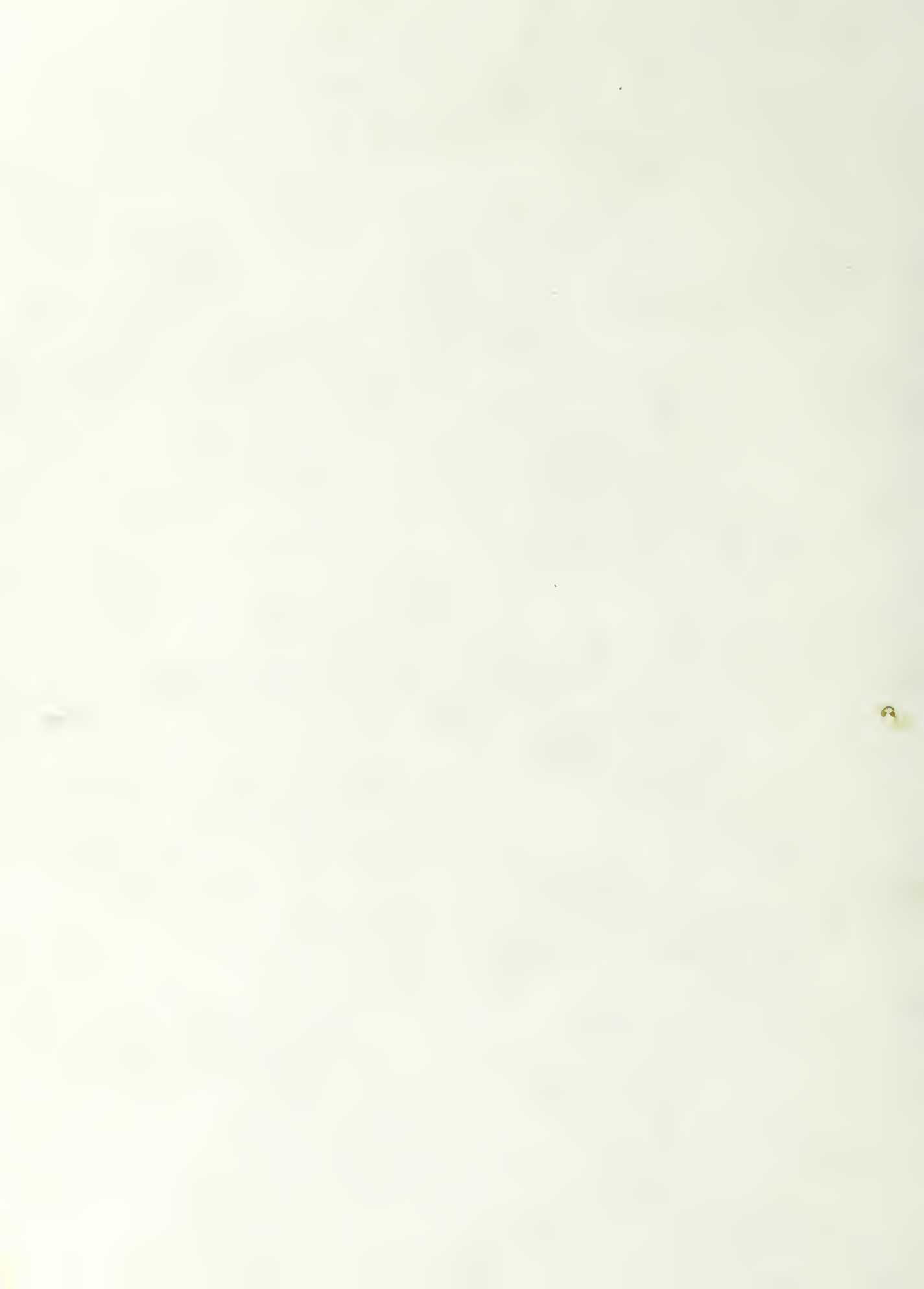


INTERNAL CONSULTING,
A KEY ELEMENT IN THE INTEGRATED APPROACH
TO MODERN PROBLEM SOLVING

Wayne James Vanderslice



NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

INTERNAL CONSULTING,
A KEY ELEMENT IN THE INTEGRATED APPROACH
TO MODERN PROBLEM SOLVING

by

Wayne James Vanderslice

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Internal Consulting,
A Key Element in the Integrated Approach
to Modern Problem Solving

by

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Lieutenant Commander, Supply Corps, United States Navy
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requirements for the degree of

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ABSTRACT

All very large organizations are beset with problems, some of which are beyond the expertise of management. The Navy is no exception. In an effort to rectify these problems the private sector is placing heavy reliance on management consulting services. Internal consultants are playing an increasingly significant role in that process in conjunction with their external counterparts. Therefore, it seems logical to incorporate, in an integrated approach, the prudent use of internal, as well as external, consultants to assist Navy management to economically solve their problems. This thesis supports such an integrated approach.

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I. INTRODUCTION

Hundreds of thousands, perhaps millions of men and women in modern society derive their livelihood from the fact that the material world we have created is often baffling, overly complex, even fearful. Lawyers thrive because of the ambiguities of our system of justice; accountants because counting and what's being counted is hazy and opaque. At the center of this swirling vortex of socio-economic confusion, profiting from it perhaps more than others, are today's management consultants. What's more, their future will continue to be financially rewarding as long as business and government leaders perceive their own environment and decisions as increasingly complex in scale and in quality.

Companies hire management consultants for several reasons; not the least of which is the consultants' expertise in problem solving. For a great many, if not the majority of consulting projects, larger companies almost certainly have the expertise they need among their own employees. For this, as well as other reasons to be discussed later, a number of large corporations have set up internal consulting teams.

Internal consulting, as such, has evolved. It has had antecedents that have influenced its nature. To fully understand the present thrust of this still emerging function, one needs to know its prior history. It is most appropriate to start with a historical sketch of the external consulting variety.

II. HISTORY OF CONSULTING

The genesis of management consulting is obscured in the mists of time. However, the profession's written history begins with Fredrick Taylor, Henry Gantt, and other pioneers of scientific management, who began their work around the turn of the century. The first "Consultants" worked in factories and specialized in improving work methods and setting time standards for production work. As time went on, however, business and government sought assistance from consultants in many other areas, and the consulting profession grew.

The advent of World War I brought on a rapidly increasing demand for manufactured products which in turn provided a fertile field for consultants adept in the improvement of work methods, the establishment of time standards and incentive compensation systems.

The post-World War I economic surge marked a demand for sales and marketing specialists. The twenties saw labor relations and personnel considerations spring up as viable areas for consultants. Throughout the depression years consultants had difficulty in obtaining engagements, as most companies had cut their operations to the bone and had little money to spend for anything, let alone consultants. However, even these trying years saw an expansion in the types of services offered.

With the 1930's, and business' long agonizing slide, there was plenty of demand for cost cutting advice. But the times also

forced companies like McKinsey and Company to add a batch of new services. Chief of them were corporate organization and marketing. Banks and boards of directors with bankrupt or failing companies on their hands turned to people like McKinsey and other counselors for help in reorganizing and reorienting the companies.

Next came World War II causing a simultaneous surge in demand for the products of our industrial machine and a shortage of labor. These conditions provided a great opportunity for consultants to improve factory operations, resolve production bottlenecks, and develop methods and programs to train new workers. Also at that time, there was plenty of money available to pay for consultants. Many government contracts provided compensation on a cost-plus basis, and companies were faced with an excess profit tax on earnings significantly above those of the pre-war period. Both of these factors led to the expanded use of consultants, because, in effect, the government was paying for a large portion of the fees, either through higher costs or through foregone taxes.

Throughout the 1940's industry was becoming increasingly complex. Problems of finance, marketing, logistics and distribution became more complicated. Even research methodology underwent a metamorphosis. Organizations could no longer indulge in the luxury of nurturing a product through many years of research. The research function had to be blended into top management's constant need to develop new products and methods. Thus, this

era saw the emergence or proliferation of consultants in finance, accounting, marketing research, logistics, and research development and evaluation.

By now the large consulting houses were well entrenched. Names such as Booz, Allen and Hamilton; McKinsey and Company; McCormick and Paget; Arthur D. Little; Stanford Research Institute; and others had become well known and accepted. An indication of the size and diversity of these consulting firms is provided by a synopsis of Booz, Allen and Hamilton, circa 1952. The firm had grown to an operating organization of over 350 people, with facilities nationwide serving both government and the private sector. They had specialists in sales, marketing, personnel and labor relations, finance and control, research activity and procedures, as well as manufacturing and production engineers and economists.

The Korean "policing action" provided opportunities similar to those in World War II, although in a less dramatic fashion. Here again, manufacturers were working on cost-plus contracts for the government and were faced with an excess profits tax. Consulting costs were considered an expense in the year in which they were incurred. Therefore, they tended to reduce profits and produce an almost corresponding reduction in the income taxes of an organization faced with an excess profits tax. To the extent that the organization gained lasting benefit from improvements made to it by the consultants, that benefit was in effect largely paid for by the Federal Government. Therefore, astute

managers used these tax-financed services as a springboard to more profitable and expanded operations during the "action" and post-"action" periods.

The Cold War period which followed and such incidents as the Berlin Blockade, brought consultants new opportunities. The increased expenditures for military preparedness harnessed professionals adept in applied mathematics, operations research, game theory, probability and mathematical programming to analyze and develop military strategies as well as develop cost-benefit analysis aimed at determining which of various weapons systems to employ.

Coincident with this development in the military sector was the decision by many large U.S. Companies to locate production facilities overseas, particularly in Europe. As these U.S. Companies went overseas, they wished to take with them the manufacturing marketing and organization techniques that they had successfully employed in the U.S. To assist them in this endeavor, they called upon consultants, who helped them to lay out plants and establish working methods and standards. Consultants also helped in market studies, developing marketing organizations and plans, and in overall corporate long-range planning. Overseas movement prompted management consulting firms to open offices in the major capitals of Europe, South America and the Orient.

The introduction of the computer marked a new era for consultants. The process of selecting and installing a computer required an expertise that most companies did not possess.

Because of the considerable effort needed to program computers, this work was also contracted out by the computer user. This then led to the development of "software houses", companies who programmed computer applications.

The computer also permitted operations research techniques such as mathematical programming and simulation to aid in the solution of management problems. Interactive display computer terminals further enhanced the computer's abilities. Managers depended in great measure upon consultants to employ these techniques to solve the pressing operational and technical problems confronting the managers.

During the same period, government programs expanded significantly into areas where they had never penetrated very deeply before. Prime examples were the social programs in the fields of health, education and welfare, and more recently, areas such as transportation and criminal justice. These activities were, in most instances, beyond the capabilities of the respective government units to conduct without assistance. So, these entities turned to consultants for help and, thus, one of the more lucrative fields of work for the consulting profession has developed.

Thus, from this chronology of events and brief synopsis of the development of management consulting, one can understand how this profession evolved. From its initial industrial, human engineering orientation, management consulting has advanced to become an immensely important and often used international

multifunctional, multibillion dollar industry with clients in the private and public sectors.

Internal consulting is a much more recent animal. It is considered by most a refinement in the staff concept of management that emphasizes making available to the manager a specialist or team of specialists to assist that manager by

- Identifying opportunities and problems
- Studying the reasons for the meaning of those opportunities and problems
- Preparing recommendations that integrate the ideas of the team members with the point of view of the manager
- Being at hand to assist the manager in implementing the recommendations he accepts.

The more immediate recent history of internal consulting includes the area of the management audit. A management audit is a broad and constructive examination and diagnosis of the policies, organization and operations of all phases of a business. The objective is to arrive at a dispassionate and verifiable basis for comparing what is being done and how well it is being done with the plans, policies and standards of the organization, and to understand the reasons for positive and negative variances from those plans, policies and standards.

Management audits tell management how it is doing but do not solve its problems. From internal consulting management gets not only diagnosis, but also the answer on how to cure the disease, how to improve performance, or how to achieve some other goal. If the mirror in the hand of Snow White's stepmother had been an internal consultant, it would have told the lady not just

that her stepdaughter was prettier, but also how to get that way herself. As it was, the mirror only gave a management appraisal [4].

Because of its pervasiveness and its close link to internal consulting, the systems and procedures staff function has significantly shaped the practice of internal consulting. Managers with vision have long realized that, when something is out of control, more is needed than an awareness of the fact. They buttressed their staffs with people who could introduce the remedy. These systems people gave managerial problem solving a perspective and a value that were quickly recognized and well used.

The most obvious antecedent, however, is the external consultant. The techniques and methodology are similar and so are the designations. In fact, many of the existing in-house consultants were established at the suggestion of outside consultants.

The impetus for establishing this "captive consultant", as Weingarten calls it, comes from the need to have someone in the company to assist in implementing recommendations, from the cost outside consulting represents and from the need to create and keep know-how in the organization. This impetus on top of the availability of flexible staff departments, gave issue to a formal internal consulting function.

Many of the advantages and disadvantages of both internal and external consultants are to be addressed later. However, the basic question should be answered first. Why use management consultants? The question can be answered in a word, time. The

consultant has it, he sells it and the manager buys it. Be he internal or external, the consultant's forte is in his ability to augment a manager's "staff" in short fashion, for a temporary finite interval, to attack a specific area or problem.

In government particularly, time is a valuable asset. One reason is that in the federal bureaucracy a lot of people have to be consulted (no pun intended) before decisions are made. Therefore, a fully "staffed" report, which will stand up to the critical analysis at each successive echelon, is required. If the manager is operationally or otherwise detained or diverted, he will not be able to devote the requisite concentration of time to succeed. The consultant has the ability, at a price, to devote his entire attention to the manager's dilemma.

As modern organizations have become larger, more complex and faster moving, their success has become increasingly dependent on the ability of innovative decision makers and highly trained staff technologists to blend their efforts to reach a common objective. In the past, personnel, financial, legal, etc., staff groups have tended to play fairly stable, well-defined roles. However, developments, particularly in computer based methods for decision making and planning, bring staffers more frequently and more intimately into what was traditionally the exclusive territory of line managers. In other words, as the manager's time demands increase in the "flip-a-switch" world of today, larger and larger staffs will be required if timely actions are to be taken. Consultants provide an alternative to those larger staffs, be they business or governmental.

This alternative of consulting services brings with it, however, some justified criticisms and some rather significant side effects, specifically as it relates to government operations. One of the more notable criticisms is that consultants are little more than a circumvention of civilian ceiling point constraints. Instead of complying with the full intent of Congressional or otherwise mandated personnel end-strength reductions, clever federal managers, including some Navy types, have "dodged" the efficiency issue by hiring consultants to replace the ceiling points that have evaporated. In this regard the consultant is definitely viewed in a less than amiable light.

The corollation between this dodge and lease/buy comparison in hardware/services procurement, is very strong. Through the various processes which distribute and account for resources, a manager in the federal sector, today, finds it much easier to lease the consultant rather than buy the ceiling point, even if the long run cost benefit analysis indicates the reverse course of action.

Over the years, some fairly substantial private enterprises have developed and prospered due to just such reasons. This has occurred to the point of some of these "private" corporations bordering on actually being pseudo-governmental agencies. That is, without the government's work and accompanying dollars to sustain the organizations, they would almost surely cease to exist.

The subjects of lease/buy considerations and pseudo-governmental agencies could, in themselves, consume numerous theses.

Therefore, it is appropriate to return to the task at hand by comparing the avenues of internal and external consulting.

III. ADVANTAGES AND DISADVANTAGES OF CONSULTING

Both the Government and business communities have a number of strategies available for obtaining management consulting or staff services. They may create and maintain their own permanent, internal consulting staff, contract external consultants for all specialized needs, or select some combination consisting of internal staff supplemented, when necessary, with external talent. Each of these strategies has some distinct advantages and disadvantages.

A. INTERNAL

Internal consultants are preferable under any or all of the following scenarios: Knowledge of and familiarity with the organization's intricacies are vital; a permanent staff readily available is desired; and/or management requires that certain data, processes or patents remain confidential. However, the overriding benefit of internal consulting is economic, i.e., when size and feasibility dictate, internal consulting is cheaper. When an organization has the philosophy, structure, and size to utilize an internal consulting group effectively, then assignment performance will be less costly than comparable work by an external consultant. The following are further delineations of the aforementioned scenarios.

Familiarity with the organization is one of the key issues. The internal consultants should know the firm; its structure,

personnel, managerial philosophy, long-range plans and policies, markets, products, and resources. At the Chicago-based Blue Cross and Blue Shield Plan, Wilmer Berry Jr., Assistant Vice President for Management Services notes that an internal consulting unit can do this work cheaper and faster than someone from the outside, who would not be familiar with the plan's problems [26]. Knowledge of where resources are located can reduce the time needed to undertake a project. Familiarity with the management system can aid internal consultants to more realistically evaluate alternatives for feasibility of acceptance and implementation. The insider knows the company and where to go for information, says Herbert B. Pier, Allstate Insurance Company's corporate planning director. Adds David T. Shelby, manager of Ford Motor Company's management services department, knowledge of normal corporate procedures is essential. An outside firm has a much longer learning period [26]. Awareness of company resources and personnel, including their attitudes and abilities, can increase the swiftness of implementation at a lesser cost. Maryland National Bank found that an outside firm would have charged \$35,000 to identify its problem of communications between branches. The internal group defined and solved the problem for \$10,000.

The second scenario occurs when a permanent staff, readily available, is desired. Such may be the case when there exists a continual recurring need for certain types of technical services. For example, consider a corporate/subsidiary or a headquarters/field relationship. The corporation or headquarters may have and

be able to afford a full time requirement for people like market researchers, data communication specialists, linear programmers or other management specialists. These people are then made available to the subsidiaries or field activities upon request. A corollary to this case is when management desires the convenience of a readily available, familiar staff, with specialized technical expertise. However, care must be exercised so as not to allow another internal bureaucracy to develop. If not watched, this could occur through the expansion of the "We're here to 'help' you!!" syndrome.

By reports and evaluations of work already conducted, management can check the performance and ability of its internal consultants but does not have such documentation for external types. Furthermore, since internal people are on the company payroll, this can serve as an incentive for performance.

Another significant aspect of a permanent staff revolves around the use of internal consulting billets as training for other managerial or technical positions. An internal trouble shooter's deep involvement in most, or all company functions and activities, coupled with broad exposure to many of a company's key executives, can furnish background and experience few managers attain in the normal channels of career growth.

The third scenario involves the confidentiality of internal information. When management requires that certain data, etc., remain confidential, the internal consultant provides a vehicle able to keep such information from leaking out, even inadvertently, into the hands of the competition.

Internal consulting is not without associated disadvantages. Some of these are delineated in the following paragraphs. Additional expenses, both capital and operating, may result. Capital expenses in the form of office space and special- ing expenses may be more involved, in ous increases in salaries, benefits and such things as delay and disruption

is the potential for conflicts. These may take the form of inter-staff rivalry or line/staff animosity. The internal consultants may be viewed as the "fair-haired know-it-alls" detracting from their effectiveness and ability to communicate with other staff, as well as line members. Frequently, such a problem arises when the internal group gets the task of building a 'Quick and Dirty' model that has to be usable quickly, another group in the corporation has been working on the wall-to-wall model to do the same thing for some years now with final completion and implementation some years away. They are going to be mad as hell if the internal consultants do anything [23].

A final conflict may arise when preferential treatment is given to some functional areas at the expense of others. This may occur when the consultants select only those projects they find intellectually stimulating or when wanting to demonstrate their capabilities, they may only select the projects whose success is relatively assured.

The internal consulting organization can become too complacent with its own members and methodology. There exists the possibility that they may become stale. There is nothing worse than a stale consultant, says Marian S. Kellogg, vice president in charge of General Electric's consulting group [26].

Closely tied with staleness, is the loss of broadness of perspective, objectivity and directness due to overfamiliarization with organization policies, methodologies and personnel. This may give the insiders more of a creditability problem than the outsiders. Additionally, this familiarity excess may breed a fear of antagonizing the staff's managerial and technical superiors. They may be less likely to try for changes they think will not fly. Internals may think "we'll never get it by Joe," so they may not try, according to Chase Manhattan's Mead, vice president in management consulting services [26]. To combat this, most companies rotate personnel in and out of the consulting unit. Southern New England Telephone has an average tour of three or four years, while at Maryland National Bank the tenure is approximately two years.

In summary, therefore, of internal consulting efforts, project types which appear more economically and feasibly studied and solved by internal members are those where: thorough familiarization with the organization, its procedures, policies, goals and objectives are imperative; and/or confidentiality in the form of protection of internal information is required.

B. EXTERNAL

Next, it is appropriate to review the external concept of consulting which possesses some distinct advantages as well as disadvantages. This review will follow the format of the internal consulting section. The literature suggests the use of external consultants is advisable under any or all of the following scenarios; existence of insufficient skills within the firm; objectivity and independent credibility are imperative; cost and or time considerations favor the external consultants; confidentiality is required in the form of protection of the organization's identity; and/or the external consultants have access to contacts, information or other resources which the organization itself does not.

First, let's examine the case when there exists insufficient technical skills within the organization. This may occur for a variety of reasons some of which follow. The type of skills required may be present within the entity, however, there exists insufficient manpower available for current needs.

Elwin Pearson, an internal consultant with General Electric has worked with a consulting team from Arthur D. Little, Inc. which was hired, he says, because there just weren't enough people available within CCS (G.E.'s consulting outfit) to handle a project with this broad a scale [4].

There may be a total void of the desired skills or competence within the organization. The trade off between maintaining 100% of the needs or staffing to a "probability of need" level, is

the key point. It's like being sure of the ability to respond to all parts requirements on a ship, one would have to tow an exact duplicate ship behind.

The required type of skills may be unavailable in the current personnel marketplace or they may be available, but the cost and/or time to obtain them are perceived to be excessive. It makes more sense, for instance, to hire an outside consulting firm currently knowledgeable in a subject area when the timing is such that the learning curve for an internal type is excessive or to overcome, would cost as much as the study. That is, of course, given there aren't continued internal payoffs. Closely associated with the training aspect is the situation that arises where existing internal personnel are trained with the necessary talents, but the cost and/or time to bring the skills "on-line" are considered excessive. In other words, the external consultant possesses the experience the insider lacks.

Finally, in the technical skills category, the external consultant can be utilized to provide organizational stimulation and to train the internal staff with the necessary skills. Working in some form of microcosm, a manager may become stale relative to his environment. An external viewpoint may be just the trick to push the situation to a new, or at least varied perspective. The organization in turn receives the shot in the arm and may be stimulated to new developments and inroads to problem solving.

The second scenario advantageous to external consultants occurs when objectivity and independent credibility are imperative.

The externals can be objective, for they may possess a fresh perspective with fewer opportunities for preconceptions and are less concerned with personalities and company politics. A. T. Kearny and Company, Inc.'s Robert Rick states that objectivity is when somebody wants a straight answer and doesn't want to be influenced by any individual's prejudices or bias [4]. Management often has turned to the outsiders in quest of one thing: a truly objective assessment. No matter how much leeway is allowed the intramural consultant, he still lives essentially in what one inside man calls "a controlled climate". Steeped in the company's philosophy and its particular beliefs and attitudes, he can hardly muster as much objectivity as an outsider can bring to bear [20].

Or as R. W. L. Wilding says, we become so familiar with the discolored patch on the ceiling that it may never occur to us that it is caused by a leaking tank in the attic. It is, perhaps, the main value of the independent and experienced eye that it will often see the symptom in what insiders have seen as the problem itself [22].

Outside consultants can be used as a sounding board for ideas or proposals. According to John Thackray, management consultants are essentially a wailing wall for top brass. U.S. chief executives have in recent years aired numerous preoccupations with consultants [19]. Jaala Weingarten says, a troubled company president often takes comfort from discussing his corporate woes with an individual of approximately equal executive and financial status [20].

As outsiders, external consultants can relieve management's fear of making unpopular but necessary decisions. Robert E. Moore of Union Carbide said, we regard anything of a highly political nature as a ticking time bomb that we'd much rather hand to an outside consultant who can walk away after he does the job without getting caught by the explosion [20]. According to Dr. Robert B. Morton, an external consultant, one of the most sensitive areas is organization politics. He says that no matter how objective a job he sets out to do, at times the inside man has to conform to pressures from above [20]. This may be due in part at least to the fact that the externals are externally financed and seek no promotions in the company consulted. They have little fear of retaliation from organization management.

As is well drilled into any business student's mind, it is the individual(s) at the top who must be convinced if anything is to occur as a result of consulting work. Partly due to their breadth of experience and notoriety, external consultants normally possess implicit creditability and authority and have the required easier access to top management. Because of top management attention, problems are spotlighted and thus, external consultants may have greater cooperation and access to company resources. The government is no exception to this philosophy, Ralph Nader calls the external consultants brokers of prestigious knowledge, whose self-styled independence from the rest of the corporate world is supposed to render the Government detached and objective advice and plans [19]. After all, top management may

be more likely to listen to and accept appraisals, suggestions, etc. from distinguished outsiders, than to those coming from internal staff.

Finally, in the objective and independent category, an external source may be required due to legal considerations.

The third scenario involves the cost/time considerations as they favor external consultants. No capital expenditures are required for office or specialized equipment when outsiders are called in. At worst, the space requirements will only be demanded as long as the consulting task is in progress. Closely akin to capital costs are the personnel costs associated with maintaining your own staff. With outsiders there are no recruitment, employee recordkeeping or termination costs. Employing external consultants, therefore, keeps internal staffs to a minimum, consequently reducing support personnel costs, overhead costs, and may in the process help promote efficient communication/decision making.

Externals who are highly skilled in certain technical areas are often able to cite references describing similar work already published, thus saving their clients' time and money.

A final cost/time consideration favoring external consultants is contained in a statement by A. T. Kearny and Company Incorporated's Robert Rick. Mr. Rick declares, that they are also called in because of some new experience they might have, or can provide well qualified men who can concentrate on the problem and not be distracted by day-to-day operating problems [4].

The fourth scenario suggesting the use of external consultants occurs when confidentiality is imperative. Defining confidentiality poses a problem, however. In this sense it means protection of the firm's identity rather than purely a relationship between the consulting outfit and the firm. Put another way, due to the confidential nature of the organization's role and/or problem, external consultants can be employed to provide added protection against the disclosure of the organization's identity. Mr. Rick, again, states that his group's also called in when clients want their names kept out of it; for instance, in making marketing studies, acquisition and plant location studies and other studies of a confidential nature [4].

The final scenario suggesting the use of outside consultants, is closely akin to the discussion of the technical skills question. That is, they may have access to contacts, information or other resources which the organization itself does not. The example that comes quickly to mind is in the Electronic Data Processing (EDP) world. Organizations in the recent decades have become more and more enamored with the computer and consequently, if unable to possess their own EDP expertise, a greater reliance on external sources.

As with internal consulting, the external variety is not without its associated disadvantages. The next paragraphs will discuss some of the more prevalent negative aspects. Heading the list is the time sink spent searching for and selecting a consultant. This is particularly true in the government sector when traversing the myriad of regulations, paperwork and required approvals.

Consulting services are expensive. This expense is mainly due to the necessity of maintaining a competent organization continuously available and the costs associated with selling such a professional service. Raymond S. McNeill, when regional manager, Corporate Consulting Services, Litton Industries, Inc., concluded that the difference in the cost of an external consultant consists of extra expenses, non-billable time, and profits by public consultants. Extra expenses would include travel, selling expense, start up time and office facilities [24].

Then, there always exists the possibility of retaining an incompetent consultant. This individual/firm will not only provide an unsatisfactory product but will cause exaggerated disruption costs to the system as a result of the consulting engagement. The mere presence of an outsider may elicit resistance to change, resentment from internal personnel and further disruption/distraction costs.

With external consultants there is a preliminary, partially unproductive, learning period as he/she becomes acquainted with the client's organizational system and problems. To quote Ralph Peters, a project manager of the General Electric internal group, "We don't have the learning curve that precedes the outside firms' production of results [19]."

Another drawback of external consultants may be that management fears that allowing an external consultant to probe the organization may jeopardize confidentiality. According to Weingarten, outside consultants have been known to cause interdepartmental havoc by not adequately protecting the confidence of the client [20].

When hired to fill a specific technical skill gap, a potential disadvantage surfaces. When the consultant completes the project, all the specialized knowledge may depart with him.

Even without the loss of the knowledge, one of the newest and fastest growing markets, government cases, suffers from another woe, conflict of interest. Arthur D. Little helped the Environmental Protection Agency set up guidelines for industry and in turn has sold to companies the knowledge on how to comply with the regulations. Similarly, Booz, Allen and Hamilton helped the Food and Drug Administration to reorganize its compliance division at the same time as the firm was working for drug companies and advising a drug industry trade association -- while the firm's chemical-biological research division provided technical analysis for the same industry. The consulting industry has operated outside the normal accountabilities of government, beyond the reach of Freedom of Information rules and with conflicts of interest a way of life, Ralph Nader complains [19].

In May of 1978 President Carter issued a memorandum for heads of executive departments and agencies seeking to get a handle on and manage the excessive consulting services used by the government, citing evidence that some consulting services are used excessively, unnecessarily and improperly.

Security can be another stumbling block. Public consultants working for General Electric's Missile and Space Division some years ago exemplify the problem. Due to the security requirements of certain operations, the consultants had only access to limited

information. On assignments for which they were engaged, reports G.E., their work had been less than desirable.

An issue that may be both an advantage and a disadvantage, depending on the particular view, occurs when the external consultant is brought in to codify a decision already arrived at by the hiring entity. This may transpire to take the heat off an unpopular decision or to support one side of a confrontation desiring to dominate the other.

Based on the preceding discussion, it would seem external consultants are more financially and appropriately suited for the following situations:

- Projects or problems occurring so infrequently that it is uneconomical for the organization to handle them internally
- Assignments that involve an internal analysis of management; e.g., organization structure or authority relationships
- Projects that cross departmental lines
- Tasks necessitating impartial certification; e.g., market research or product testing
- Projects involving installation or use of highly specialized techniques or knowledge; e.g., engineering design
- Problems requiring outside arbitration; e.g., an adjudication of disagreements regarding major policies
- Problems involving disagreeable or damaging personal relations with other executives; e.g., managerial reorganization, personnel curtailment, or adjustment of executive salaries

A final comment is offered regarding the comparison of advantages and disadvantages of internal and external consultants. Remember, an external consultant is an expert who, when called upon to provide the time, borrows your watch and tells you what time it is. An internal consultant on the other hand, borrows your watch, tells you what time it is and keeps your watch!!

IV. INTEGRATED APPROACH

Obviously, any combination of contracting external consultants to work with their internal cousins possesses some of the advantages and disadvantages of each source. J. Robert Gale, then director of administration-information services for Avon Products, Inc., commented on the desirability of such an integrated approach to provision of consulting services. By utilizing the resources of both internal and external consultants a company will be able to enhance its chances of coping successfully with the rapidly changing competitive demands, techniques and social pressures in national and international operations [6].

Charles P. Bower Jr. of Booz, Allen and Hamilton stated that he visualized the manager as surrounded by a sea of problems. The consultant's task is to work with the manager in the solution of those problems. Anyone who doesn't use consultants is missing a great opportunity [6]. Gale supports this remark when he comments that both internal and external consultants, as professionals at planning the methods of arriving at solutions to problems, should be used extensively by modern management. They offer a wide range of services, and there should be no conflict in justifying their use [6].

A conflict of sorts does arise, however, when considering the question of when to use management consultants and, more importantly to this thesis, whether they should be the internal or external variety. As has been discussed previously, the use of internal or external consultants is basically dependent on the

complexity of the problem, the need for technical expertise and the objectivity level desired. However, even if external consultants are being considered, the internals can maintain a significant role as coordinators and supporters of the external effort. The most difficult aspect of a client assignment for an outside consultant is to handle efficiently the organizational relational relationships and peculiarities of the client. The internal group can assist the external consultant in gaining an understanding of his client, the organizational relationships, and the mode of company operations.

In turn then, the added benefit appears in the broadening of the internal consulting group through these liaisons. The ever present possibility of "staleness" within the internal group, is counteracted to a large degree through the interface with outsiders.

The integrated approach provides somewhat of a balance to the question of internal organization skill level maintenance. That is, it can provide insight into the level of sophistication or capability that should be attained and/or maintained internally. Most companies cannot realistically justify the cost of an internal consulting activity which would provide them with expertise to attack all questions which might arise.

Organizations, fearing the time lag in acquiring a higher level of knowledge, skill, etc., may endeavor to maintain an excessive store of the required or anticipated skill levels. They may also desire to be totally independent or master of their own destiny and maintain, internally, the specialized talent to

handle any situation. Either strategy requires an excessive inventory of resources and its consequence of unnecessary cost associated with this overstaffing. When an organization is overstaffed, it creates a condition where performance is at less than the most effective levels and there is little chance of returning to or reaching new highly effective levels.

The key then, seems to be a blend of cost effective insiders supplemented, when required, with their outside cousins. The need appears justified for the presence of both in today's hectic management world. Internal consultants have made their mark. Jim Kennedy of Consultants News commenting on internal consultants, stated that this is a growing segment, getting bolder and stronger, helping to select and monitor the work of the external consultants their companies hire. Four or five years ago internals were seen as competing with the external consultants; now more and more the internal consultant works in collaboration with the external chap [19]. Sam Pakenham-Walsh, an internal consultant at Philadelphia's E.S.B., Inc., says that as the profession comes of age the collaboration grows. For example, it would be unthinkable for any large company not to have internal and external counsel and accountants [19].

The services that the properly defined and well organized internal consulting group can provide are varied and can be of lasting significance. The internal consulting activity is an essential, integral part of the modern total organization and can contribute greatly to management's effectiveness.

Given the generally increasing level of activity mentioned earlier and the time availability of the consultant, when though, does the internal consultant enter as a viable alternative? This question, although premised on the time aspect, has more to do with size. If the utilization of consulting services reaches some minimum level, unique to each entity, then the establishment of an internal consultant may be appropriate. Generally speaking, that level should be when there is enough productive work to keep the consultant fully employed. Surely most Naval activities would fail to meet this minimum criteria. However, taking the lead again from the business community, the conglomerate has offered an organizational home for consulting services to divisions and affiliates because the parent company can afford to support consultant staffs for use by associated entities, and can keep them fully employed.

Likewise the Navy can provide such a home for internal consultants. While the Navy Supply Center Oakland may not have the where-with-all to "fully employ" a consultant, the Naval Supply Systems Command may.

V. GOVERNMENT CONSULTING AND CONCLUSION

As has been mentioned previously, the business world is not alone in its use of management consultants. Consulting services contracted by the government and its multi-faceted agencies, have developed into one of the more bountiful employment opportunities for the consulting profession. Mr. Thackray states that consultants have experienced success, in one of their newest and faster growing markets -- selling their expertise to governments. Perhaps as much as one fifth of the three billion dollars in annual billings stems from this source [19]. Six hundred million dollars is no small change affair. Narrowing the scope a few echelons to the Department of Defense, the use of management consultants also has grown to be big business. During fiscal year 1975, for instance, over 171 million dollars was spent for management consultants by the Department of Defense. The Navy's share of that figure amounted to approximately 77 million dollars [5].

Given the business world's cost effectiveness statistics which show that internal consultants usually work for one-third to one-half what an outside firm would charge, and the assumption of a corollation to the Navy's case, savings for the year mentioned previously could have ranged from 25 - 38 million dollars.

Some reduction would have to be accomplished based upon an evaluation of each consulting task. As was mentioned in an

earlier section, all tasks do not lend themselves to internal efforts. However, if even one-half of the engagements, hence the dollars, could have been done internally, the savings to the Navy could still have fallen in the range of 13 - 19 million dollars.

Several factors are responsible for the increased desire by the government for consulting services. Heading the list, perhaps, is the ability of the "beltway bandits"¹ to market their services by identifying ways they can "help" the manager (unsolicited proposals). A second factor is the increasing myriad of regulatory requirements and constraints. Even if versed in the OSHA, Freedom of Information, etc., paperwork mill, the time is not available to accomplish all operational and regulatory demands. Remember, time is the consultant's forte. Pressures for cost reductions and the consequent reduction of numbers of personnel (if not absolutely, at least in relation to increased workload) also have caused federal entities to seek added resources external to their microcosms.

The increase in the appetite of government for consulting services has not gone unnoticed. John Macy, a past president of the Civil Service Commission, says that management consultants have taken the Government for a ride, and at outrageous cost [19]. Mr. Thackray says a powerful (unnamed) sub-committee of the Senate is going to investigate management consultants [19]. And

¹ Beltway Bandit is the term used to identify the management consulting companies that reside in and around Washington, D.C.

finally, as mentioned previously, in May of 1978 President Carter issued a memorandum to executive departments and agencies seeking improved management of the excessively large volume of consulting and expert services used by the Federal Government.

It seems reasonable, therefore, to explore the alternative of internal consulting, which the business community is exploiting in growing numbers. In the opinion of this writer at least, the corporate world does not make a commitment of the magnitude it has in the internal consulting arena, without some distinct, substantial paybacks. Current estimates put the number of companies possessing some form of internal consulting organization in the 500 - 600 company range [4]. That figure is up from the estimated 50 companies in 1961 and 90 companies in 1972 [24]. The size of these internal entities varies with each company. Some have but a few, while General Electric employs over 200 persons in its Corporate Consulting Services Division.

Although varying in size, internal consulting operations tend to be similar in that certain ground rules have emerged which identify the key requisites for success:

- Give the group a mandate from top management
- Write down a set of objectives for each project and have consultants and managers agree on them
- Start slowly with projects that will build the group's reputation
- Allow the consultants to send confidential reports to their clients
- Do not staff for peak usage or it will be uneconomical
- Utilize some form of integrated approach (external and internal) to provision of management services

The last of these guidelines provides the clue as to the missing link in the Department of the Navy, an integrated approach. The current emphasis is placed almost entirely on the external consultant. A few astute Naval managers have attempted to fill the void. One such entity is the Naval Reserve Commander in Chief, U.S. Pacific Fleet (CINCPACFLT) Detachment 420 (DET 420).

The following information has been excerpted from that unit's command history. The task of DET 420 is to provide management assistance and advice to requesting commands of the Pacific Fleet. Work for other commands is performed with CINCPACFLT approval, time permitting.

Typically, teams of reserve officers, experienced in the management sciences, are assigned to requesting commands for periods of fifteen to sixty days. They then work on-site on such varied projects as staff reorganizations, internal communications flows, manpower utilization and allocations and utilization of electronic data processing equipment. DET 420 had its origin in the Chief of Naval Operations 1966 Command Inspection Program. The program specified that inspections should emphasize a general appraisal of effectiveness, utilization of resources in relation to assigned mission and tasks, and determination of problem areas requiring corrective action, rather than an inquiry into the details of administration. The resultant inspections demonstrated the need for management advice and service in areas such as organization analysis, personnel administration, financial

management, industrial management, long-range planning, office management, and other management specialties.

Realizing the existence within the civilian academic/business community of a pool of professional management analysts, CINCPACFLT concluded that the pool might include Naval Reservists with education and naval experience sufficient to make significant contributions to Naval commanders. In July 1969 then, at the request of CINCPACFLT, the Chief of Naval Operations established the Naval Reserve Fleet Management Assistance Program as a practical application of Naval Reserve augmentation with the Regular Naval establishment. DET 420 was the first unit organized under this program. Its officer component includes professional managers, professors, researchers, and others whose experience qualifies them to advise management.

DET 420 receives the requests for services through CINCPACFLT. The unit then schedules its assistance efforts to fit the needs of the requesting command. Each completed task is summarized in report form with copies considered privileged and provided only to the requesting client.

The cost/benefit breakout for the sixty or so jobs DET 420 accomplished between May of 1970 and August of 1977 provides a productive summary of their operations. The total cost of providing the services was computed at approximately \$390,000. If conducted through commercial consulting enterprises the cost would have been approximately \$1,486,000 (computed at the going external consultant rate). Identifiable savings as a direct result of the services were reported to be in excess of \$4,000,000.

This concept does provide somewhat of an interesting slant to the integrated approach. The unit's members possess a measure of internal Navy knowledge, yet are non-dependent on the client for their livelihood, therefore, not likely to be challenged as to their objectivity.

The operation of this management assistance unit is truly a cost effective management improvement. It also serves well to demonstrate the efficiency with which a semi-internal consulting unit can productively contribute to the overall success of the Navy. However, the unit does lack the attribute of a full time active duty staff. The availability of team members is subject to many external demands and constraints in the form of Active-duty-for-training funds availability and the individual's primary occupational demands. After all, this is a form of collateral duty for the Reservists and as such, will realistically play second fiddle to their civilian career obligations. Thus, the amount of services available is limited.

Another Navy organization, the Naval Audit Service (NAVAUDSVC), has established an in-house consulting capability. The origin of the Navy Management Consulting Service, as the Audit Service calls it, developed in a somewhat different manner than DET 420. As related by its historical literature, the service had its ideological roots in the expansion of the public CPA firms into management advisory services.

Early in 1973 it was thought by Rear Admiral James Forrest, then Auditor General of the Navy, and Captain Robert Chancler, that the Naval Audit Service could enhance its "Service to

Management" by providing management consulting services to Navy and Marine Corps commanders. It was reasoned that since, for the most part, the Navy provided for its advanced degree education at the same institutions as those utilized by the private sector, the basic training requirements were met. In addition the in-house Navy consultant has had a broad range of operational experiences to supplement his academic training.

A nucleus of officers, all with advanced degrees, was summoned to initiate the operation. The charter of this division of the Audit Service is to provide, at management's request, a survey, study and/or opinion of what is needed to be done to solve the particular problem at hand. The opinion is to be consolidated in a report which is provided only to the requesting naval manager for his or her use. The manager is free to do what he sees fit with the report, there being no follow-up and no response required, which is the case when an audit is conducted at a command. When required the nucleus staff is augmented by other NAVAUDSVC personnel and members of the Reserve community, who can bring specialized experience to bear on reviews of selected areas.

The Management Consulting Division recognized the need to demonstrate a productive cost/benefit analysis. The system they developed compares a hypothetical "revenue" with the cost of providing the service. The underlying assumption of this approach is that the services actually provided would or should have been procured from an outside consultant. The "revenue" then, is determined by charging the current commercial consultant

rates, multiplied by the time required to complete the task. The analysis for fiscal year 1976 and 1977 showed an expense of approximately \$442,000 versus a "revenue" of approximately \$802,000. Although not really an output measure at all, this form of effectiveness analysis is supported in the literature as a sufficient means of cost comparison [24].

The Navy Management Consulting Service, as differentiated from DET 420, has an in-place, full time staff capable of and designed to respond to consulting service requests from Navy managers worldwide.

In the first four years of existence the service has responded to over 70 tasks (as compared to the 60 or so over a seven year period for DET 420). The service's infant years have yielded many positive improvements in Navy management which in turn, have elicited many favorable comments from top Navy managers. In 1974, for instance, Admiral Holloway, Chief of Naval Operations, sent a memorandum to the Auditor General of the Navy stating in part, "The newly established Management Consulting Division is a worthwhile effort...I encourage you to further expand this consultant capability...I hope that, over time, you will take every opportunity to expand the management consulting approach in assisting our larger activities." Some other top level Navy manager's responses to Navy Management Consulting Service output are listed in Appendix A.

The Chief of Naval Operations suggested that every opportunity be taken to expand the management consulting approach. Such an expansion has not taken place. The staff of the division of the

Audit Service remains essentially unchanged. This has occurred for several reasons, austere budgets, personnel shortages, etc., common to all Naval units. However, the overriding inhibiting factor has been the recent Congressional interest in internal audit in the Department of Defense.

In a recent General Accounting Office Report to Congress by the Comptroller General of the United States, the following conclusion was drawn. The Naval Audit Service devotes a substantial amount of staff time to marginally productive...special request audits (consulting tasks)...The Audit Service's policy of conducting audits on specific problems, some with reporting limited to the requesting officials, results in reduced effectiveness of the auditing and reporting functions of a central audit agency [7].

In subsequent hearings held 7 February 1978 before a subcommittee of the House Committee on Government Operations, the Navy was again taken to task for providing limited distribution, special request audits. Finally, in a report by the House Committee on Government Operations, the Navy was said to have failed to make the most efficient use of audit resources. The report stated that this was caused by the Naval Audit Service spending a considerable amount of time on audits specifically requested...with limited distribution [10].

It is plain to see that the political climate, within the Naval Audit Service at least, has been non-conducive to an expansion of consulting services. Rather the impetus has been to reduce or even eliminate the concept, so as to divert those resources to audit functions.

However, in an ensuing paragraph of the House Report it states, basically, that the General Accounting Office's review of special request work indicates that such effort does benefit the requesting commander in varying degrees. Therefore, it appears not to be the concept which is being denounced, rather the organizational placement of internal consulting services. If the Navy Management Consulting Service was transplanted, say, from the Auditor General's Staff to another Secretariat level entity, the implication at least is that the General Accounting Office would not object.

The organizational placement, the disciplines required, and the total staffing of the Navy Management Consulting Service would be appropriately suited as the subject of an initial integrated consulting task.

The purpose here has been to support the concept that an internal management consulting service, when operated in an integrated fashion with the judicious use of contractual services of outside consultants, is a proven cost efficient venture. The corporate community is in the throes of a significant expansion in this area and the Navy should follow that lead. The Management Consulting Division of the Naval Audit Service is an organization of educated professional Navy managers with a history of proven competence and results, available for such an expansion.

APPENDIX A

NAVY MANAGEMENT CONSULTING SERVICE

CLIENTS' RESPONSES

ASSISTANT CHIEF OF NAVAL PERSONNEL

"The report provided excellent detail...and was a most useful vehicle...I strongly endorse the Management Consulting Group concept within the Naval Audit Service."

ADP EQUIPMENT SELECTION OFFICE

"The report prepared by your Management Consulting Division... is splendid."

COMMANDANT 4TH NAVAL DISTRICT

"...I want to commend your consulting service for its timely response to our request for assistance...from my vantage point, I feel an in-house service has long been needed...I strongly recommend your services..."

CHIEF OF NAVAL PERSONNEL

"The responsiveness and professionalism of the Naval Audit Service in the performance of the Management Assistance Task was very gratifying."

F-14/PHOENIX PROJECT MANAGER

"A review of the study indicates that it is professionally performed and contains excellent findings and recommendations... Thank you for a job 'well done'..."

NAVY FINANCE CENTER

"I am very appreciative of the frankness with which both benefits and disadvantages have been explored and generally of the overall excellence of the study..."

BIBLIOGRAPHY

1. Albert, K.J.m, "Be Your Own Management Consultant," International Management, v. 33, p. 38-40, April 1978.
2. Bakerm, J.K. and Schaffer, R.H., "Making Staff Consulting More Effective," Harvard Business Review, p. 62-71, January/February 1969.
3. Bellman, G.M., "What Does an Internal Consultant Actually Do?," Management Review, v. 61, p. 26-29, November 1972.
4. Dekom, A.K., The Internal Consultant, American Management Association, 1969.
5. Deputy Assistant Secretary of Defense Audit #679, Cost of Studies and Analysis, 22 June 1976.
6. Gale, J.R., "Internal Management Consulting in Modern Business," Financial Executive, v. 38, p. 16-19, March 1970.
7. General Accounting Office Report to Congress #FGMSD-78-5, The Naval Audit Service Should be Strengthened, by The Comptroller General of the United States, 11 November 1977.
8. Harrison, K., "Managing the Internal Consultant," International Studies of Management and Organization, v. 4, p. 35-45, Fall 1974.
9. House of Representatives Government Operations Subcommittee Hearing, Operations of the Air Force Audit Agency and the Naval Audit Service, 7 February 1978.
10. House of Representatives Committee on Government Operations Report 34, Improving Internal Auditing in the Departments of Air Force and Navy an Interim Report, 2 October 1978.
11. Jaychuk, S.J., "Work Measurement Doesn't Have to be a Menace," Canadian Business, v. 48, p. 44-47, July 1975.
12. Katcher, D.A., "Consulting From Within," California Management Review, v. 14, p. 36-44, Summer 1972.
13. Martin R., "Many Companies Decide Management Consulting Can Be Done by Insiders," Wall Street Journal, p. 1, 2 May 1973.
14. Naval Reserve Commander in Chief U.S. Pacific Fleet Detachment 420, Command History, undated.

15. Office of the Navy Comptroller Financial Management News-
letter, v. III, no. III, Subject: Auditing, December 1978.
16. Schaffer, R.H., "Advice to Internal and External Consultants:
Expand Your Clients' Capacity to Use Your Help," S.A.M.
Advanced Management Journal, v. 41, p. 39-52, Autumn 1976.
17. Song, N., "Use and Abuse of Management Consultants," Canadian
Chartered Accountant, v. 104, p. 32-36, February 1974.
18. Stubbs, I.R., Hill, R.L. and Carlton, G.G., "Training and
Development of Internal Consultants at Diamond Shamrock,"
Personnel Administrator, v. 23, p. 17-20, July 1978.
19. Thackray, J., "America's Management Lode," Management Today,
p. 46-49, January 1979.
20. Weingarten, J., "And Now--The Captive Consultant," Dun's
Review and Modern Industry, p. 57-58, 93-96, November 1966.
21. Westbrook, P.R., "A Practical Approach to Personnel,"
Personnel Journal, v. 56, p. 458-460, September 1977.
22. Wilding, R.W.L., "The Use of Management Consultants in
Government Departments," Management Services in Government,
v. 31, p. 60-69.
23. Woolsey, G., "Some Reflections on Surviving as an Internal
Consultant, Azerbaijan, and Two Thieves," Interfaces, v. 5,
p. 48-52, November 1974.
24. "Need a Consultant? More Firms Use In-House Staff to Cut
Costs," Industry Week, p. 28-32, 16 October 1972.
25. "Role of the Corporate EDP Consultant," Data Management,
v. 11, p. 34-36, January 1973.
26. "The Benefits of Doing Your Own Consulting," Business Week,
p. 62-66, 16 May 1977.

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