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IN REPLY REFER TO:

91207

November 19, 1970

Commanding Officer  
Naval Supply Center  
Oakland, California 94625



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Dear Sir:

We have reviewed the policies, procedures, and practices related to the production and use of computer-generated output at the Naval Supply Center, Oakland (NSCO), California. Our 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), and was undertaken because of the increased dependency upon automatic data processing (ADP) methods and techniques by nearly all aspects of NSCO operations, and our belief that such reliance warrants careful and effective management control over all available ADP resources.

Our review which was completed in August 1970, has led us to believe that inadequate management controls have resulted in questionable use of ADP resources. The basis for this conclusion, and our observations and opinions in specific areas are presented below for your review and comment.

NAVAL SUPPLY CENTER COMPUTER OUTPUT

We examined in detail several different types of computer-generated output. These included listings, reports, overprinted standard forms, and remote terminal output. Examples of our observations are described below:

Master Stock Availability/Material Location Listing

This is a six-copy 9,000 page (approximately) report which gives the stock number, quantity-on-hand, and warehouse locations of all stock items (about 900,000) at NSCO. Documentation on why this report was originally developed, its intended uses, and who authorized it could not be found; however, our discussions with the six recipients showed that: one stores it away for emergency use in the event of a disaster, two use it occasionally to locate selected line items, two use it as back-up in the event their usual sources of data become unavailable, and one has no use whatsoever for it. We believe that adequate substitutes are available for some of the limited uses made of this listing. For example,

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magnetic tape files can be stored away for disaster security, and remote terminals can provide location information.

This report is produced six times annually, requires three computer programs (each on a different computer), and about 180 hours of computer time for an estimated cost of over \$10,000. We question whether the benefits received are worth the costs.

#### Personnel Reports

The Personnel Automatic Data System (PADS) is a relatively small application consisting of a 6400 card (approximate) master file and several recurring reports. The system is also used to provide one-time reports and analyses, and, during fiscal year 1970, 24 jobs were requested which required 234 hours of programming effort. We examined several one-time jobs, and found that the information in them could frequently be obtained by other means. For example, in January 1969, a request was made for a listing of the approximately 100 to 150 NCO employees who would reach 20, 30, 40, and 50 years of Federal service during during 1969. The same type of information was requested again eleven months later. It took six hours to program each application. In our opinion, it would have taken a clerk less time to extract the information from the Monthly Master File List than it did to program and run the application on the computer.

We also looked at recurring PADS output reports that appear questionable as to benefits. One such report is a quarterly listing of all the NSCO Civilian employees who have retired from military service--about 133 in all as of July 1970. This listing contains a maximum of 56 characters of information on each entry and, in our opinion, could be extracted easily and quickly by hand from the Monthly Master File List. It took eight to ten hours to program the computer for this application.

#### Overprinting of Standard Forms

Six data processing applications were performed where the computer was used to overprint small amounts of information on standard forms. The amount of printing varied from seven words on a DD 1348-1 form, to about 60 words on a Standard Form 50. The programming effort on these assignments took about 15 hours.

We could find no evidence at NSCO that cost/benefit studies had been made to determine the most economical way to overprint standard forms. In some cases, we think clerks could fill in the overprinted

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information along with other data entered manually; occasionally rubber stamps can be used; and, printing equipment has been utilized for many years because of its economy and speed. In our opinion, computers were not designed or intended to do simple printing jobs and should not be used for this type of work until all alternate methods have been considered.

#### Remote Terminals

The Data Processing Department has placed 14 remote terminals throughout the center that permit NSCO personnel (or anyone else who can get into the center) to either query or update the master inventory file or 15 other files. Though there are some programmatic safeguards to prevent the entry of obviously erroneous data, it is still possible to insert incorrect information; thus, the integrity of the information stored in these files may be compromised.

Additionally, it is possible for someone who knows the system to place unauthorized orders for supplies and have them sent to an address of his choosing - and then to have the transaction eliminated from the records. We don't know of any instance where this has actually happened at NSCO, but NSCO officials have told us that it is possible under existing circumstances.

In our opinion, the present procedural and programmatic controls should be reviewed and strengthened to minimize these potential hazards.

#### GENERAL CONCLUSIONS

We believe these examples demonstrate management and system problems in several areas. These are briefly described below:

##### The Reports Management Program

The Department of the Navy has directed all Naval activities to establish and maintain a reports management program. This requirement, (AOINST 5213.29, 27 August 1965) calls for administrative controls over all transmissions or presentations of data or information that are submitted on a one-time, recurring, regular, periodic, or as-required basis. In response to this, NSCO issued Instruction 5213.5A of 17 March 1967, which directed establishment of an organized effort at the local level intended to improve the development, control, and analysis of reports and reporting systems.

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The procedures to be followed for the control of reports under this program include maintaining a central record of all reports within the purview of the program, assigning control symbols to each report, and initiating systematic reviews for current need and economy of preparation.

There are over a thousand different reports generated at the Naval Supply Center, over 60 percent of which are produced by ADP techniques. Although NSCO instructions do not exclude computer-produced reports from the scope of the local program, we found that they have been omitted almost entirely.

#### DPD Controls over Computer Output

NSCO Instruction 5230.2, dated 26 May 1966, and Change 2 to that Instruction, dated 22 July 1969, specify the procedures to be used when processing requests for ADP output. If data is needed on a continuing periodic basis, the ADP Coordinator in P&CD is required to evaluate and approve the request. Requests for nonrecurring ADP services are to be submitted directly to DPD, where the validity of the request is supposed to be investigated prior to acceptance.

Several inadequacies exist within the prescribed review and approval process, particularly that for nonrecurring services. For example, NSCO instructions do not require requestors to perform cost/benefit studies or to consider alternatives; they do not specify an appropriate management level authorized to initiate or approve requests for ADP services; and they do not provide criteria by which DPD can determine if requests are justified. DPD officials have told us they do not have the necessary background and expertise to make critical evaluations for many of these requests, and they must assume the requests have been reviewed for essentiality and authority by appropriate officials prior to reaching their department. In our opinion, such an assumption can be made only when qualified reports management personnel, assigned to each department, are performing this function in accordance with Department of the Navy policy. At the present time, they are not.

There are also discrepancies between NSCO's written procedures and its actual practices when processing requests for recurring ADP services. For example, we were told that all requests for ADP services are usually forwarded directly to DPD. The requests for recurring services are forwarded to the ADP coordinator only when serious questions arise or when the job cannot be accomplished within available resources. This practice tends to reduce the effectiveness of the intended controls over computer output, since the ADP Coordinator does not review and approve most requests for recurring services as contemplated in formal NSCO procedures.

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### Internal Reviews of Computer Output

We know of only one internal review of computer output that has been performed at NSCO. It was conducted in September and October of 1969 when the Data Processing Department sent a standardized questionnaire to all report recipients asking them to review and justify their continued need for specific outputs. The results were described as "disappointing" by the Director of DPD.

We believe that DPD's attempt to review computer output was commendable. However, such studies will be effective, in our view, only as they attempt to identify and correct basic system problems and other factors contributing to the production of nonessential output.

### RECOMMENDATIONS

During discussions with DPD officials, we explored several alternative concepts for improving management control over the data processing function. We think one of these concepts in particular would be effective; it involves operating DPD partially as a reimbursable service center in that each NSCO component would be charged for all unique (non-UADPS) data processing services received. Our experience has been that controls are usually more effective when based upon costs rather than on procedures alone. Such a system at NSCO would give the Data Processing Department an effective handle over costs and workloads, and would also serve to motivate NSCO management personnel to review more carefully their data processing needs. Therefore, we recommend this possibility be given serious study.

We also recommend that NSCO develop and implement an improved system of reports and ADP procedural controls that will result in more effective management of computer output and better control over requests for ADP services, including:

- periodic reviews of recurring computer outputs for need, economy, and frequency of preparation,
- documented cost estimates for ADP services and communication of those estimates back to the requestors prior to programming and running the proposed application; and,
- thorough reviews by high-level individuals who are adequately qualified to evaluate the needs, cost effectiveness, and authority for requests for ADP services.

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We appreciate the cooperation given to our representatives during this review, and would like to receive your comments and advice on any action that has been taken, or is planned, in regard to our suggestions. A copy of this report is being forwarded to the Comptroller of the Navy.

Sincerely yours,

A. M. CLAVELLI

A. M. Clavelli  
Regional Manager

cc: Comptroller of the Navy  
Dir.-DD  
J. K. Fasick, Assoc. Dir.-DD  
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