

Audit

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YEAR 2000 ISSUES WITHIN THE U.S. PACIFIC COMMAND'S
AREA OF RESPONSIBILITY
HOST NATION SUPPORT TO U.S. FORCES KOREA

Report No. 99-163

May 17, 1999

Office of the Inspector General
Department of Defense

DTIC QUALITY INSPECTED 4

AQI 99-11-2651

INTERNET DOCUMENT INFORMATION FORM

A . Report Title: Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility Host Nation Support to U.S. Forces Korea

B. DATE Report Downloaded From the Internet: 08/13/99

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #): OAIG-AUD (ATTN: AFTS Audit Suggestions)
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Acronyms

CCK	Contracting Command Korea
CFC	Combined Forces Command
EDI	Electronic Data Interchange
JUSMAG-K	Joint U S Military Assistance Group-Korea
KEPCO	Korea Electric Power Company
KT	Korea Telecommunications
MND	Ministry of National Defense
ROK	Republic of Korea
USFK	U S. Forces Korea
Y2K	Year 2000



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

May 17, 1999

MEMORANDUM FOR COMMANDER IN CHIEF, U.S. FORCES KOREA

SUBJECT: Audit Report on Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility-Host Nation Support to U.S. Forces Korea (Report No. 99-163)

This report is the fifth in a series resulting from our audit of "Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility." This report discusses year 2000 host nation support issues for U.S. Forces Korea.

We are providing this report for your information and use. Because management had promptly taken action to address the problems identified by the audit, this report contains no recommendations; no comments were requested, and none were received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Robert M. Murrell at (703) 604-9210 (DSN 664-9210) (rmurrell@dodig.osd.mil) or Mr. Young J. Jin at (703) 604-9272 (DSN 664-9272) (yjin@dodig.osd.mil). See Appendix F for the report distribution. The audit team members are listed inside the back cover.

A handwritten signature in black ink, reading "Robert J. Lieberman", is positioned above the typed name.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 99-163

(Project No. 8CC-0049.05)

May 17, 1999

Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility

Host Nation Support to U.S. Forces Korea

Executive Summary

Introduction. This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the year 2000 computing challenge. For a list of audit projects addressing the issue, see the year 2000 webpage on the IGnet at <http://www.ignet.gov>.

Objectives. The overall audit objective was to evaluate whether DoD adequately planned for and managed year 2000 risks to avoid disruptions to the U.S. Pacific Command's mission. Specifically, we evaluated whether year 2000 interface agreements or assurances of year 2000 compliance existed between U.S. Forces Korea and the Republic of Korea organizations providing host nation support.

Results. U.S. Forces Korea had not obtained year 2000 interface agreements or formal assurances of year 2000 compliance from Republic of Korea civil and military (government) organizations and commercially operated companies providing armistice and wartime host nation support. As a result, more needed to be done to minimize the risk of disruption to the Republic of Korea/U.S. Combined Forces Command mission to stabilize the international political situation on the Korean peninsula, plan for the defense of the Republic of Korea and, in the case of hostilities, direct Republic of Korea/U.S. combat forces to defeat enemy aggression. See the Finding section for details.

Corrective Actions Taken by Management. Following our briefings on initial audit results on February 24 and 26, 1999, to the Deputy Commander in Chief, Republic of Korea/U.S. Combined Forces Command, and the Assistant Chief of Staff, Directorate for Operations, Combined Forces Command/U.S. Forces Korea, respectively, they agreed to implement formal high-level year 2000 cooperation between the Republic of Korea and U.S. Forces Korea. As a result, on February 26, 1999, U.S. Forces Korea invited Republic of Korea Ministry of National Defense and Republic of Korea Joint Chiefs of Staff officials to become full members of the U.S. Forces Korea Year 2000 Steering Group to discuss mutual year 2000 efforts. On March 5, 1999, the Director General, Information Planning Bureau, Republic of Korea Ministry of National Defense; the Assistant Chief of Staff, Directorate for Operations, Combined Forces Command/U.S. Forces Korea; and the Deputy Assistant Chief of Staff, Directorate for Operations, Combined Forces Command, formally met to coordinate year 2000 issues between the Republic of Korea and U.S. Forces Korea. On March 16, 1999, the Commander in Chief, Republic of Korea/U.S. Combined Forces Command, sent a letter to Republic of Korea Minister of National Defense discussing the sense of cooperation and the mutual efforts that had been initiated to solve the year 2000 problem. Further, a working-level year 2000

meeting between the Republic of Korea and U S Forces Korea was held on March 19, 1999. We commend the leadership of Combined Forces Command, Republic of Korea Ministry of National Defense, and U S. Forces Korea for immediately implementing actions to coordinate the resolution of year 2000 problems and issues.

Management Comments. We provided a draft of this report on April 26, 1999. Because management had promptly taken action to address the problems identified by the audit, this report contains no recommendations, written comments were not required, and none were received. Therefore, we are publishing this report in final form.

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Background

This report is the fifth in a series resulting from our audit of "Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility." This report discusses year 2000 (Y2K) host nation support issues for U.S. Forces Korea. The other four reports are identified in Appendix B.

The Y2K problem is the term most often used to describe the potential failure of information technology systems to process or perform date-related functions before, on, or after the turn of the century. The U.S. military is highly dependent upon information technology – computer chips and software. That information technology may not work if the programming cannot handle the Y2K date rollover. Because military operations depend on an infrastructure driven by information technology, commanders must ensure continuity of their mission capability despite Y2K risks of system or information degradation and failure.

The Joint Chiefs of Staff. The Chairman of the Joint Chiefs of Staff is the principal military adviser to the President, the Secretary of Defense, and the National Security Council. The Joint Chiefs of Staff have no executive authority to command the combatant forces. The Secretaries of the Military Departments assign all forces under their jurisdiction to the unified commands to perform missions assigned to those commands. The Joint Staff assists the Chairman of the Joint Chiefs of Staff with unified strategic direction of the combatant forces; unified operation of the combatant commands; and integration into an efficient team of air, land, and sea forces.

U.S. Pacific Command. The U.S. Pacific Command is the largest of the nine unified commands of the Department of Defense. It was established as a unified command on January 1, 1947, as an outgrowth of the command structure used during World War II. The U.S. Pacific Command area of responsibility includes 50 percent of the earth's surface and two-thirds of the world's population. It encompasses more than 100 million square miles, stretching from the west coast of North and South America to the east coast of Africa and from the Arctic in the north to the Antarctic in the south. It also includes Alaska, Hawaii, and eight U.S. territories. The overall mission of the U.S. Pacific Command is to promote peace, deter aggression, respond to crises, and, if necessary, fight and win to advance security and stability throughout the Asian-Pacific region.

The U.S. Pacific Command, located at Camp H.M. Smith, Hawaii, is supported by Component commands from each Service: U.S. Army Pacific, U.S. Pacific Fleet, U.S. Pacific Air Forces, and Marine Forces Pacific. In addition, the U.S. Pacific Command exercises combatant command over four sub-unified commands within the region. The sub-unified commands are U.S. Forces Japan, U.S. Forces Korea (USFK), Alaskan Command, and Special Operations Command Pacific.

U.S. Forces Korea. USFK was established in July 1957 as an outgrowth of the longtime U S security commitment to the Republic of Korea (ROK) that began at the end of World War II when U S troops entered Korea to accept the surrender of Japanese forces in the zone south of the 38th parallel.

The U S security commitment has legal obligations based on the United Nations Security Council Resolution of 1950. That Resolution tasked the United States to provide the commander of the United Nations Command, and the ROK/U S Mutual Security Agreement of 1954, which commits both countries, to assist each other in the event of outside attack. The USFK was established as the planning headquarters to coordinate joint service activities of U S Forces in the ROK. The United States is also partner in the operations of the ROK/U S Combined Forces Command (CFC), which was activated by the two governments in November 1978.

CFC is a totally integrated headquarters responsible for planning the defense of the ROK and, in case of hostilities, directing ROK/U S combat forces (about 650,000 ROK Armed Forces and 37,000 U S Service personnel) to defeat enemy aggression. With the activation of CFC, USFK became the headquarters through which U S combat forces would be mobilized to augment the CFC fighting components. USFK includes all U S Army, Navy, Air Force, and Marine elements stationed in Korea. The Commander in Chief, USFK, also serves as commander of the United Nations Command and the CFC.

Republic of Korea. On August 15, 1948, the ROK was established in the southern portion of the Korean peninsula following United Nations-observed elections. Korean authorities in the northern portion of the Korean peninsula refused to allow the United Nations to carry out elections north of the 38th parallel, on September 9, 1948, the Democratic People's Republic of Korea was established in the north. On June 25, 1950, the North Korean army invaded the ROK. Hostilities continued until July 27, 1953, when the military commanders of the Democratic People's Republic of Korea Army, the Chinese People's Volunteers, and the 16 members of the United Nations Command signed an armistice agreement. Neither the United States nor the ROK is a signatory of the armistice, though both adhere to it through the United Nations Command. No comprehensive peace agreement has replaced the 1953 armistice agreement; thus, a condition of belligerency technically still exists on the divided peninsula. The USFK mission, in part, is to stabilize the international political situation on the Korean peninsula. USFK relies on the ROK to provide host nation support. Host nation support to U S missions and infrastructure within the ROK is vital to the success of any operations conducted in the USFK area of responsibility.

Objectives

The overall audit objective was to evaluate whether DoD adequately planned for and managed Y2K risks to avoid disruptions to the U S Pacific Command's capability to execute its mission. Specifically, in this phase of the audit, we evaluated whether Y2K interface agreements or assurances of Y2K compliance existed between ROK organizations providing host nation support and USFK. See Appendix A for a discussion of the audit scope and methodology and Appendix B for a summary of prior coverage.

Year 2000 Issues on Host Nation Support

USFK had not obtained Y2K interface agreements or formal assurances of Y2K compliance from ROK civil and military (government) organizations and commercially operated companies providing armistice and wartime host nation support. That occurred because.

- no formal senior-level Y2K coordination was initiated between ROK Ministry of National Defense (MND) and USFK and
- sufficient working-level Y2K cooperation did not exist between ROK government organizations and commercially operated companies supporting USFK and USFK

As a result, more effort was needed to minimize the risk to the CFC mission to stabilize the international political situation on the Korean peninsula, plan for the defense of the ROK, and, in the case of hostilities, direct ROK/U S combat forces to defeat enemy aggression

Host Nation Support

Host nation support to U.S. missions and infrastructure within the ROK is vital to the success of any operations conducted in the USFK area of responsibility. USFK and its subordinate organizations rely on ROK government organizations and commercially operated companies to provide host nation support. That host nation support must be provided during armistice and wartime conditions. ROK organizations provide the various types of support to USFK through one of the following

- digital information support from ROK systems,
- non-digital (for example, voice and hard copy) information support resulting from ROK systems, or
- products and services supported by ROK systems

Year 2000 Status of Host Nation Support

USFK had not obtained Y2K interface agreements or assurances of Y2K compliance from ROK government organizations and commercially operated companies providing armistice and wartime host nation support. Specifically, for the 11 host nation support areas reviewed, neither Y2K interface agreements nor assurances of Y2K compliance existed between ROK organizations and USFK

Air Base Approach and Regional Air Traffic Control System Support. The Air Route Traffic Control Center, Taegu, ROK, provides air traffic control to USFK. During airlift procedures, aircraft use Instrument Flight Rules for en route and terminal phases on the Korean peninsula. USFK officials stated that approximately 10 percent of USFK flights rely on Instrument Flight Rules and that the remaining 90 percent of the flights use Visual Flight Rules. When using Instrument Flight Rules, USFK pilots interface with ROK Air Route Traffic Control Center. USFK officials had not formally contacted ROK Air Route Traffic Control Center for Y2K coordination and compliance. USFK officials stated that Y2K compliance was unknown and no interface agreement exists. Consequently, USFK had no assurance from ROK Air Route Traffic Control Center of Y2K compliance.

Ammunition Support. USFK provides ammunition support to the ROK Army. The ROK Army uses a computerized system for managing its inventories and providing inventory status updates to USFK. During contingencies, the ROK Army reports an on-hand status of ammunition inventory to the USFK Ammunition Supply Coordinating Group. The ammunition inventory amounts reported by the ROK Army are necessary for strategic planning and for obtaining visibility of the ammunition inventory in the Pacific theater. The availability of information on the status of ammunition inventory and updates to that status is critical to wartime readiness. USFK officials had not formally contacted the ROK Army for Y2K coordination, consequently, USFK officials were unaware of the Y2K status of the computerized system used by the ROK for managing ammunition inventory. During our visit, USFK officials contacted the ROK Army to obtain the Y2K status of the ROK system. ROK officials provided verbal assurance that the system is Y2K compliant. However, USFK had not received official notification that the ROK system is Y2K compliant. Consequently, USFK had insufficient assurance from the ROK Army of Y2K compliance.

Electrical Support. USFK relies on the Korea Electric Power Company (KEPCO) to provide electric power to support the USFK mission in Korea. USFK formally contacted KEPCO in October 1998, requesting written confirmation of the KEPCO Y2K status. KEPCO responded with a letter that stated KEPCO was addressing the Y2K problem and provided a reference to the KEPCO Y2K web site. As of February 26, 1999, the web site indicated that KEPCO had organized a task force to address the Y2K problem that exists in routine application programs and in embedded systems for the generation, transmission, and service of power. KEPCO anticipates Y2K compliance by June 1999. Consequently, USFK had no assurance from KEPCO of Y2K compliance.

Electronic Business Support. The Contracting Command Korea (CCK) provides contracting support and contract administration services to all U S Forces in Korea. During FY 1998, CCK processed 15,950 purchase requests, valued at about \$400 million, through the Korea Trade Network using Electronic Data Interchange (EDI). The Korea Trade Network provides CCK with EDI services. CCK relies on access to the Korea Trade Network EDI system to solicit bids from the Korean marketplace. Korean vendors prepare bids in response to the solicitations published on the Korea Trade Network EDI system. The Korea Trade Network EDI system is not Y2K compliant. CCK was addressing the issue

with the Korea Trade Network and had unilaterally modified the Korea Trade Network agreement to include a Y2K clause. However, that action did not provide Y2K compliance assurance. No assurance of Y2K compliance existed between CCK and Korea Trade Network.

Fiber Optic Transmission Equipment Support. Korea Telecommunications (KT) provides installation, maintenance, and fiber optic equipment in support of 14 USFK facilities. Defense Information Systems Agency-Korea and KT established a memorandum of agreement for fiber optic transmission equipment on October 18, 1995. Neither USFK nor Defense Information Systems Agency-Korea had modified the memorandum of agreement to include a Y2K clause. Defense Information Systems Agency-Korea officials stated that their agency is no longer responsible for management or Y2K compliance of the memorandum of agreement. However, USFK officials stated that the Defense Information Systems Agency-Korea is still responsible for the memorandum of agreement, because no formal transfer of responsibility to USFK had been completed. Consequently, USFK had no assurance from KT of Y2K compliance.

Leased Telecommunications Service Support. KT and Data Communications Corporation provide USFK a network pathway for digital information and non-digital interchange. USFK relies on KT and Data Communications Corporation to provide leased telecommunications services to support USFK command and control operations. KT and Data Communications Corporation contracts did not contain required Y2K clauses, and USFK had not amended the contracts to include a clause to require Y2K compliance. In addition, USFK had not formally contacted KT or Data Communications Corporation for Y2K coordination and compliance. Therefore, USFK had no assurance from KT or Data Communications Corporation of Y2K compliance.

Master Control Reporting Center System Support. The ROK Air Force Master Control Reporting Center System provides USFK an ROK-wide tactical radar picture of the Korean peninsula by using the Hughes Corporation HMD222 system. USFK uses the system for centralized command and control management of defensive and offensive control and counter air support. The Master Control Reporting Center System feeds radar information into the Joint Interface Control Unit to provide an integrated radar picture of fighter positions during missions. The Joint Interface Control Unit is a USFK computer system that provides an integrated picture of aircraft positions in ROK air space for combined air power battle management on the Korean peninsula. According to USFK officials, Hughes Corporation could not assure Y2K compliance of the HMD222 system because of ROK modifications to the system. Therefore, USFK had no assurance from the ROK of Y2K compliance of the Master Control Reporting Center System.

Transportation Support – Air. The ROK Air Force provides USFK airlift support during wartime by coordinating with the Ministry of Construction and Transportation and Korean Airlines. Current contingency requirements call for the ROK to provide airlift support to supplement U.S. airlift capabilities. USFK was not aware of system(s) used by the Ministry of Construction and Transportation,

Korean Airlines, or the ROK Air Force and was not aware of the Y2K status of the system(s). Consequently, USFK had no assurance from those ROK organizations of Y2K compliance.

Transportation Support – Land. Korea National Railroad provides rail service for movement of passengers and freight. Korea National Railroad verbally informed USFK that its system is Y2K compliant. However, USFK had not obtained official notification that the Korea National Railroad systems are Y2K compliant. Consequently, USFK had insufficient assurance from the Korea National Railroad of Y2K compliance.

Transportation Support – Sea. The ROK Navy provides USFK sealift support during armistice and wartime by coordinating port traffic control support with the Ministry of Maritime and Fisheries. Current contingency requirements call for the ROK Navy to provide sealift support to supplement U.S. sealift capabilities. USFK was not aware of the system(s) used by the Ministry of Maritime and Fisheries or the ROK Navy and was not aware of the Y2K status of the system(s). Consequently, USFK had no assurance from those ROK organizations of Y2K compliance.

Water Supply Support. USFK established a contract with the Ministry of Environment to obtain a continuous and safe water supply to USFK installations throughout Korea. The Ministry of Environment uses an information system to manage its water service. USFK requested Y2K status of that system in October 1998, but had not received a response from the Ministry of Environment as of February 26, 1999. Consequently, USFK had no assurance from the Ministry of Environment of Y2K compliance.

Year 2000 Coordination

USFK had not obtained Y2K interface agreements or formal assurances of Y2K compliance because no formal senior-level coordination had been initiated between ROK MND and USFK to facilitate solving Y2K issues affecting host nation support. For example, auditors from the Inspector General, DoD, were the first U.S. officials to meet with the Director General, Information Planning Bureau, MND (the senior official responsible for the MND Y2K program). Y2K issues in host nation support areas and MND concerns over the Y2K status of weapon systems purchased from the United States were discussed at that meeting, which took place February 3, 1999. In addition, sufficient working-level Y2K cooperation did not exist between ROK government organizations and commercially operated companies supporting USFK and USFK. Again, auditors from the Inspector General, DoD, were the first U.S. officials to meet with KT representatives in a working-level meeting to discuss Y2K issues in host nation support for telecommunications. See Appendix C for a discussion of U.S. support to ROK Y2K efforts and Appendix D for a discussion of the Y2K status of the ROK.

Corrective Actions Taken by Management

Following our briefings on the audit on February 24 and 26, 1999, to the Deputy Commander in Chief, ROK/U S CFC, and the Assistant Chief of Staff, Directorate for Operations, CFC/USFK, respectively, they agreed to implement formal high-level Y2K cooperation between the ROK and USFK

As a result, on February 26, 1999, USFK invited ROK MND and ROK Joint Chiefs of Staff officials to become full members of the USFK Y2K Steering Group to discuss mutual Y2K efforts. On March 5, 1999, the Director General, Information Planning Bureau, ROK MND; the Assistant Chief of Staff, Directorate for Operations, CFC/USFK, and the Deputy Assistant Chief of Staff, Directorate for Operations, CFC, formally met to coordinate Y2K issues between the ROK and USFK. On March 16, 1999, the Commander In Chief, ROK/U S CFC, sent a letter to ROK Minister of National Defense discussing the sense of cooperation and the mutual efforts that had been initiated to solve the Y2K problem (see Appendix E)

Further, a working-level Y2K meeting between the ROK and USFK was held on March 19, 1999. Staff officer representatives from ROK MND and ROK Joint Chiefs of Staff, CFC, and USFK formally met to discuss and to implement Y2K solutions. In addition, USFK was in the process of obtaining Y2K interface agreements or assurances of Y2K compliance for the 11 host nation support areas by working closely with ROK organizations. Because of the prompt actions taken by CFC and USFK leadership to correct the problems identified during the audit, we are making no recommendations in this report

Conclusion

ROK government organizations and commercially operated companies providing host nation support are critical to USFK performing its mission in the year 2000 and beyond. Therefore, ROK organizations and USFK must ensure that Y2K problems that might affect the ability of the ROK to provide host nation support are identified and fixed. Otherwise, the CFC mission to stabilize the international political situation on the Korean peninsula, plan for defense of the ROK, and, in the case of hostilities, direct ROK/U S combat forces to defeat enemy aggression could have been adversely affected. This risk of adverse impact was abated by prompt ROK and USFK combined actions in reaction to the initial audit results. We commend management's responsiveness.

Appendix A. Audit Process

This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the Y2K computing challenge. For a list of audit projects addressing the issue, see the Y2K webpage on the IGnet at <http://www.ignet.gov/>

Scope and Methodology

We reviewed and evaluated the steps USFK had taken to resolve its Y2K issues to avoid mission disruptions. Specifically, we determined whether Y2K interface agreements or formal assurances of Y2K compliance existed between ROK organizations providing host nation support and USFK. We met with the Y2K focal points for USFK and its Component commands, ROK civil and military organizations, and ROK commercially operated companies to obtain and assess the status of coordinated Y2K interface efforts. We compared those Y2K interface efforts against criteria described in the "DoD Year 2000 Management Plan, Version 2.0," December 1998, issued by the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence). Further, we reviewed 11 host nation support areas to identify the existence of ROK and USFK systems using digital and non-digital information exchange, and to determine the existence of Y2K interface agreements or formal assurances of Y2K compliance.

DoD-Wide Corporate-Level Goals. In response to the Government Performance and Results Act, DoD established 6 DoD-wide corporate-level performance objectives and 14 goals for meeting the objectives. This report pertains to achievement of the following objective and goal.

Objective: Prepare now for an uncertain future

Goal: Pursue a focused modernization effort that maintains U S qualitative superiority in key war fighting capabilities. (DoD-3)

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following objectives and goals in the Information Technology Management Functional Area.

- **Objective:** Become a mission partner
Goal: Serve mission information users as customers. (ITM-1.2)
- **Objective:** Provide services that satisfy customer information needs.
Goal: Modernize and integrate DoD information infrastructure. (ITM-2.2)
- **Objective:** Provide services that satisfy customer information needs.
Goal: Upgrade technology base (ITM-2.3)

High-Risk Area. In its identification of risk areas, the General Accounting Office has specifically designated risk in resolution of the Y2K problem as high. This report provides coverage of that problem and of the overall Information Management and Technology high-risk area.

Audit Type, Dates, and Standards. We performed this program audit from January through mid-April 1999 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We did not use computer-processed data for this audit.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available on request. We also met with the following ROK officials:

- General Jung, Young-Moo, Deputy Commander in Chief, ROK/U S CFC,
- Rear Admiral Suh, Young-Kil, Director General, Information Planning Bureau, MND;
- Major General Ahn, Kwang-Chan, Deputy Assistant Chief of Staff, Directorate for Operations, ROK/U S CFC,
- Brigadier General Shin, Chul-Kyun, Assistant Chief of Staff, Directorate for Command, Control, Communications, and Computer Systems, ROK/U S CFC,
- Mr. Chang, Kwang-Soo, Director, Information and Communications Policy, Office of Government Policy Coordination under the Office of the Prime Minister,
- Mr. Hong, Pilky, Director, Y2K Task Force, Ministry of Information and Communications,
- Mr. Kim, Chul-Whan, Ph.D., Professor, Department of Weapon Systems, National Defense University,
- Mr. Park, Yong-Ki, Ph.D., Vice President, Y2K Planning and Coordination, Korea Telecommunications,
- Mr. Ryu, Hwa-Suk, Ph.D., Executive Director, Samsung SDS Company, and
- Mr. Park, Rnae-Bong, Director, Y2K Solution Center, Daewoo Information Systems Corporation.

Management Control Program. We did not review the management control program related to the overall audit objective because DoD recognized the Y2K issue as a material management control weakness area in the FY 1998 Annual Statement of Assurance.

Appendix B. Summary of Prior Coverage

The General Accounting Office and the Inspector General, DoD, have conducted multiple reviews related to Y2K issues. General Accounting Office reports can be accessed over the Internet at <http://www.gao.gov/>. Inspector General, DoD, reports can be accessed over the Internet at <http://www.dodig.osd.mil/>. Specific reports related to our audit of "Year 2000 Issues Within the U.S. Pacific Command's Area of Responsibility" are listed below.

Inspector General, DoD

Inspector General, DoD, Report No. 99-126, "Strategic Communications Organizations," April 6, 1999.

Inspector General, DoD, Report No. 99-125, "U.S. Forces Korea," April 7, 1999.

Inspector General, DoD, Report No. 99-086, "III Marine Expeditionary Force," February 22, 1999.

Inspector General, DoD, Report No. 99-085, "Hawaii Information Transfer System," February 22, 1999.

Appendix C. U.S. Support to ROK Y2K Efforts

During our audit, we identified three areas of U.S. support to ROK Y2K efforts. Those areas were foreign military sales, direct commercial sales, and Theater Automated Command and Control Information Management.

Foreign Military Sales. In January 1998, the Military Departments were directed by DoD to provide Y2K status notification to their foreign military sales customers. For Korea, the Military Departments report that information to the Joint U.S. Military Assistance Group-Korea (JUSMAG-K), which functions as the official point of contact for DoD regarding the sales of U.S. equipment and services to the ROK. JUSMAG-K provides a quarterly Y2K status update to the ROK military components for distribution. However, ROK MND officials informed us that they had not been kept apprised of the Y2K status of systems procured through foreign military sales. Specifically, MND provided an inventory of 38 systems procured through foreign military sales for which it had not received Y2K status notification from DoD. As a result of discussion with the JUSMAG-K, it began providing the status updates to MND as well as to the ROK military components. More formal coordination among USFK, JUSMAG-K, and ROK MND and proactive effort by U.S. officials to identify systems procured through foreign military sales and to disseminate information on their Y2K status would improve the process.

Direct Commercial Sales. JUSMAG-K does not assist in the coordination of U.S. equipment purchased by the ROK through direct commercial sales. The ROK contacts U.S. vendors directly to procure equipment and services. Foreign military sales customers purchasing U.S. equipment through direct commercial sales would need to contact the individual U.S. vendors to obtain Y2K status updates for systems procured. More formal coordination among ROK MND, the U.S. State Department, and U.S. vendors to identify systems procured through direct commercial sales and to assess their Y2K status would improve the process.

Theater Automated Command and Control Information Management System. The Theater Automated Command and Control Information Management System is owned by USFK, is used by both ROK forces and USFK, and is not Y2K compliant. It provides a pathway for classified bilingual command and control capabilities for ROK forces and USFK. The system consists of mission applications and office automation programs that provide two-way data interfaces between ROK forces and USFK. The system terminals are located throughout both ROK and USFK sites, including all joint commands and Service Components. Y2K compliance of the system's data interfaces is critical to both the ROK and USFK because the system has the potential to propagate errors from one organization to another. USFK had identified multiple interfaces within the system and was in the process of identifying remaining interfaces.

Appendix D. Y2K Status of the ROK

The ROK has made significant progress in responding to the Y2K crisis. The ROK had completed conversion or was in the testing phase on mission-critical systems such as banking, electricity, energy, financing, and telecommunications.

Additionally, on November 20, 1998, a bi-national Y2K agreement was signed by ROK Minister of Foreign Affairs and Trade and the U.S. Secretary of Commerce to promote electronic commerce and enhance cooperation to solve the Y2K problem. The two countries agreed to share information dealing with Y2K issues to bolster efficiency and cut cost. The agreement will facilitate technology transfers from the United States to the ROK and will help solve the Y2K problem. The agreement was signed during President Clinton's 4-day state visit to the ROK.

Republic of Korea National Year 2000 Program. Recognizing the seriousness of Y2K issues, the ROK government made a nationwide effort to find a solution to the Y2K problem by mobilizing the authority and coordination power of the Prime Minister's Office to raise awareness of and solve the Y2K crisis in the ROK. The Prime Minister established the Y2K Conversion Committee, comprising the Prime Minister, the head of the Office for Government Policy Coordination, and the ministers responsible for the following 14 mission-critical areas:

- automated industrial facilities,
- banking and financing,
- central and local administration,
- electricity and energy,
- environment,
- medical services,
- national defense,
- nuclear power plant,
- resources management,
- shipping and ports,
- small and medium businesses,
- telecommunications,

-
- transportation, and
 - water

In addition, the ROK government supports Y2K efforts of commercial companies within the 14 mission-critical areas by providing work force, funds, and tax breaks. The government designated August 1999 as the deadline for solving nationwide Y2K-related problems. The government expects that it will be Y2K compliant by August 1999. The Gartner Group, one of the world's leading computer consulting institutes, elevated ROK Y2K preparedness from a fourth rate in December 1997 to a second rate in September 1998. In addition, the World Bank rated ROK Y2K readiness as satisfactory in February 1999.

Ministry of National Defense Year 2000 Program. As a part of ROK nationwide Y2K efforts, MND had completed or was implementing systematic actions to solve Y2K problems. Some of the actions included the following

- An integrated execution plan for the Y2K crisis was established in June 1997, and Y2K task forces at MND and the ROK military departments were activated in March 1998.
- An overall strategy was developed by MND for testing its systems for Y2K compliance, including weapon systems, information systems, and other automated systems, between March and October 1998.
- Y2K compliance identification and evaluations for ROK MND and military department systems were conducted by the end of 1998.
- MND held a press conference on January 21, 1999, explaining how the Defense sector was dealing with the Y2K problem.
- A Special Y2K Compliance Committee chaired by the Vice Minister of National Defense was formed in February 1999.
- An operational evaluation will be conducted in coordination with national Y2K problem testing efforts in May 1999.

* Gartner Group offers a worldwide snapshot of Y2K preparedness. It lists the countries that it believes are the most prepared (first rate), prepared (second rate), less prepared (third rate), and least prepared (fourth rate).

Appendix E. Commander in Chief, CFC, Letter to ROK Minister of National Defense



HEADQUARTERS
ROK-US COMBINED FORCES COMMAND
인 미 연 합 군 사 병 부

SEOUL, KOREA

March 16, 1999



Commander in Chief

The Honorable Chun, Yong Taek
Minister of National Defense
Republic of Korea
Seoul, Korea

Dear Minister Chun:

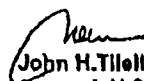
As we approach the millennium, the solution to the Y2K problem becomes critical to deterrence on the Korean Peninsula.

Enormous efforts have been ongoing throughout the Republic both in mission critical and non-information Technology systems. Until recently the United States and Korean efforts have not been fully coordinated. I am pleased that the situation has been corrected. The initial meeting on March 5, 1999 between Admiral Suh, Young Kil and Major General William J. Lennox Jr. established a mutual understanding between the Ministry of National Defense and the United States Forces, Korea focused on a combined effort to solve the Y2K problem.

The sense of cooperation and mutual effort that has been initiated will encourage a collective focus without wasted duplication of effort. With the Ministry of National Defense providing the focal point for United States issues and the United States Forces, Korea doing the same for Republic of Korea issues, we have established the framework for success.

I look forward to continued success in our united endeavors.

Sincerely,


John H. Tilelli, Jr.
General, U.S. Army
Commander in Chief

Copy Furnished:

General Kim, Jin Ho
Chairman, ROK JCS

Appendix F. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
Deputy Chief Financial Officer
Deputy Comptroller (Program/Budget)
Under Secretary of Defense for Personnel and Readiness
Under Secretary of Defense for Policy
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
Deputy Assistant Secretary of Defense (Command, Control, Communications, Intelligence, Surveillance, Reconnaissance, and Space Systems)
Deputy Chief Information Officer and Deputy Assistant Secretary of Defense (Chief Information Officer Policy and Implementation)
Principal Director for Year 2000
Assistant Secretary of Defense (Public Affairs)

Joint Staff

Director, Joint Staff

Department of the Army

Assistant Secretary of the Army (Financial Management and Comptroller)
Commanding General, Eighth U S. Army
Auditor General, Department of the Army
Chief Information Officer, Army
Inspector General, Department of the Army

Department of the Navy

Commandant of the Marine Corps
Assistant Secretary of the Navy (Financial Management and Comptroller)
Commander, U S Naval Forces, Korea
Commanding General, U S. Marine Corps, Korea
Auditor General, Department of the Navy
Chief Information Officer, Navy

Department of the Navy (cont'd)

Inspector General, Department of the Navy
Inspector General, Marine Corps

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commanding General, 7th Air Force
Auditor General, Department of the Air Force
Chief Information Officer, Air Force
Inspector General, Department of the Air Force

Unified Commands

Commander in Chief, U S European Command
Commander in Chief, U S. Pacific Command
Commander in Chief, U S. Forces Korea
Commander in Chief, U S. Atlantic Command
Commander in Chief, U S Southern Command
Commander in Chief, U S. Central Command
Commander in Chief, U S Space Command
Commander in Chief, U S Special Operations Command
Commander in Chief, U S. Transportation Command
Commander in Chief, U.S. Strategic Command

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Information Systems Agency
 Commander, Defense Information Systems Agency, Korea
 Inspector General, Defense Information Systems Agency
 Chief Information Officer, Defense Information Systems Agency
 United Kingdom Liaison Officer, Defense Information Systems Agency
Director, Defense Intelligence Agency
 Inspector General, Defense Intelligence Agency
Director, Defense Logistics Agency
Director, National Imagery and Mapping Agency
 Inspector General, National Imagery and Mapping Agency
Director, National Security Agency
 Inspector General, National Security Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Office of Information and Regulatory Affairs
General Accounting Office
National Security and International Affairs Division
Technical Information Center
Director, Defense Information and Financial Management Systems, Accounting and
Information Management Division
American Embassy, Republic of Korea
Inspector General, Department of State

Non-U.S. Government Organizations and Individuals

Deputy Commander in Chief, Republic of Korea/U.S. Combined Forces Command
Director General, Information Planning Bureau, Republic of Korea Ministry of National
Defense

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Subcommittee on Acquisition and Technology, Committee on Armed Services
Senate Committee on Governmental Affairs
Senate Special Committee on the Year 2000 Technology Problem
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Management, Information, and Technology,
Committee on Government Reform
House Subcommittee on National Security, Veterans Affairs, and International
Relations, Committee on Government Reform
House Subcommittee on Technology, Committee on Science

Audit Team Members

The Readiness and Logistics Support Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report

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