XVIII-24-35

MT. HOME AREA

HISTORICAL SUMMARY

FEBRUARY 1960-MAY 1962

U.S. ARMY CORPS OF ENGINEERS

BALLISTIC MISSILE CONSTRUCTION OFFICE

MT. HOME AIR FORCE BASE, IDAHO

FOR OFFICIAL USE ONLY

www.CDROM

2-12879

WWW.CHROMEHOOVES.NET

HISTORY
OF
CORPS OF ENGINEERS
ACTIVITIES
AT

MOUNTAIN HOME AIR FORCE BASE

JANUARY 1960 -- MAY 1962

WWW.CHROMEHOOVES.NET

Respectfully Submitted By:

EDMOND H. FARRINGTON
Col, CE, Area Engineer

Mountain Home Area, United States Army
Corps of Engineers Ballistic Missile Construction Office

"FOR OFFICIAL USE ONLY"

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

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

WS-107 A-2 TECHNICAL FACILITIES

MOUNTAIN HOME AIR FORCE BASE
IDAHO

TABLE OF CONTENTS

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

TABLE OF APPENDICES

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

CHAPTER I
MISSION

The Corps of Engineers' Mountain Home Area Office was established in January 1960 for the purpose of administering the contracts and inspecting the construction of Titan I launching sites and related facilities in the vicinity of Mountain Home Air Force Base, Idaho. An element of both the Corps of Engineers Ballistic Missile Construction office (CEBMCO) and the Air Force Mountain Home Site Activation Task Force (SATAF), the Area Office Commander carried the title of Area Engineer from CEBMCO and Deputy SATAF Commander for Construction from the Air Force.

Located in the Snake River valley of southwestern Idaho, the Mountain Home Titan I facilities are comprised of three launcher complexes surrounding the Mountain Home Air Force Base and support facilities situated within the limits of the air base. Mountain Home Air Force Base is located 11 miles southwest of the small (5,000 pop.) town of Mountain Home, and 55 miles southeast of Boise (35,000 pop.). Complex A lies 26 air miles south of the air base; Complex B, 20 air miles west of the base; and Complex C, 21 air miles north of the base. (See vicinity map, Appendix 1). The Corps of Engineers Area Office was located in wooden buildings rehabilitated for that purpose on the air base. The prime contractor's office was located in the town of Mountain Home, and his fabrication shop and PLS cleaning shop were in Boise. Following is a tabulation of local distances in road miles. Except for Boise, the towns mentioned are little more than villages.

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

	Boise	Mt. Home	Mt.Home AFB	Site A	Site B	Site C	Nampa	Glenns Ferry
Boise	--	44	55	83	87	22	20	69
Mt.Home	44	--	11	39	43	22	64	25
Mt.Home AFB	55	11	--	50	22	33	75	36
Complex A	83	39	50	--	50	61	103	50
Complex B	83	43	32	50	--	65	34	68
Truck Mt.to B	51	51	62	50	--	73	34	68
Complex C	22	22	33	61	65	--	42	47
Nampa	20	64	75	103	34	42	--	89
Glenns Ferry	69	25	36	50	68	47	89	--

All complexes are located in remote, sparsely settled areas of sagebrush desert. The climatic extremes, lack of schools, roads, water and other utilities discouraged construction of temporary housing facilities near the sites. It was consequently necessary for a large portion of the contractor's work force to commute daily between the work sites and Boise, Nampa, Glenns Ferry, or even more distant communities. Temperature during the construction period ranged from a high of 109° to a low of minus 22°. These difficult and unpleasant working conditions not only made normal heavy construction operations inefficient and costly, but also made recruitment of skilled craftsmen in required numbers extremely difficult without the expensive inducement of extra overtime, generous travel pay, etc. The severe winter temperatures necessitated costly protective measures be taken during concrete placement and after equipment installation was begun. The high summer temperatures and wind-driven silts and sands slowed and sometimes halted concrete placement.

Because of the remote location of the base, large costs in both time and money were attributable to shipping distances. Materials and supplies were obtained primarily from Seattle (525 mi.), Salt Lake City

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

(385 mi.), and eastern cities. T-1 steel was obtained in Portland (450 mi.), cement from Lime, Oregon (175 mi.), and nearly all specialized items and major pieces of equipment from the East (1800 to 3000 mi.). Railheads at Boise, Mountain Home, and the air base were available to the contractor. All concrete aggregate had to be trucked 45 miles to Complex A, 5 miles to B, and 25 miles to C.

Geological features contributed considerably to the cost of construction. Over 450,000 cubic yards of rock were removed at Complex A during open cut and shafting operations; however, it was discovered that the rock was so badly seamed, folded and fractured, that excavation to neat lines was extremely difficult and rock bolts would not hold thus necessitating more expensive ring beams. Free running sands and silts deposited in layers added to the difficulty and cost of shafting operations. This was particularly true at Sites A and B where the construction of intermediate ring beams was often necessary to contain loose material. The required depth of the water wells added to the drilling, pumping, and installation costs. Wells varied in depth from 950 feet at C, to 3,030 feet at B. The high temperatures (128° at A, 168° at B), and heavy mineralization of the water obtained, required special water treatment and cooling systems. Spray ponds had to be built at Complex B before the water could be cooled sufficiently for construction purposes.

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

CHAPTER II

SCOPE

The Mountain Home Area Office administered twelve construction contracts with an original aggregate value of $30,544,259. Six of these were under construction at the time the Area was formed and six were awarded subsequent to that time.

Contracts at Time of Take Over by Area Office

Contract No.	Description	Contract Amount At Take Over
DA-45-164-ENG-3553	Drilling, Casing, Developing, and Testing a Water Well and Modification to an Existing Well (Complex 1-C)	50,825
DA-45-164-ENG-3554	Drilling, Casing, Developing, and Testing a Water Well (Complex 1-A)	216,825
DA-45-164-ENG-3555	Access Road to Launch, Complex 1-B	80,812
DA-45-164-ENG-3556	Access Road to Complex 1-C	24,362
DA-45-164-ENG-3558	Rehabilitation of Area Office Buildings	43,450
DA-45-164-ENG-3561	Access Road to Complex 1-A	117,349
	TOTAL	$ 533,623

WWW.CHROMEHOOVES.NET

Contracts Issued After Area Office Formation

Contract No.	Description	Contract Amount
DA-45-164-ENG-3565	WS-107 A-2, Technical Facilities	28,899,053
DA-45-164-ENG-3597	Rehabilitation and Conversion of Buildings	127,200
DA-45-164-ENG-3621	Rehabilitation and Air Conditioning of Buildings	43,867

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

DA-45-164-ENG-3623	LOX Plant and Helium Unloading Facility	402,500
DA-45-164-ENG-3625	Guided Missile Assembly Building and Technical Supply Buildings	436,016
DA-45-164-ENG-3626	Re-entry Vehicle Building	102,000
	TOTAL	$ 30,010,636

The design Architect-Engineer for the primary construction contract was Daniel, Mann, Johnson & Mendenhall and Associates, a Joint Venture, with offices at 2706 Wilshire Boulevard, Los Angeles 57, California. There were no major design changes made after award of the construction contract; however, there were many changes and modifications made during construction which, although they cannot be described as major design changes, did disrupt the contractor's operations and did result in considerable additional contract cost.

WWW.CHROMEHOOVES.NET

Since this was the last base to start, it is to be assumed some experience gained at upstream projects tended to effect some reduction in early design problems and some small savings in cost. Rock, however, was known to exist at Complex A and free running sands at Complexes A and B; consequently, provisions had to be made for rock bolts or ring beams. It was discovered that the rock would not hold bolts and beams were used. Intermediate beams had to be placed in order to contain the sands.

The primary basic contract, No. DA-45-164-ENG-3565, required construction of major facilities as follows:

Missile Silo	9	3 at each Complex
Equipment Terminal	9	3 at each Complex
Propellant Terminal	9	3 at each Complex

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

Control Center	3	1 at each Complex
Antenna Silo Pairs and Terminal	3	1 at each Complex
Powerhouse with Connecting Tunnels	3	1 at each Complex
Entry Portal Silos	3	1 at each Complex
Launcher Area Air Filtration Structure	3	1 at each Complex

Steel Tunnels, Tunnel Junctions and Blast Locks, Water Wells at Sites B and C, Water Distribution and Waste System, Site Roads, and Fencing.

In addition to the major contracts noted above, there were nine contracts for standardized equipment which were awarded by the Government to suppliers for a total of $4,337,665. These supply contracts were assigned to the primary construction contractor for administration.

WWW.CHROMEHOOVES.NET

The original total estimate including contract prices, contingencies, real estate, utilities, Government cost, etc., was $45,913,200. However, a number of factors influenced a considerable cost growth and an estimate prepared in January 1962 indicated this total cost would exceed $65,500,000.

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

CHAPTER III

ORGANIZATION AND PERSONNEL

Recruitment for the Mountain Home Area Office was begun in November 1959 by the U. S. Army Engineer District, Walla Walla, During the month of December 1959, recruited personnel were transferred to a temporary holding area at the Mountain Home Project Office. Walla Walla District Special Order No. 751 dated 21 December 1959 and signed by Colonel Paul H. Symbol, District Engineer, established the Mountain Home Area Office effective 4 January 1960 and designated Mr. Benaiah W. Molle as Acting Area Engineer.

Department of the Army Special Order No. 234 dated 27 November 1959 assigned Lt. Col. J. R. Woodruff, Jr., to duty station Mountain Home 19 January 1960 and Walla Walla District Special Order No. 760 dated 26 January 1960 designated Col. Woodruff as Area Engineer and Mr. Molle as Assistant Area Engineer effective the date of the order. Mr. Molle's title was subsequently changed to Deputy Area Engineer.

WWW.CHROMEHOOVES.NET

At the time the Mountain Home Area Office was activated, it was an element of the U. S. Army Corps of Engineers, North Pacific Division, Walla Walla District, with Col. Symbol as District Engineer and Contracting Officer for the primary construction contract. On 12 October 1960, the Corps of Engineers Ballistic Missile Construction Office (CEBMCO) assumed command of the Mountain Home Area Office and Colonel C. E. Whitesell, Director, Titan I Directorate of CEBMCO, became Successor Contracting Officer.

Changes in the command line were made during 1960. Lt. Colonel

WWW.CHROMEHOOVES.NET

Edmond H. Leavey, Jr. was assigned to duty at Mountain Home by Telegraphic Order No. AGPA-O 76289 and assumed command of the Area Office 29 May 1961. He assigned Lt. Col. Woodruff as Assistant to the Area Engineer by Area Order No. 1 dated 1 June 1961; Mr. Molle continued his assignment as Deputy Area Engineer. Lt. Col. Leavey was promoted to Colonel 26 June 1961 and on 11 August 1961 changed his name to Edmond H. Farrington. Delegations of his authorities were reissued to Col. Edmond H. Farrington 11 August 1961. Lt. Col. Woodruff resigned his commission effective 1 January 1962 and no further changes were made in the command line.

Other military personnel assigned to duty at Mountain Home were:

Lt. Col. S. R. Fenn: Assigned to duty as Major Fenn 6 October 1960; promoted to Lt. Col. 20 April 1961; Executive Officer until 3 July 1961; PLS Officer and Chief, PLS Branch 3 July 1961 to 29 December 1961; reassigned as Executive Officer 29 December 1961 until relieved 21 May 1962;

Lt. Col. T. W. Dale: Assigned to duty 5 October 1960; PLS Officer and Chief, PLS Branch until 3 July 1961; relieved 14 July 1961;

Capt. S. R. Forbes assigned to duty 16 August 1960; Project Engineer, Complex C; relieved 30 April 1962;

Capt. N. A. Matthias assigned to duty 19 December 1960; Special Assistant for PLS to 29 December 1961; Liaison Officer 29 December 1961 and retained in that capacity as member of Mountain Home Holding Detachment 2 June 1962;

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

Capt. G. B. Gray, Jr., Assigned on temporary duty 2 January 1962; Chief, PLS Branch; relieved 1 April 1962;

Capt. W. E. Lee, assigned to duty 1 August 1961 as First Lieutenant; promoted to Captain 24 October 1961; Project Officer, Complex B; relieved 25 April 1962;

1st Lt. J. L. Ross, assigned to duty 16 August 1960; Project Officer, Complex B; resigned 4 August 1961;

1st Lt. G. J. Dougherty, assigned to duty 27 December 1961; Project Officer, Complex A; relieved 11 May 1962.

The Area Office occupied new quarters and began full scale operations late in January 1960. Approximately 30 employees were assigned from the Walla Walla District Resident Office located at Mountain Home Air Force Base. When the Corps of Engineers Ballistic Missile Construction Office (CEBMCO) assumed command of the Area Office, the Walla Walla District continued to furnish support services for administration and personnel until 1 June 1961 at which time all military work was transferred to the Seattle District. Personnel support services were transferred to the Seattle District at that time. However, Mountain Home Area personnel who had formerly been employed under civil ceilings retained their reemployment and reduction in force rights with the Walla Walla District, while those formerly employed under military ceilings in the Walla Walla District had these rights transferred to the Seattle District with the transfer of military functions.

WWW.CHROMEHOOVES.NET

By 8 June 1961, the total number of permanently assigned Government personnel reached a peak of 116. (See Appendix No. 3). As the

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

construction work load decreased toward the end of 1961, phase-out of some inspection forces at the sites was begun and by 31 December 1961 total personnel had been reduced to 112. Due to heavy demand created by contract modifications and construction contractor's claims it became necessary to obtain the services of estimators on a contract basis from non-Government sources. From March 1961 through May 1962 the number of full time estimators so obtained from two to six depending upon the work load. Although the basic organization chart illustrated in Appendix No. 4 remained essentially unchanged, considerable transferring of qualified personnel within the organization was necessitated by the shifting work load. For example, the early load was in Engineering Branch due to the need for approval action on shop drawings and other submittals from the construction contractor; during subsequent phases of the work, the load shifted to Construction Branch, Contract Administration Branch, PLS Branch, etc.

WWW.CHROMEHOOVES.NET

CEBMCO General Order No. 6 dated 3 May 1962 discontinued the Mountain Home Area Office as of 2 June 1962 and established the Mountain Home Holding Detachment. This detachment was comprised of seventeen civilian employees, the Area Engineer and the Liaison Officer. It was anticipated that the Holding Detachment would be dispersed 30 June 1962 and that the Liaison Officer, Capt. Matthias would remain until the end of July 1962.

Considerable difficulty was encountered in recruiting and retaining qualified personnel to accomplish the mission. Much of this difficulty resulted from the short term of employment offered. As the job progressed and additional specialists were needed for various

WWW.CHROMEHOOVES.NET

types of work, it became increasingly difficult to recruit because the term of employment was shorter. This made it necessary to employ contract personnel for a large portion of the estimating work and for a considerable portion of the PLS testing and inspection. It was also necessary to obtain services of Government Personnel on a TDY basis to assist in various functions. There were at one time during the latter stages of construction, six contract personnel on estimating, seventeen contract personnel on PLS inspection and testing and twenty-five Government personnel on temporary duty working on inspection, testing, labor relations, contract modifications, claims and on administrative functions.

Under the circumstances, this was the only manner in which the job could be properly completed. If arrangements could be made to guarantee Government personnel transfers to other projects without loss of pay at the completion of their assignments, recruiting and retention of such personnel would be greatly simplified as well as being considerably more economical.

Other than the command line and military, key personnel of the staff were:

Mr. Malcolm F. Steele, Area Counsel

Mr. Thomas J. Mendiola, Chief, Construction Branch

Mr. Alan C. Brandes, Chief, Contract Administration Branch

Mr. Hugh J. Mellen, Chief, Engineering Branch

Mr. George G. Bowers, Chief, Administrative Branch

Mr. Gordon E. VanScotter, Project Engineer, Complex A

WWW.CHROMEHOOVES.NET

Mr. Harold O. Talbot, Project Engineer, Complex B

Mr. Marvin A. Carmichael, Project Engineer, Complex C (until 18 June 1961)

OFFICE OF AREA COUNSEL - The position of Area Counsel at this installation was not filled until 27 March 1961. This was more than one year after the award of the contract. During the interim, the services required of this office were supplied by District Counsel from the Walla Walla District Office and personnel from CEBMCO Office of Counsel on TDY as called for by the Area Engineer,

The position of Area Counsel was filled by PCS transfer of Malcolm F. Steele from the New England Division. All action required of the office of Area Counsel prior to that time had been adequately completed by the TDY personnel referred above. No law library had been supplied as of 27 March 1961, and considerable time was spent in getting a library together and in assembling CEBMCO Circulars, instructions and other reference material including up-to-date copies of the active contract.

When the library and reference material had been assembled, it was adequate for the operation of the office. The cases and claims that arose prior to the arrival of the Area Counsel seemed to have been handled in a workmanlike manner and it is not felt that any damage was sustained by the Government through the lack of day-to-day counsel. It was only after the arrival of Area Counsel that claims reached the status where appeals were being filed by the contractors. All appeal assemblies required for the Missile site contracts at Mountain Home

WWW.CHROMEHOOVES.NET

were prepared by Area Counsel after his arrival.

These appeals also required the preparation of answers and trial briefs to the complaints filed by the Contractor. During the term of the contract, four appeals were heard by a single member of the Corps of Engineers' Board of Contract Appeals sitting in Boise at the Post Office Building and at Mountain Home in the County Court House. Arrangements were made for these facilities by Area Counsel, who also was designated as Associate Trial Attorney in these hearings, together with Mr. Leonard Phillips of CEBMCO, Office of Counsel, who came to Mountain Home on TDY for these hearings. No decisions have as yet been rendered on these claims.

Area Counsel is currently preparing five more appeal cases for hearing before the Board. These hearings are not to take place until the project has been completed and it is currently planned to have the hearings in San Francisco during the week of 19 June 1962.

An effective Labor Relations Officer was not in operation until September 1961, with the arrival of Mr. John Danrot from Schilling. Prior to his arrival, Area Counsel handled, as best he could, some aspects of the LRO position. This was not a satisfactory arrangement and it is felt that much time in preparing material and back-up for the Contractor's acceleration claim might have been saved by the full-time activities of an LRO from the beginning of the project.

CONSTRUCTION BRANCH - The Construction Branch was organized with Mr. T. J. Mendiola as Branch Chief. It provided positions for a staff of 57 members in the following sections: Engineering Control, Laboratory, Survey and four project offices, one at each of the three missile

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

complexes and on one base.

Early in the contract, the Survey Section was transferred to the Engineering Branch where it remained. The Progress and Reports Section, which was organized early in the contract under the Contract Administration Branch, was transferred to the Construction Branch late in the contract.

In the beginning, the Branch started with a staff of 39. At this time, several contracts were in progress on or near the Air Base and necessarily the greatest number of personnel were attached to the On-Base Project Office. As these contracts neared completion or were terminated, personnel were shifted to the Missile Complex Project Offices where the tempo was increasing and to the Engineering Control Section where they were needed to inspect pipe fabrication and cleaning at the Boise fabrication plant. Later, when PLS pipe installation began, the plant inspectors were transferred to the PLS Branch. Acceptance testing and turnover prefinal and final inspections were conducted at the same time which required a substantial increase in the Engineering Control Section. At this period, the staff of the Construction Branch rose to a peak of 62 members.

WWW.CHROMEHOOVES.NET

After construction was completed at the Complexes, including removal of all punch list items from the Form 290 and all validation and acceptance testing were completed, the remaining branch members were assigned claims to determine validity and assist in making necessary settlements.

PLS BRANCH - A PLS Branch was first formed 17 October 1960 under the supervision of Lt. Col. Thomas W. Dale. This Branch functioned

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

as an advisory group, utilizing a staff consisting of the Branch Chief, one mechanical engineer assistant, and one clerk-stenographer. The Branch remained in operation until 6 March 1961 at which time Lt. Col. Dale was designated as Special Assistant to the Area Engineer for PLS. During the tenure of this first Branch, the receiving of standardized equipment and surveillance of piping fabrication and vessel installation were under the supervision of the Construction Branch.

On 13 April 1961, the staff supervision of the PLS function; i.e., cleaning, installation, instrumentation, and check-out of PLS; were assigned to the Chief, Engineering Branch. However, the Project Engineers remained responsible for PLS activities at their complexes.

On 1 June 1961, a PLS Branch was established to be at the same operational level as other branches. However, once again, the responsibility for PLS activities at their respective complexes remained with the Project Engineers, with the PLS Branch Chief responsible for the observation of activities and assisting or directing the Project Engineers to insure correct and timely completion of the Propellant Loading System at each Complex. During November 1961, the responsibility was removed from the Project Engineers and the PLS Branch was given direct control over all PLS activities at the complexes.

The staffing of the Branch during the period 13 April 1961 to 3 July 1961 was: 12 Mechanical Equipment Inspectors, 1 Engineering Technician, 1 Construction Management Engineer, and 2 Mechanical Engineers. This staff was under the supervision of the Chief, Engineering Branch, who was assigned as Acting Chief of the PLS Branch.

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

On 3 July 1961, Lt. Col. S. R. Fenn was assigned PLS Officer, Chief, PLS Branch, and on 7 August 1961 the Branch lost its identity with the Engineering Branch. Finally, on 29 December 1961, Lt. Col. Fenn was reassigned as Executive Officer and Capt. Goerge B. Gray, Jr. was assigned as PLS Officer, Chief of PLS Branch.

The manning of the Branch staff varied from the original sixteen men in June 1961 to a peak of 44 men in January 1962. This staff decreased to a total of six personnel by 30 March 1962 including two clerk-stenographers.

ENGINEERING BRANCH - The Engineering Branch was established on 3 January 1960. At that time the Titan I Construction Contract was in the advertising stage, and bids had not been opened. The initial work of the Branch consisted of shop drawing review and a small amount of change order design on the then-current construction at Mountain Home Air Force Base. This work was concerned with the construction of a gymnasium, auto shop, readiness crew building, target intelligence training building, and testing of a 60,000,000 BTU high-temperature hot water boiler after the construction contract had been completed.

WWW.CHROMEHOOVES.NET

Staffing of the Engineering Branch continued through the first quarter of the calendar year. By 1 April 1960, the organization was well established, the duties defined and the initial shakedown completed. The Workload increased due to the award of the Titan I Technical facilities contract, a contract for construction of Nike Hercules Launching and Control Facilities (subsequently cancelled), a LOX plant, Missile Assembly Building, Re-entry Facilities and three other contracts

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

of smaller money value.

The Engineering Branch was initially made up of three sections: Technical, Office Engineering and Survey. Each Section averaged five engineers and engineering technicians during the first year.

The Technical Section reviewed some 8,000 shop drawings and construction drawings during the life of the Titan I Technical Facilities contract. In addition, this section initiated a few change order designs, assisted the design agency in a consultant role in the remaining change orders, and reviewed all modification design packages for construction feasibility. This section also prepared Government Estimates for change order work until the contract was nine months old, when the estimating function was transferred to Contract Administration Branch.

WWW.CHROMEHOOVES.NET

The bulk of the engineering work fell upon the Technical Section until the last few months of the contract. The shop drawings came in slowly at first, then began to peak during the summer of 1960. The rate of contractor submittals gradually increased until August, September and October of 1960, when an average of 900 shop drawings, shock test calculations and construction drawings were processed each month. During this period and other shorter times when the work load exceeded the production capacity of the section, the permanent staff was augmented by loaned or detailed personnel from Construction Branch, Contract Administration Branch, other parts of the Engineering Branch, and by utilization of an Architect-Engineer contract with Daniel, Mann, Johnson & Mendenhall and Associates. The latter source independently

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

checked 900 shop drawings. By June 1961 the shop drawing work load had dropped to an average of 100 submittals or resubmittals per month where it remained relatively stable until the first few weeks of calendar year 1962. As the work load dropped, section strength was reduced by transfer to Contract Administration Branch. By 1 February 1962, only one man remained in the section. The last position was abolished on 15 April 1962.

The Office Engineering Section was primarily concerned with computation of pay quantities, preparation of partial and final payment estimates, preparing as-built drawings, assembly and transfer of RPIE data, miscellaneous drafting, operation of the reproduction room and maintenance of the Engineering Branch filing system, and shop drawings logs.

WWW.CHROMEHOOVES.NET

This section was initially staffed, in part, with the office force of the old Project Office. During the waiting period before the impact of the new work, this section completed the outstanding work on the old contracts and made up a series of status books which were later used for RPIE data.

The Office Engineering Section worked intimately with the Technical Section on shop drawing review, and took the lead in working with Administration Branch and Contract Administration Branch on the administrative details relating to the standardized equipment contracts.

This section phased out on 15 February 1962, retaining only a part-time interest in one man to keep up the filing and ozalid reproduction. The last major task was the preparation and certification of as-built

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

drawings. The Mountain Home as-builts were completed and certified before any of the other Titan I sites, even though Mountain Home was the last one in the order of work.

The Survey Section performed extremely valuable service from the very beginning of the job until the last few punch list items were cleaned up. Throughout the life of the contract, this section was called upon to furnish data for pay quantities, and to help the Project Offices in checking locations of bolt groups, inserts, imbedded plates, and other hardware that is imbedded in the faces of the concrete silos and other structures. The Survey Section was composed of two survey crews until 1 February 1962, when it dropped to one crew. The last man was phased out and the section abolished on 1 April 1962.

WWW.CHROMEHOOVES.NET

The PLS Section was a part of Engineering Branch during the first half of calendar year 1961. In June 1961 the section grew in numbers and became a separate branch, with the Chief, Engineering Branch assigned in a dual capacity as Acting Chief of PLS Branch. In August 1961 the PLS Branch broke away from the Engineering Branch completely. Simultaneously, the Estimating Section was picked up from Contract Administration Branch.

Initially, the estimating was done by the Technical Section. During the last few months of 1960, this function was transferred to Contract Administration Branch and a separate estimating section was established.

This section was taken over by Engineering Branch on 5 August 1961, where it remained until the end of the job. The work load increased

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

due to stepped-up settlement of modifications and claims during the last four months of the contract. During this time, the strength was maintained at ten estimators, which included two or three TDY estimators and four or five contract estimators from Estimators, Ltd.

In Engineering Branch, the only operational problem was one of staffing. The work load in Engineering fluctuated widely throughout the life of the contract. Plotted as work load versus time, the curve would appear as a series of peaks and dips. During the dips, the versatile and highly qualified personnel in Engineering were detailed, loaned or reassigned to other branches. When the load later peaked as a result of emphasis on RPIE data, as-builts, a flood of resubmittals, or other causes, it was difficult to regather enough trained manpower to handle it. This situation became acute toward the end of the job. The problem was solved through use of overtime, loaned or detailed personnel or contract engineers.

WWW.CHROMEHOOVES.NET

CONTRACT ADMINISTRATION BRANCH - The Contract Administration Branch of the Mountain Home Area Office commenced full operations on 22 January 1960 after desks, file cabinets and records were moved into the newly rehabilitated buildings located in the old Air Base hospital area. Mr. A. C. Brandes was Chief of the branch with a staff of three under his direct supervision.

At the time of activation, six Titan I Program contracts were being administered for a total contract amount at time of Area Office takeover of $533,623.50. Remaining construction work on these 6 contracts amounted to $382,000 or 71% of the work. The contracts are

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

listed in CHAPTER II.

On 8 February 1960, Contract No. DA-45-164-ENG-3565 calling for construction of WS-107 A-2 Technical Facilities was awarded to the joint venture firm of Kaiser-Raymond-Macco-Puget Sound in the amount of $28,899,053.00 with all work to be completed by 1 April 1962. This contract represented the primary construction contract being supervised by the Area Office and created the major portion of the work load for the Contract Administration Branch.

In 1960 five other contracts, varying in contract value from $43,867 to $436,016 for a total contract value of $1,111,583, were issued. Two of these contracts involved rehabilitation of buildings for office space for the SATAF organization and associate contractors and three involved constructing support facilities for the missile system. A tabulation of these contracts also appears in CHAPTER II.

WWW.CHROMEHOOVES.NET

During the initial phases of administering the construction contracts under supervision of the Walla Walla District Office, the work of the Branch consisted mainly of issuing and negotiating changes, answering inquiries about interpretation of the contract and preparing reports on the status of pending changes.

On 12 October 1960, the Contracting Officer authority was transferred from the Walla Walla District Office to the Titan I Directorate, newly established in Los Angeles, California. Fiscal responsibilities previously carried by the Walla Walla District Officer were transferred on 1 November 1960. With this transfer, more effort was required in preparing reports because of the requirement that the Area Office

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

prepare reports previously prepared by the Walla Walla District Office. These new reports were: Status of Modification Report No. ENGMA-VK-16, Individual Procurement Action Report Form DD 350 and Monthly Procurement Summary by Purchasing Office DD Form 1057.

During December 1960 the responsibility for preparing Government fair cost estimates for contract changes was transferred from the Engineering Branch to the Contract Administrative Branch. In addition, the Progress and Reports Section, which prepared contractor payment estimates and monitored and provided the basic information for the TEMCO TRACE Reports, was transferred from the Construction Branch to the Contract Administration Branch. In January 1961 an Estimating Section and a Modifications Section were established in the branch because of the increasing work load in these two areas of responsibility.

WWW.CHROMEHOOVES.NET

On 4 January 1961 the first field change order conference was conducted in the SATAF engineering office to discuss a proposed field change; thereafter, field change order conferences were conducted for every field change. The Chief or Assistant Chief of the Contract Administration Branch with the representative of the Engineering Branch represented the Area Engineer at these meetings.

During the period 8 through 10 February 1961 the Contract Administration Branch issued partial payment modifications or unilateral modifications on all outstanding changes upon orders received from the Titan I Directorate. It had been determined that partial payments on changes not yet finalized should be made to the Contractor to insure that the Contractor was not carrying the cost of the modification work

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

prior to settlement of price. Prior to this period, partial payment modifications had been issued only in special situations. The requirement that initial modifications be issued on all present and future changes increased the administrative workload of the branch substantially.

On 20 February 1961 because of a shortage of estimators and the resultant backlog of Government estimates to be prepared, four estimators hired by an estimating firm under contract to the Government were assigned to the Mountain Home Area Office. The services were to be used only until the backlog of Government estimates were completed, at which time the personnel were to be released. Because of the continuing heavy requirement for Government estimates, an average of four contract estimators were employed from 20 March 1961 through April 1962. The number of contract estimators varied from two to six.

WWW.CHROMEHOOVES.NET

During 1961, a requirement to prepare numerous special reports for the Titan I Director on funds reprogramming, status of settlement and payment of changes and claims, status of partial payments, etc., developed, usually on a crash basis which would temporarily disrupt the functioning of the branch. This special requirement gradually reduced in severity to a more normal level by the close of 1961.

On 3 August 1961 the estimating section was transferred to the Engineering Branch and the Progress and Reports Section was transferred to the Construction Branch to balance the work load in the Area Office. The work load of the Construction Branch and the Engineering Branch had been diminishing because of the completion or pending

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

completion of construction on portions of the prime construction contract while the Contract Administration Branch work load had been increasing because of the increased effort required to settle outstanding changes and claims.

In 1962 the work load of the branch gradually changed to a basic requirement to settle the enormous backlog of claims submitted by the Contractor. Personnel of other branches were reassigned to the Contract Administration Branch as their work diminished, and a portion of the claims were assigned to the PLS, Engineering and Construction Branches for finalization.

The main problems concerning administrative work of the Contract Administration Branch were lack of clerical personnel to handle the work load, disruption of the branch by the crash demands for special reports on funds requirements, future changes, estimated settlements of pending changes and claim, expected future claims, etc., a continuous problem with the standardized equipment contract concerning assignment to the construction contractor and lack of proper control for correct funds programming.

Lack of clerical personnel to handle the work load resulted in engineers being required to perform clerical work. A major portion of correspondence was written in longhand rather than dictated to stenographers so that the steno-typists could concentrate on getting out suspense work. In addition, a major portion of the work involved in preparing routine tabulations, seeking out correspondence from the files plus numerous other various types of clerical work was performed by

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET

engineers.

Crash demands for special reports continually upset the normal operations of the branch and reduced the efficiency of the branch personnel. Not only did these demands cause the branch personnel to disrupt their work, but the accuracy of the information prepared in such a hurry was questionable.

A continuous problem developed with the standardized equipment contracts concerning assignment to the construction contractor. This problem area resulted in a multitude of correspondence required to process changes and claims to the standardized equipment contracts and to reply to numerous inquiries from the construction contractor concerning proper administration of the assigned contracts.

The relationship between the Area Office and SATAF was very good at all levels of organization. Throughout the entire life of the relationship, there was a mutually beneficial attitude of cooperation and respect and there were no serious differences of opinion regarding interpretation of contract conditions or facility turn-over. See Appendix No. 5 for SATAF organization Chart.

WWW.CHROMEHOOVES.NET

WWW.CHROMEHOOVES.NET