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LARSON AREA

HISTORICAL SUMMARY

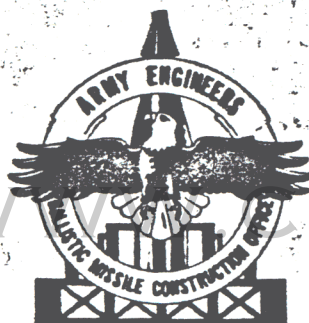
DECEMBER 1959 - MAY 1962

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U.S. ARMY CORPS OF ENGINEERS

BALLISTIC MISSILE CONSTRUCTION OFFICE

LARSON AIR FORCE BASE, WASHINGTON



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AREA ENGINEER, LARSON
U. S. ARMY CORPS OF ENGINEERS
BALLISTIC MISSILE CONSTRUCTION OFFICE
LARSON AIR FORCE BASE, WASHINGTON

ENGMA-TA-L


15 May 1962

SUBJECT: Transmittal of Area History, Larson Area

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TO: Commanding Officer
U. S. Army Corps of Engineers
Ballistic Missile Construction Office
Air Force Unit Post Office
Los Angeles 45, California
ATTN: ENGMA-TA

Transmitted herewith is the Larson Area Historical Report covering
the period 1 December 1959 to 15 May 1962.


H. C. ROWLAND, Jr.
Colonel, Corps of Engineers
Area Engineer

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HISTORY
OF
CORPS OF ENGINEERS
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BALLISTIC MISSILE CONSTRUCTION
ACTIVITIES
AT

LARSON AIR FORCE BASE

NOVEMBER 1959--JUNE 1962

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UNITED STATES ARMY
CORPS OF ENGINEERS BALLISTIC MISSILE CONSTRUCTION OFFICE
LOS ANGELES 45, CALIFORNIA

WS 107 A-2, TITAN I ICBM FACILITY
LARSON AIR FORCE BASE
MOSES LAKE, WASHINGTON

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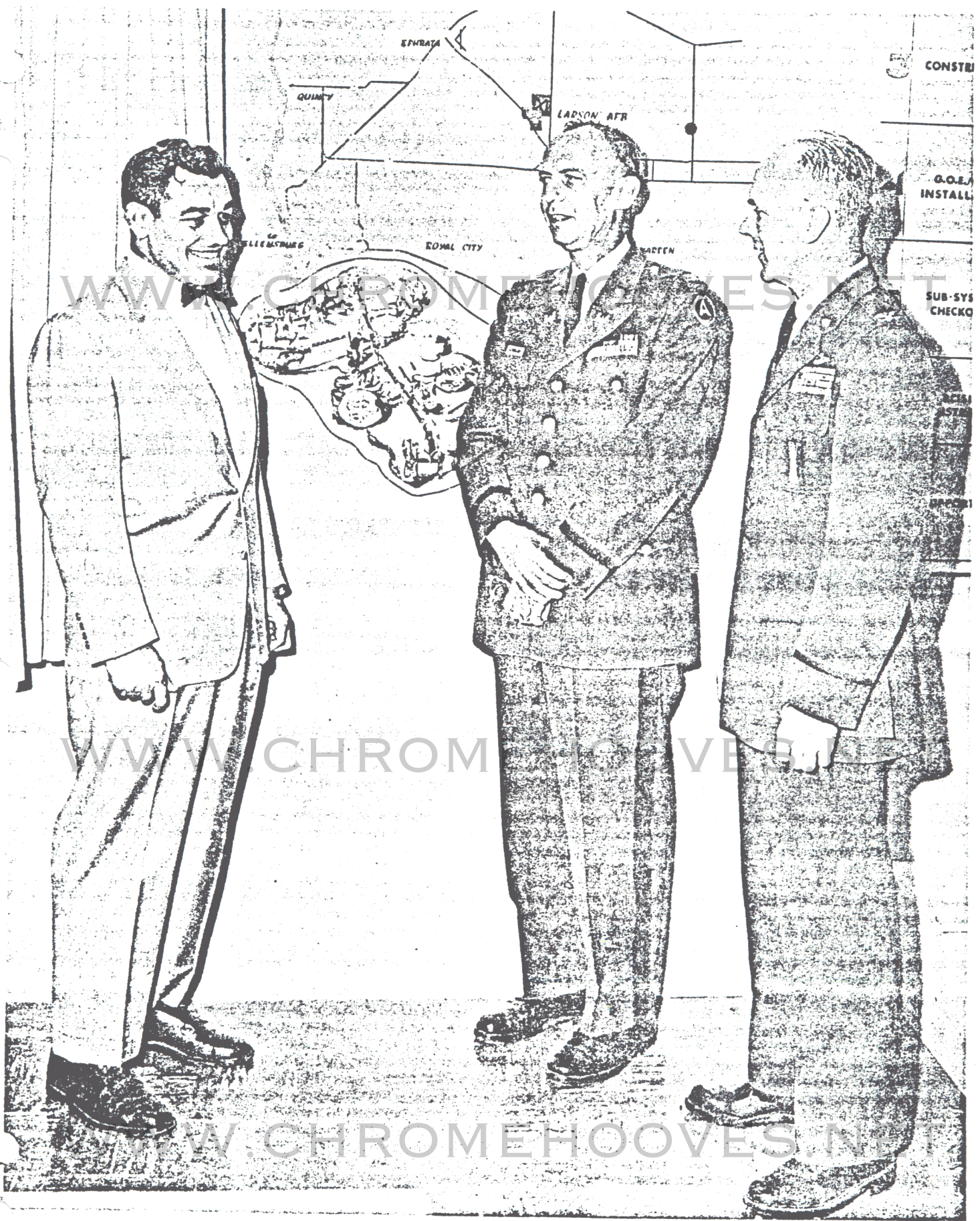
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From left to right: Mr. L. V. Stover, Site Activation Manager for The Martin Co; Col. H. C. Rowland, Jr, Area Engineer for CEBMCO; and Col. E. J. York, Commander, USAF Site Activation Task Force, represent the three principal agencies concerned with construction and activation of Titan I Missile Launching Facilities at Larson AFB, Wash.

PART I

ADMINISTRATION

1. U. S. ARMY

CORPS OF ENGINEERS BALLISTIC MISSILE CONSTRUCTION OFFICE

(CEBMCO)

ESTABLISHMENT AND FUNCTION

The U. S. Army Engineers opened a new Ballistic Missile Construction office in Los Angeles on 1 August 1960. The office was established to further streamline, strengthen, and expedite ICBM site construction. ICBM construction includes Atlas, Titan and Minuteman squadron sites at various bases and testing facilities at Vandenberg AFB, California, and Cape Canaveral, Florida.

The Corps of Engineers Ballistic Missile Construction Office (CEBMCO) was commanded by Brigadier General Alvin C. Welling until 20 June 1961 at which time Colonel T. J. Hayes, III, assumed command. On 1 March 1962, Colonel E. E. Wilhoyt, Jr., the present Commander, relieved Colonel Hayes.

CEBMCO, through the various construction directorates, controls the over-all missile site construction program and supplies to the Area Offices any guidance requested in the fields of construction, electrical, mechanical, engineering, PLS, administration, etc. The Area Engineer, Larson, is directly subordinate to Colonel C. H. Whitesell, the Director, Titan I Construction Directorate. Numerous visits were made to the Larson Area by CEBMCO representatives and a direct telephone tie line between the Area and the Directorate was installed. As a result of such close liaison, CEBMCO was continually aware of the status of field operations.

The Organization Chart (Fig. 1) shows the five directorates under CEBMCO, with a further breakdown of the Titan I Directorate.

ORGANIZATION CHART
CORPS OF ENGINEERS BALLISTIC MISSILE CONST. OFFICE
U. S. ARMY
LOS ANGELES, CALIFORNIA

1-2

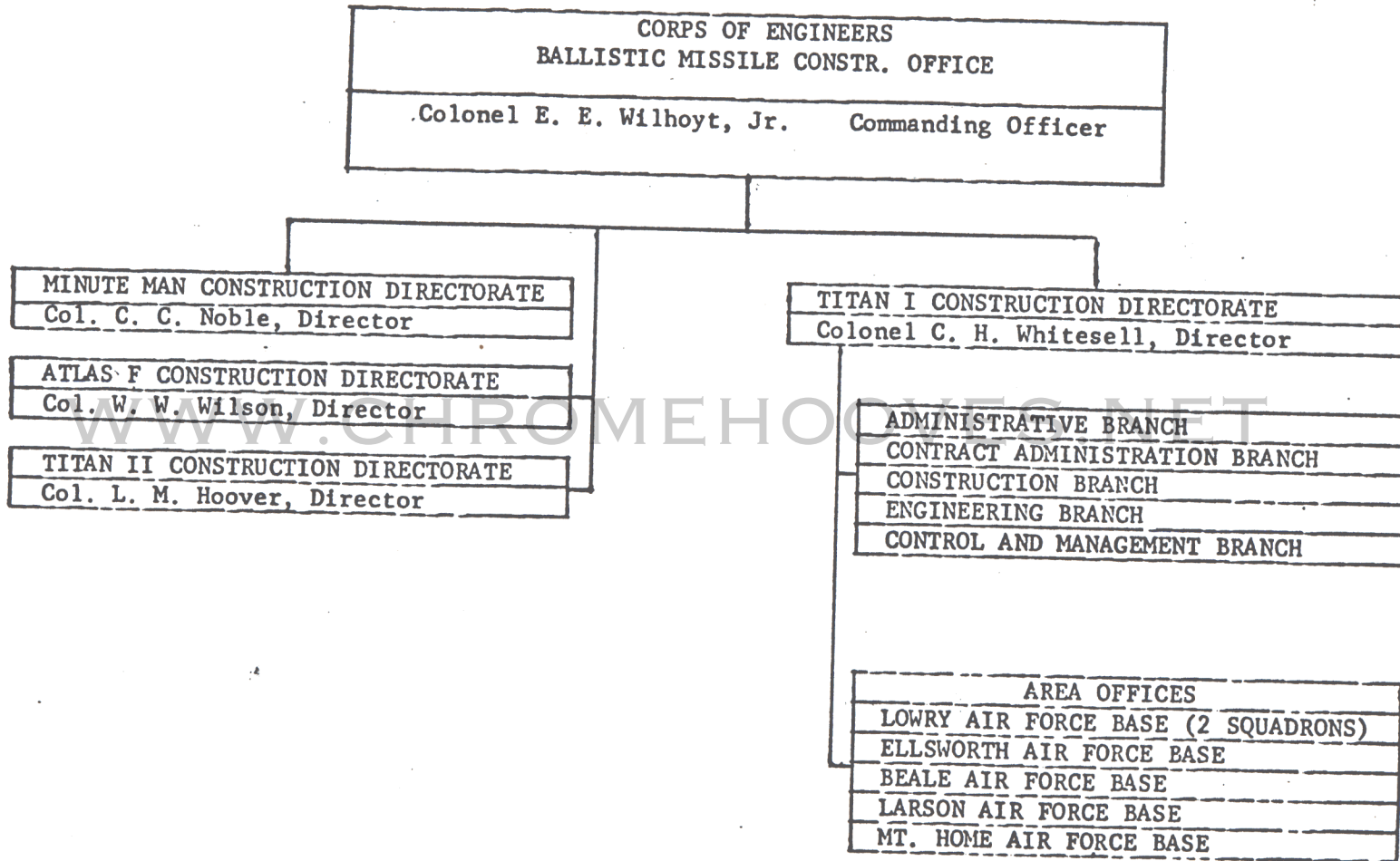


FIGURE 1

2. LARSON AREA ORGANIZATION

ESTABLISHMENT OF AREA OFFICE

The U. S. Army Engineer Area (Military) Larson was activated as a field unit of the Walla Walla District on 5 October 1959. Lt. Colonel Robert W. Fritz was assigned as Area Engineer. The Area was assigned the responsibility for supervising construction of the WS-107 A-2 Titan I ICBM facilities, including three missile launch complexes in the vicinity of Larson AFB, plus related on-base support facilities.

In September 1960, Lt. Colonel Fritz was reassigned as Area Engineer at Fairchild AFB and Mr. C. B. Olmstead became Acting Area Engineer pending assignment of a new officer. On 26 October 1960, the Area came under the control of CEBMCO and was removed from the control of the Walla Walla District. On 26 October 1960, Colonel H. C. Rowland, Jr., present Area Engineer, reported for duty.

MISSION

The primary mission of the Larson Area Office is to enforce timely compliance with contract plans and specifications on the part of each construction contractor. As the agency authorized to represent the Contracting Officer, the Area Office acts for and in the name of the Titan I Director, Corps of Engineers Ballistic Missile Construction Office. In exercising this authority, the Area Office is responsible to inspect and supervise the work in the field and to manage each construction contract. These responsibilities include the authority to accept or reject a contractor's schedules, materials, equipment, methods, practices and/or quality of workmanship, and to negotiate with a contractor any changes or modifications which may occur after a contract has been awarded.

AREA ORGANIZATIONS AND FUNCTIONS

The Larson Area Engineer's Office as originally organized under the Walla Walla District (Fig. 2), was reorganized after CEBMCO take-over to provide for the additional responsibilities assigned. The Organization Chart shown as Figure 3 indicates the situation on 1 February 1961. As the requirement increased, emphasis on the installation and testing of the Propellant Loading System and testing and documentation of installed equipment to assure prompt turn-over to the Using Agency became apparent, the PLS Branch was expanded and reorganized into the PLS and Acceptance Branch. The status after reorganization is shown in Figure 4, which reflects the maximum strength attained by the Area Office. Subsequent to October 1961, at which time the construction work load began to diminish, personnel were released to assure maximum economy of operation. The majority of personnel released have reported to other CEBMCO Areas, thereby assuring retention of skills developed at Larson.

Following is a Statement of Functions for the Larson Area Office:

EXECUTIVE OFFICE

a. Area Engineer:

(1) Establishes policies and procedures for and directs the activities of the Area Office.

(2) Acts as Authorized Representative of the Successor Contracting Officer in connection with construction contracts.

(3) Serves as the principal Corps of Engineers construction contact with the Site Activation Task Force Commander.

b. Deputy Area Engineer:

(1) Assists the Area Engineer in planning, directing, and managing the organization and activities of the Area Office.

(2) Supervises the branches of the Area Office and coordinates their functions.

(3) In the absence of the Area Engineer, assumes his duties with all the responsibilities and authorities inherent to that office.

(4) Coordinates matters of organization, personnel staffing and space allocation.

c. Executive Officer:

(1) Assists the Area Engineer and Deputy Area Engineer in a staff capacity in delegated matters not requiring the immediate or personal attention of those officials.

(2) Normally, assumes duties which include coordination, review or approval of matters where guidelines of action have been clearly defined.

(3) In the absence of the Area Engineer and the Deputy Area Engineer, assumes the duties of the former with all the responsibilities and authorities inherent to that office.

(4) Serves as focal point in all matters relating to the administrative and advisory staff.

(5) Serves as Technical Liaison Officer, to include the following duties:

a. Analyzes public information objectives and plans and executes programs for such objectives.

b. Disseminates technical information to the press, other media and interested agencies.

c. Arranges interviews, inspection trips and accommodations for visiting officers, Government officials and dignitaries.

d. Assembles data and prepares drafts of speeches for public presentation as required.

(6) Serves as Liaison Officer with the Air Force Site Activation Task Force.

CONSTRUCTION BRANCH:

a. Chief:

(1) Supervises and coordinates activities of the Technical Inspection Section, Laboratory Section, Survey Section, Installed Equipment Expediting and Control Section.

(2) Maintains close liaison with Project Engineers and provides guidance and specialized assistance as required.

(3) Examines construction problems and furnishes advice as to proper action.

(4) Actively coordinates matters pertaining to safety in the field with Safety Branch; assists Safety Branch in scheduling and preparing the agenda for all safety conferences with contractors.

(5) Coordinates with Contract Administration Branch in preparing estimates for modifications and negotiation of modifications.

(6) Works closely with the Executive Office and Reports Section in preparation of Pay Estimates and Construction Progress Reports.

b. Engineer Control Section

(1) Performs inspection of a technical nature at each work location and at the PLS cleaning plant and pipe fabrication yard.

(2) Makes investigations to assure that construction is compatible with field conditions and recommends changes in construction contract requirements when conditions justify such changes.

(3) Makes foundation investigations and special geological studies as required during the progress of the work. Prepares foundation charts. Provides

technical guidance in matters pertaining to geology and soils engineering.

(4) Coordinates with Engineering Branch in reviewing shop drawings for approval.

(5) Insures that personnel under their supervision in the field comply with safety standards and practices.

(6) Advises Project Engineers on special requirements regarding installed equipment and templates.

c. Laboratory Section

(1) Operates field laboratory at the Area Office.

(2) Performs necessary field testing at each of the project sites and assists the Project Engineers in obtaining compliance with the specifications.

d. Survey Section

(1) Supervises, coordinates and performs field surveys at each of the project sites.

(2) Establishes precise vertical and horizontal control from which contractors lay out the work.

(3) Makes original and final surveys for payment quantities.

(4) Checks contractors' layout and control.

(5) Coordinates all survey activities between the contractor and the Government.

e. Installed Equipment Expediting and Control Section

(1) Maintains complete and up-to-date records of all contractor-furnished and Government-furnished equipment.

(2) Determines critical areas where lack of equipment will delay the work and initiates expediting action.

(3) Field inspects all contractor-furnished and Government-furnished equipment for determining proper quantities, completeness of components and

condition upon arrival so that unacceptable quality, lack of parts and errors in quantity can be corrected without delay to the work.

ENGINEERING BRANCH

a. Chief

(1) Exercises direct supervision over and coordinates all activities of the Office Engineering Section, Technical Engineering and Control Section, Reports Section and Consultant Services.

(2) Plans, organizes, directs, and through subordinate section heads, supervises the performance of all Area Office engineering.

(3) Coordinates engineering details for the Titan Missile Program with Architect Engineers, Corps of Engineers Ballistic Missile Construction Office, the Site Activation Task Force Commander, and the construction contractors.

(4) In cooperation with Safety Branch, reviews and makes recommendations to the Area Engineer on matters pertaining to adequacy and safety of contractors' temporary structures.

b. Office Engineering Section

(1) Performs all drafting and computing and compiles all data received from the field for preparing payment estimates.

(2) Prepares periodic and final payment estimates for all contract work.

(3) Prepares periodic and special reports of an engineering nature.

(4) Performs topographic and structural drafting from field data; prepares layouts and maps for submittal to higher authority.

(5) Maintains and posts current record contract plans and specifications.

(6) Collects data on marked drawings of as-built construction on missile construction; forwards marked prints to SATAF for preparation of final as-built drawings. These drawings are then returned to the Area Office for final checking.

(7) Performs reproduction work required to insure proper Area Office distribution of technical drawings and related material.

(8) Maintains weather records.

c. Technical Engineering Section

(1) Provides engineering consultant services for Construction Branch in solving problems arising during construction. Coordinates solutions with Using Agency and with other branches.

(2) Reviews and approves shop drawings, principally for "on-base" support facilities.

(3) Reviews and approves lists of materials, catalogue cuts, illustrations, etc., required to be submitted for approval.

(4) Reviews parts catalogues, operating instructions, lubricating instructions, etc., required to be submitted for approval.

(5) Prepares preliminary field design required to effect changes in original designs as may become necessary during fabrication and construction.

(6) Correlates the details of design with CEEMCO or SATAF.

(7) Approves contractors' lift drawings or special field drawings required to facilitate construction.

(8) Coordinates activities relative to preparation of change order estimates with Contract Administration Branch.

(9) Coordinates review and approval of all shop drawings, lists of materials, etc., with Architect-Engineer employees at the Area Office.

d. Engineering Control Section

(1) Maintains a register of all shop drawings, lists of materials, operating instructions, etc., to insure prompt and timely submission for approval by contractors. Coordinates shop drawing actions with contractors.

(2) Makes distribution of shop drawings to the Architect-Engineer and maintains control for prompt action and proper coordination on these drawings.

(3) Makes distribution as required of shop drawings to SATAF and maintains control for prompt action and proper coordination of comments obtained.

(4) Initiates requests to other Engineer Districts for inspection of material as pertains to supply items obtained under construction contracts. Coordinates action of Districts in such matters with Contractor and CERMCO.

e. Reports Control Section

(1) Maintains records of current progress on all contract work.

(2) Coordinates with CERMCO on Larson problems which may be common to other Titan I projects.

(3) Prepares periodic and special reports on construction progress, modifications and problems requiring special action.

(4) Responsible for obtaining and maintaining construction progress photographs.

(5) Receives information from and coordinates with other branches and TEMCO in preparing reports.

ADMINISTRATIVE BRANCH:

a. Chief

(1) Keeps the Executive Office and all Branch and Section Chiefs advised on administrative regulations and policies of higher authority which affect the operation of the Area Office.

(2) Provides staff assistance in directing, supervising and managing administrative matters pertaining to supply, office services, and cost and payrolls.

(3) Prepares special studies and develops special reports on administrative and personnel matters as assigned by the Area Engineer.

(4) Maintains control of assigned office space and takes action to obtain additional or relinquish extra space as required.

(5) Assembles data from other branches of the Area Office for preparation of personnel schedules and recommendations as to proper staffing.

(6) Acts as transportation agent for issuing and/or accomplishing transportation requests and Government Bills of Lading.

(7) As Security Officer for Area Office, coordinates security matters with CEEMCO, Boeing Aircraft Company, SATAF and/or other agencies, and handles all administrative matters pertaining to security

required for Government and contractors' employees. Properly stores all classified matters and issues and accounts for restricted area badges.

(8) As Deputy Fire Marshal, assures compliance with fire prevention requirements and storage of critical records in fire resistant files.

(9) Performs the duties of Ordering Officer with \$2,500.00 authority.

(10) Is Designated Responsible Employee for all supplies and equipment.

b. General Service Section

(1) Performs administrative functions such as maintenance of files, records administration, mail handling, communications, maintenance of leave records, transportation and travel, and providing typing and stenographic services to include operation of the teletype.

(2) Coordinates reproduction of administrative materials with reproduction requirements of other branches.

(3) Arranges itineraries and reservations, and prepares orders and transportation requests for official travel.

c. Property and Supply Section

(1) Provides storage, protection, safeguarding and warehousing of all classes of Government property and is responsible for the receipt, storage and issuance of all Area Office supplies, material and equipment, expendable and non-expendable.

(2) Collaborates with Construction and Engineering Branches on plant testing and delivery of contractor-furnished materials or equipment and assists in an effort to secure improvement of late

deliveries.

(3) Requisitions and/or purchases all supplies required by the Area Office.

(4) Collaborates with Installed Equipment Expediting and Control Section on contractor's activities in connection with Government-furnished property to insure compliance with specifications and delivery schedule.

(5) Operates motor pool for Area Office, including making arrangements for maintenance and inspection of vehicles.

(6) Prepares documents transferring completed facilities to Using Service.

(7) Processes documents covering delivery of standardized equipment.

d. Cost and Payroll Section

(1) Maintains complete records of fund control and obligations. Prepares CWE's and revised CWE's as required for approval by CEMCO. Coordinates disbursement with CEMCO and forwards disbursement requirements to NPW for action.

(2) Prepares Area Office budget estimates and maintains field cost accounting system to provide budgetary and administrative control of office costs.

(3) Maintains records, by line item, of the funds expended as work progresses on each contract, so as to stay within authorizations and to avoid over-expenditure of allotments.

(4) Prepares and processes cost-distribution vouchers for

plant operations, material and labor costs.

(5) Ascertains that labor standards provisions in connection with payrolls are being complied with and notifies the Area Counsel of any real, apparent, or anticipated violations.

(6) Maintains charts and graphs indicating, by months, the percent budgeted and the actual percent used for field office costs.

(7) Maintains pay records of assigned military personnel and submits prepared vouchers for payment by Walla Walla Engineer District (subsequent to 1 June 1961, vouchers were submitted to Seattle Engineer District).

(8) Prepares vouchers for official travel and submits to Seattle Engineer District for payment.

(9) Acts as Imprest Fund cashier.

CONTRACT ADMINISTRATION BRANCH

a. Conducts review of plans and specifications and prepares comments as to adequacy and sufficiency, including recommended revisions, additions, or deletions to eliminate conflicts or discrepancies in the Special Conditions and measurement and payment sections of the Invitation to Bid.

b. Collects information and technical data from other sections relative to contract modifications. Data, after collection and coordination, are sent to the contractor for a proposal. If approved, a notice to proceed is issued at the same time.

c. Coordinates all change orders and Government Estimates with the designated SATAF representative.

d. For modifications under Articles 3 and 4 when the amount does not exceed \$500,000.00 (increases plus decreases) conducts

necessary negotiations with contractor, prepares Forms 2180 and 2180a and the modification in final form for signature by the Authorized Representative of the Contracting Officer and makes distribution. When in excess of \$500,000.00, conducts necessary negotiations, prepares Forms 2180 and 2180a and modifications in final form and forwards them to CEBMCO for approval, signature and distribution.

3. Prepares fair cost estimates for changes regardless of the amount.

f. For time extension change orders makes determination and prepares change order in final form for submittal to CEBMCO for review, approval, signature and distribution.

g. For acceleration change orders, makes recommendations and negotiates price for approval and issuance by CEBMCO.

h. Prepares progress improvement letters for review by CEBMCO and signature by the Area Engineer.

i. Coordinates with other sections on matters submitted by the contractor for clarification or decision if a claim or change seems likely.

OFFICE OF COUNSEL

a. Counsel

(1) Renders legal advice and assistance to the Area Engineer and all components of the Area Office. Exercises staff supervision over all legal functions assigned to the Area Office.

(2) Renders staff advice and assistance in the negotiation and preparation of all contract modifications.

(3) Reviews contract modifications and decisions in final form for legal sufficiency.

(4) Reviews, investigates, recommends and acts as appropriate on all contractual and non-contractual claims and appeals.

(5) Renders legal advice on contract termination matters.

b. Labor Relations Officer

(1) Carries out labor policy directives and programs issued by higher authority including enforcement of contract labor standards; implements or recommends policies and procedures in relation thereto; promotes good working relationships between Corps of Engineers, organized labor and contractors.

(2) Prepares initial, interim and final reports on all work stoppages due to labor and makes distribution to the proper agencies.

(3) Coordinates reports and action with the Labor Relations Officer, SATAF.

SAFETY BRANCH

a. Assists the Area Engineer in administration of the Corps of Engineers safety program in the Area.

b. Advises concerning accident potentials on all jobs.

c. Prescribes and coordinates a balanced program of safety activities.

d. Evaluates the application of safety policy and criteria in plans, designs, specifications, operating and maintenance procedures and training programs.

e. Provides advisory safety engineering services for Area activities in support of accident prevention including features of design, occupational health, fire prevention and protection, radiological safety and safety in all end-use items or services.

f. Surveys all activities for compliance with the policies and objectives of the safety program.

g. Conducts progressive research into accident problems and develops corrective controls to prevent future accidents.

h. Acts as staff advisor and evaluates the program for issuing permits to operate motor vehicles and equipment.

i. As Area Fire Marshal, surveys facilities for fire protection, fire fighting, emergency and rescue to insure adequate and efficient utilization thereof.

j. Supervises the accident reporting system and compiles, analyzes and disseminates accident data and required corrective actions. Reviews accident reports, evaluates adequacy of preventive action and forwards to CEBMCO with recommendation for disseminating information to other Areas if applicable.

PROJECT OFFICES

a. Exercises immediate supervision over and inspects all contract construction work at the designated project sites. Responsible for obtaining work in compliance with the plans and specifications.

b. Furnishes technical information and assistance as required in connection with negotiation of construction contracts and modifications.

c. Consults with and advises Engineering Branch on estimated costs and progress of construction.

d. Provides comprehensive records of the progress of the work in the form of detailed inspector's reports.

e. Responsible for the promotion of the safety program and for adherence to safety requirements as established by contract specifications, OCE Safety Requirements and District policies.

PROPELLANT LOADING SYSTEM BRANCH

a. Acts as chief staff representative of the Area Engineer on all PLS matters. In performance of this duty, plans, coordinates and expedites all phases of PLS activities.

- b. Provides technical advice and assistance to Area Engineer on PLS matters.
- c. Provides chairman for joint CE/SATAP PLS test and validation committee.
- d. Reviews all proposals from the contractor relative to installation and testing of Propellant Loading System.
- e. Inspects and approves cleaning and installation procedures for pipes, valves, joints, tanks and other items requiring LOX cleanliness.
- f. Conducts all PLS testing to include planning, scheduling, coordinating and expediting procurement of Government-furnished gas and equipment.
- g. Coordinates activities of Zep Aero contract consultants.
- h. Maintains liaison with SATAP and the Martin Validation Team.

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ORGANIZATION CHART

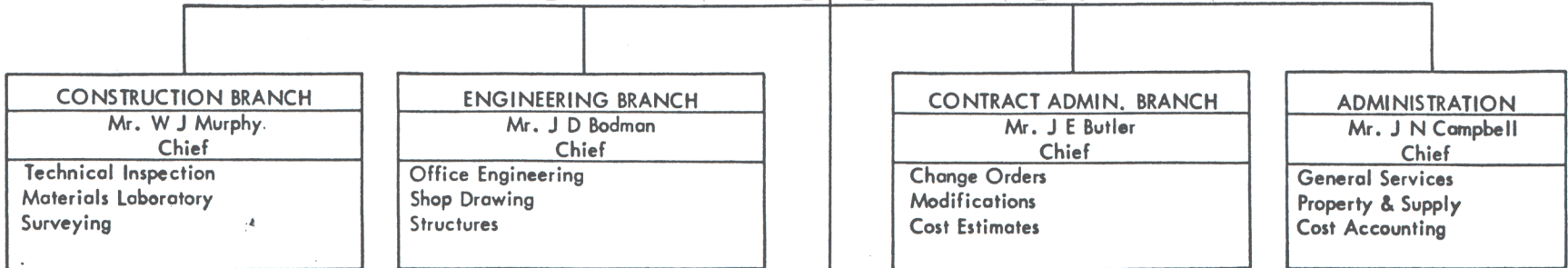
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U.S. ARMY ENGINEER DIVISION NORTH PACIFIC
Brigadier General A. F. Clark, Jr. Division Engineer

U.S. ARMY ENGINEER DISTRICT WALLA WALLA
Colonel P. H. Symbol District Engineer

U.S. ARMY ENGINEER AREA OFFICE LARSON
Lt. Colonel R. W. Fritz Area Engineer
Mr. C. B. Olmstead Assistant Area Engineer

OFFICE STAFF



FIELD OFFICES

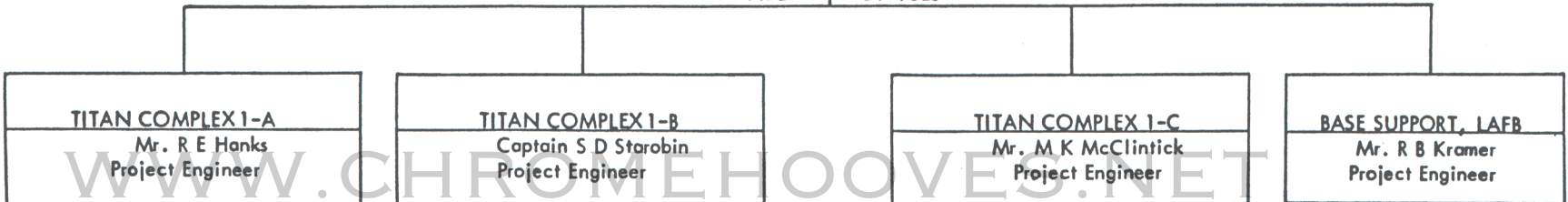
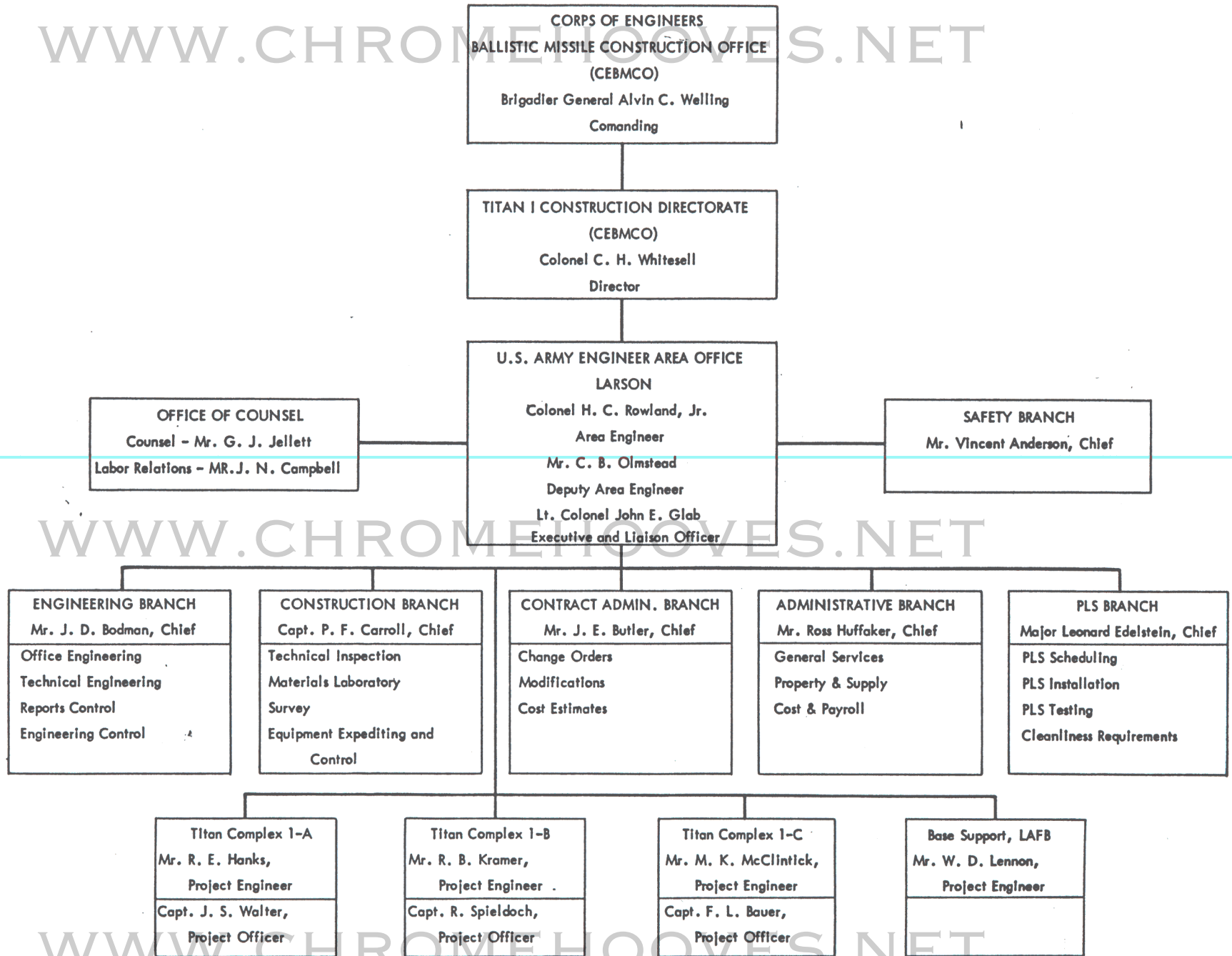


Fig 2

Mar 60

ORGANIZATION CHART



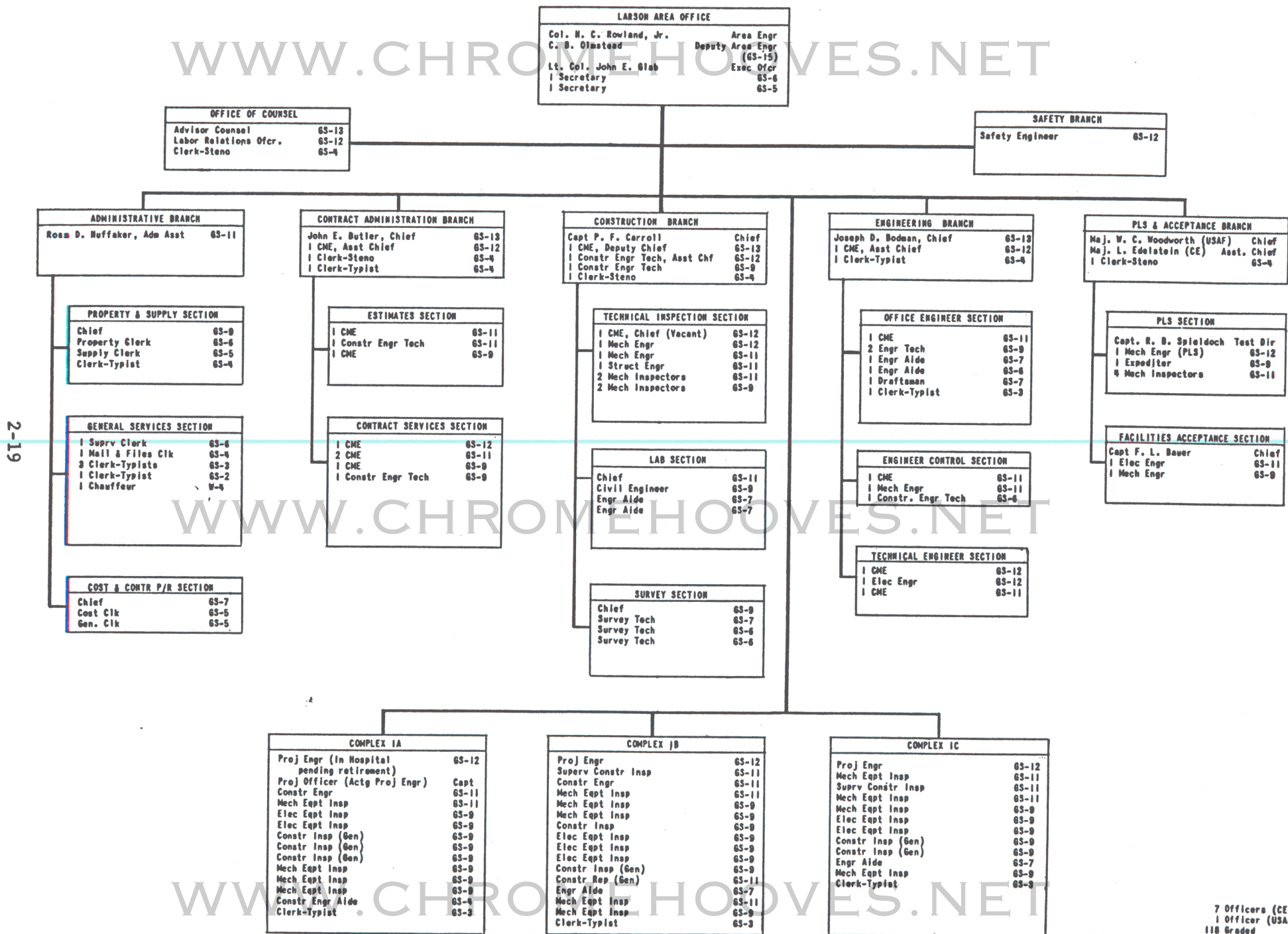
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Fig 3

Feb 61

EA OFFICE
ORGANIZATION CHART

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7 Officers (CE)
1 Officer (USAF)
118 Graded
1 Ungraded

1 October 1961

Fig 4