

SUPERVISOR OF SHIPBUILDING, U. S. NAVY
TODD PACIFIC SHIPYARDS INC TACOMA DIVISION
TACOMA 2, WASHINGTON

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THE HISTORY
of the
SUPERVISOR OF SHIPBUILDING, USN
Tacoma, Washington

- - -

15 March 1943

to

14 August 1945

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15 November 1945

THE HISTORY
OF SUPERVISOR OF SHIPBUILDING, USN
Tacoma, Washington

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THE HISTORY OF SUPERVISOR OF SHIPBUILDING, USN
TACOMA, WASHINGTON
15 MARCH 1943 - 14 AUGUST 1945

Establishment of Activity

The creation of the office of Supervisor of Shipbuilding, Tacoma, Washington, was authorized by the Navy Department on 15 March 1943* subsequent to a request by the Bureau of Ships on 23 February.** With Capt. J. L. McGuigan, USN, assuming command, the office was opened with a total complement of nineteen naval officers on board.

The one shipbuilding yard under the cognizance of the Supervisor of Shipbuilding, Tacoma, at the time of its creation was the Seattle-Tacoma Shipbuilding Corporation, Tacoma. Since the name of the company was officially changed to Todd Pacific Shipyards Inc., Tacoma Division, on 1 June 1944, that title will hereinafter be used throughout this report. Office headquarters for the Supervisor and his staff were provided at the Todd Pacific yard and maintained throughout the war period.

Location

Todd Pacific's shipyard in Tacoma, encompassing approximately 195 acres, is located a few miles east of the center of Tacoma on

*OPM ltr FM133B-JMR:O'H dated 10 March 1943 - See Appendix, page 1.
**BuShips ltr A4-2(120) dated 23 Feb 1943 - See Appendix, page 2.

the Ashton tideflats lying along the southern reaches of Commencement Bay in Puget Sound.* With approximately fifty acres of waterfront property available, and with unrestricted areas of protected Puget Sound waters for use during underway trials of completed vessels, the location of the yard might be considered quite favorable. Close proximity to Thirteenth Naval District Headquarters in Seattle and to the Navy Yard Puget Sound in Bremerton also enhance the desirability of the location.

Review of Development of Todd Pacific, Tacoma

A brief review of the development of the Todd Pacific Shipyard in Tacoma is considered appropriate at this time. The yard had its origin and first impetus in 1917 with the need for ships for World War I providing a pattern in miniature for the gigantic demand for ships during World War II. Approximately twenty-five cargo ships were built, followed by construction for the Navy during the early 20's of three fast cruisers, USS OMAHA, USS CINCINNATI, and USS MILWAUKEE. Shortly thereafter, the nation-wide slump in the shipbuilding industry struck the Tacoma yard, and in 1925 all operations ceased.

With the threat of World War II becoming increasingly grave, contracts were signed with the Maritime Commission in October 1939 for the construction of five single-screw C-1 cargo vessels. Although only one small building stood on the site, the abandoned yard came to life quickly, and by February 1940 two launching ways, a large mold loft,

*See Appendix, pages 3,4,5, for aerial views of yard and map of area.

a steel shed, and three large whirleys were in operation.* On 5 March 1940 the keel for the first cargo vessel was laid. Additional contracts were signed with the Maritime Commission in September 1940 and in May 1941, then on 3 March 1941 the first contract with the Navy was signed for the construction of five gasoline tankers. By 1 October 1942 the Maritime Commission had relinquished all rights and obligations to facilities, their contracts were cancelled or taken over by the Navy, and the Navy assumed control of the Todd Tacoma yard.

Early History of the Navy at Todd Pacific, Tacoma

The early history of naval activity at the local yard is properly to be told by the Supervisor of Shipbuilding, Seattle, and by the Navy Yard Puget Sound. Lieut. W. W. Wales, detailed from the Supervisor's staff in Seattle, reported to Tacoma approximately 1 May 1941 to assume responsibility for Navy inspection in the construction of the five gasoline tankers and for work being done in the small shipyards in Tacoma. In May 1942 the administration of the supervision of inspection for the AOG and the AVG programs at the Todd Yard was assumed by the Navy Yard Puget Sound. Until officer personnel could be delegated to Tacoma, Capt. Malone, Supervisor of Shipbuilding in Seattle, acted temporarily as the officer in charge at Tacoma, by order of the Commandant of the Thirteenth Naval District.

Capt. J. L. McGuigan, USN, Assumes Command

On 22 June 1942 Capt. J. L. McGuigan, USN, assumed the command as Officer in Charge of Shipbuilding and Conversion at Tacoma under the

*See Appendix, page 6, for view of yard in February 1940.

direction of the Commandant of the Navy Yard Puget Sound and directly responsible to the Industrial Manager of that Navy Yard. Capt. McGuigan served in this capacity until the authorization by the Navy Department in March 1943 created the office of Supervisor of Shipbuilding, Tacoma, and orders from the Bureau of Naval Personnel assigned to him duties as Supervisor of Shipbuilding and Naval Inspector of Ordnance in Tacoma.* The small shipbuilding yards in Tacoma continued under the cognizance of the Supervisor of Shipbuilding, Seattle, until 10 July 1943 when the Tacoma Supervisor assumed the responsibility of those yards as authorized by BuShips.**

Biographical Sketch of Capt. J. L. McGuigan, USN***

Although the activity of Supervisor of Shipbuilding, Tacoma, was not created for approximately nine months after Capt. McGuigan reported for duty at Tacoma, it is generally felt that "SupShip Tacoma" had its unofficial origin the day he arrived. Coming, as he did, direct from the war front in the Philippines, he approached his new shipbuilding tasks with a grim spirit of vengeance and with a realistic vision of the desperate need of the country for combat craft.

Capt. McGuigan, born in Wisconsin, was a graduate of the Naval Academy class of 1914. Post graduate training was later obtained at the Massachusetts Institute of Technology and at the Naval War College. Although his first naval assignment was a two year tour of duty afloat,

*BuPers dis 131539 Mar 1943.

**BuShips ltr EN25 - (49) L5(120) over EN28/A2-11 of 3 July 1943 - See Appendix, page 7.

***See Appendix, page 8, for photograph of Capt. J. L. McGuigan, USN.

most of his later assignments were in naval planning and construction work at such activities as Navy Yard Norfolk, Navy Yard Mare Island, Navy Yard Pearl Harbor, New York Shipbuilding Company, and in the Bureau of Ships. As Industrial Manager of the Navy Yard at Cavite at the outbreak of hostilities with Japan, Capt. McGuigan was under Jap fire as the demolition of the Navy Yard was completed two days after the start of the war. His own mechanical ingenuity and skill made possible his escape Christmas Day 1941 from Cavite and from Japanese capture when he was able to repair in frantic haste and desperation the last plane to leave Cavite. Two heart-breaking months on Bataan, where he joined in the task of making the most out of what little the Allied forces had with which to work and fight, were followed by evacuation 1 May for a return to the United States via Australia. Shortly after his return, he launched himself with characteristic energy into the home-front battle to produce ships in record time for the fleet.

Functions of Supervisor of Shipbuilding, Tacoma

The functions of this activity are defined adequately by the statement of missions as outlined by the Supervisor in September 1944 under the Navy Management plan:

"The mission of the Supervisor of Shipbuilding, Tacoma, under the direction of the Chief of the Bureau of Ships, the Commandant of the Thirteenth Naval District, and the Chief of the Office of Procurement and Material, and with additional duties as Naval Inspector of Ordnance, Tacoma, under the Chief of the Bureau of Ord-

nance, is as follows:

- (a) To complete, deliver, and fit out ships in accordance with contractual requirements and current Navy Department directives.
- (b) To comply with directives of the Commandant of the Thirteenth Naval District pertaining to military and other matters under the cognizance of the Commandant.
- (c) To keep fully informed relative to the management policies of the Todd Pacific Shipyards Inc., Tacoma, and of other shipyards under this cognizance to insure that acceptable standards of performance are being accomplished in return for Government expenditures.
- (d) To render all possible assistance to contractors in achieving the most efficient fulfillment of contractual obligations by supplying technical advice and administrative suggestions and aid when requested, and by assuring that contractors make maximum use of all specialized services offered by the Navy Department and the Thirteenth Naval District activities.*

Relationships with Other Naval Activities

Control has actually been exercised over this activity by four principal higher naval echelons: the Secretary of the Navy, the Bureau of Ships, the Thirteenth Naval District, and the Bureau of

*See Appendix, pages 9-12, for complete statement of mission, tasks, and standards of performance.

Personnel. There has been, of course, liaison of a close nature between other activities such as the Navy Yard Puget Sound, the Commissioning Detail of Tacoma, Supervisors of Shipbuilding at Seattle and Portland, and the Naval Repair Base at San Diego, where many of the ships constructed locally have received post-shakedown availabilities. The Chief of Naval Operations has exercised indirect control through the Bureau of Ships. The Bureau of Aeronautics, the Bureau of Ordnance, and the Bureau of Yards and Docks have exercised routine control of types of material and development of certain facilities coming under their cognizance.

A brief summary of the four principal control-exercising agencies follows:

(1) Secretary of the Navy. This office and that of the Assistant Secretary exercised control over civilian personnel, chiefly of a reporting nature for statistical purposes.

(2) Bureau of Ships. This bureau exercised all technical control over Supervisors of Shipbuilding including matters of contract administration, technical, material, inspection, facilities, and contract termination functions. The decision of the bureau in any technical matter relative to the above subjects was considered final.

(3) Thirteenth Naval District. The district exercised military control and control in such matters as communications, naval and civilian personnel pay accounts, assignment of quarters, enlisted personnel, insurance, medical assistance, uniforms, discipline, War Bonds, etc. The Commandant has, since the end of the war, been given control over the release and detachment of reserve officers eligible

for separation under critical point scores.

(4) Bureau of Naval Personnel. This bureau, except for the actual ordering of officers to and from this activity, has functioned chiefly in a reporting nature in connection with such reports as fitness, leave, compliance with orders, muster rolls, etc.

Close relationship and excellent cooperation with the Navy Cost Inspector have been possible at all times. The NCI office was established in Tacoma about 1 August 1941 in the building later to be occupied also by the Supervisor's office. The responsibility of the Supervisor in regards to finances has been routine in nature following closely the instructions issued by the Bureau of Ships - Bureau of Supplies and Accounts joint letter of 30 September 1944, and by contractual requirements.

In the plant expansion program at the Todd yard in Tacoma, the Supervisor was guided by these principles:

- (1) Minimum of cost
- (2) Time element
- (3) Elimination of luxury
- (4) Substitution of mechanical appliances for labor wherever possible
- (5) Maximum utilization of subcontractor facilities

The pilot letter of 21 October 1943 on cost consciousness served as a guide throughout the war.

Major Accomplishments

The major accomplishments of a shipbuilding activity are

naturally to be found in its construction records.* From 15 March 1943 the following production schedule was completed in the Todd Pacific Shipyards Inc., Tacoma:

Escort Aircraft Carriers (CVE)	
Completed	28
Hull only	9
Seaplane Tenders (AV)	4
Destroyer Tenders (AD)	
Completed	1
Hull only	1
Gasoline Tankers (AOG)	1

From 10 July 1943 the following production schedule was completed in the small yards:

Minesweepers (YMS)	27
Submarine Chasers (PCS)	5
Refrigerated Cargo Vessels (YP)	8
Harbor Tugs (Big) (YTB)	4
Harbor Tugs (Little) (YTL)	
Completed	2
Hulls only	4
Gasoline Barges (YOG)	3
Oil Barges (YO)	2
Water Barges (YW)	2
Total vessels completed	85
Total hulls	14

*See Appendix, pages 15-16.

All vessels built under the cognizance of this activity were accepted by the Board of Inspection and Survey at the time of official Navy trials, and their later service in the fleet indicated their sea-worthiness and general structural and operational efficiency. Pictures of various types of vessels constructed under the direction of this activity are included in the Appendix.*

One of the interesting chapters in the history of the Navy during World War II will be the one which recounts the development of the new type of vessel, the escort aircraft carrier. Classified by the Navy as AVGs, then ACVs, then CVEs, and designated unofficially by such names as "baby flattops", "baby carriers", and "jeeps", the CVE was designed originally as an effective weapon to combat the submarine threat. Later the small carriers were used effectively as aircraft ferrying vessels and as supporting carriers in allied offensive thrusts. It is generally agreed that the Supervisor of Shipbuilding activity in Tacoma played a significant role in the development and mass production of this new type of warship.

In order to conform to Navy Department directives, as promulgated by the Bureau of Ships,** in the preparation of the history of this activity, brief summaries of the work of the chief divisions of this activity have been prepared in order to present a general view of the internal organization and workings of this shore establishment.

*See Appendix, pages 17-24, for photos of types of vessels.

**BuShips ltr EN/A3-2 (130) over EN28/A2-11 dated 11 May 1945 - see Appendix, pages 25, 26.

Administrative Division

Personnel on board at the office of Supervisor of Shipbuilding at Tacoma at various stages of its development were as follows:

CIVILIAN PERSONNEL

Date	<u>Main Office</u>		<u>Insp. Office</u>		<u>Warehouse</u>	<u>Small Yards</u>		<u>Total</u>
	<u>Tech.</u>	<u>Clerical</u>	<u>Insp.</u>	<u>Clerical</u>		<u>Insp.</u>	<u>Clerical</u>	
31 July '43	3	58	37	6	9	7	1	121
31 Dec '43	5	49	39	7	14	6	1	121
31 July '44	6	44	47	7	5	5	1	115
31 Dec '44	5	44	45	6	4	6	1	111
31 July '45	5	42	45	5	3	4	1	105

NAVAL PERSONNEL*

Date	<u>Officers</u>		<u>Enlisted</u>		<u>Total</u>
	<u>Male</u>	<u>Wave</u>	<u>Male</u>	<u>Wave</u>	
31 July '43	26	0	0	0	26
31 Dec '43	30	3	0	0	33
31 July '44	27	3	0	0	30
31 Dec '44	27	3	0	0	30
31 July '45	33	2	0	8	43

Shortly after Capt. McGuigan reported as Officer in Charge of Shipbuilding and Conversion, the administrative functions were grouped into the office of Chief Clerk under the immediate direction of the Officer in Charge. The functions included all officer and civilian personnel, mail, files, property, supplies, and general office management. These functions expanded and increased in

*See Appendix, pages 27 and 28, for roster of Naval Personnel.

complexity, but remained the basic functions of the Administrative Division. The original nucleus of civilian personnel was provided by detail from the Navy Yard Puget Sound beginning in May 1942. The Navy Yard also supplied the original furniture, equipment, and transportation for the office.

At the time of the creation of the office of Supervisor of Shipbuilding, Tacoma, and the transfer of the activity's responsibilities from the Navy Yard Puget Sound, there were approximately 115 civilians on board. The administrative functions were not greatly altered by this organizational change, but procedures in carrying out these functions were considerably revised. Civilian personnel were no longer processed through the Navy Yard, and arrangements were made for the recruitment of civilians through the Tacoma representative of the U. S. Civil Service Commission. Most employees recruited, particularly inspectors, had had previous government experience. All civilian personnel throughout the war were Civil Service employees in Group IV-B under the classification act of 1923.

After the establishment of the Position Classification Field Office at the Thirteenth Naval District Headquarters in March 1944, all position descriptions for this activity were transmitted to that office for approval and assignment of the proper grade. Formerly position descriptions had been submitted to the Navy Department in Washington, so the establishment of the field office materially expedited action on personnel matters.

In 1944 the Navy established a manpower ceiling of 124 positions for the activity, a figure accepted by the War Manpower Commission

upon the recommendation of the Area Manpower Priorities Committee. The tightness of the local labor market and the high rate of turnover prevented the actual reaching of this ceiling at any time.

The difficulties of the recruitment of civilian personnel and the high rate of turnover were probably the most vexing problems of the Administrative Division during the war. The clerical staff, which comprised approximately one-half of the civilian employees, had an exceedingly high turnover rate, due primarily to the transient nature of the clerical workers available. Tacoma was a critical labor shortage area throughout the war, being largely dependent for clerical workers upon the wives of military personnel.

The Tacoma Branch Office of the District Civilian Personnel Office represented this activity in obtaining priorities under the War Manpower Commission regulations to secure clerical workers. A production urgency of V was set by the Area Production Urgency Committee, a priority which enabled this activity to keep on an even competitive basis of recruitment with similar governmental establishments in the Tacoma area. It also made civilian employees of this activity eligible for occupancy of public and government housing projects. Close liaison was constantly maintained with the District Civilian Personnel Office, the U. S. Employment Service of the War Manpower Commission, and the Civil Service Commission.

In November 1943 the office of Chief Clerk was abolished and an Administrative Division established with a commissioned officer in charge responsible to the Administrative Assistant to the Supervisor. There again was no basic change in functions, but the

officer in charge of the Administrative Division was delegated more responsibility than had been given to the Chief Clerk, thus freeing the Supervisor and his Administrative Assistant of considerable detail.

After separation from the Navy Yard, this activity handled officer personnel matters directly with the Bureau of Naval Personnel and the Thirteenth Naval District Headquarters. Until April 1944, the Administrative Division had responsibility for officers on duty in Tacoma in connection with the completing and fitting-out of vessels under construction. This responsibility was assumed by the Commissioning Detail with the establishment of that activity, unquestionably a more logical and effective arrangement.

The general organizational setup of the Supervisor of Shipbuilding, Tacoma, is shown on charts included in this report.* The policy of the Supervisor was to delegate complete responsibility to subordinates as quickly as they were able to assume it. The officers assigned to the Supervisor's office consisted mainly of Naval Reserve personnel. The following statement made by Capt. McGuigan at the conclusion of the war evaluates their services: "It is the Supervisor's opinion that this organization functioned as effectively as it would have with Regular Navy personnel. The manner in which the Reserve personnel learned their duties and assumed responsibility thereof was admirable.**"

*See Appendix, pages 29-32, for organization charts.

**See Appendix, page 33, for photo of SupShip naval personnel.

The first Wave officer reported in August 1943 for assignment to duties as officer in charge of the Administrative Division, being directly responsible to the Supervisor's Administrative Assistant. Two additional Wave officers reported shortly thereafter. In December 1944 it became increasingly evident that it would be necessary to supplement the civilian clerical force supply, so a complement of enlisted Waves was requested. In February 1945 ten enlisted Waves reported for duty as Yeomen and Storekeepers. This effectively alleviated the situation, and the Waves were retained on board for the duration of the war.* At the conclusion of the war, the Supervisor sent this message to the members of the Women's Reserve on his staff: "Your willingness and skill in performing your duties, your loyalty to the Navy, and your adaptability in adjusting yourselves to the exigencies of duty at this station have been consistent with the highest traditions of the naval service."

Two of the most effective administrative aids in the solving of numerous administrative problems were the publication of a series of office memoranda and the instigation of regular Monday morning conferences. The office memos issued instructions and directives on such topics as correspondence, office organization, trials, test procedure, plan handling procedures, shortage lists, etc.** All naval and civilian personnel received copies and were required by the Supervisor to be familiar with the contents.

*See Appendix, page 34, for photo of SupShip Wave personnel.
 **For examples see Appendix, pages 35-34.

In order to coordinate administration of this activity, the Supervisor held Monday morning conferences with attendance required of officers in charge of the various SupShip sections, all Prospective Commanding Officers, department heads of the lead ship, representatives from the Commissioning Detail, and key contractor officials. These conferences did much to secure a mutual understanding of problems and a successful solution for such problems. Minutes of the conference proceedings were given wide distribution.*

In November 1944 this activity put into effect the Navy Management Program. Complete statements of missions, tasks, and standards of performance were prepared by each person on board. It was the duty of the Administrative Division to re-evaluate periodically the statements and to keep them consistent with current assignments. The Navy Management Program was a valuable aid in clarifying duties and responsibilities.

In the administration of his duties, the Supervisor naturally became involved in general production problems of the Todd Pacific organization. Shortly after he reported to Tacoma, Capt. McGuigan, in a letter to the Navy Department reviewing the conditions at the Todd yard, advised the Bureau of Ships that the production schedule could not possibly be met. It was emphatically stated that the equipment needed improvement and that the contractor's organization needed bolstering before estimates of future ship deliveries could be based on performance rather than on optimistic hopes. The con-

*See Appendix, pages 65-68, for example of weekly conference minutes.

tractor made a study, in conjunction with the Supervisor and able personnel from the Navy Yard Puget Sound, of shop layouts, facilities, and estimates. As a result of the survey, the following results were obtained:

- (1) Establishment of an outfitting department for the completion of ships after launching
- (2) Establishment of a facilities development program
- (3) Establishment of the position of ship superintendent for the coordination of all craft
- (4) Establishment of a production planning department
- (5) Establishment of procedure for the improvement of all welding activities
- (6) Establishment of a policy for the maximum use of written procedures and instructions

A resultant change in the management and general organization in the Todd yard improved the situation and the productivity of the company. The industry of company employees was always of paramount interest to the Supervisor. Keeping informed by inspection and records, Capt. McGuigan conferred constantly with the presiding officials of Todd Pacific on this important factor.

As an example, improvement to the Pipe Shop operation was initiated by the Supervisor's office which requested the Bureau of Ships to furnish competent guidance. This was done through the Blaw Knox Company who entered into a contract with the contractor for joint engineering services and prefabrication production. The principle involved was to extend prefabrication, thus eliminating

individual ship construction on the ship and allowing the Pipe Section to become a leading rather than a following craft.

The Supervisor took an active interest in transportation problems. Since the Todd plant was entirely dependent upon motor transportation for its 28,177 peak load of employees, a great traffic congestion resulted. With the aid of city and contractor officials, the exodus from the day shift, with a maximum of about 13,000 workers, was handled effectively in less than thirty minutes after the close of the shift.

Inspection Division

The Inspection Division was originally organized as three separate sections. One officer was in charge of the ways and two other officers divided the responsibilities for outfitting by assignment to alternate hulls. Under the jurisdiction of each of the three officers was an assisting force of approximately eight civilian inspectors and one stenographer. These Inspection Officers operated independently of each other and so reported to the Supervisor. Separate portable field offices were occupied by the three sections.*

After approximately a year's operation and upon the detachment of one of the officers, the Supervisor consolidated the three inspection divisions, placing in charge a Senior Inspection Officer and an Assistant Senior Inspection Officer who reported to the Supervisor on items of production and to the Administrative Officer on personnel matters. Central and unified Inspection Office headquarters were eventually set up in Building 80. The Inspection Division was then subdivided into several outfitting sections and a ways section with each section headed by an inspection officer who had under his supervision a group of civilian inspectors of various crafts. Each outfitting group followed the complete inspection of a particular hull from launching to commissioning.**

This arrangement, while an improvement on the former decentralized system, required an inspector to cover all of the work of a

*See Appendix, pages 69 and 70, for example of inspection assignments.

**See Appendix, pages 71 and 72, for example of inspection assignments.

craft on a particular ship. As an illustration, it was necessary for a pipefitter to be familiar with and to cover all piping systems aboard ship and to maintain cognizance of multitudinous alterations. The inspection officer in charge of a ship was required to be cognizant of all crafts.

Neither the original nor the revised organization adapted themselves to stabilized inspection standards nor to thoroughness of detailed inspections. This conclusion prompted a further revision in the outfitting section of the division by segregating the personnel according to craft and placing an inspection officer in charge of a particular craft.* Personnel of the various crafts were then assigned to specific tasks and held responsible for all ships instead of for the entire range of crafts on every third or fourth ship. It was generally agreed that a more harmonious and thorough functioning resulted from the final organizational arrangement.

The nucleus of the civilian Navy Inspectors was made up of specialized craftsmen transferred from the Navy Yard Puget Sound with a CAF-7 Civil Service rating. Supplementing of this force was a slow process with the general caliber of the new employees lower than desired. It is felt that one of the chief contributing factors was the differential in remuneration offered by commercial employers and the Navy. At the peak of employment, about September 1944, 47 civilian inspectors were employed with 12 naval officers.

*See Appendix, pages 73 and 74, for example of inspection assignments.

on duty in the Inspection Division.

Originally, upon the completion and acceptance of a test by a naval inspector, a "rough" (PSNY 5-20-44 5M)* would be prepared by the inspector and forwarded to the recording division of the Inspection Section. The information would then be typed by clerks on form 193-10M** and returned to the cognizant field office for the inspector's signature. The recording division made the proper distribution and logged completed tests in the separate hull record books. Later, this system was discarded and Form 528*** substituted. This form was prepared by the contractor prior to a machinery, piping, electrical, or hull structural test or inspection. Data sheets, if applicable, were attached to the cards. Form 528 also required the signature of the contractor as well as of the inspector.

In the fall of 1943 it was mutually agreed upon by the contractor and the Inspection Division to institute the use of an Exception Card, Form 222#. The primary purpose of this card was to expedite the final acceptance of machinery upon the completion of testing. Frequently, tests were held up for minor deficiencies such as missing label plates, mounting screws, etc. With the improved setup, a unit would be accepted subject to subsequent corrections of minor deficiencies as listed on the Exception Card.

Naval inspectors were subject to call by the contractor during the normal working period to make inspections upon completion of an

*See Appendix, page 75.

**See Appendix, page 76.

***See Appendix, page 77.

#See Appendix, page 78.

installation. To alleviate the difficulties of inadequate notice to inspectors and confliction of test schedules, the Supervisor required the contractor to submit notification of all tests prior to 1300 on the preceding day*. This notification enabled the inspector to plan his work intelligently and correct any conflicts in his schedule. Copies of test notifications were sent also to the Commissioning Detail and to ship's force.

When a ship became the lead ship in the yard, the Senior Inspection Officer met with the various heads of departments of that ship's force to review the functions and aims of the Inspection Division. Directives such as Office Memo #24 and #25**were issued in order to clarify procedures. In general, the Senior Inspection Officer was charged with the maintenance of liaison between the Supervisor and the ship's force on all construction items. Following the commissioning of a vessel, daily meetings were held on board the ship until its departure by the Inspection Division and heads of the ship's departments to discuss outstanding and unsatisfactory items of work.

Under the original decentralized organization, each Inspection Officer discussed independently with the contractor his problems. Upon the consolidation of the original three Inspection Sections, weekly meetings with the contractor were instigated for each craft. Attendance at these meetings included the craft superintendent, craft chief engineer, chief test engineer, chief operating engineers,

*See Appendix, page 79.

**See Appendix, pages 49-54.

craft inspection officer, and the Senior Inspection Officer. Such topics as plan confliotions, practices, progress, procedures, and complaints were discussed.

Some difficulties with standards were experienced at this activity, due primarily to the fact that contractual requirements incorporated both Navy standards and good commercial practice. To improve this condition, the Supervisor directed that the applicable plan would take precedence in the event that a conflict existed.

The relationship between this activity and the Inspectors of Naval Material left much to be desired. For some time the INM inspection was a constant source of controversy with the local contractors since it was their contention that any item bearing the INM stamp precluded the need of local inspection. After discussion with the local INM activity, it was concluded that the work load of the INM was such that it was impossible for them to render "process" inspection. Local experience definitely indicated the necessity of repeated inspection at this activity.

Technical Section

Shortly after the arrival of Capt. McGuigan as Officer in Charge, a technical section was organized to handle the increasing quantities of technical details and plan changes. An Associate Marine Engineer (P-3), the first to report for assignment to the new section, arrived 1 September 1942. The following month an Officer in Charge was appointed, then the following Civil Service personnel were transferred from the Navy Yard Puget Sound: an Associate Mechanical Engineer (P-3), two Associate Naval Architects (P-3), and an Associate Electrical Engineer (P-3). An Assistant Technical Officer, who reported in June 1943, was given the responsibility of ordnance and ordnance inspection. In September 1943 another officer was added to the technical staff and given cognizance over electrical matters and general technical work in the small yards.

The functions assigned to the Technical Section soon after its organization were as follows:

- (1) To handle technical correspondence and issue suitable instructions to the builders and to the inspection divisions of the activity.
- (2) To review for the Supervisor new plans and plan changes submitted by the contractor as a result of Bureau or local directives on such matters as interferences, material changes, etc.
- (3) To act as advisers in technical matters to the Supervisor and contractors.

- (4) To assemble and distribute plans and instruction booklets.
- (5) To assist contractors in inclining experiments and preparation of necessary data.
- (6) To handle all matters pertaining to allowance lists prepared by the contractors or design agents.
- (7) To prepare all technical records, correspondence, and certificates required for the trial and delivery of vessels.

As cognizant departments in the Supervisor's organization were formed, items (6) and (7) were deleted from the Technical Section's duties. The following functions were later added:

- (8) To prepare and maintain card files on authorized alterations for use by the Trial Board and Completion Officer.*
- (9) To examine purchase orders for shipboard materials to check compliance with plans and directives before approval by the Supervisor.

In the work of the Technical Section, several major problems arose. One of the most serious was the fact that the design agent for two classes of major vessels was located on the opposite side of the continent; this led to delays in correspondence and plan work. There was, of course, no way to overcome this difficulty completely although the forwarding of advance notices of changes by the design agent and the presence of a design agent's representative in the Tacoma yard alleviated the situation to some degree.

*See Appendix, page 80.

The subject of last-minute changes in design requested by Prospective Commanding Officers became eventually a major problem. Aids in the solution of this problem were directives issued by the Bureau of Ships limiting the amount of work to be done at the PCOs request, the establishment of a policy by the Supervisor that the local Commissioning Detail must concur with the necessity of the PCO's request, and the issuance of such directives by the Supervisor as Office Memoranda #24 and #25*.

The result of the rapid changes in methods of naval warfare, enormous quantities of authorized alterations flooded the Technical Section and the contractor's planning and production departments. It was apparent that all of the alterations which were authorized by the Bureau could not be accomplished on any one ship under construction if the vessels were to be completed according to schedule. A plan was devised at this activity whereby a ship design would be "frozen" to alterations on a certain date prior to delivery and that only vital alterations where a delay in delivery was allowable would be accomplished after the freezing date.** The applicability of each alteration could therefore be determined quickly and be included in the alteration notes on the plan, thus eliminating a great deal of confusion in the yard and simplifying record-keeping.

Throughout the entire existence of the Technical Section, the Supervisor of Shipbuilding and the various departments of his office relied upon the Technical Section for advice and assistance on tech-

*See Appendix, pages 49-54.

**See Appendix, page 49.

nical and allied matters. The Technical Officer was granted authority by the Supervisor to approve plans or plan changes except those of the most vitally important type, such as permanent ballast plans, and to sign all technical correspondence with the exception of that dealing with office policy, criticism of the contractor or naval activities, and correspondence of especial significance to the Bureau of Ships. Although the Technical Section was small, it was able to check closely all plans and proposals submitted by the contractors and sub-contractors under the jurisdiction of this activity. Much time and government money were saved by this check, not only in actual mistakes discovered, but in the knowledge that their work was being reviewed, the contractors were led to check more closely themselves before submitting plans and proposals for approval.

The Technical Section worked in close cooperation with the contractor's engineering department. Few conflicts of an important nature developed during the dealings between offices, and these were quickly settled, usually by the Supervisor. The fact that the Supervisor's Technical Section was located in a building directly opposite the contractor's main offices and engineering department contributed greatly to the facility with which matters could be discussed and problems settled. By reason of the previous naval shipbuilding experience of most of the personnel of the Technical Section, the contractor's engineers were inclined to seek the advice of these men rather than to resent their comments and criticisms. In dealing with ship's personnel, every effort was made to assist

them in their problems. Frequently the ship was able to report errors in planning or improvements that could be made which were then taken up with the proper authorities. The strong policy of the Bureau in regard to alterations requested by the ship was a great aid in limiting the proposals of alterations not based on military necessity.

A close contact was maintained between the Technical Section and the Navy Yard Puget Sound planning section which proved of considerable value to both parties, particularly when the Navy Yard acted as the design agent for the CVE 6 class. It was the policy of this activity to invite Bureau and other specialists to come to the yard for purposes of improvement of methods and practices here and for the technical information to be gained. Specialists in vibration, ship design, welding, casting, radiography, and ventilation provided the principal technical assistance to be furnished to this activity.

Only items considered of major importance were taken up with the Bureau of Ships because of the delays involved due to the distance separating the two activities and the vast quantity of correspondence handled by the Bureau. Telephone calls to the Bureau were seldom made and then only if the issues were vital and needed immediate action. In compliance with office policy, no action was taken directly with the design agent unless the design agent was another naval activity. Such an activity was the Navy Yard Puget Sound, and in this case very close liaison was maintained between the Navy Yard and this activity. By means of direct tie lines between the

telephone switchboards at the two activities, problems could be discussed frequently and suitable action taken directly. Frequent visits were made by both activities, which aided greatly in the design and construction of ships in this yard.

In most cases minor changes in design were accomplished by the shipbuilder upon approval of the Technical Officer without reference to the Bureau or the design agent, who was later furnished an altered print showing the change. Major changes were referred to the SupShip in charge of design or to the Bureau of Ships; e.g., elimination of interferences, corrections to dimensions, improvements in arrangements, etc., were made locally; while compartmentation problems, problems regarding the strength of the ship, stability, etc. were taken up with BuShips or the SupShip in charge of design. Occasionally it was necessary to depart from this practice to avoid delaying delivery of a vessel. For example: (1) Fuel oil piping and fire mains were revised locally for AV 17 to provide a workable system without delay in delivery. (2) Wireways were designed locally for AD 26 and CVE 105 classes to prevent delay in delivery resulting from tardy delivery of plans from the design agent. (3) Rocket stowages for the CVE 105 class vessels were designed by the contractor to accomplish the work on the earliest ships possible. In the above examples, as well as in every other similar case where this office approved large scale plan changes, urgency was the reason. When such action was taken, the Bureau and the design Supervisor were notified by correspondence and furnished copies of the altered plans.

Of the records kept and directives issued by the Technical Section,

it is felt that the following, included in the Appendix of this report, were of particular value:

(1) Office Memos:

Inspection Items, Freezing Schedule - #24*

Completion of Vessels - #25**

Plans and Instruction Booklets - #26***

(2) Card index of Bureau authorized alterations to facilitate preparation of trial and departure reports.#

(3) Advance notices of change -- rough sketches providing advance information to the contractor's production sections prior to revisions of plans.##

(4) Engineering memoranda issued by the contractor's engineering department in collaboration with the Supervisor's Technical Section.###

* See Appendix, pages 49-51.

** See Appendix, pages 52-54.

***See Appendix, pages 55-64.

See Appendix, page 80.

See Appendix, page 81.

###See Appendix, pages 82-85.

Facilities Section

In order to present, in brief, the scope of the work of the Facilities Section of the Supervisor of Shipbuilding, Tacoma, and its general problems, the following statement of missions and responsibilities of the Facilities Officer is quoted:

"To administer facilities contracts placed by the Navy Department with Todd Pacific Shipyards Inc., Tacoma, Washington, to insure proper accountability, use, and maintenance of government owned facilities by:

- (a) Investigating and approving or rejecting routine maintenance proposals exceeding \$500; action on other than routine items will be referred to the Administrative Assistant for such action as is deemed appropriate.
- (b) By continuous periodic surveys of tools, equipment, and civil works.
- (c) By checking of maintenance, damage, and accident reports.
- (d) By requesting the contractor to establish, amplify, or change procedures covering such surveys as necessary in accordance with the terms of the contract, Navy Department directives, or good business practice.
- (e) By reporting damage to Navy owned facilities to BuShips in accordance with contract or insurance requirements and Bureau directives.
- (f) By maintaining liaison with Civil Works Engineer as regards the civil works facilities items.

(g) By cooperation with Thirteenth Naval District Security Officer on additions to or changes in facilities from the standpoint of safety or fire protection.

(h) By cooperation with the Navy Cost Inspector and contractor's personnel on proper charging of facilities and maintenance costs.

(i) Through maintaining proper accountability of Navy owned property procured under Facilities Contract NObs-779, 10-299 or 10-399 accounts, or transferred from other activities.

(j) By periodically checking the use of warehouses to insure maximum and economical use.

(k) By checking meter installations, rates, and use of water and electricity.

(l) By being responsible for fire protection, air raid precaution, fire fighting, and fire prevention.

"To procure additional facilities required to further the war effort:

(a) By checking and investigating all requests for additional facilities.

(b) By clearing requests for additional facilities with Administrative Assistant and taking such action as is deemed appropriate.

(c) By checking and approving (or also disapproving) purchase orders or shop orders covering routine requests for expendable tools, portable equipment, special tools, jigs.

fixtures, etc.; other than routine items will be referred to as those for action as is deemed appropriate by the Administrative Assistant.

(d) By securing transfer of needed facilities available at other activities; other than routine items will be cleared with Administrative Assistant.

(e) By making progress or other required reports and forwarding to BuShips copies of facilities purchase orders, shop orders, and revisions of such orders.

"To dispose of surplus or idle facilities:

(a) By surveying and reporting idle tools and equipment to the Bureau and to MRDO and NMR&DA.

(b) By shipping such idle tools and equipment on the disposition instructions received from the Bureau or MRDO through cooperation with the Navy Cost Inspector and the contractor.

(c) By transferring accountability records and invoices to receiving activities for those items disposed of.

(d) By approving or disapproving routine loans of Navy owned equipment and property, basing decision on net gain to war effort.

(e) By conforming with Joint Termination Regulation and other directives involving facilities on termination of contracts."

In constructions of a major nature such as piers, warehouses, launching ways, etc., approval was obtained from the Bureau of Ships.

The actual supervision of such construction was directly under the Bureau of Yards and Docks, which also passed on the plans and specifications. On such construction the Bureau of Yards and Docks had a field representative on the job. On construction of minor nature, after approval by the Bureau of Ships, plans and specifications were submitted to the SupCE VII District for approval prior to the beginning of work.

In matters pertaining to fire protection and security, the Security Officer from the Thirteenth Naval District was contacted periodically to make with the Facilities Officer and contractor's representatives inspections of the yard. Minor recommendations of the Security Officer, if sound, were authorized by the Supervisor and accomplished by the contractor. In recommendations involving expenditures of considerable amounts of money, recommendations were referred to the Bureau of Ships for approval.

The Facilities Officer, in performing his duties, used the services of the Supervisor's Technical Section for consultation in matters of a technical nature that arose in the administration of facilities.

Facilities meetings, which were attended by the Facilities Officer, Navy Cost Inspector, and the contractor, were held for the discussion of problems of both technical and accounting natures and were resolved in agreements reduced to writing.

Contract NObs-779, dated as of 21 September 1942, was awarded the Seattle-Tacoma Shipbuilding Corporation (Tacoma Yard) and provided for the acquisition, construction, and installation of ship-

building facilities at true cost. The estimated cost of the facilities to be furnished by the contractor and reimbursed by the Government as provided in Schedule 2 of the contract was \$6,503,000.00. By amendments Nos. 1, 2, and 4 of the contract, the estimated cost was increased to \$8,249,347.00.

Articles of incorporation for the Seattle-Tacoma Shipbuilding Corporation were filed with the Secretary of State for the State of Washington on 7 July 1939. Initial capital consisted of 1500 shares of paid in common stock at a par value of \$100.00 per share. Shipyard operations were started at Seattle and Tacoma, Washington, under separate divisions known as Seattle Division and Tacoma Division, respectively. In Tacoma, approximately 50.6 acres of water front were leased from the Todd Dry Docks Corporation of Seattle, Washington, and on this acreage the contractor constructed with his own capital certain improvements including two shipways. Effective 1 June 1944, the Articles of Incorporation were amended to change the corporate name to Todd Pacific Shipyards Inc., Tacoma, and all contracts with the contractor were amended accordingly.

On 10 October 1939 the corporation signed contracts MCo-466, MCo-467, MCo-468, MCo-469, and MCo-470 with the U. S. Maritime Commission for five single screw C-1 cargo vessels. All of these vessels were delivered to the Maritime Commission. Another series of contracts MCo-1062, MCo-1063, MCo-1064, and MCo-1065 for four C-3 cargo vessels were signed on 30 September 1940. Two of these vessels were completed at the Tacoma yard as troopships and two were subsequently transferred to the Navy Department and completed

as auxiliary carriers under NObs-180. Contracts MCo-1188 and MCo-1189 signed on 30 September 1940 for two C-3 cargo vessels were also diverted to the Navy Department and completed under NObs-180. The corporation's first major contract with the Maritime Commission for 50 C-3 cargo vessels was signed on 10 May 1941. On the same date the Maritime Commission approved the first facilities contract for \$3,975,000.00. This facilities program was expanded on 8 December 1941 by an additional \$3,595,400.00 under contract MCo-1951. On 3 March 1941 the first Navy Department contract, NOd-1760, for five gasoline tankers was signed with the corporation.

Due to the entry of the United States into war on 8 December 1941, the original plans of Maritime Commission contracts MCo-1065, MCo-1188, MCo-1189, and MCo-1516 were modified to substitute 33 aircraft escort vessels for the 33 cargo vessels. Under an arrangement with the Navy Department, the Maritime Commission, on 30 April 1942, by letter to the contractor, cancelled these four contracts; and on 1 May 1942 the Navy Department and the contractor signed contract NObs-180 providing for the completion under Navy Department jurisdiction of the 33 aircraft escort carriers contained in the cancelled Maritime Commission contracts. In view of the preponderance of Navy ship contracts at the Tacoma plant, additional arrangements were made by the Navy Department to have the Maritime Commission transfer its facility interests and contracts to the Navy. Under this agreement the Maritime Commission relinquished its rights and obligations to the facilities at the Tacoma yard as of 30 September 1942, and the Navy Department took jurisdiction over the facilities

on 1 October 1942. The Navy Department letter of intent, dated 21 September 1942 was accepted 28 September 1942.

Under the letter of intent, the contractor was authorized to proceed with the completion of the facilities, the construction of which was initially provided for in the contract with the Maritime Commission, and with the acquisition, construction, and installation of certain additional facilities. The completion of the facilities originally authorized under the Commission contract are described in the contract as Schedule 2A facilities, and the additional facilities are listed as Schedule 2B. The contract also provides, in Schedule 1, that certain realty and equipment will be furnished by the Government. For the use of the facilities on cost-plus-fixed-fee contracts, the contract provides for a rental rate of \$1.00 per year beginning 1 July 1943.

Facilities furnished the contractor under Contract NObs-779 are evaluated as follows:

1. Schedule 1. Facilities (furnished by Government):

- (a) Realty.....\$350,000.00
- (b) Machine Tools..... 102,847.00

2. Schedule 2A. Facilities (furnished by contractor, paid by Navy):

(a) Facilities originally authorized under Maritime Commission contract DA-MCo-12:

- (1) Five building ways, outfitting berths, buildings, cranes, tools, and other facilities.....\$3,975,000.00

(b) Facilities originally authorized under Maritime Commission contract MCo-1951:

(1) Buildings, docks, yard development, and equipment.....\$3,595,400.00

3. Schedule 2B. Facilities (furnished by contractor, paid by Navy):

(a) Facilities authorized under Contract NObs-779:

(1) Structure, yard facilities, and equipment..... \$6,352,000.00

4. Total value of facilities on record.....\$15,374,747.00

The investment figures of the Navy in realty at Todd Pacific Shipyards Inc., Tacoma, are not available. It is not considered that the figure of \$350,000.00 in Schedule 1 above is entirely adequate, as the information from the Navy Cost Inspector indicates the price paid by the Maritime Commission for the Peterman property (Parcel A), land and buildings, was \$875,000.00. No information to date has been received from the Bureau for a breakdown of the cost between realty and improvements.

The facilities are located on 195.623 acres, divided in parts or parcels as indicated below:*

<u>Parcel or Part</u>	<u>Ownership</u>	<u>Average</u>	<u>Method of Procurement</u>
Part A	Todd Seattle Drydocks Corp.	50.600	Leased
Part B	Hooker Electro Chemical Co.	9.800	Leased

*See Appendix, page 86, for plot plan of Todd Pacific yard.

<u>Parcel or Part</u>	<u>Ownership</u>	<u>Average</u>	<u>Method of Procurement</u>
Part C	Todd Seattle Drydocks Corp.	33.600	Leased
Parcel A	U. S. Government	23.283	Court condemnation proceedings
Parcel B	U. S. Government	14.460	Court condemnation proceedings
Parcel C	U. S. Government	7.180	Court condemnation proceedings
Parcel D	U. S. Government	18.200	Court condemnation proceedings
Parcel E	U. S. Government	6.350	Court condemnation proceedings
Parcel F	U. S. Government	8.100	Court condemnation proceedings
Parcel G	U. S. Government	8.100	Court condemnation proceedings
Parcel H	U. S. Government	16.000	Court condemnation proceedings

Material Section

Originally the Material Section was organized as two separate branches, one having cognizance over contractor-furnished material and one over government-furnished material, each having direct responsibility to the Supervisor of Shipbuilding through the Administrative Assistant. In addition to this organization, there was also an Aeronautics Officer who had cognizance over all catapult and arresting gear material, and who likewise had direct responsibility to the Supervisor. Approximately in November 1944, the Material Section was consolidated, in form at least, under one officer having direct responsibility to the Supervisor. This reorganization did not affect the Aeronautics Officer, who retained cognizance over catapult and arresting gear material throughout the period covered by this report.

The reorganization of the Material Section resulted in the naming of the officer who had previously been in charge of contractor material as Material Officer over all material. Since this did not affect the actual functioning or direct duties of the two previous sections, they will be described separately.

The Material Officer, with the assistance of one other officer, maintained cognizance of contractor-furnished material. Major functions of this sub-section may be briefly described as follows:

- (1) Review, approval, and processing of purchase orders issued by shipbuilders.
- (2) Consultation with the Navy Cost Inspector, contractors, and Supervisor regarding the promulgation of

policies and procedures concerned with purchase orders issued by shipbuilders.

- (3) Rendering of assistance to shipbuilders in expediting contractor-furnished material.
- (4) Redistribution of Navy-owned surplus material.
- (5) Administration of CMP, WPB, and Navy Department regulations affecting the purchase of material by shipbuilders.

Personnel of this sub-section in addition to the two officers included four civilian clerk-typists, three engaged in processing, forwarding, and filing purchase orders and correspondence, and one engaged in the necessary filing, bookkeeping, and preparation of reports required by CMP.

The Assistant Material Officer, with the aid of another officer, maintained cognizance over government-furnished material for all shipyards under this activity. Major functions of this sub-section may be briefly summarized as follows:

- (1) To take all action necessary to insure the delivery of government-furnished material to shipbuilders as required for installation.
- (2) To maintain close liaison with shipbuilders regarding items to be government-furnished and their required delivery dates.
- (3) To maintain contact with the Bureau of Ships, Bureau of Ordnance, and Bureau of Aeronautics regarding the procurement of government-furnished material.

- (4) To promulgate procedures for the receipt and handling of government-furnished material by shipbuilders.
- (5) To issue authority to shipbuilders for the reassignment or reshipment of government-furnished material.
- (6) To certify invoices received for GFM.
- (7) To accomplish government bills of lading and to handle claims for overages, shortages, damages, and defective material.
- (8) To issue government bills of lading on outgoing shipments and to handle incidental traffic problems.

In addition to two officers, personnel of this sub-section included twelve civilians -- clerks, typists, stenographers. Two of these were engaged in maintaining a Kardex file on which was entered all information regarding shipping date, bill of lading, date received, any transfer of equipment, as well as all outgoing and incoming correspondence regarding such material.* One was engaged in certifying invoices as to receipt of material and in preparation of reports and correspondence on overages, shortages, damages, and defective material. One was engaged in the accomplishment of government bills of lading. One was engaged in maintaining files of contracts covering GFM and in obtaining from the Bureau of Ships or Inspectors of Naval Material detailed lists of

*See Appendix, page 87, for example of Kardex.

material to be furnished thereunder and in furnishing such information to the shipbuilder for inclusion in allowance lists. One was engaged in maintaining files of shipment orders issued by the various bureaus and in accomplishing such orders upon the receipt or shipment of material; this same person also kept files on bills of lading issued by this activity.

Two civilian employees were stationed in the warehouse of Todd Pacific to supervise and render assistance in the identification, receipt, and handling of GFM and to forward daily to the Assistant Material Officer reports of GFM received. One acted as secretary and general assistant to the Assistant Material Officer as well as general supervisor of other civilians in this sub-section. The above described civilian personnel were engaged in work involving material for the Todd Pacific Shipyard only. The three remaining persons in this sub-section were assigned to the same type of work pertaining to material for the various yards building small craft.

It is considered that the major function, and, hence, the major problem of the Material Section was insuring the delivery of material at the time required for installation or placing aboard a vessel and the securing and proper dissemination of all possible information regarding scheduled or anticipated delivery dates. The expediting of contractor-furnished material was left largely to the shipbuilder, but with considerable aid lent by this activity when required. All expediting of GFM was done by the Material Section. To provide the shipbuilder with adequate information regarding shipments and delivery of GFM, the contractor was allowed daily to

peruse all advance shipping papers received and was furnished daily with copies of all correspondence giving expediting information.

This activity required the shipbuilder to supply weekly a shortage list of items not received for the lead ship, complete with all expediting information. The Material Section likewise prepared weekly a similar shortage list of all government-furnished items short for the lead ship. Information on these two lists was made available to all interested parties; e.g., the Inspection Officer and the Progress and Trial Board Officer of this activity.

Similar shortage lists, complete with allowance-back reference, were required: (1) 40 days prior to the completion of a ship, (2) as of the date of the official trial, (3) as of the date of a ship's departure, and (4) as of 30 days subsequent to the ship's delivery.* These lists were likewise made available to all interested parties, including the ship involved; and the last-named list was designed to furnish the vessel with all information regarding material received since its departure and action taken to forward material to it. While no further shortage lists were furnished the vessel, the Material Section, at frequent intervals, took action to forward late delivery material on to a vessel; and in each instance the ship was furnished with full shipping information, including copies of packing lists, on all material sent to reshipment points.

*See Appendix, pages 47 and 48, for SupShip Tacoma Office Memo #23.

A major problem of this activity was the furnishing of material for ships begun or scheduled for building at Todd Pacific but subsequently diverted to other shipyards under cognizance of Supervisors of Shipbuilding in Portland and Seattle. This problem was complicated by further re-designation of ships to be diverted. To insure the proper delivery of material, conferences were called between this office, Todd Pacific, and the shipbuilder and Supervisor involved in each case. A determination was then made as to which material might best be received at Tacoma then transhipped, and which might best be rescheduled for delivery direct to the yards to which vessels were diverted. The other yards then furnished this activity and Todd Pacific with schedules showing required delivery dates for all material. Material received at this activity was then forwarded at the proper time, and manufacturers and Inspectors of Naval Material were advised of material to be shipped direct. To maintain control of material, this activity was furnished daily with lists of material received at other yards for diverted vessels and likewise furnished to other yards lists of material received locally for diverted vessels. This helped to keep misassignment and duplication of material at a minimum.

Another major problem faced by this activity was brought about by the fact that the design and purchasing agent (Gibbs and Cox) for Todd Pacific Shipyards Inc., was located some 3000 miles from this yard. This led to serious complications regarding the scheduling of material, the coordination of CMP functions, and the utilization of surplus material at this activity. While the Material

Section of this activity cannot claim full credit for the settlement of this problem, it did play an active and major part. At conferences held September 1943 with representatives of BuShips, SupShip New York, Gibbs and Cox, Todd Pacific Shipyards, and SupShip Tacoma, these questions were resolved and largely eliminated in a coordinated procedure. This procedure was subsequently promulgated on 27 September 1943 as BuShips CMP Directive No. 37.

It is felt that the Controlled Materials Plan was the best system of control tried. The instigation of CMP guaranteed to the contractor the maintenance of high priorities previously enjoyed up to that time, and thus greatly facilitated the procurement of material and the construction of vessels. The ultimate benefit to the Navy in overall planning was reflected in proportionate quantity at this activity. Also the directive authority of WPB as requested by BuShips was of material aid to this yard in several critical emergencies.

Other great aids in the orderly procurement of material were: (1) BuShips Component Percentage Schedule, (2) BuShips Schedule of Ship Piping System Items, and (3) BuShips Schedule of Navy Type Cable. Also of great value were BuShips orders and scheduling directives on rope and cordage, canvas, fiberglass, etc. It is felt that these systems of control eventually evolving were of untold benefit to the individual shipbuilders.

The procurement and scheduling by BuShips of government-furnished material was also, of course, of great aid. Especially valuable in this regard was the list of government-furnished material for AD26-30,

prepared by Code 5817. The care with which this list was prepared and kept up to date should not go unnoticed.

Of the records instigated by the Material Section, it is believed that the Kardex system for the control of government-furnished material was perhaps the most valuable.* Under this system a card was prepared for each item of material for each vessel. These cards were filed in numerical sequence, according to the Navy Filing Manual "S" number applicable to the material, in separate drawers for each vessel. The cards provided for inclusion of information regarding: (1) source of material, (2) contract number or shipment order applicable, (3) scheduled shipping date, (4) actual date shipped, (5) date received, (6) bill of lading on which shipped. There was also space for the notation of incidental information such as the transfer of material from one ship to another. On the reverse side of the card was space for the recording of correspondence and dispatches sent and received in the expediting of the item. This system thus provided for the speedy determination of the exact status of each item of government-furnished material.

*See Appendix, page 87.

Allowance and Fitting-out Section

The need for an allowance section did not become apparent until the beginning of construction of the CVE 31-54 class of vessels. Prior to this time, all fitting-out and allowance work had been performed by the Navy Yard Puget Sound. The attempt at organization ran into many difficulties, and it was decided that the technical section of the office of Supervisor of Shipbuilding, Tacoma, was much too small to assist in the preparation of allowance lists.

After a series of conferences with contractor personnel, some of which were attended by BuShips personnel, it was agreed that the contractor would designate a man from each section of the Engineering Department of the contractor to be responsible for compiling all allowance list data from approved plans, spare parts lists, specifications, purchase orders, and other sources. It was further decided that an allowance section would be formed in the office of the Supervisor, the head of which would act as a coordinator of all the above information. To him was assigned a staff of typists for the actual work of preparing carbon back allowance sheets. To further supplement the information provided by the various groups in engineering (electrical, piping, hull fittings, machinery, etc.), and in order to keep the allowance lists up to date with material being received, the stores receiving section was required to maintain an allowance check-off list and report immediately any variations between the allowance list and materials actually being received. In many instances the first knowledge

of actual detailed listings of spare parts was obtained from the packing lists which accompanied the material. In all the foregoing, the instructions contained in Group L7 of the Master Allowance List and the Master Allowance List itself were used as guides.

At a later date this activity was designated as the agent to prepare group allowances for various types of small craft. Again an insufficient number of technical personnel was the main problem. An arrangement was finally worked out whereby each yard constructing small craft would, upon being furnished two blue-line copies of the key allowance list, mark up one copy to show material required and report any differences between requirements and actual receipts. As the great part of the material for small craft was purchased by one central purchasing activity, the variations were not so numerous that they could not be handled by the Supervisor's office. The variations were all investigated and changes made where necessary.

The fitting-out section came into being, along with the allowance section, with the construction of CVE 36. Previously, all fitting-out was performed by Navy Yard Puget Sound. The system first devised for the assembly and loading of stores was to deliver all material to the vessel's personnel who would segregate material by storerooms and departments in the order in which it was to be loaded. The shipbuilding contractor would then advise the Supervisor as to when various storerooms and spaces were available for loading. Material would then be delivered alongside the vessel by truck, and deck whirleys would be used for placing material aboard; further distribution aboard ship would be made by use of hand and

motor fork-lift trucks where possible. This system was found to be unsatisfactory insofar as loading was concerned, so it was decided to allow the contractor to complete construction before starting the loading program.

This made necessary the provision of a separate dock apart from the rest of the yard for commissioning and fitting-out operations. Such a dock was built at a point adjacent to the warehouse used for the assembly of allowance list and GSK Material.* Office space for the three leading ships was set up for the prospective supply officers, and large bays assigned to each ship for the assembling of material. An ingenious dock elevator was designed and constructed at the commissioning dock which provided a lift capable of elevating a loaded truck to the flight deck. Access of the truck to the hangar deck was made possible by the use of the carrier's two airplane elevators. A photograph of the loading elevator is included in the Appendix of this report.** After construction of the commissioning dock and the elevator, loading time was reduced by two-thirds.

*See Appendix, page 86, for location.

**See Appendix, page 88, for photo of loading elevator.

Contract and Contract Termination Section

When the office of Supervisor of Shipbuilding, Tacoma, was created, the chief work of the Contract Section was adjudication of contract changes and handling of progress payments. The earlier work in 1942 and 1943 was accomplished by the Supervisor of Shipbuilding, Seattle, who had maintained all of the early contract records. After the creation of Supervisor of Shipbuilding, Tacoma, a contract change section was organized. A system of records on contract changes and contract payments was set up and various procedures were instituted for handling all contractual matters.

In April 1944 the work of this section was handled by the Progress Officer, who instigated a more complete system of record keeping. In February 1945 a new officer was assigned as Contract Officer and the following revised procedure was adopted for the adjudication of changes with cost-plus-fixed-fee contractors:

- (1) Agreement was reached with the contractor as to basic wage rate and overhead rate to be used.
- (2) The contractor prepared detailed written estimates of the change in cost involved and submitted them informally to the Contract Officer for consideration.
- (3) The Contract Officer discussed the estimate submitted with members of the Technical Section with respect to reasonableness of cost, extent of accomplishment on each vessel, and any technical engineering problems involved.
- (4) After the Contract Officer and the Technical Section had thoroughly analyzed the estimate submitted, an informal

agreement was negotiated with the contractor as to the amount of change in cost involved. The detailed written estimates were then returned to the contractor for his files.

(5) The contractor then wrote a formal letter to the Supervisor setting forth his willingness to adjudicate the change on the basis of the informal agreement which had been reached. Based on this letter a memorandum of adjudication was prepared and executed.

The nucleus of the Material Redistribution Section, which was to play such an important role in contract terminations at the close of the war, originated with the Material Section. In the earlier days, material surpluses were not recognized to be a major factor; however, by September 1942 one officer was assigned to that work for operation within the realm of the major CFFF contracts with Todd Pacific Shipyards. The major accomplishment was the reallocation of known surpluses to new requirements within the yard. By January 1943 it was determined that material surpluses were becoming a major problem and would require improved procedures. Accordingly, the prime contractor established a Material Redistribution Section which operated closely with the Redistribution Officer, and procedures for handling surplus were established. In March 1943 this section began to function, and shortly thereafter began to catalog these materials. These catalogs were distributed to various naval activities in the Thirteenth Naval District and to the Bureau of Ships. While this procedure resulted in some redistribution of material to other naval activities, the principal source of redistribution con-

tinued to be reallocation within the yard.

Early in 1944 the Bureau of Ships granted permission to ship surplus standard stock materials to stocking activities, which resulted in several carloads of material being so distributed. In late spring of the same year, the Bureau established a comprehensive plan for redistribution involving standard catalogued sheets and for the establishment of three levels of redistribution, local, District, and Bureau. This plan greatly clarified the plan of material redistribution and resulted in the disposal of larger amounts of surplus materials. This plan was superseded in September 1944 by a more complex procedure, which in turn has been continually superseded or altered by subsequent plans. Each subsequent procedure involved changes in forms and conflicting instructions, all of which have had a tendency to result in delays in certification of surplus materials. The Material Redistribution Section has succeeded in disposing of over \$7,000,000.00 worth of materials to date. Surplus arising out of contract terminations will greatly increase this figure.

Although nearly every prime contract CPFF was terminated in whole or in part during this three-year period, little attention was focused on the aspects of contract termination until the mass terminations of 12 August 1945. At that time the Contract Officer became known as the Contract and Contract Termination Officer and the staff was augmented to handle the termination work. The Material Redistribution Section was still retained as a function of the Material Officer. The following CPFF Contracts were in a terminated

status by the middle of August 1945:

- NObs-180 - 13 vessels transferred to other yards for completion
- NObs-776 - 1 AS cancelled
- NObs-924 - 5 CVE transferred to other yards for completion
- NObs-1390 - 1 AD transferred to another yard for completion
- NObs-1509 - 4 CVE cancelled
- NObs-1982 - 1 AV cancelled
- NObs-2068 - 4 CVE cancelled

On 1 September 1945 the fixed price contract NObs-1869 was cancelled involving five YTLs.

Although the great boom in the activity of the Contract Termination Section did not come until the close of the war, a brief summary of its activities is included in this report up to the present date of writing since the work of this section became the number one priority in the SupShip Tacoma activity.

In order to better control the functions and the responsibilities arising from termination, it was decided on 1 October to place the Material Redistribution Section under the supervision of the Contract and Contract Termination Officer. The Contract and Contract Termination Section was considerably enlarged, being staffed by three Lt. Commanders and three Lieutenants, plus civilian assistants. The Officer in Charge of Contract Termination was charged with the responsibility of coordinating all of the functions of contract work, contract termination directives and regulations, and material redistribution procedures. The Assistant Officer in Charge filled a dual function of handling contract changes and acting as Claims

Officer for terminations. The Material Redistribution Officer became the Property Officer and was responsible for inventory procedures and certifications for allocatability. Two Assistant Property Officers performed the certification responsibilities and handled the storage and shipment of surplus materials.

Inventory procedures under termination proved to be a major problem since there were several contracts involved in termination and two contracts which would continue in effect. This presented the problem of segregating active ships' material from termination materials. This condition was further aggravated by the fact that all material was not physically located at one point. Several warehouses in the yard were being utilized to hold the material, as well as several warehouses outside the yard. Each problem was solved individually through consultation with the Property Officer, Contract Termination Officer, and the contractor's representatives. As of this writing, a complete inventory has not been declared and it is not known the extent of the success of these procedures; however, there is still a certain amount of difficulty in properly identifying materials and providing a proper description as provided by the MRDO.

In an attempt to point out the chief problems which faced the Contract Section, the following are listed:

- (1) The lack of definite Navy policy with regards to the furnishing of material or services at a naval activity. Whenever material was furnished or services performed to a contractor by the Navy, the question always arose as to the

extent of contract adjustment that was in order. In almost every case, there was a difference of opinion between the naval activities involved as to the way the transaction should be handled; as a cash sale or as a change under the contract.

(2) The lack of knowledge by the Supervisor as to the basis of negotiation of the contract. Often it would have been of great assistance to the Supervisor if he could have had in his files a memorandum from the Bureau Contracting Officer covering the original negotiations.

(3) The constant changing of procedures of material redistribution greatly hampered the efforts of the Supervisor to dispose of surplus materials. It is felt that the problems of material surpluses should have been recognized at an earlier date and a uniform procedure adopted which would have resulted in the speedy redistribution of such materials. It is felt that the procedure established in May 1944 resulted in greater redistribution of material than any succeeding procedure. It is known that it was far easier to dispose of surplus under that original procedure and at a higher recapture price than under any succeeding procedure including procedures currently in effect.

(4) The Supervisor has been further hampered by the Bureau's requirements in reporting production and supply items and other special materials such as electrical fittings and cable. A more recent influence has been the requirement to

segregate the P&S items and report them by Bureau code number. The Supervisor feels that this is not economically feasible for a contractor to maintain such segregation of material stocks, and the requirement of reporting by these methods more than trebles the cost and labor of inventorying such materials.

Small Yards Division

On 10 July 1943 the five small shipbuilding yards in the Tacoma area with Navy contracts were transferred from the cognizance of the Supervisor of Shipbuilding, Seattle, to that of the Supervisor in Tacoma.* At the time of transfer, the naval and civilian personnel assigned to the work in the small yards were also transferred to the Tacoma Supervisor. Lt. Comdr. W. L. Barbee, USNR, of the Supervisor's staff, was assigned as Officer in Charge of the small yards with the transferred personnel of two naval officers, six civilian inspectors, and two clerks working under his direction. Shortly thereafter, one of the officers was detached and not replaced.**

Almost all of the supervisory work in the small yards was handled by the Small Yards Division except contract termination, price negotiation under mutual agreement, and material, which were handled by appropriate divisions of the Supervisor's general organization. The Small Yards Inspection Officer handled most of the technical work with advice and assistance from the Supervisor's Technical Section. Most of the official underway trials for the small craft were handled by a local Sub-board of Inspection and Survey appointed by the Supervisor.

At the time of transfer in July 1943, four small yards, Mojean, Martinac, Tacoma Boat, and Western Boat, were constructing wooden

*See Appendix, page 7, for authorizing letter.

**See Appendix, page 30, for organization chart.

YMSs, PCSs, and YTBs; and one small yard, Nelson Boiler, was constructing non-propelled steel lighters and barges.* In May 1944 contracts were awarded to three yards in Tacoma and one in Hoquiam for the construction of two 128 foot wooden refrigerated cargo vessels each, and in August 1944 a final Navy contract was signed with another Tacoma yard for the building of seven 65 foot small steel harbor tugs. In June 1945 the inspection of repair and conversion work on small vessels in Tacoma's small yards was assigned to the Small Yards Division under the cognizance of AIM, Seattle.

All small vessels were constructed in accordance with the Bureau of Ships plans and specifications as prepared by the respective design agents: Cox and Stevens, YTB and PCS; Gibbs and Cox, YMS; Gellow Inc., YTL; and Harbor Boatbuilding, YP. In December 1943 a local fitting-out system was set up at the Todd Pacific shipyard in Tacoma, under contract N406s-8877 with NSD Seattle, which proved to be of great benefit to all concerned. Upon completion and commissioning at the builder's yard, a vessel was moved to the Commissioning Dock at the Todd yard where a Todd crew installed and tested all confidential radar and minesweeping gear, accomplished outstanding ordalts, and completed, when possible, late authorized alterations. It was possible also to complete some minor pick-up work during the fitting-out availability. The ship's personnel profited by this arrangement in being able to stow properly all gear and stores, in being able to become more familiar with the

*See Appendix, page 5, for map showing location of yards.

operation of their vessel, and in smoothing out the ship's organization before reporting to the Thirteenth Naval District.

Inspection in the small yards was under the direction of the Small Yards Inspection Officer who reported directly to the Officer in Charge. To each yard was assigned a resident civilian hull inspector; in special instances one hull inspector had cognizance of two yards. The resident hull inspector assisted the Material Section in receipting for government furnished material upon delivery as well as inspecting all hull and joiner work of his yard. He had cognizance in his yard of all hull and deck fittings, observed launchings, dockings, and undockings, and attended all trials. One civilian machinery inspector was responsible for the inspection of all machinery, piping, and ventilation in all the small yards. A civilian electrical inspector was responsible for all electrical equipment in all the yards except radio, radar, and sonar. The inspection and testing of electronic equipment was under the cognizance of a local civilian representative of the Assistant Electronics Officer of the Thirteenth Naval District.

The Small Yards Inspection Officer coordinated all the inspection work; approved test memos; witnessed launchings, dockings, undockings, and trials; prepared correspondence concerning construction; assisted the Supervisor's Security Officer in maintaining proper security in the small yards; maintained liaison with other divisions of the Supervisor's office and with associated activities of the Thirteenth Naval District; and supervised the fitting-out of all vessels. Close liaison was also maintained with ships' per-

sonnel, who were assigned office and storage space at the small yards, and with the Tacoma Commissioning Detail, who assumed such responsibilities as quarters, discipline, training, etc.

All of the small yards under the authority of this activity had been building commercial vessels prior to the war, and completed their Navy contracts with relatively small expansion of their facilities. A brief description of each yard follows.

(1) Birchfield Boiler and Shipbuilding Co.*

The plant layout of Birchfield consisted of two shipbuilding ways capable of launching 140 foot steel vessels, an adequate sub-assembly shop with a 15 ton overhead crane, a complete machine shop, smaller pipe and electrical shops, and an outfitting deck. Before being awarded a Navy contract, the yard had constructed steel tugs and cargo vessels for the Army and Maritime Commission. In May 1943 they reached their peak employment of 307 men. Two 65 foot small steel harbor tugs were completed for the Navy, then following the end of the war, the remaining five tugs of the contract were cancelled. An unusual feature of the inspection at this yard was that except for the first few months, when a regular steel inspector was available, the resident hull inspector was a carpenter by trade. This man was given an intensive two weeks training in steel construction at the Todd yard before his assignment. Although this is not a policy to be recommended, the inspection

*See Appendix, page 14, for complete production record.

work was adequately handled and illustrates what can be done in an emergency. This yard repaired a Frigate during the repair and conversion work. It is felt that the chief weakness of this yard was the lack of a dynamic, well-trained production superintendent.

(2) Chilman Shipyard, Hequiam, Washington *

The plan layout at Chilman's consisted of two marine shipbuilding ways capable of launching 130 foot wooden vessels, a small marine railway, a machine shop, woodworking shop, and smaller electrical and pipefitting shops. Before the award of a Navy contract, this yard had built several large tugs and smaller power boats for the Army, as well as building and repairing many small commercial vessels. The peak employment while building for the Navy was 150. A feature of the construction of the two refrigerated cargo vessels built in this yard was that the keels were hewn from a solid log in the builder's yard instead of the usual procedure of sawing from timber. Because of the distance from Tacoma, 80 miles, one resident inspector only was assigned to this yard, with weekly visits made by the Officer in Charge, Inspection Officer, machinery and electrical inspectors. The fine vessels constructed by this yard reflect the skill of "old-time" wooden boat builders and the keen interest and the experience of the owner and his chief carpenter.

*See Appendix, page 14, for complete production record.

(3) J. M. Martinac Shipbuilding Corp.*

The plan layout at this yard consisted of a 150 foot and a 250 foot marine railway, and one 80 foot, two 100 foot, and two 150 foot building ways. Besides machinery, welding, wood-working, pipe, and electrical shops, pier space adequate to handle four small craft was available. Peak employment reached during the war was 285 in June 1945. In addition to building 16 YMSs, 4 large tugs, and 2 refrigerated cargo vessels, this yard repaired 6 SCs and 1 YMS during the summer of 1945. Although this yard did very good work for the Navy, it was a corporation with many divisions of authority and no one man in charge of over-all production. Although neither the quality nor the cost of production suffered, it is felt that a capable superintendent with complete authority over all crafts would have increased the speed of production and made easier the relationships with the Navy inspection force.

(4) Mojean and Ericson Shipyard**

Two marine ways capable of launching 156 foot wooden vessels, woodworking, pipe, and electrical shops, and an outfitting pier make up the plant layout at Mojean's. During March 1945 this yard reached its peak employment of 210. Many fishing boats and pleasure craft had been turned out by this old established firm previous to their Navy construction of 9 YMSs and 1 SC. Since the plant superintendent was also the chief engineer, the coordination of effort in this yard was excellent.

*See Appendix, page 14, for complete production record.

**See Appendix, pages 14 and 15, for complete production record.

(5) Nelson Boiler and Tank Co.*

This was a sand lot yard which constructed non-self-propelled steel lighters and barges for the Navy. All of the early lighters built by this yard were constructed out in the open on the tide flats and later moved to the launching ways by house movers. Early in 1944 the yard was reorganized and moved to a new location where barges were built under a shed and launched on a series of small trucks instead of the usual greased skids. The new management of the yard became involved financially so that the company became insolvent and the completion of the last three barges was assumed by crews from the Todd yard.

(6) Tacoma Boat Building Co.**

The plant layout consisted of one 250 ton marine railway, three building ways capable of launching 136 foot wooden vessels, machinery, woodworking, welding, pipe, and electrical shops, and an outfitting pier. During the war this yard constructed for the Navy 18 YMSs, 2 PCSs, and 2 YPs, besides repairing 5 SCs and 1 YMS. The relatively large number of vessels delivered by this small yard is evidence of the ability and drive of the owners. In spite of the fact that this yard had less shipbuilding experience than the other yards, it produced as many ships and produced them in less time.

*See Appendix, page 16, for complete production record.

**See Appendix, pages 15 and 16, for complete production record.

(7) Western Boat Building Co.*

This organization had two yards in Tacoma. At Plant 1 there were two shipbuilding ways, one marine railway, and the usual machine, woodworking, pipe, and electrical shops. Late during the war one of the shipbuilding ways was converted into a smaller marine railway. At this plant 6 YMSs and 2 PCSs were constructed, and 5 SCs were repaired. Plant 2 consisted of two building ways capable of handling 150 foot vessels, pipe and electrical shops. At this plant 2 YPs were constructed and 1 YR was repaired. This company also installed radar huts on two large merchant vessels at the Port of Tacoma. The fine quality of workmanship of this yard reflects the experience and the active participation in all phases of the work of the senior partner and his five sons.

The chief general problems of the Small Boat Division arose because the yards were not large enough to support adequate engineering forces and because of the difficulty in training personnel, especially in the making and recording of tests. It is felt that a training program for inspection officers in the Naval Reserve would be most helpful. Such a program should include a study of relationships between inspection officers and various Bureaus, sources of information of inspection directives, inspection standards, and field trips to Navy yards and manufacturing companies.

*See Appendix, page 16, for complete production record.

APPENDIX

NAVY DEPARTMENT
WASHINGTON

PM135B-JMR:O'H

March 10, 1943

From: Office of Procurement and Material (Inspection Administration).
To: The Chief of the Bureau of Ships.

SUBJECT: Establishment of the Office of Supervisor of Shipbuilding,
USN, Tacoma, Washington.

References:

- (a) BuShips ltr. EN25/A4-2 (120) dated 23 February 1943.
- (b) Sec Nav ltr. PM131-RCD:LP:EG over FN7031046 of 7 July 1942.

1. In accordance with the request, reference (a), and pursuant to the general directive of the Secretary of the Navy, reference (b), the office of Supervisor of Shipbuilding, Tacoma, Washington, is hereby established, effective 15 March 1943.

2. This office is to be located at the Seattle-Tacoma Shipbuilding Corporation, Tacoma, Washington. As part of its responsibility, it will assume the supervision of the conversion of AOV's and other vessels which is currently under the jurisdiction of the Navy Yard, Puget Sound, through the Officer in Charge of Shipbuilding and Conversion, Tacoma, Washington.

3. The Bureau of Ships is hereby requested to nominate the officer to fill the billet as Supervisor of Shipbuilding and to forward that nomination to the Bureau of Naval Personnel via this office.

4. By copy of this letter, the Supervisor of Shipbuilding, Tacoma, Washington, (when so ordered) is requested to furnish this office with the following information:

- (a) Complement of officer personnel (if any) and civilian personnel to be attached to the subject office.
- (b) The date this office was formally opened.

A. J. WELLINGS
By direction

cc: SupShip, Seattle
Comdt. Puget Sound
OINC Shipbldg. & Conversion
Tacoma, Wash.
AstSecNav (SKD) (PE&M)
BuOrd
BuPers
BuSanda
BuDocks
BuAer

A4-2 (120)

NAVY DEPARTMENT
BUREAU OF SHIPS
WASHINGTON, D.C.

23 Feb 1943

From: Chief of the Bureau of Ships
To: Chief of Procurement and Material
(Inspection Administration).
Subject: Request for the establishment of Office of Supervisor
of Shipbuilding, USN, Tacoma, Washington.

1. Authority is requested to establish an office of Supervisor of Shipbuilding, USN, at the Seattle-Tacoma Shipbuilding Corporation, Tacoma, Washington effective March 15, 1943.

2. Under the jurisdiction of the Commandant, Navy Yard, Puget Sound, there is now located at the Seattle-Tacoma Shipbuilding Corporation an office with a force of officers and civilians, who are supervising the conversion of a large number of ACV's and of other vessels. The work is under the general direction of Captain J. L. McGuigan, USN. It is expected that the majority of the personnel now engaged in this activity will be transferred to the new office of Supervisor of Shipbuilding, USN. The Office of Procurement and Material (Inspection Administration) will be informed relative to personnel matters when details have been completed.

3. At a later date, and when practicable, it is expected that certain branch offices in the vicinity of Tacoma, now under the jurisdiction of the Supervisor of Shipbuilding, Seattle, Washington will be transferred to the jurisdiction of the Supervisor of Shipbuilding, USN, Tacoma, Washington.

R. C. WILLIAMS
By direction.

Copy to:
SUPSHIP Seattle
COMDT. Puget Sound
O-in-C Shipbldg. and Conversion
Tacoma, Wash.

SUPERVISOR OF SHIPBUILDING. U. S. NAVY

TODD PACIFIC SHIPYARDS INC TACOMA DIVISION

TACOMA 2. WASHINGTON

395(Fr)

22 October 1945

To: Historical Officer, 2006 Exchange Building,
Seattle 14, Washington.

Subj: Photographs, map, and organization charts of
SupShip, Tacoma; Forwarding of.

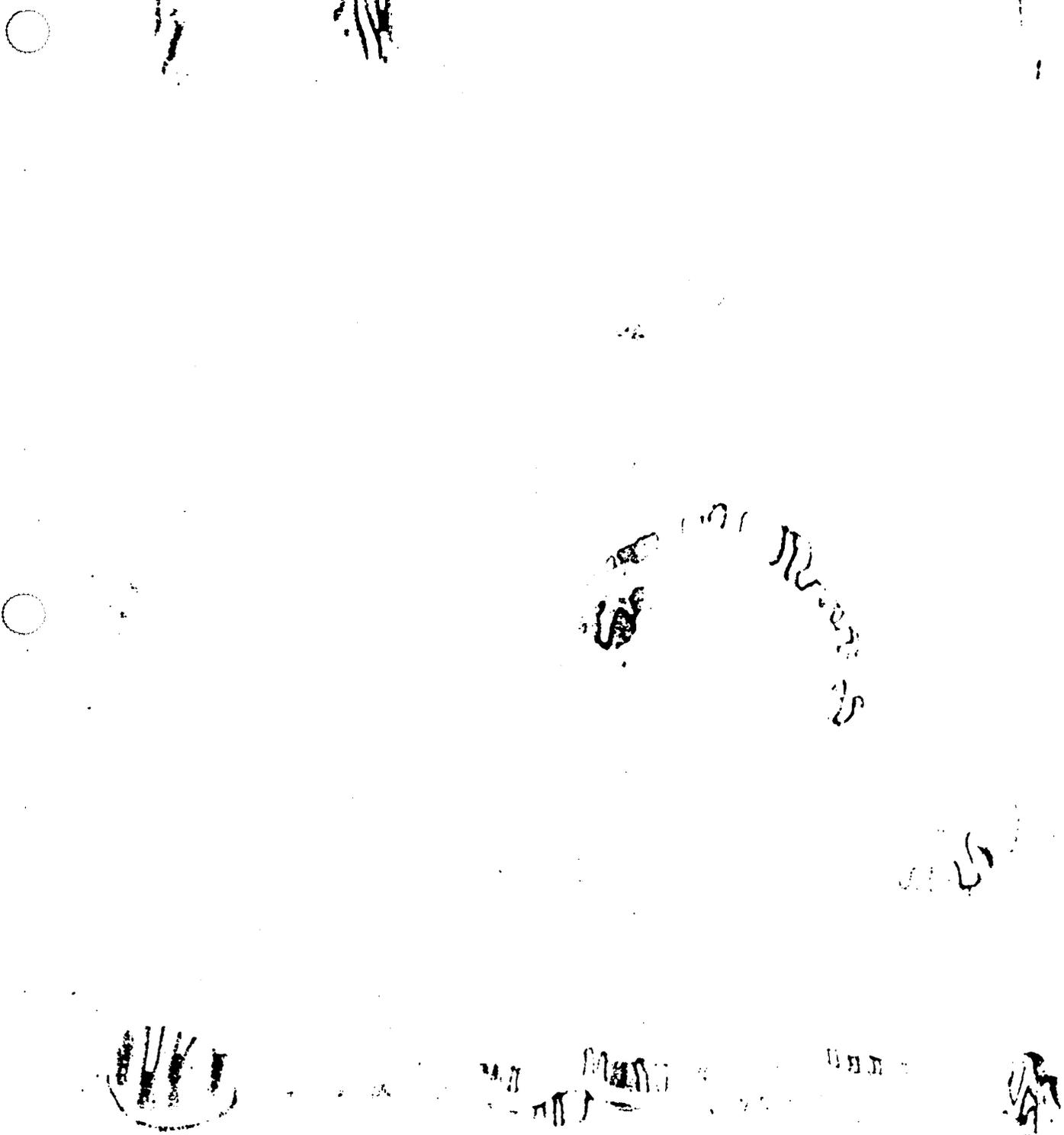
Ref: (a) Com13 ltr 335-3/(79) Serial 154116 of 24
Aug 1945.

Encls: (HW)
(A) 3 copies of SupShip organization chart of 17
Jan 1944.
(B) 3 copies of SupShip organization chart of 10
Aug 1945.
(SC)
(C) 4 aerial photographs of TPSI, Tacoma, w/copy
of ltr.
(D) Plot plan of TPSI, Tacoma, w/copy of ltr.

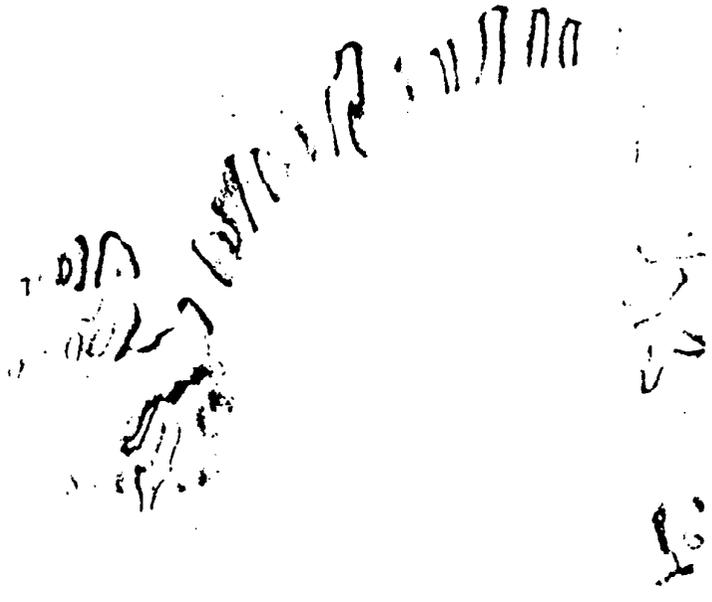
1. In compliance with ref (a), Encls. (A) and (B) are for-
warded herewith and Encls. (C) and (D) are forwarded under
separate cover.

By direction of SupShip:

M. F. SALBER



Aerial View Todd Pacific yard
Looking west--May 1945



Aerial View Todd Pacific yard
Looking north--May 1945

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[unclear] 1944, [unclear] of [unclear] 1945

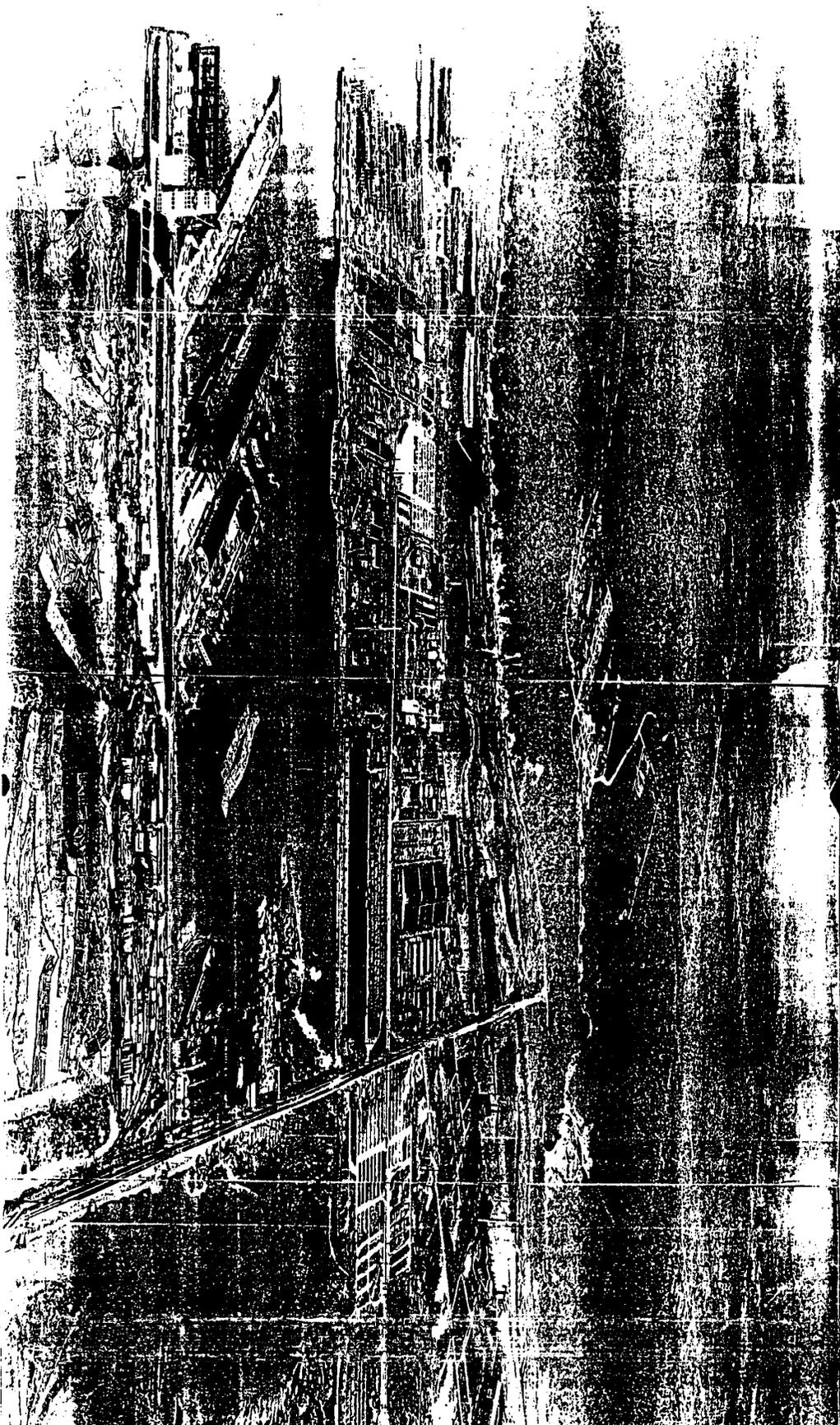
OFFICE OF OPERATIONS, U.S. NAVY
Bureau of Aeronautics

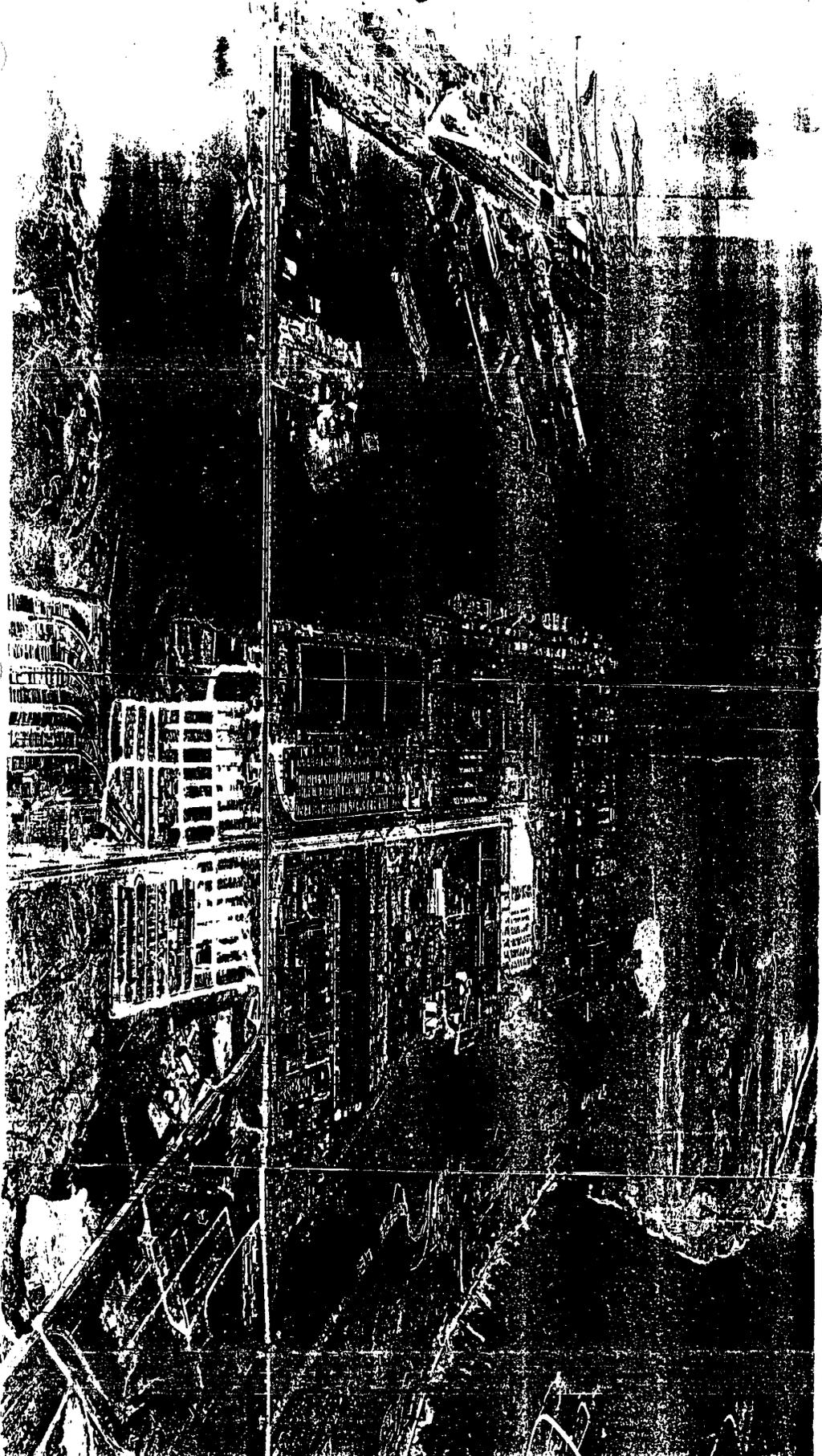
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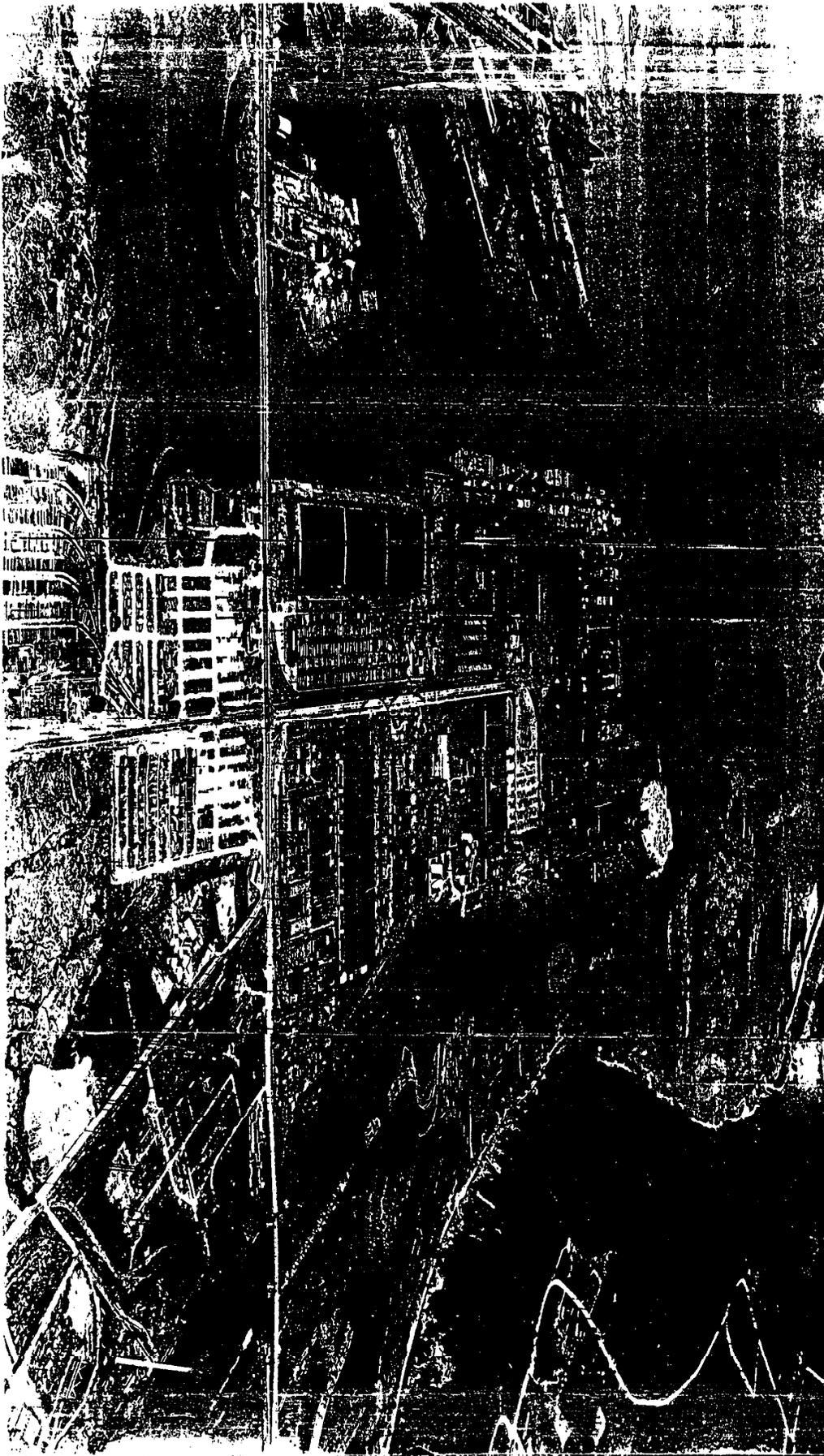
OFFICIAL PHOTOGRAPH
TO BE USED FOR PUBLICATION
BY ORDER OF
THE BUREAU OF AERONAUTICS

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*Photo made Jan 13 53
W.S. ND, AM. No. of 11-1-195*

U.S. AIR FORCE
WRIGHT-PATTERSON AIR FORCE BASE
DAYTON, OHIO

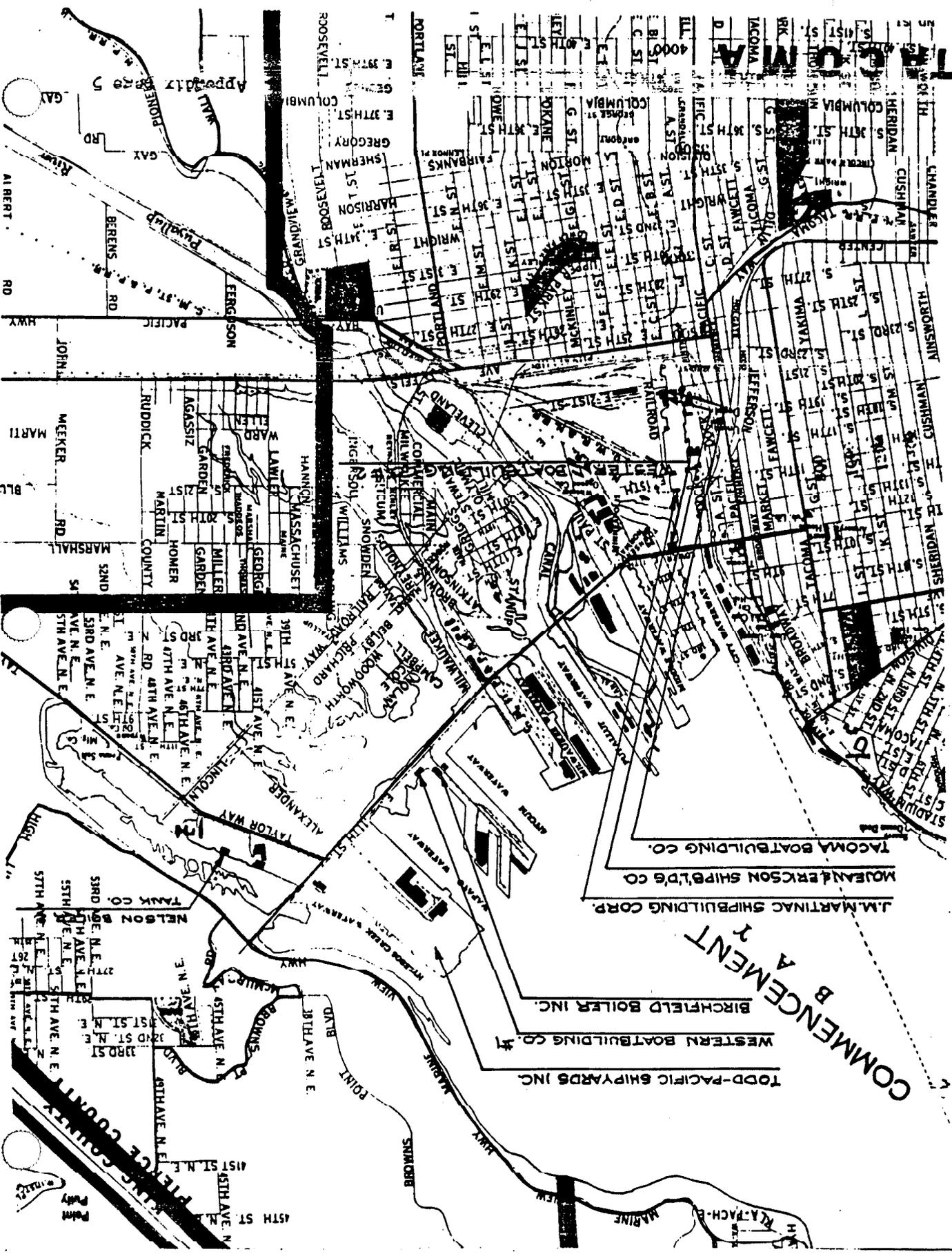
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When you receive this photograph
check the number of frames and
the number of exposures.

PHOTOGRAPH
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BY ORDER OF
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AIR STATION, SEATTLE, WASH.

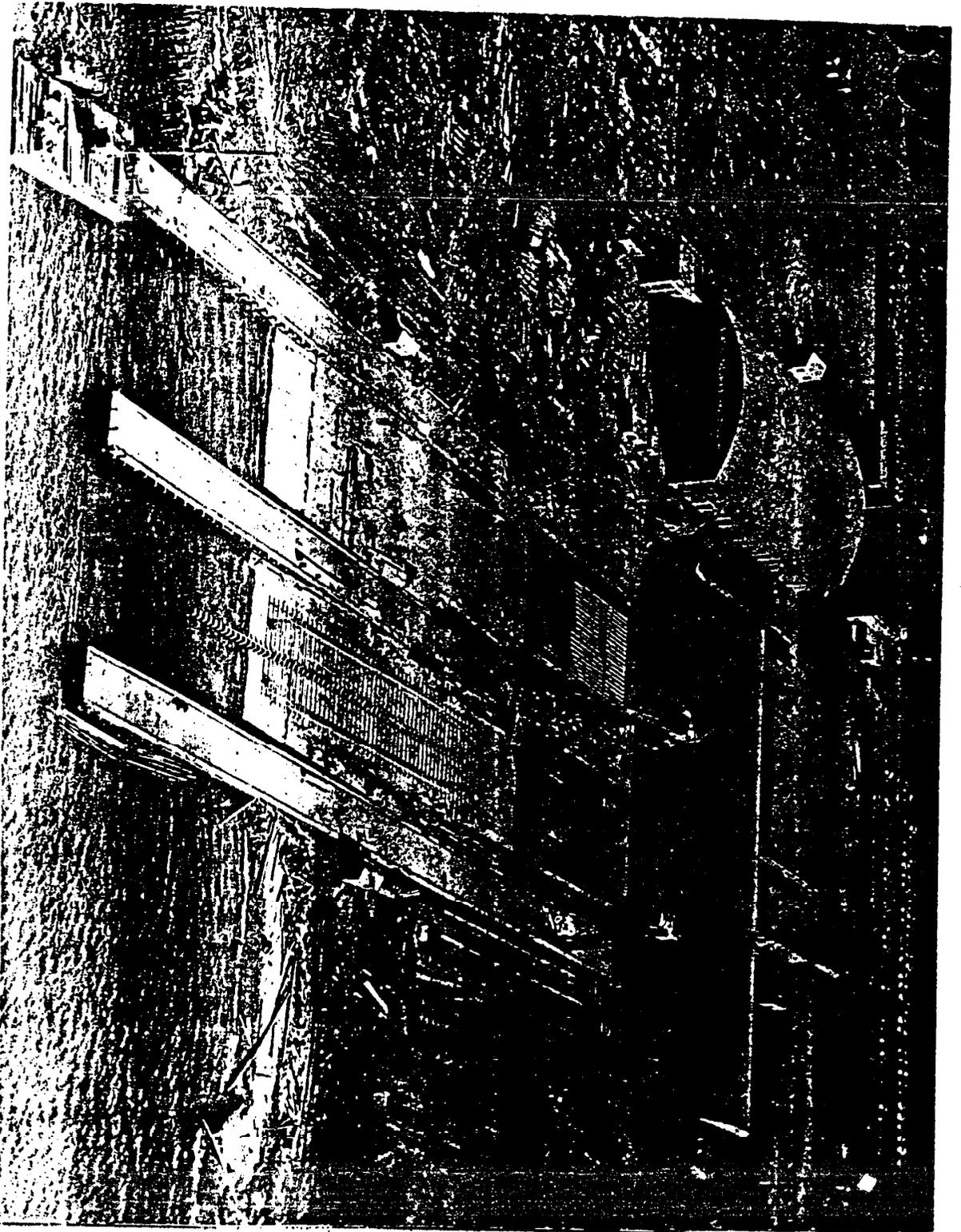
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NO. 1
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MAD
UNIT



TACOMA

COMMENT B A 2

Todd Yard in February 1940



EN25-(49)L5(120)
EN28/A2-11

NAVY DEPARTMENT
BUREAU OF SHIPS
WASHINGTON, D.C.

2 July 1943

AIRMAIL

From: The Chief of the Bureau of Ships.
To: The Supervisor of Shipbuilding, USN, Seattle, Wash.
The Supervisor of Shipbuilding, USN, Tacoma, Wash.
The Commandant, Thirteenth Naval District.
The Bureau of Supplies and Accounts.

SUBJECT: Transfer of Jurisdiction of Inspection at Shipyards in
the Tacoma Area.

1. Effective 10 July 1943, the jurisdiction of inspection of work at the following shipyards will be transferred from the office of Supervisor of Shipbuilding, USN, Seattle Tacoma Shipbuilding Corporation, Seattle, Washington, to the office of Supervisor of Shipbuilding, USN, Seattle Tacoma Shipbuilding Corporation, Tacoma, Washington:

Grays Harbor Shipbuilding Company
Aberdeen, Washington

Western Boat Building Company
Tacoma, Washington

Tacoma Boat Building Company
Tacoma, Washington

Nelson Boiler & Tank Company
Tacoma, Washington

Mojean & Erickson
Tacoma, Washington

J. M. Martinac Shipbuilding Corporation
Tacoma, Washington

2. Correspondence relating to inspection of work at the above mentioned shipyards should be addressed to the Supervisor of Shipbuilding, USN, Seattle Tacoma Shipbuilding Corporation, Tacoma, Washington.

W. J. BUTLER
By direction

Copy to:
All INSMAT's All INSMACH
All SupShip's OP&M (I.A.) (regular mail)



Capt. J. L. McGuigen

STATEMENT OF MISSION, TASKS AND STANDARDS OF PERFORMANCE

Position Supervisor of Shipbuilding, USN Todd Pacific Shipyards, Inc. Tacoma 2, Washington	Division	Section	Sub-Section
Name J. L. McGuigan	Rank or Rating CAPTAIN, USN	Date 26 Sept 1944	Revision Date

MISSION

The mission of the Supervisor of Shipbuilding, Tacoma, under the direction of the Chief of the Bureau of Ships, the Commandant of the Thirteenth Naval District, and the Chief of the Office of Procurement and Material, and with additional duties as Naval Inspector of Ordnance, Tacoma, under the Chief of the Bureau of Ordnance, is as follows:

1. To complete, deliver, and fit-out ships in accordance with contractual requirements and current Navy Department directives.
2. To comply with directives of the Commandant, Thirteenth Naval District, pertaining to military and other matters under the cognizance of the Commandant.
3. To keep fully informed relative to the management policies of the TPSI, Tacoma yard and of the other shipyards under this cognizance to insure that acceptable standards of performance are being accomplished in return for Government expenditures.
4. To render all possible assistance to contractors in achieving the most efficient fulfillment of contractual obligations by supplying technical advice and administrative suggestions and aid when requested and by assuring that contractors make maximum use of all specialized services offered by the Navy Department and the Thirteenth Naval District activities.

TASKS AND OBJECTIVES

I. ADMINISTRATION:

1. To provide and perfect an organization to accomplish the mission by assuring that assigned personnel are fully cognizant of their respective responsibilities and authority, by providing within the organization for substitute personnel for all positions, by emphasizing the necessity of accurate, immediate and reliable records, and by instituting regular instruction for all personnel relative to the general and specific phases of their work.
2. To provide written procedures in the form of office memoranda, kept current and covering all phases of work, to insure the administration of the organization as an over-all effective unit.

3. To keep all executive and administrative personnel of this activity, the Commissioning Detail, ships' personnel, and contractors' personnel fully advised on all matters pertaining to the program as a whole at regularly scheduled weekly conferences, at which all personnel attending are required to voice any concern relative to scheduled completions, disagreements, unworkable installations, etc., and to distribute to all concerned directly after the conferences a report which will specify action to be taken on all questions, controversial or otherwise.

4. To provide proper administrative procedures for the registering of complaints, recommendations and suggestions by ships' personnel.

5. To maintain close relations with the Field Inspection Office of the Bureau of Ships, Code 120, to the end that the maximum benefit from its assistance can be obtained in personnel matters and that this activity can benefit by the experience and procedures of other Supervisor's offices as promulgated by the Field Inspection Office.

6. To comply fully with all Navy Department and Bureau directives on administrative matters and procedures such as progress reports, handling of material, Navy Management Program, Selective Service, contract changes, etc., to insure that all matters of this nature are kept current and are handled in accordance with policies as promulgated from time to time by the Navy Department.

7. To comply with U. S. Civil Service requirements.

II. TECHNICAL

1. To be familiar with all important technical phases of work under contract, particularly over-all strength, high pressure piping and vessels, safety features, gasoline systems, and changes.

2. To advise the Bureau of Ships or the supervising activity controlling designs when technical improvements resulting in better ships can be made.

3. To keep informed of technical improvements and services offered, such as welding consultants, vibration and sound specialists, lubricating specialists, etc., and as required obtain the services of these specialists at Tacoma.

4. To provide proper standards governing the inspection work and to insure that said standards are fully complied with by all concerned.

III. MAINTAINING OF LIAISON WITH NAVAL ACTIVITIES AND OTHER AGENCIES IN THE TACOMA AREA AS FOLLOWS:

1. With Commandant, Thirteenth Naval District:

(a) To carry out policies and orders concerning military, security, public relations, transportation, and other matters under that cognizance.

(b) As Senior Officer Present, Tacoma area, to keep the Commandant advised of all matters in the Tacoma area reflecting or bearing upon the Navy and the war effort.

2. With the Navy Cost Inspector, Todd Pacific Shipyards, Inc., Tacoma, freely consulting him on all matters to insure presentation to the contractors of a uniform Naval policy.
3. With the Supervisors of Shipbuilding, Seattle and Portland, in order to correlate all policies involving contractor relationships insofar as practicable.
4. With the Navy Yard, Puget Sound, and with the District Radio Material Office, in order to receive all possible technical and inspection assistance.
5. With the Office of the Inspector of Naval Material, Seattle, to facilitate inspection of vendor furnished material on vessels under the cognizance of this activity.
6. With the Commissioning Detail, Tacoma, to the end that ships' personnel and this activity receive the greatest possible benefit from the service and experience of personnel attached thereto.
7. With Commanding Officers of vessels constructed under the cognizance of this activity during the shakedown periods and until they leave the Coast in order to be of maximum assistance in case of breakdowns, shortages, etc.
8. With officials of the City of Tacoma, Tacoma Chamber of Commerce, and other Tacoma civic organizations, to insure an understanding and friendly cooperation by the public with the program and objectives of the Navy in this area.
9. With other Government agencies in the Tacoma area, to insure maximum cooperation and amicable and fair settlement of matters of conflicting interests, such as labor recruitment, etc.
10. With the special service field representatives of the Bureau, such as the Pacific Coast Zone Stabilization Officer, Pacific Coast Ventilation Officer, Pacific Coast Allowance Officer, etc., to insure that this activity receives maximum benefit from their services.

IV. RELATIONS WITH CONTRACTORS

1. To follow out the directions of the Chief of the Bureau of Ships' letter of 21 October 1943, file FS/S3-1(100) over EK28/A2-11.
2. To establish, or to insure that the contractors establish, organization charts and approved procedures clearly defining policies, contractors' responsibilities, etc., which will cover all matters necessary for the successful completion, fitting out, and delivery of vessels, and will include matters such as material handling, purchasing, general administrative regulations, etc.
3. To inspect the contractors' organizations periodically for "industry of employees" and report results of such inspection to the General Manager with appropriate recommendations relative to improvement.
4. To insure that the contractors maintain an adequate training program to improve the working efficiency of employees and to keep abreast of the labor turnover; and to maintain an educational policy to keep contractors' personnel advised

of pertinent matters, such as purposes for which vessels are constructed, necessity for alterations, etc.

5. To advise with the contractors relative to additional facilities considered necessary for the successful prosecution of the work and institute necessary action for procurement of needed facilities.

6. To bring in advisory personnel as considered necessary from time to time and encourage similar action by the contractor to the end of increased production.

7. To maintain cordial relations with the plant management of all contractors and also with the parent and controlling organization of Todd Pacific Shipyards, Inc., as represented by Mr. R. J. Lamont, Seattle, and Mr. John D. Reilly, New York City.

8. To stress the necessity of time element in war operations: 98% ship in use is of infinitely more value than 100% ship at the builder's yard.

9. To advise with the contractors relative to speakers, releases and other steps to build up the morale of employees.

10. To keep contractors advised of the conditions under which the Army-Navy "E" awards will be made.

11. To approve the salaries of company officials from Superintendent up in the Todd Pacific Shipyards, Inc., Tacoma Division, Tacoma, Washington, since this yard is working entirely on Cost-Plus-Fixed-Fee contracts.

This statement shall be signed by you and your immediate superior.

Your Signature

Superior's Signature

Todd Pacific
Construction Schedule
Appendix page 13

SMALL YARDS BUILDING PROGRAM
TACOMA AND HOQUIAM, WASHINGTON

Ship	Type	Dimensions	Contract	Keel	Launching	Deliv.	Remarks
<u>BIRCHFIELD BOILER INC., TACOMA</u>							
YTL 593	Yard Tug	65'x17'	NOba 1869	10-30-44	3-11-45	7-23-45	
YTL 594	(Small)			11-30-44	4-30-45	10-23-45	
YTL 595	Steel			3-14-45	4-30-45		Cancelled
YTL 596				3-20-45	7-28-45		Cancelled
YTL 597				4-10-45	7-28-45		Cancelled
YTL 598				5-23-45	9-18-45		Cancelled
YTL 599				6-20-45			Cancelled

CHILMAN SHIPYARD, HOQUIAM

YP 633	Refrig. Cargo	128'x 29'	NOba 1759	6-14-44	9-23-44	3-26-45	
YP 634	Vessel (wood)			6-22-44	11-30-44	5-31-45	

MARTINAC SHIPBUILDING CORP., TACOMA

YMS 125	Minesweeper	136' x 24'	NOba 53474	6-2-41	12-15-41	7-25-42	
YMS 126	(Wood)			6-27-41	3-3-42	9-11-42	
YMS 127				10-7-41	5-2-42	10-30-42	
YMS 128				12/26-41	6-27-42	12-10-42	
YMS 216			NOba 515	6-16-42	10-17-42	2-27-43	
YMS 217				6-20-42	11-14-42	4-29-43	To U.K.
YMS 218				8-8-42	12-23-42	6-23-43	
YMS 219				10-23-42	1-23-43	7-26-43	
YMS 220				11-25-42	3-6-43	8-24-43	
YMS 221				12-31-42	4-22-43	9-16-43	To U.K.
YMS 277				2-5-43	6-19-43	10-18-43	To U.K.
YMS 278				3-11-43	7-17-43	11-12-43	To U.K.
YTB 261	Yard Tug-big	110'x26'	NOba 958	5-20-43	12-21-43	6-19-44	
YTB 262	(Wood)			6-20-43	3-27-44	8-23-44	
YTB 263				12-24-43	6-13-44	10-21-44	
YTB 264				3-27-44	9-30-44	2-1-45	
YMS 434	Minesweeper	136'x24'	NOba 1260	10-30-43	3-10-44	11-15-44	
YMS 435	(Wood)			5-11-44	9-30-44	3-5-45	
YMS 436				6-15-44	3-14-45	5-31-45	
YMS 437				10-3-44	4-22-45	7-13-45	
YP 637	Refrig. Cargo	128'x29'	NOba 1766	6-22-44	11-25-44	5-7-45	
YP 638	Vessel (wood)			7-11-44	3-14-45	6-30-45	

NOJMAN AND ERICSON SHIPYARD, TACOMA

YMS 222	Minesweeper	136'x24'	NOba 516	4-25-42	11-11-42	4-24-43	
YMS 223	(wood)			5-25-42	12-27-42	6-28-43	To U.K.

Ship Type Dimensions Contract Keel Launch. Deliv. Remarks

MOJEAN AND ERICSON SHIPYARD, TACOMA (Cont'd.)

YMS 224					11-23-42	2-28-43	8-19-43	
YMS 225					1-9-43	4-25-43	10-14-43	To U.K.
PCS1455	SubChaser			NObS 910	3-17-43	9-4-43	2-8-44	
YMS 479	Minesweeper				4-28-43	10-30-43	7-20-44	Conv.PCS
YMS 426				NObS1194	9-30-43	2-9-44	9-25-44	
YMS 427					11-4-43	3-25-44	11-28-44	
YMS 428					2-10-44	6-5-44	1-24-45	
YMS 429					3-27-44	9-30-44	3-16-45	

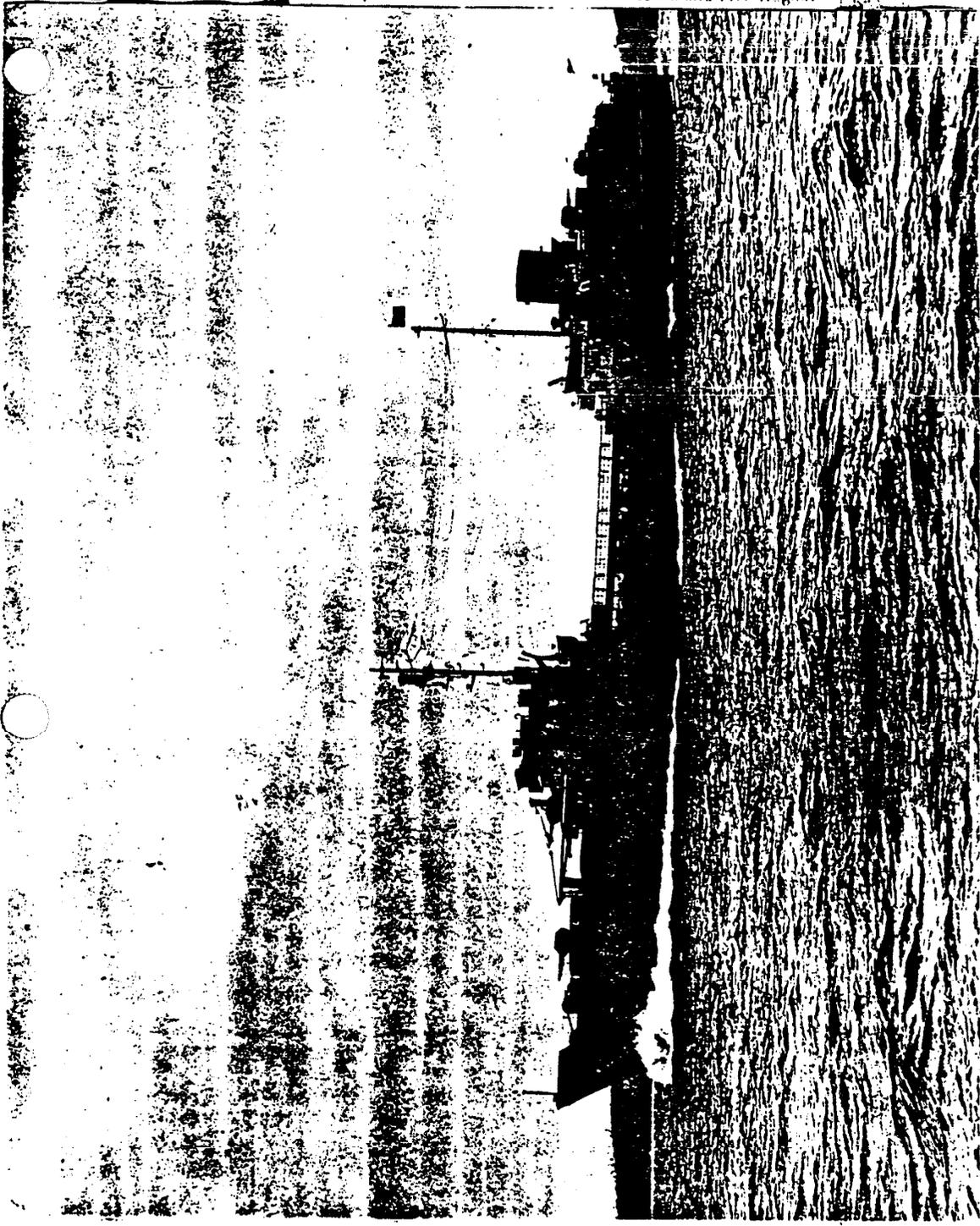
NELSON BOILER AND TANK CO., TACOMA

YF 325	Cov.Lighter	110'x34'	NObS 88684		3-9-42	6-16-42	7-6-42	
YF 326	(Steel)				3-12-42	7-25-42	7-26-42	
YC 807	Open Light.	110'x30'	EXs 1623		6-24-42	10-28-42	11-9-42	
YC 808	(Steel)				7-30-42	11-28-42	12-8-42	
YF 369	Cov.Lighter	110'x34'			7-25-42	1-12-43	1-12-43	
YF 370	(Steel)					2-27-43	2-27-43	
YF 371					9-3-42	3-27-43	3-30-43	
YF 372					9-3-42	4-28-43	4-29-43	
YF 373						5-21-43	5-22-43	
YF 374						6-16-43	6-17-43	
YF 375						7-3-43	7-4-43	
YOG 27	Gas.Barge	165'x35'	NObS 849		6-29-43	11-23-43	1-19-44	
YOG 28	(Steel)				7-27-43	12-16-43	1-21-44	
YOG 29					11-12-43	1-19-44	1-28-44	
YO 103	Oil Barge				1-20-44	3-7-44	3-7-44	
YO 104	(Steel)				2-24-44	3-30-44	4-1-44	Completed
								TFBI
IW 79	Water Barge				3-27-44	4-24-44	4-25-44	Do.
IW 80	(Steel)				4-22-44	5-12-44	5-13-44	Do.

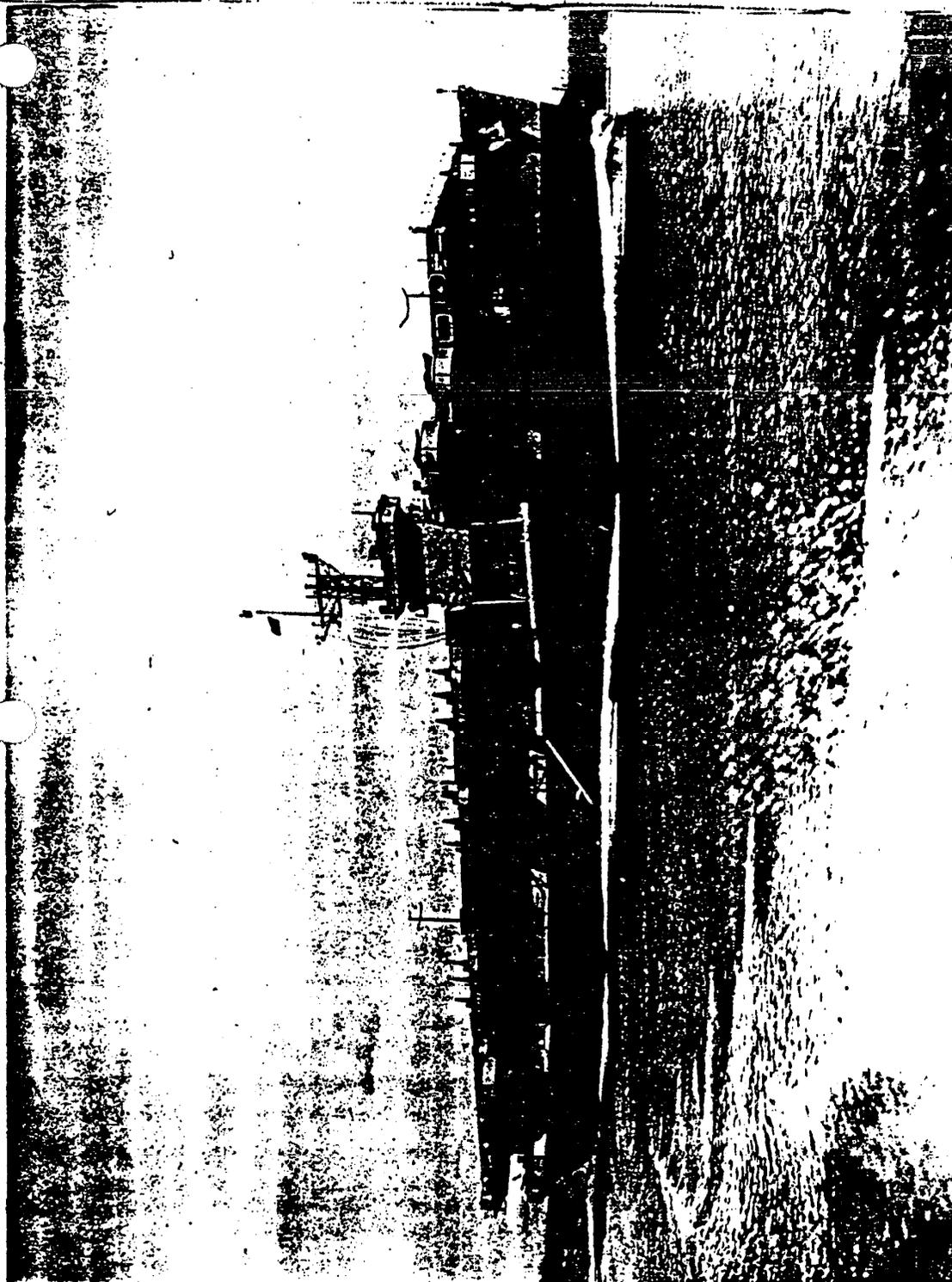
TACOMA BOAT BUILDING CO., TACOMA

IMS 129	Minesweeper	136'x24'	NObS 83480		5-27-41	12-18-41	7-17-42	
IMS 130	(Wood)				6-20-41	12-18-41	8-27-42	
IMS 131					7-12-41	3-4-42	10-1-42	
IMS 132					7-12-41	5-2-42	11-10-42	
IMS 241				NObS 521	5-20-42	12-7-42	2-18-43	
IMS 242					6-1-42	10-10-42	3-27-43	
IMS 243					6-1-42	11-10-42	5-19-43	
IMS 244					9-2-42	12-18-42	7-3-43	To U.K.
IMS 245					10-20-42	2-6-43	7-26-43	
IMS 246					11-24-42	3-11-43	8-27-43	To U.K.
IMS 297					1-7-43	4-24-43	9-21-43	
IMS 298					2-10-43	6-16-43	10-28-43	

<u>Ship</u>	<u>Type</u>	<u>Dimensions</u>	<u>Contract</u>	<u>Keel</u>	<u>Launching</u>	<u>Deliv.</u>	<u>Remarks</u>
TACOMA BOAT BUILDING CO., TACOMA (Cont'd)							
PCS1451	SubChaser		NObs 896	5-12-43	7-3-43	1-13-44	
PCS1452	(Wood)			5-4-43	8-28-43	2-21-44	
YMS 477	Minesweeper			7-12-43	11-6-43	7-10-44	Converted
YMS 478	(Wood)			9-2-43	1-8-44	8-21-44	FCS
YMS 430			NObs1221	11-10-43	3-23-44	10-10-44	Do.
YMS 431				1-10-44	5-20-44	11-13-44	
YMS 432				3-24-44	7-8-44	12-30-44	
YMS 433				6-7-44	9-30-44	2-13-45	
YP 625	Refrig.Cargo	128'x29'	NObs1760	6-22-44	9-3-44	4-9-45	
YP 626	Vessel(wood)			10-2-44	2-14-45	5-29-45	
WESTERN BOAT BUILDING CO., TACOMA							
YMS 133	Minesweeper	136'x24'	NObs 53482	6-23-41	12-18-41	7-21-42	
YMS 134	(Wood)			8-11-41	3-17-42	9-8-42	
YMS 147			NObs 524	6-23-42	10-24-42	2-27-43	
YMS 148				6-23-42	11-30-42	5-15-43	To U.K.
YMS 149				10-31-42	2-21-43	7-3-43	To U.K.
YMS 150				12-6-42	4-5-43	8-14-43	To U.K.
PCS1459	SubChaser		NObs 912	3-6-43	7-2-43	12-15-43	
PCS1460	(Wood)			4-9-43	8-28-43	2-28-44	
YP 627	Refrig.Cargo	128'x29'	NObs 1762	6-22-44	10-28-44	3-26-45	
YP 628	Vessel(wood)			7-20-44	2-15-45	5-25-45	



ACG 1 Class



CVE 31-54 Class