TWO PAPERS ON THE UNITED STATES NAVAL ACADEMY

ACADEMIC PROGRAM

Immediately below is a Preface to a paper written in 1985 that addresses the U. S. Naval Academy's implementation of its majors program. That paper, which follows the Preface, is the first of what is expected to be two papers on the USNA academic program covering the past fifty-plus years. The Preface contains an introductory statement and a two-part discussion of the paper that covers the years 1958-1985.

Roger D. Little, Professor Emeritus of Economics

W*e don't want intell*igent *men at Annapolis: we want men we can make naval officers out of.*

*Admiral J. Paul Stern, 1891 (*Quoted in *The Return of Philo T. McGiffen*

by David Poyer. Bluejacket Books, 1997).

A 2018 PREFACE TO THE 1985 PAPER

Introductory Statements

For almost all the years between 1930 and 1953 and for nearly half the years between 1917 and 1953 the United States was suffering through the Great Depression or fighting major wars. With its top talent preoccupied with their primary mission and with financial resources constrained or deployed elsewhere, by the 1950s the Navy had let the U.S. Naval Academy fall into a deep morass. Somewhat later, the social unrest caused by drafting young men into the Vietnam War during the last half the 1960s--"Hell No, I Won't Go"-- clearly exacerbated the Academy's recruiting problems. So, as the Academy began its revolutionary foray into an academic majors program and its implementation, the bleakest of pictures during the 1950s and much of the 1960s would reveal the Academy staffed by officers who were not valued in the 'real' Navy (fulfilling the premise that those who can do

and those who can't teach), dispirited military and civilian professors who frequently were unqualified but nevertheless chaffed at having little opportunity to influence the Academy's academic direction (fulfilling the admonition to those who powered the Galleys of old: Face to the rear and row). Moreover, some midshipmen who apparently reflected the disposition of their officers and professors were at times protected from failure by a lockstep curriculum, team grading, quotas on low grades, and reexamination in failed courses without repeating the class. While the Brigade certainly had midshipmen of considerable academic potential, it also was thought to include many who would become excellent officers but were not capable of handling advanced courses or theoretical material—perhaps a contradiction in itself, especially given that twenty years hence USNA was expected to graduate excellent officers of whom 80 percent (at times) were expected to have completed technical majors. Although the problems of the 50s and 60s were recognized by the Navy, various accrediting agencies, and numerous media outlets, correcting the Academy's course could not be accomplished quickly given the embedded culture. Further, perhaps reflecting the financial constraints imposed by the wars and the Depression, the physical plant, including laboratories and especially the library, was described by various oversight groups as "marginally adequate," "inadequate," or "deplorable" (take your pick). These problems festered even as the Department of the Navy and outside experts offered recommendations that would require the Academy to graduate officers who understood the era's new technologies and held a broad, world-encompassing view deemed necessary in the post-WW II period.

Some of the cultural impediments to the academic revolution that was about to occur are condensed from pages 35-38 of the paper below. Even though they may have been intended to be tongue-in-cheek, in reality they were only partially so: (1) If everyone did not

take the same courses, the ‘unity of suffering’ and a meaningful order of merit would be destroyed; (2) Elective courses would make it impossible to require daily grading and midshipmen would not study without those regular quizzes to motivate them; (3) Because numerous officer faculty were not qualified to teach upper-level courses, replacing them with more qualified civilian faculty would decrease military faculty presence in the classroom thereby causing a deterioration of the atmosphere that should pervade a military academy; (4) Some midshipmen would be forced to choose between studies and sports and choosing the former would decrease physical fitness and cost wins in Army-Navy football; (5) If midshipmen from different year groups were allowed to take the same classes, the hallowed tradition of marching to class would disappear and there would be a breakdown in discipline. Note that all these issues addressed maintaining the status-quo with barely a mention of the educational costs incurred.

The 1958-1985 paper below is preceded by a two-part introduction that expands on this preface and offers an overview of numerous events surrounding the Academy’s academic revolution. The paper itself, in retrospect, was narrowly focused, primarily addressing, as the title says, “Faculty Ferment.” It focused on the significant internal problems facing the Academy’s administration together with the faculty’s perceptions of the appropriateness of the changes required by the introduction of electives, minors and, finally, majors. What the paper does not do, and what Part I and especially Part II below attempt to do, is address external forces, technical and social change among numerous others, that necessitated institutional change and how that change evolved based on these external events. Thus, the two-part discussion offers the reader a historical perspective surrounding the paper’s contemporaneous viewpoint, a viewpoint that the paper did not, and perhaps could not, effectively have offered at the time. An appreciation of how external and internal

forces were integrated in order to revolutionize and strengthen the Naval Academy's curriculum provides the foundation for a second paper now in progress on advances in the four-plus decades since the implementation of the majors program.

PART I: BACKGROUND TO THE ACADEMY'S ACADEMIC REVOLUTION

This is a 2018 perspective on the 1985 paper, which follows page 19 below, about the USNA academic program that is titled:

Curriculum and Faculty Ferment at the Naval Academy: 1958-1985:
The Major is Still Navy

By
John A. Fitzgerald
and
Roger D. Little

The first of this two-part discussion attempts to expand on the contextual circumstances of the "faculty ferment" as identified in the title above. Its purpose is to expand on the concerns with the Academy's curriculum in the late 1950s and 1960s as espoused by accrediting agencies, the Department of the Navy, the Naval Academy administration, and the faculty. Included as well are thoughts about how change occurs in an academic institution, thoughts that will be expanded upon in a second paper that is now underway. Part II provides some internal contextual background and addresses numerous external forces leading up to the Academy's transition to a more formal college experience, one that introduced and required academic majors. Certainly some of what is discussed in the second part must have been apparent at the time the paper

was being written but it seems that neither Professor Fitzgerald (my co-author on the first paper) nor I completely understood the many forces at work. They can now be more fully identified, understood and appreciated from a historical perspective, a perspective that connects them with aspects of societal change to reveal a more complete view of the circumstances surrounding the Academy's academic transition.

First, I must note that neither Professor Fitzgerald nor I recall much about the reasons the paper was written-- who initiated it, or even who the audience was expected to be. The study was never formally published but existed solely on a disk and in a few hard copies, clearly marked DRAFT, for three decades. The disk copy was recently brought back to life (with slight modifications in format) for the purpose of making the paper available to a wider audience and as a prelude to the recent and ongoing effort to analyze the evolution of the Academy's curriculum up to the mid-2010s. The 'edition' of the earlier paper (below) is faithful to the original but has been corrected to eliminate (I hope) misspellings and to make a few sentences more clear and/or more readable. I was careful to preserve the 'flavor' of the original so that meaning and nuance were not changed in any way from what was written in the mid-1980s. I purposefully left the words "DRAFT' at the top. Quite simply, the paper now reads better in a few places.

In its original form, the paper was known to a small group of researchers and occasionally was requested by USNA administrators who wanted to appreciate 'where we had been' before launching new curricular initiatives. It is now revived so others can gain a better understanding of the foundation on which the present academic program was built. Thus it is that Academic Dean and Provost Andrew T. Phillips found the paper helpful when he assumed the post in 2009 and he encouraged resurrecting it so as to inform new faculty and administrators, some who had recently served in the Fleet and many who are transitory, of our academic history as new

initiatives are proposed, debated, and implemented.

The Naval Academy's transition to a more academic experience, a program sometimes called evolutionary, sometimes revolutionary, began in earnest during the late 1950s and early 1960s based largely on the recommendations of the Folsom Commission Report. This Report (Folsom was President of Rensselaer Polytechnic Institute at the time) that laid the foundation that transformed what one Superintendent described as a 'pretty good junior college' into an institution of national academic prominence as measured by most collegiate rankings. On paper, the Academy's program had been about 75% academic and 25% vocational. A reasonable argument, however, can be made that in the 1950s and into the late 1960s, even though the required credit hours were in excess of 140, the academic portion, about 110 hours, did not come close to a true college education because of a descriptive rather than an analytical approach to course content and a dearth of upper-level courses. Such a curriculum had met the 'needs of the Navy' up until mid-century and many senior officers at the time apparently would still have agreed with the quote of Admiral Stern on the first page before the start of the Preface. A real college education was missing because even the more academic courses tended toward broad surveys as opposed to 300-400 level courses wherein students could pursue a discipline in some depth. This approach to officer education, while it may have matched the abilities of numerous midshipmen, the credentials of many of the faculty, and been appropriate earlier in the century, now came into serious question for reasons detailed below. Even if the lower tail of the student academic ability distribution was somewhat larger than one might expect and the faculty were not entirely well-credentialed, USNA clearly graduated many men of significant accomplishment, men who literally won world wars after leaving Annapolis, the vocational nature of the curriculum notwithstanding. Given the exploits of the Academy's war heroes, it may seem controversial to argue that the academic ability level of

some midshipmen was relatively low but it is not, of course, necessarily in conflict. The argument is clearly in line with the perception of one superintendent who had graduated before the majors program existed, had a great deal of experience at USNA, was instrumental in many aspects of the Academy's academic transition, and once told me that "Many of my classmates were Bozos." Thus, an academic program suitable to that of 'a good junior college' may have been appropriate for many at that time and the successes of numerous Academy's graduates may have been more due to their broad range of admirable personal characteristics than the education (narrowly defined) that the Academy offered.

In addition to the above, courses were 'lock-step' and many were graded by committee. Rumors often circulated that if anyone taking certain courses exceeded the score of well-known but academically marginal athletes, a grade of C, satisfactory, was guaranteed. Unfortunately, such a grading system set a floor for everyone in the course and provided obvious disincentives for maximum effort, especially because everyone was guaranteed a job at graduation. In any event, the advent of additional upper-level courses as recommended by the Folsom Report recognized that the Academy's academics had not kept pace with collegiate programs nationally and needed to change, and change dramatically. Compounding these internal problems were several national and international developments, detailed below, that required the Academy rethink its academic offerings and degree requirements.

A broader question raised by the Naval Academy's subsequent academic evolution, and one to be addressed in a second paper, is this: What were the driving forces behind the Academy's initiatives, and why and how did they emanate? That is, what changes were responsible for propelling the Academy toward the top of national collegiate rankings when only two or three decades earlier it had been described as a pretty good junior

college? While there were broad societal influences at work as explained in Part II, immediate candidates for initiating these changes include forces external to the Naval Academy such as the Department of the Navy and various accrediting agencies as well as groups internal to the Academy such as the administration, the faculty, the Office of Admissions and, perhaps, even athletics to some extent.

Attempting to sort out the roles of these entities is necessary if one is to understand the Academy's academic trajectory over the last few decades. The perspective that follows suggests a frame of reference to assist in understanding this trajectory based on evidence from the Naval Academy's experience. We hope to shed light on this trajectory by considering the following question: How is the content of college and university academic programs shaped by stake-holders with varying needs, requirements, and expectations? For example, one might imagine that the academic programs of private schools are significantly influenced by their faculties with little 'outside' guidance. State universities, on the other hand, are influenced by legislatures seeking to meet the educational needs of their states; think of A&M in the titles of some institutions. Perhaps the military academies come closer to the second model. But, if the Naval Academy is largely responding to the 'needs of the Navy,' it would seem that the Academy's academic rankings, especially those made exclusively by academics, would not have reached the lofty levels usually seen over the last couple decades. Thus this introduction, in broad terms, also addresses another overarching goal: A framework for integrating the earlier paper (below) with a new effort covering the last 30 years that is now underway as this is being written in 2018. Below, Part II includes a discussion of some internal issues that were not covered in the 1985 paper, a paper that primarily focused on "faculty ferment" during the early years of the Academy's academic evolution. The discussion offers additional insights into the earlier paper and provides a foundation for addressing

broader Navy and national developments to which the Academy was responding. These broader issues are discussed below in order to provide a more comprehensive background to the circumstances surrounding the Academy's academic revolution, subsequent evolution, and details on how the old paper and the forthcoming one are expected to be integrated.

PART II: THE ENVIRONMENT DURING THE ACADEMIC REVOLUTION

Because the 1985 paper was narrowly focused, this part of the introduction provides a perspective on the internal and external environments of the times, environments that are probably better understood in retrospect than when the paper was being written. When the second paper is completed we (additional authors are Emeritus Professor Larry V. Thompson, History Department, and Mr. Don Nelson, former member of the History Department and former USNA Assistant Director of Admissions) the two papers will have addressed the evolution of the Naval Academy curriculum over approximately the last half century. The first paper covers the period from 1958 through 1985 and the second will cover the period from 1985 to the end of Academic Year 2016. Together they will give the reader more than a history of the curriculum by including the contextual circumstances, internal and external, that go beyond the 'faculty ferment' that typifies the first paper. The first issue concerns how and why academic change occurs in an institution whose sole purpose is to graduate officers for the Navy and Marine Corps. The second, narrower, issue addresses midshipman quality, faculty credentials, and decisions on appropriate majors for the new curriculum that would allow the Academy to respond to the needs of the Navy. The third area, external issues, requires an appreciation of the impacts of technological, legal, social, and demographic changes. The discussion now turns briefly to the first of the above issues by noting questions that

the second paper will attempt to answer. Next is a discussion of some internal initiatives that the first paper did not address completely. This is followed by a consideration of external forces of change just noted. Last is a discussion addressing how some of these changes have impacted the present environment of the Academy.

Thus, the first of the issues above considers how and why the Academy's academic revolution/evolution from "pretty good junior college" to its lofty national rankings could come about in less than twenty years. This issue seems especially interesting if one accepts that a large hierarchical bureaucracy 'owns' the Academy. So, at the extremes, might an academic institution reform more quickly when 'orders' from above (and perhaps significant financial leverage) can dictate new directions or, as would seem likely in most of academia, change is an evolutionary process that is internally (and slowly) generated? In either case, what role does the faculty play in forging change? Do they follow orders or do they propose and initiate? And, if it is a combination of things, how are the pieces put together? These are questions the follow-on paper will address.

Turning to the narrower issues, those focused on the Naval Academy, the first question if this: What contemporaneous forces, internal and external, were at work in the late 1950s and 1960s that helped initiate and foster the Academy's ascendency as an academic institution? Clearly the primary answer is that concerns internal to the Navy and outside pressure from accrediting agencies led to the formation of a group chaired by the President of Rensselaer Polytechnic Institute, Richard G. Folsom, that produced *The Curriculum Review Board Report* (USNA, 1959). To a large degree that committee and its report were directly responsible for initiating the Academy's academic revolution. A follow-on standing committee assisted in the subsequent evolution by recommending ways to implement the proposed changes and to address concerns of the times that were peripheral to strict academics but were,

nevertheless, necessary--racial and ethnic diversity, Title IX, and the integration of women into the Brigade. In any case, the radical change in the academic program that evolved clearly is a major reason the Naval Academy is now ranked among the best colleges in the country according to various surveys, including *U. S. News and World Report*, among numerous others.

In order to understand why academic change was necessary at the Academy one must resolve the dilemma of how "a good junior college," had produced Navy and Marine Corps officers who were responsible for winning two world wars and were, unquestionably, among the best and most creative military men on the globe. Moreover, many graduates became nationally prominent both in government and business following their military service. Part of the answer must go back in a general sense to the last part of the title of the first paper: "The Major is Still Navy." That is, the Academy was still to a fairly large extent a vocational school before 1970 and a training emphasis may well have been appropriate up to mid-century. But in another sense, "Navy" also captures the military atmosphere, including an emphasis of physical fitness as well as the embedded tenets of discipline, bonding, and leadership. Because it fostered and inculcated these qualities, the Academy was able to attract exceptional young men whose personal characteristics and professional skills (as, perhaps, distinct from their academic experiences and accomplishments) combined with their military values to form the backbone of the world's greatest Navy. A significant focus on vocational skills well may have been appropriate for that time, but times had changed. Now the vocational and training components of the Academy's mission would add a third and perhaps more significant element--an education of national stature.

Clearly, prior to the majors program, the Academy was graduating individuals, including future Navy admirals and Marine Corps generals, whose illustrative careers fill

military history books and others who made significant marks on society in varying capacities. The argument posed here is that these careers likely were due more to the graduates' personal characteristics than to the quality of their Academy education, narrowly defined. And, the vocational nature of the academic program may have suited many graduates and been in concert with Admiral Stern's quote on page one. Moreover, a follow-on argument, perhaps cynical and somewhat in line with Admiral Stern's quote, existed: A vocational program helped with retention because a more academic experience would open better civilian opportunities to graduates. In any case, the notion that the Navy did not need "intelligent men" was compounded in my mind when, as noted earlier, a retired Admiral told of the many "Bozos" in his class. Thus, a bimodal distribution of academic abilities, perhaps with a rather large lower tail, may have typified the Academy and caused/forced intentionally or unintentionally a focus on vocational courses that gave the Academy a junior college feel to those who believed it necessary to ratchet up the academic program during the last third of the twentieth century. Further, while deficiencies in the academic program had been recognized and discussed after World War II, aborted fits and starts at reform faced arguments, seemly simplistic in today's environment, that fairness and the building of *esprit de corps* (sometimes called "mutual suffering") required common academic requirements that were necessary in order to establish a proper order of merit at graduation. Additionally, as noted above, well-educated officers might be hard to retain. Moreover, a culture had developed, as discussed briefly above, that was anti-academic and would require initiatives and responses on several levels, both internal and external, to turn around.

The advent of new technologies and a new recruiting environment, as discussed below, clearly played roles in fostering academic changes. The need for a curriculum with greater technological depth was brought to the fore by jet propulsion, Admiral

Rickover's nuclear power initiatives, and Russia's successes in space, among others. Moreover, the Vietnam War, together with the ensuing social unrest among the demographic segment targeted by the military, forced an end to the draft. The draft, which likely had motivated some to apply to the military academies, was replaced by the All- Volunteer Force. With the demise of the draft, our military academies in many instances were attractive to the more academically able students they now sought to attract only if a true college education was part of the experience. Surely, the Navy's ROTC program, which had expanded greatly during World War II and had been established at mostly prestigious institutions, provided the Naval Academy with competition for academically talented young men seeking a Navy or Marine Corps commission. Thus, a vocational/training emphasis no longer was sufficient to attract academic talent; a real college education was now required.

While it is certainly true that some graduates from 1950s and 60s clearly felt that the old approach provided an excellent, broad-based education even though it was "a mile wide and an inch deep," others recognized the downside to the lack of depth. Thus, it may not be surprising that Rear Admiral William T. Miller, a Distinguished Graduate, who was Academic Dean and Provost from 1997-2009 and had served as Chief of Naval Research, was required to complete a year of remedial coursework before he was admitted to the Ph.D. program in electrical engineering at Stanford University. In contrast, numerous graduates today start graduate work while still at the Academy and others go immediately into the best graduate programs in the world.

Hence, following World War II and for the next 25 years, with rapidly changing technologies and rapid changes in the 'needs of the Navy,' the new challenges faced by the Navy made it increasingly clear that if the Academy was to attract 'the best and the brightest' to meet these challenges, academic changes were necessary. The Vietnam War,

the AVF, NROTC, Title IX, demographics, school integration and expectations of diversity in the officer corps all fostered change in the landscape for recruiting. Meeting the challenge of diversity was difficult first because of the cultural impediment of the Naval Academy being an almost all-white institution and second because more colleges began offering scholarships to attract quality minorities. Part of the Academy's response, perhaps surprisingly, involved athletics. While the Academy had clearly appreciated the value of nationally-competitive athletic teams for recruiting purposes, it became apparent that a quality education together with the opportunity to compete at the Division I level of competition could be an advantage in recruiting minority athletes, both men and, after 1976, women. Moreover, once at the Academy, their teams offered exceptional bonding and mentoring opportunities that helped the growing number of minorities and women assimilate and overcome the well-understood rigors of the Academy. Such support groups, together with enhanced summer school opportunities and the establishment of the Academic Center (both available to all midshipmen of course) led to better continuation rates and, hence, higher graduation rates across the board, which served to augment the Academy's image.

Recruiting and retaining academically qualified students from diverse backgrounds was required to meet the increasingly rigorous academic program, a program that was necessary to match the enhanced technology needs of the Navy while at the same time meeting the new era's statuary requirements for diversity. Moreover, as discussed below, graduating officers with an adequate understanding of newly emerging technology was not sufficient. As the United States emerged as the world's only super-power, graduates also needed a deeper appreciation of the international areas of conflict around them. Thus, curricular change was necessary not only in science and engineering but also in the humanities and social sciences. That is, a solid academic majors program across numerous disciplines, as opposed to a vocational emphasis, even one of national caliber, had to be

available in order to attract the quality students an increasingly professional, technical, and diverse Navy needed.

While the academic curriculum of the Naval Academy was being upgraded and the vocational nature of the program was diminishing, it may appear that the issue of balancing these two course areas at the Academy is only somewhat different (but of a longer time-span) than that of major companies that find it advisable to send new college graduates through extensive training/pseudo-academic courses following their hiring in order to prepare them for productive employment. The process is, however, somewhat different. While it is true that the Navy or Marine Corps hire all the Academy's graduates, those graduates have been educated, in the narrow definition of the word, by a diverse set of civilian and military instructors who have exposed them to a rigorous set of core courses, viable academic majors, and an overlay of vocational courses that constitute an experience that is more closely focused on their subsequent job than is true of a normal college. [A quick aside: There is a tee-shirt often worn by midshipmen over the last few years that is inscribed with: “N*ot College,” where the * signifies a win over Army.] Yet, even if it is not a normal college, the Academy experience, if the national rankings of colleges and universities are on target, meets the criteria for academic preeminence. Understanding how all this is bound together is a goal of the second paper. If one is to believe both the national rankings and the senior officers who hold that the officer corps is the best it’s ever been, a remarkable revolution and subsequent evolution has occurred in melding the academic and vocational experiences the Academy now offers. However, as suggested in the first sentence of this paragraph, it has meant pushing some vocational aspects of an officer’s training to a time after graduation from USNA, something like what is generally expected for those commissioned from ROTC and other sources. Thus, following graduation, new officers, not surprisingly, are

frequently assigned to a variety of warfare area specialty schools that continue their education and training. For example, there is The Basic School for Marines, flight school, and nuclear power school, but also supply school and at one time surface warfare school.

Aside from the external forces at work during the academic revolution, to this point two primarily internal arguments also have been advanced to provide background for the machinations involved in the Academy's implementation of its majors program, which the paper below provides in detail. One argument is that, in very general terms, a strong vocational and a relatively weak educational program fit the Navy's needs through World War II but those needs had changed and so the Naval Academy had to change as well. A second argument is that the academic ability distribution of midshipmen at the time may have been characterized by a relatively fat lower tail but, in any case, quality needs and the recruiting environment had changed. Moreover, there appears to be a third issue, only briefly mentioned so far. Many of the faculty who had been assigned to the Academy during World War II and had stayed on as civilians did not have the academic credentials necessary to offer upper-level courses. Thus, one part of the Academy's initiatives in the mid-1960s was a concerted effort to hire Ph.D.-credentialed civilians. This was soon followed by the hiring of the first civilian Academic Dean, A. Bernard Drought, who had been a naval officer during World War II, held a Ph.D., and had been a dean of engineering at Marquette University. He recognized the need for, and pursued the goal of, enhancing faculty credentials in order to offer more upper-level courses and ultimately a range of academic majors. By resolving this issue, the Academy was in a position to meet the educational requirements for the new technologies and the broader view of the world that emerged after World War II.

Now, more or less simultaneously, the need for academically inclined students

led to the appreciation of the fact that a true college education was necessary both to meet the war-fighting requirements of the Fleet and to compete for quality students, especially those who would be commissioned into highly technical specialties like nuclear power. Epitomizing the desire to attract the academically inclined, although it did not happen until later, was the decision to offer a pre-med track within the chemistry major, even if few completed it. Thus, there evolved, based on the needs of the Navy, an oft-stated requirement that the Naval Academy graduate a large percentage of officers with a technical major. But, even though the requirement for technical majors was the major priority, there was still an appreciation for the notion that graduates needed a wider world view. That goal was approached by accepting a few foreign midshipmen into each class, by offering semesters abroad at foreign naval academies, and by enhanced summer travel-study opportunities.

The desire and need to attract academically qualified students and the birth of the majors program raised the issue of what academic departments would be appropriate, what majors to offer, and hence the disciplinary distribution of the faculty. One central issue was quietly and appropriately resolved: Although there was to be a focus on science and engineering, the Academy also needed quality humanities and social science majors for two overlapping reasons. Because the core courses would include, as expected, English, History, Political Science, and sometimes Economics, the administration recognized that attracting quality professors in these disciplines necessitated that these faculty have the opportunity to offer their upper-level specialties in addition to teaching introductory courses that would be engaging to midshipmen with technical interests. Hence, majors in these disciplines were required. Secondly, because class hours would be well over the typical fifteen per semester, quality instruction from quality faculty in all core courses was necessary. Although the non-technical majors were often derisively called “Bull” majors, a peculiar thing happened. Because the federal government has pay caps across the bureaucracy, and

because humanities and social science professors generally command lower salaries in academia, the Academy's pay scales were attractive to graduates of the country's better graduate schools in these areas but less attractive to those with degrees in science and engineering. Since the country (apparently) was producing too few Ph.D. graduates in science and engineering, hiring in these areas was sometimes difficult and the quality of professors in the humanities and social sciences frequently appeared to be better by comparison. Strengths in these areas over time (together with, perhaps, removing the word from *Reef Points*) seems to have blunted the divisive use of the term and caused the notion of "Bull" majors to dissipate, thus putting all majors on a relatively even footing as viewed by most midshipmen.

Yet, the Navy clearly expected the Academy to graduate large numbers of technical majors even as the reputations of the non-technical majors were improving. Through admissions criteria and efforts to cap humanities and social science majors, USNA has attempted to meet the distribution of majors the Navy has held it needed to fill Fleet requirements. Expectations have varied from an eighty percent/twenty percent technical/non-technical to a split that is closer to two-thirds and one-third. And, recently, the goal has been interpreted as applying to those choosing the Navy but not the Marine Corps. In any case, there exists a technical flavor to the course offerings and the B. S. degree is awarded to all midshipmen, including humanities and social science majors.

It may be worth a short, personal, side-note at this point to consider how well the Academy has done in meeting the quality needs of the Navy and Marine Corps. That is, what is the general impression of USNA midshipmen over the period from 1970, when I arrived at the Academy and the majors program was introduced, to the present? I think it is fair to say the faculty has viewed them in general as bright, driven, personable, and patriotic, among other positive characteristics. Most are capable of keeping several

'balls in the air' at the same time. While some can do it all, some focus on academics, some on leadership opportunities, and some on athletics. Each year about one in six of the first class midshipmen will have significant leadership responsibilities (defined as being a three-striper or above) and some four in ten will have participated in Division I athletics or other athletic endeavors involving inter-collegiate or Brigade competitions that demand similar amounts of time (for example, rugby, ice hockey, and boxing). Thus it is clear that roughly one-half of a graduating class will have had significant interests, duties, or responsibilities that compete with their academic requirements. Aside from the other service academies it seems unlikely that other undergraduate schools could make this claim. With their job after graduation guaranteed, a singular focus on academics is not necessary and is not necessarily in keeping with the Academy's three-pronged mission: mental, moral, and physical development. A fourth expectation, unstated but overarching, is the development of leadership skills, skills gained in formal leadership positions, athletics, or other extra-curricular endeavors. An emphasis on one of the four, not to exclusion of the others, may be sufficient.

The 1985 paper follows. Having recently reread it, I keep coming back to what I feel are the key words in the title, "Faculty Ferment." The words capture pretty well what the reader will learn about the Naval Academy's academic revolution that started in earnest in the mid-1960s. Because that paper focused on the 'Faculty Ferment,' this introduction, I hope, has provided a broader background for understanding the Academy's educational evolution from the mid-1950s to the mid-1980s so that one can better appreciate the contextual circumstances under which the changes occurred, including perspectives on internal and external dynamics that overlaid what were primarily faculty and academic viewpoints in the 1985 paper.

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CURRICULUM AND FACULTY FERMENT AT THE NAVAL ACADEMY 1958-1985:

THE MAJOR IS STILL NAVY[*]

Professor John A. Fitzgerald

and

Professor Roger D. Little

[**Caveat added by Professor Little in 2017: This study existed in draft form from the late 1980s until 2017. Now a prelude has been added and included in order to explain its history in some detail (see above). It is important to note that the present "edition" has been edited in very minor ways but that nothing has been done that changes the meaning or implication of any sentence. Everything remains as the authors perceived the Academy at the end of 1985.*]

Introduction

By 1850, five years after its founding, the United States Naval Academy offered a four year academic program of scientific and engineering education that was virtually unmatched in this country. At this time the Naval Academy was a pioneer in programs which were unique in their conceptual and theoretical orientation. Thus it was able to attract such young scientists as Albert A. Michelson (USNA 1873), a naval officer, who performed his Nobel Prize winning experiments measuring the velocity of light while serving as an instructor in the Department of Physics and Chemistry from 1875-1879. I. R. Hallis, a graduate of the Class of 1878, established and became the first Dean of the Engineering School at Harvard. The Paris Exposition of 1879 certified the Naval Academy for "the Best System of Education in the United States." But with the establishment of state and private colleges in ever greater numbers after the turn of the century, the Naval Academy began to lose its singularity. It no longer stood alone in offering a complete scientific and technical program and, by adhering to its more general approach to education, the Academy began to fall behind. In part, the failure to keep pace with civilian academic institutions was a result of the belief that the development of a well-rounded naval officer was incompatible with a curriculum offering highly specialized courses--the path then being taken by civilian

colleges and universities. Despite ongoing curriculum modification, the upgrading of entrance requirements, and an occasional academic coup, e.g., six Rhodes Scholars in 1930, the Academy was faced with a profound dilemma. That dilemma, one of the primary issues addressed in this paper and one that numerous studies identified again and again, was simply this: insufficient time to meet the objectives of offering a general education (and military professional education and training as well) while simultaneously incorporating the explosion of technological and scientific knowledge in a four year undergraduate program. While this was all the more true later, the dilemma was recognized in the early 1930's when the Board of Visitors, a committee appointed by the President of the United States to oversee the institution, observed that the Academy was "trying to do too much with too little."[1] Furthermore, the Academy was perceived as offering a hands-on, "vocational" training program which did not stress scientific principles and fundamental concepts. Two of a number of examples might be the Basic Mechanisms course or the course in Internal Combustion Engines, both required courses for all midshipmen in the class of 1956.[2] And the program was "lock-

[1]RADM C. C. Kirkpatrick, "A Century of Academic Achievement," Shipmate 26 (Sep-Oct 1963), p.9. This is an excellent short overview of the early academic history of the Academy and the problems it confronted in the postwar period.

[2]In addition to these two courses other examples might include Naval Boilers, Naval Machinery, Naval Construction

step," meaning that midshipmen took a common curriculum, regardless of prior higher education or individual academic ability. Lock-step was characterized by daily recitation, daily grading, and, as mentioned above, a descriptive approach to the material. "Battalion muster, march off, recite and return" captures the spirit of this approach from a midshipman's perspective. The institution's commitment to the "hands-on", vocational philosophy is clearly illustrated by a 1938 memorandum on the subject of hiring additional civilian engineering faculty:

> ...we can get young engineers who have done things, [we] can take them away from such as General Electric and Allis Chalmers. These are more fitted for our purposes than are pedagogues or philosophers.[3]

Whether this educational philosophy was good or bad, i.e., a superior or inferior method for educating and training career naval officers, was a subject of much debate during the three decades prior to 1960. The majority sentiment was in favor of "adequacy", that is, in favor of a common curriculum and hostile to the notion of introducing "advanced" courses. Advanced courses had been suggested as early as 1946 by the Department of Mechanical

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and Ship Stability. All five were to be dropped under Superintendent Melson's curriculum revision in 1959-1960.

[3]Memorandum to the Superintendent from the chairman of the 1938 Curriculum Review Committee.

Engineering, but the idea "died a natural death."[4] This "death" reflected the continuing belief that the education of a well-rounded naval officer and a curriculum characterized, even in part, by specialized courses were antithetical concepts.[5]

The most significant, systematic study of the desirability of introducing "advanced courses" or "elective courses" at the Naval Academy was undertaken in 1953. The study found no support for the idea among the various academic departments, with the exception of advanced language courses in the Department of Foreign Languages. The Commandant of Midshipmen, Captain C. A. Buchanan, was most articulate in expressing the negative consequences of such a program from both a practical and professional perspective. In his eyes, four potentially adverse consequences might reasonably result from the introduction of advanced courses. First, the fact that all midshipmen would not take an identical curriculum would create serious difficulties in establishing an order of merit. Second, the availability of such courses would attract the wrong type of young man to the Academy--"candidates who were less

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[4]Professor W. W. Jeffries, "Some Notes on the Development of the Validation, Electives and Majors Program at the Naval Academy." Study prepared for the Superintendent, March 30, 1963.

[5]"Naval Academy Academic Revolution," The Baltimore Sun, January 19, 1964.

motivated for a service career and more desirous of education for personal gain." Third, graduates who had the advantage of advanced, or elective, courses would have a greater incentive to resign at the earliest opportunity after graduation. Moreover, offering advanced courses would "create a drain on the services of the more capable professors who might well be employed in teaching less apt students." Finally, midshipmen not taking electives might perceive themselves as less competitive vis-a-vis their "more qualified" classmates. "Might not such a feeling of competition result in added numbers of midshipmen who were potentially excellent naval officers applying for duty in the Air Force where the competition in relation to their life's job promised not to be so keen?"[6]

Thus, the 1953 curriculum study concluded:

> The prescribed curriculum for all midshipmen has been endorsed during most of the Naval Academy's existence even though it has been subjected to periodic review and revision. Admiral W.W. Smith reflected this view in his very comprehensive curriculum study in 1939: "Midshipmen are salaried students appointed for a definite purpose and sworn to support and defend the Constitution of the United States. The curriculum is designed to accomplish our objective, not to suit the desires of the individual or to fit him for employment in civilian life."[7]

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[6]Memorandum from the Commandant to the Chairman of the Committee to Study Advanced Courses. 26 February 1953.

[7]"Report of the Committee to Study Advanced Courses and Their Implications at the Naval Academy," May 22, 1953 pp. 1-

This attitude of resistance to change was expressed with perhaps greater force by the Commandant, Captain Buchanan, in his endorsement of the Committee Report:

> ..my thoughts on "Advanced Courses in general, or gradations in academic pursuit at the Naval Academy, can be summed up as follows: The standard curriculum for all, together with the standard routine and regulations, fits our concepts of a way of life at the Academy most capable of producing a loyal band of graduate fellow officers--loyal to the service and loyal to one another.[8]

The institutional and attitudinal factors militating against change were analyzed by then Senior Professor J.D. Yarbro. To a large extent they amplify the thoughts of Captain C.A. Buchanan above. These included, among others, the "natural conservatism of complex organizations."

Second, a general conviction throughout the naval profession that the single curriculum prescribed for all midshipmen had the positive benefit of producing "a common educational experience considered essential for molding a band of dedicated and thoroughly proficient naval officers." And third, distrust of advanced elective courses. These were perceived as a form of specialization that was better left to postgraduate school or specialized

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[8]Ibid. Despite this opposition "advanced courses" would be introduced three years later (AY 1956-1957).

training programs.[9] Two additional, but important, factors contributing to this reluctance to depart from a prescribed curriculum have also been identified. In the eyes of one naval officer, an individual who was deeply involved in curriculum revision under Superintendent Melson, there is a reluctance to recommend changes in areas where one has little experience and therefore feels unqualified to make detailed recommendations. Second, officers are more accustomed to handling professional problems, and this is more a matter of training than of education:

> Thus, their experience is antithetical to general education that teaches fundamentals and principles for which no immediate application can be seen. The advantages of this type of education are very difficult for a Naval officer to support in opposition to the more obvious merits of immediately valuable military instruction.[10]

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[9]Senior Professor J.D. Yarbro. USNA Curriculum Development. A report prepared at the request of the Superintendent, October, 1966, p.2. In addition to the three considerations mentioned above, Yarbro also singled out: (1)"Reluctance to alter radically a curriculum that had proven successful in terms of the achievements of thousands of naval officer graduates; (2) The unwieldiness and inertia of an Academic Board of 12 members...competing for program time and resources; (3) Too rapid rotation of senior officer administrators...which prevented sustained and cohesive efforts...to bring about adoption of promising new ideas, and; (4) Concern for absolute fairness in establishing class rankings [which resulted from all midshipmen taking an identical program.]"

[10]Lt. W.P. Hughes. Memorandum from the Special Secretary to the Academic Board to the Secretary of the Academic Board. 21 April 1958. This will be henceforth be referred

But adherence to the status-quo could not last. At least three factors, all growing out of World War II, were forcing the Academy in the direction of change. First, was the greatly increased size of the postwar fleet with its concomitant demand for officers with advanced technological training. Second was the recognition by many that "an increasingly large proportion of naval officers will be expected to continue their education in a variety of subjects at the postgraduate level".[11] The third was the expansion of the Navy Postgraduate School at Monterey and the complex of fleet training schools that had sprung up during the war to teach the more advanced techniques of naval warfare. Quite simply, the descriptive, hands-on approach did not provide the academic foundation to permit Academy graduates to easily make the transition to advanced Navy schools or to pursue advanced studies at civilian universities. And the Academy itself had become very much aware of the situation. The 1959 curriculum review, to be discussed in detail below, recommended that "emphasis in all engineering courses should be on analytical methods as

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to as the "Hughes Memo."

[11]Report of the Curriculum Review Board of the United States Naval Academy (1959), p. 1. This is commonly referred to as the Folsom Report after its chairman Richard G. Folsom, President of Rensselaer Polytechnic Institute. It will subsequently be referred to here as the "Folsom Report."

differentiated from the descriptive approach."[12] This recommendation stemmed from the conclusion that the typical Academy graduate characteristically found it necessary to devote at least one year to engineering and science courses at the undergraduate level before he was ready for graduate study. The leadership at the Naval Academy was not blind to the situation. Lieutenant Wayne Hughes, Flag Secretary and Aide to the Superintendent and Assistant Secretary to the Academic Board[13] observed:

> Innovations such as nuclear propulsion, missile systems, and electronic fire control require more extensive scientific background. The enlarged educational program for line officers, which augurs the sending of virtually every Academy graduate to a year or more of graduate school called for the completion of more prerequisite courses [i.e., courses stressing

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[12] Ibid. pp. 6-7.

[13] The governance of the Naval Academy is in the hands of a large number of committees and boards. Three of these which will often be referred to below are the Board of Visitors, the Academic Board, and the Academic Advisory Board. Their membership and purpose is set out in Part I, U.S. Naval Academy Regulations, which states in part: Board of Visitors--The Board of Visitors shall "provide the President of the United States with a direct evaluation of the Naval Academy's program and requirements." Academic Board--"The Academic Board shall prescribe policies concerning the criteria for admission and the course of instruction and shall act upon all cases of academic deficiency and insufficient aptitude...." Academic Advisory Board--"The Academic Advisory Board is established by the Secretary of the Navy to advise and assist the Superintendent concerning the education of midshipmen."

> theory and principles] at the Navy's undergraduate college.[14]

A final observation from the Folsom Report is worth noting:

"...no change in curriculum, no matter how impressive on paper, will significantly improve the education of the Naval Academy graduate unless a faculty of adequate qualifications and high morale, responsible for planning and administering the academic program, can be recruited and retained."[15] Finally, despite its shortcomings, at least as perceived by some, the curriculum as it existed in 1957-1958 consisted of an incredible 164 semester hours. Assuming that the average number of hours taken at a civilian school each semester was 15, the Academy man, in effect, was squeezing five years of education and training into four years. Yet he was not adequately prepared for graduate school! The 164 hours were distributed as follows:

- 50% in physical science, mathematics, and engineering
- 25% in languages, literature, history, economics and government
- 25% in ordnance and gunnery, seamanship and navigation, aviation, and physical education.

As Ward Just so kindly put it, (his reference was to West Point but was equally applicable to Annapolis): "...the Academy is relentlessly stuffing ten pounds of sugar into a five pound bag."[16]

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[14]Lt. Wayne Hughes, "New Directions in Naval Academy Education," United States Naval Institute Proceedings, 86. (May 1960), pp. 37-45.

[15]"Folsom Report." op. cit., p. 1. Here are the seeds of a second major theme we shall return to in subsequent pages.

[16]Ward Just, Military Men (New York: Avon Books, 1972),

In addition to the two semester academic program, each year there was a two month summer program consisting of professional naval activities such as at-sea training aboard navy ships. And, as mentioned above, it was a program common to all midshipmen. The only exceptions to "lock-step" were, first, choice of foreign language from among the six offered, and, second, the existence of "advanced courses", introduced in academic year (AY) 1956-1957, in a number of areas but limited to qualifying midshipmen. Although the introduction of such courses was, of course, a systematic attempt to up-grade the curriculum, they should not be confused with elective courses. These were simply the prescribed core courses with additional depth achieved by increasing the quantity and quality of material covered. And they were something less than a complete success. In fact, the Head of the Mathematics Department urged that they be abolished. He cited two reasons. First, fifty per cent of the midshipmen enrolled in these courses eventually dropped out. Second, "...a goodly number of the best men have consistently refused to volunteer."[17]

In an effort to further motivate midshipmen academically, a Superintendent's List was established in

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p. 41.

[17]Memorandum from the Head of the Department of Mathematics to the Superintendent, 18 April 1958.

1957. Making the List carried with it added privileges.

Advanced courses and a Superintendent's List might seem rather tame stuff from a contemporary perspective, but Admiral Smedberg, then Superintendent, took special pride in these accomplishments. Addressing the Alumni he observed:

> My team has been deeply interested in improving the academic, [italics in original] standards of the Naval Academy. We have instituted several measures to stimulate a midshipman's interest in academics. The Superintendent's List was established to encourage midshipmen to seek more than a mere 2.5. Accelerated courses have been established in several of the departments to satisfy the intellectual curiosity of the brighter students.[18]

Thus, in the closing years of the 1950's the Naval Academy was deeply committed to its historic mission of producing a professional naval officer imbued with the traditional values of loyalty to service and country, yet one technically proficient and educationally equipped to meet the profound technological challenges of the postwar fleet. But the "lockstep" approach to midshipman education,

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[18]"Final Report of the Thirty-Ninth Superintendent," Shipmate 21, (July 1958), p. 2. There is a degree of terminological confusion in this area. At this time there were "regular courses," "savvy sections," "B sections," "advanced courses," "accelerated courses," and "enriched courses". As a result of some of these labels being used interchangeably an Instruction was promulgated in December, 1958 standardizing the terminology. See USNA INSTRUCTION 5030.1.

characterized by its lack of emphasis on theory and general principles--the foundation blocks for advanced postgraduate education and continuing intellectual growth--was under increasing challenge. If the problem was coming into focus, the solution was by no means obvious, however.

Cracks in the Status Quo: The Melson Innovations

The dilemma came to a head in the fall of 1957 when Vice Admiral H.P. Smith, Chief of Naval Personnel, ordered the Naval Academy to undertake a thorough evaluation of the curriculum. One may surmise that the Navy had something more in mind than simply one more routine review of the curriculum. This conclusion is suggested by the circumstances surrounding the appointment of Rear Admiral Melson as Superintendent in 1958 and his personal view of his mission. The story of his appointment, as Melson relates it, is an amusing one.

Admiral Melson's original orders were to report to the Office of the Secretary of Defense for International Security Affairs, Far Eastern Desk. While house hunting in Washington, prior to assuming his new post, he and Mrs. Melson attended a cocktail party at Fort McNair. The Chief of Naval Personnel, Admiral Smith, took Melson aside and pointedly told him not to sign a lease for a house in Washington. In the words of Admiral Melson, "I must say that this left me at a little of a loss as to what he

meant, because he didn't elaborate on it other than to say not to sign up for a house. I consulted with Mrs. Melson and she was as flabbergasted about it as I was. "Some few minutes later Admiral Smith again took Melson aside saying it was not fair to keep him in the dark. He was about to be ordered as Superintendent of the Naval Academy.[19]

It appears that Admiral Melson did not come to the Academy with a clear set of "marching orders." However, he had sought and received the general approval of the CNO, Admiral Arliegh Burke, and the Secretary of the Navy, Mr. Franke, for curriculum change. But this was, to repeat, general approval, not support for a particular program of curriculum restructuring.[20] Thus, the decision to introduce validations and electives was internally generated.[21] When

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[19]The Reminiscences of Vice Admiral Charles L. Melson U.S. Navy (Retired), U. S. Naval Institute, Annapolis, Maryland, 1974, p. 234.

[20]Ibid., p. 256.

[21]This conclusion is supported by the research of Admiral J. H. Nivins, who observed: "Documentary evidence has been sought to indicate the source of the initiative [to introduce a program of validation and electives], whether that of the Secretary of the Navy, Chief of Naval Personnel or the Superintendent, which instituted the over-all evaluation of the curriculum which began in August 1957. The search by this writer, unfortunately, yielded nothing which would clearly establish the identity of the motivating force.... Lacking positive information, it would appear logical to assume that...the Superintendent and the faculty vigorously undertook and prosecuted the modification which was subsequently introduced." VADM J. H. Nevins, USN (Ret.), "The United States Naval Academy and its Curriculum: A Chronology of Changes and Some Problems,"

asked to explain the philosophy behind the decision to move to validation and electives, Melson replied:

> I came to the Academy with the idea that my primary responsibility was to do something at the Academy to improve the curriculum...I think that with the development of many new weapons, many new methods of warfare, and all the changes that were going on, that the seniors [emphasis added] in Washington felt that they needed a graduate with a broader educational background....[22]

The curriculum review ordered by Admiral Smith, Chief of Naval Personnel, was fast in coming and its recommendations, combined with those of the Folsom Report, resulted in significant ("revolutionary" was the word used by some) academic and organizational changes which were put in place relatively quickly. In the year following the formation of the study group, AY 1958-1959, four new elective programs were introduced. Three were non-credit Friday evening seminars and the fourth consisted of independent laboratory research. Participation was limited to midshipmen carrying a 3.0 in all subjects. Of the 218 invited to participate, 191 actually did so.[23]

Shipmate 31 (March 1968) p. 8. The role of the Superintendent in these initiatives is clear, but we are unable to find evidence of faculty involvement in the process.

[22]Ibid., p. 251.

[23]"The Superintendent Reports," Shipmate 21, (December 1958), pp. 14-15.

Simultaneously, important organizational change was undertaken in two related areas: the academic departments and in the Academy's primary governing body, the Academic Board. Prior to AY 1958-1959 there had been eleven academic departments, each headed by a navy captain.[24] These officers, in addition to the Superintendent and Commandant, comprised the Academic Board. The eleven academic departments were to be reorganized into three academic divisions each under a navy captain serving as Divisional Director.[25] (Physical Education and the Executive Department

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[24]The eleven departments were:

1. Executive Department
2. Department of Seamanship and Navigation
3. Department of Ordinance and Gunnery
4. Department of Marine Engineering
5. Department of Aviation
6. Department of Mathematics
7. Department of Electrical Engineering
8. Department of English, History and Government
9. Department of Foreign Languages
10. Department of Hygiene
11. Department of Physical Education

[25]The Academic Divisions were:

I. Division of Naval Science
    A) Command Department
    B) Weapons Department
    C) Naval Hygiene Department
II. Division of Science and Mathematics
    A) Mathematics Department
    B) Science Department
    C) Engineering Department
III. Division of Social Sciences and Humanities
    A) English, History and Government Department
    B) Foreign Languages Department

were placed under the Commandant.) Just as the need for increased flexibility dictated the reorganization of the academic departments, similar considerations guided the reorganization of the Academic Board.[26] The reconstituted Academic Board would consist of the three Division Directors, rather than the previous eleven department heads, the Superintendent and the Commandant.[27]

Reorganization of the academic department structure was seen by the Superintendent as a prerequisite to meaningful curriculum modification. The problem was neatly summarized in a news release of August, 1959:

> When the present Superintendent, Rear Admiral Charles L. Melson, U.S. Navy, reported on duty as Superintendent last summer he found a curriculum study under way but little progress being made. The main obstacle, as he saw it, was that the Naval Academy Academic Board consisted of eleven Department Heads with one vote each plus the Superintendent with two votes. Each member was reluctant to consider programs that might take time away from his department.[28]

In the words of Admiral Melson, "This reorganization, if

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[26]Yarbro, op. cit., p. 5. Yarbro seems to be politely saying that "turf battles" were a main impediment to change--a point that will be made more explicitly below.

[27]"The Superintendent Reports," Shipmate 22, (April 1959), pp. 18-19.

[28]Release No. 236, 27 August, 1959.

approved, will provide us with an excellent opportunity to revise our curriculum along the most modern lines."[29] The justification for the reorganization was further amplified by the Superintendent in an address to the Board of Visitors:

> While [the old] organization served well in the past, there have been growing indications that its machinery is not ideal for the accomplishment of desirable changes in the curriculum. The tremendous advances being made in scientific and engineering fields, in weapons, in means of warfare, and the vast political and social changes taking place demand a more flexible means than we have had for adjusting our curriculum to keep abreast of these developments. The strong departmental lines which have built up over the years have resulted in artificial compartmentalization of instruction and have created undesirable barriers to the most effective use of time, instructors and facilities...[30]

That the administrative and curriculum changes under

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[29]Letter from RADM C.L. Melson to the Honorable Richard Jackson, Assistant Secretary of the Navy (Personnel and Reserve Forces), 15 December 1958.

[30]Statement to the Board of Visitors Submitted by the Superintendent of the United States Naval Academy, 13 April 1959 in Report of the Board of Visitors to the United States Naval Academy, 1959, p. 13.

Some idea of the centralized authority in the hands of the Academic Board is suggested by the fact that every textbook used by every department required Board approval prior to its introduction to the classroom. The minutes of the Academic Board suggest that be 1966 it had largely gotten out of the business of academic micromanagement and was concerning itself primarily with midshipman academic, conduct and aptitude matters--the role it plays today.

study carried with them implications regarding the faculty, especially the civilian faculty, did not go unnoticed. Some degree of "up grading" would be required. Reaction to this prospect was far from uniform among senior naval officers at the Academy. For example, the Secretary of the Academic Board, the group at the heart of the restructuring study, wrote:

> In recognition that the character and quality of the faculty are of controlling importance, special consideration should be given to the acquisition of more competent members as dictated by revisions in the curriculum, to a more flexible utilization of its members in accordance with their varying interests, and to insure that a favorable intellectual atmosphere is provided.[31]

By a curious coincidence, on the same day Captain K.G. Schacht, Head of the Department of Seamanship and Navigation, a department that would be abolished under the proposed administrative reorganization scheme, urged a "go slow" policy while taking a somewhat negative view of civilian educators. Thus:

> Let us not be unduly swayed by the frenzied outcries of today's educators who understandably resent sharing of much of the blame for the USSR space development alleged superiority. [sic.] We must keep our "feet to the ground, "avoid "window dressing," remembering Shaw's "He who can does.

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[31]Memorandum from the Secretary of the Academic Board [Captain John V. Smith] to the Commandant and Division Directors, 13 February 1959.

He who can't teaches." [32]

In the spring of 1959 the Curriculum Committee had concluded its study. The academic reorganization suggested by the Committee at the time was considered a dramatic innovation, both philosophically and programmatically. Philosophically, the revised curriculum would abandon the descriptive approach to applied technology in favor of the study of basic principles. The new basic curriculum was in place by AY 1960-61 and consisted of the following:

FOURTH CLASS YEAR

First Term	Sem. Hours	Second Term	Sem. Hours
College Mathematics	5	Calculus	5
Chemistry	4	Chemistry	4
Engineering Drawing	2.50	Descriptive Geometry and Statistics	2.50
Composition and Literature	3	Composition and Literature	3
Foreign Language	3	Foreign Language	3
Seamanship Drills	.50	Seamanship Drills	.25
Physical Education	1	Physical Education	1
Executive Drills	.50	Executive	
Drills	.50		
Total	19.5		19.25

THIRD CLASS YEAR

Calculus	5	Mechanics	5

[32] Memorandum from Captain K.G. Schacht to Prospective Secretary of the Academic Board, 13 February 1959.

Physics	5	Physics	5
Strength of Materials	3	Engineering Materials	3
Modern European Hist.	3	U.S. Foreign Policy	3
Foreign Language	2.50	Foreign Language	2.50
Physical Education	.75	Physical Education	.25
Executive Drills	.50	Executive Drills	.50
Total	19.75		19.50

SECOND CLASS YEAR

Differential Equations*	3.50	Electrical Science	4
Basic Thermo-dynamics	4	Basic Fluid Mechanics	4
U.S. Government	2	Economics & Speech	2.75
Piloting & Navigation	3.50	Leadership	1.25
Weapons Components & Ballistics	2	Navigation & Meteorology	4
Physical Education	.50	Physical Education	.50
Executive Drills	.50	Executive Drills	.50
Total	19.75		19.25

* Includes .5 semester hour of spherical trigonometry.

FIRST CLASS YEAR

Electrical Science	3	Electrical Science	3
Applied Fluid Mechanics	3	Applied Thermo-dynamics	3
Leadership	2.25	Leadership	1.50
Naval Operations	3.75	Naval Operations	4.50
Weapons Systems	2.50	Weapons Systems	2.75
Naval History	3.50	Advanced Composition & Literature	3.75
Naval Hygiene	.75	Physical Education	.50
Physical Education	.25	Executive Drills	.50
Executive Drills	.50		
Total	19.50		19.50

Programmatically, the plan called for:

a) Exemption from prescribed courses by a process of validation which would thereby open a possibility to take elective courses.

b) The introduction of advanced courses[33] leading to the possibility of a minor, or, in some cases, an academic major in a particular discipline.

c) The opportunity for academically superior midshipmen, those in the top fourth of their class, to take electives on an overload basis.

To appreciate the magnitude of these changes consider that in AY 1958-59 there was no such thing as an elective course at the Naval Academy, nor was there an opportunity for midshipmen to skip courses they were already proficient in (validation). In AY 1959-60, 54 new elective courses were introduced into the curriculum, 9 in the Division of Naval Science, 13 in the Division of Science and Engineering, and 32 in the Division of Social Sciences and Humanities. Simultaneously, a total of 195 fourth class (freshman) midshipmen validated, via departmental examination, a total of 298 courses as follows:[34]

English Composition and Literature	62
Engineering Graphics	55
Chemistry	33
Mathematics	114

[33]USNA INSTRUCTION 5030.1 (8 December 1958) defines an "advanced course" as "a course which is normally of greater difficulty than a regular course, is substituted for a regular course, and assumes proficiency in the regular course as a prerequisite."

[34]Course of Instruction at the United States Naval Academy, 1959-1960 (np., nd.) See Appendix E for a list of these elective courses.

Foreign Languages ---	French	20
	German	14

Because midshipmen in the upper three classes had not had the opportunity to validate courses, those who felt academically qualified were permitted to petition to take electives on an overload basis. A surprising 719 midshipmen, slightly more than 25% of the upper-class, so petitioned. Of these, 350 were found to be academically eligible.[35]

In summary, the philosophical and programmatic changes undertaken in AY 1959-60 were approved by the Secretary of the Navy and the Chief of Naval Personnel and whole heartedly supported by the Board of Visitors which observed:

> It is readily apparent...that the Naval Academy has made tremendous forward strides in its educational program. The Board of Visitors commends particularly the increased emphasis on basic principles and science as contrasted to technology. In these times of rapid obsolescence of even the most impressive technological products, only the thorough comprehension of basic scientific principles can equip an officer to deal with material of the future. The Board also wishes to compliment the faculty of the Academy on the strengthening of the educational program through the institution of elective courses and the provision for validation of college-level work. It is certainly in consonance

[35]Letter from RADM Melson, Superintendent, to Dr. Richard G. Folsom, President, Rensselaer Polytechnic Institute, 25 June 1959.

> with the best educational philosophy to provide every opportunity for the midshipmen to go beyond the basic curriculum in absorbing all the education of which they are capable.[36]

The Folsom Report

In May of 1959, Superintendent Melson announced the convening of a board of distinguished educators and naval officers to review the proposed revised curriculum.[37] Called the "Folsom Board" after its chairman, its report was completed in November of that year. The Folsom Board's recommendations fell into three areas: the curriculum, educational procedures, and faculty and administration.

Regarding curriculum, the Board noted that the Academy had already introduced "a number of significant improvements," viz., validation, the over-load elective program, and changes in the basic curriculum designed to decrease the emphasis on equipment use and manipulative skills in favor of basic concepts and analytic methods. The

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[36]Board of Visitors Report to the Superintendent, cited in Yarbro, op.cit., pp.6-7.

[37]The members of the Board were:

1. Richard G. Folsom, Chairman, President of Rennselaer Polytechnic Institute.
2. James H. Potter, Dean of Graduate Studies, Stevens Institute of Technology.
3. Jesse W. Mason, Dean of the Engineering College, Georgia Institute of Technology.
4. Lawrence E. Kinsler, Professor of Physics, U.S. Naval Postgraduate School.
5. George A. Gullette, Head of the Department of Social Studies, North Carolina State.
6. Fredrick L. Ashworth, Rear Admiral, U.S. Navy.
7. Horacio Rivera, Rear Admiral, U.S. Navy.

Report was laudatory in terms of the increased time now devoted to chemistry, physics, mathematics, engineering materials, thermodynamics, and fluid mechanics. However:

> The Board's inquiries into the adequacy of the present curriculum as preparation for postgraduate study led to the conclusion that it is satisfactory for additional work at the various service schools such as the Submarine School, Flight School, Mine Warfare School, Naval War College, etc. However, Naval Academy graduates entering upon graduate level work in science or engineering at the Naval Postgraduate School, or at civilian institutions, characteristically find it necessary to devote at least one year to engineering and science courses at the undergraduate level before they are ready for graduate study.
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> The Board does believe...that while still retaining roughly the present time allotments in the three major areas of instruction, (50% to science and engineering, 25% to the humanities and social sciences, and 25% to naval science), it is possible to make administrative and curricular changes that will reduce somewhat the present gap between undergraduate and graduate work, not only in the fields of science and engineering but also in the humanities and social sciences.[38]

In other words, the academic curriculum should be further "beefed up" through "curricular and administrative changes." What was the nature of these changes? Implicitly the Folsom Report was calling for a reduction in military-professional subjects, the time so gained to be devoted to purely academic pursuits. This had been anticipated by the

[38]"Folsom Report," op. cit., pp. 6-7.

Naval Academy in 1958 with the Hughes Memo recommending that much of the naval training then in the core be moved, presumably to the summer. Support for this shift came from another quarter. Following his curriculum revision and prior to the Folsom Board review, Admiral Melson solicited the views of fifteen senior naval officers who had previously served at the Naval Academy. These included three former Superintendents, three former Secretaries to the Academic Board, four former Commandants, and five former Heads of Departments. In Admiral Melson's words, two "surprises" emerged from this survey. First, many of those surveyed suggested that most of the naval professional courses should be moved to the summer program and to professional schools immediately following graduation. Second, "The time so saved could be utilized for urgent expansion of subjects in Science and Engineering, and the Humanities."[39] The desirability for such a shift was supported from another powerful quarter--Admiral Rickover. Rickover felt that meaningful academic change must necessarily include greatly reduced time "devoted to purely naval subjects such as seamanship and ordnance" and more emphasis on the liberal arts.[40] The following month the

[39]Undated document signed by ADM Melson.

[40]Letter from VADM H.G. Rickover to VADM H.P. Smith, Chief of Naval Personnel, 8 January 1959.Specifically, Rickover's letter stated: "To make these changes [i.e. to allow the student to advance at the fastest rate of which he is capable] it will be necessary to greatly reduce the

Superintendent observed that, regarding professional courses, "it appears to me that we are moving substantially in the direction recommended by Admiral Rickover."[41] Focusing on specific departments and programs, the Report found little to criticize in terms of time allotted and subject matter in the engineering and science areas. However, the officer faculty was criticized for its high turnover (tours of two to three years) and lack of academic qualifications. The Report especially applauded the shift in engineering to the emphasis on fundamental concepts and analytical methods and away from the descriptive approach which had prevailed for so long.

The report was not so kind to the humanities and social sciences program:

> The present humanities program, totaling approximately 38 semester hours, is divided between the Department of English, History and Government and the Department of Foreign Languages. In neither department does a student acquire a depth of knowledge in one field, or a proficiency in one language, comparable to that of a student in a liberal arts college who

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time devoted to purely naval subjects such as seamanship and ordinance and to put more emphasis on the liberal arts. Also, the close ordering of the student's time and suppression of individuality in intellectual development...is wrong."

[41]Letter from RADM Melson to VADM H.P. Smith, 14 February 1959.

takes a minor in one of these areas.[42]

The Report recommended making language optional but suggested that the Academy develop 12 hour sequences in particular areas, including language, to enable the midshipman to attain an area of concentration, perhaps even a major, in the social sciences and humanities. The Report's criticisms of the humanities and social sciences were ignored by the administration. The result was that the humanities and social science elements of the new curriculum were the identical eight courses and six languages offered in the previous curriculum.[43]

Additionally, the instructional approach historically employed by the faculty was subjected to criticism:

> The method of instruction in general use at the Naval Academy involves rigid adherence to course outlines, daily recitation, frequent quizzes [each midshipman received a weekly grade in each course], and in many cases, changes of instructor during the course of a semester.
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> The method of instruction in most general use is quite efficient for imparting factual information but is not so satisfactory for the development of judgment, initiative and reasoning

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[42]Ibid., p. 14.

[43]The required, or core, social science and humanities courses were two semesters of Composition and Literature and one semester each of Modern European History, U. S. Foreign Policy, U. S. Government, Economics and Speech, Naval History and Advanced Composition and Literature.

The foreign Languages offered were Spanish, French, German, Russian, Italian, and Portuguese.

> power. [Moreover]...the rigid adherence to course outlines and the requirement of frequent grades tends to stifle the initiative of the instructors.[44]

Moreover, the library was perceived as something of a disaster in terms of its collection, physical plant and midshipman use. Thus:

> The library collection is marginally adequate for the present instructional program but would require substantial additions particularly in the humanities and social sciences to be satisfactory for the type of program contemplated by our recommended curriculum. In general, many of the more advanced books are segregated in various small departmental libraries.
>
> Reading room facilities are inadequate by standards of good civilian schools. Regulations governing the midshipman's free time, and the hours of operation of the library, appear to discourage rather encourage its use.[45]

Regarding admissions, the Folsom Report supported the plan to use College Board Scores (beginning in 1960) as a factor in the evaluation of candidates. In addition, it suggested changing the entrance requirements to include three years of mathematics, three years of English, two years of a foreign language and one year of either chemistry or physics.[46]

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[44]Ibid., p. 19.

[45]Ibid., p. 21.

[46]Ibid., pp. 22-23.

The faculty, both civilian and officer, were in need of significant change, albeit in somewhat different respects. The observations contained in the Report are worth citing at length:

> In the opinion of the Board there are no factors which so greatly influence the quality of the work of an educational institution as the qualifications and morale of the faculty. A faculty of adequate qualifications and high morale with responsibility for the planning and administration of the academic program can be expected ultimately to solve satisfactorily the details of the many academic problems which now confront the Naval Academy.
>
> Furthermore, if the quality of the present course offerings is to be improved and if the new optional courses are to be taught adequately, the demands upon faculty competence will be increased. A much higher order of performance will be required to teach the new elective course in modern algebra than to meet a recitation section of the present beginning mathematics course. To do justice to an improved academic program it will be necessary to attract a considerable number of additionally well qualified instructors, who...preferably should have doctor's degrees.
>
> Individuals such as these are normally found on the staffs of colleges and universities where they have an opportunity to teach advanced specialized courses,...conduct personal research and engage in consulting work. Adequate library and laboratory facilities are available to them. At the Naval Academy most of these incentives and aids are lacking.
>
> The civilian faculty at the Naval Academy has little ultimate responsibility for such matters as the planning of a curriculum or the determination of teaching methods. The civilian faculty member, in general, has the status of an employee rather than that of a professional man

> with real responsibility for a part of the academic program.
>
> Under these several conditions morale cannot be expected to be of the highest and recruitment and retention of an outstanding staff is difficult. To overcome this situation it will be necessary to increase the compensation of the teaching staff. It will be necessary to provide additional opportunities for professional growth and increased responsibility for the academic program as well as for greater participation in Naval Academy affairs. It will also be necessary to give greater attention to the relationship of the civilian faculty to the military organization.[47]

The officer component at the Academy, both teachers and administrators, was also the subject of extended criticism. The Report recommended that those officers filling teaching billets have graduate education at least one year beyond the level of the course(s) they taught. Furthermore, their tours should be longer than the typical two or three years. Moreover, something should be done to make an Academy assignment more appealing to the junior officer. The problem was not simply a shortage of officers with adequate academic qualifications but equally, if not more important, a perception that an Academy teaching assignment was not career enhancing.[48] This was not an original conclusion. Superintendent Smedberg, in the mid-1950's, applauded the West Point system of sending all

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[47]Ibid., pp. 25-26.

[48]Ibid., p. 26.

faculty selectees to two years of graduate school prior to assuming their teaching duties at the Military Academy. (West Point and the Air Force Academy, unlike Annapolis, had, and continue to have, an all military faculty.) "The Navy's system," said Smedberg, "was one of just taking officers whom nobody else particularly wanted and sending them to the Naval Academy." In order to offset this "I succeeded in establishing the idea that fifty percent of the faculty of every [academic] department ought to be civilians, professional teachers, and good ones." He concluded: "I think that this was really the greatest contribution, perhaps, I made to the Academy."[49]

The policy of assigning senior naval administrators for short terms was also criticized:

> The fact that many of these men have a sincere interest in and some understanding of academic problems is not in itself sufficient since they are assigned to their duties for only brief periods of time. There is thus not only no guarantee that those responsible for the most vital matters of academic policy have a professional understanding of academic affairs, but under the best of conditions there is little continuity of leadership and no assurance that long range plans and policies will have the continuing attention that they need.[50]

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[49]The Reminiscences of Vice Admiral William R. Smedberg III, U.S. Navy (Retired), v II, U. S. Naval Institute, Annapolis, Maryland, 1979, pp. 505-506.

[50]Folsom Report, op. cit., p. 27.

Again, this was not a problem unknown to senior naval officers. Admiral Melson clearly identified the two year tour as a major obstacle confronting the Superintendent. Why? Because "It takes you a year to find out what it's all about, the next year you make your mind up [as to] what you want to do, and then before you know it you're gone."[51]

The Folsom Board concluded with six recommendations in the area of faculty and administration.[52]

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[51]Reminiscences, op. cit., p. 246.

[52]The six recommendations were:

1. "The very important matter of faculty morale deserves the close and continued attention of the Superintendent, the Academic Board and the Heads of the Divisions and Departments Present efforts to support opportunities for graduate work, research, consulting, travel to professional meetings, and sabbatical leaves should be intensified."

2. "Officers assigned to teaching duties in the academic departments should have appropriate qualifications, including academic training beyond the level of the courses to be taught. Their military qualifications should be such as to command the unquestioned respect of the midshipmen."

3. "Policies should be altered to permit and encourage tours of duty for officer faculty longer than the current two or three years. This policy should be extended to the point at which it would be possible to develop a group of officers who make a career of education within the Navy."

4. "The Navy should use only the most competent and highly qualified officers and civilians as instructors at the Naval Academy."

5. "The responsibility and authority for the operation of each of the academic divisions, (Social Science and

The Superintendent, Melson, was generally supportive of their recommendations, with the exception of number six--increased civilian academic participation in governance. While conceding that a civilian should be a member of the Academic Board, he went on to observe that "such representation has been strengthened by the establishment of the Academic Council."[53] The Academic Council was composed of the six civilian "Senior Professors," the Librarian, and six military department heads. (The civilian "Senior Professors" were the civilian department heads serving under Navy Captain Division Directors and Department Heads.)[54] The Admiral continued:

Humanities, and Science and Engineering) and each of the departments within those divisions should be vested in a properly qualified career individual (officer or civilian), who should be in responsible change for an extended period of time."

6. "Representations of the civilian faculty viewpoint at the highest level of academic administration should be assured. The membership of the Academic Board should always include not less than one civilian who is a Division Director."

[53]The Academic Council was established in 1949 "In order to integrate most effectively the notable academic and administrative experience of the Naval Academy faculty and staff...." See Naval Academy Standing Order NO. 47-49. The group was disestablished in 1966.

[54]This sounds more confusing than it actually was. Nonetheless, an illustration may be in order to clarify the arrangement. Thus, the Division of Social Sciences and Humanities was headed by a senior Navy Captain. The Division consisted of two departments, the Department of English, History and Government and the Department of

> The Academic Council's view on the matter is as follows: the establishment of the Superintendent's Academic Council, in addition to civilian faculty membership on Committee No. 1 (Curriculum), No. 3 (Library, Memorials and Prizes), No. 4 (New Instructor Orientation) and No. 8 (Civilian Faculty Affairs) insures civilian faculty viewpoint at the highest level of academic administration. [I do] not plan for any further action in this direction.[55]

The role of the Senior Professors and that of civilian participation in academic governance are topics we shall return to below.

In summary, the Folsom Report was quite positive regarding the new philosophy of education at the Academy while simultaneously pointing out some of the larger, rather obvious, deficiencies that remained.[56] The reaction of the alumni to the abandonment of decades of tradition was something less than positive.

Foreign Languages. Each of these departments was also headed by a Navy Captain. Reporting to him was the departmental civilian Senior Professor.

[55]Memorandum for the Secretary of the Navy's Advisory Board for Educational Requirements. (March 30, 1960).

[56]The functions of this Curriculum Review Board were institutionalized in the Academic Advisory Board which continues to offer critical advice on matters pertaining to the Naval Academy, especially its curriculum.

ALUMNI REACTION TO MELSON'S INNOVATIONS

As a rule the Superintendent's column in Shipmate, at least in the 1950s and 1960s, was limited to a review of Navy sports, June Week (graduation) activities, homecoming events, and the like. When academic subjects were addressed it was usually a sign of alumni unrest, either active or anticipated. Thus, in the summer of 1960 the Superintendent felt compelled to assure the alumni that the new program of validation and electives, with the accompanying stress on fundamentals rather than applications, would not produce technocrats nor dilute the professionalism of the Academy. Quite the opposite:

> I have heard fear expressed that the recent changes in the curriculum will result in graduates who are "technicians"--that the new graduate will be more familiar with machines than with men. This disturbs me. I feel it can only result from lack of information, or from misinformation. Briefly, these are the facts.
>
> At the root of the change in the basic curriculum is an effort to teach enduring principles instead of transitory techniques, and to develop sound thinking as well as to impart facts and skills. This is not to say we are ignoring... professional skills. The point is, we are trying to do less of training the technician and more of educating the naval leader, diametrically the reverse of the fears expressed above.[57] [Emphasis in original.]

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[57]"The Superintendent Reports," Shipmate 23, (June-July 1960), pp. 20-21.

Perhaps the best summary of alumni apprehension was made by Lieutenant W. P. Hughes who raised five questions regarding the potential negative consequences of the new curriculum.[58] (That these "questions" were raised tongue-in-cheek does not belie the fact that they constituted the very real concerns of many of the alumni.) First, will the fact that all midshipmen are not taking an identical course of instruction destroy the old "unity of suffering?" Second, some of the new electives are seminars in which it will be impossible to take daily grades. "Will midshipman study for a course without a [daily] quiz motivating them? If it is found that they will, what will be the effect on the Academy's historic recitation system?" Third, given the fact that officer instructors, as a group, are not academically qualified to teach advanced, theoretical courses, the proportion of civilian faculty will probably increase: "Will this diminish the vital naval atmosphere that must pervade the Academy?" Fourth, additional electives mean more classroom and study time. "Some students must make a choice between studies and sports. It may sound crazy, but some are going to choose studies, and then what will happen to physical fitness, or even varsity athletics? Is this new program going to cost us Army-Navy

[58]Lt. W. P. Hughes, "Electives--Boon or Bane?," Shipmate 23, (September-October 1960), p. 4-6. In fairness to Lt. Hughes it should be pointed out that he came down on the "boon" side of the question.

games?" Finally, it will soon be impossible for upperclassmen who are validators to take all of their electives with classmates during seventh period. "The Naval Academy already has First Battalion Third Classmen going to electives with Sixth Battalion First Classmen. Will this soon be true in all courses?"

As a corollary to Lt. Hughes second "question" regarding the recitation system there was the "hallowed tradition" of marching to class. The problem was this: as early as AY 1960-1961, 681 midshipmen were registered in the electives program. This number of deviations from "lock-step" made marching to class impractical and it was abolished in March of that academic year. Admiral Davidson, Admiral Melson's successor, recalls that "The upshot of that was a rather large expression of concern from graduates. They thought the place was really going to hell-- no more military bearing or anything."[59] He felt the need to assure the alumni that:

> ... ground rules were implemented to insure that high standards of military smartness, behavior and courtesy were properly safeguarded. I serve notice of this new policy in order that ole grads [sic.], who see the new generations "straggling" to class, may accept this as a sign of progress in support of the new curriculum rather than as a

[59]Reminiscences of Rear Admiral John F. Davidson, U.S. Navy (Retired), U.S. Naval Institute, Annapolis, Maryland. 1986.

sign of campus capers.[60]

Lt. Hughes also correctly prophesied the demise of the daily recitation system. As Captain (later Admiral and ultimately Director of Admissions) McNitt observed:

> The traditional practice of daily grades was useful for teaching application and operation of equipment, but it is not adequate to the task of imparting broad concepts.[61]

Also found to be now inappropriate was the traditional 4.0 marking system. It would be replaced by letter grades. Thus, more than a century of practice was altered, almost overnight. The common curriculum for all, with its stress on applications, regardless of individual intellectual ability or prior education,[62] marching to class, daily recitations, daily quizzes, and daily grades, and the numerical grade point system, were all abandoned.

Of course, all these changes were not supported in many quarters. For example, Admiral Smedberg, a previous Superintendent, wrote:

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[60]"The Superintendent Reports," Shipmate 24, (March 1961), p. 6.

[61]Captain R. W. McNitt (USN), "Tecumseh, God of the 'C': A new Marking System at USNA," Shipmate 26, (September-October 1963), pp. 12-13.

[62]More than one-third of the entrants at this time had some prior college education, and an additional 15 percent had some form of post high school education, usually prep school.

> ...I would like to express a view which I have held for about four or five years and which I expressed to the Pentagon about a year before I had any idea I would be sent to the Naval Academy as Superintendent. The opinion which I am about to set forth is based on what I consider to be two basic facts: the first, that we are trying to force too much knowledge into the four years available at the Naval Academy, with the result that many of the courses are more or less checked off by the majority of the midshipmen rather than absorbed or learned. I am concerned that there is too much basic education required today for us to continue to overload the midshipmen during his four years with as much professional, or purely training, material; and by training material I mean such things as courses in naval boilers, fire control systems and computer mechanisms, and many of the seamanship, navigation and ordnance drills, some parts of aviation, etc.[63]

1962: The Korth Directive: A Record in Need of Revision

During the preceding decade the Naval Academy had experienced dramatic change--change that was initiated and shaped from within. Although validated by the naval establishment in Washington, the evidence suggests that their approval was after the fact. There is no suggestion of external command influence prior to the undertaking of these dramatic and far-reaching reforms. The freedom of the leadership at Annapolis to shape fundamental revisions of the program for educating and training midshipmen without outside guidance or interference was challenged, however,

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[63]Letter to Admiral Melson from Admiral Smedberg, April 23, 1959.

in 1962. This challenge took the form of the "Korth Directive" and provides an interesting study of institutional management of what was internally perceived as a major external threat.

The Korth Directive[64] caused reverberations not only within the Naval Academy and Alumni House, but in the editorial rooms of the New York Times and throughout the Navy hierarchy. Secretary of the Navy Korth has been accused of wrong- headedness and, at least by implication, a lack of candor in his dealings with the Naval Academy administration in regard to this issue. He was wrong-headed because his orders were perceived by many as promising largely negative consequences. Lacking in candor was perceived because at least one of his decisions, that of the appointment of a civilian academic dean, was seen as contrary to prior commitments to the Naval Academy. This latter decision was made all the more galling for having been announced in a manner deemed to be capricious. It would seem appropriate, therefore, to examine the substance of Secretary Korth's directive, the extent to which these orders were his personal creation, and how (if at all) he misled the Naval Academy in his actions.

"Weakening the Naval Academy" was a piece editorialized

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[64]Named after Fred Korth, Secretary of the Navy, June 1962-November 1963.

in the New York Times.[65] "Demotivating" and "divisive" charged the President of the Naval Academy Alumni Association.[66] What had the Secretary done to produce such an adverse reaction? On 22 May 1962 Secretary Korth ordered the Naval Academy to implement four policy changes. Two of these previously had been recommended by the Naval Academy Board of Visitors and elicited little comment: decreasing the maximum age of admission to the Naval Academy from 22 years to 21 years, and raising entrance requirements "to the maximum extent possible." It was the companion orders that precipitated the significant adverse reaction. The Academy was instructed to appoint a "civilian educator of national rank" to the new post of Dean of Academics. And, in light of the difficulty of assigning officer instructors of adequate educational and teaching experience to the Naval Academy, all officer instructors, with the exception of those teaching in Naval Science, should be replaced by qualified civilian professors on a phased basis.

Korth is often given sole credit (or blame) for these orders, although the hand of Admiral Rickover does not go

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[65]New York Times, 22 June 1962, p.22.

[66]Letter from ADM. Jerauld Wright, USN (Ret.), President of the Naval Academy Alumni Association, to Secretary of the Navy Fred Korth in "U.S. Naval Academy Faculty Reorganization," Shipmate 25 (September-October 1962):14, 16, 18.

unrecognized.[67] The truth of the origins of this directive is a bit more complex and reaches well beyond Secretary Korth. As Captain Alex Kerr has revealed, the origins of the Korth Directive are to be found in the administration of his predecessor, John Connally, and were the result of a confrontation between the CNO and Admiral Rickover.[68] Such confrontations, of which there were many, if pushed by one or the other parties, had ultimately to be resolved by the Secretary of the Navy. And it was just such a confrontation between Rickover and the Navy over the nature and quality of education at Annapolis that prompted Secretary Connally to instruct his legal counsel, then Commander Alex Kerr, to "look into the situation and give me a recommendation."[69]

Kerr's examination led him to side with Admiral Rickover and to conclude that there were serious academic deficiencies associated with naval officers in the academic departments (as opposed to the professional departments) at the Academy. Kerr wrote that

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[67]See, for example, the New York Times and Wright citations above. Also, RADM Davidson's Reminiscences and what is probably the best scholarly study of the service academies during this period, John Lovell, Neither Athens Nor Sparta (Bloomington: Indiana University Press, 1979.)

[68]The Reminiscences of Captain Alex Kerr, U. S. Navy (Retired), U. S. Naval Institute, Annapolis, Maryland, 1984.

[69]Ibid., p. 359.

> ...while they may have been good naval officers and may have even had a fair grasp of those subjects, they were not properly qualified in the sense that top flight professors in the good schools were qualified. And the heads of each of the departments were always naval officers whose qualifications, true academic qualifications, were, if present, really accidental.[70]

Kerr recommended to Secretary Connally that only those officers possessing academic qualifications comparable to those held by civilian instructors in good civilian schools be assigned to academic billets. Finally, Korth ordered, the Academy should appoint a civilian dean of academics.

Thus, we see that the so called Korth Directive was not Korth's creation at all, but rather originated with the staff of his predecessor, Secretary Connally. The recommendations were left to Korth to implement only because of Connally's inaction. Connally, perhaps preoccupied with his upcoming campaign for the governorship of Texas, allowed the proposal to sit on his desk for weeks, and it was only on his last day in office that it was signed. As Kerr recalls, "Connally had signed it on the way down [to Texas] in the airplane on his very last day as Secretary--probably his last official act as Secretary of the Navy. And then the shit hit the fan."[71]

One month following Korth's announcement of his

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[70]Ibid.

[71]Ibid., pp. 361-63.

wishes, The New York Times, in an editorial entitled "Weakening the Naval Academy", summarized the salient points in opposition.[72]

> A recent and sudden order of the Secretary of the Navy supports a proposal made by Vice Admiral H. G. Rickover for the establishment of "a civilian educator of national rank" as "Dean of Academics" at Annapolis. It requires the ultimate substitution of civilian for officer instructors in all academic departments except the naval science division.
> ...Secretary of the Navy Fred Korth in the final paragraph asserts that it was not his intent "to reduce in any way the present emphasis on naval indoctrination, discipline, leadership and motivation to command at sea." Nevertheless, there is much misgiving at the Naval Academy, at the other service schools and among naval officers that this is precisely what the directive--if it is ever fully carried out--will do. For the first two years of the four year course the midshipmen will have no officer instructor in academic subjects whatsoever. Mr. Korth's order, while intending to strengthen, may actually weaken the academy's special role.[73]

Admiral Jerauld Wright, President of the Naval Academy Alumni Association, stated his organization's feelings.[74] First, the replacement of military faculty by civilians will deny the midshipmen the necessary motivation to become career officers because of curtailed contact with career line officers possessing "...firsthand knowledge and

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[72]Op. cit.

[73]Ibid.

[74]Op. cit. pp. 14, 16.

experience in military leadership...." Second, appointment of a civilian Academic Dean "will have a divisive effect within the Naval Academy since the allocation of time and resources...in all fields of education and training should be made against a well-established background of the requirements of the Fleets, a background that can only be provided by experience."[75] The nature of this "divisive effect" had been elaborated in greater detail the previous year in a letter from Superintendent Davidson to Admiral Wright. The appointment of a civilian dean would place the Superintendent in an untenable position. Foreseeing inevitable conflict between the Dean and the Commandant, the necessary result would be that failure to support the latter would create a situation calling for his replacement. On the other hand, failure to support the Dean would reduce his usefulness to the point that only the Dean's resignation could correct the situation. Finally, if

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[75]Letter from Admiral Jerauld Wright, President, Naval Academy Alumni Association to the Secretary of the Navy, the Honorable Fred Korth, published in Shipmate 25, (August 1962), p. 16. The same article published an editorial from The New York Times, (June 23, 1962) critical of the Korth Directive. The Times editorial perceived Vice Admiral H.G. Rickover as the moving force behind the Korth proposal and condemned it as weakening the "special role" of the Academy--that of producing officers "of character dedicated to military careers and to the service of their country." The preferable course for the Naval Academy, editorialized the Times, would be to imitate West Point and the Air Force Academy and to further militarize, rather than civilianize, the faculty.

the Dean were a strong individual, and had the support of Washington, the usefulness of the Superintendent would be questionable.[76]

The impression that Secretary Korth was something less than straight forward in the manner in which the Academic Dean was selected and appointed, that his actions were even arbitrary and capricious, may be gathered from Lovell's description of the events at this time. As Lovell related it,

> "[Superintendent] Davidson had appointed a committee to study the desirability of altering the structure by creating the position of Dean, but the idea had been rejected. A phone call from Korth in May 1962, however, alerted Davidson that 'he would read in the papers' about the decision to appoint a civilian academic Dean."[77]

The impression is clear: the Naval Academy, having examined and rejected the idea of a civilian Dean, had the position forced upon it. Worse still, the manner in which the selection was announced was, at best, cavalier. Lovell's description of these events was based on an interview with Admiral Davidson sometime later. Our examination of the available materials covering this period lead us to conclude that Admiral Davidson's memory had

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[76]Letter to ADM. Jerauld Wright, U. S. Navy (Ret.), Member Board of National Estimates, CIA, from RADM. John F. Davidson, U. S. Navy, 30 July 1962. Fortunately, none of these pessimistic predictions came to pass.

[77]Lovell, op. cit., p. 165.

become somewhat clouded with the passage of time.

The available record suggests a somewhat different, and for Korth, much less damning, scenario. The archival data do not support the contention that a civilian academic dean was rudely thrust upon the Academy. There appears to have been no morning phone call from the Secretary of the Navy in the spring of 1962 suggesting that The Washington Post be consulted. Nor is there any evidence of a committee having examined and rejected the notion of a civilian dean of academics. It is quite possible, however, that the Superintendent consulted his Senior Professors on the matter and found no support for a civilian dean in that quarter. What the data do suggest is that the Academy energetically and systematically undertook to implement the Secretary's directive. Thus, three months after Korth's announcement Admiral Smedberg was able to announce that more than one hundred prominent educators had been nominated for the position of Naval Academy Dean.[78] The nomination and screening process was formalized two months later with the creation of the Young Committee, tasked with screening candidates.[79] The Superintendent was to nominate

[78]Memorandum from ADM W. R. Smedberg, Chief of Naval Personnel, to the Undersecretary of the Navy, August 1962.

[79]See Memorandum from the Superintendent to Captain L. V. Young, Director of Social Sciences and Humanities, November 20, 1962 laying out the composition and tasks of the committee and appointing Captain Young as its chairman.

five candidates from a list prepared by this committee and forward those names to the Secretary of the Navy for final selection. Dr. A. Bernard Drought led the list of Academy nominees and was also the choice of the Secretary of the Navy.[80] Drought assumed the post of Academic Dean (Pro Tem) in the summer of 1963, and Academic Dean the following year.

As suggested above, reaction to the appointment of a civilian academic dean was fierce. Lovell observed:

> Many (probably most) senior alumni were outraged at the prospect of having the Academy transformed into an institution that was to have a major portion of its operations run primarily by civilian professors and a civilian dean.[81]

This evaluation was supported by Admiral Minter (Superintendent

1964-65) who observed:

> I don't believe any single change at the Naval Academy has generated more discussion among our alumni than the establishment of this position. ...such a move was viewed with suspicion, and even alarm, by some alumni who feared a civilian Dean would somehow represent a threat to the traditional military atmosphere of the Naval Academy.[82]

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[80]Letter from the Superintendent [Kirkpatrick] to the Secretary of the Navy, 30 April 1963.

[81]Lovell, op. cit., p. 165.

[82]RAD Charles S. Minter, "The Superintendent Reports," Shipmate 27 (September-October 1964), p. 13.

Commander Kerr, author of the Korth Directive, personally felt the negative reaction:

> But feelings ran very, very strongly, and it was a bad time for me because the word leaked out as to who was behind this. Friends in the Navy that I'd had all my career wouldn't speak to me. I was practically drummed out of the service. I'd call an office and say "This is Commander Kerr," and I'd get the answer "Well, Mr. Kerr?" It was a bad, bad time.[83]

There was little the Academy could do regarding the appointment of a civilian Academic Dean. The Directive was free of ambiguity. As mentioned above, a national search was undertaken and Professor A. Bernard Drought accepted a provisional one year appointment in 1963, and formal appointment to the post in 1964.

In charge of the academic program, at least in theory, the Dean reported directly to the Superintendent. With the civilian Academic Dean now "in charge" of the academic program, additional reorganization of the academic structure was deemed appropriate. The previous reorganization of the academic departments into three divisions had made sense in that it improved coordination among the departments teaching allied disciplines. The divisional structure had also permitted a reduction in the size of the Academic Board. Now, however, the division directors were perceived as an intervening layer of

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[83]Kerr, op. cit. pp. 362-63.

management between the dean and "his" academic departments. Thus, with the approval of the Secretary of the Navy, the Division Directors' billets were to be "disestablished," and henceforth, the individual department chairmen would report directly to the Dean.

The Academy's internal chain of command made the position of Academic Dean and the subsequent administrative reorganization palatable from the Navy's point of view. As the Superintendent observed:

> ...the Dean reports directly to the Superintendent and takes his policy guidance from the Academic Board. [Emphasis added.] Naval officers, as they should be, are in control of the school, with the Academic Dean providing the best possible management for the academic program.[84]

The Academic Board, from which the Dean would receive his "policy guidance," was composed of the Superintendent, the Commandant, three navy captains, the Dean himself, with the Director of Admissions serving as secretary.

The second objective of the Korth Directive, replacement of military faculty by civilian faculty in all areas except Naval Science was also negatively received. This, despite Secretary Korth's stated intention that naval indoctrination, discipline, leadership and motivation to command at sea were not to be deemphasized. Commander Kerr

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[84]RADM Charles S. Minter, op. cit.

felt that

> The reaction to the directive was gross distortion, namely, that the result would amount to a total erosion of naval tradition, etc. This was distortion in so far as the professional and executive departments--navigation, seamanship, gunnery and discipline--were not affected. The directive was solely directed at academic areas and subjects --math, science, engineering, physics.[85]

Despite the unhappiness of the Academy and the Navy, a way of avoiding the full impact of the Directive was perceived and quickly exploited.[86] According to the Directive, the hiring of additional civilian faculty did not preclude assigning military faculty who possessed the requisite educational qualifications, defined by the Navy as possession of an advanced degree, usually a MS/MA. Responding to the needs of the Academy, the Chief of Naval Personnel informed the Superintendent that he could expect 50 academically qualified officers in June of 1963--triple the number of any previous year.[87] This, of course, reduced

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[85]Kerr, op. cit.

[86]RADM Charles S. Minter, "Superintendent's Report to the Board of Visitors," Shipmate 26 (January 1963), p. 15.

[87]"Superintendent's Report to the Board of Trustees Meeting." Shipmate 26, (January 1963), p. 15.

The improvement in officer educational attainment is vividly demonstrated in a comparison of the AY 1958-59 faculty with the AY 1964-65 group. (Data derived from the above article.)

drastically the number of civilian faculty who needed to be hired and permitted the continuation of the traditional ratio of civilian to officer faculty, essentially 50%/50%.

1963-1966: Evolution Continues--The Minors Program.

Given the significant changes in both philosophy and program since AY 1959-60, one might question the accuracy of David Boroff's observation in 1963 that "Of the three service academies, Annapolis has a curriculum that is most highly vocational."[88] But Boroff was correct in his observation, at least in the sense that the changes perceived as "revolutionary" by some were to a large extent a mirage. Why? It was because the "academic revolution" affected only one-third of the Brigade of Midshipmen. And even that figure is misleading. It was true that one-third were taking electives, either through validation or by overload, or a combination of the two. But only about 12% were able to translate these electives into a meaningful concentration. Thus, a three tier system existed. About 12% of the midshipmen were in a program allowing for an

	Ph.D.	MS/MA	BS/BA
AY 1958-59	1%	8%	91%
AY 1964-65	7*	51%	27%**

* Actual number, not a percentage.

** An additional 22% had graduate work short of the degree.

[88]Boroff, op. cit., p. 47.

academic minor or a major. Another 21% were taking electives, but in insufficient number and/or focus to constitute a meaningful area of concentration. The remaining two-thirds of the Brigade continued in the basic, 164 hour, "lock-step" system that existed prior to AY 1959-60 (recognizing, of course, that a number of the core courses had been modified over time.)

The reluctance of midshipmen to avail themselves of the opportunity to take overload electives is not difficult to understand and was nicely summarized by Admiral Rickover:

> A number of midshipmen...started, then dropped, overload subjects because they considered their class standing was being lowered by the grades received in these more difficult studies. Other midshipmen did not take any overload subjects in order to concentrate on the smallest number of subjects and so achieved high class standing. Duty assignments following graduation are, in general, related to class standing: this naturally tends to give midshipmen an incentive to attain high class standing rather than to study difficult subjects.[89]

With two-thirds of the midshipmen untouched by the new program and still firmly planted in the old common curriculum, two of the most important problems that originally stimulated curriculum review and revision remained unresolved. First, the number of academic hours,

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[89]Memorandum for Under Secretary of the Navy Paul B. Fay from Admiral H. G. Rickover, January 6, 1965.

164, was clearly excessive. Second, the opportunity for in-depth study--attainment of a minor or major in a particular field of concentration--was beyond the reach of, or at least not being taken advantage of, by the majority of midshipmen. But committed to the goals announced in 1959-1960, the Academy would not be thwarted in their attainment. Thus, in 1963 another curriculum review was ordered and mandated with the dual goals of reducing the excessive number of hours in the curriculum and bringing about (Requiring?) a meaningful academic concentration for the entire Brigade.[90]

The Young Committee proposed reducing the number of semester hours from 164 to 137/143, (the difference, 137 versus 143 hours, was a function of different laboratory courses in the proposal). Seventy-five percent of the new curriculum was to consist of core courses taken by all midshipmen, the remaining 25% would consist of electives. The purpose of this design, quite simply, was to require all midshipmen, regardless of validation and/or overload, to successfully pursue a minors program. Anticipating acceptance of this revision, the academic departments were invited to propose fields of concentration, and 23 such

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[90]Known as the "Young Committee" after its chairman, Captain L. V. Young, Director of the Division of Social Sciences and Humanities. Do not confuse this committee with the Academic Dean Search Committee chaired by Captain Young the previous year.

fields were ultimately approved.[91]

The Secretary of the Navy, Paul H. Nitze, approved the new curriculum in June, 1964, but with one significant modification. The curriculum would consist of 85% core courses (34 courses, 119 hours) and 15% electives (six sequential courses in a single field) "to be devoted to pursuing a field of concentration."[92]

1966-1968: New Problems and Hints of Things to Come

By 1966 the minors program was firmly in place with the Brigade spread more or less evenly across the five areas of concentration.[93] These successes, however, bred new problems. The 1966 Middle States evaluation team, while praising the academic changes undertaken by the Academy during the previous ten years, criticized the system of grade quotas and the policy of re-examination for failed midshipmen (problems addressed in the following section). Furthermore, two additional problems were becoming increasingly evident. The first was the result, somewhat ironically, of the success of the minors program and the consequent perception that this had come at the price of

[91]Minutes of the Academic Board, April 3 and December 11, 1964.

[92]Letter from the Secretary of the Navy to the Superintendent, June 10, 1964.

[93]See Appendix B.

reducing professional education and training. A second problem, identified most clearly by the Board of Visitors, was the feeling that perhaps the Academy had not yet gone far enough in curriculum evolution, a view addressed below.

Regarding the de-emphasis on professional courses, in his report to the Board of Visitors in the spring of 1967, the Superintendent expressed misgivings that the pendulum had swung too far in the direction of academics at the expense of professional training:

> During the past eight years our academic program has improved so dramatically as to warrant the use of the extreme phrase "Academic Revolution." As a result of this we are turning out a far better Naval Officer today [1967] than we did a few years ago. However, professional training and education has not kept step. There has been, quite properly, a shift from a curriculum heavily oriented toward practical training to one that is heavily oriented toward theoretical and academic education. In some cases, particularly in Naval Science and Weapons, we may have gone too far. Therefore, I believe that we must now have another revolution, this time a professional revolution.[94]

The source of concern regarding the erosion of the professional program is clearly seen from a comparison of

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[94]Superintendent's Report to the Board of Visitors, 28 April 1967. An excellent survey of this period covering the "Academic Revolution" and the subsequent redesign of the professional program, is found in Captain W. F. V. Bennett, USN, "The Professional Education and Training of Midshipmen," Shipmate 31, (June 1968), pp. 7-19.

the number and variety of professional courses taken in 1958 under "lock-step" with the program as it existed in 1967.

1958 Professional Program		1967 Professional Program	
Courses	Credit Hours	Courses	Credit Hours
1) Seamanship/ Operations	7.7	1) Air-Ocean Environment	3.0
2) Naval Engineering		2) Introduction to Psychology & Management	3.0
Boilers	3.0		
Machinery	3.0		
3) Ship Construction & Stability	3.1	3) Navigation	4.0
4) Basic Aviation	1.0	4) Naval Operations Analysis I	3.0
5) Navigation	7.6	5) Naval Operations Analysis II	3.0
6) Naval Ordinance & Weapons	9.8	6) Management & Military Law	3.0
7) Leadership	1.4	7) Ballistics & Weapons Control	4.0
8) Organization & Administration	1.0	8) Weapons & Systems Control	4.0
9) Military & International Law	1.6		
10) Meteorology	1.0		
11) Aviation Flight Indoctrination	0.3		
Total	40.5	Total	27.0

In response, the Superintendent announced the appointment of a Professional Training and Education Committee, composed of five navy captains, and charged with a complete review of the professional program. The Committee determined that the goals of professional

education and training could be satisfied by a 12 course, 38.5 semester hour sequence spread over the four years as follows:

> Fourth Class: Introduction to Naval Engineering--- Ordinance/Naval Weapons Systems (4 hours)
>
> Third Class: Air-Ocean Environment (3 hours); Navigation I (4 hours)
>
> Second Class: Naval Operations & Tactics (Summer, 3 hours); Navigation II (3 hours); Naval Engineering/Damage Control (2.5 hours); Naval Operations Analysis (4.0 hours)
>
> First Class: Introduction to Psychology & Management (3 hours); Operations & Tactics (1 hour); Ballistics & Weapons Control (4 hours); Weapons Systems Control (4 hours)

Thus, in May of 1968 the Superintendent could announce:

> We have made a major and most significant improvement in the area of Professional Education and Training. We have achieved the proper balance between this area and the area of academic education without denigrating the latter.[95]

An unforeseen consequence of the problem of shrinkage of professional education's share of the curriculum was the increasing number of civilian and reserve officers needed to teach the expanding elective program. This, in the eyes of the administration, "posed a threat to the maintenance

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[95]Statement to the Board of Visitors submitted by the Superintendent of the United States Naval Academy, (May 3, 1968).

of an aura of military professionalism."[96] While civilians were 50% of the faculty in 1961, by 1967 they had risen to 56%. The significant buildup in the number of civilians prior to 1968, with the accompanying drop in officer faculty, is clear from the following:

Year	#Civilian Faculty	#Military Faculty	Total	Ratio
1961	215	276	491	44/56
1963	243	282	525	46/54
1965	290	275	565	51/49
1967	303	241*	544	56/44

*30% were Reserve Officers

The solution to the 1967 "problem" was rather straight forward. With the backing of Navy Headquarters, the Superintendent simply reduced the number of civilians and increased the number of naval officers, thereby achieving a more desirable (51/49) ratio.[97]

While the Navy and the Academy were focusing on the questions of faculty and program imbalance, a concern shared by the alumni and the Board of Visitors as well, planning for the longer term was being initiated. Although the minors program was generally viewed as a step in the right direction, the Board of Visitors recommended examining the program with an eye to still further

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[96]Lovell, op. cit., p. 174.

[97]Ibid.

improvement. As they observed in 1966:

> The time has now vividly come when a careful evaluation of the future academic program must be made with the thought of reducing its broad scope of requirements [reference to the 85% common core curriculum] to one which would permit better academic performance.[98]

The primary problem with the 85% common core, one that was present under lockstep and still awaited a satisfactory solution, was that some midshipmen who would otherwise make excellent officers were not able to handle its technical demands. The Superintendent was in agreement with the Board: "It is very true that we have many outstanding midshipmen who are also outstanding potential officers, and who can do very well in some areas of our curriculum, but who are blocked by other areas."[99] The Academy had recognized that within a group of 4,000 midshipmen there must out of necessity be differences in aptitude and interest, and that the solution might be "more than one program."[100] In other words, a majors program should be designed to meet the needs of the Navy while simultaneously recognizing these differences in interest and aptitude.

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[98] Report to the Board of Visitors submitted by the Superintendent of the Naval Academy, (1966).

[99] Statement to the Board of Visitors submitted by the Superintendent of the Naval Academy, (1967), p. 27.

[100] Ibid.

Serious study of such a program would be postponed, however, until the new professional education and training program had been successfully implemented--and, we should add, until "Lord Jim" took the helm.

FACULTY FERMENT DURING THE 1960S

In the decades immediately prior to the 1960s the Naval Academy was in some respects accurately described in the words of Admiral Calvert as "a good prep school."[101] The characteristics implied in such a phrase certainly applied to many of the faculty and their professional situation. The academic quality of the civilian faculty was, with some exceptions, good only in comparison to their officer counterparts, at least as measured by attainment of the doctorate and in terms of their scholarly output. In AY 1954-1955, for example, the academic degree held within the three academic departments which were predominantly civilian was most often a masters degree and distributed as follows:

Department	Ph.D.	MA/MS	BA/BS
1) English, History & Government	18 (37%)	28 (57%)	3 (6%)
2) Foreign Languages	4 (15%)	22 (81%)	1(4%)

[101] The Admiral's remarks were related to the authors by a retired professor who wishes to remain anonymous.

3) Mathematics	16 (33%)	31 (63%)	2 (4%)

In addition to teaching a large number of sections from a limited variety of core courses (there were only eight in the case of the English, History and Government Department), the civilian faculty were expected to heavily involve themselves with midshipmen in such activities as assistant athletic coaches, coaching debate, directing theatricals, etc. They were not expected to be professionally active, much less to publish. A few were and did, but the vast majority did not.[102] As Boroff observed:

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[102]Illustrative of the activities considered appropriate for the faculty were the following. Commenting on the procedures involved in promoting the civilian faculty, Admiral Davidson, then Captain and Head of the English, History and Government Department, recalled: "I'm not sure what criteria we used across the board, but I'll give you an example of what happened. [An Associate Professor came to see me, one who was up for promotion, and urged that his "best friend" not be promoted.] He said, I've come not to ask any special consideration for myself, but I would want you to think very carefully before recommending Professor So-and-So for promotion because that would be almost a blight on the Naval Academy.... Don't promote him. He's a nobody. He doesn't have his doctorate degree, and he's not even working very hard toward it. So I started looking into this thing, and I found out that the one against who he was directing his remarks was coaching one of the sports.... 90% of his time out of the classroom he was coaching. He had a reputation of inviting midshipmen to his home regularly. He had a reputation of tutoring midshipmen. He didn't have time to publish or perish. So I went to Admiral Joy [the Superintendent] and I recommended very strongly that we promote the one this man said don't promote, and I said 'don't promote the one who said he didn't want his best friend promoted.' And that's the way it came out." Reminiscences of Rear Admiral John F. Davidson, U. S. Navy (Retired), U. S. Naval Institute, Annapolis, Maryland,

> The civilian professors have also been given poor marks by some observers. Their teaching load is too heavy (twelve to sixteen hours a week); their research productivity...is meager; and they do not invite comparison with a first rate college. Moreover...they have the status of second class citizens in the Academy's hierarchy.[103]

In order to understand what we have labeled the "faculty ferment" of this period, recall the observations and suggestions made by the Folsom Board in 1959. The library collection was found to be "marginally adequate" and the library facilities themselves "inadequate." The method of instruction was criticized for its rigid adherence to course outlines, daily recitation by the midshipmen, weekly and often daily quizzes, and the practice of changing instructors during the course of the semester.

The physical work place also left much to be desired. The 1956 Middle States Accreditation Team observed that:

> The situation as regards office space for civilian faculty was in general found to be deplorable. For the most part, the civilian staff were crowded together in large offices, with old

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1986. The faculty today continue to tutor midshipmen and many participate in midshipman extracurricular activities. Today's faculty is active professionally as well. In addition, "publish or perish" is guidance ignored only at one's peril.

[103]Boroff, op. cit., p. 47.

> desks and unattractive and often shabby surroundings.[104]

The Board of Visitors leveled a more detailed criticism of the physical setting the following year:

> The Board notes with concern the inadequate faculty support with respect to physical facilities and technical and clerical help. The present faculty office spaces can best be described as wholly inadequate. In some departments five to fifteen faculty members are crowded into one space, sometimes separated by frosted glass partitions, but affording no privacy or quiet for scholarly activities and faculty-student consultation. The lack of office space is aggravated by the expansion of the curriculum. There is only one clerk or stenographer available for each 18 members of the faculty. This is a serious deterrent to faculty effectiveness and morale. Faculty members are faced with the necessity of doing their own clerical and routine administrative work. The Board recommends that steps be taken to increase the number of clerical personnel to reduce this ratio to a figure of not more than 6.3 to 1 in the immediate future.[105]

While inadequate physical facilities certainly contributed to the malaise felt by some of the faculty, there were other more basic factors accounting for the ferment of the sixties. And failure to heed the warnings implicit in the

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[104]Report of the Middle States Association of Colleges and Secondary Schools Evaluation Team for the U. S. Naval Academy, February 1956, p. 8.

[105]Report of the Board of Visitors to the United States Naval Academy, 1 May 1966, p. 9.

suggestions of the Folsom Report must be ranked as primary.

Recall the recommendations made by the Folsom Report in 1959 and the Academy administration's response to them. At that time the Board observed that an improvement in the curriculum would necessitate an increased demand upon faculty competence. In order to staff the new curriculum the Academy of necessity would have to recruit a number of young academic professionals. And this took place in the early 1960's. A faculty member speaking to the press in 1966 observed:

> When I came here five years ago, this was no more than a trade school.... Anybody who left five years ago wouldn't recognize the place now. This school has really tried to pull itself up, and I'd say the academic standards are 100% higher than they were in 1960.[106]

In a similar vein another, and perhaps older, faculty member observed:

> These young teachers brought vitality, idealism to new ideas to the institution that for years had enjoyed a relaxed, clubby atmosphere. Inevitably, many of them bumped against a system that had not yet learned to accommodate itself to them.
> Now a large segment of this group is demanding change. What the faculty wants is a sense of participation, a dialogue with those "topside," in which their talents are recognized as assets to be nourished rather than manipulated.[107]

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[106]"Naval Academy: Study in Contradictions," Evening Star, 6 April 1966.

[107]"Naval Academy: University or Trade School?,"

But the Academy was not "nourishing" these new assets. The Academy firmly adhered to the status quo. It was unwilling to accommodate the felt needs of its new faculty. The results were feelings of frustration, resentment and alienation. Three faculty statements in the media capture the spirit of malaise:

> The official seal of the U.S. Naval Academy shows a galley under way, its sails full and its oars sweeping. "The trouble here has been that the Academy has wanted its new faculty members to do only one thing--to come aboard and row," a young civilian Ph.D., who has an excellent record as a scholar, told Science recently. This highly qualified young professor--an academic type increasingly in demand at the Naval Academy--noted that the galley's oarsmen face the stern as they row, propelling the vessel forward but not knowing where it is going.
>
> His remarks simply point up a truth which now must be clear to all: the Naval Academy has failed to make the accommodation necessary for the comfortable assimilation of the kind of civilian faculty it is trying to build.
>
> The Academy is unlikely to find a lasting solution to its faculty problem until it discovers a way to give civilian professors--all of them, not just the most senior--a larger voice in shaping Academy policy.[108]

The felt lack of a meaningful voice in shaping Academy policy was brought to a head in 1966 by what might be

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The Washington Post, 17 April 1966.

[108]"U.S. Naval Academy: Faculty Unrest," Science Magazine 20 May 1966, p. 1043.

called the "Ponder Incident," which involved the Academy's policy of grade quotas and, to a lesser extent, the practice of reexaminations for some failed midshipmen. Both of these policies reflected the administrations deep concern for complete fairness where midshipman academics were involved. Despite these high motives, however, both policies were seen by many of the faculty, especially the younger, newer faculty who had not absorbed the special ethos of the institution, as unacceptable, unacceptable because they were unprofessional. And equally important, these practices were imposed without consultation.[109] Recall the analogy of the galley oarsman facing the stern and not knowing where the ship is bound. The concerned faculty felt entitled, as professional educators, to participate in steering the vessel. Moreover, access to the decision makers should not be occasional or sporadic but should be an ongoing and institutionalized thing. Such, they perceived, was not the case in the early 1960's. Needless to say, the senior military and civilian administrators did not share this perspective. The institution of the Senior Professor and the existence of the various "class committees" served quite adequately, they felt, to guarantee a faculty voice at the "highest levels" of

[109]Although the policy of reexamining failed midshipmen had been in place for some time, it was "new" to the young professors that the Academy was bringing on in large numbers during this period.

Academy affairs.[110]

Grade quotas had been imposed following the replacement of the numerical grading system by letter grades in 1963. The latter were introduced to improve academic standards and simplify academic administration. Under the numerical system a passing grade and a passing average were 2.5. Under the letter system "C" was the passing average but "D" was a passing grade. Under this new system failures in the class of 1967 were projected by the administration to be twice the normal number.[111] The academic departments were asked (some faculty will say "ordered") to limit the number of D's and F's per class on the basis of norms established through prior experience. It

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[110]There were five civilian Senior Professors. Four of these represented academic areas: math-science, engineering, foreign languages and social sciences (Department of English, History and Government.) The fifth was the Educational Advisor to the Superintendent who also served as Assistant Secretary to the Academic Board. This position was abolished with the creation of the Academic Dean and the fifth Senior Professor subsequently represented the Department of Professional Development.

The "class committees" existed within each academic department that offered a core course. They were composed of veteran faculty and tasked with selecting the textbook(s), preparing the syllabus, and composing the final examination for the given course. Because a midshipman took a particular core course during a particular academic year, e.g., fourth class or first class year, the department sponsoring an elective course had its "Fourth Class Committee" and/or it's "First Class Committee", etc.

[111]Report of the Board of Visitors, 1 May 1966, p. 13.

is difficult not to share the Academy's concern that it would be irresponsible to permit a disproportionate number of failures to occur simply because of a change of grading systems. But this concern was not communicated to the faculty, especially the newer faculty. The policy appeared to many faculty as fiat. And the administration was sometimes less than sensitive in their efforts to guarantee conformity. As related by Lovell:

> There had been some pressure on faculty members for years to keep the number of academic failures at "acceptable" levels. However the new, explicit, quota system [introduced in 1964 restricting the number of D and F grades to a particular percentage for each class, e.g., no more than 4-5% for the First Class] infuriated many of the faculty. In the Department of English, History and Government... twenty-seven civilian faculty members signed a petition demanding that the quota system for grades be dropped. The Navy captain who headed the department responded by calling a departmental meeting at which he denounced the petitioners as "mutineers."[112]

Pressure in a more extreme form occurred in the case of one member of the Foreign Languages Department who

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[112]Lovell, op. cit., pp. 169-70. This was in early 1966. Because lack of communication between the administration and faculty was so much a part of the problem at this time we should also add that Lovell points out that the captain here refused to forward the petition to the Dean and Superintendent. The latter received a copy only when smuggled to him by unofficial channels.

informed The Washington Post that his contract had not been renewed because of his refusal to cooperate with both the grade quota and reexamination policy.[113]

The policy of reexamining some failed midshipmen had been in practice for some time and, like grade quotas, stemmed from the best of motives. Under the lockstep curriculum the midshipman was required to pass all courses. Summer school did not exist nor was there normally an opportunity to repeat a failed course or to make up the deficiency by taking and passing a different additional course. Reexamination was an alternative to separation from the Navy. The problem, from a faculty perspective, was that the decision to reexamine did not rest with the relevant faculty member but, like grade quotas, was dictated in particular cases from above. Faculty-administration

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[113]Indicative of how ingrained "traditions" were at the Academy, in the immediate aftermath of the formal abolition of grade quotas pressure continued to be brought to bear from some quarters to continue in the spirit of the past. As one Navy captain wrote:

The existence of such controls...was objected to by a small but vocal group of civilian faculty. A rebel who insists that few students in his classes are doing passing work and who attempts to give grades to match may soon find that leverage can be brought to bear to exercise reasonable judgement [sic] in the assignment of grades to students. Report of the Committee on Curriculum (August 9, 1966), p. 3.

confrontation over the reexamination policy surfaced in what we would label the "Ponder Incident."[114]

Kent Ponder was a 34 year old Assistant Professor of Spanish hired on a one year contract by the Naval Academy in AY 1965-66. His teaching responsibilities consisted of fifteen hours of Introduction to Spanish.[115] One of his first year students, a turn-back[116], scored 16 per cent on a final written examination, the lowest among the 213 taking the test, and was destined for an F for the course. According to Ponder, he was summoned by the head of the Foreign Languages Department, Captain Robert S. Hayes, and told to adjust his grades upward to reflect the quota of

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[114]"Incident" is not too strong a term to describe the events of April 1966. The stories appearing in the press carried such captions as "Grade-Fixing Charged at Naval Academy", The Washington Post, 4 April 1966, "Grades Inflated for Midshipmen", The New York Times, 10 April 1966, "Academic Revolt Cited by Superintendent", The Evening Capital, 5 April 1966, and "Naval Academy Grade 'Fix' Denied", The Baltimore Sun, 8 April 1966. Finally, in a story captioned "Inquiry Set at Academy" The Baltimore Sun [14 April 1966] announced that "Senator Byrd (D., W.Va.) was named a 'one-man subcommittee' today to make an inquiry into the academic standards of the United States Naval Academy at Annapolis."

[115]This was the typical teaching assignment for junior faculty, i.e., single course at the introductory level with the class meetings often spread over a six day period.

[116]A "turn-back" was a student ordered to repeat a previous year of academics due to poor performance. This was a not an uncommon occurrence prior to the introduction of summer school. Today it has gone the way of the 4.0 grading system.

not more than 10 per cent D's and F's for plebes.[117] Ponder refused. (Captain Hayes publically denied that any such discussion had taken place). Meanwhile, the Superintendent, Rear Admiral D. L. Kauffman, called Ponder to his office. Stressing that he was not speaking in his official capacity but as a friend of the youth's father, a Navy admiral, the Superintendent asked if there were not something that could be done to assist the boy. Ponder replied that the midshipman was receiving extra instruction but that his chances of passing the course were slim. The midshipman subsequently failed the course final, but was later given a reexamination. The second examination was composed, administered and graded by a group of senior civilian faculty of the Languages Department. The midshipman scored a passing grade of 56 per cent. Ponder was advised that his contract would not be renewed. According to the Superintendent, Ponder's dismissal stemmed not from having taken a stand against "grade fixing" (the descriptive term being used in the press), but from an unspecified conflict with the department's Senior Professor. Whatever the case, these events could not have taken place at a more inopportune time for the Academy's administration. The

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[117]The Academy had briefly attempted to guarantee a specific number of "A's" and "B's" for plebes, but the plan was dropped according to the Academic Dean because of "coordination problems." "Naval Academy May End Limit on Number of Fs", The Washington Post, 6 April 1966.

Board of Visitors was about to convene and the report of the Middle States Association of Colleges and Universities accreditation team was about to be released. From a public relations perspective this made for a time of acute sensitivity. While media coverage persisted throughout the month of April a critical shift of focus occurred. Professor Ponder rapidly lost the spotlight and was replaced with coverage of a more general malaise affecting the Academy. The "academic revolution" fostered by the Academy's administration had turned into a faculty revolt.[118]

In implementing the "academic revolution" of the early sixties the Academy, of necessity, had heeded one recommendation of the Folsom Board (Committee?). The significant improvement of the curriculum mandated a significant improvement in the quality of the faculty and a vigorous program of recruitment had been embarked upon. The result was an influx of new, young Ph.D.'s, often fresh from the nation's leading universities. But the administration explicitly rejected the Folsom Board's

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[118]This transition can be seen in the titles of the news stories at the time. In early April they typically referenced "grade quotas" and "grade fixing." By May the situation of the faculty in general was the target, as reflected in such captions as "Kauffman Says Communication With Faculty Priority Aim" [The Evening Capital, 30 April 1966], "More Civilian Rule Asked at Academy" [News American, 1 May 1966], and "U.S. Naval Academy: Faculty Unrest" [Science Magazine, 20 May 1966].

(Committee's?) observation that such a faculty should also have a voice in planning and administering the academic program. Noting that the civilian faculty member in general had the status of an employee rather than an academic professional, the Folsom Board had concluded its study with the recommendation that "the civilian faculty viewpoint at the highest level of academic administration should be assured." In the eyes of the administration, the presence of Senior Professors on the Academic Board was sufficient faculty representation in the decision making process.

The recently hired junior faculty did not share this perspective and the Ponder Incident provided a rallying issue. A few days after Ponder went public with his charges of grade fixing and his retaliatory firing by the Academy, five assistant professors in the mathematics department publically condemned the policy of grade quotas. This was immediately followed by the resignation of Assistant Professor Richard Vitzthum of the English Department. As befits a member of that department, he was eloquent in his condemnation of the Academy's treatment of its civilian faculty. (His similes do tend to get out of hand.) Speaking of his disillusionment to The Washington Post he charged:

> Fundamentally the Academy views its civilian faculty as a commodity which it has bought, like provisions for the mess hall, and which, like meat, coffee and sugar, it owns. What the Academy believes it has paid for is acquiescence on the part of the faculty in a system that actually

> discourages intellectual initiative and growth.... The system opens many wounds, like slow leaks in a tire, through which the teacher loses his self-respect and integrity. Every teacher soon realizes that he is a second class citizen in the scheme of things. All power emanates from above: the teaching faculty hangs like metal debris from the military magnet. For example, all final grades in the English, History and Government Department must be approved by the military heads [sic] of department, who are directly responsible to the Superintendent. These heads [sic] can order the faculty to change its grades and such orders are ex cathedra.[119]

But the grade quota issue masked a deeper and more pervasive problem--the absence of effective channels of communication through which they could enunciate their views with assurance that they would be heard and examined on their merits. The administrative structure at the Academy did not allow for this. At the apex of the structure were the Superintendent, Rear Admiral Kauffman and the civilian Dean, Bernard Drought[120]. Under them were

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[119]The Washington Post, 11 April 1966.

[120]Many of the faculty were of the opinion that while the Dean was near the apex of decision-making organization chart, he was in reality relatively powerless having either been coopted and/or rendered neutral by the true scheme of things. Recall Superintendent Minter's statement in 1964: "...the Dean reports directly to the Superintendent and takes his policy guidance from the Academic Board...." Since the Academic Board was then composed of the Superintendent, the Commandant, three Navy captains and the Dean himself it was easy to perceive the Dean as essentially an administrator rather than a policy maker. Thus Lovell states that "Some [faculty] found even the appointment of a civilian dean to be largely 'eyewash.' Not only did the new Dean fail to become the champion of the civilian faculty that some of the latter briefly had hoped

the eight academic departments, each headed by a Navy captain. It was at this level that the young faculty found themselves frustrated, and it was this structure that fostered their feeling of being employees and second class citizens. For the civilian faculty the department's Senior Professor was the key administrator. Reporting to him were the various "class committee" chairmen, those senior faculty in charge of the individual core courses. For example, the Department of English, History and Government taught one core curse each semester and thus had eight class committees. The chairman of the class committee, assisted by other senior faculty, had the responsibility of text selection, syllabus writing and examination preparation. (That the junior faculty was essentially excluded from this fundamental academic process was another major source frustration, although the issue was not formally raised at this time.) Thus, the organizational structure within which the faculty existed did not provide clear links with the Academy's top administrators.[121] There

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he would; but soon after assuming his position he became the instrument of a policy on the assignment of grades that put him at odds with many of his faculty." Lovell, op. cit., p. 169.

[121]In early April, as the issues began unfolding, the administration denied the existence of communications problem except in so far as it was a consequence of factors peculiar to the civilian faculty itself. On April 6 the Academic Dean observed that "In a theoretical sense there is no better line of communication than in a military organization. But most faculty members present their ideas

was no "chain of command" that would guarantee that issues raised by the faculty would be communicated to the Dean and Superintendent--the only individuals capable of definitive action. It was simply not in the nature of things that a Navy captain department head would challenge the Admiral's decision to impose grade quotas. Nor could the departments Senior Professors be relied upon in such situations. They were wedded to the status quo and dedicated to the smooth day to day operation of the institution.[122] The observation in Science seems to have been clearly on the mark in noting:

> Weakness in the Academy's system of administration and policy-making are apparently to blame for much of the unrest in the faculty however. If civilian faculty members had had a more effective means of pressing their views, the grade quotas might have been rescinded before

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orally rather than in written form and they tend to die on the vine." The Washington Post, 6 April 1966.

[122]This characteristic was remarked upon by Admiral Davidson in recalling the opposition of the Senior Professors to the creation of the post of Academic Dean. "I think that we were really arguing that the status quo was perfectly good. Here we had the benefit of about six Senior Professors, who had been here for a considerable number of years and worked steadily right up through the system, that they were the best advice the Superintendent could get. As I look back upon it now...perhaps the drawback, which I didn't see at the time, was that the committee didn't spend its time trying to establish new ideas. They just advised the Superintendent on the way things were going rather than suggesting new ideas and new plans." Reminiscences of Rear Admiral John F. Davidson, op. cit., pp. 363-64.

> they could have become an embarrassment. The petitioners, not having a faculty senate or other authorized forum in which to press their views, found themselves appearing as rebels or malcontents.[123]

Finally, the effectiveness of the faculty in voicing its concerns was further reduced by this administrative structure in that the natural organizational groupings along academic disciplinary lines were replaced by organization around specific core courses or, in other departments, their equivalents.[124]

What were the views that the young faculty were anxious to communicate to the administration? The first concerned the midshipmen. Aware that the faculty were constrained in the maximum number of D's and F's they could award, the students, especially the first class, were seen as underachieving. The New York Times observed that:

> Many of the newer, younger faculty members here feel strongly that the "fattening" of low grades representing low performance, the lack of preparation and "coasting", undermines the most fundamental requirements of respect by the students.
> "Our grades don't mean anything and the midshipmen know it" one professor said. "I came here because I wanted to teach good students!" Another professor said bitterly: "My students

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[123]Science Magazine, op. cit., p. 1044.

[124]For example, the "equivalent" in the Department of Foreign Languages would be the specific language, e.g., Portuguese, subdivided into its various levels--first year, second year, etc.

> admit that they don't even try because they don't have to."[125]

Once again it was Professor Vitzthum who eloquently spoke to the problem:

> The seniors are impossible. They can't be handled. They don't read anything. They feel no real danger, and they resent the indignity of having to take the course [he was teaching two sections of a first class core course], since most of them are engineers. Many midshipmen are capable of decent college work. The bald fact is that they are neither required nor even expected to do it. This they learn with amazing speed; and the dismal pageant of sleeping students, shabby or non-existent class preparation and mindless jejune academic performance that passes daily in review leaves the teacher gasping in its wake. Work that in respectable colleges would fail receives satisfactory grades. In fact one comes to prize what other schools call mediocrity, for at Annapolis mediocrity is excellence, incompetence is mediocrity, and mindlessness is worth a D.[126]

The second concern felt by the younger faculty more clearly related to their status. Administration control of grades demonstrated a lack of faith in their ability to judge their students and therefore brought into question their status as professionals. Where administrators could substitute their judgment for that of the instructors on the question of passing or failing, the latter had lost much of their professional reason for being. The Academy

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[125]The New York Times, 10 April 1966.

[126]The Washington Post, 11 April 1966.

had taken the first step in a program of academic up-grading by significantly expanding the scope and focus of its curriculum, and the second step of bringing onboard a new type of faculty: young Ph.D.'s grounded in academic disciplines and imbued with high professional standards. But the Academy failed to recognize the need to give its civilian professors--junior as well as senior--a meaningful voice in shaping academic policy. They saw the Academy as wanting it both ways: exploiting their credentials and scholarship yet, to use the analogy of the galley, expecting them to quietly face the stern and simply row.

The frustration felt by some of the faculty had led a small group of them to take an important step the previous year. Lacking alternative formal channels through which to voice their concerns, in April 1965 a chapter of the American Association of University Professors was established. At the time this was seen as a rather daring step, especially because they had no idea how the administration would react. By April of 1966 the chapter had grown to approximately 70 members, mostly from the liberal arts. Early that month a meeting of the group was called and from it issued a tempered set of proposals for dealing with the problems that were now almost daily grist for the press. Among other things the AAUP issued a unanimous resolution urging the administration to abandon the grade quota policy because of its negative impact on

both midshipmen and faculty. The chapter's statement praised the Academy for the significant strides it had made in up-grading both curriculum and faculty while observing that a grade quota policy:

> ...has encouraged many students to perform well below their potential and has severely damaged the morale of many members of the faculty.
>
> Grading is an academic function and must be the prerogative of the individual teacher. Manipulating grades and exerting pressure on individual instructors to conform to a quota strikes at the heart of academic integrity and professional competence.
>
> Indeed, such a policy may well restrict the faculty's academic freedom. It certainly undermines public confidence in the academic stature of the Naval Academy.[127]

In addition, the resolution urged the creation of an advisory academic council "to provide a reasonable and recognized channel of communication between the faculty and administration and to utilize the educational talent and expertise of the faculty."[128]

It seems fortunate that the key players approached these problems with open minds and a desire to achieve meaningful accommodation. Thus, early in April, Superintendent Kauffman announced that some of the discontent might be reduced by reviving the Academic Council and that he was considering adding junior faculty

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[127]The Washington Post, 14 April 1966.

[128]The Evening Capital, 14 April 1966.

members in the future.[129] The proposal met with little faculty enthusiasm. Given the makeup of the Council--administrative leaders in uniform and the six Senior Professors--it is not surprising that the body was perceived as something of a company union and the idea languished. The Superintendent's proposal and the cool reception it received from the faculty are vivid reminders of how much things had changed in a few short years. Recall that in 1959 Superintendent Melson had firmly rejected the Folsom Report suggestion of increased faculty participation in governance by stating that the presence of the six Senior Professors on the Academic Council was quite adequate in that regard.[130]

Support for the junior faculty position was received from the conclusions of the Middle States Evaluation Team and the Board of Visitors. The report of the evaluation team following their visit to the Academy echoed the views of the junior faculty:

> No good college that we know permits administrators alone and directly to prescribe the distribution of grades. Neither do good colleges permit reexamination of failing students without a repetition of the failed course. These practices are present at the Academy. The civilian faculty for the most part wishes them

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[129]The Washington Post, 6 April 1966.

[130]See the section of this paper entitled "The Folsom Report."

> discontinued. At the time of our visit we strongly advised immediate reconsideration of these policies and suggested that they were at least partially responsible for the [midshipman] under-achievement that we have noted.[131]

The Report also suggested creation of a forum or senate that would function as the "voice and conscience" of the entire faculty.

The Board of Visitors took note of the Middle States Report and echoed its conclusions, stating:

> The Board is of the view that the Superintendent, the Dean, the faculty and those in position to provide academic advice, must reevaluate the current program in light of the special requirements of the Academy. The Board hereby requests that the Superintendent report to the Board, in advance of the next meeting, progress in solution to this problem.[132]

Anticipating the Board of Visitors the Superintendent had announced two days previously that grade quotas would be removed beginning in the Fall 1966 semester.[133] And in his departing remarks to the Board he assured them that

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[131]Report of the Middle States Evaluation Team, p. 10.

[132]Report of the Board of Visitors to the U.S. Naval Academy, 1 May 1966, p. 12.

[133]The Baltimore Sun, 30 April 1966. The Superintendent was aware of a large irony in the grade quota situation. As he observed, "...although the public uproar came from the newer civilian instructors, we feel that most of the conflicts in the marking system came from long-time instructors who had possible grown too used to the 2.5 passing grade." Navy Times, 8 May 1966.

improving communications with the faculty would receive his highest priority. Thus he created the Faculty Forum composed of fifty-eight civilian and military teaching faculty and charged it with better understanding and communication between the faculty and administration. For the first time in its history the Naval Academy had an elected body through which the faculty could communicate its views and recommendations directly to the institution's top decision-maker. The case of Professor Ponder had given rise to significant changes in Academy policy and the faculty was now in possession of a voice. Science Magazine concluded that:

> It is now evident...that the civilian faculty has become a new force at the Academy whose power must be recognized. The power, on display during April, is the power to criticize, stingingly, on the front pages of the newspapers. It is also the power to become disaffected and thus frustrate the Academy's ambition to become academically first-rate.[134]

It was not necessary to test the conclusion of the above statement. Lines of communication were created and the majority of the faculty no longer felt that they had the status of second class employees. The other major barriers to meaningful and active participation in the academic

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[134]Op. cit., p. 1045.

program fell swiftly, especially under Admiral Calvert, when the majors program was introduced.

Updating of Academy Facilities

The basic physical facilities of the Naval Academy were constructed between 1898 and 1907. Prior to World War II changes in enrollment and training programs were met on an ad hoc basis by adding buildings in various parts of the Yard. However, the physical plant of the early 1960's differed little from that designed by architect Earnest Flagg at the turn of the century. In 1965 a master plan was completed that would result in dramatic modernization of the entire physical plant. New buildings were constructed and old buildings completely renovated at a cost in excess of $122,000,000. An overview of the major, and massive, construction and rehabilitation program is in Appendix C.

The Calvert Revolution

Perhaps numbed by the curricular change of the early 1960's, or simply accustomed to "radical" change at Annapolis, the corrections ordered by Superintendent Calvert in 1969 occurred without the expressions of apprehension that accompanied the move to validations and electives a decade earlier.[135] And although the earlier

[135]The next "crisis" to face Annapolis would come in 1976 with the admission of women to the Brigade of

changes were frequently labeled as "revolutionary" they seem rather tame in comparison to what was about to take place--a seismic change, one truly deserving of that label. In 1969 the Naval Academy adopted the majors program.

This significant academic leap forward raises two questions. First, why was such a radical change considered necessary? Second, what did it entail?

Three important considerations propelled the Academy into the majors program. These might be labeled pragmatic considerations, practical academic considerations, and professional training and education considerations.

Pragmatically, it was recognized, and with alarm, that the number of nominations to the Naval Academy (and the other service academies as well) had been steadily declining. A very important corollary to declining nominations was the steady increase in the rate of voluntary resignations among the Brigade.[136] Academically it was recognized that within the 85% core curriculum of the pre-1969 program there were required subjects such as Fluids, Mechanics of Materials, and Thermodynamics that some midshipmen were unable to firmly grasp. But many of these same midshipmen exhibited a positive attitude and

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Midshipmen.

[136]VADM James Calvert, "The Fine Line at the Naval Academy," U.S. Naval Institute Proceedings, October 1970, pp. 65-66.

aptitude for naval service and were otherwise excellent officer material. However, "by requiring each candidate to take these more or less esoteric subjects...there [was] a failure to give proper recognition to the fact that there is not necessarily a correlation between an advanced technical education and success as a naval officer.[137]

Addressing the Alumni Assembly in the fall of 1970, John Kelley, Associate Dean for Academic Affairs, echoed Admiral Calvert's views, while adding a second justification for the new majors program.

The fundamental reason for the shift away from a traditionally engineering oriented education is the painful fact that we were aware that about one-third of the midshipmen were unable to handle such a program. Yet these same men were excellent officer material and would be a credit to the Navy if they were able to complete some program.

A second reason for the shift was the fact that many midshipmen showed a lack of background in the humanities and social sciences. This fact became apparent when in later duty assignments they were confronted with a need for a broad background in history, political science, economics and foreign affairs.[138]

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[137]Superintendent's Statement to the Board of Visitors, April 1969, p. 6.

[138]Shipmate 33 (December 1970), p. 9.

Regarding professional training and education, the second consideration calling for a major revamping of the academic program, the reader will recall Admiral Kaufmann's grave concern that the pendulum had swung too far in the direction of academics. Under "lock-step" the professional-educational share of the curriculum had been 40.5 semester hours. By 1967, the height of the validation-elective program, it had shrunk to 27 semester hours. Following a review by the Professional Training and Education Committee, the 85% core curriculum was revised to include 38.5% semester hours of professional training and education. But Admiral Calvert's criticism of the professional program, despite its significant increase in hours, was trenchant:

> The professional shipboard-oriented courses were inadequate in quantity and quality. Their timing was not optimum within the four year period and, in particular, they did not tie in adequately with the summer programs. Practical, shipboard-oriented, engineering, electrical and electronic principles were not being adequately or effectively taught.[139]

Given these programmatic, academic, and professional considerations the 85% core curriculum had lost its raison d'etre. The logical plan, in light of these considerations, was a course of study wherein each midshipman could select

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[139]Calvert, op. cit., p.66

a program which interested him, i.e., an academic major, with the obvious caveat that such a program be oriented to the needs of the Navy.[140] The new majors curriculum was introduced in September 1969 for the lower three classes.

The majors program at its inception consisted of twenty-four majors divided among seven Academic Divisions.[141] The following year, 1970, the number of Academic Divisions was reduced to five and the number of academic majors increased to twenty-seven, as follows:

I. Division of Engineering and Weapons

Aerospace Engineering
Mechanical Engineering
Ocean Engineering
Marine Engineering
Electrical Engineering
Systems Engineering
Naval Architecture

II. Division of Mathematics and Science

Mathematics
Physics
Chemistry
Applied Science
Oceanography

III. Division of English and History

English
History

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[140] This would soon translate into severe restrictions on the number of midshipmen permitted to major in the humanities and social sciences.

[141] Superintendent's Statement to the Board of Visitors, April 1969.

IV. Division of U.S. and International Studies

Area Languages
  European Studies
  Far Eastern Studies
  Latin American Studies
  Soviet Studies
Political Science
  Foreign Affairs
Economics

V. Division of Naval Command and Management

Seamanship and Tactics
Navigation
Behavioral Science
Management Science
  General Management
  Analytical Management
  Operations Analysis

In 1977 the number of academic majors was reduced to a more manageable eighteen as a way of reducing under-subscribed and/or redundant majors. For example, the four area language study majors were eliminated and foreign languages became in effect a service department.

A persistent problem facing Admiral Calvert and his successors was to keep enrollments in the social science and humanities majors low. Quotas were established. Under Calvert a rather complex 40-30-20-10 quota system was in place. A minimum of 40% of each class would major in engineering (Group I); 30% in mathematics-science (Group II); a maximum of 20% in the social sciences-humanities (Group III), and a maximum of 10% in management (Group IV).

These quotas were accomplished by a careful screening of candidates by the Admissions Board with preference given those young men with a technical bent. Disincentives to majoring in the social sciences and humanities were introduced such as requiring three years of foreign language for those choosing these majors. As a last resort, midshipmen were denied their first choice of major when such a choice would negatively impact on the prescribed quotas. The latter choice Superintendent Calvert found unattractive and recommended to the Objectives Review Board (ORB) in May 1972 "that the Naval Academy not go to a forced system of majors selection."[142] He also added: "don't make Group III any more attractive by changing it [i.e., reducing the three years of foreign language] to four semesters of language."[143] In 1976, however, the number of hours of foreign language required for social science-humanities majors was reduced from six to four semester hours. This would permit additional flexibility within the majors. The openings could be used for electives or additional language as determined by the midshipman and his/her advisor and for the new core course in differential equations. In addition, the Japanese, Italian and

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[142]The Objectives Review Board is the Academy's senior policy board. It reviews objectives, policies, curriculum proposals, and all other aspects of Academy operations.

[143]Minutes of the ORB, 8 May 1972, p. 5.

Portuguese offerings were dropped due to under-subscription.

The quota system was again modified the following year, 1973, in a most peculiar way. The administration was concerned that a number of well qualified candidates were being denied admission because of the ceiling of 20% on eye waivers. The Superintendent, now Admiral Mack, requested permission from the Chief of Naval Operations (CNO) to increase the percentage of eye waivers to 30%. This was agreed to, but with one caveat added by the Bureau of Personnel (BuPers)--that the 10% increase in eye waivers be used to increase the number of technical majors, i.e., Groups I and II, to 80% of each class effective the following year.[144] This presented the Academy with a problem. Short of draconian measures, the number of midshipmen electing to major in the social sciences or humanities would not "naturally" drop below about 20% nor Management below 10%. However, the BuPers caveat was reinforced by a directive from Admiral Halloway, the CNO, in 1975. A strong believer in things technical with little love for the "soft disciplines," Admiral Holloway wrote:

> The present distribution of disciplines--a minimum of 80% science and engineering with the remainder in the humanities--is considered valid

[144]Bruce M. Davidson, Academic Dean, "Who Takes What: The Distribution of Academic Majors at the Naval Academy, Shipmate 38 (October 1975), p. 33.

> for the present, but the 80% figure may be subject to further upward adjustment based on additional experience and review. Electives should be included in the curriculum only as necessary to support the majors program. The number of electives offered will be held to a minimum consistent with this requirement.[145]

Naval officers tend to be realists, often creatively so. Recognizing that Group III would not of its own accord fall below 20% and that Management (Group IV), if not capped at 10% would mushroom, the Administration announced that henceforth Management was a "technical major." Group IV ceased to exist and the 80:20 distribution was born.

The makeover of the professional and training program to meet the objectives set forth by Admiral Calvert--better courses, better taught, and better tied to the summer training program--took place under Superintendent McKee and was implemented in AY1976-1977. The changes effected in professional education can most graphically be seen when compared to the 1968 professional program. The number of academic hours devoted to professional education increased from 38.5 to 48. Nine of the courses in the 1976 program were either new courses or courses that had been significantly revised. [146]

Recall that adoption of the majors program by Admiral

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[145]Admiral J.L. Holloway, "Naval Academy Education and Training Policy," Directive from the CNO, 3 November 1985.

[146]See Appendix D for an enumeration and comparison of the 1968 and 1976 professional programs.

Calvert was justified not only in terms of upgrading professional education and training but also by concern over declining nominations and high attrition. What Admiral Calvert could not foresee was a slight decline in the quality of applicants as well--at least as measured by SAT scores. The period of decline occurs roughly in the period 1970-1976, the early years of the majors program. Was this a reflection of anti-war sentiments or inefficient recruitment efforts? One can only speculate. The SAT scores for the classes of 1970-1988 can be found in Appendix E.[147]

The high attrition rate that concerned Admiral Calvert began a steady, although occasionally erratic, decline following the introduction of the majors program. Overall attrition dropped from a high of 37.5% for the Class of 1976 to 19.5% for the Class of 1984. Overall attrition and voluntary resignations followed an almost identical trend. Attrition resulting from academic failure peeked under Superintendent McKee and then leveled off by 1976 to a constant 5-7%. Other non-voluntary resignations--aptitude, conduct, medical--have consistently run in the 4-5% range. The majority of the voluntary resignations take place during Fourth Class year. Exit interviews conducted by the Registrar identified two primary reasons for these

[147]Data provided by USNA Office of Admissions.

resignations: dissatisfaction with life at Annapolis and/or lack of career motivation. The latter explanation seems to be increasing while the former is decreasing. Minority attrition and that of women are higher than average. Curiously, they exhibit a crudely similar trend as can be seen in Appendix F.[148]

Admiral Calvert's final concern was a decrease in the number of nominations.[149] In the decade following the introduction of the majors program the number of nominations did increase. The difference in nomination rates comparing the ten years prior to the introduction of majors and the ten years following is statistically significant at the .01 level. The argument can be made, however, that the critical variable to be concerned with here is not the number of nominations per se but rather the number of "fully qualified" (i.e., intellectually and physically qualified) nominees and the declination rate associated with this group. The official goal of a "fully qualified" pool of 2,350 nominees has seldom been achieved. Nevertheless, the number in this category allows the Academy to be quite selective in terms of offering appointments. The rule of thumb for appointments offered is to determine the desired class size and to offer

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[148]These data are derived from a study entitled "Attrition" done by the Naval Academy Registrar.

[149]See Appendix G.

appointments to a number approximately 20% larger. This 20% declination rate compares favorably with the nation's leading universities. For example, the declination rate at Harvard is 30% and at Stanford 40%.[150]

The Major is Navy

The description of the majors program that follows reveals a special characteristic that make an Annapolis education unique. First, there is a dual "core," i.e., two groups of courses that are required of all midshipmen.

What might be called "core one" explains the subtitle of this paper. The midshipman's real major today is "Navy." He or she will take a total of 50 hours of professional courses, a two hour increase over the 1976 program. This is approximately one-third of the four year program. And it does not include such non-credit activities as drill, parades, watch standing, summer cruse, or related professional activities. Moreover, the midshipman will take 165 (really?) non-credit hours of physical education over the four years. This includes hand-to-hand combat, judo, swimming, gymnastics, principles of personal conditioning, golf, tennis, handball, squash, volleyball, officiating, boxing, and wrestling. Women midshipmen take fencing in lieu of boxing and personal defense and additional volleyball, handball, and tennis in lieu of wrestling.

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[150]RADM R.W. McNitt, "USNA Admissions," Shipmate 47 (October 1984), np.

The professional core by class is as follows:

Fourth Class	Credit Hours
Leadership I	2-0-2
Fundamentals of Naval Science	2-2-3
Introduction to Naval Engineering	2-0-2

Third Class	Credit Hours
Shiphandling and Tactics	1-2-2
Leadership II	3-0-3
Navigation I	2-2-3
*Naval Engineering I	3-2-4
Second Class	2-2-2
Navigation II	2-2-3
*Naval Engineering II	3-2-4
Leadership III	3-0-3
*Electricity	3-2-4
*Electronics	3-2-4

Summer: Operations and Tactics I; Law for the Junior Officer; Law of Armed Conflict; Public Communication	4-0-4

First Class	
Naval Weapons Systems	3-0-3

*Weapons Systems Engineering 4-0-4

Total Hours: 50

The above professional core is taken by all Group III midshipmen (Political Science, Economics, History and English) as well as by Chemistry, Mathematics and Oceanography in Group II. Computer Science and Physics, the other Group II majors require a higher level of Electricity and Electronics, and Computer Science substitutes Operating Systems for the Weapons Systems course First Class year. For the ABET[151] accredited engineering majors the courses marked by an asterisk are omitted and relevant majors courses are substituted as a higher equivalent.

The second "core" of courses required of all midshipmen consists of nine hours of history, six hours of English, eight hours of chemistry, eight hours of physics, two hours of computers, fifteen hours of mathematics, and from three to five humanities or social science electives--a total of fifty-seven to sixty-three hours.

Thus the heart of the majors program prior to 1985 was core: fifty hours of professional education and training and fifty-seven to sixty-three hours of mathematics, science, humanities and social sciences. The major itself

[151]Accrediting Board for Engineering and Technology.

varied from thirty to forty-two hours. Thus, a total of 145 to 150 hours were required to graduate.

The Faculty: 1970-1985

During the 1970 to 1985 period the role of the civilian faculty in governance became truly meaningful, their academic qualifications, both civilian and military, improved dramatically, and their scholarly output, given their numbers and the undergraduate character of the Academy, was impressive.

In the area of governance, by 1981 the faculty was active on thirteen standing committees and numerous ad hoc committees. Two things are of note here. First, was the growth of the number of advisory committees. Second, was the pivotal role played by these groups. They were not mere tokens designed to lull the faculty into a misplaced sense of participation. For example, the Promotion and Tenure Committee consists of civilian professors who pass on all candidates nominated for promotion by their departments. The Civilian Faculty Affairs Committee reports directly to the Superintendent on matters affecting the civilian faculty. The Faculty Curriculum Review Committee reviews all departmental requests for course or matrix changes.[152]

[152]Civilian Participation on Academy Advisory Committees as of 1981:
1. Computer Advisory Board
2. Black Studies Committee
3. Computer Users Committee

In the area of faculty academic qualifications (it is useful to) [we will] again look at the three departments examined earlier, those that are predominantly civilian in makeup. Comparing the academic degree distribution in 1958-1959 to that in 1985-1986 we see:

	1958-1959			1985-1986		
	Ph.D	MA/MS	BA/BS	Ph.D.	MA/MS	BA/BS
Civilian	36%	59%	5%	88%	12%	<1%
Officer	0%	20%	80%	9%	85%	6%

A significant upgrading of the academic credentials of both the civilian and military faculty has been achieved. The goal of requiring the military teaching faculty to hold at least the MA/MS degree has been largely achieved. Among the civilian faculty 88% hold the Ph.D. The 12% holding the MA/MS degree are holdovers from 1940-1950 and can be expected to retire within the next few years. They are being replaced by young faculty holding the doctorate degree.

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4. Counseling, Validation and Majors Committee
5. Educational Resources Advising and Users Committee
6. Faculty Curriculum Review Committee
7. Human Relations Advisory Committee
8. Library Committee
9. Naval Academy Research Council
10. Officers and Faculty Club Advisory Committee
11. Civilian Faculty Promotion and Tenure Committee
12. Trident Scholar Committee
13. Objectives Review Board

Finally, a word on scholarly activity is informative regarding the general up-grading of the faculty. The reader will recall that critics, e.g., Boroff, described the research productivity of the faculty as "meager." That description no longer holds. In terms of books, articles published in refereed journals, and papers given at professional meetings, the output of the Academy faculty invites comparison with the nation's finest undergraduate institutions. In the decade 1975-1985 the Naval Academy faculty authored:

74 Books

1,116 Refereed Journal Articles

1,538 Professional Conference Papers

278 Technical Reports [153]

This listing does not include papers that were subsequently incorporated into books nor does it include single chapters in books. Moreover, the number of conference papers is probably understated due to non-reporting and underreporting by relevant faculty. Finally, the number of technical reports is probably understated because of their often classified nature.

If the widely held belief that active research carries over into improved classroom teaching, then one might

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[153]Unpublished data derived from Annual Report on Research, compiled by Bettie T. Sheridan, Office of Research, U. S. Naval Academy, 1986.

fairly suggest that today's faculty more than ever before is meeting the mission of the Naval Academy to "Prepare Young Men and Women Morally, Mentally and Physically to be Professional Officers in the Naval Service."

Back to the Curriculum Drawing Board: Secretary of the Navy Lehman's Directive

In July 1984 Secretary of the Navy Lehman, via the Chief of Naval Operations (CNO), ordered the Naval Academy to implement a number of curriculum and related changes. Among these changes were:

1) Equalize the math-science and humanities-social sciences core in terms of required semester hours.

2) Create an honors program in History and Political Science and such other humanities and social science majors as the Superintendent deemed appropriate.

3) Eliminate the 80:20 quota system between engineering-math-science and the social sciences-humanities.

If faculty participation in curriculum matters had been meager a quarter century ago, their participation in implementing this directive was extensive. Perhaps "chaotic" is the more accurate term than "extensive." The efforts of Group III (social sciences-humanities) to agree upon a common core were so acrimonious that the faculty suggested the two Division Directors and four departmental chairmen resolve the question. This group proposed a

thirty-nine hour humanities-social science core curriculum. But differences as to the specific content of this core were such that the four department chairmen withdrew from the deliberations, and the two Division Directors, a Navy Captain and a Marine Colonel, were left to settle the issue. This group was subsequently enlarged by the Superintendent to include a representative from the Mechanical Engineering Department, the Mathematics Department, the English Department, and the Economics Department. The administration instructed this most recent group to reduce its proposal to a thirty hour program. The result was a three tier program consisting of "foundation courses," followed by "introductory/survey courses," and capped by a group of "focused electives."[154]

In order for the curriculum to allow a thirty hour core for the engineering and math-science majors an extra three hours (one course) had to be found. This was done by dropping Leadership II from the professional core and rechristening it a humanities-social science elective. This created a total of six humanities-social science electives for Groups I and II following plebe year.[155]

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[154]The math-science core was already in place and consisted of thirty-two hours: eight hours of chemistry, eight hours of physics, and sixteen hours of mathematics.

[155]Aerospace Engineering, Marine Engineering, Ocean Engineering and Naval Architecture were limited to five humanities-social science electives. The impact of this loss of one elective may seem trivial, but the results

The thirty hour humanities-social science core would be taken in three phases as mentioned above:

Phase I: Plebe year "foundation courses" consisting of six hours of History and six hours of English.

Phase II: Three survey courses to include Naval Heritage plus two 200 level courses to be taken from two of the five departments in Group III--Economics, Political Science, English, History and Languages.

Phase III: "Focused Electives." Here the midshipman has a choice of taking three courses from a particular Group III department or three courses from an "interdisciplinary area of concentration." There are nine "interdisciplinary areas of concentration" each consisting of from seven to nine courses. For example, the "area of concentration" labeled Modernization, Urbanization in the Contemporary World permits the midshipman to obtain an "area of concentration" by choosing three courses from among the following:

1. American Black Literature
2. Introduction to Mass Media
3. Recent American History
4. Environmental Economics
5. Urban Economics
6. Public Policy and Administration

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bordered on the ridiculous.

7. American Criminal Justice

8. Introduction to Psychology (Leadership II)

Thus, midshipman might conceivably take American Black Literature, Introduction to Mass Media, and American Criminal Justice and thereby achieve an "area of concentration." However, it may be somewhat unclear to less discerning readers exactly what it a midshipman has "concentrated" in. In the eyes of some critics, the situation bordered on being academically embarrassing for those in Aerospace Engineering, Marine Engineering, Ocean Engineering, and Naval Architecture. Their "area of concentration" will consist of a mere two, rather than three, courses.

The Lehman Directive that the 80:20 split between engineering-math-science and the humanities-social sciences (be eliminated?) was immediately implemented and the not unanticipated results were quick to appear--a shift in choice of major in the direction of the social sciences and humanities. Thus, the ratio between technical and non-technical majors for the three classes choosing majors after the Lehman Directive was:

Class of 1988: 73-27%

Class of 1989: 71-29%

Class of 1990: 67-33%

Finally, we should briefly mention the Lehman mandated honors program. Each of the Group III departments--

Political Science, Economics, History and English--has an honors program. It would be tedious to detail the specific content of each of these programs. In general they follow a common approach, viz., an additional five credit hours of enriched course work. By "enriched" we have reference (?) to the addition of more demanding and/or methodology-research oriented courses. For example, the Political Science honors program includes an Honors Independent Research course, an Honors Seminar culminating in a methodologically sophisticated research design, followed by an Honors Senior Thesis, wherein the previously developed research design will be executed.

Conclusion: The Problem Areas

The mission of the Naval Academy is specific: "To develop midshipmen morally, mentally and physically and to imbue them with the highest ideals of duty, honor and loyalty in order to provide graduates who are dedicated to a career of naval service and for potential and future development in mind and character to assume the highest responsibilities of command, citizenship, and government."[156] The absence of a blueprint or formula for

[156]This was the mission statement that existed in the 1960's and was reintroduced by Secretary of the Navy James Webb in 1988. It replaced the shorter version which said: "To prepare young men and women morally, mentally and physically to become professional officers in the naval

achieving these difficult but interrelated goals explains to a large extent the extensive and significant changes in the curriculum and faculty during the last quarter century.

The goal is to produce professional officers for the Naval Service. That goal is pursued through a unique curriculum that puts "majoring in Navy" first and is persuasive evidence that part of the academic equation has been solved. This is markedly borne out by the significantly higher retention rates for Naval Academy graduates compared to their NROTC counterparts in all of the warfare specialties--Surface Warfare, Aviation, and Nuclear Submarine.[157] There is, of course always room for adjustment leading to further improvement, but the dual core coupled with an academic major of choice seems well suited to the accomplishment of the goal.

The most pressing problem today seems to be that of recruiting and retaining first rate faculty. To understand this problem we must never lose sight of the fact that the Naval Academy is a unique institution. It has no counterpart in the civilian sector. It is not, and does not aspire to be, a combination of M.I.T. and Bowdoin. These institutions can afford the luxury of faculty members that are primarily research or primarily teaching oriented. In

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service."

[157] Shipmate 44 (January-February 1981), p. 40.

contrast, the Naval Academy cannot afford the luxury of pure researchers since its faculty is first and foremost a teaching faculty. However, in order to prepare future officers with the broad range of intellectual skills necessary for understanding and managing increasingly complex problems, the Academy requires faculty who understand and are committed to keeping up with the most recent research in their respective fields of expertise. Such a commitment is difficult to acquire and maintain unless the teacher is also an active researcher. How else can "state of the art" professional instruction be maintained?

The need for first rate researchers who are also interested in and committed to excellence in undergraduate instruction is at the heart of the dilemma currently confronting the Academy. The current debate focuses on the question of whether Annapolis can afford the occasional teacher who does no research. The answer is probably "yes." But it is clear that the Naval Academy cannot afford the researcher who is not equally at home in the classroom since teaching is the essence of the mental component of the Academy's mission. This poses a problem of increasing importance. The need to find, recruit and retain first rate scholars/teachers has always been a daunting one. The task of maintaining a faculty of active researchers who are also committed to undergraduate teaching promises to become an

ever increasing challenge as the pool of qualified Ph.Ds. decreases and the number of high paying positions for researchers outside of academia increases in the waning years of the twentieth century.

APPENDIX A

SUPERINTENDENT'S OF THE UNITED STATES NAVAL ACADEMY; 1958-1986

RADM CHARLES L. MELSON	1958-1960
RADM JOHN F.DAVIDSON	1960-1962
RADM CHARLES C. KIRKPATRICK	1962-1964
RADM CHARLES S. MINTER	1964-1965
RADM DRAPER L. KAUFFMAN	1965-1968
VADM JAMES F. CALVERT	1968-1972
VADM WILLIAM P. MACK	1972-1975
VADM KINNARD R. McKEE	1975-1978
VADM WILLIAM P. LAWRENCE	1978-1981
VADM EDWARD C. WALLER	1981-1983
RADM CHARLES R. LARSON	1983-1986
RADM RONALD F. MARRYOTT	1986-

APPENDIX B

The thirty core courses were distributed as follows:

Subject Area	No. Courses	Credit Hours	% of Core
1) Mathematics	4	16	13.4
2) Chemistry & Physics	5	12	16.0
3) Engineering, Engineering Science, & Weapons	9	35	29.4
4) Social Science, Humanities, & Languages	10	30	25.2
5) Naval Science	6	19	16.0
Total	34	119	100

The 23 fields of concentration, the minors program, were in five areas:

Subject Area	Class of 1970)
1) Engineering	25.6%
2) Science	15.2%
3) Mathematics	12.9%
4) Social Science, Humanities, & Languages	24.1%
5) Naval Science	22.2%

In addition there remained a number of essential, but non-credit, activities taken during the school year and in the summer such as physical education, intramural athletics, professional lectures, at-sea training, etc.

Appendix C

Project	Completion Date	Cost
Michelson-Chauvenet Hall	1968	$13,500,000
Sampson Hall Rehabilitation	1969	2,050,000
Nimitz Library	1973	9,900,000
Rickover Hall	1975	46,200,000
Maury Hall Rehabilitation	1976	4,200,000
Luce Hall Rehabilitation	1978	3,354,000
Lejeune Hall	1981	6,500,000
12 Meter Earth-Satellite Receiving Station	1988	2,000,000
McDonough Hall Rehabilitation	1985	8,524,000
Brigade Activities Center	1989	26,555,000

Briefly, the above structures provided the following:

A) Michelson-Chauvenet Hall. Houses the Mathematics, Physics, Chemistry, Computer Science and Oceanography Departments, their supporting laboratory facilities, classrooms, and faculty and administrative offices.

B) Sampson Hall. Home of the History and English Departments, a number of classrooms, and faculty and administrative offices.

C) Nimitz Library. A more detailed description is called for here. Prior to the construction of Nimitz Library, the collections were scattered about the Yard in various buildings. The 1966 Middle States Evaluation Team described the library facilities as totally inadequate. Seating capacity was approximately 10% of the Brigade--25 to 30% is the normally accepted standard. The collection consisted of less than 190,000 volumes and 900 periodicals and was considered mediocre, even substandard, for many disciplines. Today the library possesses a collection of 500,000 volumes, 300,000 monographs, and 1,400 periodical subscriptions. It provides seating for 1,500 midshipmen and faculty, and contains seminar rooms, study and audio-visual carrels, computer terminal rooms and a staff of 18 professional librarians and 36 support persons. The ground floor of Nimitz Library is occupied by the Division of U. S. and International Studies comprising the departments of Political Science, Economics, and Foreign Languages in

addition to classrooms, lounge, administrative and faculty offices.[158]

D) Rickover Hall. Better described as a "complex" than a hall, it houses a number of sophisticated laboratories and office and administrative spaces for most of the engineering faculty. An accurate description of this complex would require a separate paper to do justice to the facility.

E) Maury Hall. Provides overflow space for some of the engineering faculty, contains classrooms, and laboratories primarily related to Electrical Engineering.

F) Luce Hall. Houses the professional departments in addition to a number of classrooms.

G) Lejeune Hall. A physical education building containing an Olympic size swimming pool with seating for 1,000 spectators, a wrestling arena, and a variety of other training areas.

H) Earth Satellite TV Receiving Station. This instillation brings in foreign language programs from the USSR, Europe, and Latin America and is primarily used in conjunction with the interactive computer-videodisc programs to facilitate foreign language teaching.

I) McDonough Hall is a completely renovated gymnasium.

J) The Brigade Activities Center. This is modern auditorium with seating capacity for the entire Brigade of Midshipmen, faculty and guests. Halsey Field House now serves this purpose but requires setting up of extensive temporary seating at considerable cost in time and money. Neither of the other two auditoriums is big enough to

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[158]Prior to AY 1987 faculty offices were single person spaces, those on the outboard side of the building possessing a magnificent panoramic view of the Severn River , and all equipped with ample bookshelves, storage space and PC's with printers. As a result of the Lehman Directive, to be discussed below, faculty and students in the humanities and social sciences have increased in number and the result is a severe shortage of both classroom and office space.

provide large audience seating for concerts, theatrical productions or lectures.

This brief sketch of the modernization program undertaken by the Naval Academy is just that--a brief sketch. A full description of the primary and secondary support facilities would include the Naval Station, sailing center, numerous tracks and playing fields, the golf course, and much more and is beyond the scope of this paper. We simply wish to make clear that physical facilities have been built or modernized at a pace consistent with the modernization of the curriculum. As we shall see below, changes of equal magnitude were taking place in all related areas as well--curriculum, faculty and midshipmen. To describe these changes as phenomenal would fall short of indulging in hyperbole.

Appendix D

1968	1976
4th CLASS	
Introduction to Naval Engineering and Naval Weapons Systems (4)**	Fundamentals of Naval Science 2-2-3***
	Introduction to Naval Engineering 2-0-2
	Leadership I 2-0-2
3rd CLASS	
Air-Ocean Environment (3)	Naval Engineering 3-2-4
Navigation I (4)	*Navigation I 2-2-3
	Ship Handling and Tactics 1-2-2
	Military Psychology 3-0-3
2nd CLASS	
Naval Operations and Tactics (summer) (3)	Naval Electricity 3-2-4
Navigation II (3)	Naval Engineering II 3-2-4
Naval Engineering/ Damage Control (2.5)	*Leadership II 3-0-3
Naval Operations Analysis (4)	Naval Electronics 3-0-3
	*Naval Weapons Systems 3-0-3
	*Navigation II 2-2-3
1st CLASS	
Introduction to Psychology and Management (3)	Tactical Warfare Seminar 1-2-2
Ballistics and Weapons Control (4)	Law for the Junior Officer 2-0-2
	Weapons Systems Engineering 3-2-4
Total Hours 38.5	Total Hours 48.0

* New course or content significantly changed.
** Semester credit hours.
*** First digit refers to classroom hours; second to laboratory hours; third to hours of academic credit.

APPENDIX E

I. Division of Naval Science

1) Astronomy
2) General Psychology
3) Law of the Nautical Road
4) International Law
5) Advanced Navigation
6) Trajectory Mechanics
7) Digital Computers
8) Analog Computers and Nomograms
9) Theory of Servo Mechanisms

II. Division of Science and Engineering

1) Kinematics
2) Naval Architecture
3) Advanced Strength and Materials
4) Theory of Vibration
5) Nuclear Engineering
6) Finite Mathematics
7) Matrix Theory
8) Modern Algebra
9) Probability and Statistics
10) Numerical Analysis
11) Mathematics for Engineers and Physicists I
12) Mathematics for Engineers and Physicists II
13) Introduction to Complex Variables

III. Division of Social Sciences and Humanities

1) Modern American Literature
2) Modern British Literature
3) The Modern Novel
4) Modern Drama
5) United States History
6) History of Russia
7) History of Europe, 1500-1815
8) Problems of Great Britain as a World Power
9) U.S. Economic History
10) Projects in Writing I
11) Projects in Writing II
12) Comparative Government
13) American Democracy: Theory and Practice
14) Communism: Theory and Practice

15) History of the Far East
16) The Far Eastern Relations of the United States
17) Political Theory
18) Advanced Economics and Problems of Defense
19) International Trade
20) Introduction to Philosophy and Logic
21) Modern Thought
22) History of Latin America
23) Contemporary Problems and International Relations
24) Elements of Law
25) U.S. Military History and Policy
26) Naval Biography
27) Seminar in Literature
28) Seminar in Naval History
29) Seminar in History
30) Seminar in Russian Military and Naval Doctrine
31) Seminar in Philosophy of War
32) Public Speaking

The Language Department offered advanced elective courses in Spanish, French, German, Portuguese, Italian, and Russian.