

AD-A070 304

NAVAL POSTGRADUATE SCHOOL MONTEREY CA
U. S. NAVAL SHIPBUILDING CLAIMS SETTLEMENT: 1974 - 1978. (U)
MAR 79 G P KESLER

F/6 13/10

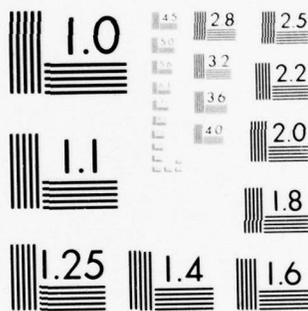
UNCLASSIFIED

NL

1 of 2

AD A070 304





MICROCOPY RESOLUTION TEST CHART
 NATIONAL BUREAU OF STANDARDS-1963-A

Du

NAVAL POSTGRADUATE SCHOOL

Monterey, California

AD A 0 7 0 3 0 4

LEVEL ^{II}



12 | *19pp*

DDC

RECEIVED
JUN 25 1979
A

9 Masters **THESIS**

6

U.S. Naval Shipbuilding Claims Settlement:
1974 - 1978 •

by

10 Gene Paul/Kesler

11 March 1979

Advisor:

A. C. Crosby

DDC FILE COPY

Approved for public release; distribution unlimited.

251 450 Du

79 06 22 010

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

Cont. →

Department of Defense to settle these claims: the 1976 attempt to use P.L. 84-804, the Navy Claims Settlement Board, and the negotiated settlements in 1978. Case studies are included for the claims from General Dynamics Corp., Electric Boat Division, and Litton Industries, Inc. Ingalls Shipbuilding Division. Finally, this thesis concludes that changes in the nature of the shipbuilding industry, contracting methods and procurement policies altered the nature of claims. Further, negotiated settlement, using claims entitlement as a basis, proved an effective alternative to litigation in resolving shipbuilding claims.

Accession For	
NTIS GRAM	<input checked="" type="checkbox"/>
DIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or special
A	

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

Approved for public release; distribution unlimited.

U.S. Naval Shipbuilding Claims Settlement: 1974 - 1978

by

Gene Paul Kesler
Commander, United States Navy
B.S., United States Naval Academy, 1960
B.S.E.E., Naval Postgraduate School, 1966

Submitted in partial fulfillment of the
requirement for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL

March 1979

Author:

Gene P. Kesler

Approved by:

Cluskey Thesis Advisor

David V. Lamm Second Reader

[Signature]
Chairman, Department of Administrative Sciences

[Signature]
Dean of Information and Policy Sciences

ABSTRACT

The 1974 Seapower Subcommittee hearings, in part, expressed concern over the \$1.3 billion in shipbuilding claims then outstanding and concluded that the existing procedures allowed unacceptable delay in claims settlement. These claims grew to over \$2.7 billion before they were settled in 1978. In addition to the nature of these claims, this thesis contains an investigation of the three principal initiatives exercised within the Department of Defense to settle these claims: the 1976 attempt to use P.L. 85-804, the Navy Claims Settlement Board, and the negotiated settlements in 1978. Case studies are included for the claims from General Dynamics Corp., Electric Boat Division, and Litton Industries, Inc., Ingalls Shipbuilding Division. Finally, this thesis concludes that changes in the nature of the shipbuilding industry, contracting methods and procurement policies altered the nature of claims. Further, negotiated settlement, using claims entitlement as a basis, proved an effective alternative to litigation in resolving shipbuilding claims.

TABLE OF CONTENTS

I. INTRODUCTION

- A. SEAPOWER SUBCOMMITTEE HEARINGS, 1974-----13
- B. FOLLOW-ON DEVELOPMENTS-----21
- C. RESEARCH SCOPE-----24
- D. LIMITATIONS-----25
- E. RESEARCH METHODOLOGY-----27
- F. PROBLEMS ENCOUNTERED-----28
- G. ORGANIZATION-----29

II. FRAMWORK-----31

- A. PUBLIC SECTOR: THE ACQUISITION PROCESS-----32
 - 1. The Conventional Era-----34
 - 2. The Total Package Procurement Era-----36
 - 3. The Current Era-----39
 - 4. Current Acquisition Methodology-----42
- B. PRIVATE SECTOR: U.S. SHIPBUILDING INDUSTRY-----45
 - 1. Definitions-----45
 - 2. Effects of Conglomeration-----46
- C. CONTRACTS: THE AGREEMENTS-----51
 - 1. Risks-----52
 - 2. Clauses-----54
 - a. Escalation-----54
 - b. Progress Payments-----56
 - c. Total System Responsibility-----56
 - d. Changes-----58
 - e. Problem Identification Reports-----58

f.	Equitable Adjustments: Waiver and Release of Claims-----	58
g.	Government Furnished Equipment-----	58
h.	Drawings and Other Data-----	59
D.	CLAIMS: THE DISAGREEMENTS-----	60
1.	Definition-----	61
2.	Magnitude-----	62
E.	SETTLEMENTS: THE NEGOTIATIONS AND ADJUDICATION-	63
1.	Procedures Within the Contract-----	66
a.	Claim Settlement Team-----	66
b.	Litigative Risk-----	68
c.	Further Procedures-----	69
2.	Armed Services Board of Contract Appeals----	71
a.	Composition-----	71
b.	Limits of Authority-----	71
c.	Procedures-----	72
3.	Public Law 85-804-----	74
a.	Background-----	75
b.	The Provisions-----	77
(1)	Philosophy and Intent-----	78
(2)	Conditions for Relief-----	79
(3)	Residual Powers-----	81
c.	Implementation in DOD-----	83
(1)	Navy Contract Adjustment Board----	84
d.	Analysis-----	84
III.	CASE STUDIES-----	88

A.	GENERAL DYNAMICS CORPORATION/ELECTRIC BOAT DIVISION-----	90
1.	Claim Background/Chronology-----	91
a.	First Flight Contract Award-----	92
b.	Second Flight Contract Award-----	93
c.	Emerging Problems-----	95
d.	The Claims-----	97
2.	Critical Issues-----	100
B.	LITTON INDUSTRIES/INGALLS SHIPBUILDING DIVISION--	101
1.	Claim Background/Chronology-----	102
a.	Contract Awards-----	104
b.	Contract Performance-----	106
c.	Claims and Litigation-----	110
2.	Critical Issues-----	114
IV.	CLAIM SETTLEMENT ATTEMPTS-----	116
A.	FIRST INITIATIVE: P.L. 85-804-----	119
1.	Background-----	119
2.	Analysis-----	125
B.	SECOND INITIATIVE: NAVY CLAIMS SETTLEMENT BOARD-----	127
1.	Background-----	127
2.	Analysis-----	131
C.	THIRD INITIATIVE: NEGOTIATED SETTLEMENTS-----	132
1.	Analysis of Alternatives-----	132
2.	The Settlements-----	142
a.	General Dynamics Corp./Electric Boat Division-----	144
b.	Litton Industries/Ingalls Shipbuilding Division-----	145

c.	Congressional Hearings-----	146
d.	Newport News Shipbuilding and Drydock Company-----	147
3.	Analysis-----	149
V.	CONCLUSIONS-----	153
APPENDIX A	CHANGES DURING NAVAL SHIP CONSTRUCTION-----	161
APPENDIX B	DISPUTES CLAUSE-----	167
APPENDIX C	LABOR IN THE SHIPBUILDING INDUSTRY-----	168
APPENDIX D	SUMMARY OF LITTON/INGALLS ADMINISTRATIVE/ LITIGATIVE ACTIONS-----	173
FOOTNOTES	-----	177
BIBLIOGRAPHY	-----	185
INITIAL DISTRIBUTION LIST	-----	189

LIST OF EXHIBITS

1. General Characteristics of Navy Acquisition Policies----	33
2. The Navy Ship Acquisition Process-----	43
3. Major U.S. Shipbuilder Corporate Classifications-----	47
4. Rankings of Major Shipbuilding Parent Corporations-----	49
5. LHA and DD 963 Program: Responsibility for Elements of Acquisition Program-----	57
6. Outstanding Major Shipbuilding Claims-----	62
7. Settled vs Outstanding Major Shipbuilding Claims-----	64
8. Navy Contract Adjustment Board Actions-----	85
9. Contracts Causing Major Claims-----	89
10. LHA/DD 963 Ceiling Prices-----	105
11. Summary of Navy Claims Settlement Board Actions-----	128
12. Claims Settlement Summary-----	151
13. Shipbuilding Labor - All Private Shipyards-----	168
14. Weekly Earnings of Private Shipbuilding vs Contract Construction Production Workers-----	169
15. Monthly Turnover Rates in Selected Industries: 1976-----	170

LIST OF ABBREVIATIONS

ASBCA	Armed Services Board of Contract Appeals
ASD(LA)	Assistant Secretary of Defense (Legislative Affairs)
ASN(FM)	Assistant Secretary of the Navy (Financial Management)
ASN(I&L)	Assistant Secretary of the Navy (Installations and Logistics)
ASN(M,RA &L)	Assistant Secretary of the Navy (Manpower, Reserve Affairs & Logistics)
ASPR	Armed Services Procurement Regulations
BIS	Board of Inspection and Survey
CEB	CNO Executive Board
CFE	Contractor Furnished Equipment
CFI	Contractor Furnished Information
CFM	Contractor Furnished Material
CF/CD	Concept Formulation/Contract Definition
CNM	Chief of Naval Material
CNO	Chief of Naval Operations
DAE	Defense Acquisition Executive
DAR	Defense Acquisition Regulations (formerly ASPR)
DCAA	Defense Contract Audit Agency
DCP	Decision Coordinating Paper
DSARC	Defense System Acquisition Review Council
ECP	Engineering Change Proposal
EPA	Economic Price Adjustment
FPI	Fixed Price Incentive Contract
FYDP	Five Year Defense Plan
GAO	General Accounting Office
GD/EB	General Dynamics Corporation/Electric Boat Division

GFE	Government Furnished Equipment
GFI	Government Furnished Information
GOCO	Government Owned Contractor Operated
Litton/ Ingalls	Litton Industries, Inc./Litton Systems, Inc./ Ingalls Shipbuilding Division
MENS	Mission Element Need Statement
MPD	Manufacturing Process Development
NAVSEA	Naval Sea Systems Command. This command now encompasses the former Bureau of Ships (BUSHIPS), Naval Ships Sys- tem Command (NAVSHIPSYSCOM or NAVSHIPS), Bureau of Ordnance (BUORD), Bureau of Weapons (BUWEPS), Naval Ordnance Systems Command (NAVORDSYSCOM or NAVORD), Naval Weapons Systems Command (NAVWEPSYSCOM or NAVWEPS)
NNSDC	Newport News Shipbuilding and Drydock Company
NPD	Navy Procurement Directives
NSARC	Navy Systems Acquisition Review Council
OSD	Office of the Secretary of Defense
OSR	On site review
PPBS	Planning Programming Budgeting System
QPR	Quarterly Progress Review
SCN	Ships Construction, Conversion and Alteration, Navy. An annual budget appropriation category.
SUPSHIPS	Supervisor of Shipbuilding, Conversion and Repair.
TAR	Technical Analysis Report
TPP	Total Package Procurement

ACKNOWLEDGEMENTS

The author wishes to express his sincere appreciation to Commander Alexander C. Crosby, SC, USN, and Lieutenant Commander David V. Lamm, SC, USN, for their guidance in the preparation of this thesis. Captain R. A. Jones, SC, USN former team leader of the Litton Industries claims settlement team, Mr. Gordon Rule, former Director of the Procurement Control and Clearance Division in the Naval Material Command headquarters, Commander A. F. Fournier, SC, USN, and Mr. R. Lipman (attorney), former members of the Navy Claims Settlement Board, all provided invaluable support for this effort. A special thanks goes to Commander P. DeMayo, SC, USN, assigned to the Office of the Assistant Secretary of the Navy (Manpower, Reserve Affairs and Logistics), for his guidance in formulating and narrowing the topic, as well as providing extremely pertinent reference sources.

I. INTRODUCTION

A. SEAPOWER SUBCOMMITTEE HEARINGS 1974

During a four month period extending into the fall of 1974, the Seapower Subcommittee of the House Armed Services Committee held extensive hearings on the status of U.S. shipyards. The hearings started with a review of the problems in naval shipyards, then proceeded to fully explore the problems in private shipyards. The record of these proceedings encompasses over 1500 pages of testimony from numerous witnesses from both the private shipbuilding industry and the Executive Branch of the government. Witnesses from the private sector included the President of the Shipbuilders Council of America, and several top executives of shipbuilding corporations doing business with the government. Testimony from the public sector was given by several senior officials of the Navy and Defense Departments including the Deputy Secretary of Defense, the Secretary of the Navy, the Chief of Naval Operations, and Admiral Hyman G. Rickover.

This testimony constitutes some of the bitterest and most acrimonious to be found in the public record.¹ Among other matters, it highlighted the existing and deepening disagreement between the Navy and the private shipbuilding sector concerning a method of procuring new naval ships which, on the one hand, would be fair and equitable to private contractors and, on the other hand, would be timely, cost effective and efficient to the Navy. An overall indication of the extent of this disagreement can be gauged by the magnitude of the outstanding claims

against the government levied by private shipbuilders for ship construction work completed or in process. At the time of these hearings the aggregate value of these claims was an unprecedented 1.2 billion dollars.

Industry leaders were forthright and strong in expressing their views on the effects of failure to expeditiously settle these claims. Mr. John P. Diesel, President of Newport News Shipbuilding and Drydock Company (NNSDC), stated that:

....we are now building 13 ships for the Navy - two aircraft carriers, four frigates and seven submarines - all nuclear powered. In addition we have agreements for long lead time procurement work on two additional ships... Unless the situation changes dramatically, we estimate that after interest expense and taxes we will have virtually no profit on all this work -- work which will span a period of 5 to 7 years.

Another dimension of this problem is our loss of ability to generate funds for those capital improvements and additions necessary in a modern efficient yard. To be a viable enterprise we must be able to meet such requirements from depreciation charges and net income. However, in 1972 our depreciation and net income failed to cover expenditures....

Because of funds held back under basic contract provisions and our inability to promptly collect moneys spent on additional work and changes, we are currently financing over \$115 million from borrowings with an effective interest rate of almost 14 percent, these borrowings currently cost \$15 million per year..... Except in very limited instances none of this amount is recoverable under our present Navy contracts. In my view this situation imposes an unconscionable burden on us. We simply cannot and will² not continue to finance work for the Navy to this extent.

Continuing his testimony, Mr. Diesel addressed the claims settlement issue more directly:

The Navy has utilized ground rules and standards of proof which make equitable resolution of these matters terribly time consuming. Settlement has sometimes been delayed for years. In 1972 we finally resolved a claim

in excess of \$7 million relative to the aircraft carrier RANGER which had been pending since 1958 -- almost 14 years since it had been submitted to the Navy. There is simply no workable mechanism in the Navy for prompt evaluation and payment. The financial burden imposed upon us by this situation, quite simply, has become intolerable.³

Further pointed elaboration on the private sector's view of this claims settlement issue is found in the testimony of Mr. F. W. O'Green, the President of Litton Industries:

The negotiation process has virtually stalled on disputes where large amounts of money are involved, or where there is a possibility of public controversy over the Navy's decision. Settlement by negotiation now requires as much or more proof than litigation. There is little room in today's "negotiation" process for the exercise of judgement, estimates and common sense. Endless discussion, preparation of data in various forms, and frequent reeducation of successive Navy negotiating teams is the rule. It has been our experience that we not only have to "prove" in a "negotiation" the positive aspects of our claim, but our teams are also called upon to produce voluminous documentary evidence to disprove the Navy's allegations. This is all done in the context of 'negotiation'. The claims settlement procedures of the Navy involve a system of review and the actions of negotiating personnel at various levels. The result is significant 'Monday morning quarterbacking' and diffusion of authority....Shipbuilders presently have approximately \$1.2 billion on file with the Navy. Most of these claims predate a time when interest costs were considered allowable on claims filed. Therefore, it is estimated that the Navy is presently benefiting from private financing of the costs of its (shipbuilding) program in an amount approaching \$1 billion, with interest expense borne by its contractors at the rate of 14% per year. I further submit that this is not in the best interest of the United States.⁴

Clearly the American shipbuilding industry was extremely disgruntled in their efforts to settle shipbuilding claims with the U.S. government.

By far the most extensive testimony by a public official in representing an opposing view of this claims settlement issue

was that presented by Admiral Hyman G. Rickover. He conceded that some shipbuilders may be experiencing losses or at least less profit than they originally anticipated on Navy contracts, and stated that shipbuilders attributed these problems to inflation, inappropriate defense procurement policies, improper administration of shipbuilding contracts by the Navy and several other reasons all of which, according to the shipbuilders, were beyond their control, and therefore the fault of the Navy. Continuing, Admiral Rickover explained that commercial ships were less complex to build than Navy warships. Faced with the uncertain demands for Naval construction and optimistic projections in the commercial market, some commercial shipbuilders opted (and consequently overbooked) for this easier, government subsidized commercial work.⁵ By contrast, Navy work, according to shipbuilders, was less profitable. In essence then, the shipbuilders wanted a guarantee that they would, under no circumstances, incur a loss. In pursuit of this goal, the shipbuilders attempted to gain insurance by effectively changing the nature of their contracts into cost-plus types⁶ -- either through using claims on existing contracts or through obtaining extracontractual relief under Public Law 85-804. Further, according to Admiral Rickover, some shipbuilders tried to gain their ends through filing omnibus claims. The methodology employed was to carefully screen correspondence and other data over several years with the objective of using this data to support future claims. One strong basis of this tactic was to tie the claim to Navy change orders, a process which, in effect, modified a ship under

construction after the original contract had been signed. Admiral Rickover further noted that from the Navy point of view these change orders are an inescapable necessity in order to avoid unacceptable obsolescence while the construction process runs its protracted course, and to satisfy safe, reliable operating criteria during the service life of the ship.

Moreover, Admiral Rickover indicated that in pursuit of these tactics, private shipyards, their parent corporations, and in some instances their Washington lobbyists bombarded senior Navy and Defense Department officials with complaints that the low profit environment of naval construction caused monumental cash drains and unacceptable cash flow problems. This methodology reflected attempts to short circuit the normal claims process by purposefully injecting an unbalanced, incomplete and incorrect picture of the situation into the public policy making process. In arriving at these low profit, unfavorable cash flow allegations, Admiral Rickover cited that one defense contractor had four different methods of recording his current year contract profits and revenues, all lying within the principles sanctioned by both the Accounting Principles Board (officially known as the Cost Accounting Standards Board) and the Financial Accounting Standards Board. Consequently, the method chosen by a contractor to calculate and report his profits could differ from contract to contract, and were to a great extent, subject to the desires of corporate management. This management decision concerning how costs are handled could therefore have a substantial impact on a company's reported

profit. In view of this management prerogative concerning profit reporting methods, both the members of Congress and Defense Department officials should not place credence in unverified financial data provided by shipbuilders and other contractors.

Continuing, Admiral Rickover noted that shipbuilders used hundreds of lawyers and contract specialists in developing and processing their claims. Conversely, he indicated that the Navy experienced a severe manpower drain in the area of both technical and legal specialists who had to conduct the detailed evaluation of these claims. These same technical specialists comprised the cadre of personnel who had to oversee the construction of naval vessels; thus the dilution of their efforts to process large volumes of claims was counterproductive to the Navy's goal of obtaining the best ships possible within the contractual agreements. Further, Admiral Rickover alleged that shipbuilders frequently filed claims based on "innovative" or unproven legal principles, were late in filing these claims, frequently failed to provide adequate supporting documentation to properly evaluate the claims (thus causing delays in the evaluation process), and often revised or submitted additional claims at various stages of the claims evaluation and adjudication process. All these practices, whether by design or circumstances, were counterproductive to the Navy's effort to expedite the claims settlement process, and were not caused either by Navy officials or inadequacies in the existing claims settlement process.

Admiral Rickover also observed that for various reasons, those in Navy circles who pointed up these contractor faults were frequently labeled as meddlers; summing up his view of this attitude with the characteristically wry comment that "we frequently leave in peace the people who start the fire and molest those who ring the alarm bell."⁷

In partially refuting the above-expressed views, Mr. F. Trowbridge vom Baur, a former Navy General Counsel, took the position that:

The Navy's policy on many claims is a policy of delay. The overall technique of many Navy administrators, particularly those with an accounting background is to keep requesting the shipbuilder for more and more material. No amount of documentation furnished is ever enough. Meanwhile, Navy personnel change, and new contracting officers come into the act, until finally much of what is requested has already been furnished by the shipbuilder at some previous time and has disappeared into the Navy files. The newer contracting officers have never read all the documentation previously furnished, and often do not even know what it consists of or where it is located....In my experience it is impossible for a contractor to...."frustrate the Navy's review of claims." The Navy conducts its own review of claims and the contractor simply has no influence over what the Navy does. All he can do is furnish the information the Navy requests, and hope against hope for the best.

Who in government cares about this? Nobody cares. Its too big and too fragmented. There is simply no moral tone in the Government today with respect to the payment of claims. The Supreme Court....made some pointed remarks about prompt payment of claims, saying that....
...the disputes clause is intended to provide quick and efficient administrative remedy and to avoid vexatious and expensive and, to the contractor oftentimes, ruinous litigation. But the Supreme Court's strong language appears not to have made an impression....I submit that it is certainly within the capacity of the Navy to cope with, and, indeed, properly handle shipbuilders claims; and also to take steps to prevent many of them from arising in the future.⁸

All shipbuilding claims being processed by the Navy at the time of these hearings were either being pursued by the appropriate contracting officers, Supervisors of Shipbuilding Conversions and Repair, or specially appointed claims evaluation teams, all under the cognizance of the Naval Sea Systems Command (NAVSEASYSKOM). Notwithstanding the opposing views presented above, the Commander of this command, VADM R.C. Gooding, succinctly summed the Navy's position on claims settlement as follows:

....we are settling these claims in an entirely legal and as well as we can in an equitable fashion.... It is a great impediment to businesslike relations with shipbuilders to have these claims. We want them out of the way. They will be settled properly, as quickly as we can, do it properly,.....we will not give away the store.

In his subsequent testimony, the Deputy Secretary of Defense (DEPSECDEF), Mr. W. P. Clements, Jr., further underscored this view by establishing as a goal of the Navy the continuing commitment to take aggressive steps to resolve equitably, the large backlog of shipbuilding claims.

In December 1974, the Seapower Subcommittee issued its final report of these hearings. This document briefly summarized the position of the shipbuilders regarding claims settlement as: "They want their claims, just as they have been drafted, paid in full and promptly."¹⁰ The Subcommittee concluded that it could not approve the idea of merely paying any shipbuilder's claim as submitted without a valid governmental decision as to the propriety of the claim. From this central rationale flowed three of the major conclusions of the Subcommittee which focus on either in whole or in part, the issue of shipbuilding claims settlement:

There have been long delays in the settlement of shipbuilders' claims. In part, delays have been due to the necessity of carefully considering each element of complex claims, in part to the changing nature of contractor submissions; and in part to delays by shipbuilders in producing evidence in support of these claims. Nevertheless the present procedures allow for unacceptable delay in settlement of claims....Huge claims have been submitted to the Navy in recent months and others are threatened. These can only result in overwhelming those responsible for the programs....

Unanticipated inflation has caused losses and led to changes of substantial cost overruns. In the past the Navy has been constrained from using realistic cost estimates for future fiscal years, but more acceptable procedures are now being permitted.

While the subcommittee appreciates that the margin of profit for shipbuilders has not always been adequate on naval combatant programs, assured profits cannot be legislated and experience has proven that cost plus contracts lead to abuses that cannot be prevented under any procedures yet devised.

Obviously these hearings left the Navy and, indeed, the Department of Defense with the charge for substantial introspection regarding the existing claims settlement procedures, and a firm commitment to future actions which would equitably improve this process.

B. FOLLOW-ON DEVELOPMENTS

Both the Navy and the Department of Defense responded vigorously to this charge. Perhaps in a fashion all too typical of our governmental process, boards, committees, and advisory panels were convened or empowered to either study or take action on these shipbuilding claims problems. From these efforts came a mounting proliferation of reports, studies and recommendations, both within the congressional and the executive branches of the government. By 1976 Congressman Bennet, Chairman of the Seapower

Subcommittee of the House Armed Services Committee, noted with concern that his staff alone had identified over 250 studies on the weapons acquisition process produced since 1970, with seven of these being high level studies currently underway.¹² In responding to this concern, the CNO, Admiral Holloway, lamented that the Navy was making improvements, but that what the Navy needed was a moratorium on directions in order to reorganize and do things differently. He further noted that the Navy simply could not absorb such massive doses of advice and still get on with its day to day business.¹³

Even in the face of these very substantial efforts, the shipbuilding claims continued to mount. By the end of 1976 the aggregate value of these claims had risen to \$2.3 billion, and by 1977 the claims amount was \$2.7 billion. The magnitude of these claims was an accurate bell weather of the extreme and increasing disgruntlement of private industry towards the Navy's ship acquisition process at that time. The media was replete with charges from the private sector of unfairness and inaction in this process. Threats of naval ship construction cessation were not uncommon. Two contractors, NNSDC, and Litton Industries, Inc., made good these threats by announcing the stoppage of construction on a CVA and the LHA program respectively. Only through court action was the Navy able to temporarily gain the continuance of these construction efforts. An even deeper-seeded forboding of this adversial relationship between the Navy and private shipyards was the deteriorating interest by these contractors in pursuing future naval construction work. For

example, the FFG-7, one of the Navy's largest planned procurement efforts for surface warship programs, was of interest to only two shipbuilders. This trend, if it continued, would force the Navy even deeper into a sole source procurement situation for new ships -- a situation which would be disadvantageous both from the standpoints of reducing the national naval/maritime construction base, and moving towards monopoly.

These difficulties did not, indeed could not, escape the scrutiny of both the executive and congressional branches of the government. In addition to numerous inquiries and hearings on the status of these claims, the whole ship acquisition process came under close examination and criticism during each annual budgetary process. In the executive branch, projected out-year force levels drove the annual budget submission for new ships construction (SCN) funds. While these force levels are driven by broad national defense policy objectives, the rising price of new ships undoubtedly exacerbated the decisions which continually resulted in lesser quantities of ships than had been projected to meet overall national goals.¹⁴ A frequently advanced rationale for these reductions has been that the Navy itself was to blame because it had allowed cost overruns, contractual disputes, and mismanagement to reduce the shipbuilding program to such a state of disarray. Meanwhile, on the congressional side, where the Navy has traditionally drawn strong support for its programs, a lengthy addition became an annual part of the naval testimony in support of its annual budget submission. This addition was a detailed explanation of the status and progress in settling

its shipbuilding claims. In 1976, an entire separate session of the Senate Armed Services Committee was devoted to this subject alone, as a part of its fiscal year 1977 budget authorization deliberations. The general tone of these hearings underscored a growing congressional skepticism and concern over the Navy's ability to manage its ship construction programs, the health and viability of the private shipyards, the price of new ships, and even, our national ability to afford a Navy to meet our forecasted needs. The result of this skepticism has been reflected in congressional support of the Presidential budget for reduced quantities of ships. This reduced level of naval construction, in some measure, aggravates the very problems which caused it. Reduced construction levels engender less competition, less economies of scale, and thus higher per-unit prices. To this extent the problem is cyclical and self-feeding in nature; not caused by, but certainly highlighted and accentuated by the claims settlement problem.

C. RESEARCH SCOPE

During 1978 the vast majority of the Navy's shipbuilding claims were settled. The principal claims during the period from 1974-1978 involved three contractors: Newport News Shipbuilding and Drydock Company, Litton/Ingalls, and General Dynamics/Electric Boat. In pursuing the settlement of these claims, the Navy and Defense Departments exercised several initiatives. However, three emerged as the principal initiatives pursued; all having the goal of expediting or improving the claims settlement process itself. These initiatives were: the

1976 attempt by Secretary Clements to use Public Law 85-804, the establishment of a Navy Claims Settlement Board (NCSB) under RADM F.F. Manganero, and the 1978 negotiated settlement approach of Secretary Hildalgo. The scope of this research effort is limited to investigating these three initiatives. Therefore, the principle research of this thesis is: What were the results and impact of the Navy/Department of Defense's principal initiatives towards settling shipbuilding claims during the period 1974-1978?

D. LIMITATIONS

The shipbuilding claims problem may be viewed in three parts lying on a continuum: the causes of the claims, the settlement of the claims themselves, and the measures taken to avoid future claims. The identification and isolation of the causes of claims is important because only through this process can one hope to develop alternative courses of action, and thus provide a cure to the problem. The area of claims avoidance deals with the application of the appropriate new procedures to effect this cure. In this context, improvement of the settlement process itself must be viewed as a palliative, but, indeed, a non-trivial one. As has been shown in the introduction, failure to find and effectively apply this palliative results in increased expenditure of vital manpower, increasingly counterproductive tensions between the private and public sectors, and proliferation of a damaging image of the Navy in both the private and public sectors.

As previously noted, the causes of claims and recommendations for their future avoidance has been (and continues to be) extensively studied. However, some of the causes of claims cannot be inexorably separated from the settlement procedure. From the Navy standpoint, many of the same personnel are involved both in some part of the claims evaluation process and in overseeing ship construction; thus forcing concurrent pursuit of the incompatible roles of confederate and adversary. The contractor is thrust into a similar position in insuring that he does not prejudice his potential for the generation of future claims.

This thesis is limited to addressing the causes of shipbuilding claims only to the extent that they bear directly on the claims settlement process itself. This limitation is imposed not because claim causes are not important, but rather due to the necessity of maintaining a central direction on the research question itself.

Any treatment of claims settlement procedures must address in some measure the legality of the available alternatives. The focus of this research effort is to explore these legal aspects only to the extent that they relate to the managerial decision making process involved in the selection of the appropriate claims settlement initiatives available to the public sector. The tone of this effort will therefore be directed towards contracting officers, Ships Acquisition Project Managers (SHAPM), and their line managers in the Navy chain of command; and not towards the staff legal contingent associated therewith.

E. RESEARCH METHODOLOGY

The principal research methods employed were a literature search and personal interviews. The literature search encompassed a review of the public records, periodicals, technical reports, pertinent procurement regulations, related text books, limited official correspondence, and a review of some relevant court decisions. By far, the most fruitful of these sources were the congressional hearings in the public record. Of particular importance were two hearings: one before the Seapower Subcommittee of the House Armed Services Committee and the other before Senate Armed Services Committee. Both of these hearings were conducted in August 1978 and addressed proposed action under Public Law 85-804 relating to the settlement of shipbuilding claims. Of substantial significance were the annual congressional authorization hearings. These were the primary reference sources for the initiative of DEPSECDEF Clements to invoke Public Law 85-804 in 1976.

Personal interviews were conducted with both technical and legal authoritative sources associated with the Navy. These sources are experts in the fields of government contracting and claims evaluation, adjudication and settlement. All were deeply involved in some facet of the matters under consideration in this thesis. The questions posed during the interview process were not uniform since each of the interviewees was associated with different segments of the pertinent issues. These interviews provided relevant insights and data from a Navy/public sector perspective.

F. PROBLEMS ENCOUNTERED

No personal interviews were conducted with the private industry leaders associated with these issues. This was not an oversight. Time and funding constraints precluded this avenue of investigation. However, the 1974 Seapower Subcommittee hearings addressed heretofore left little doubt in the author's mind concerning either the viewpoint of private industry leaders or their intended courses of actions. Additionally, local newspaper accounts, and national periodicals were reviewed to assist the author in obtaining this private sector view of the pertinent issues.

Another problem is associated with the very nature of the issue being addressed herein -- that of the protracted nature of the settlement procedure itself. Even with the relatively short period of time under consideration, several of the naval personnel, in particular, who associated earlier on with the specific claims cases addressed herein had been transferred to other assignments or retired -- apparently taking their corporate memory and/or records with them. Further, the public administration changed in 1976 bringing a new set of publicly-appointed officials to bear on the issues. Therefore, of necessity, heavy reliance has been placed on public records.

During the process of these settlements, some allegations were made that a part of the claims were fraudulent. As a consequence, a part of the records of these claims have been impounded by the Justice Department. The records of the Navy Claims Settlement Board were not available for public scrutiny.

Thus the material addressed herein relies on limited public records found in the congressional hearings, substantiated and supplemented by the material provided by the board members themselves.

A final problem related to the Newport News Shipbuilding and Drydock Company claim settlement. As no congressional hearings were held on this subject, the data available on this settlement was relatively limited. Thus, the material presented herein was drawn from available accounts.

G. ORGANIZATION

This study is organized into three broad parts: a framework (Chapter II), a presentation and analysis of the data (Chapters III and IV), and a conclusions section (Chapter V). Chapter II first explores the environment relevant to claims. The public sector environment emphasizes the recent evolution and methodology of the ship acquisition process, while the private sector environment focuses on the effects of conglomeration. Thereafter, the nature of government contracts, claims, and settlement procedures are addressed in turn. Significant effort is devoted to the background and pertinent explanation of Public Law 85-804.

The data presentation and analysis section is divided into two parts. The first part, Case Studies (Chapter III), addresses, in turn, the background and critical issues associated with each of two major claimants during this period: Litton/Ingalls and GD/EB. The background section in each of these cases is generally presented chronologically, except in instances where, in the author's view, departures are necessary for clarity. The

second part of the data presentation and analysis section concerns the settlement initiatives employed by both the Navy and the Department of Defense. Initially addressed is the 1976 attempt by DEPSECDEF Clements to employ Public Law 85-804. Next, the Navy Claims Settlement Board background and actions are explored. Following this, the 1977-1978 negotiated settlement efforts are pursued. These efforts are divided into the alternatives available, the settlements themselves, and the ensuing actions necessary to convince Congress that this was the appropriate course of action.

Chapter V, the conclusions, draws on the data and analysis section to aggregate and consolidate the findings of this research effort.

CHAPTER II - FRAMEWORK

In their broadest context, shipbuilding claims are both a result of and an integral part of the process of acquiring naval ships. The intent of this chapter is to explore the claims process in the context of this broad overview. First a brief historical perspective of the weapons systems acquisition process is presented. Attention is focused particularly on the ship acquisition process, emphasizing the evolutionary nature of this process over the past 20 years. Thereafter follows a brief description of the methodology of this process, again emphasizing the differences between the general process and that for acquiring ships.

The next section of this chapter focuses on the environment of those who construct naval ships: the U.S. shipbuilding industry. The effects of the change in this industry from several small firms to a few giant conglomerates is explored.

Next addressed is the legal interface between the public and private sectors: the contracts themselves. Here, emphasis is placed on risk elements and the most controversial contract clauses during this period. The contract breakdown, or the claims, are pursued in the next section, highlighting the magnitude of these claims.

Finally, this chapter looks at the procedures of the claims settlement process. Procedures for grievance settlement both within and outside the contract are addressed, with detailed attention devoted to the use of Public Law 85-804.

A. PUBLIC SECTOR: THE ACQUISITION PROCESS¹⁵

Since World War II, the policies for acquiring weapons systems have undergone significant changes. To a great extent these changes have been evolutionary and incremental in nature. Nonetheless, three distinct policies can be identified -- the "conventional" policy period existing after World War II and extending to 1961; the "concept formulation/contract definition" policy of SECDEF McNamara which dominated the 1960's, and the present policy which evolved under DEPSECDEF Packard in early 1970. The specifics of each of these policies differ significantly; however, they all share the basic tenets which must define any weapons procurement policy: the identification of a need for the weapons system; the establishment of system requirements; and the selection, development, design, construction, test, and evaluation of a weapons system which fulfills this requirement.¹⁶ In this process, the Navy has the responsibilities of, through the Joint Chiefs of Staff, identifying the need, and of defining, developing, and producing the systems to meet this need. Establishment of overall acquisition policy, validation of needs, and monitoring the program progress and performance are the purview of the Secretary of Defense.

Exhibit 1 presents a summary of the main characteristics of these policies for each of the three periods identified above. Before proceeding further, a note of caution is in order. When reviewing this table, and throughout this paper, it must be borne in mind that the timeframe for designing and procuring a naval ship is on the order of from 10 to 13 years. Procurement of

EXHIBIT 1

GENERAL CHARACTERISTICS OF NAVY ACQUISITION POLICIES¹⁷

Acquisition Policy	Characteristics of Design Process	Cost Consciousness	Contract Type
Conventional: (pre-1960s)	in-house non-rigorous little documentation and design control	relatively unconstrained performance optimized	multiple shipbuilding multi-year allocated to many shipyards
CF/CD: (1963-1969)	out of house (industry controlled) rigorous (systems engineering) extensive documentation (Navy review teams)	minimize life cycle cost cost effectiveness optimized	total package procurement multi-year multiple shipbuilding single shipyard fixed price
Present: (post 1970)	in-house (industry participation) rigorous extensive documentation and design control	minimize acquisition cost (design to cost) cost optimized fly-before-buy	separate development and production contracts multiple shipyards varied forms multiple shipbuilding multi-year

large numbers of the same type or class of ship may involve multiple contracting efforts for follow-on contracts with either the initial construction (lead) shipyard or a different one. (The procurement blocks or groups of ships of the same class are often termed "flights".) Further, the execution of some claims settlement procedures require the alteration, modification, or even the reforming of the original contract, in order to equitably resolve a misunderstanding or to conform to revised acquisition policies or both. The points here are that ship acquisition is an extremely long undertaking and contracting is a vital, dynamic process. Thus, caution should be exercised when associating the major procurement of a large number of the same type of ships with a specific acquisition policy. In this thesis, such an association is inferred when a specific acquisition policy is clearly identifiable as the root cause of a claim or when the total procurement of a ship class lies wholly within an acquisition policy period.

1. The Conventional Era

Prior to World War II, ship systems were relatively simple. They were essentially independent systems mounted on a common hull platform, requiring neither extensive inter-system integration nor sophisticated automatic modes of operation. World War II saw a rapid technological boom, but this was a protracted war of attrition. Numbers of hulls were important. Therefore, although technology was beginning to have impact, neither this technology nor cost was the driving constraint. Rather, production schedule was the dominant factor which drove

ship acquisitions. This quantity-driven policy was characterized by decentralization, with construction contracts allocated by the Navy to several shipyards to maintain the mobilization construction base. At the end of this war, the Navy had an inventory of nearly 5000 ships and over 50 commercial shipyards were working at full capacity. Initial concerns of the post-war period were focused, not on acquisition policies, but rather the reduction and retirement of our war machine to an appropriate peacetime level.

Spurred by its impetus from the war effort, technology continued to advance rapidly. Words such as strategic missile threat, nuclear age technology, and automation increasingly became a part of our vernacular. The full cost impact of incorporating such systems into our ships was not recognized since such modernizations were pursued on a limited, piecemeal basis. Even into the 1950's the Korean conflict, (which was unanticipated) did not surface this full impact, as we pursued a policy of ship reactivation to meet our expanded commitments, with ships retirements ensuing again thereafter. Since the impact of the technological impetus had not surfaced, the conventional post World War II procurement policy for weapons systems endured into the early 1960s. This "conventional" policy was characterized by an interactive design process essentially accomplished by the Navy "in-house" with very limited independent, contracted support, limited documentation, major emphasis on ships performance, dividing of ships contracts between several shipbuilders, and little involvement at the Department of Defense

level and above.

Towards the end of this period the impact of technology and its attendant cost began to be felt. The Navy established its nuclear propulsion and Polaris missile programs. Complex anti-submarine warfare systems were receiving high priority, and our first surface ship guided missile systems were retrofitted into existing hulls. The existing acquisition policy proved unequal to these tasks, as evidenced by the acceleration of many high priority (and high risk) programs resulting in an increase in cost overruns, a lack of expected, or even adequate performance, low effectiveness, delayed schedules and the proliferation of "get well" programs.

2. The Total Package Procurement Era

In 1961, SECDEF McNamara became the engine for many changes in this acquisition process. One of his first acts was to change the defense planning process by the introduction of the Planning, Programming, Budgeting System (PPBS), and the Five Year Defense Plan (FYDP). These changes placed increased emphasis on cost effectiveness, and technical capability, including the considerations of operational readiness, reliability, maintainability, logistic support and life cycle costs, rather than just performance and initial acquisition costs. SECDEF McNamara also initiated major changes through the introduction of concept formulation/contract definition (CF/CD) procedures leading to Total Package Procurement (TPP). The prior policy of allocation of contracts to shipyards was abandoned in favor

of a policy of formally advertised fixed price bidding procedures for ship procurements. Only cursory attention was devoted to the concept of maintaining a broad shipbuilding mobilization base. Major acquisition decision making authority was centralized at the SECDEF level. In summary, the objectives of this new acquisition policy were:¹⁸

1. optimization of cost effectiveness by using systems analysis techniques;
2. reduction or elimination of contractor claims against the government by using contractor-prepared performance-oriented specifications instead of government-imposed detailed specifications;
3. reduction of cost overruns by transferring financial risk to the contractors for the design and acquisition phases through the use of fixed-price contracts;
4. significant capitalization increases in shipbuilding facilities by using multi-ship, multi-year contract awards to a single shipbuilder that were expected to provide long-term financial security; thus enabling large scale capitalization and forcing expansion of facilities due to delivery schedule demands;
5. reduction of unique system and subsystem proliferation resulting from split production contracts;
6. introduction of producibility and innovation into the designs by having the production contractor design the system he was to produce;
7. lower acquisition costs by taking advantage of the

"Learning Curve" effect through single-producer, serial productions; and

8. arrival at more accurate total cost estimates and the reduction of poor ship support by making the contractor responsible for all on-board systems, crew training, initial repair parts and support facilities similar to "Total Package" procurement.

Under the CF/CD process, Concept Formulation remained essentially a Navy activity. This phase established the economic and technical criteria on which to base the decision to enter into an Engineering Development phase. The Contract Definition phase provided the greatest departure from the "conventional" policy. Where previously ship designs had been developed within the Navy and then negotiated with several shipbuilders for construction, Contract Definition called for the Navy to issue Requests for Proposals (RFP) to selected capable shipbuilders. The successful bidders from this process (usually two or three) were then paid to produce ship designs. The construction contract was then awarded to the single shipbuilder with the "best" design. ("Best" was primarily the most cost-effective in the context of TPP.) The single contract thereafter awarded was for multi-year, multi-ship, fixed-price production, with or without incentive clauses.

This Navy CF/CD policy was an adaptation of the Total Package Procurement program in use throughout the Department of Defense for all weapons systems acquisition, and both developed severe difficulties. By the late 1960s, reports of cost and schedule

overruns and performance shortfalls of new major weapons systems were found daily in the media. Contractor costs soared, profits plummeted, and claims against the government mounted. The term "contractor bailout" became prevalent as one defense contractor after another threatened to cease production unless relief from fixed-price contracts was forthcoming.

For both the Navy and the shipbuilder major problems emerged with the CF/CD policy. The cost savings envisioned from more efficient series production in a single shipyard did not materialize. Further, the inflation provision of the contracts of this period were a major contributor to cost growth. This was compounded by the inflation effects in both labor and material for the large number of subcontractors involved. The overall result of this acquisition policy and its associated contracting methods was the generation of several shipbuilding claims during recent recent years. The three such major claims are considered in this thesis.

3. Current Era

For completeness, the current ship's acquisition policy will be addressed briefly. This policy which was established in 1970 under DEPSECDEF Packard, strives to combine the best features of the "conventional" policy with the lessons learned from the CF/CD experience. At present, the major project concerned is the Guided Missile Patrol Frigate (FFG) program. Major elements and trends of this new policy include:¹⁹

1. In-house ship design aided by some private contractor involvement (from "conventional" plus CF/CD);

2. Rigorous, systematic approach with required review and approval to proceed through the major acquisition stages (from CF/CD);
3. No Total Package approach in that the design and production phases are rigidly separate (from "conventional");
4. Formal documentation (from CF/CD);
5. Improvement of the quality and validity of cost estimates;
6. Flexibility in contract type and liberalization of escalation and inflation clause usage;
7. Tailoring of acquisition approach to the needs of each project;
8. Emphasis on constrained design through the "Design to Cost" approach; and
9. Emphasis on proven design and equipment through a "fly-before-buy" approach.

The last of these policy elements are the most unique of the present approach. The "Design to Cost" method was new to the Navy, but fairly commonplace in private industry new-product development. The method is planned for use in non-nuclear ship acquisition. It involves a period of identification and study of alternative designs which are technically feasible for satisfying the need requirement and estimation for their gross characteristics using ship synthesis and engineering analysis techniques. After this, design constraints are established

within the Navy. In the FFG project, these initial design constraints concerned the acquisition cost, full-load displacement, and crew size. Performance capabilities above the minimum specified were then traded-off to stay within the design constraints. Thereafter discrete cost elements were converted to "design to" requirements. Design baseline cost goals were rigidly reviewed throughout the design phases.

The key element which has grown from recognition of the need for increased test and evaluation during the acquisition process has been prototyping or "fly-before-buy". Total prototyping of major naval vessels is still not feasible, however, due to the time and expense involved; consequently, a modified approach has been used. This involves early construction of land based test sites to evaluate entire systems such as the propulsion and combat systems, and allowance of adequate time between the various design and production phases to permit realization of the design test and evaluation prerequisites. The best example of this process is the FFG program. In this program, two cost-plus-fixed-fee (CPFF) contracts were awarded for private shipbuilders to aid the Navy in ship system design. One shipyard, Bath Iron Works, was then selected to build the "lead" ship (the first ship to be built). Separate lead-ship construction was begun well in advance of follow-ship construction in order to validate the design of the lead ship. After construction had been underway for some time, follow-ship shipbuilders were selected on a competitive basis with fixed-price incentive (FPI) multi-year contractors to be awarded to a

predetermined number of builders. These follow-shipbuilding yards are Bath Iron Works, Todd-Seattle, and Todd-San Pedro.

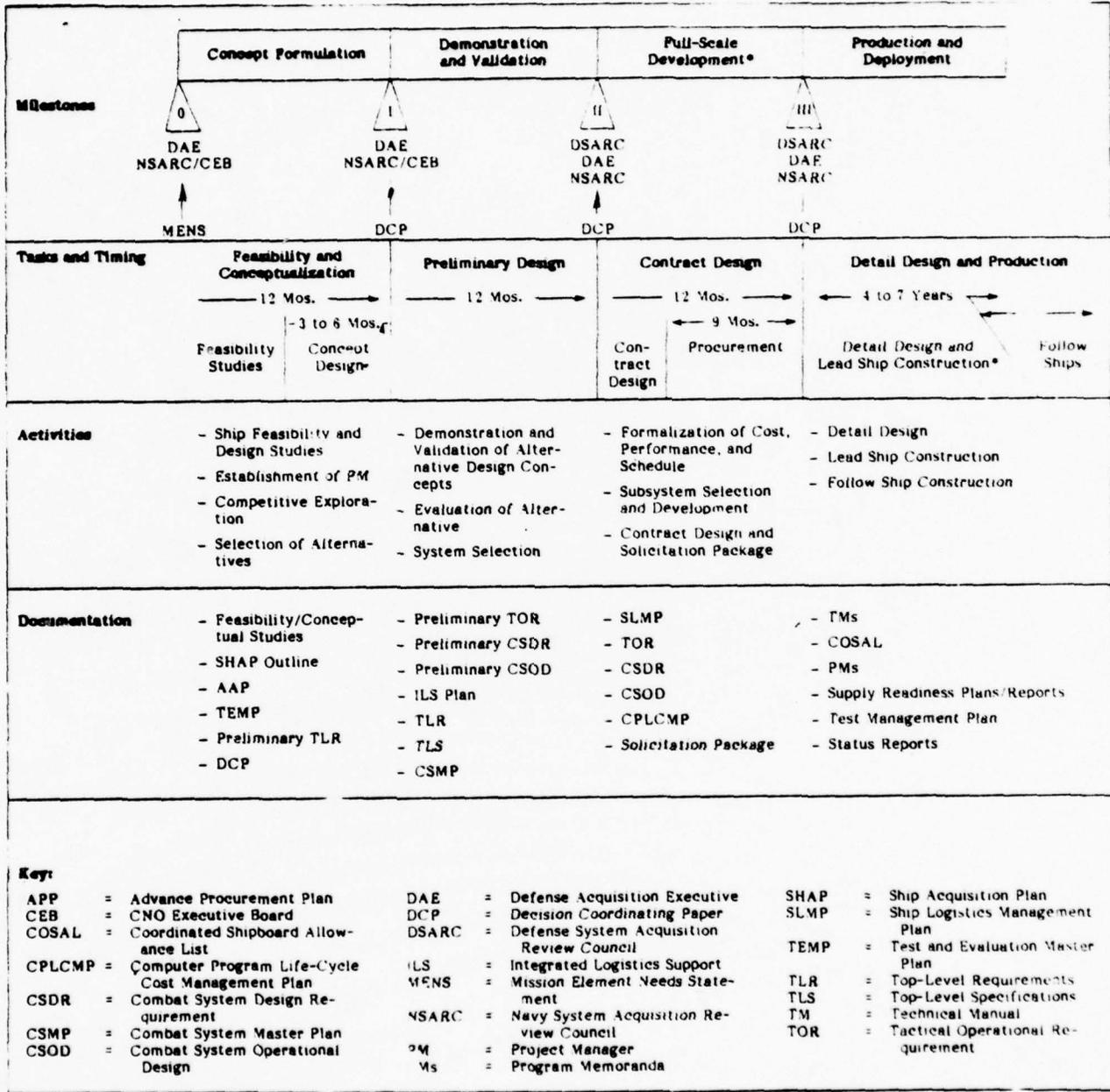
4. Current Acquisition Methodology

Exhibit 2 depicts the current Navy ship acquisition process. It reflects the application of the requirements contained in DODINST 5000.1 as they apply to the procurement of ships. The concept of the different phases of the process (i.e., Concept Formulation, Demonstration, etc.) each being terminated with definite milestones (decision review points) has continued from the SECDEF McNamara era. Decisions concerning program progress, suitability, continuance, and modification are recommended or made variously by the CNO Executive Board (CEB), the Navy Systems Acquisition Review Council (NSARC), the Defense Systems Acquisition Review Council (DSARC), and the Defense Acquisition Executive (DAE). The principal document used in these reviews is the Decision Coordinating Paper (DCP). Milestone 0 is an additional decision point added since the days of SECDEF McNamara. Through the Mission Element Need Statement (MENS) document, this decision point formalized the requirement to review an operational need associated with a Defense Department mission, and the technical feasibility (or risk) of the program coming to fruition. This revised process emphasizes the following:

- a. The need for a strong technology base to support program development.
- b. The initiation of only those programs which meet a need stated in operational terms, and which have been validated within acceptable risk boundaries of existing

EXHIBIT 2

THE NAVY SHIP ACQUISITION PROCESS
MILESTONES, MAJOR TASKS, ACTIVITIES, AND DOCUMENTATION



*In some programs, DSARC-II has authorized design and construction of the lead ship.

Source: Naval Ship Procurement Process Study, 1978

technology.

- c. The consideration of logistics support, cost, and schedule as principal design parameters, when system trade-offs are necessary.
- d. The use of experimental models and prototypes to the maximum extent possible to reduce technical uncertainty.
- e. The commencement of test and evaluation efforts as early as possible, and the evaluation of these results by the DSARC prior to the commitment to large scale production.

While all these aspects affected the claims during the period under consideration, the last two were undoubtedly the most vexatious, particularly with regard to ship procurement. The failure (or inability) to fully test and proof a prototype ship prior to production coupled with the failure to evaluate a production model prior to full scale production have been a major influence on the proliferation of costly and claims-producing changes to ships during construction. Another major source of these changes has been the late delivery of government furnished information (GFI) which occurred primarily when more than one contractor was involved with the construction of the same ship type or when different contractors were awarded the design and construction contracts. Due to its importance as a cause of claims, a more detailed discussion of changes is provided in Appendix A. Earlier involvement of the contractor in the initial design process, a lead ship evaluation period prior to full scale production, and the follow ship contractor review of

the lead ship detailed design plans are key elements of the current ship acquisition process. (See Exhibit 2). These elements aimed at correcting some of the major causes of the claims which occurred during 1974 - 1978. The use of a land based test sight was a prototype for evaluating combat systems in the FFG program. It also has been a beneficial and innovative measure instituted with this same goal in mind.

This improved ship acquisition methodology, as demonstrated by the FFG program to date, continues to look promising by comparison with previous methods.

B. PRIVATE SECTOR: U.S. SHIPBUILDING INDUSTRY

Prior to the late 1950's the U.S. private shipbuilding industry was predominately characterized by many small, privately owned firms. The public policy of allocating shipbuilding contracts to shipyards, coupled with the simpler technology required for construction, allowed this extensive fragmentation to exist. Beginning in the late 1950's, many of these smaller shipbuilding firms were taken over or acquired by major corporations or conglomerates. The effect that this change in the basic structure of the shipbuilding industry had on the generation and processing of shipbuilding claims is the subject matter of this section.

1. Definitions

The concepts of conglomeration and corporate expansion are themselves the subject of a diversity of opinion in the literature. For the purposes of this paper the following definitions are adopted:

a. Corporate expansion encompasses growth either by (a) horizontal consolidation to increase a firm's product line by increasing the line of good sold to its customers, or by (b) vertical consolidation which builds a firm's capabilities along its manufacturing chain either forward towards its markets (customers) or backwards towards its sources of supply.

b. Conglomeration is defined in its more confining sense as either the merger of two firms or the acquisition of one firm by another with the proviso the two original firms, before the union, had neither a buyer-seller relationship nor a functional relationship in manufacturing or distribution.

When defined in this way, both conglomeration and corporate expansion tend to have similar effects on the shipbuilding claims problem, in that both have added resources at their command, have some larger management structure, have the potential to wield more outside influence (or power) to accomplish corporate goals, exhibit a more complex and often more flexible financial structure, are responsible to a larger constituency, generally develop more sophisticated management information and planning systems, and finally impose greater management accountability within the corporate structures.

2. Effects of Conglomeration

Exhibit 3 shows the most significant changes due to corporate influences, the author's classification of these changes, and the date these formerly independent shipyards began to operate as subsidiaries or divisions of their corporate or

EXHIBIT 3

MAJOR U.S. SHIPBUILDER CORPORATE CLASSIFICATIONS

<u>Shipyard</u>	<u>Parent Corporation</u>	<u>Classification*</u>	<u>Date</u>
Avondale Shipyards	Ogden Corporation	Conglomerate	1959
Bath Iron Works	Congoleum Corp.	Conglomerate	1967
Electric Boat Division	General Dynamics	Aerospace and Defense Corp.	----
Ingalls Shipyards	Litton Industries	Conglomerate	1961
Lockheed Ship- building and Construction	Lockheed Aircraft	Aerospace and Defense Corp.	1959
National Steel and Shipbuilding Co. (NASSCO)	Kaiser Industries**	Conglomerate	1961
Newport News Ship- building and Drydock Company	Tenneco Inc.	Conglomerate	1968
Quincy Ship- building Division	General Dynamics	Aerospace and Defense Corp.	1964
Sun Shipbuilding	Sun Oil Company	Oil Corporation	----
Todd Shipbuilding	Todd Shipyards, Inc.	Shipbuilding Corporation	----

* Classifications in accordance with the definition of corporation and conglomerate adopted previously.

** NASSCO is in dual ownership of Kaiser Industries (50%) and Morrison-Knudson Inc. (50%) but management and operational control lies with Kaiser Industries.

conglomerate parents. Exhibit 4 is the Fortune 500 ranking of the parent corporations in 1976, the midpoint of the period of interest to this study. From this exhibit it is apparent that the shipbuilding industry has changed from one of several small fractionalized, firms to one dominated by large, powerful corporations.

Five major areas of conglomerate influence on the U.S. shipbuilding industry are apparent: facility expansion and modernization programs, organizational structure, management philosophy and expertise, Navy shipbuilding claims, and power and influence. These are hereafter discussed in turn.

The presence of large corporations in the shipbuilding industry has afforded a greater capability for the smaller number of larger shipyards to keep pace with technology. Conglomeration has brought greater flexibility into shipbuilding facility investment programs through their larger financial base and through their widely diversified nature. The conglomerate-controlled shipyards have been better able to undertake large facility expansion and modernization programs, and to maintain such programs in the face of adverse economic conditions. Additionally, these conglomerates have shown flexibility in their market strategy by gaining large shares of the naval shipbuilding market.

The acquired shipyards have undergone a characteristic change in their organizational structure from that of an independent business entity to that of a division of a corporation. This is true for both corporate and conglomerate acquisitions;

EXHIBIT 4

RANKING MAJOR SHIPBUILDING PARENT CORPORATIONS

<u>Parent Corporation</u>	Rankings*		
	<u>By Sales</u>	<u>By Assets</u>	<u>By Net Income</u>
Ogden Corporation	138	176	182
Congoleum Corporation	414	439	409
General Dynamics	98	125	109
Litton Industries	49	66	233
Lockheed Aircraft	50	101	191
Kaiser Industries	199	129	122
Tenneco Inc.	22	15	18
Sun Oil Company	36	27	34
Todd Shipyards	N/L	N/L	N/L

* 1976 rankings from Fortune, May 1976

N/L - Not Listed

however, it is more significant for the conglomerate acquisitions because, generally, the acquired firm becomes a lower-level segment. This manifests itself in several ways. Additional levels are placed in the decision making process which tends to encumber and delay shipyard executive decision making and, in effect, take shipbuilding out of the hands of the shipbuilder. Absentee corporate top management may be less aware of, and less sensitive to, local circumstances and customer relations. Further, the conglomerate hierarchy has introduced a trend towards a higher level management relationship in naval shipbuilding as evidenced by relationships which had generally existed at the shipbuilder-Navy Supervisor of Shipbuilding level but have tended to rise to the conglomerate management-Navy/Department of Defense level.

Other changes have occurred in the management philosophy and expertise of conglomerate-acquired shipyards. In some cases shipyard technical management has been replaced by management-oriented executives from the conglomerate parent. Some have brought new and sophisticated management techniques. Management philosophies have shifted towards a greater emphasis on financial status and profit orientation. These changes in overall shipyard management attitudes, philosophies and orientation have adversely impacted upon the shipyards' relationships with their customers, particularly the Navy.

Since their arrival on the shipbuilding scene, the conglomerates have been involved in the issue of shipbuilding claims, primarily due to the escalation of this claims problem during a period in which conglomerate-controlled shipyards have become

increasingly dominant in the shipbuilding industry. The conglomerate-controlled shipbuilders have accounted for the large majority of the claims submitted. While it cannot be positively confirmed that conglomerates were a primary motivating force for the recent claims problem; it can be stated that they were a contributing and aggravating influence. As will be shown later in this chapter, the conglomerate-controlled shipyards have demonstrated a greater propensity to exercise claims due to a greater resource base of both manpower and financing, and their high financial priorities. Thus, the conglomerates are more ready, willing, and able to prosecute claims.

The conglomerates have gained power and influence within the shipbuilding industry because of their number, market shares, and shipbuilding capabilities. They potentially have the power to affect many aspects important to the industry including Navy procurement policies and decisions, claims settlements, internal Department of Defense relations, and other political and business matters. Their leverage may predominantly reflect their own self-interests, but it also appears to have increased the influence of the industry as a whole.

C. CONTRACTS: THE AGREEMENTS²⁰

A contract is defined as a promise for the breach of which the law gives a remedy, or for the performance of which the law recognizes a duty. More simply, a contract is a legal agreement for each of two parties to give something of value, called "consideration". Obviously, prior to entering into this

agreement both parties must assess the risks involved. Since shipbuilding is the longest, most complex process in the spectrum of government acquisitions, the proper assessment of risks is of central importance in minimizing the claims which occur from such contracts. This section addresses these risks and their allocation through a contract and its clauses.

1. Risks

The broad categories of risk in shipbuilding are associated with the technical aspects, the cost, and schedule provisions of a contract. Technical risk involves the degree to which the design and construction process extends the current state of the art. It is highly dependent on the timing, accuracy, and understanding of the technical documentation provided (normally GFI), and the number of changes necessary to this documentation during the construction process. (Appendix A is germane.) Cost risk concerns the ability of the parties to forward price and thus accurately predict the construction costs. It is affected by labor costs, material costs (and thus inflation), the method of payment of these costs, and the extent of the warranty, both with respect to time and degree of responsibility. Schedule risks involve the construction and delivery timing of the end product(s). It is dependent upon capacity of the construction activity and the availability and management of the firm's factors of production: labor, materials, and information. It is emphasized that these factors are not orthogonal in nature. Rather, they are highly interdependent, in addition to being inherently and unavoidably speculative. The identification and proper allocation

of these risks through selection of the appropriate contract type is a requirement of the DOD system acquisition directives. The reduction of this requirement to writing neither reflects the difficulties associated therewith nor ameliorates the process of risk identification. The very existence of any claims at all attests to this fact.

Once risks are assessed to the maximum degree possible, the shipbuilder and the contractor, through contract negotiations, must apportion these risks. For apportionment purposes, risks are considered in three categories: those within the Navy's control, those within the contractor's control, and those beyond the control of either party. The government usually structures contracts to assume the risks within its control. The Changes clause prescribed by the Defense Acquisition Regulations (DAR) (formerly ASPR) is a prime example of this, wherein the contractor is entitled to an equitable adjustment for Navy-ordered changes. With respect to contractor-controlled risks, general practice has been to form the contract such that the contractor bears this risk (i.e., contractor furnished information and equipment, labor hours, overhead costs, etc.). The single exception to this policy involves the few instances where a cost-type contract has been used because the overall uncertainty was judged to be too great for the contractor to bear alone. (Footnote 6 pertains.) The major vehicle for contractor risk assumption has been the fixed-price incentive (FPI) contract in which the contractor commits to a fixed-ceiling price and experiences profit reductions above the target costs, at a mutually agreed-upon rate. The FPI

contract was the principal type used for the contracts under consideration in this paper. Finally, for risks beyond the control of either party (i.e., social and environmental legislation, inflation, natural disasters, etc.), Navy practice has been to allocate such risks to the contractor. The most notable exception to this policy, also an issue in the settlements covered in this paper, has been risks associated with labor and material price increases. These have been handled through economic price adjustments (EPA). It is germane that if a FPI contract type is used, contract clauses must be employed which specifically address each risk area in the context of distributing this risk equitably among the parties.

2. Clauses

Contract clauses attempt to assign and define both the rights and responsibilities of each party in advance, rather than leaving these matters to negotiation or adjudication after the contract is formed. Some clauses are required by the DAR and thus are difficult to alter. Other optional clauses contained in the DAR are used only when both parties so agree. The parties may also agree to include clauses not contained in the DAR, but which are not contrary to the law. Discussed hereafter are only the principal clauses which caused claims difficulties.

a. Escalation

This clause is intended to account for the effects of inflation as it applies to labor and material costs. Escalation is measured by a labor index for shipyards published by the Bureau of Labor Statistics (BLS), and a material index drawn

the Wholesale Price Indices, also published by the BLS. Under the old clause (prior to 1975), escalation was paid on the basis of (1) pre-established rates (at the forming of the contract) and fixed phasing, and (2) allowable costs not exceeding the initial target cost of the contract. This escalation coverage ceased on a date related to the contractually scheduled delivery date of the vessel. Further, escalation and progress payments were limited to 105% of the costs incurred to avoid excessive payments. This methodology worked reasonably well and was accepted by contractors through the 1960's. The following decade has seen unanticipated double digit inflation. Additionally, other environmental influences played havoc with this system. In 1975, this clause was changed in the following manner to treat contractors more equitably:

- (1) Escalation is paid on the basis of actual expenditure phasing, as incurred.
- (2) Escalation is paid on allowable costs incurred, not to exceed ceiling price.
- (3) Escalation coverage continues to the actual delivery date.
- (4) For periods beyond the contract delivery date, escalation is paid on the basis of the lesser BLS index for either the contract delivery date or the current value.

This new method has proven satisfactory, but its late institution caused substantial disagreements and claims.

b. Progress Payments

Prior to 1973, these payments were based on the physical progress of ships construction, and were limited to 105% of the incurred costs with a retention of 5% of the price of the ship. In 1973, SECNAV changed this policy, but after considerable complaints from contractors concerning working capital problems this newer policy was recinded, without having been used in a contract, in favor of the above policy in effect prior to 1973. In 1975, the current policy was established. It specifies that 10% of the contract price be withheld until the 50% physical completion point, limits payments to 100% of the allowable costs up to the 50% completion point, and to 105% thereafter, and provides for biweekly payments.

c. Total System Responsibility

This clause was associated with TPP and was used in the LHA/DD 963 contracts with Litton/Ingalls. It is no longer used, but was the basis of substantial claims. Under this clause, the contractor assumed virtually full responsibility for designing and delivering ships which met particular performance requirements/capabilities. These responsibilities encompassed those for integrated logistic support, including maintenance and supply support. Commensurately, it was the Navy's explicit responsibility to minimize its involvement in the design and construction process.²¹ Exhibit 5 shows a more complete representation of the responsibilities of this concept in comparison with normal Navy practices.

EXHIBIT 5

LHA AND DD 963 PROGRAM²⁴

RESPONSIBILITY FOR ELEMENTS OF ACQUISITION PROGRAM

<u>Elements</u>	<u>Standard Navy Method</u>	<u>LHA/DD 963 Method</u>
Conceptual Studies	Navy plus study contracts	Competing shipbuilders
Preliminary Drawings and Specifications	Navy	Shipbuilder
Contract drawings (used for construction bidding)	Navy plus contract architects	Shipbuilder
Detailed Drawings (used for construction)	Shipbuilder	Shipbuilder
Change Management	SUPSHIPS & Headquarters	SUPSHIPS & Headquarters
Subsystem Supplied	GFE (combat systems)	CFE
Construction	Shipbuilder	Shipbuilder
Functional performance shakedown	Shipbuilder	Shipbuilder
Weapons/Combat Systems demonstrations	Navy	Navy/Shipbuilder

Source: GAO staff study, LHA and DD 963 Shipbuilding Programs, no date, circa 1978

d. Changes

This clause, in addition to providing the contracting officer with authority to make unilateral changes, also required contractors to give notice of new or impending constructive changes as they occur. The shipbuilder was given 10 days to report the constructive change, the contracting officer was required to respond within 10 days thereafter, and the contractor had 45 days from the contracting officer's response to assert any claim associated therewith. See Appendix A for a further discussion of changes.

e. Problem Identification Reports

This clause required the contract to report any contract performance problem exclusive of changes which would be likely to result in either a delay in delivery or a significant claim. It also contained a provision that precluded equitable adjustments for such "problems" from containing costs incurred more than 20 days prior to notice of the problem.

f. Equitable Adjustments: Waiver and Release of Claims

The requirements of this clause stipulated that equitable adjustment submissions contain all the cost elements of a change order, including delay and disruption costs.

g. Government Furnished Equipment

Contractors frequently attributed substantial delay and disruption problems to late delivery of GFE. All GFE clauses emphasize the need of both parties to minimize delays resulting from GFE. Problems arise over the requirement that all delivery dates for GFE be extended by a time equal to any

extensions in the ships delivery date. Further, some GFE clauses limit the government's liability for late GFE to any slippage of the vessel delivery date in excess of 180 days.

h. Drawings and Other Data

Because of the size and complexity of the data encompassed by these clauses, claim-causing deficiencies or discrepancies are normally found to exist. The Navy usually assumes responsibility for contract drawing and contract guidance drawing deficiencies, thus entitling the contractor to an equitable adjustment. The far more detailed working drawings, prepared after the contract award, are another matter. In nuclear ships some working drawings are non-deviation drawings - meaning they must be followed to the letter unless a waiver is granted by the Navy. Other working drawings in nuclear construction, and all working drawings in conventional ship construction are furnished on an "as is" basis. The Navy appears to assume responsibility for non-deviation drawings, but has argues that it has no liability for working drawings furnished on an "as is" basis.

Constructive changes, a legally recognized concept, have long been identified as a principal cause of claims. Since DAR does not recognize this concept, it provides no tools to treat constructive changes. Thus the Navy developed a number of contract clauses to deal with circumstances which caused constructive changes through early identification and procedurally processing of the root causes. Today industry frequently refers

to this group as "anti-claims" clauses. The clauses addressed in subparagraphs c through h above belong to the "anti-claims" clause group.

D. CLAIMS: THE DISAGREEMENTS²³

Once a contractual agreement is reached, the basis is established for potential disagreement between the parties. The right to this disagreement is well recognized in law. If one of the parties violates or breaks one of the legal covenants of the agreement, this constitutes a breach of contract. A claim is not a breach of contract. Conceptually, it is rather a disagreement over the meaning and impact of the original agreement with respect to each of the parties providing equitable consideration. Claims for shipbuilding are not new. They have been a part of the naval ship acquisition process since the early days of sail. Just as the nature of the acquisition process, the environment of the shipbuilders, and the contracts themselves have changed, so has the nature of the disagreements. During the period extending into the late 1960's it was common practice for shipbuilders to file their claims not only after the ship was delivered, but on occasion up to 2 years after the warranty period had expired. The process for claims settlement was similarly at a more leisurely pace, as exemplified in Chapter I by one settlement occurring 14 years after the ship was delivered. The magnitude of the current claims, the working capital pressures on contractors, and the unprecedented effects of inflation have contributed significantly to this forced

abandonment of the more leisurely pace in this process. This section addresses the nature of claims particularly with respect to their magnitude.

1. Definition

Section 1-401.55 of the Navy Procurement Directives (NPD) essentially defines the term "claim" as a request for contract adjustment, involving to a significant extent, "constructive change" --- i.e., a change based on government conduct, including actions or inactions which is not a formal written change order, but has the effect of requiring the contractor to perform work different from, or in addition to, that prescribed by the terms of the contract.

In 1977, Congress established the requirement for the DOD to report the validity of claims over \$5 million before payments could be made. In interpreting this requirement, the Chief of Naval Material used the following definition:²⁴

The term "Claim" as defined for this purpose is far broader than the definition contained in NPD 1-401.55(b) and thus applies to a wide range of contractual actions including for instance requests for equitable adjustment, submitted by contractors as a result.

The term "Request for Equitable Adjustment" (REA) has been used in recent years to define demands for increases in contract prices based on events which allegedly fall within the provisions of the contract, including written change orders, escalation, and late or defective GFE or GFI. Even though REA's are the result of formal changes, the Navy evaluates them under the same procedures as constructive changes. This is done because of the

large dollar amounts and the complex nature of these requests. Although the difference in the terms "claim" and "REA" have some significance to the Armed Services Board of Contract Appeals (ASBCA), they are not normally differentiated in accepted Navy usage, and will thus not be herein.

For purposes of this thesis then, the term "claim" shall mean a contractor's demand for increased compensation because of an alleged constructive change, an expressed contract clause, or both.

2. Magnitude

Exhibit 6 shows the magnitude of outstanding shipbuilding claims at the end of calendar years 1971 through 1978. The 1971 claim amount is representative of the claim amounts experienced

EXHIBIT 6

OUTSTANDING MAJOR SHIPBUILDING CLAIMS*

<u>YEAR</u>	<u>AMOUNT (\$M)</u>
1971	296
1972	580
1973	580
1974	719
1975	1,130
1976	2,339
1977	2,713
1978**	905.6

NOTES: *Cumulative net value at the end of each calendar year.

**As of July 1978. This amount includes the GD/EB and Litton/Ingalls settlements, but not the NNSDC settlement.

Source: Adapted from Naval Ship Procurement Process Study, 1978.

over the prior decade. In October 1978, the Navy had a major claim settlement of the NNSDC claim of \$742 million which reduces the adjusted year end amount for 1978 to \$163.6 million, exclusive of any claims which may have been filed in the latter half of that year. In any event, it is clear that the magnitude of shipbuilding claims at the end of 1978 was at or below the amounts being experienced in the 1960s.

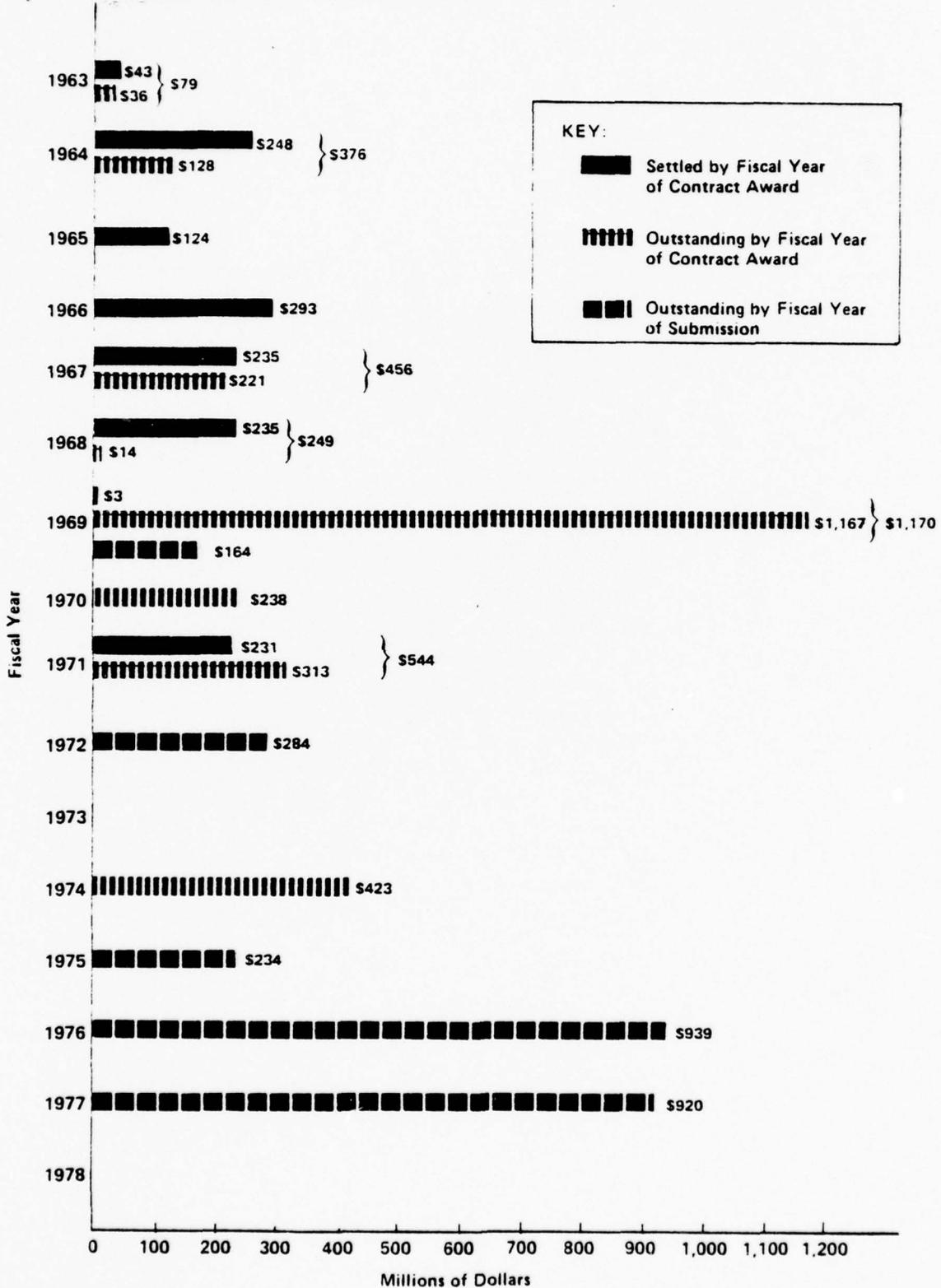
Exhibit 7 shows settled and outstanding claims by year of contract award. This method of depiction permits linking the amount of claims with the acquisition policy being employed at a given time. The contract which generated the largest single claim was the LHA total package procurement awarded to Litton/Ingalls in 1969. Earlier contracts in the 1960's awarded through competitive bid procedures (normally with firm-fixed-price contracts), also generated substantial claims. This exhibit also supports NAVSEASYSKOM's observation that shipbuilding claims tend to surface about four years after contract award. This delay is caused in part because of the length of time involved in the construction process. Therefore, it is still too early to make judgements concerning the success of the lead ship/follow ship concept discussed earlier in this chapter.

E. SETTLEMENTS: THE NEGOTIATIONS AND ADJUDICATION²⁵

The methodology for proceeding with a shipbuilding claim against the government is specified in the Disputes clause of the contract. (Appendix B is a representative standard Disputes clause taken from DAR.) In the first step of this procedure,

EXHIBIT 7

SETTLED VS OUTSTANDING MAJOR SHIPBUILDING CLAIMS
BY FISCAL YEAR OF CONTRACT AWARD AND SUBMISSION



Source: Headquarters, Naval Material Command, 5 April 1978.

the contractor files the written basis and elements of the claim with the appropriate contracting officer, normally located at the cognizant Supervisor of Shipbuilding, Conversion and Repair (SUPSHIPS) activity. The contracting officer, after a decision and review process, accepts or rejects this claim. If the claim is rejected at this point, a final contracting officer's decision will be issued. If the claim is accepted, a detailed evaluative process ensues, which may result in an agreed settlement or again a final contracting officer's decision. The contractor may appeal this decision to the Armed Services Board of Contract Appeals (ASBCA). This body, after its deliberations, renders a decision which is binding on the government. However, if the contractor considers this decision inequitable, he may appeal it to the U.S. Court of Claims. The decision of this body becomes binding on both parties, excepting of course, the contractor's right to appeal this decision to the Supreme Court. These procedures exist within the contract, thus construction is continuing during these procedures. It is emphasized that, in general, these procedures are not addressing a breach of contract. Such a breach would be pursued in the U.S. Federal Court system (including the Court of Claims) and could involve contractual work stoppage or termination. This procedure involves a contractual default by one of the parties, and is not the central issue of this paper.

In addition to the above procedures, the contractor has another avenue for pursuing his claim or perceived contractual iniquity. This is through the use of Public Law 85-804, a method

which encompasses government procurements only, and thus has no equivalent in contractual matters involving private parties or firms only. This section explores all the above procedures in more detail.

1. Procedures Within the Contract

Upon receipt of a shipbuilding claim, the cognizant Navy contracting officer performs a preliminary review to determine its completeness and acceptability. He is guided in this pursuit by the following directives: the NPD, the DAR, and the DAR Manual for Contract Pricing. On acceptance of the claim, its dollar value is considered. If the claimed amount is less than \$1 million, the claim is normally adjudicated by the appropriate SUPSHIPS organization, and is not of primary interest to this thesis. The procedures for claims exceeding \$1 million are described below.

a. Claims Settlement Team

Once the claim is accepted, a claim settlement team is established, consisting of a contracting officer (team manager), engineer, counsel and Defense Contract Audit Agency (DCAA) auditor. The number of personnel assigned to each of these functional areas varies widely and is dependent on the complexity and extent of the claim. For example, the Navy claims settlement team for the Litton/Ingalls claims was comprised of over 200 personnel during some stages of the team's efforts. The claims settlement team reviews the claim and prepares a claim review plan which consists of:

- (1) A brief summary of each claim item and an item classification (i.e., delay, disruption, defective specifications, etc.).
- (2) The elements of proof required to support entitlement for each claim element.
- (3) An opinion as to the data necessary to support the legal entitlement and amount, and the extent to which the contractor has provided this data.
- (4) A processing schedule containing the estimated completion date for each major event.
- (5) An outline of the proposed data filing system to be employed during claim analysis, evaluation and litigation.

The claim team then investigates the claim to develop the relevant facts, and has the right to request, receive, and inspect all relevant data/records of the contractor. From this factual data, the team develops preliminary documentation of the Navy's position consisting of:

- (1) A preliminary technical analysis report (TAR) prepared by the team engineer and/or technical analysts. It contains a factual delineation of the claim and the engineering evaluation/analysis of the claim's technical merits.
- (2) A preliminary legal memorandum prepared by the team counsel, and based on the preliminary TAR. This memorandum points up to areas needing further clarification and furnishes guidance on the validity of the

claims issues.

(3) Audit assistance to evaluate the facts and verify the costs.

This preliminary documentation receives a headquarters review by NAVSEA and the Navy Office of Counsel, which provide their comments to the team manager for preparing the final TAR.

Final claim team documentation consists of the final TAR, final legal memorandum and a DCAA audit report. These documents consider all the team member comments plus those from the headquarters review. The final legal memorandum contains analyses concerning the applicability and adequacy of the contractor's legal theories of government liability. Further, it evaluates the adequacy of evidence to satisfy the elements of proof the contractor would need to support his legal theories. Finally, it assigns litigative risks to the appropriate elements of the claim based on the relevant laws/legal procedures.

b. Litigative Risk

This term is used generally to represent a legal assessment of areas where Navy counsel considers weaknesses exist in the Navy's position on a claim element. Should the claim be appealed to the ASBCA or the Court of Claims, these weaknesses could result in additional compensation to the contractor above that established by the final TAR/audit positions. Litigative risk is expressed as a dollar amount and includes two facets: actual litigative risk, where the Navy questions the contractors right or entitlement to compensation, and a jury evaluation, where the amount or quantum of compensation

is questioned.

In questions of legal entitlement, litigative risk is computed by taking a percentage of the disputed item. For example, where it is considered that no legal facts/precedence exists which would permit the contractor to prevail, zero % litigative risk would be assigned. Conversely, if Navy counsel is certain the contractor will prevail, 100% litigative risk would be assigned.

Questions of quantum are frequently resolved by the ASBCA or the Court of Claims using a jury verdict technique. They resort to this technique when they are not convinced that either the Navy's or the contractor's position is totally correct and that the facts in the record do not permit an exact calculation of the increased costs. In assessing quantum, the Navy counsel attempts to estimate the outcome of this jury verdict situation and includes this assessment in the litigative risk.

Litigative risk amounts are not automatically allowed to a contractor, but are used in establishing a pre-negotiating ceiling. It thus provides a negotiating window by justifying amounts in excess of the Navy TAR/audit positions.

The Advisory Audit Report provides the DCAA auditors' review and analyses of the cost of the claim, and the review of the contractor's accounting system, estimating methods, and other related fiscal data.

c. Further Procedures

Based on the three above delineated documents (the legal memorandum, the TAR, and the audit report), a

pre-negotiation range is established and presented for review through NAVSEA, to NAVMAT for approval. This approval is called the Pre-Negotiation Business Clearance and prescribes all the details of the proposed negotiation. The negotiations are then conducted. Following these negotiations, a Post-Negotiation Business Clearance is required in accordance with the following criteria:

(1) Claims having a proposed settlement value of between \$1 million and \$20 million are reviewed by NAVSEA's Contract Administration Division and Claims Board. Additionally, proposed settlements in excess of \$5 million are summarized and informally reviewed by CHNAVMAT and ASN (M,RA&L), with final approval being granted by NAVSEA's Deputy Commander for Contracts.

(2) Claims having a proposed settlement amount in excess of \$20 million are processed by the following chain:

(a) Review and recommendation by NAVSEA's Claims Settlement Board;

(b) Review and recommendation by NAVSEA's Deputy Commander for Contracts;

(c) Review and recommendation by NAVMAT's Claims Board;

(d) Review and final approval by ASN (M,RA&L).

Final disposition of the claim is made by issuing an approved contract modification for a negotiated settlement, or a contracting officer's final decision, if agreement is not reached.

Contractors can appeal either their claims or contracting officer's decisions to the ASBCA for entitlement and/or quantum determinations. Settlement negotiations can and often do continue while claims are under such appeals. As well, payments can and do proceed based on the contracting officer's (government's) final position, while such are under appeal.

2. Armed Services Board Contract of Appeals

As delineated in the DAR, this Board is constituted at the direction of, and as the direct representative of both SECDEF and the Secretaries of the component military services. Its sole purpose is to hear appeals from contractors concerning contracting officers final decisions and/or disputes. For shipbuilding claims, these appeals are taken pursuant to contracts requiring decisions from either SECDEF or SECNAV, or in accordance with any departmental directive, exclusive of a contract, but in which SECDEF grants the right of appeal.

a. Composition

The entire board is comprised of qualified attorneys. It has a Board Chairman and two Vice Chairmen appointed by SECDEF. In turn, the Board Chairman establishes divisions to handle the appeals, and appoints a head of each division. The Board Chairman, Vice Chairmen, and division heads comprise the senior deciding group of the board.

b. Limits of Authority

This board is generally limited to decisions in fact, but not in law. However, if an appeal is made pursuant to the contract's contractual Disputes clause, which limits appeals to

questions of fact, the Board, at its discretion, may hear, consider, and decide questions of law to complete its adjudication. Just how binding these finds on matters of law are on the the contractor is open to legal interpretation and question, based on the nature of the findings. Clearly, reformation of the contract is beyond the jurisdiction of the ASBCA, since such legal authority does not exist within DOD. Thus, matters involving a breach of contract can be decided no lower than the Court of Claims. Therefore, the ASBCA usually limits its decisions to claims for which relief is available under specific contract provisions. Notwithstanding this usual modus operandi, the ASBCA sometimes hears cases and issues findings concerning matters which do not arise under specific contract clauses. Frequently these findings can be useful in promoting a settlement, even though the finding is not considered final in a purely legal sense.

c. Procedures

To start this procedure, the contractor first addresses his written appeal to the appropriate service Secretary, and files it with the contracting officer from whose decision the appeal is taken. In turn, the contracting officer endorses the appeal, forwards it to the ASBCA, and, within 30 days, forwards his pertinent documents consisting of: a statement of the claim (or dispute) with references to the contract provisions, and a statement of relevant facts including the areas of agreement, disagreement, and the basis for the contracting officer's decision. On receipt of the claim, the ASBCA advises both the contractor

and the contracting officer of the Board's rules. The Board then hears motions, and upon ruling favorably on the issue of jurisdiction, docket the case. Within 30 days after docketing the contractor must provide a statement of each claim, the basis, and the dollar amount claimed. Thirty days thereafter the contracting officer is to file the answer to these specific claims with the Board. If these timeframes are not met, the Board can enter a general denial for the government. If a case on the docket does not proceed on time for reasons beyond the Board's control, it is placed in a suspense status. If this suspension continues for an inordinately long time, the Board may dismiss the case without prejudice, which means no finding or prejudice is rendered or implied.

Any Board member designated by the Chairman is authorized to hold hearings, examine witnesses, receive evidence, and argument; and report the evidence/argument to the designated division for consideration and determination. Thereafter, the division may render a decision or the division chairman may refer the case to the senior deciding group for determination. In these matters, the Board decides its own rules, regulations, methods and procedures. This procedure of hearing by only one member, and subsequent review and re-review process has been criticized in some quarters on the basis of its unfairness on the one hand, and its lengthiness on the other. In any event, the proceedings here, just as in the Court of Claims, are adversarial in nature, and thus follow litigative procedures. Thus, the preparation for and processing of a claim through

either the ASBCA or the Court of Claims is protracted and complex, involving, for large cases, literally thousands of individual claim elements, all covering very complex issues. For example, it was estimated by Navy counsel that litigation before the ASBCA in the Litton/Ingalls' LHA case would take from 6 to 10 years. Further, even after this process, the possibilities had to be admitted that either an adverse finding (in whole or in part), or inadequate legal authority to process the claim with DOD, or an appeal by the contractor could force a significant part of this entire process to be repeated before the Court of Claims. Obviously, the entire settlement process described heretofore is both time consuming and expensive to both the contractor and the government. Therefore the pursuit of other legal remedies is understandable.

3. Public Law 85-804

Under a specific set of circumstances, another legal remedy does exist for claims against the government arising from defense procurement contracts. This remedy involves the use of Public Law 85-804. The legal tenets of this law, in some form, have been in use since World War II. Since then these principles have been used quite frequently to settle claims. In recent years however, this law has been used on occasion to settle extremely large claims. These occasions have been surrounded by heated controversy at the highest levels of our government and have received wide coverage in the media. In these controversies, opponents of this law frequently use terms such as military complex-defense industry collusion, contractor bailout,

abrogation of governmental contractual rights, and waste of public funds; while the proponents employ such phrases as national defense, vitality of the industrial base, and equitable adjustment. The most recent of such incidences involved a part of the shipbuilding claims settlements under consideration in this thesis. Thus this section address this law as a means of settling shipbuilding claims.

a. Background

Since the beginning of World War II, the Congress has been studying the needs of procurement agencies in order to devise comprehensive and effective standards and guidance for procuring goods and services. With the advent of that war, it was discovered that contracting agencies did not possess sufficient authority to purchase war materials promptly and efficiently. Navy procurement at the beginning of the war was regulated by a huge mass of undigested and uncoordinated legislation. Some of these statutes had accumulated on the books over a period of more than 100 years. Obviously, many were out-dated, many were conflicting, and some had apparently been enacted to service special, but long since forgotten purposes.

To overcome these deficiencies and permit large-scale wartime procurement, Congress passed Title II of the First War Powers Act of 1941, the predecessor of Public Law 85-804. Prior to enactment, debate on this bill revealed congressional concern that granting contracting agencies the power to amend contracts without regard for other legal provisions meant granting them unlimited power in procurement matters. Thus Congress restricted

use of this law to those instances in which it would "facilitate the prosecution of the war".

After the war, Congress again addressed the need for comprehensive, coordinated procurement authority by enacting two procurement statutes. Certain Title II powers (such as negotiation authority) which were once thought to be extraordinary, particularly in peacetime, were incorporated into these statutes; thus reflecting a basic change in congressional attitude towards government procurement. Even though the scope of authority in these statutes was narrowed, procurement agencies still found these powers necessary in defense contracting.

Through President Truman's efforts, the Title II provisions were reactivated in 1951, at the outset of the Korean Conflict. The continuing commitment for the procurement process to remain abreast of national defense goals during the cold war period following the Korean Conflict spurred Congress to extend this "reactivation" of Title II powers five more times.

In 1958, during extensive congressional hearings, several government agencies testified on the continued necessity for this expanded authority, and the Comptroller General confirmed that no abuses of these powers had been discovered. The thrust of these hearings was two fold: to verify the need for these powers, and to ascertain whether this need was permanent in nature. These needs were justified, and Congress passed Public Law 85-804. However, for reasons which are unclear from the record, a provision was inserted limiting the law's use to period's of national emergency as declared by Congress or the

President.

Until recently, this national emergency state had been continuously extended. It has become clear, after almost four decades of continuous use of these expanded powers, that the vitality and legal precedence for the use of this law now transcends any "national emergency". Rather, recent use has emphasized the "facilitation of national defense" phrase of the statute.

In the early 1970s, the first large claim resulting from the TPP acquisition policy surfaced in the aircraft industry. This earlier surfacing of this problem in the aircraft industry is understandable considering the shorter procurement cycle for aircraft relative to naval vessels. The most prominent of these claims were submitted by Lockheed Aircraft Corporation concerning the C-5A aircraft procurement. This claim was settled under P.L. 85-804 and caused substantial congressional interest and concern. From this concern flowed the most recent change to P.L. 85-804, incorporated into P.L. 93-155, the DOD Appropriation Act of 1974. By this change, authority to obligate in excess of \$25 million for a P.L. 85-804 settlement required congressional approval. This approval is tacit in that Congress must be informed in writing of such proposed usage, and if Congress does not specifically disapprove this proposal within a continuous period of 60 days while in session, thereafter, the funds may be so employed.

b. Provisions

One of the broadest grants of authority to the

President is contained in P.L. 85-804. It empowers the President to authorize government agencies that exercise functions concerned with national defense to enter into contracts or amendments to contracts, without regard to the other provisions of law relating to contracts, whenever he deems such action would facilitate the national defense. By Executive Order the President has given all major procurement agencies authority to grant relief under this act. Currently the DOD and ten other agencies are granted this authority.

(1) Philosophy and Intent

This statute was enacted for the benefit of the government -- not for the purpose of aiding contractors. Consequently, contractors have not legal or equitable rights under this Act. Any contractor's application for contractual adjustment under this Act is, in essence, a request for relief as a matter of "grace"; and the final decision under this Act is not reviewable, either by the ASBCA, or the Comptroller General, or the GAO or by the courts.

Every contractual adjustment under this statute must have as its basis the finding that the adjustment will, in fact, "facilitate the national defense". The principal purpose for authorizing these extraordinary contractual adjustments is to prevent delay in the government's procurement programs through assurance to contractors that they need not cease performance and resort to litigation in order to protect their interests, or to obtain fair and equitable treatment from the government. The legislative history of this statute makes it clear that an

individual contract adjustment need not necessarily benefit the government in order for it to be an adjustment which facilitates the national defense. Stated in other terms, relief may be granted even though in a specific instance, such action does not result in a benefit directly traceable to the government.

(2) Conditions for Relief

Four types of contractual adjustment are specified in the statute. The first two are labeled as "amendments without consideration", although each is granted on a significantly different basis. The remaining two are "correction of mistakes" and "formalization of informal commitments". Each of these conditions will be addressed in turn.

When a contractor becomes unable to perform on a contract, normally the government will terminate the contract and procure the goods or services from another contractor. However, in certain circumstances a procurement program may be irreparably or unacceptably damaged to such an extent that such a procurement is not in the government's best interests. In this situation, the Act empowers the procuring agency or other appropriate authority to amend the contract with consideration, and provide the contractor with the additional funds to continue performance. Thus, the legal basis is provided for a contract amendment where a contractor's productive ability will be impaired by an actual or threatened loss, and his continued performance is essential to the national defense. This adjustment is labeled an amendment without consideration based on the

essentiality of the contractor. In such a case, the contract may be adjusted only to the extent necessary to avoid or remove the contractor's impairment in productive ability.

An amendment without consideration is also authorized when a contractor suffers a loss on a contract because of government action. (This does not imply merely a lessening of anticipated profits.) This authority is used to provide relief where an administrative remedy is not otherwise available. For example, a contractor may have remedy against the government for a breach of a defense contract because the Navy interferes with the performance of the contract, but he has no administrative remedy because neither the contracting officer nor the ASBCA has jurisdiction to settle such a claim. This provision may also be used to provide relief where the government is not legally liable, but fairness dictates that some adjustment be made. In contrast to the above example, concern here is about the accomplishment of a particular program objective and is not relevant to the issue of whether the government action should be the basis for granting relief. Rather, fairness is the primary basis for the adjustment.

Mistakes prior to the award of a negotiated contract normally do not require a special procedure to be invoked. With the exception of mistakes amount of less than \$1000, the Comptroller General has ruled that contracting agencies have no authority to reform contracts on the basis of mistakes discovered after contract award. However, under P.L. 85-804, a defense contract may be amended or modified to correct or

mitigate the effect of a mistake, including: a mutual mistake concerning material facts, a contractor mistake so obvious it was or should have been apparent to the contracting officer, or failure to delineate a covenant in the contract as both parties understood it. This provision proves a speedy method for the correction of mistakes, thus avoiding the necessity of litigation before the courts or appealing to the GAO.

In contrast to private contractual law, which provides that acts of an agent of the party may bind the principal, if the agent had apparent authority to do so, government contract law states that the government, as a buyer, is not bound by its agents unless they possess actual authority to bind the government. P.L. 85-804 authorizes the formalization of such an informal commitment when it facilitates the national defense.

(3) Residual Powers

The extent of these powers are perhaps the most difficult to grasp because they are defined by exception. In the regulations, residual powers are defined as including all authority under the Act except that part relating to contractual adjustments and the authority to make advance payments. The advance payment provision of the Act is almost never used today and thus is of no further importance here. The contractual adjustments portion of the Act as discussed in subsection (2) above (e.g., amendments without consideration, correction of mistakes, and formalization of informal commitments), has the following additional stipulations:

(a) Authority to approve actions obligating in excess of \$50,000 shall not be delegated below the Secretarial level (e.g., for the Navy, SECNAV).

(b) Authority to approve actions of \$50,000 or less shall not be delegated below the Head of the Procuring Agency (for the Navy, Commander of the Systems Commands, Chief of Naval Research, Aviation Supply Officer, and Commander Military Sealift Command).

(c) Authority to indemnify against nuclear risks shall be exercised only by the Secretary (e.g., SECNAV).

This latter application, indemnification against nuclear risks, is the most common usage of these powers. Other examples of the historical employment of these residual powers are as follows:

- (1) Disposal of government property where such disposal was not feasible by competitive bidding.
- (2) Sale of facilities to contractors where it was uneconomical to relocate them.
- (3) Sale of property to government contractors in isolated areas where supplies were needed for contract performance and otherwise unobtainable.
- (4) Sale of unservicable ammunition parts or scrap to metal processors to preclude ammunition production interruption.
- (5) Sale of protective equipment to contractors and their employees.
- (6) Payment for property requisitioned during combat.

- (7) Lease of property in emergency conditions.
- (8) Direct loan to contractors.
- (9) Release of chattel mortgages.
- (10) Guarantee of loans.
- (11) Release of obligation under guarantee loans.
- (12) Inclusion of arbitration clauses in contracts.
- (13) Waiver of restrictions on the purchase of foreign-made, prison made, and blind made products.
- (14) Recession of termination for default and substitution of termination for convenience of the government.
- (15) Settlement and compromise of contract claims.

These examples point up the breadth of situations in which P.L. 85-804 has been employed, and thus help to define the statute's scope through actual usage. Following the precedence of example (15) above, SECNAV invoked his residual powers under this act to settle the major claims under consideration in this thesis.

c. Implementation in DOD

Executive order 10789 authorizes SECDEF and the Secretaries of the military services to exercise authority of P.L. 85-804. The implementing directive which further delegates and delineates the use of this authority within DOD is the DAR. The Navy Procurement Directives further amplify this delineation for Navy procurement activities. The thrust of the general policy for use of this authority within DOD is as follows:²⁶

Control over the exercise of this authority will be maintained at a high enough level to insure uniformity of action; and the Act is not to encourage laxity or

carelessness in procurement matters nor be used when other adequate legal remedies exist within DOD. Further, these directives provide for a contract adjustment board in each military service.

(1) Navy Contract Adjustment Board

The NCAB is empowered to consider the matters of contractual adjustment defined above. Subject to the standards for decision delineated in the DAR, this Board is included within the meaning of the "Secretarial level" specified in the Act, and therefore must decide any issue involving more than \$50,000. The NCAB is composed of a chairman and between two and six members appointed by CNM. Exhibit 8 summarizes the actions of this Board since the beginning of this decade. It is noteworthy that the Board considered almost 200 cases during this time which involved monetary settlements. For all cases so considered, these settlements averaged 17 cents on the dollar. The exhibit clearly shows that use of P.L. 85-804 within the Navy is not an uncommon occurrence. One of the settlements discussed in this thesis was made in part through NCAB action.

d. Analysis

Although not so categorized either in the Act or the implementing directives, the authority of P.L. 85-804 may be categorized into two principal uses of these powers, based on a historical perspective. The first type of power is associated with seeking to provide contractual fairness to defense contractors through the correction of inequitable situations. This power is mainly exercised through contractual

EXHIBIT 8

NAVY CONTRACT ADJUSTMENT BOARD ACTIONS

(P.L. 85-804)

<u>Year</u>	No. Cases	<u>Actions Approved</u>		<u>Actions Denied</u>	
		Amount Claimed (\$K)	Amount Approved (\$K)	No. Cases	Amount Claimed (\$K)
1971	20	4,344	1,291	8	8,611
1972	14	1,282	734	4	2,807
1973	10	1,547	804	10	1,805
1974	17	989	749	4	554
1975	30	2,959	1,875	15	23,799
1976	29	7,819	7,816	9	22,514
1977	17	462	317	9	2,518
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	137	19,403	13,586	59	61,949

Source: Navy Contract Adjustment Board

adjustments concerning amendments without consideration based on government action, correction of mistakes, and formalization of informal commitments. It is this type of power that is exercised on a routine basis by the NCAB. Practice has shown that the Boards rely on their own judgements in these cases, using the principle of fairness. In this practice the procedures used by the Board are discretionary: the contractor generally does not have the right to confront witnesses, rebuttal of evidence is at the option of the Board, documents are withheld or disclosed only in special circumstances, and previous deliberations of the Board are not generally available to contractors. Even so, the cases processed under these procedures are generally those for which relief could have been sought by due process of other laws. Thus, this use of the power is both expedient and equitable. This non-controversial use of power has become an integral part of our procurement process, therefore has been of continuing benefit, particularly to small business government contractors.

The second type of power in this act includes residual power, the making of advance payments, and the contractual adjustments provision to amend contracts without consideration based on the essentiality of the contractor. It is this power use which enables public sector management officials to overcome certain obstacles in the attainment of critical procurement objectives. Generally contractors have not further clear course for relief under other existing laws, which will equitably settle the issues while still facilitating the national defense.

It is this use of power which generates the heated controversies over P.L. 85-804. Situations have been shown to exist in which contractors are placed in disadvantageous or tenuous positions as a result of public sector acquisition policy or methodology. As has been pointed out these decisions are often by necessity based on speculative estimates concerning future events. The contractor alone should not be made to suffer the adverse consequences flowing from such decisions. Therefore, in the author's view, this use of power is extremely necessary to our acquisition process, but one which must be used sparingly, and only then with the keenest sense of managerial judgement. Thus the use of this power must remain, as it now is, within the highest levels of DOD, and overseen very critically by Congress.

CHAPTER III - CASE STUDIES

The objective of this chapter is to present the chronology of events and analysis of the specific circumstances surrounding the major shipbuilding claims during the period of this thesis. As a frame of reference, Exhibit 9 shows, in sequence of award date, the contracts from which these major claims flowed. These contracts are grouped by contractor in the ensuing discussions because, in the area of claims, mutual and cross impacts are exhibited between contracts competing concurrently for a contractor's resources. Within each contractor grouping the event chronology is presented first. This chronology terminates with the circumstances surrounding the final claims settlements. The settlements themselves will be explored more fully in the next chapter. Each section ends with a summary of the critical issues on which these settlement agreements depend.

As shown in Exhibit 9, three contractors were involved in these major claims. Insufficient data on the NNSDC claims were available in the public records for definitive analysis. Therefore the case studies of this chapter are limited to Litton Industries, Inc., Ingalls Shipbuilding Division and General Dynamics Corporation, Electric Boat Division. It is considered that these two case studies are sufficient to address the claims settlement initiatives in the next chapter.

As will be seen, a problem experienced by both GD/EB and Litton/Ingalls concerned their productivity. Their use of manpower resources severely impacted on this problem. Therefore,

EXHIBIT 9

CONTRACTS CAUSING MAJOR CLAIMS

Date	Contract No. (N00024-)	Contractor	Ship No.-Type	Notes
3/67	67-C-0325	NNSDC	2-CVN	1,3,Definitized 9/70
6/68	68-C-0335	NNSDC	2-CGN	1
5/69	69-C-0283	Litton/ Ingalls	9-LHA	2,4,Modified 2/73
7/69	69-C-0307	NNSDC	2-SSN	1
2/70	70-C-0269	NNSDC	1-SSN	1,5,6,Definitized 1/71
6/70	70-C-0252	NNSDC	3-CGN	1,3,5,Definitized 12/71
6/70	70-C-0275	Litton/ Ingalls	30-DD	2,7
1/71	71-C-0268	GD/EB	7-SSN	1,6,First Flight
1/71	71-C-0270	NNSDC	4-SSN	1,6,First Flight
11/73	74-C-0206	GD/EB	11-SSN	1,6,8, Second Flight

NOTES:

1. Fixed-price incentive fee contract with escalation.
2. Fixed-price incentive fee, successive targets contract with escalation.
3. Letter contract for design and long lead time procurement. Definitization includes construction contract.
4. Contract modification reduced quantity to 5 LHA's.
5. Lead ship design and construction contract.
6. SSN-688 class.
7. Entire inventory of DD-963 class.
8. Original contract for 7 SSN's, option exercised for 4 additional SSN's in 12-73.

Source: Multiple documents published by NAVSEA.

it is suggested that Appendix C be reviewed before proceeding to the case studies themselves. This appendix addresses the nature of labor in the shipbuilding industry, and thus provides a background for the problems faced by these contractors.

A. GENERAL DYNAMICS CORPORATION/ELECTRIC BOAT DIVISION

The Electric Boat Division entered the 1970's as the foremost producer of submarines in the free world. Its current construction facilities include four covered submarine building ways, two drydocks, and a floating drydock used for SSN construction. A recent addition has been a Land Level Construction Facility consisting of an inshore erection area, an outboard erection area, a graving dock, and pontoon facility being used for the construction of both SSN's and the Trident SSBN submarines. A separate steel processing facility, located at Quonset Point, R.I. rounds out EB's construction capability.

The parent corporation, General Dynamics, owns another shipyard, the Quincy Shipbuilding Division. This shipyard, consisting of five large graving docks with supporting facilities, did significant business with the Navy (including the construction of SSN's) until 1973. It is currently engaged in commercial ship construction consisting primarily of Liquid Natural Gas (LNG) tankers.

Electric Boat Division's previous success in constructing nuclear submarines is impressive. It was responsible for designing the Nautilus and 14 subsequent classes of nuclear submarines. Since 1955 this shipyard has constructed 17 SSBN's,

22 SSN's, and 27 overhauls/conversions. Largely as a result of success in the construction of SSBN's and the SSN 637 class, EB realized \$125 million in gross profit (3.5 percent) on \$3.5 billion in sales during the ten year period from 1967-1976. With the exception of the claims to be discussed hereafter, EB submitted five claims for a total amount of \$49 million over this same ten year period.²⁸

Additionally, this shipyard had a reputation for delivering submarines on or ahead of schedule. Further, the Navy's Board of Inspection and Survey (BIS) generally lauded the performance of EB-built submarines during their acceptance tests/trials. Obviously this shipyard had enjoyed a truly exceptional reputation based on strong and sustained performance.

1. Claim Background/Chronology

The SSN 688 class came into being with the award of a design and lead ship construction contract to NNSDC in February 1970. Heretofore EB had been the design agent for all new classes submarines. This decision was a deliberate policy shift within the Navy, representing the desire to have an alternate source for submarine design work. A factor bearing on this decision was the optimistic view that the SSN 688 class was not a radical departure from, but rather an evolution of the SSN 637 class designed by EB. Overlooked in this view was the close communication link in submarine design matters which had developed between EB and the Navy over the years. This new relationship would thrust EB into the role of follow ship builder. As well, it placed the Navy in the position of being responsible to EB

for providing in a timely manner the detailed design drawings which were being developed by NNSDC. As will be seen, this change in relationship was to spawn significant problems.

a. First Flight Contract Award

Three contractors were competing for this first flight of SSN 688 submarines (SSN 688-I): NNSDC, GD/EB, and Litton/Ingalls. Substantial competitive pressure existed among these contractors as they well realized that only two of the three would receive contract awards. For all practical purposes, this meant the losing contractor would drop out of this program, and thus forego the opportunity of substantial business over the next 15 years.

The contract award criteria were based on ceiling price, representing a significantly new technique. The result was a substantially smaller spread between target and ceiling price for the FPI contract, thus severely limiting the normal flexibility to absorb costs with the conditions of the contract. Further, the contract contained the pre-1975 escalation clause which would prove inadequate for the double-digit inflation experienced particularly in the 1974-1975 timeframe.

On 8 January 1971, SSN 688-I follow-on construction contracts were awarded to GD/EB for seven vessels and to NNSDC for four vessels. As a result of the competition, the GD/EB contract was incentivized to 5.7 percent cost growth over the target cost while similar provisions for NNSDC provided incentive up to one percent over target cost. These data are in contrast to a typical range of 20-25 percent for FPI shipbuilding

contracts. At the time of contract award, the employment level at GD/EB was about 12,000 persons. Further, when the contract was signed GD/EB had received only 500 of the 5368 detailed design drawings from NNSDC. Two years later fully 50 percent of these drawings were still outstanding. Finally, in March 1976, five years after contract award, all drawings were in hand at GD/EB. Compounding this problem of late arrival of GFI was the number of changes required to the drawings after receipt. According to one press release the contractor stated that 35,000 such revisions were required, or about six revisions per drawing. In rebuttal, the Navy noted that GD/EB should have expected such revisions, since the SSN 637 class, with GD/EB as the design agent, had required about five revisions per drawing. Nonetheless, the stage was set for problems concerning GFI.

b. Second Flight Contract Award

Within DOD and the executive level of the government, the view was held that the rapid construction and deployment of the SSN 688 class submarine was vitally important to our national security. Concurring with this view, Congress authorized a total of 11 SSN 688's to cover the FY 73-74 requirements. The Navy's original desire was to award this second flight (SSN 688-II) to two contractors. Considering the way SSN 688-I contracts were split, however, subsequent contractor bidding strategies would change this view.

In 1973, despite the emerging problems with GFI, optimism over the construction of these submarines still ran high both

within the Navy and at GD/EB. Overly optimistic cost reports and an inadequate cost/schedule control system which failed to highlight the emerging problems, helped to feed the view that the SSN 688 class was merely an extension on the SSN 637 class. GD/EB's favorable experience with this prior class, coupled with the then meager (and in retrospect, faulty) data collected to date on the SSN 688-I construction, combined to dominate its bidding strategy.

By contrast, this same period saw a deterioration of relations between the Navy and NNSDC, the only other bidder. NNSDC took exception to many of the terms and conditions of the RFP. Consequently, NNSDC essentially turned out to be non-competitive in the second flight bidding. Thus, on October 31, 1973, GD/EB was awarded a FPI contract with escalation for seven SSN 688's with an option for four additional, which was exercised a little over a month later in December. NNSDC's non-competitive bid had essentially forced the Navy into a sole-source selection process which awarded all eleven ships of the SSN 688-II procurement to GD/EB.

Taken by themselves, the contractual features for the second flight might not have proved so inadequate, with the exception of the pre-1975 escalation clause. These escalation features were tied to a tight delivery schedule. There was significant in-house Navy concern over this tight schedule, however, optimism and GD/EB's sole source procurement position overrode these concerns. Compounding these tight scheduling problems, GD/EB was awarded the design and construction contract for the

lead Trident SSBN in July 1974.

Contractually, the SSN-688-I and II procurements were in a transition phase of weapons system acquisition policy. This was the transition from Total Package Procurement to the current policy. In retrospect, the first 23 of these submarines (18 to GD/EB under two contracts, and five to NNSDC under two contracts) had contractual provisions which proved inadequate to cope with either inflation or other cost increases, thus establishing the environment for future problems.

c. Emerging Problems

By 1974, production problems on the SSN 688 class began to surface. The Navy was experiencing problems with the timely provision of GFI, but because of the optimistic estimates from GD/EB, the problem was considered to be mainly with NNSDC. For instance, the June 1974 contractor's report indicated that both SSN 688 contracts would be delivered with the contractor's original manhour estimates for labor. Further, these estimates indicated that the first SSN 688 would exceed the original cost projection by 37 percent, but the contractor planned to recover this on downstream ships. Moreover, GD/EB was reluctant to acknowledge lost schedule time on these early SSN's. Not until late 1974 was GD/EB finally to publicly acknowledge that they were having serious difficulty in meeting these contracts. Not the least of these difficulties concerned labor problems.

Manpower at GD/EB rose from 12,000 in January 1971 to 18,000 in January 1975 and over 26,000 in January 1977. The firm was unable to accommodate this rapid manpower rise locally, and

AD-A070 304

NAVAL POSTGRADUATE SCHOOL MONTEREY CA
U. S. NAVAL SHIPBUILDING CLAIMS SETTLEMENT: 1974 - 1978.(U)
MAR 79 6 P KESLER

F/6 13/10

UNCLASSIFIED

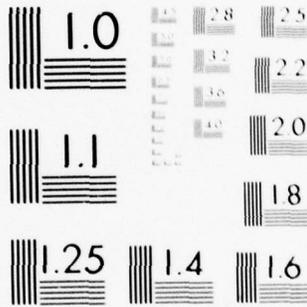
NL

2 OF 2

AD
A070 304



END
DATE
FILMED
7-79
DDC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

began such measures as:

- (1) Chartering up to 50 buses a day to bring workers from as far away as Boston and New York.
- (2) Offering bonuses for recruiting welders, including a \$100 savings bond.

Even with these measures recruiting goals fell short. Thus, using anti-poverty and equal opportunity programs to the maximum, GD/EB began hiring thousands of formerly hardcore unemployed. Affirmative action programs, requiring the hiring of women and minorities for federal projects, began changing the work force of Groton. Consequently, supervisor/trainee ratios changed from 3:1 to 12:1, with productive time for these supervisors falling as low as two hours per day, as a result of training programs and other inefficiencies. At the lower levels idleness became a problem as supervisory capacity was outstripped. Work disruption from racial incidences and drugs compounded these management problems. Late arrival of equipment, spurred in part by the late receipt of GFI, but also due to an inefficient inventory control system, exacerbated these labor difficulties and played havoc with production schedules. As a result, productivity suffered severely, with a projected growth over the original contract reaching about 55.5 million manhours at an increased cost of \$830M in current year dollars.

In October 1977, General Dynamics changed managers at Electric Boat for the third time in four years. This new manager was Mr. P. Takis Veliotis, the former manager of their very successful Quincy Shipbuilding Division. Mr. Veliotis

brought in eight managers from Quincy to form his top management team. As one of his first acts, Mr. Veliotis immediately fired 2,000 salaried employees. Lay-offs rapidly spread to the blue collar workers, reaching a total of 5000.

The Navy began an analysis of these problems in late 1974. Throughout much of this analysis process, discussions with the contractor relating to causes were acrimonious, with both sides taking adamant positions concerning blame. In retrospect, the problems were caused by both Navy and contractor actions with additional problems lying beyond the control of either party. Thus the ensuing final settlements did not, indeed could not, precisely quantify responsibility for the consequences of these events.

d. The Claims

In February 1975, GD/EB submitted its first of two claims on the SSN 688-I contract. The claimed amount was \$220 million. The principal basis for the claim was that late and defective GFI resulted in ship delivery date extensions and additional work. In April 1976, this claim was settled for \$97M, using the claim settlement procedures described in the last chapter. As a further condition of this settlement, the Navy allowed a schedule slippage of 12 months on each ship. In return, GD/EB with limited exceptions, released the government from future claims on the SSN 688-I contract for events through May 1975.

The government realized that GD/EB was continuing to incur losses, and consequently more claims would be forthcoming. Thus,

in late April 1976, DEPSECDEF Clements, with the intention of using P.L. 85-804, offered to settle all outstanding claims against both contracts for \$178 million. Further specific details of this proposal will be discussed in the next chapter. In summary, since GD/EB was estimating its losses at the time of this proposal to be \$142M, they were willing to accept Mr. Clement's offer. As will be shown, Mr. Clements failed in his attempt, setting the stage for further claims.

In December 1976, GD/EB submitted its second major claim for a total of \$544M, broken down as follows:

(a) SSN 688-I contract (\$121M) based on delay and disruption costs due to design changes subsequent to May 20, 1975, principally caused by an inadequate interval between lead ship at NNSDC and the SSN 699-I contract award.

(b) SSN 688-II contract (\$432M) based on delay and disruption costs resulting from delivery delays of the SSN 688-I ships.

Independent of these claims, in January 1977, GD/EB filed an appeal to the ASBCA on a contracting officer decision disallowing certain overhead charges to the two contracts. Subsequently, in February and October 1977, GD/EB filed appeals on two more contracting officer's decisions disallowing overhead charges. Both of these appeals were combined under the January appeal. When all claims were finally settled by other means, discovery proceedings were underway on this appeal in preparation for an ASBCA hearing to determine entitlement, and not amount.

In March 1977, the second major claim discussed above was assigned to the Navy Claims Settlement Board (NCSB). By January 1978, the Board had completed its evaluation of this 20 volume claim. Fourteen months after this \$544 million claims was filed, the Navy had evaluated its worth, under the rules of entitlement, at \$125 million.

Late in October 1978 ASN (M,RA&L) Hidalgo began preliminary discussions with high level General Dynamics officials regarding these claims. Meanwhile, GD/EB's new management team was still attempting to clearly define the magnitude of the problem. As a result of an audit conducted by the shipyard's auditing firm, Arthur Anderson and Company, and as confirmed by the independent auditing firm, Coopers and Lybrand, GD/EB informed the Navy that is incurred losses through December 1977 on the two contracts was \$1.341 billion. Subsequently, based on a complete material inventory in January 1978 (the first one in over 10 years), GD/EB revised its projected losses on the two contracts to \$981 million and advised the Navy of an additional schedule slippage on both the SSN 688 and Trident contracts. In its March issuance of its public fiscal statements for FY 1977, GD/EB again revised its estimated loss on these contracts to \$834 million, noting that this lower estimate was based on more realistic evaluations of charges due to labor and material inflation.

Later in March, GD/EB broke off negotiations with the Navy, informing them of the intention to stop work on these contracts as of April 12, 1978, by reason of incurring over \$16 million

per month in unreimbursed costs. Thereafter, GD/EB agreed to a two months' moratorium on this stop work order which would have laid off from eight to fourteen thousand workers. In exchange, the Navy agreed to a provisional payment of \$66.5 million on both contracts with an immediate payment of \$25 million. At the same time, GD/EB advised the Navy that it was preparing claims for an additional \$750 million.

Negotiations with Secretary Hidalgo continued, and in June 1978, SECNAV Claytor notified Congress of his intent to use P.L. 85-804. At GAO's suggestion, the Navy requested a DCAA audit of these claims in July 1978. A week later the completed audit questioned \$36.8 million of the allowed costs certified by the Coopers and Lybrand firm. By this time however, the negotiations with Secretary Hidalgo had progressed too far to consider these costs. Thus, they were not considered in the ensuing agreement which was reached on June 9, 1978. The negotiations and agreement will be discussed in Chapter IV.

2. Critical Issues

Before proceeding, it is appropriate to review and consolidate the critical issues of GD/EB SSN 688 contracts:

- (a) GD/EB management misjudged the complexity of the SSN 688 in its proposal and thus was unable to effectively control productivity during construction.
- (b) The bid strategies of GD/EB and NNSDC resulted in the less than desirable option of awarding all 11 ships of the SSB 688-II contract to GD/EB.

(c) The Navy decision to use an alternate design choice for the SSN 688 resulted in significant additional costs to GD/EB despite the Navy's subsequent efforts to improve this situation.

(d) Lateness of GFI had a serious disruptive and delaying impact on GD/EB.

(e) The protection against inflation provided by the escalation clauses were inadequate to properly compensate the contractor for his costs.

(f) The above problems were compounded by the restrictive contract structures, and the inadequate productivity of a rapidly expanding work force.

These considerations are germane to the negotiations and settlement yet to be discussed.

B. LITTON INDUSTRIES/INGALLS SHIPBUILDING DIVISION

Litton Industries is a technologically-oriented corporation which has a history of achieving growth through the development of new products for new or old markets, or improving existing products. The corporation has a history of acquiring other companies whose products or future might benefit from technological innovations or management concepts. It has a history of heavy and diverse involvement in defense contracts.

In following its normal growth pattern, the corporation acquired Ingalls Shipbuilding in the mid-1960s having considered its prior involvement in Navy shipbuilding and with the knowledge of DOD evolving TPP policies. At the time of this

acquisition, Ingalls shipyard consisted of a 168 acre east-bank plant having six conventional, inclined building ways and a small graving dock.

Litton's marketing reviews had concluded early in 1967 that the best strategy for acquisition of multiship contracts was to construct a new shipbuilding facility. Following an engineering planning study of a new shipbuilding facility, Litton announced a corporate decision in October 1967, to build a new in-line yard, regardless of whether it was awarded the government business then in competition. In 1967, the State of Mississippi offered a \$130 million bond issue for the acquisition of 611 acres on the west bank of the Pascagoula River and the construction of shipyard facilities thereon. In accordance with Litton's plans, and being hailed as the shipyard of the future, the facility was designed to use relatively new high-technology modular techniques, establish logical material flow patterns, and, in concept, gain the advantages of assembly line techniques. Litton leased this facility for 40 years (with the option of 37 more years), for the annual rent of \$9 million; an amount equal to the annual bond sinking fund requirements. Thus, Litton financed this facility expansion with tax-free bonds.

1. Claim Background and Chronology

In 1966, the Navy announced its plans to develop the LHA under TPP concepts. Litton/Ingalls and two other firms were actively engaged in the contract definition and bid procedures for the next two and a half years. In retrospect,

Litton/Ingalls underbid this contract for several reasons. Their estimates of learning efficiencies connected with new ships, at a new yard, with new modular concepts proved over-optimistic. The extent and complexity of the design effort were not well understood. Further, estimates on the numerous variables of this project demanded many subjective judgements which were not made wisely. Even so, subsequent analysis by the Navy claims team did not find intentional underbidding on either this competition, or the DD 963 program which was following the LHA by about one year.

A part of Litton/Ingalls bid strategy included the plan to construct these ships at their new west bank facility. Preliminary design of the facility was completed rapidly and construction started in January 1968. By August 1969 the steel fabrication shops and assembly areas were complete to the point that steel fabrication and assembly could commence.

Significant construction costs for this facility were incurred. These costs were subsequently to be known as Manufacturing Process Development (MPD) costs. In essence, these costs were start up costs associated with the new industrial process, and thus should have been associated with the first units constructed using the process. The first units so constructed were commercial ships for the President Lines and Farrell Lines.

Litton/Ingalls' interpretation of MPD was different from the above. According to the contractor, MPD costs were the difference between the commercial ships as built and their

cost as bid. Through this interpretation, Litton/Ingalls later asserted that a portion of the \$133 million costs were attributable to the government. Although Litton/Ingalls never submitted a formal claim for these costs, they were the subject of subsequent settlement negotiations, during which the contractor firmly held that their intention was to submit such a claim in the future.

a. Contract Awards

In May 1969, Litton/Ingalls was awarded a multiyear FPI contract, with successive target²⁹ and escalation provisions for nine LHAs. Shortly thereafter, in June 1970, Litton/Ingalls was awarded the same type of contract for thirty DD 963 class destroyers. In January 1971, pursuant to the contract, the Navy cancelled four of the nine LHAs. These were the only two contracts awarded using the TPP policy. Under this policy, the contracts contained the Total System Responsibility (TSR) clause, which, as discussed earlier in Chapter II, involved radically different roles for both the contractor and the Navy. Both parties would have difficulties fulfilling these roles.

As a frame of reference for the ensuing discussion, Exhibit 10 shows the major alterations in ceiling prices of these two contracts.

The reset prices in Exhibit 10 were pursuant to the "successive target" provision of the contracts. The reset timing normally should occur when the first production model is completed, thus providing a basis to evaluate construction costs.

EXHIBIT 10

LHA/DD 963 CEILING PRICES

	Original Contract (\$M)	Reset \$(M)	As of 1 May 78 (\$M)	Notes
LHA	1999	795	825	1,2
DD 963	2140	2156	2869	3,4

Notes:

1. Price reset modification occurred on February 28, 1973 and included 338 changes. This reset included the reduction from nine to five ships.
2. The May 1978 price includes 460 priced modifications.
3. Price reset modification occurred on July 23, 1975 based on work through April 1974, and 423 priced modifications through that date.
4. The May 1978 price included 1176 additional priced modifications.

These prices were reset in accordance with the original schedule delineated in the contracts. However, the LHA program experienced significant schedule slippages, to the point that when LHA-1 was launched in December 1974, (ten months after the reset price determination), it was only 36 percent physically complete. Seventy percent completion had been planned at this point. Thus, at the time of price reset significant production costs remained unknown. The reset price issue was clouded by change order pricing, and the contract repricing necessary from the cancellation of four LHA's from the original contract. As will be seen, these matters became insurmountable sources of disagreement within the bounds of the contract.

The contracts also contained the pre-1975 escalation clause.

As was the case with GD/EB's SSN 688 contracts, schedule slippages on the LHA/DD 963 programs combined with double digit inflation again showed the inequity of this clause, and proved to be a substantial hardship to the contractor.

b. Contract Performance

From the beginning, the LHA design effort did not proceed as originally conceived. In November 1969, the number of technical problems reported by the contractor was growing. Recognizing this inadequate progress, the contractor reorganized his LHA program office, effectively eliminating the formal engineering review of design integration section.

To overcome these problems in system design, the contractor and the Navy jointly agreed to conduct an on-site review (OSR). This review was completed in August 1971, and generated over 2900 documented Navy comments on the drawings and specifications.

Thus the Navy, through growing concerns, became involved in the design process. This involvement would ultimately be manifested in the following ways:

- (1) The contract called for Quarterly Progress Reviews (QPR) wherein the contractor summarized his progress. Originally these reviews were expected to take one day. The Navy decided to institute OSR's as a part of the QPR's, thus extending the review time to four days. Sixty-four such reviews were conducted during the first two years of the contract, resulting in an average of 48 contractor action items for each review.
- (2) The Navy conducted audits and reviews of the contractor's

design efforts which resulted in over 3000 comments to which the contractor had to respond.

(3) The Navy issued almost 700 comments on 100 subcontractor procurement specifications, and held up consent to such contracts until such comments were resolved to the Navy's satisfaction.

(4) Many formal change proposals not authorized by the contract were required.

(5) Changes were required to the contractor's quality control procedures. These changes were not anticipated at contract award.

(6) Twenty unanticipated changes to the LHA Program Plan were required prior to final acceptance.

There was little disagreement from either of the parties that the above Navy involvement was beyond the relevant contractual provisions of TPP. However, the Navy steadfastly maintained that this involvement was prompted by the contractor's inadequate performance.

These design and fabrication problems caused an eight month slippage in the start of construction. As construction began, the problem of insufficient skilled manpower came to the fore. The contractor's original plan was to employ an integrated work force using as the experienced core the skilled labor from their east bank yard. These workers were expected to be available as the result of an east bank reduction in force in 1970. This reduction did not occur until later than planned.

Further, during the 1970's the gulf coast labor market

hovered near the full employment level. There were few unemployed skilled individuals available, and Litton/Ingalls wage rates were not competitive with the higher rates paid by other employers in the market area for the services of skilled craftsmen. In addition, employment at the shipyard may not have been attractive for reasons unrelated to wages. The outside work in the yard was physically demanding, commuting distances and time were substantial within the market area, and morale problems within the work force were in evidence.

In the west bank shipyard, the actual skill level dropped below the level inherent in the LHA bid standards. The ratio of skilled workers to total work force was found to vary up to five percent below the normal. These low skill levels reduced productivity. A sufficient number of skilled shipworkers could not be drawn from the local and gulf coast labor markets. This situation was not corrected by Litton/Ingall's later attempts to recruit nationwide.

In addition to these labor problems, Litton/Ingalls encountered management problems with the new facilities. In March 1971, the contractor announced that a major component of his modular construction plan was being discontinued and revised because it had not worked on the Farrell Lines commercial construction. Due to this revision, outfitting was not accomplished on the LHA-1 as planned. Both work force requirements and skill levels were higher than original estimates, and the "break-in" period for bringing this modular operation to steady state was delayed. By July 1972, it became evident that the shipyard operations were

plagued by errors in the manufacturing process and a lack of viable production control planning. Litton/Ingalls was clearly unable to meet its original delivery schedule.

These schedule and production problems cascaded through the LHA's, eventually reaching the DD contract. Litton/Ingalls' original plan called for the transition of the shipyard facility to the DD construction during 1974, such that all module assembly areas and the ship integration area would be completely DD-dedicated by the end of that year. This process began in 1972, but because of the LHA schedule slippage, the original plans were altered to the extent that the facility would not be totally dedicated to DD construction at anytime during the life of the contract. As a result, the total slippage of the LHA and DD programs were six years and two years, respectively, over the original contracted dates.

In an attempt to normalize the administration of the contract, a Memorandum of Agreement (MOA) was negotiated in a series of meetings in early 1971, being signed by both parties in April. It reaffirmed the conditions of the contract and established firm guidelines for conduct of QPR's, a new five ship schedule incorporating the ten month delay of LHA-1, and revised requirements for proposing a contract reset. In addition, the MOA contained several provisions designed to normalize and improve the processing of changes and the Government's administration of the LHA contract.

The truce this MOA provided was shortlived, and the stage was set for the largest claims ever filed by a single contractor in

government procurement history!

d. Claims and Litigation

Almost since contract inception, delays and cost increases had engendered charge and countercharge. During five years of proceedings, the legal actions arising out of these contracts were staggering: five ASBCA proceedings; a NCAB proceeding; two cases in the Court of Claims; four cases in Federal District Court; and two appeals to the Fifth Circuit Court. Appendix D is a summary of these actions and their status when final settlement was concluded in 1978. As review of this appendix shows, many of these actions were only at the threshold stage with respect to resolution. Navy estimates were that this litigation would have taken eight to ten years to run its full course.

In March 1972, Litton/Ingalls presented its reset proposal on the LHA contract in accordance with the successive target provision of the contract and the April 1971 MOA addressed previously. Included with this reset proposal was a claim. This claim indicated that, because of government actions, there should be a fully escalated ceiling price adjustment to the contract of \$475 million. The parties tried but failed to reach agreement during these negotiations. As a result, the contracting officer reset the contract price by unilateral decision on February 28, 1973. As well, he raised the price to the contracted ceiling, awarded \$19 million for changes, and made no price adjustment for changes, but allowed six months delay in the schedule as having been government caused. Further, he awarded

the maximum adjustment allowed in the contract for the cancellation of the four ships - \$109 million. Finally, the contracting officer concluded that, in accordance with the provisions of the contract, Litton/Ingalls had received \$55 million in excess progress payments, which he demanded that the contractor return. The repercussions from this decision were swift, and started a chain of litigative/administrative actions.

Litton/Ingalls held that the contract adjustment price should have been \$20 million more. The contractor filed an appeal on the entire decision to the ASBCA, incorporating not only their disagreement with the contracting officer's decision, but their claim for contract price adjustment as well by reasons of defective specifications, constructive changes, and late or defective GFI. This claim was updated several times, becoming Litton/Ingalls general claim against the government on this contract. Also, Litton/Ingalls filed suit in the Court of Claims against the ASBCA findings,³⁰ an action which was in suspension, and subsequently withdrawn when the claims were settled by other means in 1978. Even further, the contractor sued in Southern Mississippi District Court, seeking judicial relief from the contracting officer's decision. The District Court stopped the Navy from recouping the \$55 million overpayment, but, on appeal, the Fifth Circuit Court of Appeals reversed this decision. The Navy withheld progress payments until the overpayment had been recovered, which caused cash flow problems for the contractor.

For almost three years Litton/Ingalls pursued these claims before the ASBCA. Additionally, various informal avenues of

relief were sought at higher levels in the Navy. For example, in February 1975, the contractor filed a "reset proposal", asserting inequities in the contract formation, and thus seeking contract reformation under P.L. 85-804. In essence, the government took no related action on this proposal until mid-1976.

In January 1976, the Navy and Litton/Ingalls agreed to a plan of action whereby the ASBCA case would be suspended and both parties would seek a negotiated settlement on the claims, which were then valued at \$505 million. The negotiations were unsuccessful, and the plan of action failed.

In April 1976, DEPSECDEF Clements proposed the use of P.L. 85-804 to settle these claims. Through the use of the newer escalation clause, the offer would have provided substantial cash flow benefit, but it amounted to only \$239 million of the claim the contractor valued at over \$500 million. Litton/Ingalls considered this offer inequitable and rejected it. The proposal was subsequently withdrawn, still leaving the contractor with severe cash flow problems.

In late June 1976, plagued by these cash flow problems which were aggravated by receiving only 25 percent of their costs under the contractual agreements and dissatisfied with the progress towards claims settlement, the contractor notified the Navy of his intent to stop work on the LHA contract. Supporting this action, the contractor asserted that the underlying causes were, in effect, breach of contract by the government. The Navy and the Justice Department through injunctive relief action in the Mississippi Federal District Court, forced the contractor to

continue work, but the order required the Navy to pay the actual costs of performance. These costs were subsequently defined as 91 percent of the invoiced costs. In the fall of 1977, after more than a year of legal entanglement, the contractor was still receiving 91 percent of costs. At that time the court order was scheduled to expire on October 31, 1977. (It was subsequently extended to the end of July 1978.) This court action was the subject of a governmental appeal to the Fifth Circuit Court. The appeal challenged the lower court's authority to impose any cost reimbursement requirement on the Navy as a condition of injunctive relief.

Finally, through negotiations beginning in October 1977, the Navy and the contractor reached agreement on the issue of progress payments and reflected their decisions in a Memorandum of Decision dated January 18, 1978. The agreed rate of cost compensation was 75 percent of invoiced costs. Since this was a P.L. 85-804 settlement of over \$25 million, hearings were held before the House Armed Services Committee on 7 March 1978. Congress did not disapprove. The modification was implemented in April 1978, thus paving the way for addressing the central issue of the claims themselves.

Navy efforts to analyze these claims, ongoing for several years were intensified as a part of the plan of action referred to above. A claims team was formed in NAVSEA and began their analysis on January 1, 1976. This was to be a two year effort, involving at times more than 200 people. The effort was hampered by the slow submission of documentation from the contractor, the

last increment of which was received in September 1977. Another factor slowing this effort was the necessity to research and respond to the many requests for information/material to support the several administrative/litigative actions on-going during this timeframe. Further, it is noteworthy that this team was subject to the review and administrative procedures addressed in Chapter II. The documentation resulting from the Board's actions is dramatic. When finally packed for shipment to the archives, this documentation filled 26 trunks!

In April 1978, the analysis was completed. It showed a justification for \$312 million of the claims which, by this time, had grown to \$1.088 billion. These results were delivered to ASN (M,RA&L), Secretary Hidalgo who had been conducting negotiations with Litton/Ingalls since September 1977. Since the effects of the 1973 contracting officer's decision regarding delay and a \$20 million provisional payment had to be netted out, the analysts concluded that \$265 million in entitlement could be properly factored into these negotiations. These negotiations were consummated in a final agreement on June 22, 1978. Both the negotiations and the agreement will be discussed further in Chapter IV.

2. Critical Issues

Several key issues emerge from the foregoing case study. These key issues are:

- (a) Total Package Procurement did not succeed. The unique complexity of shipbuilding made TPP particularly unsuitable for these programs.
- (b) It is highly questionable that the necessary design

process could have been accomplished without Navy involvement. Much of this involvement exceeded the relevant contractual provisions, and thus constituted constructive changes to the contract.

(c) Neither the LHA nor the DD 963 programs could have been constructed for the cost, and with the schedule specified in the original contracts.

(d) Once the delays occurred, the contracts did not provide adequate protection against inflation, and even less so, the double digit inflation of the mid-1970s.

The result was significant cost overruns, schedule slippages and severe cash flow problems for the contractor.

CHAPTER IV. CLAIM SETTLEMENT ATTEMPTS

In the early spring of 1976, congressional hearings for the FY 1977 budgetary appropriations were in full swing. Defense Department officials were actively engaged in the hearings before the House and Senate Armed Services Committee on the military authorizations in the proposed budget. The Navy was experiencing its usual difficulties in addressing its shipbuilding claims, which by this time had grown to a little over \$1.4 billion. Consequently, the Navy presentations emphasized the recent changes in the weapons acquisition policy and contracting methods instituted since 1973. The FFG-7 program was highlighted frequently, extolling the success of the land based test sight and "lead-follow ships" concept. Lengthy presentations were made on the effects of inflation, and the institution of the 1975 escalation clause as a far superior means of coping with this problem. Studies were cited which addressed the causes of claims, and the several measures under consideration to avoid future claims.

However, in the area of claims settlement, the picture was not bright. Among the three major shipbuilding contractors, only GD/EB could be singled out as a significant success in settling claims. This was the recent \$97 million settlement of GD/EB's \$220 million claim on the SSN 688 contract submitted in May of 1975. But this success had paled with GD/EB's recent notification that another claim for about \$300 million was in preparation.

By contrast, Litton/Ingalls had been pursuing its claims of

over \$500 million both before the ASBCA and in the courts for the past four years with little success. The multi-disciplined claims settlement team had just been formed in January; the same month that Litton/Ingalls agreed to submit the full documentation of their claims. This documentation had just started to trickle in.

At NNSDC³¹, the situation was just as bleak. The company had claims outstanding for \$894 million. All but \$69 million of these claims had been submitted over the preceding nine months, with three-fourths of them having been received by the Navy within the previous two months. These claims involved the six contracts listed in Exhibit 9 for NNSDC. In total, these claims covered 64 thick volumes. The largest of these claims - \$221 million on the CVN 68 and 69 contract - was filed in late February together with 16 volumes of documentation. In the 18 May 1976 Senate Congressional Record, Senator Proxmire noted the following disquieting facts relevant to the NNSDC claims:

(1) Statements accompanying the claims were filled with disclaimers indicating the company could not prove the Navy owed the amounts alleged.

(2) Regarding the CGN claim, the company stated that documented analysis was based on contemporary and working files which might be lost when the ships went into final completion. Further, the contractor acknowledged that some error may have been made in its estimates, and thus the specific impact of what the Navy had allegedly done was difficult to identify.

(3) The company also admitted that some errors may exist in its SSN claims, and thus its conclusions could not be proven with certainty.

(4) The company refused to certify that its claims were current, complete, and correct in a sworn affidavit. This certification was required by Navy Procurement Directives prior to claims evaluation.

From these observations, Senator Proxmire concluded that it was a part of the company's strategy to withhold supplying the Navy with documentation of their claims in order to delay or prevent a thorough investigation and audit of the claims.

The company itself left little doubt about its intentions. It intended to use all means at its disposal to force settlement of its claims. In late summer of 1975, partially to emphasize the cash flow consequences from these claims, NNSDC stopped work on the CGN-41, stating that this option from the CGN 38-40 contract was invalid. Construction was resumed through court order. As a part of this court finding, both parties agreed to negotiate in good faith.³² On the day following its submission of the CVN 68/69 claim, NNSDC's president, Mr. John P. Diesel, sent a letter to the Chief of Naval Operations indicating that the shipyard was considering stopping work on the CVN 70 and entering into no more Navy contracts until its claims were resolved. Shortly thereafter, Mr. Diesel summed up his policy in a letter to Congressman Downing stating "I need to bring all pressure to bear that I can for a prompt and equitable resolution of the

differences between the company and the Navy. Time has run out."³³

Clearly, in the year and a half since the 1974 Seapower Subcommittee hearings, the Navy had made little progress in the settlement of its shipbuilding claims. This lack of progress spurred deeper involvement at the DOD level, and produced three initiatives, two of which ultimately resulted in the settlement of these claims. This chapter explores these initiatives in more detail.

A. FIRST INITIATIVE - P.L. 85-804³⁴

1. Background

In mid-March 1976, Senator Stennis, Chairman of the Senate Armed Services Committee, indicated in a letter to SECDEF Rumsfeld that, "The committee would like to address the status and the role of the Office of the Secretary of Defense with respect to the management of the Navy shipbuilding program. As you know, in its report last year on shipbuilding the committee emphasized, that, the 'ultimate responsibility for approval, management, and program execution lies with the Secretary of Defense'."³⁵ Responsive action was swift. On 30 March 1976 DEPSECDEF Clements appointed a shipbuilding Executive Committee to guide and monitor the actions of the Navy Department. This committee was chaired by Mr. F. A. Shronz, ASN(I&L), and had as its members:

Mr. R. A. Wiley - General Counsel, DOD

Mr. G. D. Penisten - ASN (FM)

Mr. W. K. Brehm - ASD (LA)

ADM F. H. Michaelis, USN - CHNAVMAT

VADM R. C. Gooding, USN - COMNAVSEASYSKOM

VADM E. T. Rich, USN (Ret) - Consultant

Supporting this committee was a working group chaired by RADM L. E. Hopkins, USN, DEPCOMNAVSEASYSKOM for Contracts. Secretary Clements' charge to the committee directed that they examine those shipbuilding contracts entered into in the 1968-73 time-frame to determine how to reform them, and in particular, to provide for escalation recovery which reflected the 1975 escalation clause methodology. This guidance was specific and heavily slanted towards the employment of P.L. 85-804. This guidance notwithstanding, the Navy presented for committee consideration, three approaches to the resolution of these claims:

(1) Define all administrative and other means of shortening the claims process while still maintaining the quality of this process. This was called the accelerated claims process.

(2) To ease contractor cash flow problems, explore using provisional payments, to be paid incrementally based on claims evaluation to date, and as the evaluation progressed.

(3) Reformation of the contracts using P.L. 85-804.

Obviously, in view of the guidance cited earlier, the latter approach was selected. Pre-negotiation work was begun by both the Executive Committee and the working group with contractor representatives employing only the narrow guidelines of evaluating the monetary effects of substituting the newer escalation clause

into the 1968-73 contracts causing claims problems.

On 20 April 1976, DEPSECDEF Clements responded to Senator Stennis' letter. In part this response stated:³⁶

In sum; Mr. Chairman, Secretary Rumsfeld and I share the concerns you raised in your March 19th letter in regard to DOD's management of the Navy shipbuilding program. We recognize the responsibility we have on an immediate basis to initiate corrective action to surmount what constitutes a serious threat to our national defense. In February, I officially alerted the Secretary of the Navy and the Chief of Naval Operations of my determination to take remedial action. On 24 March, I informed them that I have determined -- that because of this threat to our national defense and also in equity to rectify certain injustices or unfair consequences that have flowed to certain shipbuilders -- to take action under P.L. 85-804....

This letter was followed at the end of April by the formal notification letters to Congress of the intent to use this law. Reaction to this proposal was, at best, mixed, as indicated by the following excerpts from the Senate Armed Services Committee's initial hearings at the end of April:³⁷

Senator Symington: As we understand Secretary Clements' testimony he is saying that he will formally invoke Public Law 85-804 in the next few days, but he will not know all the details, including how much money to pay the shipbuilders, for another 30-45 days. This means the 60 day clock will start running now, but Congress won't know what the Defense Department plans to spend, which could be as much as a \$1.7 billion backlog, it won't know this for 30-45 days. Doesn't this procedure make it impossible for Congress to judge the Defense Department proposal until shortly before the 60 days period expires?

Mr. Clements: ...I agree that this is a rather fuzzy area. And what I guess I need is some advice in consultation here. Because our anticipation here is that we really need \$500 to \$700 million to settle this \$1.8 billion of claims. So since this procedure has never been done before in this particular endeavor for the Department of Defense, ...I really don't know how to proceed in this regard. We don't want to put a definite number in there, because our negotiations with the shipyards are not complete. We think we know within reasonable ranges what we are doing and where it is going to come out. But we can't say positively. I would like to bracket what we are asking for under our request...and say that we would like authority to go up to \$700 million.

Senator Symington: I am only asking for information. But the answer to my question would be yes....I never heard about any of this until this morning, you and I never discussed it....

Senator Leahy: On the specifics of it, then the Navy at some point has said 'all right, we maintain we owe something on those contracts.'and they must have said - at least made a proposal - that they owe a specific amount. Can we get those specifics that the Navy has?

Mr. Clements: No...because we have not reached that point. These claims have to go through a very set procedure, and be thoroughly documented.....and they have to be analyzed, and so forth. And so they have not made a counter proposal....

Senator Leahy: Are you saying that (on) the \$1.8 billion worth of claims, the Navy hasn't even reached some kind of conclusion about what they figured they owe on them? And we are going to wrap the whole thing up in 90 days after we get approval from Congress. It just doesn't make sense.

Mr. Clements: It really does.

Senator Leahy: It must be the Navy is going to be able to move a lot faster than I have ever seen them do in anything else before.

Mr. Shronz: One of the problems, Senator Leahy, is that many of the claims have just been received in the last 60 or 90 days. They have not been analyzed, and one of the problems we have is the time it takes for the process of initial adjudication and negotiation to occur. In many cases we are talking about several years on a claim-by-claim analysis before we have a really good understanding of what the claim content is, and at least a Navy view as to what its true value is. The purpose of reforming contracts is partly to avoid the necessity of going through that process, but also to put into the contracts ... a deterrent to ... additional claims....

Secretary Clements ended these hearings with the statement of his intent to return to Congress between 5 and 10 June with the details of the proposed agreements.

With this congressional notification of the intent to use P.L. 85-804 in the absence of settlement amounts, the door for public debate was opened, even while negotiations with the

contractors were in progress. Although the highest levels within the Navy supported this claims settlement methodology, this support was by no means uniform. As in 1974, ADM Rickover again was the focal point of the dissenting view. In responding to a request from Congressman Aspen, RADM Rickover wrote a 13 page letter dated 17 May 1976. This letter reinforced his 1974 Seapower Subcommittee testimony, stating in part:³⁸

I believe the Navy would be better off if it would insist on compliance with its contracts -- in federal court if necessary -- to maintain a normal basis for conducting future business...If contractors believe they will be excused from their contractual obligations by submitting inflated claims, refusing to honor contracts, complaining to higher authority and the like, they and others will be encouraged to follow this approach in the future.

The day after this letter was made public, Secretary Clements encountered substantial opposition during his testimony on this issue before the House Seapower Subcommittee. Clearly there was growing congressional skepticism and acrimony concerning this proposal.

Two weeks later, Mr. Gordon Rule (a high ranking civil servant with the Navy), in a speech before the Shipbuilders Council of America, supported Secretary Clements' proposal and strongly criticized ADM Rickover's views. In the following week, strong congressional objections were voiced over Mr. Rule's attack on ADM Rickover, with Congressman Minisk publicly asking for Mr. Rule's "immediate resignation" from public service.

Undeterred, a week later ADM Rickover continued to press his position in testimony before the Joint Economic Subcommittee on Priorities and Economy in Government, stating in part: "I think

this could be one of the biggest ripoffs in the history of the United States."³⁹

Thus, this proposed use of P.L. 85-804 had become a politically sensitive issue, due in no small measure to the publicly expressed, divergent opinions within DOD. The Congress was divided on the issue. This divergence of opinion was never put to a vote however, because on June 9th, Secretary Clements communicated to the Congress the withdrawal of his notification of intent to use P.L. 85-804. The reason given was that the government and the contractors had failed to reach agreement on the negotiated amounts for settlement.

From the outset of this proposal, Secretary Clements had held that the settlements would not be pursued in a piecemeal fashion; it was to be a settlement of all the major claims, or settlement of none of them. Under the pre-established guidelines from Secretary Clements, the government negotiators could only offer amounts which would result from the substitution of a new escalation clause. In the case of GD/EB, these escalation payments would have amounted to \$178 million. Since GD/EB had not clearly defined the magnitude of its problems at that time, the company estimated its losses at \$142 million, and was therefore willing to accept the government's offer. The Navy estimated escalation payments to Litton/Ingalls would total \$239 million. This company had claims outstanding for over \$500 million. In a public statement following the negotiations, Secretary Clements noted that the two parties' positions differed by \$200 million. Thus, Litton/Ingalls rejected the proposal. With NNSDC the published

difference in negotiated positions was about \$100 million, causing this company to reject the proposal.⁴⁰ The first initiative to settle these claims had failed.

2. Analysis

Why did this attempt fail? On the surface, the rationale of retrofitting into these contracts an escalation clause which is now in wide usage is intuitively appealing. The reason for failure is that by pursuing settlement through escalation only, all of the claims elements were not addressed. Delay, disruption and constructive change order costs were also a major part of these claims. The new escalation clause alone simply could not justify a government negotiated position high enough to settle equitably the costs flowing from these other claims elements.

But in order to establish a Navy position on these other claims elements, a full evaluation of the claims would be necessary. It was precisely this lengthy evaluative process that the escalation clause approach to settlement sought to avoid. The hearings on this proposal clearly indicated the indefensibility of a failure to evaluate the claims. The Congress left no doubt that the validity of the claims had to be established in order to prevent the misuse of government funds. Therefore, the only procedure available for establishing a government position relative to claim validity was through the entitlement process of claims evaluation.

Other facets of these events are also important. First, from the April 29th hearings before the Senate Armed Services Committee, it is apparent that DOD advance liaison with the

Congress on this matter had either been ineffective or inadequate. This left open to question in the minds of several congressmen the basic wisdom of this proposed solution. This skepticism should not have been unanticipated in view of extreme congressional controversy in prior years over the use of this law to settle large claims in the aircraft industry.

Secondly, the notification of Congress of the intent to use this law prior to reaching a negotiated position with the contractors proved to be a strategic error. Such negotiations would have shown the inadequacy of escalation clause substitution alone to solve the total problem. By this early notification however, the forum was provided for heightened congressional interest and focus on a management problem within the Navy, at the same time that budgetary deliberations were underway. In this environment the probability is high that DOD and the Navy felt substantial pressure to settle these claims. From Mr. Diesel's stated position, it may well be postulated that, at least in one instance, the timing of claims submissions was calculated to bring just such pressure to bear. In any event, prior negotiated agreements with the contractors would have ameliorated some later congressional concerns, and, in part, reduced some adverse impressions of naval shipbuilding management.

Thirdly, this impression of a lack of singular direction in shipbuilding management matters was exacerbated by the public divergence of opinion within DOD over this settlement proposal. This author is not suggesting that such a divergence of opinion is unhealthy. Indeed, to the contrary, such divergence is

considered quite necessary if any management process is to remain intellectually honest. Rather, it is suggested that the public display of such divergence did little to engender congressional support and confidence in this proposal. Assuming contractor agreements had been reached, the consequences of this divergence of opinion in DOD could well have resulted in the failure to obtain congressional approval thereafter. At the least, it would not have helped in gaining this approval. The most prudent course of action then would appear to have been the establishment of a firm, unified position within DOD on the use of this law prior to notifying Congress of this intended use.

B. SECOND INITIATIVE: NAVY CLAIMS SETTLEMENT BOARD

1. Background

The unsuccessful attempt at claims settlement through the use of P.L. 85-804, and the growing dissatisfaction of both the shipbuilding contractors and DEPSECDEF Clements with the time required to adjudicate claims through the normal process highlighted the pressing need to expedite a resolution to this problem. As a result, the Navy proposed the establishment of a special Claims Settlement Board. This proposal was approved by DEPSECDEF Clements on 8 July, and five days thereafter the NCSB was formally established by a CHNAVMAT notice. The NCSB's charter granted it the authority for making DOD determinations on claims subject only to the contractor's appellate rights to the ASBCA. The original membership of this Board was:

RADM F. F. Manganaro - Chairman and contracting officer

EXHIBIT 11

SUMMARY OF NAVY CLAIMS SETTLEMENT BOARD ACTIONS

Contact Number (N00024-)	Ships (1)	Contractor	Date Board Assigned	Date(2) Final Documentation	Date Action Completed	Claimed Amount (\$M)	Entitlements (E) Settlements (S) Amount (\$M)	Notes
67-C-0325	CVN 68,69	NNSDC	7/13/76	2/76	8/78	221.3	(E)	(3)
70-C-0269	SSN 688	NNSDC	7/13/76	3/76	8/78	78.5	(E)	(3)
71-C-0268	SSN 688-I	NNSDC	7/13/76	3/8/76	8/78	191.6	(E)	(3)
69-C-0307	SSN 686,687	NNSDC	7/13/76	7/76	8/78	90.4	(E)	(3)
70-C-0252	CGN 38-40	NNSDC	7/13/76	8/8/75	8/78	159.8	(E)	(3)
68-C-0335	CGN 36,37	NNSDC	7/29/76	2/76	2/11/77	151	44.3(S)	
71-C-0268	SSN 688-I	GD/EB	3/1/77	12/1/76	1/78	121.3	125 (E)	(4)
74-C-0206	SSN 688-II	GD/EB	3/1/77	12/1/76	1/78	422.6		(4)

NOTES:

- (1) Ships are designated either by hull numbers (e.g., SSN 688) or contract flight number (e.g., SSN 688-I)
- (2) This column reflects the date final documentation on the claim was received by the Navy, including any modifications. Thus this date may precede the date the claim was assigned to the NCAB.
- (3) The specific entitlement amounts were not available in the public records. The aggregate amount of entitlement for all five of these claims was \$142M.
- (4) The aggregate entitlement for these two claims was \$125M. The individual amounts were not available in the public records.

Source: Developed by Researcher.

CAPT W. J. Ryan - Member for business and contractual matters

Mr. J. K. Kominers - Member for legal matters

Later, as the intensity of the NCSB's deliberations increased, this membership would grow, at one point, to about 25 technical specialists and an equal number of lawyers.

In consonance with its charter, the board operated as an independent claims settlement authority, free from outside pressures, influence, or unsolicited advice, approval and concurrence. Its basic strategy in claims evaluation was, in sequence, to:

1. Conduct a technical analysis of the claim elements.
2. Prepare a legal memorandum to support the areas of entitlement.
3. Conduct a DCAA audit of the contractor to determine the allowability of costs.

After completion of these essential elements of this review process, an offer to settle would be rapidly developed. Thereafter, the contracting officer (NCSB Chairman), with the assistance of other board members, would conduct negotiations with the contractor, and upon agreement, would execute the necessary contract modifications. If settlements were not reached, the Chairman would render a final contracting officer decision pursuant to the Disputes clauses of the pertinent contracts. (The reader is encouraged to compare these procedures to those delineated in Chapter II for claims settlement teams.)

Exhibit 11 is a summary of the actions taken by the NCSB. As shown in this exhibit, the initial July 1979 tasking of this

was to evaluate five of NNSDC claims totaling \$742 million. Final documentation on these claims had been received by the Navy over the four months immediately preceding the Board's establishment. The remaining NNSDC claim, (the CGN 36-37 claim) was originally submitted in July 1973 for \$69 million and was being evaluated by the SUPSHIPS Newport News organization with one provisional payment of \$15 million being made as a result of these efforts. In February 1976, NNSDC submitted a follow-on claim, bringing the total amount claimed against this contract to \$151 million. In late July 1977, CHNAVMAT assigned the CGN 36-37 claim to the NCSB so that an effort could be made to settle the total claim. A year later, the NCSB settled this claim for \$44.3 million.

In March 1977, CHNAVMAT assigned the two GD/EB claims totaling \$544 million to the NCSB, thus bringing the total amount of unsettled claims assigned to this Board to \$1.25 billion. Thus, all major claims were then being evaluated either by this Board or the aforementioned claims settlement team evaluating the Litton/Ingalls claims.

As shown in Exhibit 11, the CGN 36-37 claim was the only one completely settled by the NCSB. Also as indicated, however, the Board evaluated and determined entitlement for all the remaining claims assigned to it. This entitlement process took slightly over two years for the five remaining NNSDC claims, and 11 months for the GD/EB claims. Entitlement was evaluated at \$142 million for the NNSDC claims, and \$125 million for the GD/EB

claims. On completion of these entitlement determinations, the NCSB was dissolved late in 1978.

2. Analysis

The establishment of the NCSB represented a centralization of claims entitlement, negotiation, and settlement authority. Under the former decentralized procedures, the appropriate SUPSHIPS organization was responsible for these functions. However, as shown in Chapter II, these procedures involved several iterations of review and approval at the NAVSEA and NAVMAT headquarters level prior to effecting a final settlement. As the need to settle these claims became more pressing, the many iterations of headquarters review and approval were eliminated in favor of a centralized final authority, thus substantially shortening the administrative process associated with claims settlement.

On the surface it may appear that the NCSB was, at best, marginally successful. Indeed, such was not the case. The sheer volume and complexity of the claims evaluated by this Board was heretofore unprecedented, particularly considering the timeframe in which these entitlements were accomplished. In later congressional testimony, both the members of the Armed Services Committees and high DOD officials were uniform in their praise of the Board's performance. Further, the establishment of this board to expedite claims settlement and its subsequent performance was a positive indication to the shipbuilders of DOD's sincere efforts to rectify previous problems. Thus, the Board was generally well received by the shipbuilding industry and was

an important first step in restoring mutual confidence in the naval shipbuilding process.

Additionally, for two of the major outstanding shipbuilding claims, the Board accomplished the necessary, and difficult first step towards effecting a settlement -- the determination of entitlement. As shown by the 1976 efforts of DEPSECDEF Clements, this step is crucial in establishing a government position on the claims relative to their validity and value. The dissolution of the NCSR occurred not because of ineffectiveness, but rather, because, simply, their work had been completed. Thus, the second claims settlement initiative must be considered a success, although it did not result in final resolution of the claims.

C. THIRD INITIATIVE: NEGOTIATED SETTLEMENT⁴¹

In the fall of 1977 ASN (M,RA&L) Hidalgo began separate and private discussions with top company officials from the three shipbuilders having major claims. From the outset, Secretary Hidalgo's approach was to solve the total shipbuilding problem with these contractors. Obviously the settlement of outstanding claims was a crucial first step in this process. It is appropriate to consider the alternatives encompassed by the total problem approach prior to proceeding to the claim settlements themselves.

1. Analysis of Alternatives

In pursuing a total problem solution approach, the possibility of a failure to reach a settlement on the claims must also be considered. A discussion of each of these alternatives

follows.

(a) Finish the vessels at their yards

Evaluation of this option indicated that significant technical, legal, contractual and financial problems would be encountered, which could delay the completion of construction by several years. First, there would be a tremendous administrative problem in inventorying and documenting the millions of dollars of material associated with each of these constructions. For the nuclear construction ships, this problem would be exacerbated by the stringent safety requirements for component traceability documentation. At the receiving yard (either Navy or commercial) a large expenditure of funds and time would be necessary simply to get ready for construction, even assuming that the yard had the requisite qualifications, and certification for the type of construction required. Should this certification not exist, the Navy conservatively estimated it would take three years for any shipyard to attain such a certification. To avoid this delay, construction at a certified yard would be necessary. Yet the only shipyards qualified for nuclear construction were precisely the three contractors which were then experiencing large claims difficulties and strained relations with the Navy.

Second, should one of these three yards be selected for the completion of the constructions, undoubtedly that contractor would face significant problems in building up a qualified labor force. All three of these yards were having difficulties obtaining and maintaining a labor force sufficient to meet their existing contracts with the Navy. Shifting more work to any of

these contractors would further aggravate these labor problems.

Third, with the exception of the SSN 688 contracts, each of the contracts causing claims problems involved a single contractor constructing a new, unique, and technically complex class of ships. Therefore, any shifts to a new yard would involve significant delays and expense in the transfer of technology and documentation between contractors. Learning curve problems would have to be faced anew with their attendant expense and uncertainty. The SSN 688 was split between NNSDC and GD/EB. These shipbuilders were experiencing considerable difficulties in meeting their current contractual obligations in constructing these submarines. Both had experienced schedule slippages and cost overruns. Thus further overloading either of these yards with the SSN 688 construction formerly assigned to the other yard would hardly be conducive to solving the current shipbuilding problems, or in the best interests of maintaining a healthy, national nuclear ship construction base.

Fourth, the completion of construction in Naval shipyards had to be considered. These shipyards had not engaged in ship's construction since 1967. At that time, and as confirmed by subsequent studies, construction costs in government operated shipyards were about thirty percent more than similar constructions by commercial shipbuilders. Further, the expertise peculiar to construction would have to re-established in these shipyards. For instance, Mare Island Naval Shipyard was considered the most suitable candidate for the re-establishment of nuclear submarine construction. The repair work scheduled for that yard would have

to be shifted to other Navy yards, and a capital investment of about \$30 million would be necessary to prepare the Mare Island yard for construction in lieu of repair work. Further, the assignment of only three of the SSN 688 submarine constructions would require the yard to increase its labor force by over 3000 persons by the end of FY 1982 and maintain that level through 1984. Additionally, the previously mentioned problems of technology transfer, documentation, and learning curve difficulties would also be attendant with construction in a Naval shipyard. Moreover, to pursue this course of action, the Navy would be required to significantly expand its technical/managerial base. Such a move, even if the personnel were available, could hardly be considered consistent with the existing policies of reducing the military forces, and enhancing the viability of the commercial maritime construction base. In any event, this additional managerial/technical manpower pool was not available within the Navy. To the contrary, this limited resource was already strained to meet its existing commitments and pursue the claims settlement issues as well.

For the foregoing reasons, the completion of construction in another shipyard could not be considered either cost effective or timely with respect to planned delivery dates. It is highly likely that all three major shipbuilders being addressed herein were well aware of the above considerations when they employed claim settlement strategies such as work stoppage or announcements of the impending termination of construction on a particular shipbuilding contract.

(b) Exercise the Default Clause of the Contract

If the Navy chose to exercise this option, substantial administrative and legal difficulties could be anticipated. First, the Navy had never exercised such an option in the past, and thus was neither equipped nor prepared to do so. This option would entail taking over and managing the completion of the vessels concerned with the defaulted contract, using the contractor's facilities. Each of these contractors was concurrently pursuing more than one construction contract for the Navy. Therefore, the contractor's facilities would have to be jointly shared with the contractor himself. The situation would not be such that the Navy could merely replace the contractor's managers concerned with the defaulted contractual construction. Rather, the Navy would have to start from scratch and assemble a large force of both management and labor. Before any physical work could begin, the Navy would have to establish a supervisory organization with an estimating, planning, production control, quality control, and material management capability sufficient to identify the precise status of work when it was stopped, and the effort required to complete the work. Further, the Navy would have to establish its own procedures for the planning, overseeing, and inspection of the work itself. Such extensive managerial capabilities do not exist in the extant SUPSHIPS organizations at any commercial shipyards. Thus, the technical/managerial resource constraints addressed in previous sections would also apply to this option. Moreover, with the contractor's cessation of work on the defaulted contract, a reduction in his work force would

become necessary. As noted in Appendix C, the shipbuilding labor force does not exhibit a large degree of geographic mobility. Therefore, the Navy, in all likelihood, would have to draw its labor force from the less skilled labor resources which had been laid off by the contractor. Undoubtedly the Navy would then be faced with the types of labor and first line supervisory problems which plagued both GD/EB and Litton/Ingalls in the case studies in Chapter III. As shown in these case studies, these labor problems create an environment which is counterproductive to cost effective, efficient ship construction.

Second, since the contractor's facilities would have to be jointly shared, scheduling and control problems would be inevitable. These problems would undoubtedly subject the Navy to future delay and disruption claims against the contracts which were still the responsibility of the shipyard owner. This situation could not be considered conducive to solving the overall claims problem.

Third, work stoppage had already occurred at Litton/Ingalls and had been threatened or contemplated by both NNSDC and GD/EB. At Litton/Ingalls, construction had continued only through court order. By pursuing this method of forcing the contractor to continue work, the Navy may have waived its rights to exercise the Default clause of the contract. The courts would ultimately have to decide this issue, thus requiring further litigative action. Finally, the situation at Litton/Ingalls presented a unique and nettlesome consideration for exercising this option. Since the State of Mississippi actually owned this facility,

use of the shipyard by the Navy to complete a contractual construction raised an interesting legal issue. The potential existed that this issue would have to be resolved in the courts prior to the continuation of construction under this option.

(c) Complete the Vessels Under Court Order

As shown in Chapter II, the Navy had already had one experience with this option on the LHA contract with Litton/Ingalls. Although construction was continued, it was at the expense of complex legal entanglements. The Navy estimated that another six to ten years of litigative action would have been necessary to ultimately resolve this issue in the courts, had settlement not been effected under P.L. 85-804. Further, the courts decreed that the Navy reimburse the contractor for actual costs at a rate which was substantially greater than the original contractual provisions. In the most extreme case, the Navy would be forced to pay 100% of these costs. This situation would, in effect, change the contract to a cost type, and provide little incentive for the contractor to control his costs. Moreover, for the Navy to obtain relief from such a court mandate, even further legal action would be necessary. Should such relief not be granted, the ultimate cost of the contract could be substantially greater than any original estimates. In summary, the exercise of this alternative potentially places the Navy in a position of reduced administrative control of the contract, and thus weakens the Navy's bargaining position with the contractor in resolving contractual differences of opinion.

(d) Purchase the Shipyard and Hire a Contractor

The exercise of this option would convert the affected shipyard into a Government Owned Contractor Operated (GOCO) facility. ADM Rickover has been a staunch supporter of this concept. GOCO facilities have long been a reality in other factions of the weapons systems acquisition arena, such as the aircraft industry. However, the option of converting any of these shipyards to GOCO facilities was not without its drawbacks. First, GOCO arrangements have normally been completed at the inception of a weapons procurement, not at the mid-point of an existing contract as a remedial action. Normally these facilities were built by the government, then procurement contracts were let for the operation of the facilities. In exercising this option, however, the establishment of a fair purchase price would be a protracted process and thus would involve some construction delays. Further, the government would have no assurances that the shipyard owners were even willing to sell. Even if these owners were willing to sell, the government would be in a potentially poor bargaining position since this would essentially be a sole source procurement of the facilities. Therefore, the potential existed for high profit taking by the seller -- a circumstance which could be just as expensive and protracted as the claims settlement process itself.

Second, if the facilities were purchased, the matter of obtaining a contractor to operate the facilities would come to the fore. As has been highlighted in Chapter III, the current shipyard owners changed the shipyard management several times

in their attempts to manage these construction contracts more effectively. This fact supports the contention that the probability would be low that a cadre of effective shipyard managers would be readily available to a commercial contractor. Expressed another way, a commercial contractor would be faced with the same technical/managerial problems which would have faced the Navy under the first two alternatives discussed heretofore. As well, this contractor would have to contend with the previously mentioned problems of technology transfer, documentation, and learning curves, with the consequent delays and expense which these problems engender.

Third, since the shipbuilding labor pool is essentially geographically immobile, the new contractor would effectively be constrained by the same labor market and problems as the existing contractor.

Fourth, in GOCO arrangements the principal resources available for a contractor to realize a profit are his management and labor resources. The contracts under such arrangements are cost type. Thus the contractor has no incentive to negotiate the lowest labor rate agreements possible.

Fifth, since the contractor would not own the facilities, he would not have to be concerned with long term capital investment decisions such as modernization and equipment replacement. These decisions require the outlay of substantial funds. Therefore a contractor unincumbered by these considerations may well have the competitive advantage over other contractors in bidding on future procurements.

From the foregoing considerations it is apparent that shifting to a GOCO arrangement would not be of substantial benefit in resolving the claims problem, but would require substantial capital outlays by the government and incur additional delays in the contracted delivery dates. Further, moving to this arrangement is a step towards nationalization of the shipbuilding industry, and thus runs counter to the basic philosophy underlying a free enterprise system.

(e) Settle Without P.L. 85-804

Obviously this is the most desirable alternative, but as discussed in Chapter II, the exercise of this option does not lie entirely within the purview of the Navy. If the contractors consider the entitlement determined by the Navy to be inequitable or unacceptable, it is their option to pursue appeals, and, as a final measure, litigation to obtain appropriate relief or compensation. As will be seen in subsequent discussions, the contractor's financial status has not small bearing on this determination.

(f) Settle Using P.L. 85-804

This alternative is less desirable than the preceding one, however, it is preferable to protracted litigations, and the consequent further deterioration of relations with the shipbuilders.

In summary, analysis of the foregoing alternatives indicates that if the entitlement findings of the NCSB and the claims settlement team at Litton/Ingalls were unacceptable to the contractors, the Navy was essentially faced with the option of

negotiating a settlement under P.L. 85-804 or forcing the contractor into protracted litigation before the courts. Herein lies the final initiative to be addressed in this thesis.

2. The Settlements

By February 1978 the NCSB had essentially completed its determination of entitlement on the GD/EB claims of \$544 million. The following month the claims settlement team completed its evaluation of the Litton/Ingalls claim. From his ongoing discussions with both these companies it became apparent to the ASN (M,RA&L), Secretary Hidalgo, that neither of these firms would settle for the pure entitlement amounts. Thus, further negotiations would be mandatory if settlements were to be reached. This being the case, what role were the entitlement amounts to be accorded in the ensuing negotiations? The decision was made that these entitlement amounts would be taken as a given -- that is the government would acknowledge that these entitlement amounts were due the contractors, and thus would become the basis for further negotiations. Implicit in this decision was the necessity to use P.L. 85-804 for any further compensation to the contractors since a priori the determination of entitlement established the Navy position on the amount of compensation which could be granted within the bounds of the existing contracts.

Once the decision had been reached, both the strategy for exercising the residual powers of P.L. 85-804 and the strategy for the negotiations themselves were developed. Partially through a review of Secretary Clements' earlier efforts to

employ P.L. 85-804, the following key elements of these strategies were evolved:

(a) No announcement would be made to the Congress concerning the intent to invoke P.L. 85-804 until proposed settlement agreements had been reached with the contractors.

(b) As both the GD/EB and Litton/Ingalls settlements would require congressional approval, the negotiations and proposed settlements would be pursued concurrently, but not jointly.

(c) To present a strong rationale for this use of public funds and thus ameliorate the historical congressional concerns over "contractor bailouts" which arose when P.L. 85-804 had been employed in the past, the contractors would have to assume a substantial fixed loss on these contracts. The reasoning behind this strategy was that this fixed loss would act as a substantial impediment to contractors intentionally bidding low on future government procurements, then attempting to use P.L. 85-804 to realize profits.

(d) No attempt would be made to apportion a specific degree of blame for the cost overruns to either the contractor or the government. In subsequent congressional testimony on this issue, several Navy officials acknowledged that such a determination of degree of fault could only be determined through the courts. Averting such a process was, indeed, the goal of pursuing a negotiated settlement. By mutual agreement, both parties considered such a settlement in their best interests. Thus, the critical issues identified in Chapter III became the mutually agreed upon basis for the negotiations. A review of these

critical issues would indicate that either both parties were in part responsible for the cost overruns or that the cause lay beyond the control of either party.

(e) The determination of the fixed loss accruing to the contractors would require frank and open discussions of the contractors' financial status and thus their ability to absorb these losses without forcing them to face bankruptcy or overly impairing their ability to continue operations on their current or future contracts. Such proprietary information is of necessity closely guarded by any commercial firm. Thus the negotiations were considered privileged communications between Secretary Hidalgo and the highest level of contractor officials.

Based on the above key elements, the negotiations for final settlements with the GD/EB and Litton/Ingalls were intensified in March 1978.

a. General Dynamics Corporation/Electric Boat Division

By April 1978, the new management team at GD/EB had fixed its losses on the SSN 688 contracts at \$843 million. Further GD/EB had informed the Navy that it had \$750 million of claims against these contracts in preparation. Although GD/EB's position during the settlement negotiations remains privileged, Mr. J. H. Stolarow, Director, Procurement and Systems Acquisition Division, GAO, provided some insight regarding this firm's financial status:⁴²

In its report to the Navy, Coopers and Lybrand concluded that....General Dynamics could even sustain the entire \$843 million estimated loss and remain solvent if its lenders would agree to either waive or revise certain existing minimum loan covenants. Coopers and Lybrand

did not speculate on the maximum loss General Dynamics could absorb if the lenders did not agree to waive or revise the loan covenants.

Obviously General Dynamics was experiencing a financial press as it broke off negotiations in March and informed the Navy of its intention to stop work on these contracts by reason of losing \$16 million per month in unreimbursed costs.

As indicated in Chapter III, the negotiations were continued and a moratorium was declared on the stop work order. Finally, on June 9, 1978, these negotiations resulted in the following proposed settlement:

Total Entitlement	\$125 million
P.L. 85-804 Settlement	\$359 million
GD/EB Fixed Loss	\$359 million
Total Loss on the Contracts	\$843 million

As an additional provision of this settlement the Navy agreed to pay GD/EB an immediate progress payment of \$300 million to alleviate EB's severe cash flow problems. This progress payment was to be amortized over the first year after the settlement.

b. Litton Industries/Ingalls Shipbuilding Division

In April 1978 the claims settlement team completed its deliberations determining that the total entitlement on Litton/Ingalls' \$1.088 billion claims was \$312 million. Since the effects of the 1973 contracting officer's decision (see Chapter III) regarding delay and a provisional payment of \$20 million had to be netted out, the claims team analysis indicated that \$265 million in entitlement could properly be factored into

the negotiations.

In the subsequent congressional hearings, Mr. J. H. Stolarow's testimony again provided some insight into the parent firm's financial status:⁴³

The Navy contracted with the public accounting firm of Deloitte, Haskins and Sells to analyze the financial data provided by Litton Industries, Inc., and to prepare summary comments based on that analysis.

In reports dated June 22, 1978, and July 20, 1978, the firm concluded that with respect to Litton's financial ability to continue to perform without settlement, it appears that... the corporation will exhaust its cash resources including available borrowing capacity, near the end of their FY 1980 (the summer of 1980).

From this revealing testimony it is apparent that Litton/Ingalls would be approaching dire financial straits fully two years before the completion of the DD 963 construction contract.

On June 9, 1978, the following proposed settlement agreement was reached:

Total Entitlement	\$265 million
P.L. 85-804 Settlement	\$182 million
Litton/Ingalls Fixed Loss	\$200 million
Total Loss on the Contracts	\$647 million

Additionally, the Navy agreed to an immediate provisional payment of \$97 million to alleviate Litton/Ingalls cash flow problems, with this payment being amortized by Litton/Ingalls through adjustments to future progress payments.

c. Congressional Hearings

On 22 and 23 June, Secretary Claytor advised the Senate and House Armed Services Committees, respectively, of his intent to invoke P.L. 85-804 to effect the above proposed

settlements. Attached to these letters of intent were the detailed memoranda of decision for each of these proposed settlements. Additionally, research indicated that the Navy conducted extensive informal liaison with Senators, Congressmen, and members of their staffs.

The general tone of the August 1978 hearings was significantly different to that encountered in 1976 by Secretary Clements. In addition to the well-prepared Navy testimony, Mr. J. H. Stolarow, representing the GAO, presented extensive testimony which was generally favorable towards the employment of P.L. 85-804. Notably absent from the testimony was any dissenting view expressed by a member of DOD. In this regard Congressman Bennett noted that:⁴⁴

Since all of us love and admire Admiral Rickover very much, I was in contact with him about this particular matter. He has not written and I suggest(ed) perhaps he might want to write so it will be clear. But it is my understanding he approves of this 85-804 proposal that is before us. That is my understanding of the bottom line....

While some isolated congressional concerns were expressed, the general impression gained from the testimony is one of substantial support for these proposals. This impression was borne out by Congress not disapproving these proposals within the 60 day period. Thus, these two negotiated settlements became effective.

d. Newport News Shipbuilding and Drydock Company

The circumstances surrounding the negotiations with NNSDC differed from those with GD/EB and Litton/Ingalls in two important respects:

(1) With the exception of the SSN 688 construction NNSDC had delivered most of the ships involved in the contracts against which claims were outstanding. This weakened, but did not obliterate, the consideration of facilitating the national defense -- the prime criterion for the use of P.L. 85-804.

(2) Leading Naval authorities indicated that NNSDC was not in an overall financial loss position on these contracts.

Recall from earlier discussions in this thesis the congressional position on this issue was not that shipbuilders were not to make a profit on their contracts. Rather it was that contractors would not be guaranteed a profit. Further, consider the central Navy objective in exercising this third initiative -- solving the overall problem which existed with the shipbuilders.

In view of these considerations, final negotiations began with NNSDC in October 1978. The NCSB had completed its deliberations on the \$742 million claimed amount with the entitlement determination of \$142 million. Later in October, it was announced that these claims had been settled for \$165 million. The P.L. 85-804 portion of this settlement was about \$23 million of which the ASBCA awarded over \$13 million from the determination that the fringe benefits allowed in a portion of these contracts had been equitable. The remaining \$10 million was awarded under the residual powers provision.

Thus, the third initiative had resulted in the resolution of all major shipbuilding claims.

3. Analysis

The success of this third initiative was the result of a well-conceived plan which was flawlessly executed. The lessons of Secretary Clements' earlier attempted settlement were not lost in the evolution of this plan. First, the plan had a starting point of an established government position on the claims as determined through the entitlement process. Second, the decision to use P.L. 85-804 evolved through careful consideration of the alternatives. Thus the use of the residual powers under this Act was in consonance with the historical congressional intent of enabling public sector management officials to overcome certain obstacles in the attainment of critical procurement objectives. (Chapter II is germane.) Third, an agreement was reached with the contractors through privileged negotiations. This permitted frank deliberations leading to a mutually agreeable equitable settlement without resorting to litigation. Finally, the Congress was informed only after these proposed settlements had been reached. Thereafter extensive liaison was conducted to fully apprise, in a timely manner, Congress of the nature and intent of these agreements. Thus, the public acrimony and congressional skepticism which accompanied Secretary Clements' earlier attempt was averted.

Concerning these settlements, Secretary Hidalgo commented in retrospect that the government-determined entitlement represented the minimum amount and the contractor's claim represented the maximum amount for establishing the negotiation range.⁴⁵ In this context the residual powers of P.L. 85-804

becomes the legal vehicle for negotiating a mutually agreeable and equitable settlement, provided that a prior determination is made that such a settlement will facilitate the national defense. Thus, P.L. 85-804, when employed in this fashion, functions as a necessary and lawful alternative to protracted litigative actions. Such a functioning was employed very effectively to finally settle the major shipbuilding claims in 1978.

Exhibit 12 provides an overview of the settlements effected for the claims arising from the contracts addressed in this thesis. This overview shows the settlements prior to 1978, the settlements effected as a result of the efforts delineated in this chapter, and the claims which contractors had advised the Navy were forthcoming. The 1978 settlements finally resolved all the claims shown in this exhibit. As indicated, these claims totaled over \$3.6 billion dollars, and were settled for an average of 36 cents on the dollar. Over 40 percent of these settlement amounts employed P.L. 85-804 indicating, from another perspective, that strict entitlement procedures alone were clearly inadequate to effect a final settlement of these claims. However, entitlement procedures alone were employed in effecting the prior settlements. Further, when viewed in the context of Secretary Hidalgo's above-delineated comments, entitlement is a crucial first step in reaching a viable negotiated settlement.

From the foregoing it is concluded that the existing procedures for settling claims are effective. It must be recognized, however, that this settlement procedure takes time.

EXHIBIT 12

CLAIMS SETTLEMENT SUMMARY

	Claimed Amount (\$M)	SETTLEMENT				TOTAL	
		ENTITLEMENT		P.L. 85-804		Amount (\$M)	Percent
		Amount (\$M)	Percent	Amount (\$M)	Percent		
<u>NNSDC</u>							
Prior settlements	151	44		0		44	
1978 settlements	742	142		23		165	
SUB TOTAL	893	186	20.8	23	2.7	209	23.4
<u>LITTON/INGALLS</u>							
Prior settlements	N/A	19		0		19	
1978 settlement	1088	312		182		494	
Claim not filed	133	0		0		0	
SUB TOTAL	1221	331	27.1	182	14.9	513	42.0
<u>GD/EB</u>							
Prior settlements	220	97		0		97	
1978 settlement	544	125		359		484	
Claims not filed	750	0		0		0	
SUB TOTAL	1514	222	14.7	359	23.7	581	38.4
TOTAL	3628	739	20.4	564	15.6	1303	35.9

NOTES:

1. This exhibit is based on information available in public records.
2. All percentages are expressed as a fraction of the claimed amount.
3. The prior settlement entitlement for Litton/Ingalls resulted from the 1973 contracting officer's decision on changes. The claimed amount was not available.
4. Litton/Ingalls 1978 entitlement includes provisional payments.
5. Claims not filed includes those claims the contractor announced to the Navy, but had not completely documented.

Source: Developed by researcher.

When time is of the essence due to national defense considerations, P.L. 85-804 provides a legal and effective method for expediting this claims settlement process.

V. CONCLUSIONS

A review of the major naval shipbuilding claims during the period from 1974 to 1978 and the principal initiatives presented in this study to settle these claims, has led the author to the following conclusions:

1. Changes in the nature of the shipbuilding industry have made naval shipbuilders more ready, willing and able to pursue shipbuilding claims.

During the 1960's the U.S. shipbuilding industry changed from one of several small shipyards to one dominated by a few, conglomerate-controlled, large shipyards. These conglomerates have had added resources at their command, larger management structures, the ability to wield more outside influence to accomplish corporate goals, a more complex financial structure, larger constituencies, and thus larger power bases, more sophisticated management information and planning systems, and greater financial accountability within their corporate structure. The conglomerate-controlled shipyards became a competing division of the parent-conglomerate, with their new management being financial and management-oriented executives. As a result, these shipyards became less customer oriented, and more highly profit motivated. Thus, the shipbuilding claims from these shipyards were filed earlier in the contracted construction process, were broader in scope, often included elements which were based on more imaginative and thus unproven legal concepts, and were pursued more vigorously on a more sustained

and grander scale. The strategies employed in this pursuit included the application of increased legal and technical resources; concurrent activity in several claim settlement arenas, both administratively, and litigatively; persistent liaison with and complaints to higher levels of public sector management, both within DOD and the Congress; either threats of or actual work stoppage on the contracts; threats of contract termination; and, finally, extremely effective use of the media to continually highlight their claim settlement problems.

These conglomerate-controlled shipyards still dominate the naval shipbuilding market. Thus, the importance of this conclusion is that the Navy must remain continually mindful that it will henceforth be involved with a shipbuilding industry which can insist on the more timely resolution of shipbuilding claims settlement issues.

2. Contracting methodologies and changes in weapons system acquisition policies substantially changed the nature of shipbuilding claims.

The contracts which generated the claims addressed in this thesis were all of the FPI type with escalation. The weapons system acquisition policies affecting these claims were evolutionary in nature in that they were attempting to find an effective means of incorporating the technological boom into out weapons procurement process. These policies placed increased responsibilities on the contractor for the design and support of the weapons system, provided inadequate time for evaluation between lead and follow ship constructions, and reduced the

naval/maritime construction base by concentrating extremely large procurement orders for entire ship classes with either one or two contractors, thus overloading their capabilities. The increased design responsibility of the contractor thrust both the shipbuilder and the Navy into new contractual roles. Through schedule slippages and cost overruns neither of these parties were able to abide by these contractual provisions. The mutual underestimation of the difficulties in designing and constructing these more complex systems caused problems with GFI, and GFE at follow ship construction shipyards. The inadequate time between lead and follow ship procurements with insufficient evaluative effort prior to the bulk procurements, essentially visited the problems of research and development on the production contracts. The FPI contracts proved to inappropriate for these acquisition policies in that they inadequately compensated the contractor for his costs in a timely manner, causing severe cash flow problems and resulting in large claims to obtain relief from this inequity.

Although the escalation provisions of these contracts had been in use for many years, they proved inadequate to the task of coping with the double-digit inflation of the 1970's. This inadequacy exacerbated the contractors' cash flow problems through insufficient compensation for the effects of inflation -- a factor over which they had no control.

As a result of the impact of the contracting methods and types employed, the claims grew to unprecedented proportions, both in magnitude and complexity. These claims overtaxed the

Navy's former claims settlement capabilities. This circumstance fostered the impression in some quarters of both the public and private sectors that the Navy was no longer capable of efficiently and effectively managing its shipbuilding programs. The pertinent observation here is that although the settlement of claims certainly could not have prevented the above events, the more aggressive pursuit of claims settlement could have ameliorated the consequences of these events to the Navy, particularly with regard to the public perception of its shipbuilding management capabilities.

3. The definitive establishment of a clear government position relative to both the validity and value of the total claim is a critical first step in claim settlement.

DEPSECDEF Clements' 1976 effort to settle the major shipbuilding claims was based on reforming the offending contracts through substitution of the newer escalation clause. This substitution would more equitably compensate the contractors for the effects of inflation. This procedure would have avoided the lengthy process of entitlement wherein a government position on all the claim elements would have been established. The attempt failed because the government could not, through consideration of escalation effects alone, justify a monetary amount high enough to adequately compensate the shipbuilders for the remaining inequities addressed in the claims such as constructive change orders, delay and disruption. Further, this approach failed to provide to Congress the necessary assurances concerning the validity and value of these claims. Such assurances were

considered necessary by the Congress to insure that this proposed expenditure of public funds was, in fact, in the best interests of the public weal. Thus, the absolute necessity of establishing a government position on the total claim through the entitlement process was reaffirmed.

4. When necessary, the Navy has the capability to substantially shorten its administrative procedures associated with claims evaluation.

The July 1976 establishment of the Navy Claims Settlement Board represented a centralization of claims entitlement and negotiation authority. Through this centralization many former iterations of headquarters review and approval were eliminated from the claims entitlement and settlement processes. This streamlined procedure resulted in either the settlement or entitlement determination of an unprecedented volume of complex claims from two of the major claimants in from 11 to 26 months. The accomplishment was impressive and was subsequently favorably recognized by the Congress, high level DOD officials, and the shipbuilding industry itself as an important step towards the resolution of claims.

Its work having been completed, the Board has now been disestablished. However, the actions of this Board did positively establish that through centralization of authority the Navy has the effective capability to foreshorten the entitlement process, when such actions are appropriate.

5. Even in peacetime, the residual powers authority remains

a vital and necessary provision of P.L. 85-804.

These powers enable high level public sector management officials to overcome certain obstacles in the attainment of critical procurement objectives. These powers have no equivalent in private sector contracting law. Consequently, when these powers have been used to settle extremely large claims, heated controversy at the highest levels of the government has been the result.

Shipbuilding is the longest, most complex process in the spectrum of government acquisitions. History verifies that shipbuilding claims are likely to result from this process. Further, the events addressed in this paper show that the very real potential exists that the entitlement process often does not establish a compensation amount which equitably reimburses the shipbuilder for his efforts. Moreover, as shown in this thesis, the residual powers provide the only means available to equitably settle these claims short of costly and protracted litigation, which can be unacceptably damaging to government-contractor relationships and counterproductive to the most cost effective construction of ships in the shortest time.

However, excessive or indiscriminate use of these powers by public officials could lead contractors to exercise low bidding strategies to win contracts, with the expectation that this law will protect them from losses on these contracts. Therefore, although these residual powers remain an extremely necessary part of our acquisition process, public officials in whom these powers reside must exercise, on a continuing

basis, the keenest sense of managerial judgement in the application of these powers, as overseen by the Congress.

6. For large, complex shipbuilding claims, negotiation has proven to be an effective alternative to litigation in effecting claims settlement.

The final initiative addressed in this thesis resulted in the settlement of all shipbuilding claims with the three major contractors concerned. The success of this initiative was in large measure attributable to well planned and executed negotiation and congressional approval strategies. The key elements of these strategies were:

- a. A starting government position which was based on a Navy claims evaluation under the rules of entitlement.
- b. The government position that these contractors would have to absorb a substantial fixed loss on these contracts to act as an impediment to future contractors attempting or planning to use this settlement procedure as a means of recovering their losses or realizing inordinate profits.
- c. Frank and open discussions which were privileged between the highest levels of contractor and public sector management, in order to determine an acceptable and equitable level for the fixed losses to be assumed by each of the parties.
- d. The establishment of an agreed upon proposed settlement prior to congressional notification of the intent to employ P.L. 85-804.

e. Thorough informal liaison with key congressional members in advance of the hearings on the proposed settlements.

The success of these negotiated settlements proved that settlements short of litigation were possible. However, these procedures still take appreciable time, even with the appropriate employment of P.L. 85-804. These time constraints are driven by the length of time it takes the contractor to properly prepare and document his claims combined with the time required by the government to evaluate and establish an entitlement position on these claims. However, these time constraints should be viewed from the perspective of the unique nature of these claims.

The magnitude and complexity of these claims were as unique as the circumstances which caused them. These circumstances interfaced an evolutionary weapons acquisition policy with the conglomerate-controlled shipbuilding industry in an environment which, for the first time, experienced unforeseen double digit inflation for protracted periods of time. Thus, it is concluded that a settlement procedure which resolved the shipbuilding claims arising from this turbulent environment without recourse to protracted litigation is indeed an effective one which stands on its own merits.

APPENDIX A
CHANGES DURING NAVAL SHIP CONSTRUCTION⁴⁶

Changes during the process of naval ship construction may be categorized as contractual or non-contractual, and directed or constructive. A contractual change is exemplified by a requirement to correct defective specification, to change an equipment delivery date or by a conscious decision to change a specification requirement such as the inspection acceptance criteria for a welding process. A non-contractual change would result from the decision of a shipbuilder to procure plumbing valves of different size and shape than the lead shipbuilder selected, where the specifications permit such option. A directed change is one purposely made by the managers of a program; while a constructive change is one perceived by the shipbuilder as changing the terms of the contract, but not recognized as such by the Navy. One example of the latter is an ambiguous specification rigorously interpreted by a Navy agent, which causes additional work to be done. Directed contractual changes fall under the formal change control procedures. All others are not considered contract changes and thus are not routinely subject to such control. Constructive changes identified by a shipbuilder and recognized as valid by the Navy are treated as contractual changes.

Some changes are inevitable as a result of conscious decisions to develop new weapons capabilities while concurrently building the ship platform to carry the weapon; e.g., the Polaris program.

Changes may be necessarily imposed on a program based on operating experience gained at sea. For example, a casualty in an operating ship may cause safety changes to be developed for similar equipment in ships under construction. Changes to working drawings are frequent during the construction of the first few ships of a class, as the drawings are revised to reflect construction experience, correct errors and complete the iterative process of ship design. If these working drawings are recognized by the Navy as a Government responsibility such changes are treated as directed contract changes. If, however, the contract makes the working drawings the responsibility of the shipbuilder, contract changes are not in order. Disputes over such responsibility have been key issues in shipbuilding claims addressed in this thesis.

Any change to an established shipbuilding plan is disruptive and usually adds substantially to the expected cost of building the ship. Changes which affect completed work are most disruptive, although disruption may occur merely through diverting the engineering effort from work which has not yet begun. However, timing is important to this process. If a change is mandatory, the earlier it is ordered the less disruptive it will probably be, as this allows the shipbuilder the maximum time for planning, and most flexibility to select the time to accomplish the change. A continuing flow of changes is generally disruptive and costly as it defeats efforts to plan effective use of workforce and facilities. Large numbers of changes create very difficult configuration control problems, as it becomes hard to determine

whether a ship was built to the latest plan revision. Navy acquisition policy prescribes deferral of changes not considered essential to mission capability or safety; unless they can be accomplished more economically during construction than later, and with no schedule impact. The policy is easy to abuse, particularly if the shipbuilder affected needs, or is willing to accept additional work. In general, however, the lessons of claims and cost growth in recent years have highlighted the imperative for increased self-discipline.

Unlike the period discussed in this thesis, today directed changes are controlled through a configuration control process as prescribed by an Office of the Secretary of Defense (OSD) policy. When a prospective change, either engineering or non-engineering is identified by either the government, the shipbuilder or others, such as GFE suppliers, the shipbuilder prepares an Engineering Change Proposal (ECP) which demonstrates the feasibility of the change and assesses its impact in terms of construction cost as well as life cycle cost and logistic impact. ECP's are evaluated by the Project Manager, who decides on timing and applicability. For example, an approved ECP may be planned to be accomplished during construction on ships where the impact is low, but deferred on earlier ships where completed work would be affected. Approved ECP's are issued in the form of requests for contract modifications. Preferred practice is to negotiate a bilateral agreement, fully priced as to cost and schedule effect. Shipbuilding contracts provide the Navy the option of ordering a unilateral change in the

event urgency or the failure to agree on cost requires such. Increasingly, unilateral changes are used more sparingly, as the potential for unforeseen additional costs is high.

To some extent concurrency of development and ship construction is inescapable. Because ship design entails many diverse technical disciplines, and because of the compactness and complexity of warship designs, the development of the detail working drawings is an iterative process, dependent in part on physical completion of the first ship. The first iteration may produce system diagrams which will identify the number and capacity of pumps and valves for a piping system. After materials of the required characteristics have been placed under contract by the shipbuilder, the second iteration would be dimensioned installation drawings portraying the location and foundationing for the system components, based on manufacturer's data for the materials. A third iteration would reflect the input of produceability considerations by the shipbuilders production forces, perhaps causing relocation of a run of piping to facilitate welding of joints in the pipe. A fourth iteration might evolve if construction experience disclosed errors, such as physical interference with other systems, or inadequate accessibility for maintenance or operation. These changes manifest themselves as drawing revisions, and cause the detail design of a ship to remain relatively fluid throughout the building of the first ship. Although the changes encountered may be necessary, they nonetheless have proved a costly part of shipbuilding attendant to new designs.

If the construction of follow ships has been programmed to follow too closely on the lead ship, the volume of changes may affect the follow ships severely. In particular, if follow ships have been ordered in quantity and the detail design change rate is still high, the values of series production are lost. The follow shipbuilder is unable to benefit from the quantity buy or to manufacture the full contract's worth of parts on one machine set-up, if the risk of change is high. Some degree of overlap is practical and effective, as the structural design can be expected to stabilize when the lead ship is launched, and other areas on a comparable phased basis through completion.

A second area of concurrent development and construction which is frequently mandated by evolving military threat, is that of weapon systems design and integration. With earlier, less complex weapon systems it had been possible to treat the platform and the weapon separately, so that weapon installations did not pace the ship construction. As weapons systems capability and complexity has increased, the design and construction of ship and system as an integrated whole becomes more significant, and the effects of concurrent development and construction are now recognized to carry a high potential for disruption, claims, and the resulting cost growth.

Within the above framework, the following related terms are defined.

Directed change - Formal deliberate changes, ordered in writing by a contracting officer, in the form of either a bilateral contract modification (which establishes mutual agreement on price and scope), or a unilateral, Navy-directed modification.

Bilateral modifications may be fully priced supplemental agreements with future claims release provisions, or they may be partially priced with the proviso that some element of equitable adjustment (i.e., delay or disruption) is to be resolved later.

- Delay Costs - That additional cost which accrues to a contractor due to the slippage or delay in unchanged work resulting from change.
- Disruption - That additional cost which accrues to a contractor due to Navy-induced inefficiencies in unchanged work resulting from a change.
- Costs
- Constructive Change - A course of conduct (actions, inactions, and written or oral communications) by a contracting officer or authorized representative which causes a shipbuilder to perform additional or different work than is required by the contract terms.

APPENDIX B
DISPUTES CLAUSE

Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Contracting Officer shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the Secretary. The decision of the Secretary or his duly authorized representative for the determination of such appeals shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence. In connection with any appeal proceeding under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

This 'Disputes' clause does not preclude consideration of law questions in connection with decisions provided for in the paragraph above: Provided, that nothing in this contract shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

APPENDIX C

LABOR IN THE SHIPBUILDING INDUSTRY⁴⁷

By comparison with other major industries, the shipbuilding industry is extremely labor intensive. A large portion of the workforce is comprised of craftsmen such as welders, shipfitters, and electricians.

Exhibit 13 shows a more specific breakdown of this labor force.

EXHIBIT 13

SHIPBUILDING LABOR - ALL PRIVATE SHIPYARDS

<u>Type Labor</u>	<u>Percentage</u>
Craft	52.6
Unskilled	4.6
Semi-skilled	24.8
White collar	18.0

Source: Martin, John C., The Labor Market of the United States Shipbuilding Industry, Doctoral dissertation, George Washington University, 1978.

Exhibit 14 compares the weekly earnings of production workers in the shipbuilding industry to those in the contract construction industry. As shown, with the exception of 1963, the earnings for shipbuilding workers has always lagged behind those in the contract construction industry. Commencing in 1964, a trend of earnings increases began for employees in both these industries.

EXHIBIT 14

WEEKLY EARNINGS OF PRIVATE SHIPBUILDING
VS CONTRACT CONSTRUCTION PRODUCTION WORKERS

Year	Contract Construction	Private Shipbuilding	Differential: Contract Con- struction vs. Private Shipbuilding	
			Dollars	Percent
1960	\$113.04	\$110.43	\$ 2.61	2.3%
1961	118.08	117.20	.88	0.8
1962	122.47	121.60	.87	0.7
1963	127.19	127.92	(.73)	(0.6)
1964	132.06	128.21	3.85	2.9
1965	138.38	127.98	10.40	7.5
1966	146.26	137.78	8.48	5.8
1967	154.95	139.32	15.63	10.1
1968	164.49	144.99	19.50	11.9
1969	181.54	155.07	26.47	14.6
1970	195.45	158.00	37.45	19.2
1971	211.67	162.74	48.93	23.1
1972	222.51	172.66	49.85	22.4
1973	235.69	178.41	57.28	24.3
1974	249.08	189.74	59.34	23.8
1975	265.35	217.09	48.26	18.2
1976	284.56	247.33	37.23	13.1

Source: Department of Labor, Bureau of Labor Statistics, Employment and Earnings, United States, 1909-1975, Bulletin 1312-10, Washington, D.C., 1976, and Employment and Earnings, Washington, D.C., March 1976 and March 1977.

The greatest percentage difference occurred in 1973, when contract construction workers earned almost 25 percent more than their shipbuilding industry counterparts. Also, it may be observed that the shipbuilding industry pay scale tends to lag that of the contract construction industry by two to three years. Essentially both of these industries compete for the same local labor skills. Thus, the conclusion to be drawn from this pay differential between the two industries is obviously that the shipbuilding industry labor force will be the least stable of the two.

Working conditions in the shipbuilding industry always has been far less desirable than those in many other manufacturing industries. These more adverse working conditions may explain, in part, the high turnover rates shown in Exhibit 15.

EXHIBIT 15

Monthly Turnover Rates in Selected Industries: 1976

Industry	Rate of Change Per 100 Employees per Month		
	Accessions	Separations	Turnover
Private Shipyard	6.7	6.3	13.0
Fabricated Metal Products	3.9	4.2	8.1
Primary Metals	3.0	2.9	5.9
Aircraft	1.4	1.7	3.1
Naval Shipyards	1.2	1.0	2.2

Sources: Department of Labor, Bureau of Statistics and NAVSEA.

In 1973, shipbuilders indicated that their work force was traditionally comprised mainly of two groups: a relatively

stable cadre of skilled workers, and a large number of less skilled laborers who work on a highly irregular basis. Some employees in this latter group go through a "hire and quit" cycle as many as four times in a single year.

This high turnover rate is generally considered to be the result of the shipyard's labor demands expanding beyond the available local labor pool. Another factor affecting this personnel stability problem is the need to maintain a balance between skills required by the manufacturing process and the skills available in the work force itself. Should such an imbalance occur to such a degree that it cannot be corrected by shipyard management's actions (such as rescheduling work), it becomes necessary to hire and fire the skilled laborers. Such upheavals in this critical manpower resource is more damaging to shipyard productivity than the hiring and firing of unskilled labor.

Regarding shipbuilding labor mobility, a recent study conducted by George Washington University indicated that only 9.1 percent of private shipyard's 1965 labor force had moved to another state by 1970. Shipbuilders generally confirmed this low mobility rate with the observation that employees who are separated seldom move to another area where industry expansion is being experienced. Rather, skilled laborers seek employment in another local industry. Thus the pool of skilled manpower available to any given shipyard is essentially restricted to the workers in the local area. Therefore, shipbuilders are not generally able to expand their workforce without

undertaking substantial and expensive training efforts. This problem is particularly acute in labor skill areas which require frequent recertification/requalification such as high pressure welders.

During the 1978 Naval Ship's Procurement Process Study, shipbuilders were asked the question, "Given your current facilities, what total manning level would you ideally choose for operating your shipyard with a continuous stable workload?" The two shipyards under consideration in this thesis responded as follows:

- a. General Dynamics/Electric Boat - 25,000 personnel.
- b. Litton/Ingalls - 18,000 personnel.

These responses, of course, reflect the wisdom of hindsight but may serve as a bench mark for the manpower perturbations addressed in Chapter III. It should be born in mind, during the timeframe of this thesis, however, that both these shipyards were either increasing their facilities to their present size or learning to more efficiently utilize their recently expanded capabilities. Further, their workloads were not stable, but rather, were increasing appreciably. From these considerations, and the foregoing discussion of the shipbuilding labor industry, it is clear that these two shipbuilders were in an extremely unstable labor environment, with excessive rates of growth, and higher than optimum employment levels. This environment taxed their management abilities, lowered their productivity, and thus exacerbated their capability to fulfill their shipbuilding contracts with the Navy.

APPENDIX D

SUMMARY OF LITTON/INGALLS ADMINISTRATIVE/LITIGATIVE ACTIONS⁴⁸

This appendix summarizes the general nature of the administrative and litigative actions arising from the LHA and DD-963 contracts with Litton/Ingalls. Where no status or disposition is indicated, the cases were in a suspended state at the time of the final P.L. 85-804 settlement in 1978.

A. Armed Services Board of Contract Appeals

1. Appeal of Litton Systems, Inc., ASBCA Number 18214

Filed: March 2, 1973

Subject: Appeal from decision of the contracting officer dated February 28, 1973, denying request for increase in the contract ceiling price in the amount of \$475.5 million. The dollar amount of this claim, as revised, is now \$1.088 billion.

History: In January 1976, Litton and the Navy entered into a stipulation filed with the ASBCA to suspend without prejudice the major part of this claim. In 1977, the Navy attempted to reinstate ASBCA 18214 as an active appeal. On September 30, 1977, the U.S. District Court for the Southern District of Mississippi expressed its view that reinstatement of the appeal would impinge upon litigation pending before that court.

Status: Proceedings are still suspended.

2. Appeal of Litton Systems, Inc., ASBCA Number 18214

Subject: Claim in excess of \$22 million for interest on deficiency in progress payments.

History: Severed from main claim and tried separately.

Status: Awaiting decision.

condition that the Navy "advance and pay" to Litton its actual construction costs for labor and materials through a 9-month period, ending in April 1977. The order was clarified on November 23, 1976, to require Navy to pay Litton 91 percent of the costs incurred in constructing the LHA's in this period. On April 19, 1977, over the objection of the Government, the District Court extended the preliminary injunction to October 31, 1977. Just before expiration of this period, the Court again, on October 26, 1977, continued the preliminary injunction to July 31, 1978. A month later, on November 22, 1977, upon joint motion of the parties, the District Court reduced the 91 percent payment rate to 75 percent until April 1, 1978, at which time the rate is to revert to 91 percent.

Status: Litton and the Department of Justice presented a joint motion before the court to make the 75 percent cost reimbursement a permanent injunction. The motion was approved by the court.

2. United States vs. Litton Systems, Inc.

U.S. Court of Appeals for the 5th Circuit, Case Number 77-2431.

Initiated: June 17, 1977

Subject: Appeal by the Government to the Court of Appeals from the April 19, 1977, order of the District Court requiring the Navy to continue to reimburse Litton for 91 percent of its costs for construction of the LHA's, in excess of the contract ceiling price.

Status: Briefs have been filed by the parties.

C. Court of Claims

1. Litton Systems, Inc., vs. United States

Court of Claims Case Number 433-76

3. Appeal of Litton Systems, Inc., ASBCA Number 21728

Filed: Letter of Appeal (undated) received January 17, 1977.

Subject: Appeal from the decision of the contracting officer denying claim for cost of delays involved in repair order under insurance clause in LHA-1 and LHA-2.

Status: On January 13, 1978, the Government requested leave to amend its answer

4. Appeal of Litton Systems, Inc., ASBCA Number 21334

Subject: Appeal from decision of the contracting officer directing modification to Combustion Control Air System at no cost to the Government.

Status: On August 13, 1976, Litton requested a 45-day extension to file complaint. As of February 18, 1978, the Recorder's Office, ASBCA, has no record that a complaint was ever received. Navy's Office of General Counsel has stated that an indefinite extension was granted.

B. U. S. District Court and U.S. Court of Appeals

1. United States vs. Litton Systems, Inc.

U.S. District Court for the Southern District of Mississippi, Case Number S-76-187(C)

Initiated: July 1976

Subject: Action by the Government for specific performance following Litton's notification of its intent to stop work June 1976 on LHA construction. Action is to require Litton to continue to perform its responsibilities under the LHA contract, (i.e., build the ships).

History: The District Court imposed a preliminary injunction by order of August 3, 1976. The order enjoined Litton Systems, Inc., and Litton Industries from failing or refusing to construct the LHA's on

Filed: October 22, 1976

Subject: Suit by Litton for breach and reformation of LHA contract.

Status: Litton describes this as a "protective case" covering all matters before the ASBCA, to be pursued if Litton loses on the claims before the ASBCA.

2. Litton Systems, Inc., vs. United States
Court of Claims Case Number 203-76

Filed: May 21, 1976

Subject: Appeal from a decision of the Navy Contract Adjustment Board for LHA contract reformation with respect to amounts claimed as due as a result of the earlier cancellation of four LHA vessels.

Status: In discovery proceedings

D. Navy Contract Adjustment Board

In June 1974 Litton petitioned the Board for reformation of the LHA Contract to allow payment of costs incurred incident to cancellation of LHA's 6-9 in excess of the "ceiling" under the Contract of \$109.7 million. The Board denied the petition in June 1975, finding that the ceiling provision reflected the intentions of the parties and was not the result of mutual mistake.

FOOTNOTES

1. Whitehurst, Clinton H., Jr., "Is There a Future for Naval Shipyards?", U.S. Naval Institute Proceedings, April 1978, p. 35.
2. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards, 1974, Part 2, Hearings, 93rd Congress, 2nd Session, Washington, D.C., GPO, 1974.
3. Ibid, p. 934.
4. Ibid, p. 1012-1013.
5. Direct fiscal assistance for the construction of merchant ships in U.S. commercial shipyards is provided through a construction differential subsidy (CDS). This CDS was established by Title V of the Merchant Marine Act of 1936 and later expanded by the amendments in the Merchant Marine Act of 1970. Essentially CDS allows a U.S. firm to construct a vessel in a U.S. shipyard at a cost which is equivalent to that for constructing the same vessel in a foreign yard. CDS payment is directly from the government to the private yard. The intent of these laws is to encourage growth and maintenance of the U.S. maritime industry thus ensuring a degree of national self sufficiency of these industries. Sloan School of Management, MIT Technical Report No. 1, The United States Shipbuilding Industry and Influences of Conglomerates, by Gary L. Kavanagh, June 1977.
6. There are two general types of contracts in government procurement - cost reimbursement and fixed-price. The majority of the shipbuilding claims which were at issue during these hearings were filed by firms having fixed-price contracts for ship construction. Under a fixed price contract the contractor guarantees performance of the terms of the contract. In exchange for this consideration, the government obligates itself to pay a specified price. This type of contract is normally used when construction costs are reasonably well established and uncertainties are minimal, thus enabling the contractor, within reasonable limits, to establish a price that is fair to him both in terms of construction costs and profit. The majority of the construction risks obviously lie with the contractor in this type of contract. By contrast, the cost-reimbursable contract (of which the "cost-plus" referred to by Admiral Rickover is a subcategory) obligates the government to pay reimbursable and allowable costs under the contract terms, and to pay some additional fee. There are several subcategories of this contract type which variously address the methodology for determining the costs, cost sharing, and fee arrangements. The important point is that in cost type contracts the government shares a greater part of the risk by assuming a greater share of the costs associated with the construction costs. This type of contract is normally appropriate when costs are not

well known or the uncertainties are high. Fox, Ronald J., Arming America: How the U.S. Buys Weapons, Harvard University Press, 1974.

7. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards 1974, Part 3, Hearings, 93rd Congress, 2nd Session, Washington, D.C., GPO, 1974, p. 1268.

8. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards 1974, Part 2, Hearings, 93rd Congress, 2nd Session, Washington, D.C., GPO, 1974, p. 1148.

9. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards 1974, Part 3, Hearings, 93rd Congress, 2nd Session, Washington, D.C., GPO 1974, p. 1480.

10. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards 1974, Report, 93rd Congress, 2nd Session, Washington, D.C., GPO, 1974, p. 5.

11. Ibid, p. 3-4.

12. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Shipbuilding Programs, Hearings, 95th Congress, 1st Session, Washington, D. C., GPO, May 1977. p. 3.

13. Ibid, p. 6.

14. The 1974 Seapower Subcommittee, House Armed Services Committee findings firmly endorsed the need for an annual naval construction level of 35 ships to meet and maintain a 600 ship fleet. Annually the number of authorized and appropriated naval constructions has been less than half of that number. Again in January 1979 President Carter cut the Ford/Rumsfeld Administration proposed FY 79 shipbuilding program from 29 ships to 15. Alden, John D., "Tomorrow's Fleet", U.S. Naval Institute Proceedings, January 1979, p. 120.

15. The principal references for this section are:

a. Class notes from a Systems Engineering course conducted by Professor M. Kline at Naval Postgraduate School.

b. Fox, Ronald J., Arming America: How the U.S. Buys Weapons, Harvard University Press, 1974.

c. Sloan School of Management, MIT Technical Report No. 1, The United States Shipbuilding Industry and Influence of Conglomerates, by Gary L. Kavanagh, June 1977.

16. A school of thought holds that these basic tenets must be expanded to include considering the costs of operating, maintaining, modernizing and retiring a system. This broader perspective came to prominence in the 1960's under SECDEF McNamara. Total Life Cycle Costing (LCC) was the name applied to this concept. The concept is important in ship procurement for two reasons. First, it forces consideration of the trade-off between initiating changes in a ship during its initial construction process and delaying these changes (modernizations) until some time in the operating cycle of the ship. On the one hand, incorporating the change during construction subjects the Navy to increase construction costs, and the very real possibility of claims for the reasons of delay and disruption. On the other hand, incorporation during the operating cycle has the disadvantages of reducing the operational availability of the ship for protracted period of time (tying up operating force assets in the process), and frequently necessitating extensive and costly rip-out and redesign of the ship's systems. The second important facet of LCC concerns the concepts of maintainability and reliability. Maintainability encompasses the considerations of the cost, time and expertise level involved in restoring installed equipment to an operational state once it fails. Proper treatment of these considerations is required during the design through testing phases, and thus does impact on the initial procurement cost of the system. Reliability deals with the inherent capability of a system to remain in an operational state. While this characteristic impacts on equipment design (and thus procurement cost) it is of primary interest in this paper because of the changes it generated in some ship construction contracts. These changes required broader warranty for the ship after its delivery to the Navy. A condition of the claims settlement with Litton/Ingalls involved a release from this extended warranty in favor of the more conventional reduced warranty. (See Appendix A.)

17. Adapted from the Sloan School of Management, MIT Technical Report No. 1, The United States Industry and Influence of Conglomerates, by Gary L. Kavanagh, June 1977, p. 61.

18. Ibid, p. 64-65.

19. Ibid, p. 69.

20. The principal references for this section are:

a. Class notes from a Procurement Management course conducted by CDR A. C. Crosby at the Naval Postgraduate School.

b. Fox, Ronald J., Arming America: How the U.S. Buys Weapons, Harvard University Press, 1974.

c. Assistant SECNAV (Manpower, Reserve Affairs and

Logistics), Naval Ship Procurement Study, Final Report, July 1978, Chapter III.

21. Senate Armed Services Committee, Proposed Action Under Public Law 85-804 Relating to Settlement of Navy Shipbuilding Claims, Hearing, 95th Congress, 2nd Session, Washington, D. C. GPO 1976, p. 78, 86.

22. Ibid, p. 44.

23. Except as otherwise noted, the principal references for this section are:

a. Assistant SECNAV (Manpower, Reserve Affairs and Logistics), Naval Ship Procurement Process Study, Final Report, July 1978.

b. GAO Report No. PSDA-77-135, Shipbuilder's Claims - Problems and Solutions, Comptroller General of the United States, August 1977.

24. Stamps, David W., A Survey of the Constructive Change Aspects of Major Shipbuilding Claims, M.S. Thesis, Naval Post-graduate School, Monterey, CA, March 1977, p. 71.

25. The principal reference sources for this section are:

a. Defense Acquisition Regulations, July 1976.

b. GAO Report No. PSDA-77-135, Shipbuilder's Claims - Problems and Solutions, Comptroller General of the U.S. August 1977.

c. Commission on Government Procurement, Report of the Commission on Government Procurement, V. 4, GPO December 31, 1972.

d. Department of the Navy Office of the General Counsel Memorandum OGC/CAD/FTC:lmf to LHA Claims Manager, Code 00X, Subj: P.L. 85-804 and the LHA Claims, 22 May 1978.

e. Barton, William, Jr., "Towards Detente in the Navy's Cold War with American Shipbuilders," National Contract Management Quarterly, V. 12, No. 1, First Quarter 1978, p. 23-43.

f. Doke, Marshall J., "Extraordinary Relief Under P.L. 85-804: Basic Principles and Guidelines", The Government Contractor Briefing Papers, Federal Publications, Inc. June 1966.

26. Defense Acquisition Regulations, July 1976, Ch. 17.

27. Except as otherwise noted, the principal reference sources for this chapter are:

a. U.S. Congress, Senate Committee on Armed Services, Proposed Action Under Public Law 85-804 Relating to Settlement of Navy Shipbuilding Claims, Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO 1978.

b. U.S. Congress, House Committee on Armed Services, Navy Proposal to Modify SSN 688 Contracts with General Dynamics Corp. (Electric Boat Division) and LHA and DD 963 Contracts with Litton Industries, Inc./Litton Systems, Inc. (Ingalls Shipbuilding Division), Hearings 95th Congress, 2nd Session, Washington, D.C., GPO, 1978

28. Sloan School of Management, MIT Technical Report No. 1, The United States Shipbuilding Industry and Influence of Conglomerates, by Gary L. Kavanagh, June 1977, p. 170.

29. Under an FPI, successive target contract, the government and the contractor negotiate at the outset an initial target cost, an initial target profit, a ceiling price, a formula for fixing the firm target profit, and a production point at which the formula will be applied. The initial formula also provides a ceiling and floor on the firm target profit. When the production point for applying the formula is reached, the firm target cost is then negotiated and the firm target profit is automatically determined in accordance with the formula. At this point two alternatives are possible: (1) the negotiations of an FFP arrangement, or (2) the negotiation of an FPI arrangement with no further target.

30. This procedure of pursuing several avenues of administrative and judicial relief concurrently became the pattern for Litton/Ingalls in seeking relief from the contracts. As a result, a complex legal labyrinth of depositions, cross-depositions, and questions of jurisdiction ensued up to the time of final settlement.

31. NNSDC was not addressed in Chapter III as a case study due to insufficient detail in the public records concerning the specific nature of their claims and the many deliberations which led to their settlement. The NNSDC claim will be addressed in this chapter, however, particularly regarding the tactics this company employed towards gaining settlement of their claims.

32. NNSDC initially appealed the Navy decision on the validity of this option to the GAO. After its investigation, the GAO decided in favor of the Navy. In the meantime, at DEPSECDEF Clements insistence, the Navy appointed Mr. Gordon Rule to negotiate a settlement. A settlement was reached. Unhappy with Mr. Rule's settlement, Navy officials and the Justice Department moved to block this proposed settlement, stating that

it was not binding on the government, because it was outside Mr. Rule's scope of authority, and had not received the Justice Department's approval. This approval was deemed necessary because of an ongoing litigation in this matter at the time of the negotiations. In a widely publicized decision the U.S. District Court of Eastern Virginia held that Rule's settlement was binding. On appeal, the Circuit Court reversed this ruling, thus finding the contract was valid. This case is of primary interest as a claims avoidance technique. However, it cannot be disputed that the decision of the government to abandon the support of its own negotiator with whom NNSDC had acted in good faith, exacerbated the already strained relations with this contractor. For further details of this case see:

a. Rule, Gordon W., Certain Aspects of Navy Procurement, talk presented to Washington Chapter, National Contract Management Association, 21 June 1978.

b. Klinkhammer, David J., and Pence, Derry T., CGN-41 A Case Study of Ship Procurement, M.S. Thesis, Naval Postgraduate School, Monterey, CA, March 1978.

33. Senate Committee on Armed Services, Fiscal Year 1977 Authorization for Military Procurement, Research and Development, and Active Duty Selected Reserve and Civilian Personnel Strengths, Part 8, (Shipbuilding Cost Growth and Escalation), Hearings, 84th Congress, 2nd Session, Washington, D.C., GPO, April 29, 1976, p. 4655.

34. Except as otherwise indicated the principal references for this section are:

a. Senate Committee on Armed Services, FY 77 Authorization for Military Procurement, Research and Development, and Active Duty Selected Reserve and Civilian Personnel Strengths, Part 8, (Shipbuilding Cost Growth and Escalation), Hearings 94th Congress, 2nd Session, Washington, D.C., GPO, April 29, 1976.

b. Rule, Gordon W., Certain Aspects of Navy Procurement, talk presented to Washington Chapter, National Contract Management Association, 21 June 1978.

c. Whitehurst, Clinton H., Jr., "Is There a Future for Naval Shipyards?" U.S. Naval Institute Proceedings, April 1978, p. 30-40.

d. House Committee on Armed Services, Subcommittee on Seapower and Strategic and Critical Materials, Military Posture and Department of Defense Authorization Appropriations for Fiscal Year 1977, Part 4, Hearings, 94th Congress, 2nd Session, Washington, D.C., GPO 1978.

35. Rule, Gordon W., Certain Aspects of Navy Procurement talk presented to Washington Chapter, National Contract Management Association, 21 June 1978, p. 8.

36. Ibid, p. 10.

37. Senate Committee on Armed Services, Fiscal Year 1977 Authorization for Military Procurement, Research and Development and Active Duty Selected Reserve and Civilian Personnel Strengths, Part 8, (Shipbuilding Cost Growth and Escalation), Hearings, 94th Congress, 2nd Session, Washington, D.C., GPO, April 29, 1976, p. 4627-4629, 4632-4633, 4635.

38. House Committee on Armed Services, Seapower Subcommittee, Navy Shipbuilding and Conversion (SCN) Program for FY 78, Torpedoes and Other Weapons, Part 4, Hearings, 95th Congress, 1st Session, Washington, D.C., GPO February 1978, p. 769-779.

39. Mintz, Morton, "Shipyard's Cost Claims Said 'Rip-Off'," The Virginia Pilot, Norfolk, VA, June 8, 1976.

40. A fourth shipbuilder, National Steel and Shipbuilding Company was also a part of this package approach to claims settlement. This company had notified the Navy of its intent to submit a \$20 million dollar claim on its 1972 contract for the construction of an AOR. Although the negotiated settlement amount was not published, the company had agreed to settle under this proposal.

41. Except as otherwise indicated the principal references for this section are:

a. Hidalgo, Hon. Edward, Reflections on the Acquisition Process, talk presented to the Naval Postgraduate School, Monterey, CA, 27 February 1979.

b. House Committee on Armed Services, Navy Proposal to Modify SSN 688 Contracts with General Dynamics Corp. (Electric Boat Division) and LHA and DD 963 Contracts With Litton Industries, Inc./Litton Systems, Inc. (Ingalls Shipbuilding Division), Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO, 1978.

c. Senate Committee on Armed Services, Proposed Action Under Public Law 85-804 Relating to Settlement of Navy Shipbuilding Claims, Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO, 1978.

42. House Committee on Armed Services, Navy Proposal to Modify SSN 688 Contracts With General Dynamics Corp., (Electric Boat Division) and LHA and DD 963 Contracts with Litton Industries, Inc./Litton Systems, Inc., (Ingalls Shipbuilding Division),

Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO 1978, p. 124.

43. Ibid, p. 235.

44. Ibid, p. 109.

45. Hidalgo, Hon. Edward, Reflections on the Acquisition Process, talk presented to the Naval Postgraduate School, Monterey, CA, 27 February 1979.

46. Adapted from an unpublished study on Navy Shipbuilding management prepared by the staff of ASN (M,RA&L) in July 1978.

47. Assistant Secretary of the Navy (Manpower, Reserve Affairs and Logistics), Naval Ship Procurement Process Study, Final Report, July 1978, p. 20-28, 75-77.

48. Senate Committee on Armed Services, Proposed Action Under Public Law 85-804 Relating to Settlement of Navy Shipbuilding Claims, Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO, 1976, p. 227-230.

BIBLIOGRAPHY

1. Alden, John D., "Tomorrow's Fleet," United States Naval Institute Proceedings, January 1978, p. 115-123.
2. Ames, Richard E., Coady, Phillip J., Jr., and Maxon, Bruce E., Considerations of Return on Capital Investment and Payment of Progress in the Defense Shipbuilding Industry, M.S. Thesis, Naval Postgraduate School, Monterey, CA., June 1972.
3. Assistant Secretary of the Navy (Manpower, Reserve Affairs and Logistics), Naval Ship Procurement Process Study, Final Report, July 1978.
4. Assistant Secretary of the Navy (Research and Development), Report Number NAVSO P-2457 (Rev. 1-75), Department of the Navy RDT&E Management Guide, 1 January 1975.
5. Barton, William, Jr., "Towards Detent in the Navy's Cold War With American Shipbuilders," National Contract Management Quarterly Journal, V. 12, No. 1, First Quarter 1978, p. 23-43.
6. Burno, Charles A., Provision for Escalation in Navy Contracts, M.S. Thesis, Naval Postgraduate School, Monterey, CA., September 1974.
7. Center for Naval Analysis Technical Report 78-0402, Shipbuilding Delay and Disruption - A Proposal, by C. Hammond, D. Graham, and L. Jacobson, March 29, 1978.
8. Chief of Naval Research Partial Technical Report for March-June 1975, Escalation Provisions for Navy Contracts: Issues and Choices, by Michael G. Sovereign and Carl F. Jones, May 1975.
9. Commission on Government Procurement, Report of the Commission on Government Procurement, V. 4, GPO, December 31, 1972.
10. Comptroller General of the U.S., Report PSAD-77-135, Shipbuilders Claims -- Problems and Solutions, August 1978.
11. Department of Defense Technical Report PRG-2, A Guide to Sources of Information for Procurement Research, by Army Procurement Research Office, August 1975.
12. Department of the Navy Office of the General Counsel Memorandum OGC/CAD/FTC:lmf to LHA Claims Manager, Code OOX, Subj: P.L. 85-804 and the LHA Claims, 22 May 1978.
13. Doke, Marshall J., "Extraordinary Relief Under P.L. 85-804: Basic Principles and Guidelines," The Government Contractor Briefing Papers, Federal Publications, Inc., June 1966.

14. Fox, Ronald J., Arming America: How the U.S. Buys Weapons, Harvard University Press, 1974.
15. Geismar, Donald D., Composition of Material Price Indices for Naval Ship Contract Escalation, M.S. Thesis, Naval Postgraduate School, Monterey, CA., September 1975.
16. General Accounting Office Report No. PSAD-76-24, Status of Shipbuilders' Claims for Price Increases: Settlement Progress, Navy Claim Prevention Actions and Need for Caution, Comptroller General of the United States, November 1975.
17. General Accounting Office Report No. PSDA-77-135, Shipbuilders' Claims - Problems and Solutions, Comptroller General of the United States, August 1977.
18. Heilbroner, Robert L., and Bernstein, Peter L., A Primer on Government Spending, Random House, 1971.
19. Heilbroner, Robert L., and others, In the Name of Profit, Doubleday and Co., Inc., 1972.
20. Heilbroner, Robert L., Understanding Microeconomics, Random House, 1973.
21. Holloway, James L. III, CNO Report Concerning the Fiscal Year 1979 Military Posture and Budget of the United States Navy, March 1978.
22. Ippel, Terry A., The Impact of Inflation on Profit as Determined by Contractual Provisions of Naval FFIF Shipbuilding Contracts, M.S. Thesis, Naval Postgraduate School, Monterey, CA., March 1976.
23. Klinkhamer, David J., and Pence, Derry T., CGN-41: A Case Study of Ship Procurement, M.S. Thesis, Naval Postgraduate School, Monterey, CA., March 1978.
24. Mintz, Morton, "Shipyard's Cost Claims Said 'Rip-Off'," The Virginia Pilot, Norfolk, VA., June 8, 1976.
25. Naval Sea Systems Command, Technical Report, A Study of Ship Acquisition Cost Estimating in the Naval Sea Systems Command, Executive Summary, October 1977.
26. "Navy Settles Suit With Tenneco Unit for \$165 Million," Wall Street Journal, October 6, 1978, p. 9.
27. Newell, John R., "The Breakdown in Naval Shipbuilding," United States Naval Institute Proceedings, January 1978.
28. Office of Naval Research Technical Report, The Profitability of the U.S. Shipbuilding Industry 1947-1976, by Edward M. Kaitz, June 20, 1978.

29. Rule, Gordon W., Certain Aspects of Navy Procurement, Talk presented to Washington Chapter, National Contract Management Association, 21 June 1978.
30. Sherman, Roger, The Economics of Industry, Little, Brown and Company, Inc., 1974.
31. Sloan School of Management, Massachusetts Institute of Technology Technical Report No. 1, The United States Shipbuilding Industry and Influence of Conglomerates, by Gary L. Kavanagh, June 1977.
32. Stamps, David W., A Survey of the Constructive Change Aspects of Major Shipbuilding Claims, M.S. Thesis, Naval Postgraduate School, Monterey, CA., March 1977.
33. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Shipbuilding Programs, Hearings, 95th Congress, 1st Session, Washington, D.C., GPO, May 1977.
34. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards 1974, Report, 93rd Congress, 2nd Session, Washington, D.C., GPO, 1974.
35. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards 1974, Part 2, Hearings, 93rd Congress, 2nd Session, Washington, D.C., GPO, 1974.
36. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Current Status of Shipyards 1974, Part 3, Hearings, 93rd Congress, 2nd Session, Washington, D.C., GPO, 1974.
37. U.S. Congress, House Committee on Armed Services, Seapower Subcommittee, Navy Shipbuilding and Conversion (SCN) Program for Fiscal Year 1978, Torpedoes and Other Weapons, Part 4, Hearings, 95th Congress, 1st Session, Washington, D.C., GPO, February 1978.
38. U.S. Congress, House Committee on Armed Services, Subcommittee on Seapower and Strategic and Critical Materials, Military Posture and Department of Defense Authorization Appropriations for Fiscal Year 1977, Part 4, Hearings, 94th Congress, 2nd Session, Washington, D.C., GPO, 1976.
39. U.S. Congress, House Committee on Armed Services, Subcommittee on Seapower and Strategic and Critical Materials, Military Posture and Department of Defense Authorization Appropriations for Fiscal Year 1979, Part 4, Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO, 1978.

40. U.S. Congress, House Committee on Armed Services, Navy Proposal to Modify SSN 688 Contracts with General Dynamics Corp. (Electric Boat Division) and LHA and DD 963 Contracts with Litton Industries, Inc./Litton Systems, Inc. (Ingalls Shipbuilding Division), Hearings 95th Congress, 2nd Session, Washington, D.C., GPO, 1978.
41. U.S. Congress, Senate Committee on Armed Services, Fiscal Year 1977 Authorization for Military Procurement, Research and Development, and Active Duty Selected Reserve and Civilian Personnel Strengths, Part 5 (Authorizations), Hearings, 94th Congress, 2nd Session, Washington, D.C., GPO, March 3, 5, 10 and April 9, 1976.
42. U.S. Congress, Senate Committee on Armed Services, Fiscal Year 1977 Authorization for Military Procurement, Research and Development, and Active Duty Selected Reserve and Civilian Personnel Strengths, Part 8 (Shipbuilding Cost Growth and Escalation), Hearings, 94th Congress, 2nd Session, Washington, D.C., GPO, April 29, 1976.
43. U.S. Congress, Senate Committee on Armed Services, Proposed Action Under Public Law 85-804 Relating to Settlement of Navy Shipbuilding Claims, Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO 1978.
44. U.S. Congress, Senate Committee on Armed Services, S. Res. 555 and S. Res. 556 to Disapprove Pending Ship Claims Settlement Under Public Law 85-804, Hearings, 95th Congress, 2nd Session, Washington, D.C., GPO. September 1978.
45. Ward, J.W., and Garcia, L.E., The United States Shipbuilding Industry: Structure, Conduct, Performance, M.S. Thesis, Naval Postgraduate School, Monterey, CA., March 1975.
46. Whitehurst, Clinton H., Jr., "Is There a Future for Naval Shipyards?" United States Naval Institute Proceedings, April 1978, p. 30-40.
47. Wideman, Robert E., Litton Crosses the River, M.S. Thesis, Naval Postgraduate School, Monterey, CA., September 1976.

INITIAL DISTRIBUTION LIST

	No. Copies
1. Defense Documentation Center Cameron Station Alexandria, Virginia 22314	2
2. Library, Code 0142 Naval Postgraduate School Monterey, California 93940	2
3. Chairman (Code 54) Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
4. CDR A. C. Crosby, Code 54Cw Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
5. LCDR D. V. Lamm, Code 54Lt Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	2
6. Defense Logistics Studies Information Exchange U.S. Army Logistics Management Center Fort Lee, Virginia 23801	1
7. Mr. Gordon W. Rule 2111 Jefferson Davis Highway Arlington, Virginia 22209	1
8. CDR P. DeMayo Office of the Assistant Secretary of the Navy (M,RA&L) Department of the Navy Washington, D. C. 20360	1
9. CDR Gene P. Kesler ASW Project Office (ASW-13) Chief of Naval Material Washington, D. C. 20360	3