminated requirements and to correct the overstatement of annual operation and maintenance savings. A recommendation in the draft of this report to reduce the one-time consolidation costs related to multiplexers at Fort Shafter was dropped from the final report based on documentation provided in response to the draft report.

Management Comments. The U.S. Pacific Command nonconcurred with the recommendation to delete the computer equipment for the terminated requirements citing a recent reanalysis of the theater-wide WWMCCS workload. USPACOM concurred with the recommendation to correct the operation and maintenance savings. Details on management's comments are provided in Part II of the report, and the text of the comments is in Part IV. Comments on the final report are requested from USPACOM by July 26, 1993.

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This report was prepared by the Readiness and Operational Support Directorate, Office of the Inspector General for Auditing, DoD. Copies of the report can be obtained from the Secondary Reports Distribution Unit, Audit Planning and Technical Support Directorate (703) 614-6303 (DSN 224-6303).

Part I - Introduction

Background

The DoD established the Worldwide Military Command and Control System (WWMCCS) in 1962 as a global command and control system. The primary mission of WWMCCS is to support the President and the Secretary of Defense by providing secure communications to transmit tactical warning and intelligence information for timely decision making. The secondary mission is to support the command and control systems of the unified and specified commands and the WWMCCS-related information systems of other DoD Components.

During 1989 and 1990, the Secretary of Defense Management Review study group evaluated DoD's automated data processing systems and determined that there was a potential for greater efficiencies and reduction of costs by consolidating some automated data processing systems or facilities. Based on the group's findings, the Joint Staff decided to apply the consolidation concept to DoD's command, control, and communications systems. In April 1990, the Joint Staff requested that the unified and specified commands determine potential benefits of a consolidation of WWMCCS facilities. In response, the U.S. Pacific Command (USPACOM) prepared a study of seven consolidation alternatives for its WWMCCS host computer sites. In June 1991, the Commander in Chief, USPACOM, approved a plan to consolidate WWMCCS host computer sites to two locations on Oahu, Hawaii: Fort Shafter, U.S. Army Pacific; and Hickam Air Force Base (AFB), U.S. Pacific Air Forces.

The consolidation plan provided that Datanet 8 communication processors would replace host computers at U.S. Pacific Fleet, Makalapa, Hawaii, and at U.S. Forces Korea, Taegu, Korea, and remote network processors. The consolidation plan also included upgrades to the USPACOM WWMCCS computer and communications infrastructure. The plan included computer and communication requirements for the Joint Operation Planning and Execution System (JOPES) Version 4, a major software application that is processed on WWMCCS.

In a February 1992 System Development Notification (SDN) to the Joint Staff, USPACOM submitted its proposed consolidation plan for the WWMCCS. USPACOM's proposal addressed the consolidation, related data processing architecture, funding requirements, and associated savings. USPACOM requested Corporate Information Management (CIM) funds for the proposed consolidation. CIM funds are Defense Agency Procurement funds earmarked for CIM projects and are provided by the Director of Defense Information, Office of the Assistant Secretary of Defense (Command, Control, Communications and Intelligence) (ASD[C3I]). The Departments of the Army, Navy, and Air Force, and the U.S. Marines Corps will also contribute funds for the consolidation.

The ASD(C3I) provided CIM funds for the USPACOM WWMCCS consolidation project in the following amounts.

Table 1. CIM Funds

Military Department	Date Funds Provided	Fiscal Year First/Last*	Fund Amount
Army	1/28/93	1993/1995	$2,482,000
Navy	3/17/93	1992/1994	390,000
	1/28/93	1993/1995	1,203,000
Air Force	1/17/93	1991/1993	1,785,000
	1/17/93	1992/1994	96,000
Total			$5,956,000

* Procurement funds are available for 3 fiscal years.

Objective

The overall objective of the audit was to evaluate the validity of a Hotline allegation that the USPACOM's WWMCCS consolidation plan was not cost-effective.

Scope

This economy and efficiency audit was made from October 1991 through April 1992. The audit focused on the USPACOM's consolidation study and the February 1992 consolidation proposal. We reviewed and evaluated various aspects of the consolidation plan, including communications, software, hardware, personnel, budget, and facilities. Documents dated from 1980 to 1992 that describe WWMCCS-related command and control systems unique to each Service were reviewed. We did not review funding requirements other than the CIM funding requested in USPACOM's proposal.

Except for the standards pertaining to internal controls discussed below, the audit was made in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD. The activities visited or contacted are listed in Appendix B.

Internal Controls

Because the audit was limited to the conditions contained in the DoD Hotline allegation and the scope was limited to the consolidation proposal as reflected in the SDN and supporting documentation, the internal controls pertaining to the WWMCCS in USPACOM were not assessed.

Prior Audits and Other Reviews

In "Review of Unified and Specified Command Headquarters," February 1988, the Inspector General, DoD, recommended that the USPACOM assess the feasibility of consolidating the WWMCCS facility at the U.S. Pacific Air Forces, Hickam AFB, into the WWMCCS facility at the U.S. Pacific Fleet, Makalapa. In response to the recommendation, the Commander in Chief, USPACOM, stated that consolidation at Makalapa was neither timely nor reasonable. However, the USPACOM WWMCCS consolidation that was subsequently proposed and presented in the SDN we audited meets the intent of the Inspector General's February 1988 recommendation of consolidating WWMCCS operations facilities. There have been no other audits within the last 5 years that specifically addressed the WWMCCS consolidation.

Other Matters of Interest

In 1982, the Air Force was designated the lead Service for the WWMCCS Information System (WIS) Program to replace WWMCCS automatic data processing systems. In 1989, the Defense Acquisition Board terminated WIS and assigned the Defense Information Systems Agency as the executive agent for the new WWMCCS Automatic Data Processing Modernization (WAM) Program. The purpose of WAM is to modernize existing WWMCCS standard automatic data processing systems and related telecommunications. The primary focus of WAM is development of the Joint Operations Planning and Execution System (JOPES) software. JOPES was planned as an integrated, conventional command and control system for use by senior-level decision makers. Of the 13 JOPES versions developed, 3 (Version 3.3) are operational.

In March 1991, the Defense Acquisition Board and the Major Automated Information System Review Council reviewed the WAM Program. Based on the reviews, the Under Secretary of Defense for Acquisition decided to proceed with the WAM Program. However, on July 15, 1992, the ASD(C3I) recommended the termination of WAM. On September 1, 1992, the Under Secretary of Defense for Acquisition terminated the WAM Program and directed that the ASD(C3I) develop new alternatives for future acquisitions to meet the critical mission need. On October 16, 1992, the ASD(C3I) terminated development and testing of JOPES with the exception of Version 3.3.

Part II - Finding and Recommendations

Consolidation Plan for Host Computer Sites

The USPACOM's proposed consolidation plan for the WWMCCS host computer sites in the Pacific theater was cost-effective. However, certain estimates of consolidation costs and savings from consolidation were not accurately reflected in the System Development Notification (SDN) proposed to the Joint Staff. Errors were made in estimating costs for communications equipment, and leased communication lines. Additionally, changes in WWMCCS program requirements, which occurred since the plan was prepared, had not been considered. As a result, the SDN overstated estimated procurement costs for the consolidation by about $582,250; understated projected annual operating costs of the consolidated sites by about $209,400; and included $1.8 million to acquire computer equipment to support WWMCCS requirements that have been terminated.

Background

In June 1991, the Commander in Chief, USPACOM, decided to consolidate five WWMCCS host computer sites at two sites: Fort Shafter, the U.S. Army Pacific; and Hickam AFB, U.S. Pacific Air Forces. USPACOM's consolidation plan proposed upgrading remote network processing sites and improving WWMCCS communications in the Pacific theater. In February 1992, USPACOM submitted an SDN that defined the proposed WWMCCS Automatic Data Processing Consolidation Plan, operational requirements, CIM funding requirements, and associated savings. USPACOM requested $6,495,310 to implement the proposed consolidation plan. About $5,956,000 has been provided to implement the consolidation plan. As proposed, the consolidation would reduce annual WWMCCS operating costs in the Pacific theater by about $2.4 million. Savings would primarily result from a reduction in the number of military personnel and in equipment maintenance costs. The consolidation plan included upgrades and modernization for the WAM program at Headquarters, U.S. Army Pacific, Fort Shafter, and Headquarters, U.S. Pacific Air Forces, Hickam, AFB.

Proposed Consolidation

In June and July 1991, a DoD Hotline complaint alleged that USPACOM's proposed consolidation to two WWMCCS host computer sites at Hickam AFB and Fort Shafter was not cost-effective. The Hotline allegation also questioned

the validity of the estimated savings. The consolidation proposal included cost comparisons of the current WWMCCS sites for facilities, communications, hardware, and personnel to those of the consolidated sites and estimated the resultant savings. We determined that the SDN overstated procurement costs for communications equipment by $296,950 and for Datanet 8 communications processors by $306,600 for a total of $603,550. During the audit, USPACOM officials amended the SDN and reduced procurement costs by $582,250. In response to the draft report, USPACOM officials provided documentation which showed that the remaining $21,300 was not an overstatement. An error in computing annual lease costs for communications lines resulted in an understatement of $209,400 in annual operating costs.

Facilities. In August 1990, when USPACOM began to study the WWMCCS consolidation, three WWMCCS host computer sites were active: two on Oahu, Hawaii (U.S. Pacific Air Forces, Hickam, AFB, and U.S. Pacific Fleet, Makalapa) and one at U.S. Forces, Taegu, Korea. At the time of the study, the U.S. Army, Pacific, was building a WWMCCS host computer facility at Fort Shafter, Oahu, Hawaii, to replace its remote network processing site. The Fort Shafter site was in the final stage of completion, and the site at Hickam AFB had been remodeled in FY 1990. Therefore, the costs for those buildings were considered sunk costs and were not included in the consolidation proposal. Also, USPACOM had plans for establishing another host computer site at Yokota, Japan. USPACOM's WWMCCS consolidation study evaluated and compared the facilities at the three active host computer sites in regard to floor space, electrical power, air conditioning, expendability, administrative space, survivability, and reliability. We visited the facilities on Oahu, Hawaii, and reviewed the documentation on the three active facilities. We concluded that USPACOM's comparison of the sites was valid.

Communications. The SDN overestimated nonrecurring communication costs by $296,943. The proposed communications architecture was based on circuit upgrades required for the JOPES Version 4.0 and other circuits needed to obtain the desired communication connectivity. The communication upgrades that were required specifically for the consolidation were site-to-site circuits between Datanet 8 communication processors and between Datanet 8 communication processors and the mainframe. The $1,223,250 estimate for communication costs included equipment, engineering, installation, and Defense Secure Network 2 upgrades. Equipment to connect communications lines included, for example, multiplexers, security devices, modems, and channel cards. We verified the equipment costs using the "U.S. DoD Bulk Modem Contract" (August 1990 through August 1991) and the "Communications Group Equipment and Maintenance Orders Procedures-Statistical Procedures of Time/Division Multiplexers" (Contract No. DAA B07-89-D-M084). Our audit analysis showed that the unit cost of some equipment was overstated in the consolidation proposal. Unit costs were overstated because "ballpark" figures were used for cost estimates. When we brought the overstatement to the USPACOM's attention, action was taken to correct the errors.

Software. The WWMCCS host computer site at Hickam AFB will process Joint,[1] Navy, and Air Force work load requirements, while the Fort Shafter WWMCCS host computer site will process Joint, Army, and U.S. Forces Korea requirements. The JOPES Version 4.0 was planned for processing at both sites. Both proposed consolidation sites developed computer disk storage space requirements based on the number and size of software applications, data protocol conversion, work space,[2] and future growth. We reviewed the calculations used to determine disk space requirements. We determined that total disk space requirements were overstated at Fort Shafter and understated at Hickam AFB. Disk space requirements at Hickam AFB were understated by two disk drives, at a cost of $189,900. When the errors were brought to the attention of USPACOM representatives, they consulted with technical experts at the Defense Information Systems Agency and decided that the proposed disk storage space requirements for Hickam AFB were sufficient and that the two additional disk drives would not be added to the SDN. The overstatement of disk storage space requirements at Fort Shafter was minimal and did not affect the disk drive requirements.

Hardware. USPACOM's WWMCCS host computer sites will operate the Distributed Processing System (DPS) 8000/84, a mainframe processor manufactured by Honeywell, Inc. The DPS 8000/84 would increase computer processing power by 50 percent and would satisfy JOPES Version 4.0 processing requirements. The computer hardware architecture and configuration at the two proposed sites was based on an analysis of processing requirements and projected JOPES requirements. In addition to Joint systems, the Service-unique systems that support the Service component commands operate on the USPACOM WWMCCS computer system. Those Service-unique systems were considered by USPACOM in the estimate of hardware requirements because the Service-unique systems are not planned for migration off the WWMCCS hardware until about FY 1995.

Datanet 8 communications processors will provide WWMCCS connectivity between sites. Dual Datanet 8 processors will operate as host communication processors at Hickam AFB and Fort Shafter, Hawaii; as remote communication processors at Makalapa and Camp H.M. Smith, Hawaii; and as remote processors at Elmendorf Air Base, Alaska, and Yokota, Japan. Single Datanet 8 processors will operate as remote communication processors at Taegu, Korea, and Yongsan, Korea. Also, when USPACOM submitted the consolidation proposal to the Joint Staff, the Space and Naval Warfare Systems Command (SPAWAR) had agreed to fund five Datanet 8 processors. Since then, SPAWAR has agreed to fund seven Datanet 8 processors. After our discussion with USPACOM representatives, they adjusted the

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[1] Joint - Connotes participation by components of more than one Service of the same nation.

[2] Work space - Connotes the portion of main storage that is used by a computer program for temporary storage of data.

consolidation proposal to reflect the change in funding source. USPACOM also adjusted the CIM funding request to reflect additional funding received from the Navy for printers.

Technical requirements. The Defense System Support Organization (DSSO), a component of the Defense Information Systems Agency, is responsible for providing technical support for WWMCCS design, development, deployment, and evolution. In May 1991, USPACOM requested that DSSO evaluate the technical feasibility of consolidating the host computer sites at Fort Shafter and Hickam AFB. The DSSO's analysis focused on hardware and communications architecture and requirements. USPACOM submitted data from the General Comprehensive Operating Supervisor-8, Performance Analysis Reporting System. The data represented a normal-to-high work load for the host computer sites at Hickam AFB, Hawaii; Taegu, Korea; and Makalapa, Hawaii. DSSO also evaluated various communications configurations with moderate work loads. Based on its analysis, DSSO validated the communications and hardware architecture and made recommendations on the hardware requirements. USPACOM incorporated the technical recommendations into the consolidation proposal.

Personnel. Implementation of the proposed consolidation plan will reduce the number of personnel from 383 to 338. Each USPACOM WWMCCS site developed its personnel requirements, which were then reviewed by a Personnel Committee working group. Subsequently, USPACOM's WWMCCS consolidation staff reviewed the personnel requirements. The functional areas considered were management, administrative support, finance and staffing, supply, plans and programs, communications support, hardware and software configuration management, security, data base, applications software, systems software, computer performance evaluation, training, local area network, computer operations, and user support. Our analysis showed that the majority of the planned personnel reductions would result from replacing the mainframe processors at two existing host sites and five remote network processors with Datanet 8 processors. Each existing and planned host site developed a staffing document that showed the transition of the number of existing personnel to the number of postconsolidation personnel. Savings in military personnel costs were estimated at $1,360,000, but costs for civilian personnel would increase by $549,400. Net annual personnel savings were estimated at about $810,600.

Operation and maintenance budget. USPACOM underestimated operation and maintenance costs by about $209,400. To present the savings that would be achieved through consolidation, each WWMCCS site developed preconsolidation costs, postconsolidation costs for the functional areas of civilian personnel, travel, supplies and equipment, equipment lease and maintenance, leased communications lines, purchased services, and military personnel. Our review of those costs disclosed significant differences only for leased communications lines. We found that both preconsolidation and postconsolidation costs for leased communications lines were underestimated. Not all of the telecommunication circuits that would be required for consolidation were identified and included in the SDN. We obtained a listing of leased communications lines and costs from the Defense Commercial Communications Office and compared those to the leased communications lines

and costs presented in the SDN. Annual costs for leased communications lines will increase by $199,200 rather than result in a reduction of $10,200 as shown in the SDN.

WAM Program

The termination of both the WAM and development of JOPES Version 4.0 will significantly affect WWMCCS computer and communications requirements. The communications lines architecture for the USPACOM consolidation builds upon high-speed circuit upgrades required by JOPES Version 4.0. Also, the DPS 8000/84 mainframe processor and disk storage space requirements for the WWMCCS are partially based on JOPES Version 4.0 requirements. The USPACOM consolidation study group estimated that JOPES Version 4.0 would require 67 percent of the processing capability of a DPS 8000 processor. Technical personnel at the Defense System Support Organization verified that requirement. Also, USPACOM estimated that JOPES Version 4.0 would require 1,200,000 little links of disk storage space for Hickam AFB and 2,500,000 little links of disk storage space for Fort Shafter. Since the WAM Program and development for JOPES Version 4.0 have been terminated, the communications line speed architecture, mainframe processor requirements, and disk storage space requirements will change and consolidation costs could be significantly lower. We estimated that at least $1.8 million in funds are not needed and should be deleted from the SDN for the procurement of a DPS 8000/84 processor and associated peripherals that would have supported JOPES Version 4.0.

Conclusion. Although the Hotline allegations were not substantiated, the USPACOM consolidation plan did not accurately reflect cost estimates and savings. Overall, the consolidation plan, if implemented as proposed, will lower personnel and operation and maintenance costs. Overstatements resulted from estimating errors, funding changes, and omission of some costs for leased communications lines. Most of the errors were corrected during the audit and USPACOM submitted an amended SDN. However, the requirements for the JOPES Version 4.0 that have been terminated, and the overstated savings remain to be corrected.

Recommendations, Management Comments, and Audit Response

We recommend that the Commander in Chief, U.S. Pacific Command amend the Systems Development Notification to:

1. Delete the $1.8 million for computer hardware and high-speed communications architecture for the JOPES Version 4.0 requirements that have been terminated.

Management Comments. The Commander in Chief, USPACOM, nonconcurred with Recommendation 1., stating that a Joint Interoperability and Engineering Organization (JIEO) report, dated January 29, 1993, validated the

WWMCCS computer hardware requirements identified in the SDN. The report contained results of a reanalysis of the theater-wide WWMCCS computer work load that considered the cancellation of JOPES Version 4.0. To perform its analysis, JIEO officials reviewed computer performance statistics on 3- to 27-day periods, during 1992, at the four existing USPACOM WWMCCS host computer sites. JIEO officials calculated the average and maximum work load at each of the four sites (applying a relative performance factor of 1.5 to work loads at two sites) to estimate average and maximum work loads for DPS 8000 processors at the two proposed consolidation sites, Fort Shafter and Hickam AFB. Work loads included routine requirements that would receive a lower priority during periods of crisis. Table 2. shows the workload estimates by proposed site for a triple (three DPS 8000 processors) and a quadruple (four DPS 8000 processors) configuration. (Originally, a quadruple configuration was proposed to support JOPES Version 4.0 requirements.)

Table 2. Work Load Estimates

	Configuration			
	Triple		Quadruple	
Site	Average Percentage	Maximum Percentage	Average Percentage	Maximum Percentage
Fort Shafter	68	111	53	87
Hickam AFB	67	100	52	78

Audit Response. We reviewed the January 29, 1993, report cited in the USPACOM response. Our analysis did not confirm that JIEO validated the need for computer hardware and high-speed communications architecture for the terminated JOPES Version 4.0 requirements. Rather, the report confirmed that the additional processing capability (quadruple configuration) for JOPES Version 4.0 was not needed.

The average work load estimated for a triple configuration is well below the 80-percent threshold standard for average work loads recognized in the JIEO report and the June 20, 1991, report by the Joint Data Systems Support Center, Defense Information Systems Agency, on the Pacific Consolidation Studies. We held discussions with contractor and Government personnel who confirmed that the 80-percent is a recognized standard threshold for an average work load.

Additionally, the JIEO report states that the average work load decreases by about 7 percent if the unique processing requirements at Makalapa, Hawaii, and Taegu, Korea, are eliminated after consolidation. Table 3. shows the work loads when the site-unique requirements are eliminated.

Table 3. Estimated Work Load Without Site-Unique Requirements

Site	Configuration			
	Triple		Quadruple	
	Average	Maximum	Average	Maximum
	Percentage		Percentage	
Fort Shafter	61	104	46	80
Hickam AFB	60	97	45	71

Furthermore, work loads will again decrease as the Service-unique systems that operate on the WWMCCS mainframes begin to migrate off the WWMCCS systems beginning in FY 1995.

In conclusion, the JIEO report shows that a DPS 8000 triple processor configuration will meet work load requirements. As stated in the JIEO report, the estimated average work loads at Fort Shafter and Hickam AFB are substantially lower than the 80-percent threshold. Also, during periods of crisis, user access to WWMCCS will be prioritized to ensure that nonessential functions are not processed. We maintain that our recommendation to delete about $1.8 million from the SDN is still warranted. We ask that USPACOM reconsider its position and provide additional comments in response to the final report.

2. Reduce the overstatement of annual Operation and Maintenance savings by $209,400 that resulted from the understatement of costs for the leased communications lines.

Management Comments. USPACOM concurred with Recommendation 2., but did not provide a completion date.

Audit Response. We ask that the USPACOM provide either the date or estimated date of amendment of the SDN.

Part III - Additional Information

Appendix A. Summary of Potential Benefits Resulting from Audit

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
1.	Economy and Efficiency. Funds could be used more efficiently by deleting requirements based on JOPES Version 4.0 from the SDN.	$1.8 million in CIM project procurement funds put to better use. Citation 97X/X0300.290X.
2.	Economy and Efficiency. The annual operation and maintenance savings resulting from consolidation will be accurately reflected.	Nonmonetary.
N/A[1]	Economy and Efficiency. Corrects the estimated costs reflected in the SDN for communications equipment and Datanet 8 processors.	$582,250 in funds put to better use, resulting from an overstatement in funding requirements in the SDN for this CIM project. Citation 97X/X0300.290X.

[1] USPACOM officials amended the SDN to reflect the overstated costs identified during the audit. Because of the USPACOM initiative additional recommendations for corrective action are not needed in this report. See page 7 for discussion.

Appendix B. Activities Visited or Contacted

Office of the Secretary of Defense

Assistant Secretary of Defense, (Command, Control, Communications and Intelligence), Washington, DC

Joint Staff

Director, Command, Control, Communications and Computers (J-6), Washington, DC

Department of the Army

Director, Information Systems for Command, Control, Communications and Computers, Washington, DC
Director, Program Executive Office, Army WWMCCS Information System, Fort Belvoir, VA

Department of the Navy

Director, Naval Operations Space and Electronic Warfare, Command and Control Systems Division, Washington, DC
Director, Space and Naval Warfare Systems Command, Information Management System Program Directorate, Washington, DC
Director, Naval Electronics Engineering Activity, Pacific, Space and Naval Warfare Systems Command, Pearl Harbor, HI

U.S. Marine Corps

Director, Command, Control, Communications and Computer Division, Washington, DC

Department of the Air Force

Deputy Chief of Staff, Command, Control, Communications, and Computers, Strategic Systems Division, Washington, DC

U.S. Pacific Command

Headquarters, U.S. Pacific Command, Camp H.M. Smith, HI
Headquarters, U.S. Army Pacific, Fort Shafter, HI
Headquarters, U.S. Pacific Fleet, Makalapa, HI
Headquarters, U.S. Pacific Air Forces, Hickam Air Force Base, HI
Headquarters, U.S. Fleet Marine Force, Pacific, Camp H.M. Smith, HI

Defense Agencies

Director, Defense Information Systems Agency, Pacific Area, Wheeler Army Airfield, HI
Director, Defense Systems Support Organization, Defense Information Systems Agency, Sterling Park, VA

Appendix C. Report Distribution

Office of the Secretary of Defense

Assistant Secretary of Defense (Command, Control, Communications and Intelligence)
Assistant Secretary of Defense (Program Analysis and Evaluation)
Assistant Secretary of Defense (Public Affairs)
Comptroller of the Department of Defense
Assistant to the Secretary of Defense (Intelligence Oversight)

Department of the Army

Secretary of the Army
Assistant Secretary of the Army (Financial Management)
Inspector General of the Army
Auditor General, Army Audit Agency

Department of the Navy

Secretary of the Navy
Assistant Secretary of the Navy (Financial Management)
Comptroller of the Navy
Auditor General, Naval Audit Service

Department of the Air Force

Secretary of the Air Force
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Air Force Audit Agency

DoD Activities

Commander in Chief, U.S. Pacific Command
Commander in Chief, U.S. European Command
Director, Defense Intelligence Agency
Director, Defense Information Systems Agency
Director, Defense Information Technology Services Organization
Director, National Security Agency
Director, Joint Staff
Inspector General, Defense Intelligence Agency
Inspector General, Defense Nuclear Agency
Inspector General, National Security Agency

Non-DoD Activities

Office of Management and Budget
U.S. General Accounting Office, National Security and International Affairs Division, Technical Information Center

Chairman and Ranking Minority Member of Each of the Following Congressional Committees and Subcommittees:

- Senate Select Committee on Intelligence
- Senate Committee on Appropriations
- Senate Subcommittee on Defense, Committee on Appropriations
- Senate Committee on Armed Services
- Senate Subcommittee on Projection Forces and Regional Defense, Committee on Armed Services
- Senate Subcommittee on Readiness, Sustainability and Support, Committee on Armed Services
- Senate Committee on Governmental Affairs
- Senate Subcommittee on Oversight of Government Management, Committee on Governmental Affairs
- Senate Committee on Budget
- House Permanent Select Committee on Intelligence
- House Subcommittee on Oversight and Evaluation, Permanent Select Committee on Intelligence
- House Committee on Appropriations
- House Subcommittee on Defense, Committee on Appropriations
- House Committee on Armed Services
- Subcommittee on Readiness, House Committee on Armed Services
- House Committee on Budget
- House Committee on Government Operations
- House Subcommittee on Legislation and National Security, Committee on Government Operations

Part IV - Management Comments

U.S. Pacific Command Comments

Final Report Reference

COMMANDER IN CHIEF, U.S. PACIFIC COMMAND
(USCINCPAC)
CAMP H M SMITH, HAWAII 96861-5025

J6611
2021
Ser: 300-93
7 APR 1993

MEMORANDUM FOR OFFICE OF THE INSPECTOR GENERAL, AUDIT/READINESS AND OPERATIONAL SUPPORT DIRECTORATE

Subj: Draft Audit Report on the Worldwide Military Command and Control System Consolidation in the Pacific Theater

Ref: (a) DoD IG Draft Audit Report, WWMCCS Consolidation in the Pacific Theater, 28 Jan 93

1. The following response is provided to Ref (a):

6 a. Do not concur with fourth and fifth sentences, page 7. We were completing the report as we were being audited Therefore, to imply we had not considered changes in WWMCCS program requirements is not correct.

6 b. Page 8, change all references of "U S Pacific Air Force" to "U. S Pacific Air Forces".

8 c Page 12, second paragraph, second sentence For clarity, recommend specifying the Hickam AFB and Ft Shafter Datanet 8s as host Datanets, and the others as remote Datanets

10 d. Page 15, first paragraph, first sentence For accuracy, recommend you change "will" to "could"

7 e Page 17, paragraph 1 The multiplexer count/cost at Ft Shafter has been relooked The original SDN count of four remains valid. However, their estimated cost of $17,000 each has been adjusted Using the Army's Bill of Materials Automated Processing System at HQ Information Systems Engineering Command, the actual figure we are using to procure the multiplexers is $13,007 16 each

10 f Page 17, paragraph 2 Do not concur On 8 January 1993 we requested JIEO/TEW reanalyze our theater-wide workload in light of potential changes in our processing requirements (primarily due to cancellation of JOPES Version 4) We felt it necessary to revalidate our hardware requirements based on the ongoing changes in the WAM/JOPES programs As we did with the original SDN, we coordinated the necessary PARS-8 data collection from all sites for JIEO's analysis They conducted their reanalysis and provided a report, WWMCCS Consolidation CPU Analysis, 29 January 1993, which validated the hardware requirements identified in the SDN.

12 g. Page 17, paragraph 3 Concur

2 HQ USCINCPAC POC is Major Vaughn, J6611, DSN 315-477-2945.

Very respectfully,

JOHN F O'SULLIVAN, JR
Colonel, USAF
Acting Director for Command and Control
and Communications Systems

Audit Team Members

William F. Thomas	Director, Readiness and Operational Support Directorate
Mary Lu Ugone	Program Director
Cecelia Miggins	Project Manager
Judy Curry	Auditor
Mark Ives	Auditor
Don Pierro	Auditor
Pamela Smith	Auditor
Darwin Webster	Software Engineer
Nancy C. Cipolla	Editor
Michelle Johnston	Administrative Support

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C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #): **OAIG-AUD (ATTN: AFTS Audit Suggestions)**
Inspector General, Department of Defense
400 Army Navy Drive (Room 801)
Arlington, VA 22202-2884

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