Audit Report

YEAR 2000 CONVERSION PROGRAM FOR
DEFENSE CRITICAL SUPPLIERS

Report No. D-2000-068 December 28, 1999

Office of the Inspector General
Department of Defense

Additional Copies

To obtain additional copies of this audit report, contact the Secondary Reports Distribution Unit of the Audit Followup and Technical Support Directorate at (703) 604-8937 (DSN 664-8937) or fax (703) 604-8932 or visit the Inspector General, DoD, Home Page at: www.dodig.osd.mil.

Suggestions for Future Audits

To suggest ideas for or to request future audits, contact the Audit Followup and Technical Support Directorate at (703) 604-8940 (DSN 664-8940) or fax (703) 604-8932. Ideas and requests can also be mailed to:

OAIG-AUD (ATTN: AFTS Audit Suggestions)
Inspector General, Department of Defense
400 Army Navy Drive (Room 801)
Arlington, VA 22202-2884

Defense Hotline

To report fraud, waste, or abuse, contact the Defense Hotline by calling (800) 424-9098; by sending an electronic message to Hotline@dodig.osd.mil; or by writing to the Defense Hotline, The Pentagon, Washington, D.C. 20301-1900. The identity of each writer and caller is fully protected.

Acronyms

DLA	Defense Logistics Agency
NAVICP	Naval Inventory Control Point

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2885

December 28, 1999

MEMORANDUM FOR UNDERSECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS
ASSISTANT SECRETARY OF DEFENSE (COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE)

SUBJECT: Audit Report on Year 2000 Conversion Program for Defense Critical Suppliers (Report No. D-2000-068)

We are providing this report for your information and use. 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 efforts to address the year 2000 computing challenge.

This report contains no recommendations; therefore, written comments on the draft were not required. However, both the Army and the Navy provided comments which we considered when preparing the final report. The complete text of the comments is in the Management Comments section of this report.

We appreciate the courtesies extended to the audit staff. For additional information on this report, please contact Mr. Nicholas E. Como at (703) 604-9215 (DSN 664-9215) (ncomo@dodig.osd.mil) or Mr. Terry L. McKinney at (703) 604-9288 (DSN 664-9288) (tmckinney@dodig.osd.mil). See Appendix B for the report distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. D-2000-068 **December 28, 1999**
(Project No. 8CG-0046.02)

Year 2000 Conversion Program for Defense Critical Suppliers

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 web pages on the IGnet at http://www.ignet.gov.

In Inspector General, DoD, Report No. 99-199 we indicated that, after a belated start, the DoD had developed a reasonable approach for reducing the risk of supply chain interruptions caused by year 2000 computer problems.

Objectives. The overall audit objective was to evaluate the status of DoD progress in resolving the year 2000 computing issue for major Defense contractors and their critical suppliers. This report addresses the mitigation of critical items supplied by the Defense contractors and their critical suppliers perceived to be at year 2000 risk and the DoD management of the mitigation process.

Results. During September and October 1999, the Defense Logistics Agency and the Services identified 7,800 critical items supplied by manufacturers assessed as either high- or moderate-risk for year 2000 compliance. The universe of items deemed critical by the Defense Logistics Agency and the Navy included items that were obsolete, terminal, low demand, or non-stocked items. The Army identified only 267 critical items and the Air Force limited its critical items for mitigation review to only those items supplied by sole-source contractors and those items scheduled for procurement and repair in year 2000. Consequently, the Air Force identified only 14 critical items requiring mitigation action. Overall, we estimated that between 94 and 96 percent of the 7,800 identified critical items will be protected against any year 2000 related supply interruptions, however, we also believe that not all critical items were subject to the mitigation process. Transaction testing showed that the communication systems for 56 prime vendors were year 2000 compliant and year 2000 transactions should not be adversely affected.

During the mitigation process we observed and addressed, and the Defense Logistics Agency and the Services corrected, certain procedures that could have increased the number of critical items subject to a supply interruption. Specifically:

- Communication problems existed between the Defense Logistics Agency Headquarters and its centers. The Defense Logistics Agency Supply Centers were not aware of the official policy that established guidelines to mitigate critical items. Therefore, these guidelines were not uniformly applied.

- The Army initially had no specific procedures in place to analyze and evaluate stock availability of their critical items before beginning the mitigation process.

- The Navy initially did not accelerate deliveries of critical items on existing contracts when the item was in potential short supply.

Despite these limitations and concerns, the relatively high DoD confidence in the reliability of its supply chain in the year 2000 environment is probably justified. For identified critical items and suppliers, the mitigation process was effective. The conscientious efforts made by the Defense Contract Management Command strengthened the mitigation process for major Defense contractors. In addition, the efforts of other public and private sector buyers to assure supplier readiness in the same industries from which DoD purchases goods and services, complimented the DoD efforts and helped provide reasonable assurance.

Management Comments. Although no comments were required, both the Army and the Navy provided comments on the draft report. The Army provided an updated status for the seven critical items that we identified for which mitigation action was still possible. In addition, the Army stated that we did not acknowledge that the Army subsequently provided its material management centers guidance to properly compute stock position of its critical items. The Navy essentially concurred with our draft report, although in their comments, they clarified some aspects of the classification of their critical item inventory and their use of the established mitigation options.

Audit Response. In response to the Army comments to the draft report, we revised the final report.

Table of Contents

Executive Summary i

Introduction

Background 1
Objectives 2

Finding

Mitigation of Critical Items 3

Appendixes

A. Audit Process
Scope 13
Methodology 14
Management Control Program 15
Prior Coverage 15
B. Report Distribution 16

Management Comments

Department of the Army 19
Department of the Navy 21

Background

Congressional Concern. In June 1998, Congress raised questions concerning ". . . the impact on our military capability if the private sector contractors are not able to supply the Defense Department because of a Y2K related failure in their production and transportation systems." As a result of congressional concern, the Deputy Under Secretary of Defense (Logistics), Director of Logistics Systems Modernization, was given the responsibility for evaluating critical suppliers. In September 1998, the Deputy Under Secretary of Defense (Logistics) formed the Joint Supplier Capability Working Group (the Working Group).

The Joint Supplier Capability Working Group. The Working Group was composed of functional logistics experts from each of the DoD Components and focused on the "mechanics" of what should be done to evaluate critical suppliers. The Working Group was responsible for the year 2000 assessment of DoD supply chains as those supply chains relate to warfighter capability, and the development of an outline of actions required to mitigate the risk of losing associated suppliers within those chains. The Working Group assisted with the overall assessment, centralized planning, and development of a DoD joint supplier capability mitigation plan – a plan to ensure minimal year 2000 related problems. DoD Components shared the results of their year 2000 supplier compliance, assessment, and mitigation efforts with the Working Group.

Identification of Critical Items using Supplier Assessments. The overall year 2000 assessment of DoD supply chains was planned in three phases. Initially, a combined Service effort was made to identify items critical to warfighter capability and to assess associated suppliers for year 2000 compliance (addressed in Inspector General, DoD Report No. 99-199, dated July 2, 1999). Lists of those items supplied by manufacturers assessed as high- or moderate-risk for year 2000 compliance were then provided to the responsible Defense Logistics Agency (DLA) Supply Centers and to the Services for application of established mitigation options. To ensure further protection of the DoD supply chains, the Joint Chiefs of Staff for Logistics requested a final identification of those items associated with critical weapons systems. Once identified, items associated with critical weapons systems were provided to responsible DLA Supply Centers and to the Services for evaluation.

Objectives

The overall audit objective was to evaluate the status of DoD progress in resolving the year 2000 computing issue for major Defense contractors and their critical suppliers. This report addresses the mitigation of critical items supplied by the Defense contractors and their critical suppliers perceived to be at year 2000 risk and the DoD management of the mitigation process.

Mitigation of Critical Items

The Defense Logistics Agency and the Services identified 7,800 critical items supplied by manufacturers assessed as either high- or moderate-risk for year 2000 compliance. The universe of items deemed critical by the Defense Logistics Agency and the Navy included items that were obsolete, terminal, low demand, or non-stocked items. The Army identified only 267 critical items and the Air Force limited its critical items for mitigation review to only those items supplied by sole-source contractors and those items scheduled for procurement and repair in year 2000. Consequently, the Air Force limited its critical items for mitigation review to only 14 critical items requiring mitigation action. Although we estimate that between 94 and 96 percent of the identified critical items will be protected against any year 2000 related supply interruptions, we believe that not all critical items were subject to the mitigation process.

We also observed and addressed, and the Defense Logistics Agency and the Services corrected, certain procedures in the mitigation process that could have increased the number of critical items subject to a supply interruption. Specifically:

- Communication problems existed between the Defense Logistics Agency Headquarters and its centers. The Defense Logistics Agency Supply Centers were not aware of the official policy that established guidelines to mitigate critical items. Therefore, these guidelines were not uniformly applied.

- The Army mitigation process began without specific procedures in place to analyze and evaluate stock availability of their critical items.

- The Navy initially did not accelerate deliveries of critical items on existing contracts when the item was in potential short supply.

Transaction testing showed that the communication systems for 56 prime vendors were year 2000 compliant and year 2000 transactions should not be adversely affected.

The Defense Contract Management Command reviewed major Defense contractors for Year 2000 compliance and major Defense contractors made a conscientious effort to strengthen the overall mitigation process for critical items.

We provided feedback and advice on the mitigation issues to the Defense Logistics Agency and the Services during the course of the review; they agreed to take appropriate actions.

Universe of Critical Items

During September and October 1999, DLA and the Services identified 7,800 critical items requiring mitigation action for the year 2000 computing issue. Table 1 shows the composition of the universe of critical items.

Table 1. Identified Critical Items

	Number of Critical Items
Defense Logistics Agency	5,750
Army	267
Navy	1,761
Air Force	14
Marine Corps	8
Total Identified Critical Items	7,800

Defense Logistics Agency Critical Items. Although we did not review the DLA selection of critical items, we questioned why a number of items were deemed critical and included in the universe of critical items. A total of 5,750 items comprised the DLA universe of critical items. From this universe, we statistically sampled 1,655 items. Of the 1,655 sampled critical items managed by the DLA Supply Centers, 251 sampled critical items were categorized during the audit as obsolete, terminal, low demand, or non-stocked items. Procurement is not authorized for terminal items and these items should not have been considered to be critical items. Low demand items (items that maintained an annual demand rate of fewer than two demands) were to have been excluded from future mitigation action. Non-stocked items (centrally managed items that are not stored in DoD inventories) may be critical, but are not subject to normal stocking procedures. The inclusion of these categories of items casts doubt on the validity of the DLA-managed critical item universe and raises a question as to whether critical items might have been excluded from the universe.

Navy Critical Items. We also did not review the Navy selection of critical items, which were managed at the Naval Inventory Control Point (NAVICP) in Philadelphia and Mechanicsburg, Pennsylvania. The Navy developed its universe of critical items from manufacturers assessed as high- or moderate-risk for year 2000 compliance. We statistically sampled 497 critical items from the Navy universe of 1,761 items. Of the 497 sampled critical items, terminal or

non-stocked items comprised 156 of the sampled items. Again, we question the inclusion of these items as it pertains to the overall validity of the Navy-managed critical item universe.

Army Critical Items. We also did not review the Army selection of critical items. The Army stated that it included all items essential to wartime mission in its identification of critical items and also included critical conventional ammunition components and chemical defense equipment. The Army did not limit its critical item selection to sole source suppliers and developed a listing of 267 critical items.

Air Force Critical Items. The Air Force limited its critical items for mitigation review to those items supplied by sole-source contractors and those items scheduled for procurement or repair in year 2000. Consequently, the Air Force only mitigated 14 critical items provided by 13 suppliers. In addition, seven of the items were not sole-source and four had no further demand forecasted. Therefore, the thoroughness of the Air Force selection process was questionable.

Mitigation Action Guidance

Joint Supplier Capability Working Group Guidance. During a May 3, 1999, meeting of the Joint Supplier Capability Working Group, the Working Group decided to create and implement uniform mitigation options for critical items. The mitigation options were to be applied to all critical items managed by DLA and the Services. A total of seven options were developed. The first two options required no action because mitigation analysis indicated that the critical item was supplied from a low risk supplier or the item had sufficient stock on hand to meet projected demand. Each of the remaining five options required a specific mitigation action. The Working Group further decided that each critical item would be stocked, if possible, to meet projected requirements through March 2000. The Working Group contended that should a supply interruption occur with a critical supplier, a 3-month period would allow sufficient time to correct the interruption. The Working Group mitigation options were:

- No Action Required – Item is available from a supplier assessed as low risk
- No Action Required – Sufficient stock is available to meet expected demands
- Utilize an authorized substitute item

- Inter-Service Support Action - Apply assets from another Service/customer
- Accelerate deliveries on existing contracts
- Procurement Action Required
- Other Action (Remarks required)

Defense Logistics Agency Mitigation Guidance. Headquarters, Defense Logistics Agency, Logistics Management Directorate, published guidance that addressed strategies for the mitigation of critical items. This guidance, "Year 2000 (Y2K) Risk Mitigation," April 2, 1999, a memorandum to the Commanders and Administrator, Defense Supply Centers; outlines accelerated procurement procedures and stock level considerations for critical items. The guidance further instructs material management personnel to consider procurement lead-time, alternate sources of supply, item interchangeability and accelerated procurement actions as tools to properly and efficiently mitigate critical items. This guidance, although prepared prior to the Working Group guidance, closely parallels it in content.

IG Review of the Critical Items Mitigated

For the review of each critical item for DLA and the Services, we obtained an automated data listing of the current stock on-hand, stock due in by December 31, 1999, and stock due-in for the first calendar quarter of year 2000. In addition, we obtained data indicating whether stock was in a back ordered status and historical demand data for each item. We analyzed whether sufficient stock would be on hand through March 2000 and whether the appropriate mitigation action was exercised to ensure sufficient stock level for that period. For those critical items without sufficient stock on hand to meet projected demand through March 2000, we reviewed whether the Working Group options for mitigation had been applied. If mitigation options were not applied, we determined whether mitigation options were still possible before January 1, 2000.

Review of DLA Items. We statistically sampled critical items that were provided by DLA during September 1999 (See Appendix A). Table 2 shows the universe of critical items provided by DLA for our review and the sample sizes of critical items reviewed at each DLA Supply Center.

Table 2. DLA Critical Items Identified as of September 1999 and Sampled Items

Supply Centers	DLA Critical Items	Sampled Items
Philadelphia - Medical, Clothing, and Textiles	240	153
Philadelphia – Industrial	1,592	507
Richmond	1,908	491
Columbus	2,010	504
Total	5,750	1,655

Supply Availability. We found that 1,464 of the 1,655 sampled critical items either had adequate supply to meet projected demand through March 2000 or an action had been initiated to obtain the necessary supply.

For 132 sampled critical items, mitigation action had not been taken but was still possible. For the remaining 59 sampled critical items, mitigation action was not possible since sufficient lead-time was not available before year 2000 arrives. Accordingly, as many as 191 of the DLA sampled critical items could face a potential year 2000 related supply deficiency. Table 3 shows the sampled results of our review by Supply Center.

Table 3. Statistical Sample of Defense Logistics Agency Mitigation Results

Supply Center	Adequate Supply (On Hand/Due in)	Mitigation Action Possible	Mitigation Action Not Possible
Philadelphia – Medical, Clothing, and Textiles	148	4	1
Philadelphia – Industrial	474	20	13
Richmond	401	59	31
Columbus	441	49	14
Total	1,464	132	59

Communications between DLA Activities. Communication problems existed between the Defense Logistics Agency Headquarters and its centers. At the time of our site visits, the supply centers achieved varying degrees of compliance with the mitigation criteria established by its headquarters and the Working Group. The Defense Industrial Supply Center, Philadelphia and the Defense Supply Center, Philadelphia (Medical, Clothing and Textiles) were aware of, and had complied with, the intent and process for mitigating their critical items. These centers followed appropriate procedures to procure critical items that otherwise would not be in adequate supply to meet the projected

demand through March 2000. The Defense Supply Center, Columbus received a draft copy of the mitigation guidance and was aware of the mitigation procedures through e-mail correspondence with mid-level managers. The Columbus Center complied with the intent of the established procedures and generally applied the mitigation options. However, not all of the material managers at the Columbus Center were aware of the critical supplier effort. In certain instances, mitigation options could have been applied, but were not. The Defense Supply Center, Richmond did not initially comply with the intent and process for mitigating critical items. The Richmond Center contended that the draft guidance that addressed the mitigation option of procurement actions was confusing. Therefore, the Richmond Center never appropriately implemented the established mitigation process.

Review of Navy Items. From the universe of 1,761 critical items, we statistically sampled 274 of the 951 critical items for review at NAVICP Philadelphia and 223 of the 810 critical items for review at NAVICP Mechanicsburg, for a total of 497 critical items sampled.

Supply Availability. Our review of the 497 sampled critical items managed by the NAVICPs disclosed that 471 sampled critical items had adequate supply to meet projected demand through March 2000. For 12 critical items, mitigation action was not taken but was still possible. For the remaining 14 critical items, mitigation action is no longer possible.

Inconsistent Procedures. The Navy partially complied with the guidelines established by the Working Group. NAVICP Philadelphia reviewed the year 2000 compliance status of critical items from automated data developed during March 1999. For critical items that did not have stock to meet projected demand, NAVICP tried to find either an alternate source or a substitute for the item. If an alternate source was assessed as a low risk supplier or a substitute was found for the item, the critical item required no further mitigation action. If the critical item required further mitigation, the Navy did not initially accelerate deliveries of critical items that were due-in on existing contracts. After our review, the Navy attempted to accelerate deliveries of existing contracts where a due-in for the critical item was scheduled in early 2000.

Review of Army Items. The Army identified 267 critical items supplied by manufacturers who were initially assessed as either high- or moderate-risk for year 2000 compliance. Since the Army identified only 267 critical items, we reviewed the entire universe. Our review of the 267 critical items disclosed that 253 items had adequate supply to meet projected demands through March 2000. For seven critical items, mitigation options had not been taken. We informed the Army of the mitigation action that was still possible for the seven items. For the remaining seven critical items, mitigation action was no longer possible

or considered economically justifiable. The Army inventory control points initially did not consistently apply calculations that were necessary to compute the stock quantity for critical items developed by the Working Group. We informed the Army of the calculations and the mitigation options that were developed by the Working Group. The Army took action to remedy this situation to ensure uniform stock position calculations and mitigation procedures for its critical items.

Review of Air Force Items. The Air Force limited their critical item selection to those items supplied by sole-source contractors and those items scheduled for procurement or repair in year 2000. Consequently, the Air Force identified only 14 critical items requiring mitigation action. We reviewed all items identified. We obtained documentation pertaining to the Air Force mitigation decisions and determined that the 14 critical items were properly mitigated. Of the 14 critical items, seven items had alternate sources of supply, four items were reassessed as having no future demand and three items were provided by suppliers later reassessed by the Air Force as low risk.

Review of Marine Corps Items. We did not review mitigation actions for the eight critical items identified by the Marine Corps, because of time constraints.

Prime Vendor Testing

Prime Vendors Requiring End-to-End Testing. DLA categorized 56 suppliers as very highly critical. Therefore, those 56 suppliers were required to perform end-to-end transaction testing in addition to an assessment to assure year 2000 compliance. These suppliers were referred to as prime vendors and have direct responsibility to distribute items directly to DoD activities. Table 4 lists the DLA Supply Centers and number of prime vendors responsible for the categories of items sold.

Table 4. DLA Prime Vendors Requiring Y2K End-to-End Testing

DLA Supply Center	Number of vendors	Category
Richmond	1	Aircraft Parts
Columbus	1	Electronics & Construction
Philadelphia	28	Subsistence
Philadelphia	15	General & Industrial
Philadelphia	11	Medical
Total	56	

Test Results. Test plans for each category of prime vendor were developed in accordance with the DoD Management Plan. Testing for prime vendors included end-to-end transaction testing and software development testing (except for subsistence prime vendors). Tests were mutually conducted with both DLA and prime vendor personnel. DLA established that each category of prime vendor required certain transaction tests in order to attain year 2000 compliance status. Therefore, the number of end-to-end tests varied with the category of prime vendor.

Aircraft Parts Vendor. Defense Supply Center, Richmond selected five critical transaction dates for end-to-end tests of orders and deliveries of aircraft parts from one vendor. The end-to-end tests included tests of material release orders, distribution orders and electronic data interface transactions, which included software development testing. Test results showed that all transaction tests were processed successfully and the supplier provided the Defense Supply Center Richmond with a due diligence statement certifying year 2000 compliance.

Electronic and Construction Vendor. Defense Supply Center, Columbus selected six transaction dates for end-to-end tests of orders and deliveries of electronic and construction parts from one vendor. The end-to-end tests included tests for purchase orders, purchase order change requests and shipping notices. Software development tests for the electronic and construction prime vendor was also conducted. Test results showed that all transaction tests were processed successfully and the supplier provided the Defense Supply Center, Columbus with a due diligence statement certifying year 2000 compliance.

Subsistence Vendors. Defense Supply Center, Philadelphia selected eight transaction dates for end-to-end tests of purchase orders and deliveries of subsistence items. Test results showed that all transaction tests for the 28 subsistence prime vendors were processed successfully and the suppliers provided the Defense Supply Center, Philadelphia with due diligence statements certifying year 2000 compliance.

General and Industrial Vendors. Defense Supply Center, Philadelphia did not conduct end-to-end transaction testing for general and industrial vendors because orders and deliveries to these vendors are conducted via telephone or fax transmissions. Software development tests for the 15 prime vendors were conducted. The software development tests were processed successfully for the 15 prime vendors and each vendor provided the Defense Supply Center, Philadelphia with due diligence statements certifying year 2000 compliance.

Medical Vendors. Inspector General, DoD Report No. D-2000-031, "Year 2000 End-to-End Tests for the Military Health System," November 4, 1999, reported the results of end-to-end testing for the 11 medical prime vendors. End-to-end testing for patient care, patient administration and medical logistics were reviewed. The report stated that the end-to-end tests for the 11 medical prime vendors were generally positive and software modifications were developed for one problem identified in each of the patient administration and medical logistics tests. The 11 medical prime vendors provided due diligence statements certifying year 2000 compliance.

Summary

Headquarters, DLA published guidance that addressed the mitigation strategies to be used by its supply centers. The Joint Supplier Capability Working Group created similar mitigation strategies to be used by the Services. Our review of the mitigation actions taken showed that stock levels of selected critical items were reasonably protected. Between mitigation actions applied and items with adequate supply to meet projected demands through March 2000, we estimated that between 7,364 and 7,527 critical items, 94 and 96 percent of the identified critical item universe of 7,800 items, will probably be protected against any year 2000 related supply interruptions. See Appendix A for additional information. In addition, transaction testing disclosed that the communication systems for 56 prime vendors were year 2000 compliant and should not be subject to supply interruption in year 2000.

Though reasonably planned, the identification of critical items and subsequent application of mitigation options did not produce the results originally planned. We observed that the items deemed critical by DLA and the Navy included obsolete, terminal, low demand, or non-stocked items. We questioned the inclusion of these items. Moreover, the apparent lack of vigor in the identification process raises a concern that critical items and suppliers were omitted. Similar concerns about the identification of critical items by the Army, and particularly the Air Force, are unavoidable.

Our review also disclosed that DLA Supply Centers never received official mitigation guidance. The Army initially did not provide its inventory control points with guidance to properly analyze sufficient stock-on-hand quantities. The Army subsequently took actions to remedy this situation to ensure a valid and accurate mitigation process. Some DLA Supply Centers and the Navy initially did not properly apply all mitigation options available. Either the lack of specific guidance or the failure to apply all mitigation options available could have increased the number of critical items subject to supply interruption. We provided the results of our review to DLA and the Services. We also requested

DLA and the Navy to review the remaining items in the universe. DLA and the Services planned and conducted appropriate corrective action.

Despite these limitations and concerns, the relatively high DoD confidence in the reliability of its supply chain in the year 2000 environment is probably justified. For identified critical items and suppliers, the mitigation process was effective. The conscientious efforts made by the Defense Contract Management Command strengthened the mitigation process for major Defense contractors, whose own supplier outreach efforts are vitally important. The efforts of other public and private sector buyers to assure supplier readiness in the same industries from which the DoD purchases goods and services, complimented the DoD efforts and helped provide reasonable assurance.

Management Comments and Audit Response

Management Comments. Although no comments were required, both the Army and the Navy provided comments on the draft report. The Army provided an updated status for the seven critical items that we identified for which mitigation action was still possible. In addition, the Army stated that we did not acknowledge that the Army subsequently provided its material management centers guidance to properly compute stock position of its critical items. The Navy essentially concurred with our draft report, although in their comments, they clarified some aspects of the classification of their critical item inventory and their use of the established mitigation options.

Audit Response. In response to the Army comments to the draft report, we revised the final report.

Appendix A. Audit Process

Scope

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 web page on the IGnet at http://www.ignet.gov.

Work Performed. We reviewed and evaluated DoD management progress in resolving the year 2000 computing issues relating to Defense critical suppliers. We evaluated the procedures and processes used by the Working Group, DLA, and the Services to mitigate possible supply interruptions caused by Year 2000 computing problems. We provided feedback and advice to the Working Group as it formulated its strategy and mitigated critical items.

DoD-Wide Corporate-Level Goals. In response to the Government Performance and Results Act, the Department of Defense has established 2 DoD-wide goals and 7 subordinate performance goals. This report pertains to achievement of the following goal (and subordinate performance goals):

> **Goal 2:** Prepare now for an uncertain future by pursuing a focused modernization effort that maintains U.S. qualitative superiority in key warfighting capabilities. Transform the force by exploiting the Revolution in Military Affairs, and reengineer the Department to achieve 21st century infrastructure. **Performance Goal 2.2:** Transform U.S. military forces for the future. **(00-DoD-2.2)**

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)**

General Accounting Office High Risk Areas. The General Accounting Office has identified several high-risk areas in the DoD. This report provides coverage of the Defense Inventory Management and Year 2000 Conversion high-risk areas.

Methodology

Audit Type, Dates, and Standards. We performed this program audit from July through November 1999 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. Our reliance on computer processed data was limited to obtaining current stock on hand, stock due in by December 31, 1999, stock due in for the first calendar quarter of year 2000, stock in a back ordered status, and historical demand for each item we reviewed as of September 1999.

Scope Limitations. We did not test the validity of the critical item universe. DLA and the Services have statutory responsibility and technical expertise for the management of their material inventory and in the designation of which items are deemed critical. Therefore, the responsibility for determining which items were critical, and could be impacted by a year 2000 interruption, rested solely with DLA and the Services.

Use of Technical Assistance. The Quantitative Methods Division prepared the statistical sampling plan. The plan was designed to project the supply items considered deficient at DLA and Navy locations to fulfill supply requirements beyond the year 2000 (March 2000). The plan called for auditing four DLA locations and two Navy locations. The Quantitative Methods Division used stratified sampling techniques for DLA and the Navy locations.

Statistical Sampling Purpose. The audit objective was to evaluate the status of DOD progress in resolving the year 2000 computing issue for major defense contractors and their critical suppliers. The purpose of statistical sampling for this audit was to analyze mitigation actions taken by DLA and the Services of their critical items.

Sampling Plan. During September and October 1999, DLA and the Services identified 7,800 critical items supplied by manufacturers assessed as either high- or moderate-risk for year 2000 compliance. We used stratified sampling plans for both DLA and the Navy and statistically sampled 1,655 of the 5,750 critical items identified by DLA and 497 of the 1,761 critical items identified by the Navy. The sample sizes were calculated using a 95 percent confidence level and a 5 percent precision rate.

Statistical Projections. We calculated statistical projections for the selected critical items for DLA and the Navy. We are 95 percent confident that DLA either took proper mitigation action or that a mitigation action was possible for between 5,399 and 5,520 critical items. The best unbiased point estimate for DLA critical items where a mitigation action was taken or possible was 5,459 critical items. We are also 95 percent confident that the Navy either

took proper mitigation action or mitigation action was possible for between 1,691 and 1,733 critical items. The best unbiased point estimate for the Navy where a mitigation action was taken or possible was 1,712 critical items.

Summary of Critical Items Reviewed. We reviewed the entire universe of 267 items identified by the Army and 14 critical items identified by the Air Force. We did not review mitigation action of eight items identified by the Marine Corps. Table 5 summarizes where DLA and the Services either took proper mitigation action or the mitigation action was possible.

Table 5. Statistical Projection of Mitigation Results to the Universe of Critical Items

DoD Organization	Universe of Critical Items	Mitigation Action Taken or Possible (Point Estimate)	Lower Bound	Percent of Lower Bound	Upper Bound	Percent of Upper Bound
Defense Logistics Agency	5,750	5,459	5,399	94	5,520	96
Navy	1,761	1,712	1,691	96	1,733	98
Army	267	260	260	97	260	97
Air Force	14	14	14	100	14	100
Marine Corp	8	N/A	N/A	N/A	N/A	N/A
Total	7,800	7,445	7,364	94	7,527	96

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available upon request.

Management Control Program

We did not review the management control program related to the overall audit objective because DoD recognized the year 2000 issue as a material management control weakness area in the FY 1998 and FY 1999 Annual Statements of Assurance.

Prior Coverage

The General Accounting Office and the Inspector General, DoD, have conducted multiple reviews related to year 2000 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.

Appendix B. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology and Logistics
  Deputy Under Secretary of Defense (Logistics and Material Readiness)
    Director, Logistics Systems Modernization
Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
  Deputy Chief Information Officer and Deputy Assistant Secretary of Defense (Chief Information Officer Policy and Implementation)
    Principal Director for Year 2000
  Year 2000 Oversight and Contingency Planning Office

Joint Staff

Director, Joint Staff

Department of the Army

Assistant Secretary of the Army (Financial Management and Comptroller)
Commander, Army Materiel Command
Deputy Chief of Staff for Plans and Operations
Auditor General, Department of the Army
Inspector General, Department of the Army

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Deputy Chief of Naval Operations (Logistics)
  Commander, Naval Inventory Control Point
Inspector General, Department of the Navy
Inspector General, Marine Corps
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Deputy Chief of Staff for Installations and Logistics
Inspector General, Department of the Air Force
Auditor General, Department of the Air Force

Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
  Director, Defense Contract Management Command
  Director, Defense Logistics Support Command
    Director, Defense Supply Center Columbus
    Director, Defense Supply Center Philadelphia
    Director, Defense Supply Center Richmond
Director, National Security Agency
  Inspector General, National Security Agency
Inspector General, Defense Intelligence 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, General Accounting Office

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 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

Department of Army Comments

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS
500 ARMY PENTAGON
WASHINGTON DC 20310-0500

DALO-POD

21 DEC 1999

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Audit Report on Year 2000 Conversion Program for Defense Critical Suppliers (Project No. 8CG-0046.02)

1. This is in response to the DoD IG Memorandum of 9 December 99 (Tab A), which forwarded the draft audit for review.

2. The Army's response to the draft proposed audit report titled "Year 2000 Conversion Program for Defense Critical Suppliers" is the following:

a. On page 8, it is stated that 253 of the 267 critical items identified have adequate supply to meet projected demands through March 2000. Of the remaining fourteen critical items it is stated in the report that seven items still require mitigation actions, and for seven other items, mitigation action is no longer possible. We concur on the seven items where action proves uneconomical or is no longer possible, but we do not agree that mitigation actions are still remaining on seven items. Listed below are reasons why the items should no longer be cited in the draft audit report:

1) 4240-01-270-2168 No Army requirements. Foreign country requirements. By policy no items kept on-hand to support FMS requirements.

2) 2915-01-105-2059 Needed 19 to cover the demands through March 2000. Received 92 items in October 1999. Requirement satisfied.

3) 4810-01-391-8454 Requirements are all supportable through repair actions.

4) 2530-01-169-3168 Contract accelerated to deliver in Jan 2000. DLA managed item, not Army managed.

Printed on Recycled Paper

DALO-POD
Subj: Audit Report on Year 2000 Conversion Program for Defense Critical Suppliers (Project No. 8CG-0046.02)

5) 1650-01-211-6309 Enough serviceable assets on-hand and in process of repair to cover through Jun 2000.

6) 6140-00-057-2553 Short Lead Time item. DLA managed.

7) 4240-01-359-5641 USAF managed item.

b. There are several places in the DoD IG report that state "The Army did not provide its inventory control points with guidance to properly analyze sufficient on-hand quantities." (this example is from page 11). We agree that initially there were not standard practices among the Army's Integrated Materiel Management Centers (IMMCs) to evaluate stock availability. To correct this, Headquarters, United States Army Materiel Command (HQ AMC) worked along with the IMMCs and the DoD IG to develop a standardized acceptable formula. Therefore, the Army recommends that throughout the report (executive summary, and pages 3, 8 and 11) it be noted that "Initially no standard procedures were in place to analyze and evaluate stock availability. Actions were taken to remedy this situation to ensure valid and accurate mitigation process."

3. The Army feels that we have effectively reviewed all 267 items and adequately developed mitigation strategies for items when needed. Request the report be revised accordingly. The Joint Supplier Capability Working Group (OSD, Services, DLA and DODIG) met frequently since Dec 1998 and jointly developed policies and procedures to minimize any Y2K risk. The Army worked diligently to ensure supplier compliance and effective mitigation of critical items.

Encl

For H. A. Curry
Brigadier General, U.S. Army
Director of Plans, Operations
and Logistics Automation

Department of Navy Comments

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

7500
Ser N412E/9U591300
20 Dec 99

From: Chief of Naval Operations
To: Inspector General, Department of Defense

Subj: RESPONSE TO DRAFT AUDIT REPORT ON YEAR 2000 CONVERSION PROGRAM FOR DEFENSE CRITICAL SUPPLIERS (PROJECT NO. 8CG-0046.02)

Ref: (a) NAVICP ltr 8CG-0046.02 Ser P007 of 20 Dec 99

1. The Navy position and comments regarding the subject draft audit report are stated in reference (a). Navy aggressively identified critical items and their suppliers, and accomplished appropriate Y2K mitigation action where warranted.

2. It is requested that this letter and reference (a) be included in the final report.

D. P. Keller

D. P. KELLER
By direction

DEPARTMENT OF THE NAVY
NAVAL INVENTORY CONTROL POINT
700 ROBBINS AVENUE
PHILADELPHIA PA 19111-5098
5450 CARLISLE PIKE - PO BOX 2020
MECHANICSBURG PA 17055-0788

COM & FTS 215-697-3653
DSN & EXT 3653
FAX # 0387
IN REPLY REFER TO

8CG-0046.02
P007
20 Dec 1999

From: Commander, Naval Inventory Control Point
To: Inspector General

Subj: DRAFT AUDIT REPORT ON YEAR 2000 CONVERSION PROGRAM FOR DEFENSE CRITICAL SUPPLIERS (PROJECT NO. 8CG-0046.02)

Ref: DODIG ltr of 9 Dec 99

1. In response to reference (a), the following comments are provided:

a. The DODIG reported that the Navy critical item data contained terminal, low-demand or non-stocked items. Given the dynamic environment of supply logistics and purposeful continual re-evaluation of forecasts from long-term to short-term, changes in material forecasts are expected to, and should, occur.

Over the course of the project, the Navy did re-forecast its critical item requirements and, as a result, re-classified many of the items earlier assessed as potentially high risk to a non-risk status due to sufficient supply position. Terminal items are such that the determination has been made to no longer procure the item due to declining applications. The Naval Inventory Control Point (NAVICP) notes that an item can be determined to be terminal and still be designated critical.

b. Viewed in context of competing financial priorities at the NAVICP, all mitigation alternatives, for all critical items assessed as high or moderate risk, were considered as suggested by the Joint Supplier Capability Working Group. Four of the seven suggested mitigation actions, in fact, proved feasible to implement.

JOSEPH SCARPA
By direction

Copy to:
NAVINSGEN (NIG-04)
NAVSUPSYSCOM (SUP 91F)
OPNAV (N412E)

Audit Team Members

The Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report. Personnel of the Office of the Inspector General, DoD, who contributed to this report are listed below.

Paul J. Granetto
Terry L. McKinney
Nicholas E. Como
Gopal K. Jain
Samuel J. Scumaci
Dahram V. Jain
Chuck J. Chin
Cecil B. Tucker, Jr.
Catherine Argubright
Christi L. Weigner
Iman A. Aquil