REPORT TO

THE CONGRESS OF THE UNITED STATES

REVIEW OF
THE VALIDITY OF AND CONTROLS OVER
THE LARGE VOLUME OF UNFILLED ORDERS
FOR AIR FORCE 'MATERIEL

DEPARTMENTOFTHE AIR FORCE

BY
THE COMPTROLLER GENERAL
OF THE UNITED STATES

OCTOBER 1967

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

The General Accounting Office has made a review of the validity of, and controls over, the large volume of unfilled orders (back orders) for Air Force materiel,

Our review showed 'that supply effectiveness in the Air Force could be improved and the volume of assets on back order could be significantly reduced. We believe that this could be accomplished by establishing procedures at the base level to ensure the prompt cancellation of back orders not supported by valid requirements and by promptly taking special inventories at the supply depots on items which must be back ordered.

Invalid back orders create a tremendous impact on logistics support because they can result in unnecessary procurement, uneconomical procurement, unnecessary repair of assets, unneeded assets' being received by one installation when they are actually needed by another installation, and unnecessary rediatribution of assets.

We visited nine Air Force bases representing five Air Force operating commands, At these bases we used statistical sampling techniques to select a sample of back-ordered line items for detailed analysis, Our review of these items showed that about $1,224,000, or 22 percent, of the materiel on back order was against requisitions that were not valid, After we brought this matter to their attention, base officials took action to cancel invalid back orders amounting to at least $730,000.

The value of assets on back order in the five Air Force operating commands represented by the bases we visited totaled about $471 million as of May 31, 1966, If the percentage of invalid back orders revealed by our review is the same for all Air Force bases in these five Air Force commands, we estimate that back orders couid have been reduced by about $103 million through the prompt cancellation of

invalid requests, Furthermore, since the value of assets on back order in all Air Force commands was about $875 million as of May 31, 1966, we believe that the total value of invalid back orders, Air Force-wide, would be substantially greater.

Our review at the bases showed that many back orders were invalid because:

-- Assets on back order were excess to requirements for base stock and other needs,

-- The basis for the original orders of using units no longer existed, or duplicate requests had been submitted and there was inadequate review and control of requests at the using unit level to eliminate duplications.

-- Assets were actually available in base warehouses to fill such orders,

Also, we visited four supply depots of the Air Force Logistics Command, At these depots our review of selected line items with assets on back order revealed unrecorded assets in the warehouses amounting to about $893,000, This disclosure resulted in the release of assets valued at about $444,000 for shipment against back-ordered requisitions, some of which were for activities in Southeast Asia, On the basis of our sample, we estimate that these four supply depots had, at the time of our review, unrecorded assets in their warehouses valued at about $13,671,000. We further estimate that back orders could have been reduced by about $6,725,000 had these assets been recorded on the depots' inventory accounting records.

On March 1, 1967, we brought our findings to the attention of the Secretary of Defense. We proposed the establishment of procedures designed to provide more effective controls over back orders.

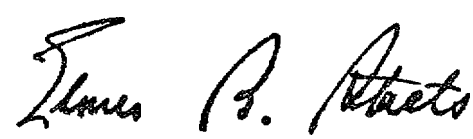
In commenting on our report in a letter dated May 16, 1967, the Deputy for Supply and Maintenance, Office of the Assistant Secretary of the Air Force (Installations and Logistics), stated that the need for additional procedures as proposed by the General Accounting Office, was not deemed applicable in every instance. However, he stated that the Air Force was effecting changes in its programs and procedures which would bring about improved conditions in certain areas in the immediate future and had apprised its major commands of those instances where local management was delinquent.

We believe that the actions being taken by the Air Force will reduce the volume of invalid back orders, if properly implemented. However, we still believe that additional action, as previously proposed in our draft report, could be taken to further reduce invalid back orders.

We therefore are recommending that the Secretary of the Air Force take action to establish at the base using-activity level a uniform system of records to adequately control outstanding requests.

We are reporting this matter to the Congress to advise it of a significant problem affecting the logistics support of the Air Force, of reported plans for improvement, and of the need for additional action which we believe is still essential.

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of Defense; and the Secretary of the Air Force.



Comptroller General
of the United States

Contents

REVIEW OF

THE VALIDITY OF AND CONTROLS OVER

THE LARGE VOLUME OF UNFILLED ORDERS

FOR AIR FORCE MATERIEL

DEPARTMENT OF THE AIR FORCE

INTRODUCTION

The General Accounting Office, as a part of its examination of supply management functions within the Department of the Air Force, has reviewed the validity of, and controls over, orders for spare parts and equipment that could not be filled by the cognizant Air Force supply depot and, as a consequence, were placed in a back-order status. Our review was concerned with those items that were in a back-order status because of the significant dollar value of assets on back order and their impact on Air Force supply management. Our review was limited to the causes of invalid back orders only. The scope of our review is shown on page 21.

The review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

BACKGROUND

The Air Force Logistics Command (AFLC) has the responsibility for providing the spare parts and equipment support required by Air Force installations. This responsibility is carried out at five supply depots. Under the AFLC management concept, certain classes or types of spare parts and equipment are assigned to each of the five depots. The depots' management (procurement, stockage, and distribution) of their respective assets is based primarily on worldwide Air Force requirements.

Air Force base supply operations utilize an automatic data processing (ADP) computer in their Standard Base Level Supply System. Through this system the Air Force installations requisition spare parts and equipment from the depots primarily for one or both of the following reasons:

1. To replenish warehouse stocks which have been reduced by issues to the installation using activities (customers).

2. To fill specific customer requests for assets which are not available at the installation.

The depots use a highly mechanized ADP computer system which provides rapid response to supply requisitions from Air Force bases worldwide. The ADP computer system can identify the required stock, determine its exact location in a warehouse somewhere in the United States, and produce a shipping document to initiate delivery of the stock to the requisitioning base.

In many instances sufficient assets to fill Air Force installation requests cannot immediately be furnished by the depots. When assets are not available, the cognizant depot notifies the installation that its request has been back ordered. The Air Force defines a back order as an obligation assumed by any supply echelon to issue at a subsequent date a requisitioned item which is not immediately available for distribution.

The significance of back orders and their impact on asset management at the depots can best be realized when viewed in terms of total dollar value. As of December 31, 1965, the Air Force had over $678 million in back orders. On May 31, 1966, this figure had increased to $875 million--an increase of approximately 29 percent. This increase can probably be attributed to the demands from Southeast Asia.

Invalid back orders create a tremendous impact on logistics support because they can result in (1) unnecessary procurement, (2) uneconomical procurement, (3) unnecessary repair of assets, (4) unneeded assets being received by one

installation when they are actually needed by another installation, and (5) unnecessary redistribution of assets.

During our review we utilized the ADP computer capabilities at the bases and depots visited to apply the techniques of random statistical sampling. These techniques were used at each installation to determine the number of back-ordered line items to be included in our sample and to select individual Pine items for detailed review.

A list of the principal officials of the Department of Defense and the Department of the Air Force, responsible for the administration of the activities discussed in this report, is included as appendix I.

FINDINGS AND RECOMMENDATION

INCREASED SUPPLY EFFECTIVENESS POSSIBLE THROUGH IMPROVED CONTROLS OVER UNFILLED ORDERS FOR MATERIEL

Our review at nine Air Force bases representing five Air Force operating commands and at four supply depots of the Air Force Logistics Command indicated that the supply effectiveness of the Air Force could be improved and the volume of unfilled orders (back orders) could be significantly reduced. de believe that this could be accomplished by establishing procedures at the base level to ensure the prompt cancellation of back orders not supported by valid requirements and by promptly taking special physical inventories at the supply depots on items which must be back ordered.

At each of the nine Air Force bases visited, we utilized the base supply system computer to apply statistical sampling techniques for the selection of back-ordered line items for detailed analysis. Our review of these items showed that about *$1,224,000,* or 22 percent, of the materiel on back order was against requisitions that were not valid. After we brought this matter to their attention, base officials took action to cancel invalid back orders amounting to at least $730,000.

The value of assets on back order in the five Air Force operating commands represented by our review totaled about $471 million as of May 31, 1966, If the percentage of invalid back orders revealed by our review is the same for all Air Force bases in these five Air Force commands, we estimate that back orders could have been reduced by about $103 million through the prompt cancellation of invalid requests. Furthermore, since the value of assets on back order in all Air Force commands was about $875 million as of May 31, 1966, we believe that the total value of invalid back orders, Air Force-wide, would have been substantially greater.

Our review at the bases showed that many back orders were invalid because (1) assets on back order were excess to requirements for base stock and other needs, (2) the

basis for the original requests no longer existed or duplicate requests had been submitted and there was inadequate review and control of requests at the using unit level to eliminate duplications, and (3) assets were actually available in base warehouses to fill such orders.

At the four supply depots, our review of selected line items with assets on back order disclosed unrecorded assets in their warehouses amounting to about $893,000. This disclosure resulted in the release of assets valued at about $444,000 for shipment against back-ordered requisitions, some of which were for activities in Southeast Asia. On the basis of our sample, we estimate that these four supply depots had, at the time of our review, unrecorded assets in their warehouses valued at about $13,671,000. We further estimate that back orders could have been reduced by about $6,725,000 had these assets been recorded on the depots' inventory accounting records.

The results of our review at the base level and depot level are discussed in detail below.

Base level

At the time of our review, the nine Air Force bases we visited had 11,271 line items with assets on back order valued at about $18,100,000. We selected for detailed review 3,272 line items with assets on tack order valued at about $5,582,000. Our review revealed that orders for materiel totaling about $1,224,000, or 22 percent of the value of assets on back order, were based on invalid requirements. The following table shows the reason, amount, and percentage of invalid back orders applicable to the total back-order sample.

Reasons why invalid	Amount invalid	Percentage of sample
Assets on back order were excess to requirements for base stock and other needs	$ 826,304	14.80
Requests for assets at the using activity level were not adequately controlled	338,548	6.07
Assets on back order were actually available in base warehouse stocks	58,883	1.05
Total	$1,223,735	21.92

Assets on back order were excess to requirements for base stock and other needs

Our review showed that back orders amounting to about $826,000, or 14.8 percent of the value of back orders in our sample, were excess to requirements for base stock and other needs. As a result, when these back-ordered assets are shipped to the bases, they will be excess to needs unless some subsequent unforeseen change in requirements has occurred. Air Force regulations state that, when a base receives or has on hand assets in excess of its authorized stock level, such excess assets will be reported to the appropriate supply depot for possible redistribution to other installations.

We believe that the problem of back-ordered assets in excess to requirements for base stock and other needs, as disclosed by our review, has been caused primarily by (1) lack of timely action to cancel requests for excess back-ordered assets, (2) lack of utilization of excess suitable substitute items, (3) lack of action to cancel back-ordered requisitions when the related customer requests were deleted from supply records, and (4) improper use of a special requirements code.

1. Lack of timely action to cancel requests for excess back-ordered assets

One of the reasons that back-ordered assets frequently exceeded the bases' requirements for base stock and other needs was the lack of an action which would cause the base supply system computer to determine current needs after a stock replenishment requisition had been back ordered for a period of time.

The base supply system computer is programmed to recompute (relevel) at the end of each day the stock level on all line items which experience transactions affecting stock control data. In addition to performing this normal releveling process, bases are required to perform a releveling program on all Line items at least once each 90 days.

An important factor used in computing the stock level is the number of recurring demands for an item within a

specified time period. If the number of recurring demands for an item decreases with the passage of time, the stock level will usually be reduced when the computer relevels utilizing the number of recurring demands for the latest time period. Therefore, if the line item does not experience a transaction which will cause the computer to relevel and take appropriate action, an existing back-ordered stock replenishment requisition can be partially or wholly excess to current requirements. An example of the above situation follows:

> At one base, six outer wing screw jacks costing $558 each were back ordered to fill a previously computed stock level of six. This stock level computation was based on a total of 19 recurring demands. However, our request for information for our detailed review of this item caused the computer to relevel, using the most current time period data which showed 17 recurring demands, and established a stock level of five. Thus, even though demands had decreased, no transaction had occurred to cause the computer to relevel and to initiate action to cancel the excess asset on order. Action was taken to cancel this excess on-order as a result of our bringing the matter to the attention of base supply officials.

The 90-day releveling program may have identified the above situation. However, because of the continuing changes in the factors which determine the stock level, there appears to be a need for a more timely computation of stock levels for items with back orders, in order to prevent the existence of excess back-ordered assets for extended periods. Since back-ordered assets may be released by the depot for shipment at any time, there is a need for timely cancellation to preclude the shipment and receipt of unneeded assets.

2. Lack of utilization of excess suitable substitute items

Our review revealed instances of assets on back order even though excess suitable substitute items were available in the base warehouses to fill the needs for which these assets were ordered, This situation was primarily

attributable to suitable substitute items not being properly identified on the records with the interchangeable item(s). An example of this situation follows:

> At one base, three types of fuel controls were fully interchangeable with each other, but they were not properly identified as such. As a result, when assets were requisitioned to fill the requirements for two types of fuel controls, the availability of excess on-hand assets of the third type was not taken into consideration. This improper identification of the interchangeability of these three types of fuel controls resulted in invalid back orders for seven assets valued at *$40,136.*

The above example illustrates the need for proper identification of assets, in accordance with the "USAF Interchangeability and Substitution Grouping Stock List," in order to ensure effective utilization of all available assets.

3. Lack of action to cancel back-ordered requisitions when the related customer requests were deleted from supply records

We found numerous instances where customer requests had been deleted from the base supply system computer records, but, due to an apparent computer programming error, the related assets on back order for these requests had not been cancelled. We found that generally the above situation occurred when base supply filled the customer requests through acquisition of assets by some means other than receipt of assets on outstanding requisitions recorded in the base supply system computer. Some of the other means by which customer requests may be satisfied are (1) through lateral support (obtaining of assets from another base), (2) through serviceable turn-ins to base supply, and (3) through receipts on requisitions not recorded as on order by the base.

Failure to cancel a back-ordered asset when the related customer request has been satisfied through other means can result in excess back orders, as illustrated in the following example:

At one base a valve-grinding machine costing $365 was back ordered from the depot to fill a specific customer request. On July 12, 1966, a serviceable valve-grinding machine was turned in to base supply by another unit on the same base and the customer's request was filled. However, base supply did not cancel the depot order for the valve-grinding machine even though the requirement for such a machine had been satisfied, and thus an excess back order was created. As a result of our bringing this matter to the attention of base supply officials, action was taken on September 8, 1966, to cancel the back order for the unneeded machine,

4. Improper use of a special requirements code

At one base we found numerous instances where a special requirements code was being used in violation of Air Force regulations. This code prevented the base supply system computer from recognizing all assets on order when determining the asset position of an item. Consequently, the computer was prevented from identifying and initiating cancellation action on any of these back-ordered assets which were excess to base needs. When we brought this situation to the attention of responsible base officials, we were assured that the practice would be discontinued.

Lack of adequate control over requests for assets at the using-activity level

We found that back orders amounting to about $339,000, or 6 percent of the value of back orders in our sample, were invalid primarily because (1) duplicate requests were submitted for the same requirement or (2) requirements were satisfied from other sources or ceased to exist.

We believe that the timely cancellation of most of the invalid back orders was not accomplished because of a lack of adequate records and procedures at base using activities to readily identify invalid requests. Where we reviewed the using activities' recordkeeping systems in detail, we found that most of these activities either had no procedures or did not have adequate procedures to control outstanding requests.

Air Force officials at two of the bases visited stated that they would initiate a system to control outstanding requisitions at the using-activity level to ensure timely cancellation of requests for assets no longer required. Although the prompt action of Air Force officials is commendable, we believe that the lack of a uniform Air Force-wide system can result in so many different methods of control that effectiveness will vary from base to base.

Following are examples of the reasons for invalid back orders attributable to lack of control of requests for assets.

1. Duplicate requests were submitted for the same requirement

We found numerous instances where base using activities initiated duplicate requests for assets to fill the same requirement. Generally, the using activities did not maintain records or the records were not maintained in a manner which would readily disclose the existence of duplicate requests for the same requirement. Following is an example of this situation:

At one base a using activity requested on routine priority 30 parachute canopies costing $50 each. After receiving notice that the routine priority requisitions for these 30 units had been back ordered by the supply depot, the using activity on August 3, 1966, reinitiated its requests for the 30 units, utilizing the highest priority permissible. However, the routine requests were not canceled, which created duplicate requests for the same requirement. When we reviewed this item on September 1, 1966, the routine requests were still outstanding. After bringing this duplication to the attention of Air Force personnel, appropriate action was taken to cancel the invalid back orders.

2. Requirements either were satisfied from other sources or ceased to exist

Our review revealed many instances where the using activities were not canceling orders for assets to fill requirements which were satisfied through other sources or which no longer existed. The following examples illustrate this situation:

a. On June 30, 1966, an activity initiated a request for an antenna subassembly costing $134. The assembly that needed this subassembly was subsequently declared not reparable at this station and was turned in to base supply on July 25, 1966, for return to the depot. At the time of our visit on August 17, 1966, this request was still outstanding on the records.

b. On July 10, 1966, an activity initiated a request for a frequency tracker costing $6,053. Subsequently this asset was removed from the aircraft, repaired, and replaced in the aircraft. Although the requirement was satisfied by repairing the unserviceable asset, the request for a replacement was not canceled and was still shown as outstanding on the records at the time of our visit to the activity on August 17, 196.6.

c. On May 19, 1966, an activity initiated requests for two wave guide assemblies costing $185 each. The two components that needed these assets were subsequently repaired, one on May 31 and the other on June 15, 1966. At the time of our visit to this activity on August 22, 1966, the two requests had not been canceled and were still shown as outstanding on the records. In this instance, the activity records did not indicate how the needs had been satisfied.

As a result of our review, action was taken to cancel these and other invalid requests.

Assets on back order were actually available in base warehouse stocks

We found that back orders amounting to about $59,000, or 1 percent of the value of back orders in our sample, could have been filled from existing base warehouse stocks that were not on warehouse inventory records. After we brought this matter to the attention of responsible base officials, immediate action was taken to adjust inventory records. Not only do inaccurate inventory records result in invalid back orders, but they can also result in the failure of a base to provide supplies to fill customer requests in sufficient time.

Since our review was directed primarily toward determining the validity of back orders, rather than determining the accuracy of inventory records, we did not ascertain the reasons why inventory records failed to reflect the correct balances. However, we were advised by responsible Air Force officials that inventory errors could occur because of (1) clerical errors, (2) issuance of incorrect quantities by warehousemen, and (3) improper recording of changes in unit of issue.

Depot level

At the time of our review, the four Air Force supply depots had about 58,000 line items with assets on back order valued at about $628 million. We selected for detailed review 3,475 line items with assets on back order valued at about $39,432,000.

Items were being back ordered for which there were unrecorded assets in the depot warehouses

Of the 3,475 line items included in our sample, 1,964 did not have recorded warehouse locations, Consequently, we made no attempt to determine whether any of these line items were in the warehouses. For the remaining 1,511 line items with recorded warehouse locations, a physical inventory revealed that the supply records did not account for all the assets on hand in the warehouses, Our review was directed primarily toward determining the validity of back orders, rather than determining the reasons for the inaccuracy of the inventory records. Therefore, each line item was not analyzed to determine the underlying reasons why the inventory accounting records were inaccurate.

After we brought these discrepancies to the attention of responsible Air Force officials, previously unrecorded assets valued at about $893,000 were added to the supply records, As a consequence, assets valued at about $444,000 were released for shipment against back-ordered requisitions, some of which were for activities in Southeast Asia. In addition, assets valued at about $45,000 were held within the depots' minimum levels to fill future high-priority requisitions only. The summarized results by individual supply depots are shown below.

Supply depot	Items with Warehouse locations	Inventory adjustments	Value of unrecorded assets
A	364	70	$127,217
B	413	107	275,723
C	404	92	362,105
D	330	78	128,447
Total	1,511	347	$893,492

As a result of the inaccurate inventory records, the depots were back ordering various supplies and equipment when they could have satisfied some requisitions from warehouse stocks had the accounting records reflected quantities of assets actually in the warehouses. Failure to provide supplies and equipment to the bases in sufficient time

can result in equipment becoming nonoperative. In addition, inaccurate inventory records may result in the depots (1) paying premium prices to insure quick delivery when assets are critically needed, (2) overprocuring assets, and (3) unnecessarily repairing assets.

The following examples illustrate the failure to provide supplies in sufficient time and the overprocurement of assets as discussed above.

1. At one depot we found, from our physical inventory of a tube assembly costing $14, that there was a large quantity on hand in the warehouse, although the supply records showed a zero balance. After we brought this condition to the attention of the inventory manager, a special inventory was requested on March 28, 1966. As a result, the supply records were adjusted on April 18, 1966, to show that 3,014 tube assemblies valued at about $42,000 were on hand. Immediately thereafter, 354 tube assemblies were shipped to fill 54 back orders which had been outstanding up to 3 months. In addition, the depot was able to delete 475 tube assemblies from a procurement contract which had been awarded on February 4, 1966.

2. At another supply depot, our physical inventory revealed a number of units of a hose assembly costing $14 to be in the warehouse although the supply records showed a zero balance. We brought this discrepancy to the attention of the inventory manager who requested a special inventory on August 2, 1966. This special inventory revealed that there were 69 units in the warehouse. An upward adjustment was made to the accounting records on September 20, 1966--49 days after the inventory manager requested the special inventory. All 69 units were immediately released for shipment to fill 15 back-ordered requisitions. Thirteen of these back-ordered requisitions were for Southeast Asia's requirements, four of which were dated prior to August 2, 1966.

Special inventories are taken in order to reconcile detected differences between the supply records and the actual assets on hand, The length of time required to complete a special inventory and record the appropriate entry in the inventory records is another problem identified during our review. In our opinion, the time required to complete special inventories for items in our sample, as shown in the following table, was excessive.

Depot (note a)	Average number of days required to complete special inventory	Range in days required to complete special inventory	
		Low	High
A	41.1	14	103
B	31.3	18	67
C	38.2	15	124

[a]Statistics for one supply depot are excluded since it was in the process of closing and the special inventories were not performed in the usual manner.

The length of time required to complete a special inventory can be an important factor in the timely fulfillment of a depot's functions. In our second example above, there were four outstanding requisitions for Southeast Asia's requirements on August 2, 1966--the date of the special inventory request. Even though sufficient quantities were available at the depot to fill these requisitions on that date, it took 49 days to complete the special inventory and release the materiel. Furthermore, nine additional requisitions from Southeast Asia which were received in the meantime were outstanding for a period of 14 to 44 days before they were filled.

As stated above, we did not ascertain the reasons why the inventory records did not reflect the correct balances, However, Air Force officials offered the following examples as some of the possible reasons for inaccurate inventory records.

1. Receiving and shipping documents not posted to the accountable records.

2. Failure of warehouse and special inventory personnel to adequately check warehouse locations for materiel.

3. Erroneous quantities recorded on inventory records.

4. Shipping the wrong stock item.

5. Shipping erroneous quantities.

Agency comments and our evaluation thereof

On March 1, 1967, we submitted a draft report on the results of our review to the Secretary of Defense, in which we proposed the establishment of procedures designed to provide more effective controls over back orders. The Deputy for Supply and Maintenance; Office of the Assistant Secretary of the Air Force (Installations and Logistics), by letter dated May 16, 1967, commented on our findings on behalf of the Secretary of Defense. (See app. II.)

The Deputy for Supply and Maintenance stated that the need for the additional procedures we proposed was not deemed applicable in every instance. However, he stated that the Air Force was effecting changes in its programs and procedures which would bring about immediate improvements for some of the problems disclosed by our review and that the Air Force had apprised its major commands of those instances where local management was delinquent. These actions by the Air Force demonstrate its general agreement with our findings and proposals.

Specifically, some of the actions being taken by the Air Force are to establish (1) an automated system for maintaining interchangeability data to correct the failure to fully utilize excess suitable substitute items, (2) a program change to correct the base supply system computer deficiency where, under certain circumstances, a using activity's request is filled without cancellation of the related on-order assets, (3) a system change which should significantly reduce the number of duplicate requests caused by changes in the dates materiel is needed, (4) an inventory review procedure to correct the deficiency concerning unrecorded assets in depot warehouses and to reemphasize the need for more timely completion of special inventories, and (5) a procedure at base level to quickly identify items on which the quantity of base warehouse assets and the quantity of assets recorded on base supply records do not agree, requiring a special inventory to be taken to correct the inventory supply records.

Following is our evaluation of the Air Force comments in those instances where they did not completely agree with our proposals.

The Air Force stated that our proposal for more frequent releveling at base-level of back-ordered items was considered to be too narrow in scope. It further stated that the present policy relating to frequency of stock leveling had been under extensive evaluation during the past 18 months and would continue for another 6 months before a decision would be made as to required changes.

Our review objectives were not to perform an evaluation of the Air Force's present overall policy relating to frequency of stock leveling. We believe that the extent of the problem is significant enough, however, to warrant special procedures for the timely identification of back-ordered excesses. In view of the study being made by the Air Force in this area, we will make no further recommendations at this time, but will review the effectiveness of the results of the Air Force study at a later date.

With respect to our finding concerning the lack of adequate control of requests for assets at the using-activity level, the Air Force stated it recognized that the source of many invalid back orders was the base-level customer. It pointed out that the requirement for validating back orders with the base-level customer every *60* days was not effective. The Air Force further stated that in December 1966 a message was sent to all major commands delineating new organizational responsibilities that included shortening the interval for validating back orders and that these responsibilities were being included in an amendment to the applicable Air Force manual.

Our review showed that there was a lack of adequate records at the customer level to permit ready identification of invalid requests. This lack of adequate records, in our opinion, contributed to the ineffectiveness of the 60-day validation procedure. Consequently, we believe that the new procedures which shortened the interval for

validating back orders will also be ineffective without the establishment of a uniform record system to adequately control outstanding requests.

In addition to the above comments, the Air Force stated that it did not concur in the extrapolation of our findings at nine bases to all Air Force bases, as shown in our draft report. Our extrapolation was not intended to be a precise measure of existing Air Force-wide conditions, but was used only to demonstrate that a significant problem exists. However, in recognition of the Air Force comments in this respect, we have limited the projection of our findings in this report to the five major commands in which this review was performed.

Additional evidence of the extent of this problem area is contained in another recent General Accounting Office report (B-160581, March 28, 1967). That report showed that five bases in a command not included in this review (Pacific Air Force) had unneeded high value aeronautical parts valued at about $19,900,000 on order from depots in the United States.

Conclusions

We believe that a significant portion of the large volume of back orders in the Air Force supply system--$875 million as of May 31, 1966--were not supported by valid requirements. Invalid back orders create a tremendous impact on logistics support because they can result in (1) unnecessary and uneconomical procurements, (2) unnecessary repair of unserviceable items, or (3) shipment of items to bases which have no need for them when other bases do have the need.

We believe that the actions being taken by the Air Force, to effect changes in its programs and procedures and to apprise its major commands of those instances where local management has been delinquent, will reduce the volume of invalid back orders, if properly implemented. However, we believe that additional action, as previously proposed in our draft report, could be taken to further reduce the volume of invalid back orders, thus increasing supply effectiveness.

Recommendation

We therefore recommend that the Secretary of the Air Force take action to establish at the base using-activity level a uniform system of records to adequately control outstanding requests. Such a system would enhance the effectiveness of the action taken by the Air Force to shorten the interval for validating back orders and would provide continuity of recordkeeping when personnel are rotated at the user level. Futhermore, the establishment of a uniform system at the user level would be consistent with the already established uniform systems at the base supply and depot levels for controlling and reporting supply transactions.

SCOPE

Our review was directed primarily toward determining (1) the validity of back orders and (2) the causes of invalid back orders. We examined pertinent Air Force regulations and stock records and conducted physical inventories of stock items. We also reviewed the controls exercised by the Air Force over back orders and interviewed responsible Air Force officials.

We reviewed transactions which occurred during fiscal years 1966 and 1967 at the following installations, representing six major air commands:

Altus Air Force Base, Oklahoma
Barksdale Air Force Base, Louisiana
Clinton-Sherman Air Force Base, Oklahoma
Dover Air Force Base, Delaware
Laredo Air Force Base, Texas
Perrin Air Force Base, Texas
Randolph Air Force Base, Texas
Reese Air Force Base, Texas
Sewart Air Force Base, Tennessee
Middletown Air Materiel Area, Pennsylvania
Oklahoma City Air Materiel Area, Oklahoma
San Antonio Air Materiel Area, Texas
Warner Robins Air Materiel Area, Georgia

We also reviewed audit reports prepared by the United States Air Force Auditor General (AG) at the installations included in our review. We found that, during the period January 1965 to the time we conducted our review at each installation, the AG had made one major review in the area of back orders. This AG review concerned a special examination of base-level requisitions due in and supply depot due-outs to the bases. The AG found that many of the recorded base and depot back orders were not in agreement.

In our review of these AG reports, covering reviews at the installations we visited, we found that the AG, in many instances, was unable to determine the causes for these differences. However, the work performed by the AG, in our opinion, was adequate to clearly identify that a problem

existed in this area. Other AG reviews during this period may have included the subject of back orders, but they dealt primarily with other matters.

We noted that the AG in May 1965 issued a report based on a review of the validity of high-dollar-value back orders as of September 30, 1964. Two of the more significant disclosures of this review were that (1) assets on order in excess of base stock levels amounted to about 23 percent of the back orders sampled and (2) invalid customer requests amounted to about 5 percent of the assets sampled. The AG, in our opinion, adequately demonstrated that the Air Force was experiencing significant problems with back orders.

APPENDIXES

PRINCIPAL OFFICIALS OF THE DEPARTMENT OF DEFENSE AND THE DEPARTMENT OF THE AIR FORCE RESPONSIBLE FOR THE ADMINISTRATION OF THE ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
DEPARTMENT OF DEFENSE		
SECRETARY OF DEFENSE:		
Robert S. McNamara	Jan. 1961	Present
DEPUTY SECRETARY OF DEFENSE:		
Cyrus R. Vance	Jan, 1964	Present
ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS AND LOGISTICS):		
Thomas D. Morris	Sept. 1967	Present
Paul R. Ignatius	Dec. 1964	Sept. 1967
DEPARTMENT OF THE AIR FORCE		
SECRETARY OF THE AIR FORCE:		
Harold Brown	Sept. 1965	Present
ASSISTANT SECRETARY OF THE AIR FORCE (INSTALLATIONS AND LOGISTICS):		
Robert H. Charles	Nov. 1963	Present
COMMANDER, AIR FORCE LOGISTICS COMMAND:		
Gen. Thomas Gerrity	Aug. 1967	Present
Gen. Kenneth B. Hobson	Aug. 1965	Aug. 1967
COMMANDER, MILITARY AIRLIFT COMMAND:		
Gen. Howell M. Estes, Jr.	July 1964	Present

PRINCIPAL OFFICIALS OF THE DEPARTMENT OF DEFENSE AND THE DEPARTMENT OF THE AIR FORCE RESPONSIBLE FOR THE ADMINISTRATION OF THE ACTIVITIES DISCUSSED IN THIS REPORT
(continued)

	Tenure of office	
	From	To
DEPARTMENT OF THE AIR FORCE (continued)		
COMMANDEX, STRATEGIC AIR COMMAND:		
Gen. Joseph J. Nazzaro	Feb. 1967	Present
Gen. John D. Ryan	Nov. 1964	Feb. 1967
COMMANDER, TACTICAL AIR COMMAND:		
Gen. Gabriel P. Disosway	Aug. 1965	Present
COMMANDER, AIR TRAINING COMMAND:		
Lt. Gen, Sam Maddux, Jr.	July 1966	Present
Lt. Gen. William W. Mohyer	Aug. 1964	June 1966
COMMANDER, AIR DEFENSE COMMAND:		
Lt. Gen. Arthur C. Agan	Aug. 1967	Present
Lt. Gen, Herbert B. Thatcher	Aug. 1963	Aug. 1967

DEPARTMENT OF THE AIR FORCE
WASHINGTON, D C 20330

OFFICE OF THE SECRETARY

MAY 16 1967

Dear Mr. Fasick:

The Secretary of Defense has asked me to reply to your letter of March 1, 1967, which provided copies of your draft report on "Review of the Validity of and Controls over Cack-Ordered Requisitions for Items Managed by Air Force Supply Depots," (OSD Case #2569).

The Air Force is well aware of almost all the deficiencies cited in the report and has been actively seeking solutions through various studies, consideration at the World-Wide Materiel Conference, Military Standard Requisitioning and Issue Procedures (MILSTRIP) changes, and other appropriate actions.

The need for additional procedures, as recommended by the General Accounting Office, is not deemed applicable in every instance. Rather, the primary need is for proper application and enforcement of existing procedures. Action has been taken to apprise the major commands of those instances where local management has been delinquent and of the necessity to highlight these areas during staff visits and other management reviews.

Additionally, as noted in the attached comments, changes to programs and procedures will bring about improved conditions in certain areas in the immediate future.

We appreciate the interest displayed and conscientious effort by the General Accounting Office personnel during the course of this review. Your findings and recommendations will be considered in determining methods of further improving our logistic effort.

Sincerely,

HUGH E. WITT
Deputy for Supply and Maintenance

1 Attachment
USAF Comments on GAO Findings

Mr. J. Kenneth Fasick
Associate Director
Defense Division
U.S. General Accounting Office

USAF COMMENTS ON GAO FINDINGS AND RECOMMENDATIONS

1. Assets on back order were excess to authorized stock levels.

a. Lack of timely action to cause the computer to determine and initiate cancellation requests for excess back-ordered assets.

Comments:

(1) The present policy relating to frequency of stock leveling was established in 1964 and has been under extensive evaluation during the past 18 months. This deep look study encompasses twenty-one (21) bases within eight (8) commands. Our existing policy of releveling each time a demand occurs and at least quarterly on all items will be examined critically as a part of our study of demand data.

(2) We accept the validity of the GAO example cited; however, we do not agree with the conclusion reached. Historically, demands on the supply system have been extremely erratic; thus, creating a "peak and valley" pattern of requirements as opposed to a consistent pattern. The more frequently levels are computed on such low demand pattern items, the more erratic the levels become. Obviously, frequent releveling creates an impact on the item managers' ability to respond to the multitude of new requisitions and cancellations thus created.

(3) We plan to continue our study of stock control policies for another six months, at which time a decision will be made as to changes in frequency and application of stock leveling policies.

(4) GAO's first recommendation was to "establish procedures . . . requiring more frequent review and analysis . . . of back orders starting . . . with first notice that a request cannot be filled." The Air Force considers this recommendation to be too narrow in its scope. Our studies are pointed toward establishment of and pericdic revalidation of all stock control levels. Our consideration of the whole spectrum will provide overall improvement rather than limiting itself to items which are back-ordered by a depot.

b. Failure to fully utilize excess suitable substitute items.

Comments:

(1) Within the Air Force, thousands of changes to interchangeability and substitutability publications are disseminated each month. This workload has expanded in geometric proportion to the expanding technology of Air Force weapon systems. Processing this mass of data at bases has become a major problem, as the GAO findings verify.

(2) Improvement can be expected when this function can be wholly automated. Work is in progress on an automated system for maintaining interchangeability and substitutability data.

(3) A system change will be made during the October-December 1967 time frame that will permit a wider range of Interchangeable and Substitutable (I&S) data to be loaded in the Standard Base Level Computer (UNIVAC 1050-II) for each item. In the interim, beginning July 1, 1967, the bases will receive AFLC I&S data via the Stock Number **User** Directory System (SNUD). Interim procedural instructions will be provided to the bases to take maximum advantage of I&S data provided in this manner. Our efforts point up our agreement with the applicable portion of recommendation number one.

c. Failure to take action to cancel releted assets on back-ordered requisitions when the customer requests were deleted from supply **records.**

Comments :

The Standard Ease Level Computer (UNIVAC 1050-II) is programmed to request cancellation of the appropriate due-in when a due-out record is cleared. HQ **USAF** has been aware of a deficiency cited by the GAO findings where, under limited circumstances, a due-out could be released without cancellation of the related due-in. This deficiency will be corrected by a program change prior to July 1, 1967.

d. Improper use of a special-requirements code that prevents the computer from initiating action to cancel excess back-ordered assets.

Comments :

(1) The report skates that at one base numerous instances were noted in which improper use of an exception code was inhibiting the detection and cancellatisn of excess dues-in. The exception code referred to is an integral part of the system and is designed to exclude certain types of requisitions (time change requirements, Jet Engine Field Maintenance (JEFM) forecasts, etc.) from consideration in excess determinations. The deficiency cited was an isolated instance of inadequate training and supervision, rather than a system design problem.

(2) **All** major commands have been advised of the necessity to make this subject a matter of special emphasis during staff visits and management reviews.

2. Lack of adequate control of customer requests for assets at the using activity level.

a. Duplicate requests **were** made for the **same** requirement.

Comments:

(1) The deficiency contributing most to duplicate requests lies within the MILSTRIP system of using a special block of requisition numbers for identification of Not Operationally Ready - Supply (NORS) conditions. A HQ USAF study conducted in October - November 1966, revealed that the present method generated excessive dues-in because upgrading or downgrading from NORS to non-NORS or vice versa required cancellation and resubmission of requisitions. This action creates an excess base due-in until such time as the depot confirms cancellation.

(2) HQ USAF is presently preparing a MILSTRIP Change Request which will provide for NORS identification in requisitions by utilizing Urgency Justification Codes in the Required Delivery Date field. Through proposed requisition modifier procedures, a change in the urgency of need for a particular item can be made without the need for cancellation and resubmission of requisitions. Duplications as cited in the GAO Report will thus be significantly reduced.

b. Requirements were either satisfied from other sources or ceased to exist.

Comments:

(1) It is recognized that the source of many invalid back orders is the base level customer. Our staff' visits, during the summer and fall of 1966, indicated the 60-day interval validation of back orders (as required by Chapter 23, Part One, Volume I, Air Force Manual 67-1) was not effective. As a result, the validation of customer back orders was a major topic of discussion during the USAF World-Wide Materiel Conference, October 12-14, 1966.

(2) A need was identified for re-emphasis of on-base reconciliation of requirements. A HQ USAF message to all major commands in December 1966, delineated the new organizational responsibilities and these responsibilities are being included in an amendment to Air Force Manual 67-1.

(3) In summary, the USAF policy now requires that action will be taken at each base to assure that organization, unit, detachment, and tenant commanders assign key supervisory personnel the duty of reviewing supply priorities 1 through 8 dues-out on a daily basis and supply priorities 9 through 20 dues-out on a monthly basis to verify supply requirements remaining on back order from the Chief of Supply. Prompt action will be taken to cancel. dues-out, reduce quantities, and downgrade/upgrade the requirement when appropriate. Further, the Chief of Supply is charged, when processing such changes, to insure that dues-in are reviewed and adjusted accordingly.

(4) The implementation of the USAF policy cited in the preceding paragraph is one step toward satisfying the requirements of GAO recommendation number three. The approval and implementation of the charge cited in paragraph 2a(2) above will also act toward that end.

3. Assets on back order were actually available in base warehouse stock.

Comments:

a. We agree with the need to validate zero balance conditions within Base Supply, including the verification of true out-of-stock conditions for back-ordered Items. The cost of a special inventory on each item back-ordered! would most likely exceed the dollars realized through cancellation of excessive requisitions (if property is found). We are presently pricing out two approaches which would quickly identify items on which warehouse assets and base supply records do not agree.

b. The first approach would cause the computer, in applicable instances, to print out on the issue or shipping document an entry indicating that this transaction reduces the record balance to zero. The warehouse clerk would then verify the zero balance as stock is pulled to complete the transaction. In instances when a discrepancy exists, a special inventory would be requested.

c. The second approach would cause the computer to print out daily a list of all stock numbers back-ordered that day, with applicable warehouse location. This list would be checked and in those instances in which property was found a special inventory would be requested.

d. In the event the price out study verifies that the gain to be realized outweighs the cost, these approaches will be incorporated into the Standard Base Level computer program.

e. GAO's second recommendation is to "Establish procedures . . . to provide for special physical inventory . . . when depots first notify a base that a request . . . has been back ordered." We do not concur because of the excess costs which would be generated compared with the gain to be realized. We consider the Air Force approach to identifying the requirement for special inventories to be simpler and more cost effective.

4. The Air Force does not concur with the GAO extrapolation of findings at nine (9) bases to two hundred (200) bases. We have found that other GAO visits plus Air Force Auditor General., Air Force Inspector General, and our own staff visits confirm a wide variance between bases, Further, this is believed to be a function of the mission, equipment, facilities, personnel techniques, etc., as well as a difference in quality of management. This is also pointed up in the GAO report where the range of the excess due-in deficiency, according to supplemental GAO information, varied from 13.9% to 32.4%.

5. Items were being back-ordered for which there were unrecorded assets in the depot warehouse.

Comments:

a. It is conceded that inaccurate depot inventory records can result in unnecessary and uneconomical procurement and repair of assets, This is true to the extent that back-ordered requisitions influence AFLC requirements computation. These conditions are most likely to occur in instances where *excess* dues-in carry a priority high enough to justify emergency procurement on an expedited basis including contractor overtime. These instances are the exception and would not account for a major waste of procurement dollars.

b. Presently, data are being collected which will permit quantification of workload and benefits in regard to special physical inventories. It is presently planned to initiate an inventory review at the time of a data level notice or a buy notice which will give more lead time for inventory actions, rather than waiting until the back order point is reached, as suggested in GAO recommendation number four.

c. The time required to complete special inventories at depot level was discussed in detail between GAO and AFLC representatives during the exit briefings held at HQ AFLC on January 11, 1967. The comment was made by GAO representatives at that time, that the problem was one of compliance rather than a policy or procedural change, in view of the present state of equipment available in AFLC. A program has been developed and will be implemented in early 1968 to insure that delinquent adjustments are highlighted to local management mechanically, as opposed to the manual process required now. In the interim, AMAs have been directed to re-emphasize this area.

U.S. GAO. Wash., D.C.

B-162152
October 31, 1967