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In a recent issue of the <u>Naval War College Review</u>, Capt. G.H. Lewis advocated the need for automating the naval officer selection and promotion system. As a sequel to that work, the author evaluates the existing officer assignment system and argues the case for automation. Decisionmakers in the present system are simply overloaded with raw personnel and billet data, and pressure is building that will, of necessity, lead to a better way—a computer assisted assignment system.

# A COMPUTER ASSISTED OFFICER ASSIGNMENT SYSTEM

An article prepared

by

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It is difficult to envision a subject nearer and dearer to the hearts of most naval officers than their next duty assignment. It is not uncommon to encounter feelings of anxiety, frustration, and sometimes even hopelessness while awaiting news of a new assignment. While this attitude is largely unwarranted, it is easily understandable. Many individuals see themselves as a mere cipher in the bowels of a cybernetic giant residing at the Bureau of Naval Personnel. Others, who have been there to discuss their assignments with grade assignment officers, realize that this is not so; they know that officer assignments, far from being made by dispassionate, machinelike process, are made totally by men. Indeed, it is this very truth that produces great inefficiencies and frustrates those Although there are numerous branches and sections in the Officer Distribution Division of the Bureau of Naval Personnel, the two most important for purposes of assignment are the grade assignment sections and the placement sections. Their missions are defined as follows:

Assignment section—To assign officers under their cognizance to all authorized billets ashore and afloat in accordance with established policies and directives and in such a manner as to make the most effective use of the officers' special qualifications, and with consideration not only for the officers' professional growth, but for their personal interest and morale insofar as is compatible with the best interest of the ser-

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Placement section—To place officers, commander and junior, in activities under their cognizance in order to most effectively utilize these officers in authorized billets as indicated in the approved allowance/ODP (officer distribution plan) for each activity and to furnish complete information to the various assignment officers in regard to the current and prospective needs of the program in order to facilitate such distribution.

Essentially, the assignment officermore commonly known as the detaileracts as the representative of the individual, trying to assign him to the best job possible in accordance with his personal preferences and consistent with his professional qualifications. The placement officer, on the other hand, is relatively unconcerned with the individual's preferences or career needs and is responsible for placing the best qualified officers available in activities under his cognizance. He is also responsible for monitoring all correspondence pertaining to officer assignments between his activities and the Bureau of Naval Personnel. Thus, there exists in this procedure a dichotomous interaction of individual needs and service needs.

Even to a casual observer, it is obvious that there would be a great many inputs required for this system to operate. When one considers that the informational flow and the integration of the many variables is largely done manually, it is remarkable that the system has been able to function at all. Further examination reveals that it does so at tremendous costs in the form of wasted manpower and suboptimal decisions.

Assignments. This paper will use as its example the Surface Junior Officer Assignment Section which is responsible for the assignment of all surface officers in the grades of ensign, lieutenant

general career plan for junior officers calls for an initial sea tour of at least 3 years. During this period the officer should become qualified as a division officer and as officer of the deck (underway) in at least one but preferably two ship types. The following 2 to 3 years should include an assignment ashore, either to postgraduate training or a normal tour at a shore activity. Then, at the 5- to 6-year point, the officer should return to sea to serve in a ship of any type as a department head. Thus the basic goal of the detailer is to assign all unrestricted line officers under his cognizance to at least one tour as a department head in a billet affoat during the first 8 to 9 years of service, that is, before the officer faces selection for promotion to lieutenant commander.

The inputs into the assignment process at this level are many. First of all there are the billet requirements themselves, including any special qualifications or training requirements that may be needed. As regards the individual officer, there are matters of his special qualifications, rotation pattern between sea and shore, professional performance record, personal preferences of locality, ship type-if applicable—and particular billet. Considerations should also be given to minimizing moving expenses. Since travel reimbursement is made on the basis of the number of family members traveling, the officer's dependency status must be included in this decision variable.

It becomes obvious that there are many minute details of an assignment which, if properly recognized and fully integrated into the process, could serve to make assignments much more economical. While much of the foregoing information is available in one form or another, there is no single means or system presently in use at the Bureau of Personnel which can effectively managerall of it. As a case in point, the officer

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reflects the information currently held on all officers in a master file. Yet, because of the lack of adequate and reliable means to keep it up to date and the absence of a functional framework within which to integrate it into the assignment process, much of the information goes unused.

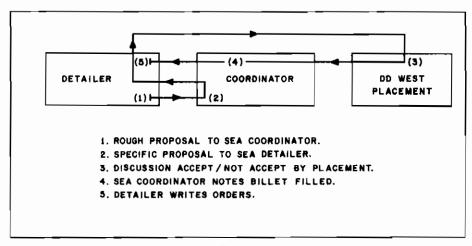
By far the most important file in the assignment process is the officer's fitness report jacket. This record is a comprehensive chronological report and evaluation of an officer's professional performance in all permanent and temporary assignments since the time of his commissioning. Fitness reports are not only a primary source of performance data but also include references to professional qualifications and recommendations for future assignments, service colleges, and postgraduate education.

In the officer assignment system, the Surface Junior Officer Assignment Section has 10 detailers and two assignment coordinators. Each detailer is responsible for approximately 800 to 1,000 officers. The assignment process begins when an officer serving in a duty station has had a relief identified. Ideally, this should take place 3 to 4 months prior to an officer's projected rotation date (PRD). At this point the cognizant

placement officer releases the officer for reassignment by the detailer. The detailer then draws the necessary records—the fitness report jacket, the latest preference card, and any other pertinent correspondence—and makes the decision as to whether the officer should serve his next duty at sea or ashore. He then recommends a general type of assignment for the officer and forwards his fitness report jacket, officer data card, and the latest preference card to the appropriate sea or shore coordinator.

The coordinators hold all billet requirements in their respective areas-sea or shore. When an assignment proposal is received from a detailer, the coordinator matches the officer recommended against a specific billet and returns the record to the detailer. At this point a discussion takes place between the detailer and placement officer concerning the officer's qualifications for the job. Once a proposal is accepted by the placement officer, the detailer notifies the coordinator and begins preparing orders specifying tour length. leave, and any required training en route. The diagram in figure 1 traces the assignment of an officer to a Pacific Fleet destroyer.

This description, although oversimplified, is sufficiently illustrative of



the essential process but has not covered such complicating factors as nonacceptance by the placement officer or some unforeseen development such as injury or illness which might, at the last minute, preclude an officer reporting as scheduled to his new duty station.

Returning to the point made earlier, it is obvious that there is a great deal of personal attention allotted to each of the thousands of assignments made annually by the Surface Junior Officer Assignment Section. It is equally clear that the cost of this personalized attention is high in terms of hours consumed in pure repetitive and documentary work and in terms of suboptimal decisions which result from the inability of one or two individuals to cope, under the pressures of limited time, with all the variables. While such personal attention is desirable and even necessary in some cases, there is little justification for maintaining such a cumbersome system now that it is possible to do much of the work with modern data processing equipment.

Proposed System. In defining what part a computer should play in the proposed system, it is important first to understand that the computer should not make assignments. This is not to say that a computer is not capable of doing this task and doing it well. However, at our present stage of personnel management and given the natural anxieties of the officer over the next duty assignment, it simply is not practical to rely wholly upon a computer assignment system. Most naval officers want a personalized assignment process and would be offended by a depersonalized computerized selection process requlating their assignments. Therefore, the recommended system would seek to systemize the existing data and construct a retrieval system designed to assist the assignment officers in doing their job.

data processing system should include all the billets currently authorized by the Chief of Naval Operations, the names of the officers presently occupying these billets, and their projected rotation dates. The initial input of this information should also specify any special training required and any other security clearances or unique qualifications a prospective nominee should possess. Such information could easily updated whenever requirements change. The information now held on the officer data card should be expanded to include the officer's personal information and duty preferences, and a reliable means to keep the information up to date must be established. In addition, the fitness report form must be revised in format and content to facilitate its use in a computerized data retrieval system. (At the time of this writing, the fitness report form is under revision to permit the content to be scanned by machines.) Shown as figure 2 is an interesting revision suggested by Capt. G.H. Lewis, USN, in a recent issue of the Naval War College Review.1

Among the more complex program input elements are career pattern requirements. This would essentially establish a hierarchy of billets and would require definition of those billets considered necessary for promotion. A critical input element in this system would be the establishment of performance criteria for specific billets. It is a simple fact of life that some jobs are more demanding than others and require officers who have demonstrated superior performance. This fact, while tacitly acknowledged at all levels, seldom appears in writing, presumably for the protection of the morale of those officers serving in less demanding billets. Specifying the criteria for these various

<sup>&</sup>lt;sup>1</sup>G.H. Lewis, "Automating the Naval Officer Selection and Promotion System." Naval War College Review, September-October

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#### I. Officer Identity

- a. Social Security Number
- b. Last name and initials

#### II. Officer Information

- a. Rank
- e. Employment schedule
- b. Time in grade
- f. Primary duty

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- c. Designator
- g. Collateral duty
- d. Command activity

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### III. Evaluation

Category	Obs/App	Over	Select	 	 -	Weight
Primary Duty						4
Collateral Duty						1
Executive Management						*2
Technical Competence						*2
Human Relations						2
Communications						2
Behavior						1
Appearance						1

#### IV. Reporting Senior Identity

a. Name

Bonus

b. Rank

Social Security Number

#### V. Authentication

- a. Signature of senior
- b. Date signed
- VI. Report Data
  - a. Evaluation period
  - b. Basis of evaluation

#### Fig. 2-Proposed Report of Fitness Elements

billets would effectively determine which activities are to receive the best talent. The sensitivity of this is clearly understandable and would require hard decisions and careful planning.

It is desirable to include ship employment schedules as decision variables in recommending assignments. This would be useful to avoid sending an officer from one duty in which he would be subject to family separations to another of the same type. This could be accomplished by regular inputs of long-range ship or squadron employment schedules made by Fleet Operational Control Centers, Pacific and Atlantic.

Another desirable decision variable is the cost of PCS moves as, all other things being equal, the least expensive move should be made in each case. This could be accomplished relatively easily by using the DOD Resources Management System which maintains data on the costs of moves between duty stations for personnel of various grades.

The retrieval system should be would begin 6 me capable of producing all personal and completed 4 mo professional data that relates to any pected time of Publishments. Naturalist Configuration Commons, officer concerned.

officer duty preferences and dates of latest distant deployment or unaccompanied overseas tour should also be included as should special training, security clearances, or any other unusual qualifications required. Finally, but very important, would be a useful index and summation of officers' fitness reports.

The heart of the system would be a computer capable of correlating all billets and billet requirements with the officers available to fill them. All sea and shore placement offices would be disestablished, and the Surface Junior Officer Assignment Section would be reorganized to provide 10 detailers and five coordinators—two for ship assignment and one each for shore, Washington, and school activities.

As has been previously indicated, the present leadtime for assignments is 3 to 4 months prior to the projected rotation date. Implementation of the recommended system would advance this time frame so that the reassignment process would begin 6 months prior to and be completed 4 months before the expected time of detachment of the

Printouts would provide detailers and coordinators with notice of all those officers expected to move 6 months hence and all billets to be vacated 7 months hence. In addition, this listing would provide the detailers with information considered critical to each officer's next assignment. Such a tool, by placing all the relevant information readily at hand, would do much to simplify the detailers' job and therefore streamline the entire assignment process. To ensure equitable treatment for all, any officer rated as a marginal performer on the basis of information fed the computer would have his case personally reviewed and all inputs systematically evaluated.2

The final working printout in the assignment process would consist of a series of suitable alternative assignments listed after every officer due for a new assignment. The detailer could then review these recommended assignments and together with the cognizant coordinator make the appropriate choice. After final approval, the requirement would be deleted from the current requirements list and the entire system updated daily. Should there be any disagreement with the computer recommendations, the problem could be reconciled by the detailer or the coordinator at any point in the process.

Implementation. Implementation of the proposed system would be a formidable task. Aside from hardware and software considerations, the most difficult, time-consuming, and expensive job would be the coding of data not presently in a format compatible with a computer storage and retrieval system. The bulk of this data consists of the fitness reports of the roughly 60,000 active duty officers. Figure 3 depicts a conditional, but reasonable, time-phased implementation schedule. Availability of an already prepared program requiring only slight modification could easily reduce the 5-year implementation period by at least 1 year.

Installation and establishment of this system would provide the following advantages.

- Retain the best features of the present system and eliminate the least desirable. By using computer screening as a tool, detailers would be able to do their job more efficiently. Detailers would be able to choose between a number of alternatives; but repetitive, tedious, and inefficient manual screening of records would be eliminated. A more efficient handling of data in BUPERS would enable detailers to answer correspondence more promptly, converse knowledgeably with constituents, and reduce the incidence of bias in assignments.
- Reduce the costs of PCS moves. Payment is made for PCS moves at the rate of 3 cents per mile for dependents 5-11 years and 6 cents per mile for ages 12 and over. Taking into account the number of dependents in each move would amount to significant cost savings, particulary on long distance or overseas moves.
- Rapid screening capability. If a critical billet in any activity should become unexpectedly vacant because of sickness or accident, it would be possible to obtain an immediate printout of individuals best suited for the vacant

judged to be reasonable by some competent individual https://dividual-tycommons.usnwc.edu/nwc-review/vol26/iss4/10.

<sup>&</sup>lt;sup>2</sup>An example of when this procedure would be applied would be the case of an officer who had been graded by a senior who is extremely critical and evaluates his officers significantly below the norm. In such a situation it is conceivable that even one such report would disqualify an officer from receiving an assignment that is essential to his future career. Such an evaluation is not intended to undermine or negate the judgment of reporting seniors but, rather, to make adjustments for those who are particularly harsh or excessively critical. While this might be construed as being unfairly biased in favor of the individual, it is not inconsistent with the present policy of extending the individual the benefit of the doubt where such doubt is

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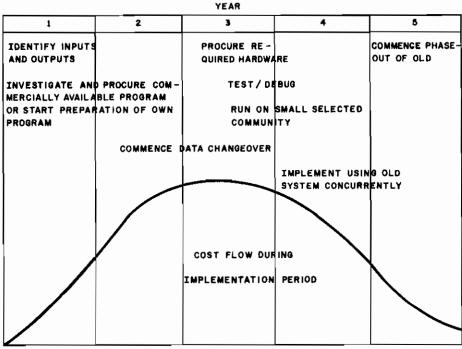


Fig. 3-Implementation Schedule

 Eliminate the need for placement officers. There are about 20-25 lieutenant commanders/commanders currently serving as sea and shore placement officers. Approximately half of these billets could be eliminated. These officers are all outstanding performers who could be used very effectively in other demanding assignments ashore.

There are, however, several disadvantages to establishing this system:

- · High initial expense. While it is difficult to estimate the cost of such a system, it is reasonable to expect that hardware and software costs associated with it would be several millions of dollars. Such an expense in the present era of fiscal austerity would require strong justification.
- Less personalized service for ship and shore activity commanding officers. At first glance this might appear to be the beginning of an information gap. However, much of the present correspondence derives from PRD's, and this

correspondence and simplify it by using a standardized form.

· Security of information. In addition to complete information on ship and squadron schedules, the computer data bank would contain fitness report information. Both these types of information would require a measure of security.

In summary, this paper has examined some of the problems now being encountered in the officer assignment process. We have seen a description of the present manual system and some of the variables which go into an assignment. Because of the great number of these variables and the mass of data involved, it is simply impossible to ensure efficiency with the system presently employed. A computerized officer assignment system would have the capability of accurately accounting Pusylistem by Hould are three Other decidition of this ons, for all officer billets. It would maintain

a complete file on all officers, including all their latest qualifications, duty preferences, and fitness reports. By means of a specially constructed program, the system would provide initial screening of available personnel and recommend a range of duty assignments based on qualifications, duty preferences, and service needs. Essentially it would use all the information which, though available today, cannot be efficiently used because of its volume and complexity. The recommended proposal can be implemented in a 3- to 5-year period, depending on program availability.

The new system would retain all the advantages of the present system but would eliminate many of its inefficiencies and help to reduce the costs of PCS moves by accounting for differences in dependency status. The primary disadvantage of the recommended system would be its high initial cost. At present there is increasing emphasis being given to the use of data processing equipment in the Bureau of Naval Personnel. While data processing has been utilized in assigning enlisted billets, it has seen very limited use in officer assignments, providing only some minor supportive func-

tions. Until the Navy decides to take advantage of the capabilities of the computer as part of an integrated systems approach to officer assignments, detailers will continue to labor under this anachronistic system which must eventually yield to a better way.

#### BIOGRAPHIC SUMMARY



Lt. Comdr. Joseph J. Andrilla, U.S. Navy, did his undergraduate work at the University of California, Los Angeles, and earned his master's degree in management from the U.S. Naval Postgraduate School.

He is a graduate of the Naval Destroyer School, has served in the U.S.S. Somers (DD 947), the U.S.S. Frank Knox (DD 742), and more recently as Executive Officer of the U.S.S. Lynde McCormick (DDG 8). Lieutenant Commander Andrilla has served as a detailer and assignment coordinator for the Surface Junior Officer Assignment Section of the Bureau of Naval Personnel, is a recent graduate of the College of Naval Command and Staff, and is currently assigned to the U.S. Naval Academy.

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There's a way to do it better-Find it.

Thomas A. Edison: To a research associate, c. 1919