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Secretary of the Navy's Board to Review Postgraduate Education of Officers

Monterey, California, U.S. Naval Postgraduate School

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SECRETARY OF THE NAVY'S BOARD
TO REVIEW POSTGRADUATE EDUCATION
OF OFFICERS

FINAL REPORT

U. S. Naval Postgraduate School, Monterey, California
August - October 1964

ENCLOSURE (2)

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I. INTRODUCTION

A. SCOPE OF SURVEY AND REPORT

At the invitation of the Under Secretary of the Navy, Mr. Paul B. Fay, Jr., the following persons were constituted as a Survey Board on Graduate Education for Naval Officers, and convened for their first meeting at Monterey on 10, 11, and 12 August, 1964, with the exception of Rear Admiral Reich, USN, who was unable to be present:

Doctor Joseph M. Pettit, Chairman
Dean, School of Engineering, Stanford University

Vice Admiral George F. Beardsley, USN (Ret), Secretary

Doctor Norris E. Bradbury
Director, Los Alamos Scientific Laboratory

Honorable Jeffery Cohelan
House of Representatives, U. S. Congress

Doctor A. Bernard Drought
Academic Dean, U. S. Naval Academy

Rear Admiral Denys W. Knoll, USN
Oceanographer of the Navy

Doctor Wilbert F. Koehler
Dean of Programs, U. S. Naval Postgraduate School

Honorable William S. Mailliard
House of Representatives, U. S. Congress

Dean George J. Maslach
Dean, College of Engineering, University of California

Doctor Robert J. Parden
Dean, College of Engineering, University of Santa Clara

Vice Admiral William F. Raborn, Jr., USN (Ret)

Rear Admiral Eli T. Reich, USN
Surface Missile Project Officer, Navy Dept.

Rear Admiral Allen M. Shinn, USN
Chief, Bureau of Naval Weapons

Doctor Allen E. Vivell
Academic Dean, U.S. Naval Postgraduate School

The Board met in full session for the three days mentioned, first hearing extensive briefings, as arranged by the U. S. Naval Postgraduate School and described in Item (1) Appendix A. Persons presenting these briefings or otherwise appearing before the Board are listed in Appendix B. The Board was also provided with an

extensive compendium of information concerning the postgraduate programs in the Navy (Item 2) Appendix A), including summaries of the activities and findings of previous Boards. Other items furnished the Board are also listed in Appendix A.

Following the briefings and a study of the written material, the Board convened in closed session for approximately one and one-half days to consider specifically the issues enumerated in the letter of 7 July 1964 from the Under Secretary to the Chairman of the Board.

The Board soon became aware that one of the areas to be investigated was the top academic administration of the Postgraduate School, which issue was difficult to deal with in the presence of members of the School itself. Hence with the concurrence of the entire Board, including Deans Vivell and Koehler themselves, the Chairman requested that the Deans excuse themselves from a portion of the proceedings. Subsequent to this meeting the Chairman requested the Under Secretary to excuse Deans Vivell and Koehler from membership on the Board, in order that the Board might thereby be restricted only to members who were not affiliated with the Postgraduate School. The Under Secretary effected this change.

After adjournment of the full Board on 12 August, two members, Admirals Beardsley and Knoll, remained at Monterey for an additional two days of investigation and preparing a draft covering the discussion and recommendations which had been arrived at by the Board.

The Board held a final meeting at the School on October 12 - 13, 1964. Members unable to be present at that meeting were Bradbury, Parden, Raborn, and Reich; written comments were sent from all of them.

The Board was conscious of several limiting factors, such as the short time before a final report was due (15 October 1964 initially lack of prior contact with the problems, and limitations on available time of the individual members of the Board. The Board was conscious of the fact that other Boards had reviewed various aspects of the Program, and had prepared reports in varying degrees of depth. It was thus concluded that the greatest service would be rendered if the Board took a comprehensive look at the postgraduate operation of the Navy, covering all the specific issues enumerated in the 7 July letter from the Under Secretary, and then singling out a few major issues which emerged strongly and on which the Board could--within the obvious limits--arrive at some conclusions or recommendations.

With the exception of the issues covered later in this report and based on the limited depth of the Board's review, it is believed that the Navy's Postgraduate Educational Program is basically sound and is now being implemented in a generally very satisfactory manner. There appears to be a commendable increase in the quantity and quality of post-commissioning education generally in line with Navy Department needs as now stated.

B. NAVY EDUCATIONAL REQUIREMENTS

The board decided that a comprehensive survey of the Naval Postgraduate Educational Program could logically start with a review of (a) recent Navy Department studies and policy statements relative to the need for postgraduate education, (b) the number of officers with postgraduate education required to fill billets, (c) number of officers already on board with postgraduate education, and (d) current plans for education over the next few years to meet all requirements.

A review of the various studies and reports that have been made during the last ten years pertinent to naval officer education clearly indicates a need for postgraduate education, though considerable difference of opinion exists on the extent of the need and how to best meet the requirement. Finally, there seems to have been some vacillation with resulting changing policies relative to some aspects of the program.

1. SECNAV Policy on Postgraduate Education of Naval Officers

SECNAV Instruction 1520.4, OP-09, of 7 March 1963 contains an enclosure stating SECNAV policy on postgraduate education of naval officers. The points emphasized in paragraph 9 of this enclosure are good:

- "a. Raise the educational base of our naval officers.
- b. Increase by undergraduate full-time study, or by self study, the numbers of officers qualified for graduate education.
- c. Encourage voluntary application for graduate education.
- d. Order to advanced education as many qualified officers as possible to meet the Navy's billet requirements for graduate education.
- e. Exploit the graduate education of individuals by appropriate duty assignments, giving due attention to the broad professional experience needs which supplement the officer's educational background. (The greater the numbers of postgraduates the more the application of this policy can be expedited.)
- f. Insure that performance in all duty assignments is the primary criterion for advancement. Emphasize to all officers that graduate education, coupled with outstanding performance, will enhance an officer's chances of advancement by enlarging the sphere of sub-specialty duty assignments for which he will be eligible. Selection boards must recognize this as a potent factor in judging the career performance of naval officers considered for advancement."

It can be improved if the need for technically trained officers should be emphasized as the primary requirement in raising the educational base of naval officers. The education and technical

training of certain naval officers, leading to BS (Desig) and MS (Desig) should continue to be the primary mission of the Naval Postgraduate School. It should be an enunciated SECNAV policy to educate technically the required number of most qualified officers with the equivalent of BS and MS in designated disciplines.

The BA/BS curriculum of the Naval Postgraduate School is designed to raise the educational base of a substantial group of naval officers. This appears to be a very effective and worthwhile program.

2. Determination of Postgraduate Officer Billet Requirements

Several of the studies of the late 1950's recommended differing numbers of billets requiring postgraduate education, stressed the shortage of officers now trained, and suggested different solutions

It is understood that a P-coding system was initiated in the late 1950's and modified in 1962. It is also known that this program was further modified and hopefully improved by OPNAV Instruction 1211.6 of 22 September 1964 to supply a fairly realistic count of those billets now considered to require incumbents with graduate level education (P code billets) and those subspecialty billets (S code billets) requiring baccalaureate level education.

It would appear that this or some similar system should furnish sufficient data from which fairly accurate determinations could be made of current and near future postgraduate requirements.

As there is a built-in lead time of from 3-5 years in educating an officer at the graduate level, it would appear necessary that personnel requirements be planned with considerable accuracy for the next five years and even desirable that these plans be extended toward 10 years. These plans should be updated annually. The Board understands that the Combs Board is currently studying billet requirements afloat and ashore generally in line with the above billet descriptions and recommended time span.

While the Board had available to it copies of previous studies and reports, it did not receive a briefing explaining the Navy's methods for determining actual postgraduate requirements. As a result, it is in no position to pass judgment relative to the validity of present or future requirements. However, it was advised that, as of January 1, 1964, the officer billet and inventory requirements were as follows:

	<u>Number of officers with PG required to fill billets</u>	<u>Number of Officers on board with PG</u>
Unrestricted Line	4,718	3,727
Restricted Line	1,667	1,393
Staff Corps	953	1,256

This indicates a total requirement for 7,338 officers with postgraduate education or approximately 10% of the total officer strength. One might question the validity of this figure for a wide variety of reasons. However, in this age of rapid technological development and increasingly complex naval equipment, it really doesn't sound too high and if anything may prove to be too low in the immediate years ahead. While it is recognized that the Navy has multiple requirements for officer personnel with difficult problems of recruiting, educating, assigning, motivation, etc., it would appear completely feasible to give postgraduate education to at least 10% of its officer strength. The Board therefore assumes that this stated requirement is both reasonable and attainable and does in fact represent a fairly accurate statement of current Navy needs, pending the implementation of OPNAV Instruction 1211.6 of 22 September 1964 and the findings of the Combs Board.

The previously indicated table indicates some shortage of restricted line officers and considerable shortage of unrestricted line officers with postgraduate educations to meet currently stated requirements. It is realized that the implementation of the OPNAV Instruction and the findings of the Combs Board will probably change the above stated requirements somewhat:

Recommendation (1) The Navy should establish and maintain a 5-10 year personnel plan showing among other things, billet and officer requirements for postgraduate education afloat and ashore.

Recommendation (2) These plans should be updated annually to ensure keeping abreast and hopefully ahead of new scientific, engineering and educational developments and Navy requirements.

Recommendation (3) BuPers take appropriate action to order enough officers to advanced technical education and professional training to meet Navy requirements on a timely basis.

3. Uniqueness of Navy Postgraduate Education

The Navy Postgraduate Education Program is designed to broaden the education of naval officers to meet their increasing responsibilities as they advance in rank. It is impracticable to educate an officer for the whole period of his active service by his initial instruction as he enters active service. The postgraduate educational program provides the unification and confirmation of the officer's earlier education, and in addition, includes progressive instruction in technical subjects to enhance his usefulness to the Navy and to help him to discharge his duties as a "superior-subordinate. In addition to being a well-rounded naval officer, each officer in today's Navy, with its many highly complex equipments, should be more than ever a specialist or subspecialist in at least one specific technical subject.

The students who enter the Postgraduate Educational Program have been carefully screened as promising naval officers, and only those with outstanding performance records are assigned to the program. As an officer pursues his courses, he is not a part of a "sink or swim" operation. It is to the advantage of the individual officer and the Navy, that each participant in the program obtain the maximum benefits from the time spent in postgraduate work. To ensure this, courses are altered, readjusted, and tailored to the individual's mental capacity and the Navy's needs. In this respect, the Navy curricula, although comprising an educational program of high excellence differs from those provided in recognized universities and technical institutions. Without diluting the academic excellence, the Navy through its postgraduate educational program has been educating its own promising officers to perform their duties better, and at the same time to improve their promotion potential for the future. The requirement and opportunity for such flexibility is greater today and for the foreseeable future than in the past.

4. Role and Mission of the U. S. Naval Postgraduate School

The Board was impressed with the definitive statement of the mission and tasks of the U. S. Naval Postgraduate School as stated in enclosure (1) to BUPERS letter Pers-C221:LLO of 3 February 1964, namely:

"1. Mission. The mission of the U. S. Naval Postgraduate School promulgated by SECNAV NOTICE 5450 dtd 3 Aug 1960 is as follows:

To conduct and direct the Advanced Education of commissioned officers, to broaden the professional knowledge of general line officers and to provide such other indoctrinations, technical and professional instruction as may be prescribed to meet the needs of the naval service. In support of the foregoing, to foster and encourage a program of research in order to sustain academic excellence.

2. Tasks. The tasks to be accomplished in support of the above mission are as follows:

a. Provide advanced engineering education through its own facilities at Monterey, and by supervision of the education of officer students at various civilian institutions throughout the country.

b. Provide advanced professional education by the General Line curriculum, undergraduate education in the BS/BA curricula, and special programs as required to meet the needs of the Navy.

c. Provide graduate management education through the medium of the Management curriculum.

d. Provide courses of instruction for Senior Foreign Officers."

The Board soon realized that in spite of its name, the Naval Postgraduate School is not a postgraduate institution, per se, and is no longer intended to be such. The School as now organized and operating is really providing post-commissioning education, and is properly fulfilling Navy needs.

The School has a mixed mission, namely, to raise the educational level of naval officers, and to provide, for qualified officers, technical education and professional training in order that they may be better prepared to fill important duty assignments with the Fleet and shore establishment. The increasing technological developments are adding quantum improvements to the Fleet's combatant capabilities. An increasing number of technically oriented officers will be required, in order that the offensive and defensive capabilities of shipboard equipment may be effectively exploited.

Conceivably there is a need and use in the Navy for officers educated above the baccalaureate level (BS Designated) and yet below the MS level. This would permit some graduate level education of those officers with lower academic potential or any officers who for career or other valid reasons should not devote 2 to 3 years to advanced schooling.

The Naval Postgraduate School could have an additional written task, namely, to recommend amendments to update curricula consistent with technological advances and Navy needs. The School in fact does this although not specifically provided for in the aforementioned letter.

The Postgraduate School, originally called School of Marine Engineering, was named the Postgraduate Department of the Naval Academy in 1912.

Since 1921, the "Postgraduate School" has been recognized Navy-wide as an educational institution that has provided the Navy with an increasing number of technically and professionally trained officers who have met the demands of advancing technologically and contributed in an outstanding manner to the development of a modern Navy with technical equipment second to none.

The School has been indispensable to the growth and modernization of the Navy through the years. The Postgraduate School, in the present age of exploding technology and the demands in years immediately ahead, promises to be more important for the future combatant effectiveness of the Navy than it has in the past.

As an institution, and in view of the high quality of its product, the Postgraduate School must be maintained as an educational institution of the U. S. Navy, with the highest degree of excellence attainable in all departments.

The name "Postgraduate School" does not completely describe the very important educational contributions that are being made at both the undergraduate and the graduate level. It should be recognized that even the best civilian postgraduate schools are almost always associated with undergraduate schools. This condition of the USNPGS is certain to continue for the foreseeable future. In fact, the School's ability to handle mature officers arriving with varying degrees of academic accomplishments on a flexible and many times hand tailored basis to give each student the maximum education during his stay at the School is one of its greatest assets.

The Board suggests that some thought be given to amending the name of the School to identify semantically its real mission. The name of "U. S. Naval College for Engineering, Science, and Management" was suggested as an alternative.

Recommendation (4) Recognize the mixed undergraduate-graduate mission of the Naval Postgraduate School.

Recommendation (5) Give further study to changing the name "Postgraduate School" to reflect more clearly its true mission.

Recommendation (6) Require the Naval Postgraduate School take leadership to recommend/amend curricula consistent with technological developments and Navy needs.

Recommendation (7) Realize that under the stated mission graduate level curricula not leading to degrees are permitted and probably should be encouraged in the future.

II. SPECIFIC AREAS REQUESTED TO BE SURVEYED

A. SELECTION AND ASSIGNMENT OF STUDENTS

In fulfilling its mission to raise the technical and scientific educational level of naval officers and to meet Navy requirements for numbers, BUPERS has ordered students to the Postgraduate School with varying levels of academic accomplishment and educational potential. This is clearly indicated by graduate record exams now given after arrival and performance at Postgraduate School and other universities. The Postgraduate School is apparently doing an excellent job of screening officers after arrival and tailoring courses to meet individual needs. The result has been a minimum of drop-outs and a significant increase in educational level of all officers completing whether they obtained a degree or not. In its desire to have maximum flexibility to meet these varying needs, the School offers a large number of courses. Administrative, scheduling, and other problems plus inefficiency in teaching are increased as the spectrum of student capabilities and educational backgrounds are widened. One of the major advantages of the Postgraduate School is this flexibility and the Board fully supports this concept. However, in view of the cost of bringing an officer to the School, and for other apparent reasons, it appears that a better method of selection of students is urgently required if a maximum output of students at a maximum level of education is desired. It should be possible to obtain the aptitude section of graduate record exams prior to selection by BUPERS. The results of these exams plus academic transcripts could be furnished to the Postgraduate School for review. Certain minimum standards should be established for all academic levels and curricula. The Postgraduate School could then advise BUPERS of candidates whose academic potential is fully acceptable, borderline, or unsatisfactory. The BUPERS selection board could then review these results along with officer records. Its selection process would be greatly reduced in time and more importantly increased in effectiveness. The Board was advised that the U. S. Marine Corps has been following this procedure with considerable success.

Recommendation (8) It is strongly urged that an academic ~~pre-selection screening~~ and review procedure generally in accordance with the above plan be developed and implemented at the earliest possible date.

The Board was surprised to learn that, because of overriding Fleet requirements, many highly qualified officers desiring post-graduate education are repeatedly not made available, and never receive the postgraduate technical education that the individual deserves, and from which the future operating Navy will benefit materially.

There are evidently too many instances wherein officers with academic qualifications of B average or better, and with outstanding performance records, do not receive the advanced technical education. In lieu of educating the best qualified officers, the advanced technical training is too often given to B and C officers because the Detail Officers in BUPERS are not consistently and realistically

implementing policy in providing postgraduate education to the maximum number of best qualified officers in the Navy.

The BUPERS criterion for not making a fully qualified officer available for postgraduate technical education should be carefully reviewed, and amended, in order that a greater number of the academically qualified officers with outstanding performance records may be given postgraduate technical education, and thus raise the technical excellence of the potential senior officers and future Flag Officers of the Navy. The Navy needs these officers with such technical competence.

Recommendation (9) The Chief of Naval Personnel review and amend BUPERS policy, in order that Detail Officers may make greater efforts to order more of the fully qualified officers with above average academic records to postgraduate education.

Despite the Secretary of the Navy policy statements relative to the urgent need for graduate education, there appears to be some lingering doubt on the part of some professionally and academically outstanding officers themselves that postgraduate education can enhance their Navy promotional opportunities.

Recommendation (10) The Navy should continue its efforts to convince outstanding younger officers that postgraduate education does in fact increase their contribution to the Navy and their promotional potential at all levels.

B. CURRICULUM

The Board understands that the curricula offered at the Postgraduate School and other universities have evolved over a period of time to meet the needs of the Navy, the changing mission of the School, the quality and level of input and rapidly changing scientific and engineering educational developments. Under these circumstances, there is a tendency for an increasing growth in number of courses with narrower fields. All educational institutions experience this growth, and periodically must undertake a house-cleaning and refinement.

The Postgraduate School is to be commended for undertaking such a review during the period October, 1963 to April, 1964. Its SCAN and Super-SCAN Committees conducted a very comprehensive review of all curricula and many of the resulting recommendations have already been implemented. A spot review of these reports and resulting actions clearly indicate that this was a very worthwhile effort with many beneficial results.

The Board realizes that for the immediate future it will probably be necessary for the School to accept students with a wide variety of academic backgrounds, necessitating a broad offering of courses. However, it believes that some further refinement and consolidation is possible with overall advantages and no significant reduction in educational effectiveness. It is understood that the School agrees with this position and intends to conduct further studies of its courses with the view to reduce the number of course offerings under its various curricula.

Naval officers assigned to the technical bureaus basically are not design engineers. Rather they are concerned primarily with the technical management of all phases of weapons systems from concept to retirement. Therefore, technical postgraduate education should be generally oriented to basic sciences and broad engineering fields rather than highly developed specialist courses. Students should be allowed a relatively small percentage of his courses to be chosen from various options of specialized personal interest. This basic education in science and engineering should equip an officer to fill a variety of billets and permit him to talk to designers and contractors without being misled or confused.

To fully equip such an officer to fulfill his technical management duties some education in Management Engineering would also be highly desirable. This could now be done by reducing the number of technical courses and offering management courses with no extension of time in school.

Recommendation (11) The School should continue to take positive action to keep its courses up-to-date, adequate in scope and content to meet Navy requirements, but minimal in total number.

Recommendation (12) The Navy should also foresee and establish new curricula in time to permit orderly preparation of courses, input of students, and graduation to meet new educational requirements.

Recommendation (13) Review of curricula should include the degree of inter-connection required between the technical and management curricula in order to meet the Navy's pressing needs for officers well educated for duties as technical program managers.

C. INSTRUCTION AND ACADEMIC METHODS

1. Class Size and Methods

Classroom sizes generally dictate small classes with an average class of approximately 17 students. It is understood that the newer buildings were designed primarily for an average class size of from 15 to 24 students. While this may be appropriate for some courses at the graduate level, lecture courses can and should be taught to large classes if economy of operation is a factor. Moreover, as it appears that undergraduate-level education as well as graduate will have to continue at the School for the foreseeable future, all future buildings and any modifications of present buildings should provide for some classes of much larger size. In the interim, it would appear feasible to employ some of the newer teaching techniques such as closed circuit TV to conduct larger sections of lecture courses (undergraduate level in particular), and thereby help meet the increasing student input at the earliest possible date. The Board is convinced that this can be done with no degradation of educational excellence. In fact, it might improve.

Recommendation (14) All future academic buildings should have some considerably larger classrooms.

Recommendation (15) Modifications to present buildings should provide for larger classrooms wherever feasible.

Recommendation (16) Maximum use should be made of newer teaching techniques such as closed circuit TV, to further increase size of classes in the present facilities with no increase in faculty.

2. Length of Programs

It is realized that the Postgraduate School mission in part is to "broaden the professional knowledge of general line officers and to provide such other indoctrination, technical and professional instruction as may be prescribed to meet the needs of the naval service."

It should be recognized that under this broad mission a wide variety of programs can be offered. These should include traditional degree terminating programs, short refresher courses, surveys of modern developments in technical and management fields and continuing education offerings which could be available to a broad spectrum of officers at various stages of their naval careers. At the present time the degree oriented program dominates the School's effort, with students retained for an unusually long period of time. Due to deficient educational backgrounds and years out of school, many students now require undergraduate work and/or "warm up" instruction. These all tend to extend further the stay at school. Currently most students in the graduate technical programs receive more courses than the minimum degree requirements.

Appendices C and D show length of stay at school for some 360 officers who were awarded various designated BS degrees (Technical) and MS degrees (Technical) by the U. S. Naval Postgraduate School during the last school year. Students receiving designated BS degrees (Technical) averaged 23 months and those receiving MS degrees (Technical) averaged 26 months. Some of the latter with special backgrounds were awarded degrees in 12 months while others in such courses as EE and Aero took 34 months.

The Board acknowledges the probable future utilization of the numerous extra courses above minimum degree requirements and existence of other factors which dictate the length of stay at the Naval Postgraduate School. It agrees that the current high degree standards should be maintained. It also notes the current shortage of officers with technical postgraduate education. Larger student inputs are scheduled but there appears to be some doubt as to whether both quantity and quality (educationally) can be increased sufficiently. The Navy must balance the relative advantages of the degree of education per individual or the number that can be educated. If numbers are important it is believed that certain actions could be taken to reduce the stay at the Naval Postgraduate School for at least some of the officers. Reducing the number of years out of

school before starting at the Postgraduate School is one. Specifically, a small number of officers could enter the Postgraduate School directly out of the Naval Academy and other universities.

The new curriculum at the U. S. Naval Academy will allow many more of its graduates to complete a technical major before graduation. A smaller number will not only complete the work for a major but will also be able to earn six to nine credits of advanced work which could be transferred to a civilian college as graduate credit. Thus students could conceivably complete the requirements for a Master's Degree at selected civilian universities during the summer term and the fall semester immediately following graduation and commissioning. Such a program should be investigated by the U. S. Naval Academy and if feasible recommended to BUPERS for consideration. Similar programs should be considered for the regular NROTC students at their university. The U. S. Air Force Academy has already a similar arrangement with some civilian universities.

Other potential students could be required or at least encouraged to take correspondence courses where they are deficient. Tighter control could be maintained over the number of desirable but extra courses now required. Greater efforts could be exerted to upgrade the educational capacity of applicants for postgraduate education.

Recommendation (17) Take appropriate steps to insure that each officer spends the minimum time at the Naval Postgraduate School commensurate with the overall needs of the Navy for postgraduate education.

Recommendation (18) The Chief of Naval Personnel should require the School to propose a variety of non-degree programs to be available to officers at all stages of their careers.

Recommendation (19) Review the plan for input of officers to the Naval Postgraduate School and civilian universities and revise it so that they are assigned at the earliest feasible point in their careers. A few highly selected officers should be assigned upon graduation for no longer than approximately nine months work leading to MS degrees. Other officers should be assigned after 3 to 5 years (maximum) following graduation depending on code designation and service need, but with emphasis on earliest feasible assignment to postgraduate studies.

Many fine universities do not now require a MS thesis. Most naval officers will not continue their education at the Ph.D. level or become personally and directly involved in research projects. However, there probably is some merit in having officer MS degree candidates in technical fields prepare a thesis based on work with a professor on a research project. Such project work is of educational value as a supplement to formal class work, because the student as an individual must integrate and apply his learning from many different courses.

Recommendation (20) continue to require a MS thesis, except for unusual circumstances.

3. Use of Civilian Schools

The Navy has for many years sent a few officers directly to civilian schools for certain curricula. Other officers have commenced their studies at the Postgraduate School and completed them at civilian schools. Some of the programs utilizing civilian schools, such as the aerological and aeronautical, have been truly outstanding. While these programs may or may not be more expensive than complete education at the Postgraduate School, there can be other important advantages.

Appendices E and F indicate the degrees which have been awarded during the period 1957 to 1964 both at the Naval Postgraduate School itself and at other universities. As can be seen there has been a relatively steady increase in the total number of undergraduate and graduate degrees during this period.

The Board found no evidence that degrees awarded at the Naval Postgraduate School were anything but a high standard.

The above indicated increase in degrees awarded plus the establishment and apparent maintaining of high degree standards indicate that the Navy has taken positive steps to attempt to meet its stated requirements for additional officers with graduate education.

As the Postgraduate School has grown in size and capability, plus the local awarding of degrees, there appears to be a natural tendency to send a smaller percentage of the students to civilian schools. This tendency is readily discernible in the data of appendices E and F. In some curricula, no students are sent to civilian schools. While many reasons have been given that apparently justify this course of action, including alleged economy of money and time, the Board is of the opinion that this trend to educate an ever increasing percentage of the graduate level students solely at the Naval Postgraduate School should not continue indefinitely.

The present overall distribution of degrees between USNPGS and civilian schools percentage wise is reasonable, but between the various curricula there is wide variation. The board believes that a few students out of every class in each of the technical curricula should take part or all of their MS work at a civilian school. Admittedly this may cost somewhat more. It is also acknowledged that in most cases the student might not receive exactly the same course coverage. However, there are numerous offsetting advantages. Better liaison between the Navy and the civilian technical community would be fostered, and there would be a continuing check on the academic effectiveness of the Postgraduate School.

Recommendation (21) Reverse the past trend of sending progressively fewer students to civilian universities.

Recommendation (22) Send some students (about 25%) from each technical curricula to civilian universities.

D. PHYSICAL FACILITIES

The Board reviewed the Military Construction Program in limited depth but sufficient to endorse existing plans for (1) Expansion of Academic Facilities (1st Increment) and (2) Conversion of Building 221 to BOQ. These buildings will be required if the School is to meet the current student load. In view of the problems arising from the large number of small classrooms now available, and for other reasons, the Board strongly recommends that all future academic buildings be designed in line with the broader concepts of the BA/BS program, larger classroom sizes, newer teaching aids such as closed circuit TV, and moveable partitions. There should be adequate facilities for lectures to 75 to 100 students.

There seems to be a genuine need for additional quiet study space, especially for married students with families. Increased library space would help, but other arrangements should be considered, such as out-of-hour use of classrooms and laboratories.

The Board did not inspect all facilities. Based on those seen, the level of maintenance appears adequate today. However, the Board viewed the current level of funding for maintenance with some misgivings. It is understood that further discussion will be held between the School and the Bureau of Naval Personnel relative to this matter. It is recommended that these matters be resolved at an early date.

Due to the age and type of construction of the original buildings and the unusual nature of the grounds and many fine trees, the Board believes that now and in the years ahead the School will require special consideration relative to levels of maintenance and funding support.

Recommendation (23) The Navy obtain the appropriations necessary for the above listed military construction items at the earliest possible date.

Recommendation (24) Urgent consideration should be given to problems of funding current and future maintenance of ground and buildings.

E. FISCAL MATTERS

The Postgraduate School has had a Comptroller organization for some years with a centralization of official allotment records. However, it appears that the office was not operating in the true full sense of a Comptroller's function. Firm steps have been taken to correct this condition. The Comptroller has been advised that he will fully participate in regular staff meetings and should be prepared to bring up any matter affecting the financial operations

of the School deemed appropriate. He has been directed to centralize all Comptroller functions within his office and to prepare and distribute all financial reports necessary to permit the best overall operation of the School.

Recommendation (25) The Comptroller operations be reviewed about one year from now to check on status, progress, and possible problem areas.

F. PHYSICAL FITNESS

The Board was advised that the School is actively supporting the Navy Physical Fitness Program. While it is realized that student academic loads are heavy, the Board fully supports the continuation of the current Physical Fitness Program.

G. RESEARCH AT THE NAVAL POSTGRADUATE SCHOOL

The level of research now in effect at the Naval Postgraduate School is insufficient to sustain the academic excellence. (SECNAV Notice 5450 dated 3 August 1960.)

The major aspect of the question of research at the Naval Postgraduate School has more to do with this activity as being desirable for the faculty than for the students. One would expect to find in a faculty well qualified to teach at the graduate level--hopefully on the growing edge of new technology--that they would be involved in study and investigation in these new fields. There is ample evidence that opportunity exists for such research work, and that administrative policy encourages it. One would not expect that every member of the faculty would be so engaged, nor that any would be engaged more than perhaps one-third or one-half of their time. On the other hand, the Board found that only 6% to 7% of the faculty time--averaged over the entire faculty--was accountable as research. This seems too small. An increased research program both in quality and quantity will attract more high quality professors, and simultaneously improve the quality of incumbent professors, stimulate more student participation, and enhance the reputation of the Naval Postgraduate School. Research should not be limited to purely naval topics.

While the Board does not feel that the Postgraduate School should strive to be a major research establishment--nor that it would necessarily ever be successful in doing so--the existence of a good research program is basically beneficial to the School. Student participation is important too, partly because it helps to get the research done, and partly that it is good experience for the student to have this brief participation in research. As mentioned in the section of this report entitled "Length of Programs," the research experience and the MS thesis which can result from this work is not to be misconstrued as training the officer for a research career, but rather giving him this one experience of technical work where he can bring together some of his formal classroom learning on a significant problem.

Recommendation (26) Continue to foster an increase in the quality and quantity of research conducted at the U. S. Naval Postgraduate School.

H. FUTURE SURVEYS

The Board is of the opinion that the Navy must maintain an aggressive Postgraduate Education Program and that, if anything, this requirement may take on greater importance in the coming years. While the Navy has always recognized the need and had such a program in the past, there appears to have been an increasing realization in recent years of the urgent need for more officers with varying levels of graduate education both afloat and ashore. The Navy has taken steps to meet this need in a most commendable manner. However, it will apparently be a number of years before currently known requirements will be met. The Board hopes that its limited survey will be helpful to the Navy in reaching its goals at the earliest date. This must be a dynamic program and it is suggested that the Navy might find it useful to have an independent review on an annual basis. The Board recommends such action with some continuing membership to help ensure a carry-over of knowledge.

In addition to the concept of a continuing Survey Board, the present Board sees also a need for a "Secretary of the Navy Policy Board." The function of this board corresponds to the Board of Trustees of an academic institution or the Board of Directors of a corporation. This board would greatly assist the Chief of the Bureau of Naval Personnel and the Superintendent of the Postgraduate School, who are and must continue to be responsible for management of the program.

Recommendation (27) The Navy should establish a Survey Board on Post Commissioning Education to function generally similar to the Naval Academy's Board of Visitors. It should meet approximately annually to review the entire Navy program. Three-year appointments would be appropriate, with rotating membership. Appointments could be generally limited to Senators and Representatives, academic officials of stature, distinguished business leaders, and retired naval officers.

Recommendation (28) Establish a Secretary of the Navy Policy Board on Post Commissioning Education. Membership should generally be confined to the Secretariat, the Chief of Naval Personnel and other senior active duty Flag Officers.

III. CONCLUSIONS

The Board found the Naval Postgraduate Programs to be in a state of reasonably good health, but also in need of continuing improvement if top stature is the goal. Specific recommendations have been recorded throughout this report and are here recapitulated for convenient perusal. They are listed in order of presentation in the report, and no relative priority should be inferred thereby.

(1) The Navy should establish and maintain a 5-10 year personnel plan showing among other things, billet and officer requirements for postgraduate education afloat and ashore. (See page 5)

- (2) These plans should be updated annually to ensure keeping abreast and hopefully ahead of new scientific, engineering and educational developments and Navy requirements. (See page 5)
- (3) BUPERS take appropriate action to order enough officers to advanced technical education and professional training to meet Navy requirements on a timely basis. (See page 5)
- (4) Recognize the mixed undergraduate-graduate mission of the Naval Postgraduate School. (See page 8)
- (5) Give further study to changing the name "Postgraduate School" to reflect more clearly its true mission. (See page 8)
- (6) Require the Naval Postgraduate School take leadership to recommend/amend curricula consistent with technological developments and Navy needs. (See page 8)
- (7) Realize that under the stated mission graduate level curricula not leading to degrees are permitted and probably should be encouraged in the future. (See page 8)
- (8) It is strongly urged that an academic pre-selection screening and review procedure generally in accordance with the above plan be developed and implemented at the earliest possible date. (See page 9)
- (9) The Chief of Naval Personnel review and amend BUPERS policy, in order that Detail Officers may make greater efforts to order more of the fully qualified officers with above average academic records to postgraduate education. (See page 10)
- (10) The Navy should continue its efforts to convince outstanding younger officers that postgraduate education does in fact increase their contribution to the Navy and their promotional potential at all levels. (See page 10)
- (11) The School should continue to take positive action to keep its courses up-to-date, adequate in scope and content to meet Navy requirements, but minimal in total number. (See page 11).
- (12) The Navy should also foresee and establish new curricula in time to permit orderly preparation of courses, input of students, and graduation to meet new educational requirements. (See page 11)

- (13) Review of curricula should include the degree of inter-connection required between the technical and management curricula in order to meet the Navy's pressing needs for officers well educated for duties as technical program managers. (See page 11)
- (14) All future academic buildings should have some considerably larger classrooms. (See page 12)
- (15) Modifications to present buildings should provide for larger classrooms wherever feasible. (See page 12)
- (16) Maximum use should be made of newer teaching techniques such as closed circuit TV, to further increase size of classes in the present facilities with no increase in faculty. (See page 12)
- (17) Take appropriate steps to insure that each officer spends the minimum time at the Naval Postgraduate School commensurate with the overall needs of the Navy for postgraduate education. (See page 13)
- (18) The Chief of Naval Personnel should require the School to propose a variety of non-degree programs to be available to officers at all stages of their careers. (See page 13)
- (19) Review the plan for input of officers to the Naval Postgraduate School and civilian universities and revise it so that they are assigned at the earliest feasible point in their careers. A few highly selected officers should be assigned upon graduation for no longer than approximately nine months work leading to MS degrees. Other officers should be assigned after 3 to 5 years (maximum) following graduation depending on code designation and service need, but with emphasis on earliest feasible assignment to postgraduate studies. (See page 13)
- (20) Continue to require a MS thesis, except for unusual circumstances. (See page 14)
- (21) Reverse the past trend of sending progressively fewer students to civilian universities. (See page 15)
- (22) Send some students (about 25%) from each technical curricula to civilian universities. (See page 15)
- (23) The Navy obtain the appropriations necessary for the above listed military construction items at the earliest possible date. (See page 15)

(24) Urgent consideration should be given to problems of funding current and future maintenance of grounds and buildings. (See page 15)

(25) The Comptroller operations be reviewed about one year from now to check on status, progress, and possible problem areas. (See page 16)

(26) Continue to foster an increase in the quality and quantity of research conducted at the U. S. Naval Postgraduate School. (See page 16)

(27) The Navy should establish a Survey Board on Post Commissioning Education to function generally similar to the Naval Academy's Board of Visitors. It should meet approximately annually to review the entire Navy program. Three-year appointments would be appropriate, with rotating membership. Appointments could be generally limited to Senators and Representatives, academic officials of stature, distinguished business leaders, and retired naval officers. (See page 17)

(28) Establish a Secretary of the Navy Policy Board on Post Commissioning Education. Membership should generally be confined to the Secretariat, the Chief of Naval Personnel and other senior active duty Flag Officers. (See page 17)

Appendix A

List of Reference Documents

1. Information Material for Secretary of the Navy's Board to Review Postgraduate Education of Officers -- August 1964.
2. Compendium of Informational Material for Secretary of the Navy's Board to Review Postgraduate Education of Officers -- August 1964.
3. U. S. Naval Postgraduate School and Naval Air Facility -- Unofficial Introductory Brochure.
4. The Mission of the United States Naval Postgraduate School (Pamphlet).
5. The United States Naval Postgraduate School--Its Mission and Roles in Naval Officer Education.
6. History of the United States Naval Postgraduate School.
7. Bureau of Naval Personnel "Officer Education Quota Plan," Fiscal Year 1966, dated 10 July 1964.
8. Policy Regarding Pay, Promotion, and Tenure of Office of the Civilian Faculty at the United States Naval Postgraduate School, dated 1 August 1962.
9. United States Naval Postgraduate School Catalogue for 1964-1965.
10. Abstracts of Dissertations, Theses and Research Papers Submitted by Candidates for Degrees 1962-63.
11. Annual Report on Faculty Research and Other Scholarly Activities FY1963.
12. The United States Naval Postgraduate School "Integrated Operating and Development Plan 65," dated September 1964.
13. By-Laws of the Faculty of the United States Naval Postgraduate School, adopted May 3, 1963.
14. Allotments Expended U. S. Naval P/G School, Monterey, FY 60-65.
15. Memorandum to Chairman, SECNAV Review Board from Superintendent, U. S. Naval Postgraduate School, Subject: Financial Support for the Naval Postgraduate School, dated October 9, 1964.
16. Superintendent of the U. S. Naval Postgraduate School "Postgraduate School Instruction 5000.1E dated 31 July 1964.

Appendix A (continued)

17. Compendium of Informational Material for Secretary of the Navy's Board to Review Postgraduate Education of Officers -- October 1964.
18. The Chief of Naval Personnel letter subject: "Annual Program Guidance", dated 31 January 1964.
19. The Chief of Naval Personnel letter subject: "Special Navy Postgraduate Educational Programs" dated 14 July 1964.
20. Student Attritions 1963-64.
21. New Faculty Members Recruited for 1964-65.
22. FY 1964 and 1965 PG Selection Board Statistics and Officer Billet and Inventory Requirements -- 1 January 1964.
23. The Chief of Naval Personnel letter subject: "Annual Program Guidance" dated 3 September 1964.
24. OPNAV Instruction 1211.6 Subject: "Identification of Unrestricted Line Officer Subspecialty billets and Restricted Line and Staff Corps Officer billets requiring graduate level education" dated 22 September 1964.
25. SECNAV Instruction 1520.4, OP-09, 7 March 1963, "Postgraduate Education of Naval Officers," with Enclosure (1), "Secretary of the Navy Statement of the Policy on Postgraduate Education of Naval Officers."

Appendix B

List of Persons Presenting Briefings or Appearing before the Board

Rear Admiral C. K. Bergin, USN
Superintendent, U. S. Naval Postgraduate School

Cdr. J. Hilton, USN
Plans Officer, U. S. Naval Postgraduate School

Dean C. E. Menneken
Dean of Research Administration, U. S. Naval Postgraduate School

Dean A. E. Vivell
Academic Dean, U. S. Naval Postgraduate School

Cdr. D. R. Schaffer, USN
Ordinance Engineering Curricular Officer, U. S. Naval Postgraduate School

Vice Admiral E. W. Mills, USN (Ret)

Dean L. E. Kinsler
Dean of Curricula, U. S. Naval Postgraduate School

Dean W. F. Koehler
Dean of Programs, U. S. Naval Postgraduate School

Capt. E. A. Sanford, Jr. (SC) USN
Comptroller, U. S. Naval Postgraduate School

Professor Charles H. Rothauge
Chairman, Nominating Committee of the Faculty

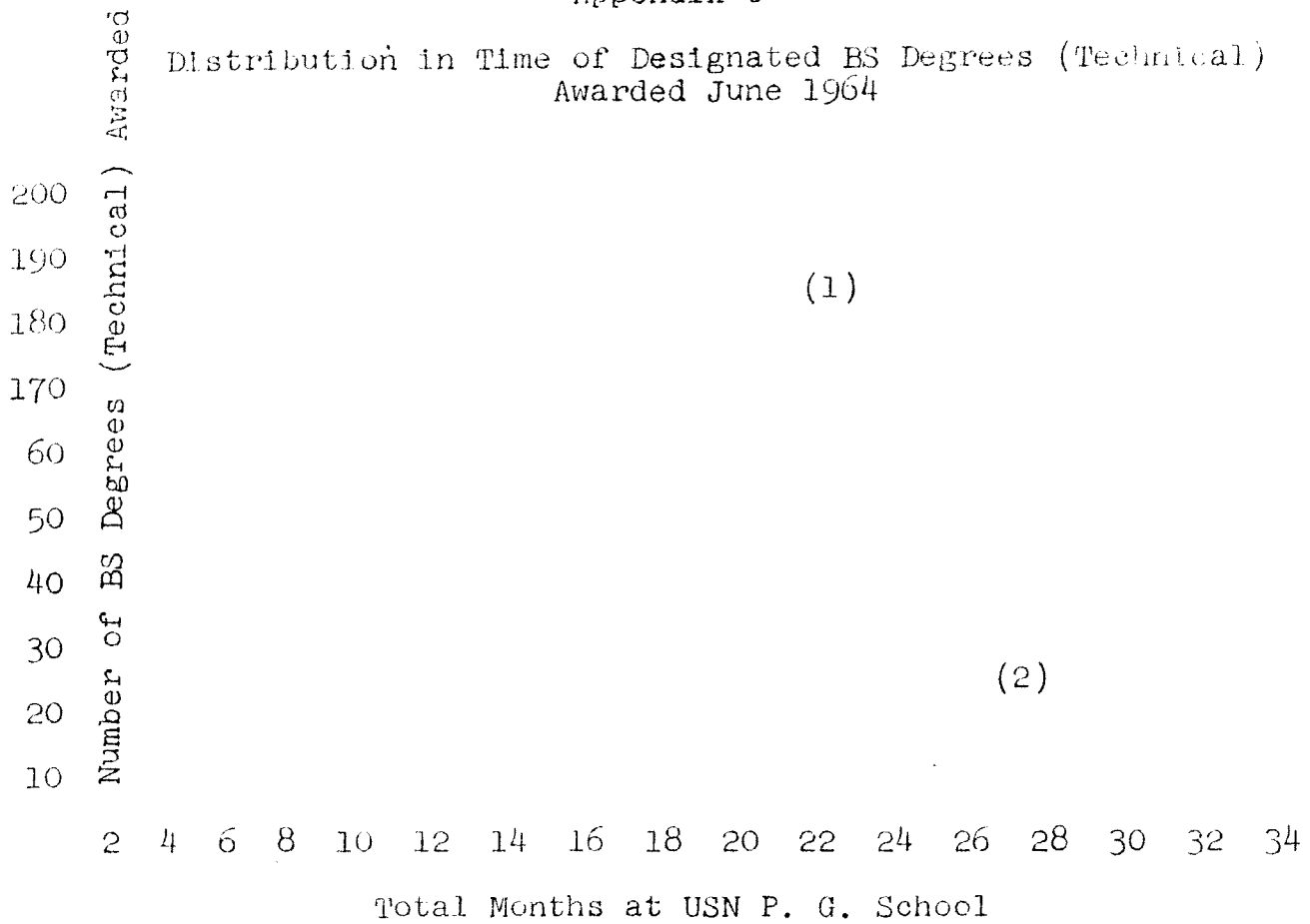
Professor W. E. Bleick
Chairman, Faculty Status Committee

Professor W. C. Thompson
Chairman, Scholarship Committee of the Faculty

Professor A. B. Mowborn
Secretary of the Faculty

Appendix C

Distribution in Time of Designated BS Degrees (Technical)
Awarded June 1964

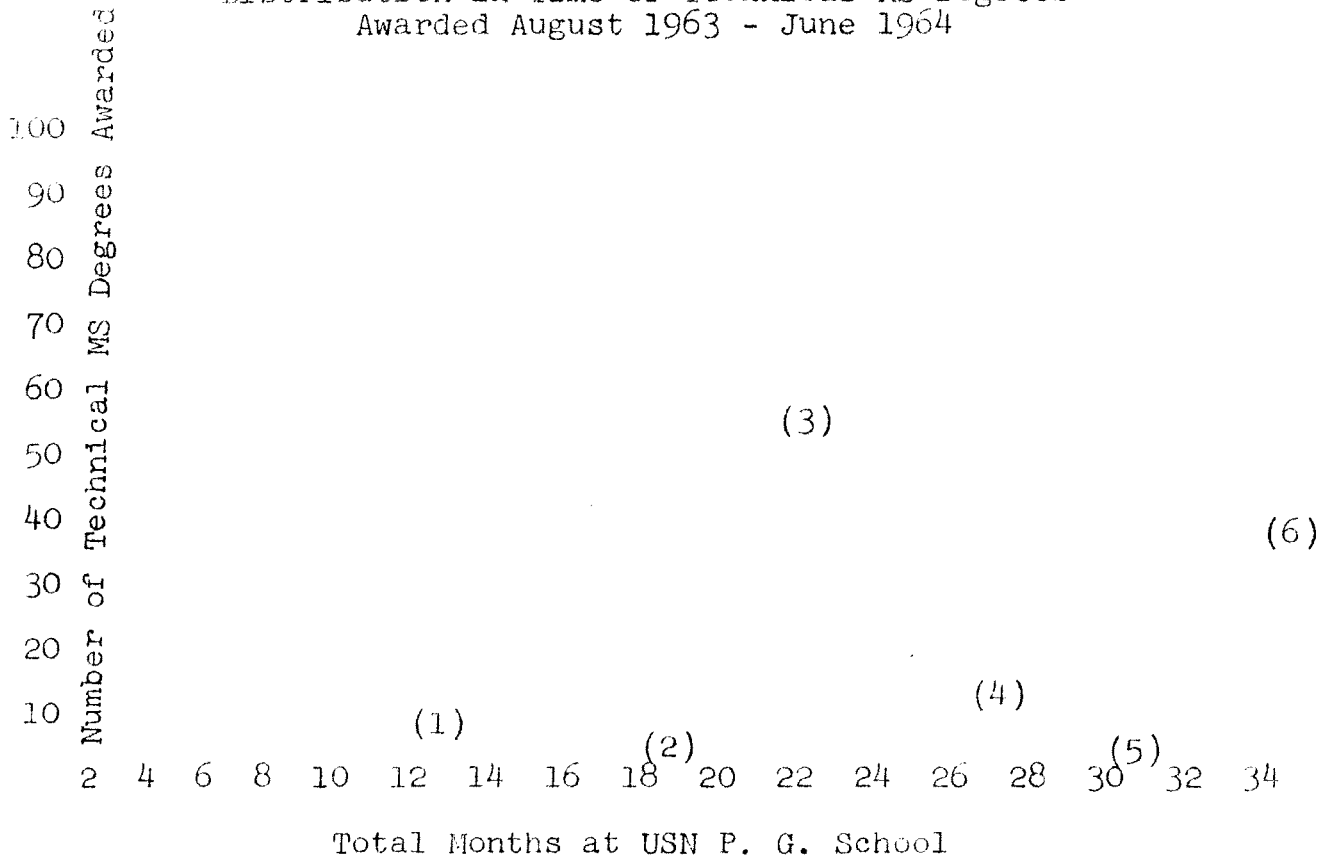


Notes:

- (1) Did not have time for Masters or have B average
- (2) Transfers from Engineering Sciences Program

Appendix D

Distribution in Time of Technical MS Degrees
Awarded August 1963 - June 1964



Notes:

- (1) 8 MS in Mgr. D/P, 1 MS in Math
- (2) MS(EE) CEC officers with BS in EE plus B average on entrance
- (3) BA/BS on entrance - MS in Oper. Analysis, Oceanography, Meteorology, Nuclear Eng. Effects, etc.
- (4) Mostly transfers from Eng. Sciences curriculum
- (5) MS(Aero) with special background, outstanding students and no more availability
- (6) MS(EE), Aero, etc.
- (7) Excluded are 4 MS degrees awarded to instructors

Appendix E

Degrees Awarded at U. S. Naval Postgraduate School

Awards:	1957	1958	1959	1960	1961	1962	1963
	1958	1959	1960	1961	1962	1963	1964

Total Diplomas of Completion	624	556	440	298	210	162	184
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Diplomas of Completion Distributed as Follows:

General Line (USN)	436	415	326	212	118	10	--
General Line (Foreign)	32	32	34	43	42	10	18
Management(1)	107	93	79	3	4	3	1
Engineering Science	--	--	--	18	33	123	150
Technical Curricula(2)	49	16	1	22	13	10	15
Total Degrees	165	249	359	438	543	529	635

Degrees Distributed as follows:

BA						52	54
BS	1	1	86	70	110	101	127
BS(Desig)	35	152	173	192	225	152	246
MS(Tech)	79	96	100	101	117	133	133
MS(Mgt)				74	87	88	70
Engineer						1	
Ph.D.				1	2	2	5

Notes:

(1) Prior to 1960-61 this was a five-months non-degree program.

(2) Over sixty of these officers were in special one-year non-degree programs. The majority of the others already had one B.S. degree and did not desire a second degree at this level. Ten of the remaining officers were foreign officers.

Appendix F

Degrees Awarded at Civilian Schools

Awards:	1957	1958	1959	1960	1961	1962	1963
	1958	1959	1960	1961	1962	1963	1964
Total Degrees	186	166	136	142	130	136	139

Degrees Distributed as Follows:

BA		1		1		2	1
BS(Desig)	29	24	23	21	25	5	1
MS(Tech)	56	60	42	48	24	35	50
MS(Mgt)	59	36	35	42	48	45	48
MA	20	21	5	4	11	26	19
Engineer	22	24	27	20	20	18	13
Ph.D.			4	6	2	5	7

DATE RECEIVED: 12 Mar 65
 NO. OF COPIES: 1
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 PGS NO.: 5420
 Ser: 817

SUBJECT: Report of Secretary of the Navy's Board to Review Postgraduate Education of Officers; Forwarding of

ORIGINATOR: BuPers
 FILE NO.: Pers-C22a-hm
 DATED: 8 Mar 65

TO	ROUTE	ACTION	DATE		BY	TO	ROUTE	ACTION	DATE		BY
			RECD	FWD					RECD	FWD	
3	00 SUPERINTENDENT	1					08 OINC, FLENUMWEAFAC				
2	01 DEPUTY SUPT	1	MAR 12		P-12		DIR OF ADMINISTRATIVE & LOGISTICS SERVICES	1	20	APR 1965	
5	02 ACADEMIC DEAN	1	19 APR 1965				41 HD OF ADMIN DEPT				
							411 MILITARY PERSONNEL				
4	001 AIDE TO SUPT	1	4/19				412 LEGAL				
11	011 PLANS OFFICER	1	4/29				413 COMMUNICATIONS				
13	012 COMPTROLLER	1	5/3	5/6			42 SUPPLY & FISCAL				
1	013 STAFF SECRETARY	1					421 DISBURSING				
15	014 IND REL	1	5/18	5/18			43 PUBLIC WORKS	1	4/26	4/27	WSP
	015 AVIATION OFFICER						44 SR DENTAL OFFICER				
	016 SR MEDICAL OFFICER						45 HD SERVICES DEPT	1			HK
7	03 DIR OF PROGRAMS	1	4/15	4/15			451 FIRST LIEUTENANT				
8	031 DEAN OF PROGRAMS	1	4/15	4/15			452 RECREATION				
9	032 ASST DIR FOR CURR PROGS	1*	4/15	4/15			453 NAVY EXCHANGE				
	033 DEAN OF ADMISSIONS						454 BOQ-CLOSED MESS				
	0331 REGISTRAR						455 AUDIO VISUAL AIDS				
10	034 DEAN OF CURRICULA	1	4/15	4/15			46 SENIOR CHAPLAIN				
6	035 DEAN OF RES ADMIN	1	5/6	5/14			461 CHAPLAIN				
	036 HD OF COMP FACILITY					170	47 PIO & VISIT LIAISON				A-22 B
	037 REACTOR ADMIN						04A				OT
	038 LIBRARIAN										
							0131 CENTRAL FILES				

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 01 / Retained copy 4/2/65
 2 Xerox copies retained for 03 and 032
 * P.S.M.
 04, 012 & 43 added to routing by 011 - JH
 Encl: (1) AsstSecNav Memo for BuPers 15 Feb 65 w/Encl. (5 Copies)



DEPARTMENT OF THE NAVY

BUREAU OF NAVAL PERSONNEL

WASHINGTON, D.C. 20370

5420
IN REPLY REFER TO

Pers-C22a-hm

8 MAR 1965

From: Chief of Naval Personnel
To: Superintendent
U. S. Naval Postgraduate School
Monterey, California

Subj: Report of Secretary of the Navy's Board to Review Postgraduate
Education of Officers

Encl: (1) AsstSecNav Memo for the Chief of Naval Personnel dtd 15 Feb
1965 with enclosures thereto (5 copies)

1. Five copies of the Report of the Secretary of the Navy's Board to Review Postgraduate Education of Officers together with the comments and recommendations of the Secretary of the Navy and the Chief of Naval Personnel are forwarded herewith for your information and appropriate action.

2. Certain recommendations of the Board pertaining to personnel actions are not included in the Report approved for official release. This portion of the Report will be covered by separate correspondence.

A handwritten signature in cursive script, reading "Mason Freeman", is positioned above the typed name.

MASON FREEMAN

Assistant Chief for Education and Training



DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20350

FEB 15 1965

MEMORANDUM FOR THE CHIEF OF NAVAL PERSONNEL

Subj: Report of Secretary of the Navy's Board to Review Postgraduate Education of Officers; comments concerning

Ref: (a) CNP ltr Pers-C22a-eg of 5 Jan 1965

Encl: (1) Comments on BuPers recommendations on the Final Report of the Secretary of the Navy's Board to Review Postgraduate Education of Officers
(2) Copy of Final Report of the Secretary of the Navy's Board to Review Postgraduate Education of Officers

1. Enclosure (1) contains the Secretary of the Navy's final action on the recommendations of the Chief of Naval Personnel on the subject report.

2. Enclosure (2), forwarded herewith, is approved for official release and implementation of those recommendations approved in enclosure (1).

A handwritten signature in cursive script, reading "Kenneth E. Bellin", is written over the typed name and title.

Kenneth E. Bellin
Assistant Secretary of the Navy

FEB 17 1965

Report of the Secretary of the Navy's Board
to Review Postgraduate Education of Officers

Recommendations and Comments

Recommendation (1) The Navy should establish and maintain a 5-10 year personnel plan showing among other things, billet and officer requirements for postgraduate education afloat and ashore.

CNP Comment (1) When the report of the Combs Board is published a new long-range education plan will be developed. The Combs Report is expected to delineate present and future billet requirements insofar as is feasible. Future billet requirements will be coordinated between the Active Officer Plans Branch and OP-100 and billet planning will be subject to continued updating as additional information is gained.

SECNAV Comment (1) Concur with the Chief of Naval Personnel.

Recommendation (2) These plans should be updated annually to ensure keeping abreast and hopefully ahead of new scientific, engineering and educational developments and Navy requirements.

CNP Comment (2) The long-range plan is updated annually with the development of the Educational Quota Plan. In addition, the plan will reflect all future requirements which are approved by OP-01 after submission by specialty sponsors and subspecialty area advisors.

SECNAV Comment (2) Concur with the Chief of Naval Personnel.

Recommendation (3) BuPers take appropriate action to order enough officers to advanced technical education and professional training to meet Navy requirements on a timely basis.

CNP Comment (3) This is accomplished in accordance with the annual Postgraduate Education Selection Board selections as availability of personnel allows. The F.Y. 65 Selection Board filled 91% of the established quotas; however, an improvement has been realized by the F.Y. 66 Board which selected 96% of quotas.

SECNAV Comment (3) Concur with the Chief of Naval Personnel.

Recommendation (4) Recognize the mixed undergraduate-graduate mission of the Naval Postgraduate School.

CNP Comment (4) The Chief of Naval Personnel and the Superintendent will continue to emphasize the essentiality of the undergraduate programs.

SECNAV Comment (4) Concur with the Chief of Naval Personnel.

Enclosure (1)

Recommendation (5) Give further study to changing the name "Postgraduate School" to reflect more clearly its true mission.

CNP Comment (5) Public Law 303 of the 80th Congress dated 31 July 1947 established the United States Naval Postgraduate School. Any change in this name would require congressional action.

SECNAV Comment (5) Concur with the Chief of Naval Personnel. I feel there are obvious advantages in retaining the present name of the Postgraduate School and would be hesitant to recommend its change without further study.

Recommendation (6) Require the Naval Postgraduate School take leadership to recommend/amend curricula consistent with technological developments and Navy needs.

CNP Comment (6) This is currently being done in cooperation with the sponsors and the Naval Postgraduate School. Utilization of future requirements mentioned in Comment 1 will provide additional information.

SECNAV Comment (6) Concur with the Chief of Naval Personnel.

Recommendation (7) Realize that under the stated mission graduate level curricula not leading to degrees are permitted and probably should be encouraged in the future.

CNP Comment (7) Concur.

SECNAV Comment (7) Concur.

Recommendation (8) It is strongly urged that an academic pre-selection screening and review procedure generally in accordance with the above plan be developed and implemented at the earliest possible date.

CNP Comment (8) The system recommended by the Board may not be completely responsive to the problem. It places too much emphasis on the academic performance of the individual at the possible expense of his professional performance. The Chief of Naval Personnel and the Superintendent of the Naval Postgraduate School are currently working toward improvement of the selection process.

SECNAV Comment (8) Concur with the Chief of Naval Personnel.

Recommendation (9) The Chief of Naval Personnel review and amend BUPERS policy, in order that Detail Officers may make greater efforts to order more of the fully qualified officers with above average academic records to postgraduate education.

CNP Comment (9) Concur. This problem is being carefully studied in BuPers. The situation undoubtedly will be improved by the offering of graduate courses which do not necessarily lead to advanced degrees.

SECNAV Comment (9) Concur with the Chief of Naval Personnel.

Recommendation (10) The Navy should continue its efforts to convince outstanding younger officers that postgraduate education does in fact increase their contribution to the Navy and their promotional potential at all levels.

CNP Comment (10) Concur. The importance of a postgraduate education and its effect upon promotion potential will be re-emphasized in the annual postgraduate directive and in the Officer Personnel Newsletter.

SECNAV Comment (10) Concur with the Chief of Naval Personnel.

Recommendation (11) The School should continue to take positive action to keep its courses up-to-date, adequate in scope and content to meet Navy requirements, but minimal in total number.

CNP Comment (11) Concur. Recommend this proposal receive careful consideration at the next postgraduate conference.

SECNAV Comment (11) Concur with the Chief of Naval Personnel.

Recommendation (12) The Navy should also foresee and establish new curricula in time to permit orderly preparation of courses, input of students, and graduation to meet new educational requirements.

CNP Comment (12) This is a continuing problem which requires close cooperation and effective liaison among curricula sponsors, the P. G. School and BuPers.

SECNAV Comment (12) Concur with the Chief of Naval Personnel.

Recommendation (13) Review of curricula should include the degree of inter-connection required between the technical and management curricula in order to meet the Navy's pressing needs for officers well educated for duties as technical program managers.

CNP Comment (13) This recommendation is directly related to the concept developed by the Board that technical postgraduate education at the P. G. School should be generally oriented toward basic sciences and broad engineering fields supplemented by education in the area of management. Specialization for the most part would be developed at civilian colleges. The P. G. School itself should comment upon this proposal and it should be considered at the annual P. G. conference.

SECNAV Comment (13) Concur with the Chief of Naval Personnel.

Recommendations (14) and (16) All future academic buildings should have some considerably larger classrooms.

Maximum use should be made of newer teaching techniques such as closed circuit TV; to further increase size of classes in the present facilities with no increase in faculty.

CNP Comment (14) and (16) Provision can be made in the final plans and specifications for the first increment of construction of new academic facilities, for larger classrooms as recommended. Should further study prove larger classrooms essential, plans will be so modified. Concur that maximum use of newer teaching methods should be made.

SECNAV Comment (14) and (16) Concur with the Chief of Naval Personnel.

Recommendation (15) Modifications to present buildings should provide for larger classrooms wherever feasible.

CNP Comment (15) A thorough study and an MCON item will be required where extensive modifications of existing buildings are necessary to provide larger classrooms.

SECNAV Comment (15) Concur with the Chief of Naval Personnel.

Recommendation (17) Take appropriate steps to insure that each officer spends the minimum time at the Naval Postgraduate School commensurate with the overall needs of the Navy for postgraduate education.

CNP Comment (17) Concur. Implementation of recommendations 6, 7, 11, and 18 should aid in attaining this objective.

SECNAV Comment (17) Concur with the Chief of Naval Personnel.

Recommendation (18) The Chief of Naval Personnel should require the School to propose a variety of non-degree programs to be available to officers at all stages of their careers.

CNP Comment (18) Concur. This recommendation should be discussed at the next Postgraduate Conference. Its implementation is directly related to valid requirements.

SECNAV Comment (18) Concur with the Chief of Naval Personnel.

Recommendation (19) Review the plan for input of officers to the Naval Postgraduate School and civilian universities and revise it so that they are assigned at the earliest feasible point in their careers. A few highly selected officers should be assigned upon graduation for no longer than approximately nine months work leading to MS degrees. Other officers should be assigned after

Enclosure (1)

3 to 5 years (maximum) following graduation depending on code designation and service need, but with emphasis on earliest feasible assignment to postgraduate studies.

CNP Comment (19) This recommendation is presently being implemented in a large measure by the Burke and special Ph.D. programs. It will be further strengthened by the new NROTC graduate program. This recommendation should not operate to deny p. g. education to those officers who cannot be assigned to the p. g. school during their first tour of shore duty. Career and manning level implications must always be considered in the implementation of this recommendation.

SECNAV Comment (19) Concur with the Chief of Naval Personnel.

Recommendation (20) Continue to require a MS thesis, except for unusual circumstances.

CNP Comment (20) Concur.

SECNAV Comment (20) Concur with the Chief of Naval Personnel.

Recommendation (21) and (22) Reverse the past trend of sending progressively fewer students to civilian universities.

Send some students (about 25%) from each technical curricula to civilian universities.

CNP Comment (21) and (22) Concur in principle. At the present time about 21% of students in technical p.g. curricula are assigned to civilian universities. Our planning, based on the Cook Board report, provides for 30% of the technical p.g. students to be in civilian universities, in F.Y. 1969. It may be necessary to make slight modifications to existing plans if 25% of each discipline is to be enrolled in civilian institutions.

SECNAV Comment (21) and (22) Concur with the Chief of Naval Personnel.

Recommendation (23) The Navy obtain the appropriations necessary for the above listed military construction items at the earliest possible date.

CNP Comment (23) Efforts are being made to get approval of funds required for new academic facilities.

SECNAV Comment (23) Concur with the Chief of Naval Personnel.

Enclosure (1)

Recommendation (24) Urgent consideration should be given to problems of funding current and future maintenance of ground and buildings.

CNP Comment (24) The Chief, Bureau of Yards and Docks will be informed of this recommendation.

SECNAV Comment (24) Concur with the Chief of Naval Personnel.

Recommendation (25) The Comptroller operations be reviewed about one year from now to check on status, progress, and possible problem areas.

CNP Comment (25) Concur.

SECNAV Comment (25) Concur with the Chief of Naval Personnel.

Recommendation (26) Continue to foster an increase in the quality and quantity of research conducted at the U. S. Naval Postgraduate School.

CNP Comment (26) Concur in principle. This recommendation will be implemented.

SECNAV Comment (26) Concur with the Chief of Naval Personnel.

Recommendation (27) The Navy should establish a Survey Board on Post Commissioning Education to function generally similar to the Naval Academy's Board of Visitors. It should meet approximately annually to review the entire Navy program. Three-year appointments would be appropriate, with rotating membership. Appointments could be generally limited to Senators and Representatives, academic officials of stature, distinguished business leaders, and retired naval officers.

CNP Comment (27) Concur that such a board be established. Biennial reviews of the entire Navy program will be more suitable than yearly reviews.

SECNAV Comment (27) Concur. The Chief of Naval Personnel is requested to originate correspondence to the Secretary of Defense requesting the formal establishment of this Advisory Board.

Recommendation (28) Establish a Secretary of the Navy Policy Board on Post Commissioning Education. Membership should generally be confined to the Secretariat, the Chief of Naval Personnel and other senior active duty Flag Officers.

CNP Comment (28) Do not concur. The functions visualized for this board are presently being performed by a variety of methods. Currently, there is no demonstrated need for a formal board to perform any or all of these functions.

SECNAV Comment (28) Concur that the formal establishment of such a Policy Board is not required. The recommended membership already review and establish the policy for the Postgraduate School.