

HISTORY OF THE ALTUS AREA OFFICE  
U. S. ARMY CORPS OF ENGINEERS  
BALLISTIC MISSILE CONSTRUCTION OFFICE  
ALTUS, OKLAHOMA

14 March 1960 - 28 April 1962

Prepared by

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CEBMCO Liaison Officer  
Altus

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## CHAPTER 9

SPECIAL ACTIVITIES

9-01. GENERAL - This section of text on the history of the Altus Area is to provide a summary of activities on events which are of a general nature and which do not appear elsewhere in this history.

9-02. CEREMONIES - a. 20 May 1960 - A symbolic ground breaking ceremony was held at Altus Air Force Base and attended by Oklahoma's U. S. Senator Robert S. Kerr; U. S. Congressman Toby Morris from the 6th Congressional District; Colonel Howard W. Penney, CE, Tulsa District Engineer; Colonel Frederick R. Ramputi, USAF, 11th Bombardment Wing Commander; Colonel (now Brigadier General) Howard W. Moore, USAF, 816th Air Division Commander; and the Mayors representing the City of Altus and 12 communities located near the proposed missile sites. Photographs of this ceremony appear on pages 153 and 154.

b. 16 June 1960 - Observation of the Corps of Engineers 185th anniversary. Lieutenant Colonel (then Major) Carl F. Baswell, Altus Area Engineer conducted the ceremony.

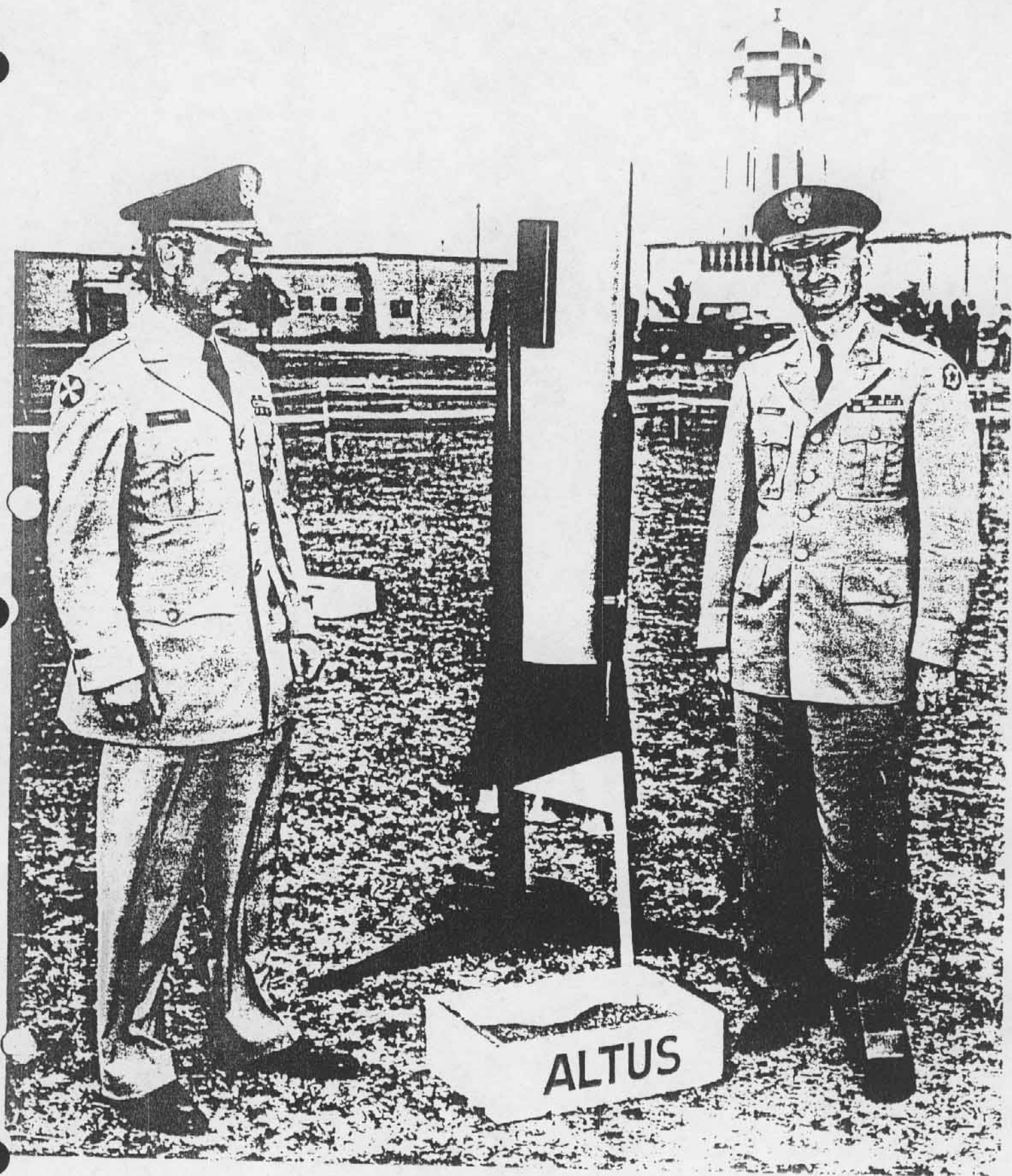
c. 4 November 1960 - Ceremonies held at Complex 2 and marking the command transfer of the Altus Area Office from the U. S. Army Engineer District, Tulsa to U. S. Army Corps of Engineer Ballistic Missile Construction Office. Principal speakers at this ceremony were Colonel Howard W. Penney, CE, Tulsa District Engineer and Colonel Woodrow W. Wilson, CE, Director Atlas F Construction Directorate, CEBMCO. Also attending was Mayor of the city of Altus, Hoyt Shadid;

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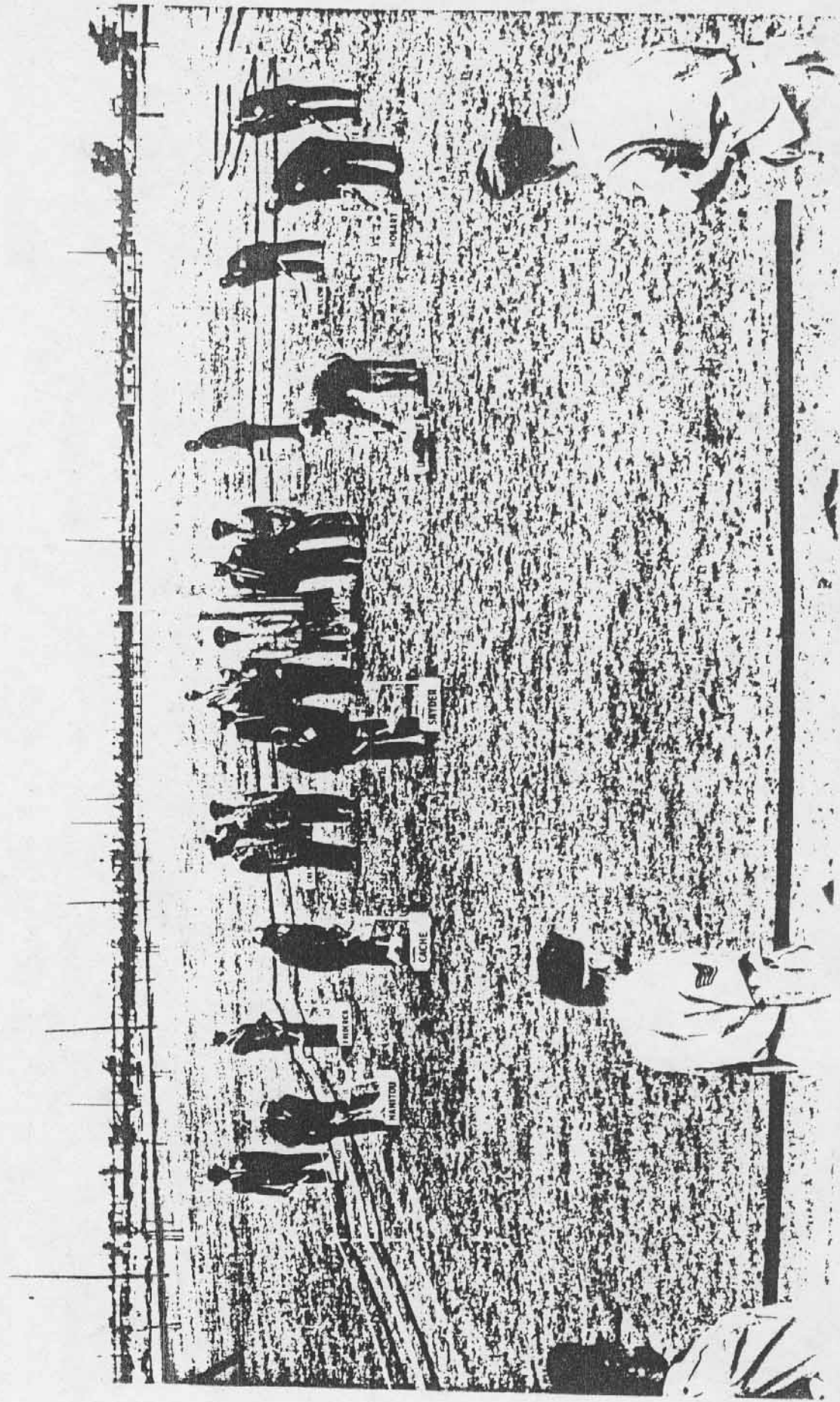


SYMBOLIC GROUND BREAKING CEREMONY  
ALTUS AFB, OKLAHOMA  
20 May 1960

Left to Right: Colonel Howard W. Penney, District Engineer, Tulsa District; Lt Col  
(then Major) Carl F. Baswell, Area Engineer, Altus



SYMBOLIC GROUND BREAKING CEREMONY  
ALTUS AFB, OKLAHOMA  
20 May 1960



Colonel Frederick R. Ramputi, USAF, 11th Bombardment Wing Commander; Colonel Ernest C. Ramme, USAF, Altus SATAF Commander; Colonel Adolph Kroehler, USAF, AFCE Southwest and the Altus Area Engineer's Staff.

d. 15 June 1961 - Ceremony was held commemorating the 186th anniversary of the U. S. Army Corps of Engineers. Lieutenant Colonel Carl F. Baswell, Altus Area Engineer presided and was the principal speaker.

e. 1 August 1961 - Ceremonies were conducted at Complex 2, Snyder, Oklahoma, marking the turnover of the first of the Altus Area projects to the Using Agency. Brigadier General Howard W. Moore, USAF, 816th Air Division Commander; Colonel W. W. Wilson, Director, Atlas F Construction Directorate, CEBMCO; Colonel John T. Compton, USAF, Altus Air Force Base Commander; Lieutenant Colonel Carl F. Baswell, CE, Altus Area Engineer; Mr. Bert Perkins, Los Angeles District Manager, MKH; and Mr. William McMurren, Altus Project Manager, MKH&A, were the principal speakers. The general public was permitted to tour the project. Photographs appear on pages 156 thru 162.

f. 8 November 1961 - Ceremony was conducted at Complex 5, Fargo, Texas, marking the turnover of that site (the last of 12) to the Using Agency. Major General A. C. Welling, USA, Deputy for Site Activation Ballistic Systems Division, Air Force Systems Command; Brigadier General (then Colonel) Thomas J. Hayes, CE, Commanding Officer, CEBMCO; Colonel Woodrow W. Wilson, CE, Director, Atlas F Construction Directorate, CEBMCO; Colonel Ernest L. Ramme, USAF, Altus SATAF Commander; Lieutenant Colonel Carl F. Baswell, CE, Altus Area Engineer, and Mr.

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CEREMONIES MARKING TURNOVER OF SITE 2, SNYDER, OKLAHOMA TO USAF  
1 August 1961

General Douglas MacArthur

265

19-1-8

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72

### Point of View

## Definition

FOR NOVER  
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CEREMONIES MARKING TURNOVER OF SITE 2, SNYDER, OKLAHOMA TO USAF  
1 August 1961

Col E. L. Ramez, USAF, Altus SATAF Comdr addressing assembled guests.

Date 8-7-61

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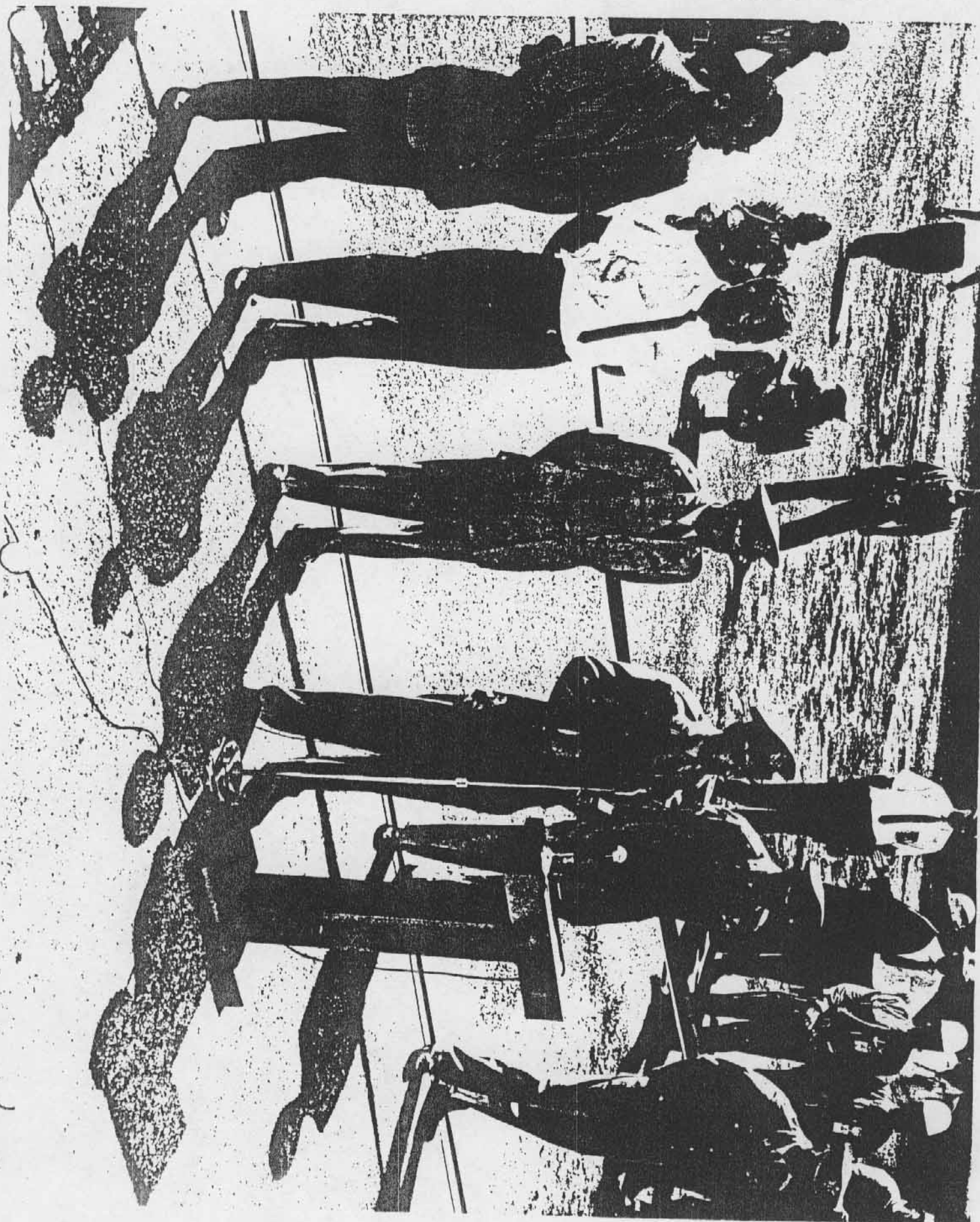
Page 2

1. Summary

2. Turnover

TURN OVER TO AF





ALTUS AFB FORM 1 DISE- 263

ALTUS AFB 3

Date 8-1-61

Disposal 100

Site 2

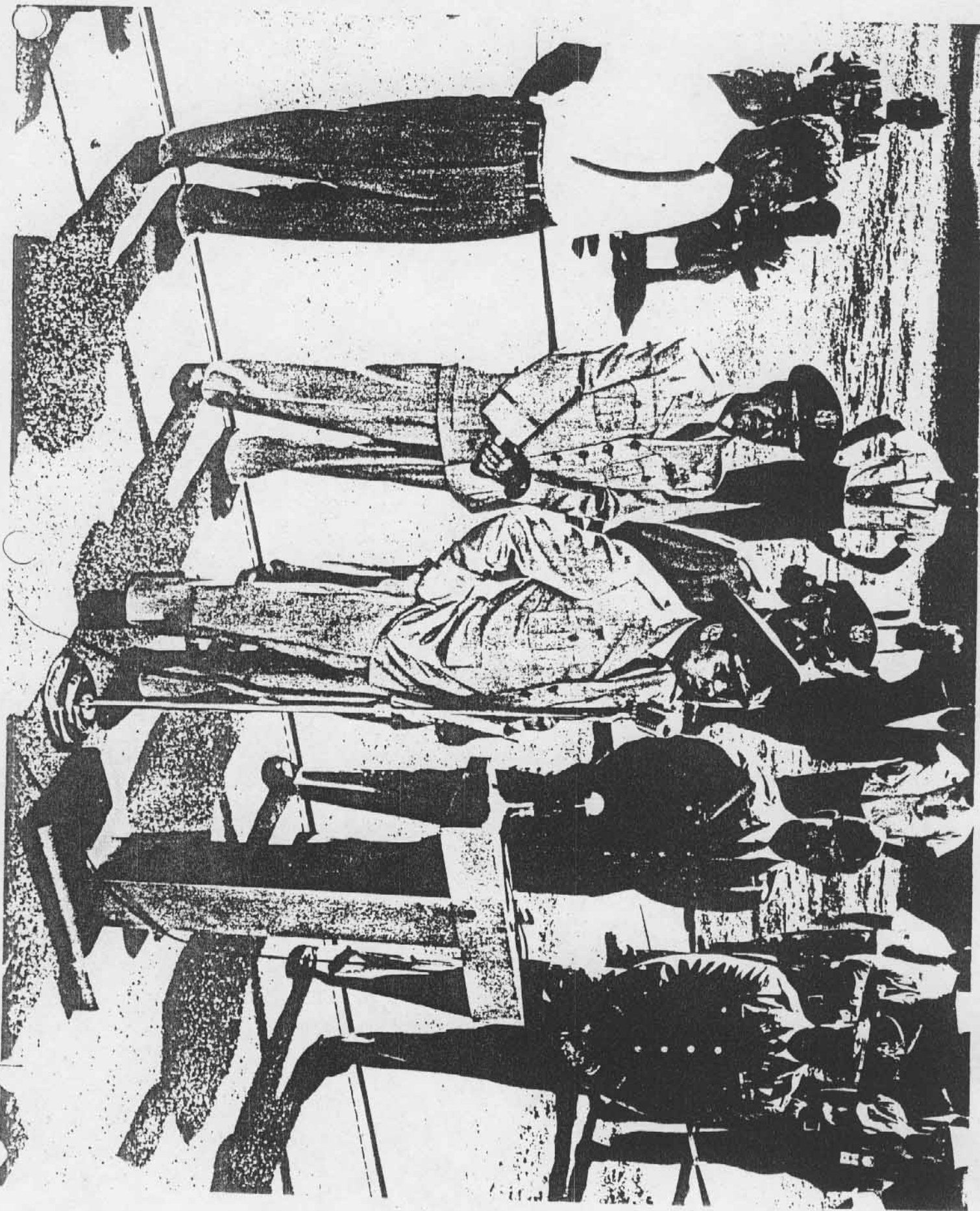
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CEREMONIES MARKING TURNOVER OF SITE 2, SNYDER, OKLAHOMA TO USAF  
1 August 1961

Col J. T. Compton, USAF, Comdr, Altus AFB addressing assembled guests.



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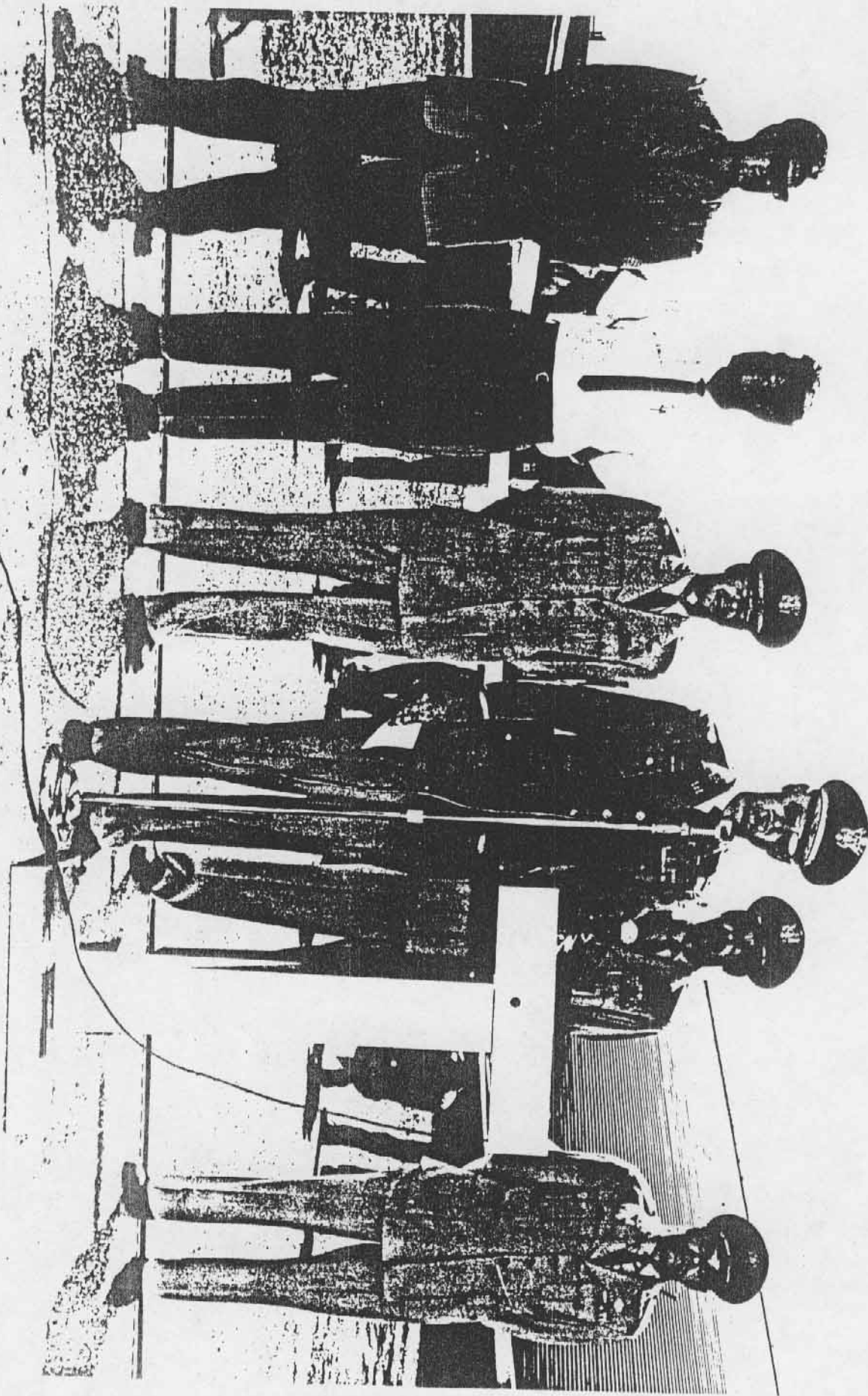
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CEREMONIES MARKING TURNOVER OF SITE 2, SNYDER, OKLAHOMA TO USAF  
1 August 1961

Lt Col Carl F. Baswell, CE, CERMCO Altus Area Engineer addressing assembly.





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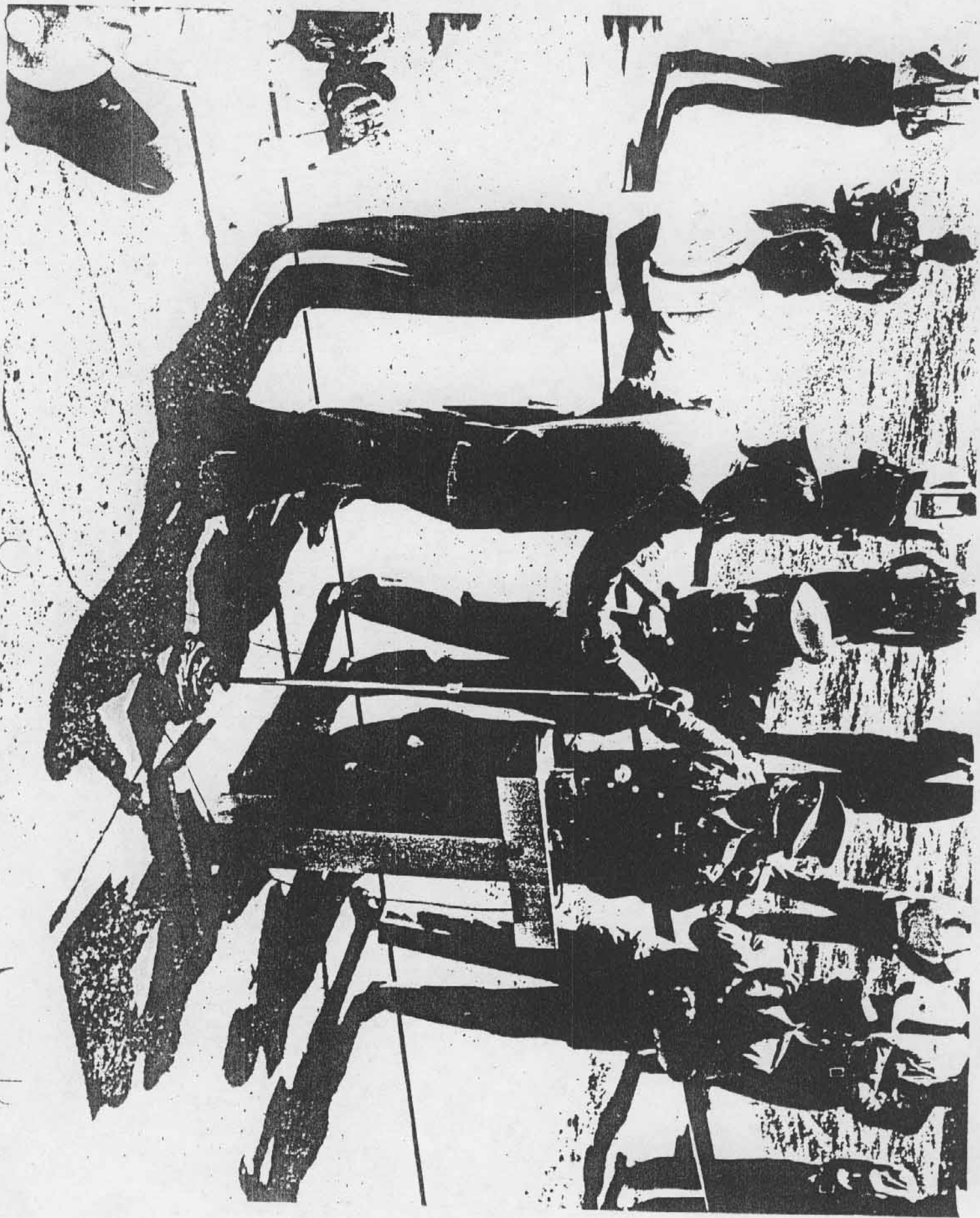
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CEREMONIES MARKING TURNOVER OF SITE 2, SNYDER, OKLAHOMA TO USAF  
1 August 1961

Lt Col C. F. Basswell, CE, CEBMCO Altus Area Engineer congratulating Mr. W. McMurren,  
MKII & Assoc. upon completion of Site 2.



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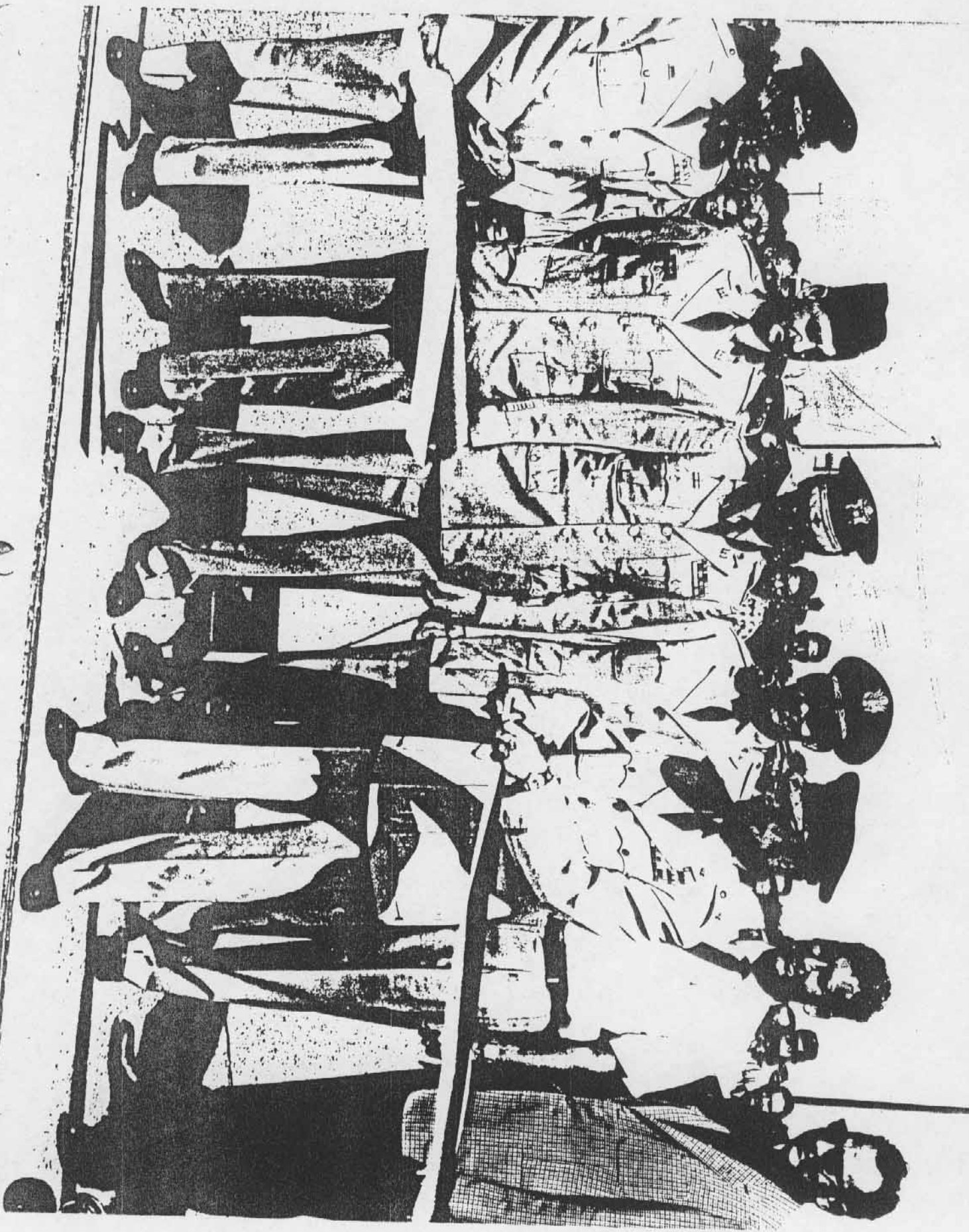
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CEREMONIES MARKING TURNOVER OF SITE 2, SNYDER, OKLAHOMA TO USAF  
1 August 1961

MC (then BG) H. W. Moore, USAF, Comdr, 816th Air Division, Albus AFB cutting ribbon.





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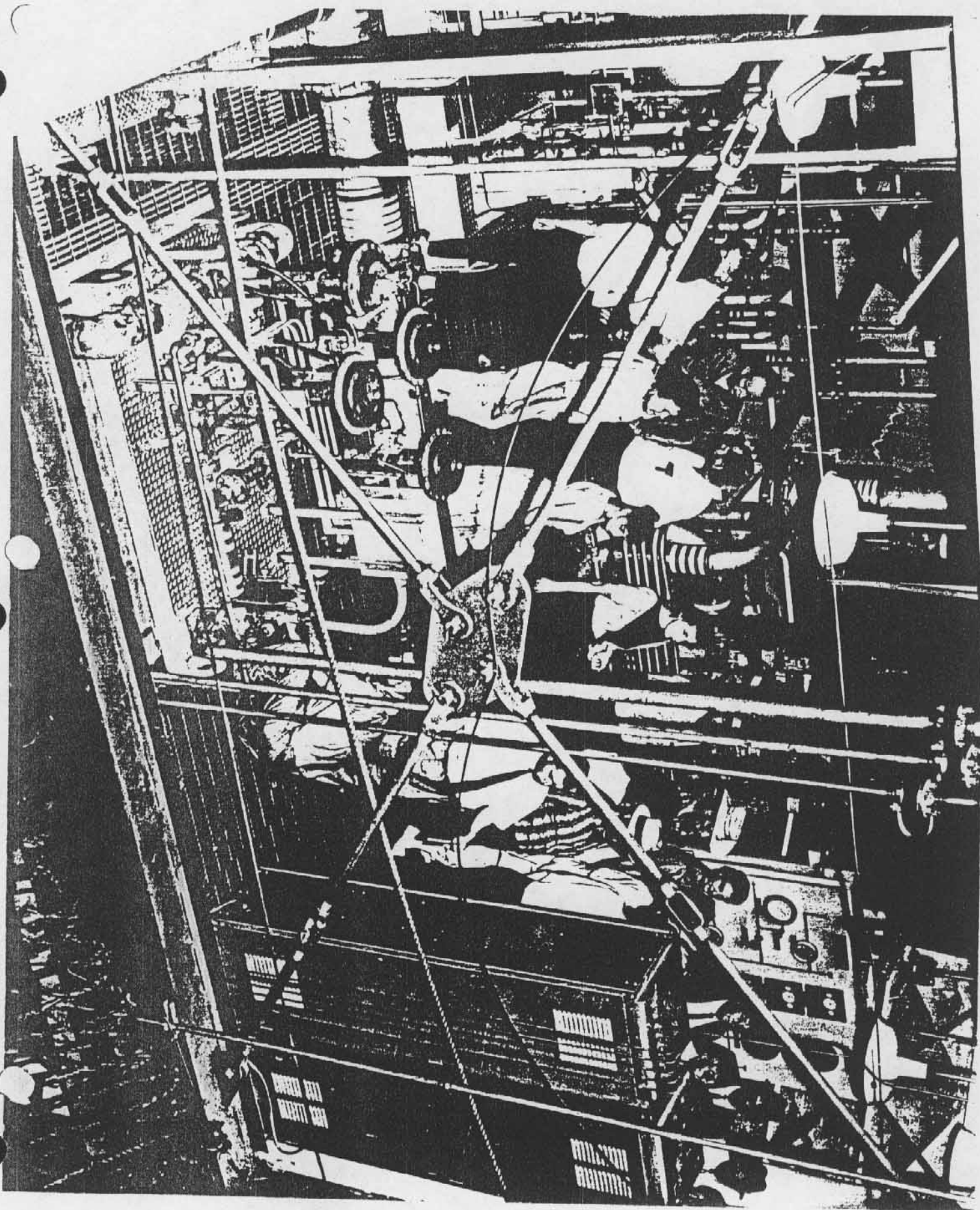
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TURNOVER TO AF



Bert Perkins, District Manager Los Angeles District, MKH, were the speakers. Photographs appear on pages 164 thru 167.

9-03. DECORATIONS AND AWARDS - a. U. S. Air Force Commendation Medal - Two medals were awarded to members of the Altus Area on 8 November 1961. Lieutenant Colonel Carl F. Baswell, CE, Altus Area Engineer and Captain Walter P. Tokarz, CE, received these decorations for exceptionally meritorious service in connection with construction of the Atlas F ICBM Complexes at Altus. It is interesting to note that these two officers were the first Army officers to receive these USAF decorations on Altus Air Force Base.

b. Outstanding Performance Award - Mr. Guss Green, GS-9, Construction Control, Construction Branch was presented this award.

c. Sustained Superior Performance Award - The following named employees of the Altus Area received the Sustained Superior Performance Awards:

- (1) Mr. Walden J. Evans, GS-14, Deputy Area Engineer.
- (2) Mr. Ira E. Williams, GS-14, Chief, Construction Branch (2 awards).
- (3) Mr. Walter E. McGowan, GS-13, Assistant Chief, Construction Branch.
- (4) Mr. Charles C. Hawkins, GS-13, Chief, Engineering Branch.
- (5) Mr. Paul T. Roberds, Jr., GS-13, Chief, Contract Administration Branch.
- (6) Mr. William R. Major, GS-12, Structural Engineer,

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CEREMONIES MARKING TURNOVER OF SITE 5, FARGO, TEXAS TO USAF  
8 November 1961

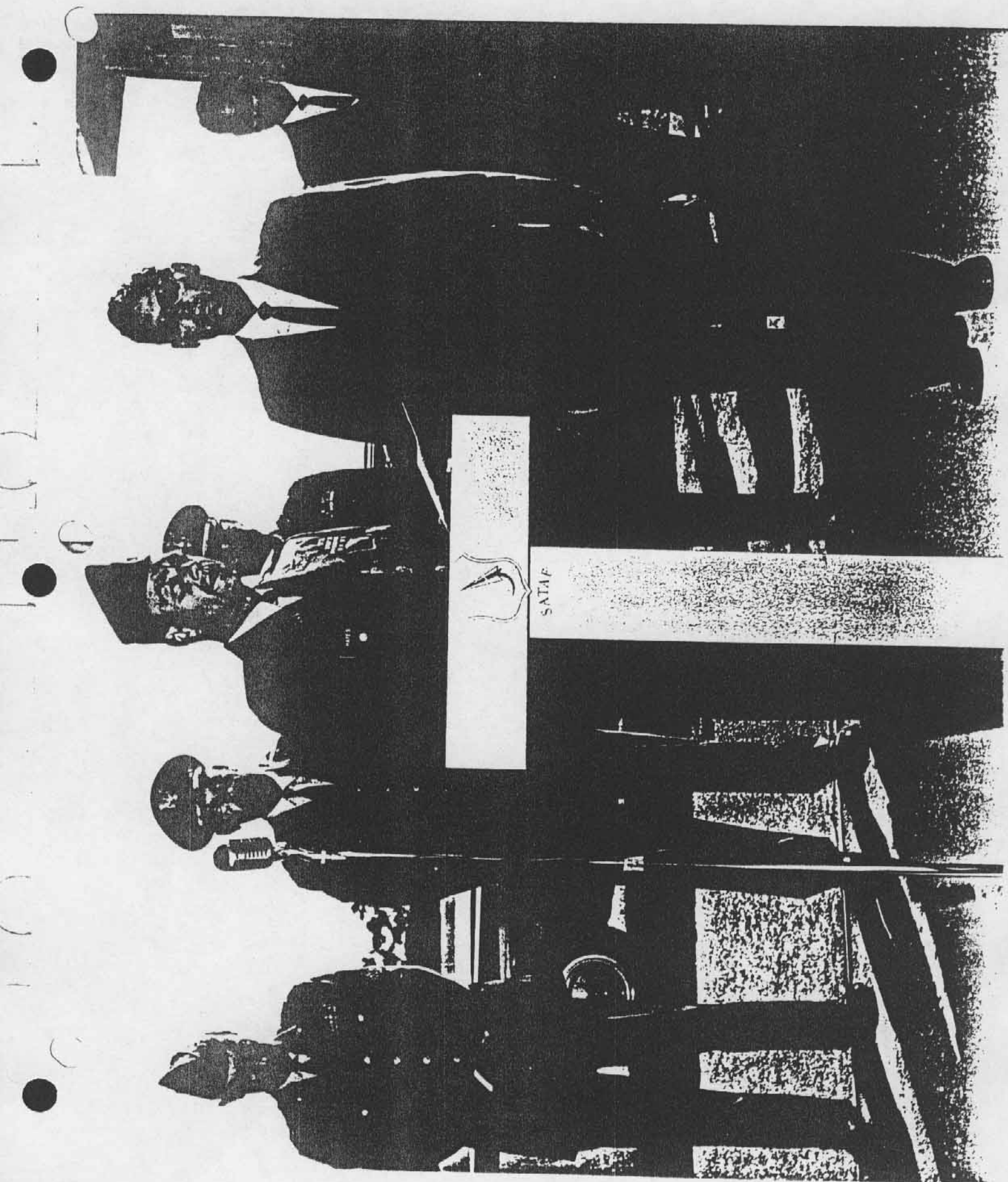
EG (then Colonel) T. J. Hayes, USA, CG, CEBMCO presenting Mr. B. Perkins, VP, MCH with Certificate of Achievement.

In background (left to right): MG A. C. Welling, USA, Deputy for Site Activation, BSD; Col E. L. Ramme, USAF, Altus SATAP Comdr; Lt Col Carl F. Basswell, CG, CEBMCO Altus Area Engineer; Mr. W. McMurten, Altus Project Manager, MCH

Turnover To AF

ORIGINAL AND FORCE PHOTOGRAPHY  
AND FORCE BASE  
OKLAHOMA



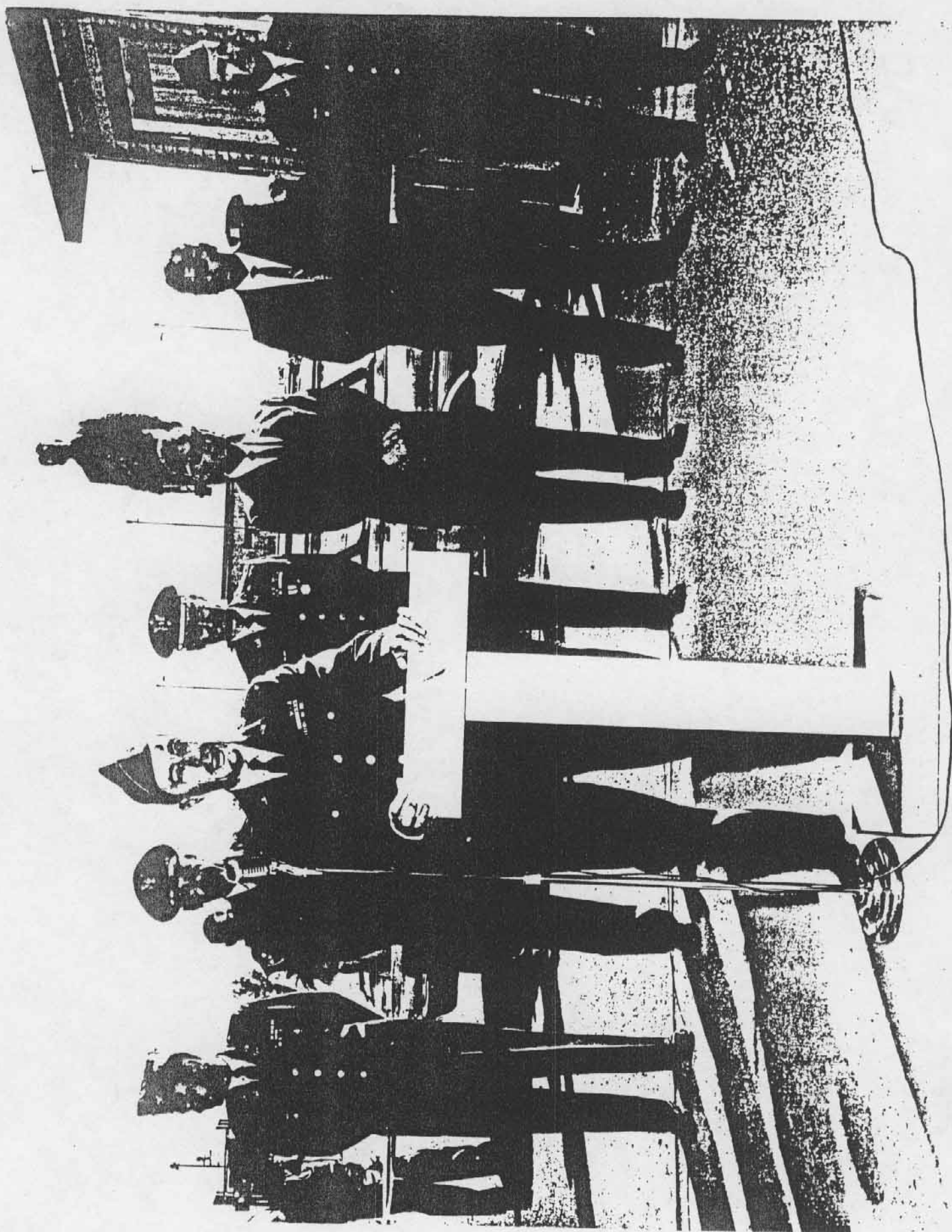


CEREMONIES MARKING TURNOVER OF SITE 5, FARGO, TEXAS TO USAF  
8 November 1961

Major General A. C. Wellins, USA, Deputy for Site Activation, BSD addressing audience.

In background (left to right): BG (then Col) T. J. Hayes, USA; Col E. L. Rymer,  
USAF; Lt Col Carl F. Baswell, CE; Messrs. B. Perkins and W. McMurtry; Col W. W.  
Wilson, CE

Remarks: TURNOVER 10 PM





CEREMONIES MARKING TURNOVER OF SITE 5, FARGO, TEXAS TO USAF  
8 November 1961

MC A. C. Walling, USA, cutting ribbon.

361

ATLAS PROJECT

Date 11-8-61

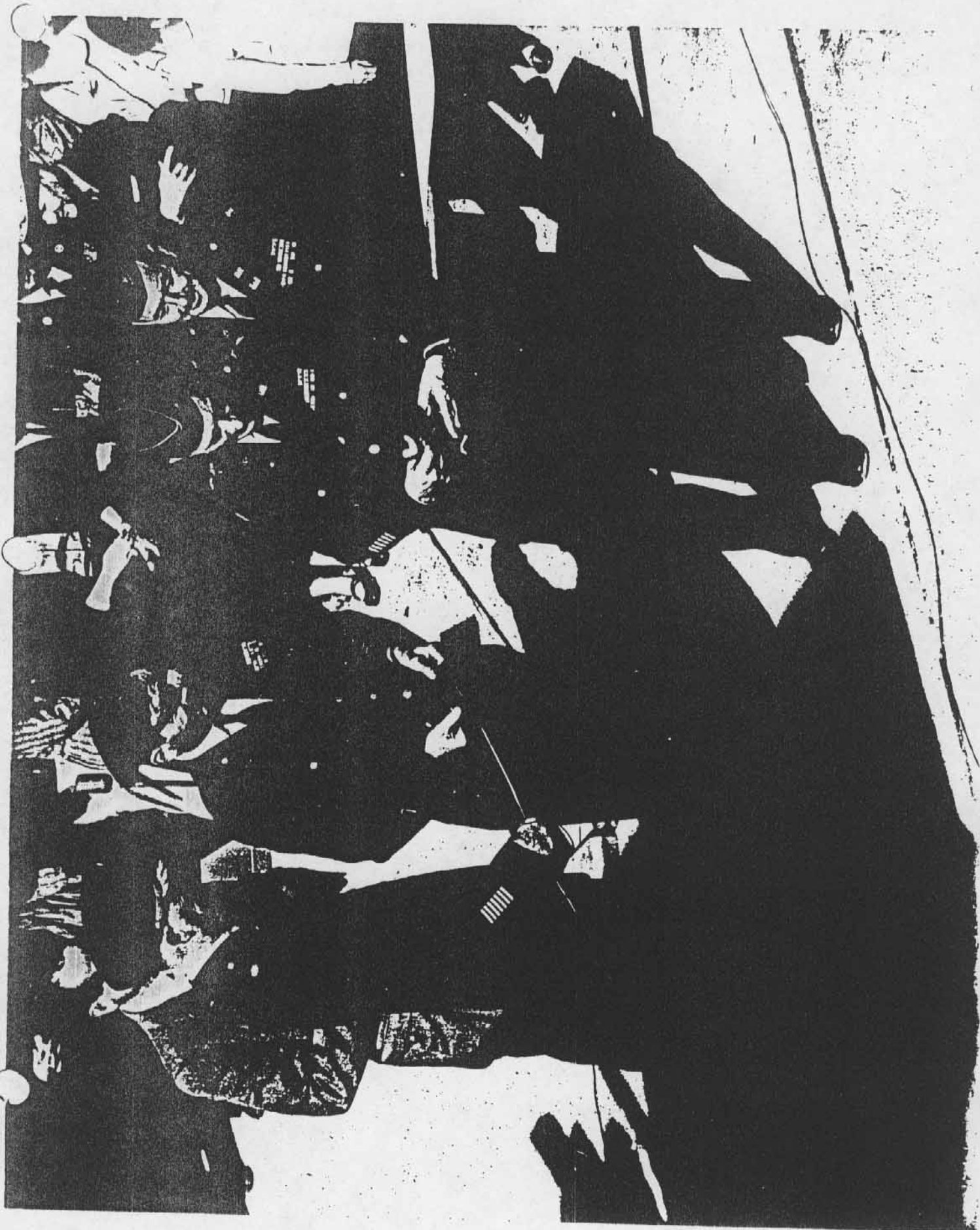
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Site 537-5

Subject

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ALTUS AIR FORCE BASE- 357  
ATLAS FACILITIES

Date 11-8-61

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Site 557-5

Subject

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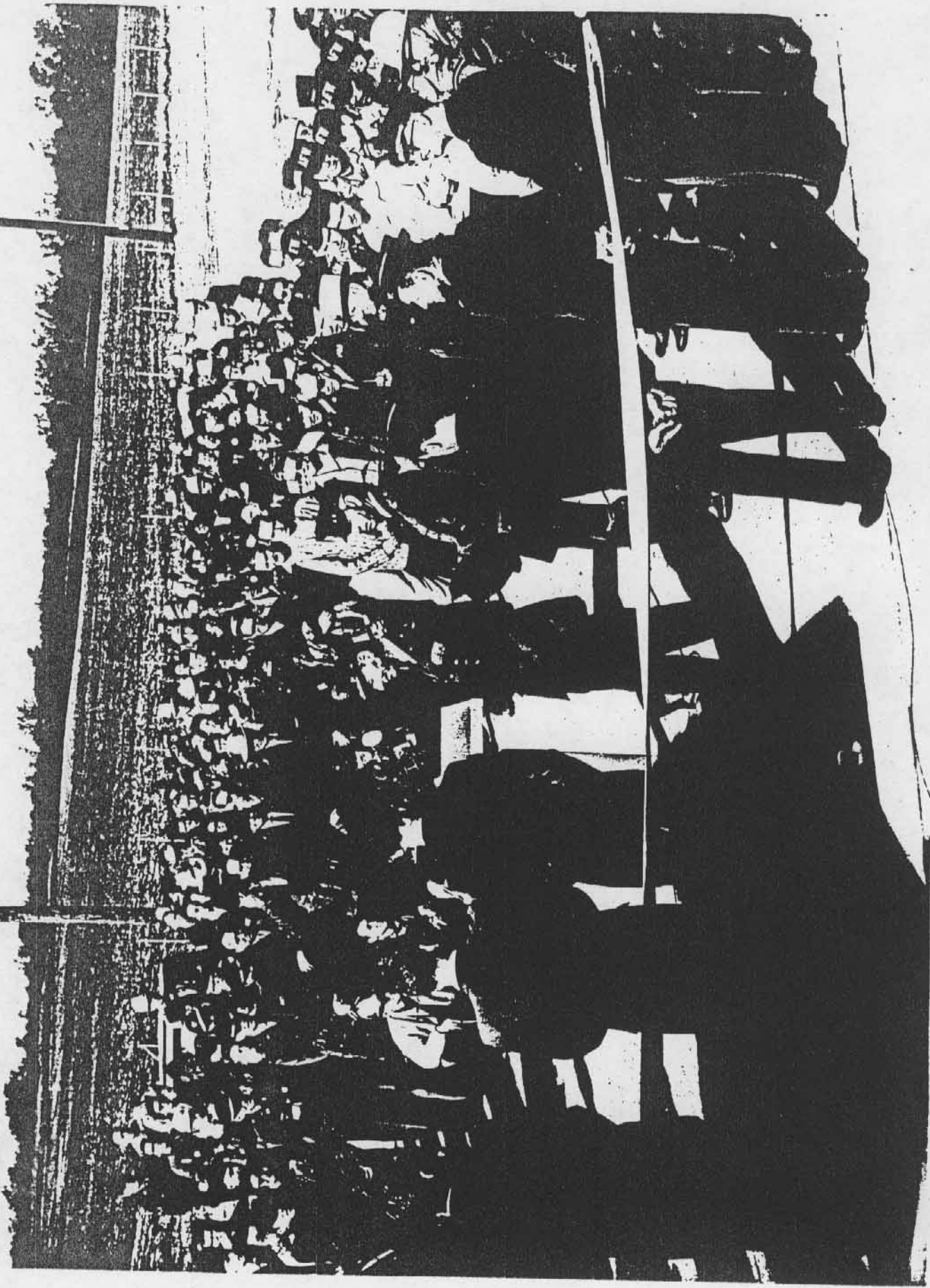
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TO AF

CEREMONIES MARKING TURNOVER OF SITE 5, FARGO, TEXAS  
TO USAF

8 November 1961

General View of Audience



Engineering Branch.

(7) Mr. Maurice Ellison, GS-12, Area Counsel.

(8) Mr. Pete Wylie, GS-12, Sector Coordinator, Construction Branch.

(9) Mr. Warren Wilson, GS-11, Mechanical Engineer, PLS Branch.

(10) Mr. W. L. Kliffel, GS-11, Construction Control, Site 5.

(11) Mr. Henry Adams, GS-9, Construction Control, Site 4.

(12) Miss Wayna L. Duffer, GS-5, Secretary, Executive Office.

(13) Mrs. Vera Wells, GS-4, Clerk-Steno, Office of Counsel.

(14) Mrs. Ruth Young, GS-4, Clerk-Steno, Engineering Branch.

(15) Mrs. Patricia Nagel, GS-4, Clerk-Steno, Construction Branch.

d. Suggestion Awards - (1) Mr. Allen Wooldridge, GS-12, was awarded \$25.00 for his suggestion concerning the design and issue of a card size welder's certificate. Holders of such cards would be permitted to weld on any CEBMCO project without re-qualifying at each project.

(2) Mr. Henry Bradley, GS-11, was awarded \$15.00 for his suggestion to overprint DD Form 96, "Disposition Form", to provide

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a form whereby the inspectors on a site could transmit as-built information to the project engineer.

e. 20 Year Service Awards - (1) During 1960 the following named employees received 20 year awards:

- (a) Mr. Otto A. Fusch
- (b) Mr. James L. Findley
- (c) Mr. Joseph W. Wilkins
- (d) Mr. Francis W. Krshka

(2) During 1961 the following named employees received 20 year awards:

- (a) Mr. Walden J. Evans
- (b) Mr. J. L. Treadwell
- (c) Mr. George J. Suchar
- (d) Mr. Kermit V. Evans
- (e) Mr. Henry L. Adams

f. 10 Year Service Awards - (1) During 1960 the following named employees received 10 year awards:

- (a) Mr. Earl W. Johnson
- (b) Mr. Claude Wynn
- (c) Mr. Glenn Dean
- (d) Mr. Charles C. Hawkins
- (e) Mr. Benjamin Porter
- (f) Mr. Julius A. Bell
- (g) Mr. Allen M. Wooldridge
- (h) Mr. J. T. Cavanaugh

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(i) Mr. R. S. Lees

9-04. VISITS BY VIPS - The following named persons visited the Altus Area on the dates noted:

- a. 28 April 1960 - Miss Ella Nance Ryan, Administrative Assistant to Congressman Toby Morris, 6th Congressional District of Oklahoma, visited the office to establish Congressional contact with Area Office key personnel.
- b. 16 September 1960 - Lt General John P. McConnell, USAF, Commander 2nd Air Force (SAC) visited Complex 1 at Lone Wolf, Oklahoma.
- c. 1 October 1960 - Brigadier General Joseph E. Gill, USAF, Deputy SATAF, Hq, AMC Ballistic Missile Center visited Complex 1, Lone Wolf and Complex 5, Fargo.
- d. 6-7 October 1960 - Brigadier General Alvin C. Welling, USA, Commanding General, CEBMCO, visited Altus Area Office for briefing of construction status.
- e. 15-16 October 1960 - Mr. H. M. Morrison, Chairman of the Board, Morrison-Knudsen Company, Inc. toured the Altus complexes.
- f. 19 October 1960 - Major General T. P. Gerrity, USAF, Commander, AMCBMC toured the Altus complexes.
- g. 9 November 1960 - Major General Ben I. Funk, USAF, Commander, SBAMA visited Complex 2, Snyder, and Complex 11, Manitou.
- h. 27 February 1961 - General S. O. Anderson, USAF, Commander, AMC; Major General H. C. Porter, USAF, AMC, Chief of Plans; Major General R. G. Ruegg, USAF, AMC, Chief of Procurement; Brigadier General C. F. Dreyer, USAF, AMC, Chief of Civil Engineering visited Complex 11, Manitou.

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i. 7 March 1961 - Brigadier General A. C. Welling, USA, Commanding General, CEBMCO, visited Altus Area Office and toured Complex 2, Snyder and Complex 11, Manitou.

j. 15 March 1961 - Mr. J. B. Bonny, President, Morrison-Knudsen Company, Inc visited Altus AFB for a briefing on construction status of missile launch complexes.

k. 7-9 November 1961 - Major General A. C. Welling, USA, Deputy for Site Activation, BSD, visited the Area Office for briefing on construction status and contract administration.

9-05. OTHER OFFICIAL VISITORS - During the period 10 March 1960 through 28 April 1962 the Altus Area Office was the host organization for some 117 official visitors or inspecting parties. See Appendix "D" for complete listing.

9-06. TECHNICAL LIAISON ACTIVITIES - a. Upon organization of the Altus Area Office, Mr. R. H. Holmes of the Tulsa District was assigned the responsibility of carrying out technical liaison activities for the Altus Area Office. These activities consisted of preparation of news releases and monthly progress photography to include black and white still photos; 35mm colored slides, and 16mm movies. The Tulsa District continued to provide this support until the 8th of November 1961 when the last launcher complex was turned over to USAF control. The files of this material are maintained in the Tulsa District.

b. On the local scene the Altus Air Force Base Information Officer, Major Louis A. Burdman, USAF, prepared news releases concerning activities of the Altus Area Office to the Altus daily newspaper, "The

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Times-Democrat", as well as for other news media throughout Southwest Oklahoma. In addition, news articles appeared periodically in the Altus AF Base newspaper, "The Altus Word". All news articles were coordinated with the Area Engineer before release.

c. During the period from the opening of the Area Office to 28 April 1962 sixty-nine news articles appeared in newspapers originating in cities or communities located near the launch complexes under construction. These articles depicted some phase of the construction work under control of the Area Office. In addition, one nationwide news release was published by the Army Times, Washington, D. C. Copies of these releases were forwarded to CEBMCO and not retained in Area files.

d. On 2 July 1961 the Area Engineer appeared in a 45 minute panel discussion on KSWO-TV, Lawton, Oklahoma. Other members of the panel were Colonel Ernest L. Ramme, USAF, Altus SATAF Commander; Lt Col R. E. Jarrell, USAF, Deputy Commander, 577th Strategic Missile Squadron and Mr. J. N. McPheeters, Altus Manager, General Dynamics/Astronautics. The panel discussed the construction of the Atlas F ICBM Complexes in the Altus Area.

e. On 1 August 1961 a film clip of approximately 4 minutes duration, showing turnover ceremonies at the Snyder Complex was broadcast by KWFT-TV, Wichita Falls, Texas. On 8 November 1961 a film clip of approximately 5 minutes duration showing the turnover of the Fargo Complex to the USAF was broadcast by KWFT-TV, Wichita Falls, Texas.

f. In April 1960 the Area Engineer inaugurated a program

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of providing guest speakers for community organizations desiring a briefing concerning the construction work under the control of the Corps of Engineers at Altus. By 28 April 1962 Area Office speakers have appeared before 46 organizations, i.e., Kiwanis, Lions, Rotary, Oklahoma Society of Professional Engineers, etc., with a total audience of 2,126 persons.

g. On 3 December 1960 twenty-six Engineer ROTC Cadets from Oklahoma State University and the University of Oklahoma were escorted through the complexes at Lone Wolf and Willow by Captains James R. McKnight, CE, and Walter P. Tokarz, CE, of the Area Office staff.

9-07. SCHOOLS AND SCHOOLING - a. Classes were conducted by the Construction Branch in the Area Office during the period preceding initiation of work for those personnel involved in the conduct of electrical, mechanical, and concrete inspection; excavation and backfill methods; and erection of reinforcing and crib steel. These classes consisted of 2 hour sessions at 2 week intervals.

b. Review of the proposed work on the Altus Complex had revealed that the Propellant Loading Systems work was unique in the heavy construction field. To insure proper PLS inspection 46 employees of the Area, to include each Project Engineer, were sent to the PLS school in Denver, Colorado. In addition 8 employees were placed on TDY status for on-the-job training at Fairchild, Vandenberg and Schilling Air Force Bases.

9-08. SECURITY - a. The Security Section was organized on 1 November 1960 with the appointment of Captain James R. McKnight, 073375, CE,

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as Area Office Security Officer. This was an additional duty for this officer.

b. The functions of this section were to coordinate the storage and flow of classified plans and documents; prepare the Area Office procedures for the control of classified documents; the Area Security Program; the Emergency Removal Plan and account for Restricted Area Passes issued by the Air Force to certain employees of the Area Office.

c. On 21 November 1960 the Tulsa District transferred 21 sets of drawings and reproducibles classified "Confidential" pertaining to the installation of an Intrusion Alarm System for the Re-Entry Vehicle Facility to the Altus Area control.

d. On 14 December 1960 10 sets of these drawings were transferred by the Area Office to LaQua Construction Company of Lawton, Oklahoma, in order that work on the alarm system could begin. By 3 November 1961 all ten sets of drawings were returned to the Altus Area. The same day the reproducibles and one set of drawings were turned over to the Altus Air Force Base Civil Engineers. The remaining sets of these documents were destroyed by burning.

e. There were two staff security inspections of the Altus Area Office. On 6-7 March 1961 Warrant Officer R. W. Lucas of the CEBMCO Security Office and Major R. L. Lewis, INF, Security Officer, U. S. Army Engineer Division, Southwestern conducted the first inspection. The second inspection was conducted 10-11 August 1961 by Mr. C. D. Daniel, CEBMCO Security Office.

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f. Upon arrival of Government Furnished Equipment the prime contractor provided watchman service on all launch complexes. Formal guard orders, on SAC Forms 299, were issued 1 June 1961 by the Base Commander.

g. The William J. Burns International Detective Agency, Inc., a subcontractor for GD/A assumed security on the launch complexes on the date that the final inspection for a particular complex was accomplished. Subsequent to the turnover of these security functions to the Burns Agency, Corps of Engineers contractor personnel were admitted to the sites on the basis of the various company badges. The Altus Area Office employees were admitted on the basis of the CEBMCO Area Badges, until March 1962 after which time both the Corps and contractor employees were admitted to the complexes only through the use of a SAC Form 300.

9-09. CLAIMS BOARD - In early March 1961 the Area Engineer, in order to insure prompt and uniform processing of contractual claims by the Area Office, appointed a Claims Board for the purpose of reviewing and determining recommendations for the allowance or disallowance of contractual claims submitted by the contractor. The board's recommendations, supported by a finding of fact were submitted to the Area Engineer for his recommendation in the matter to the Contracting Officer. During its existence the Area Claims Board reviewed 65 contractual claims. In addition the board also reviewed that correspondence received from the contractor which indicated possible action against the government. This review resulted in recommendations to the Area Engineer to the content

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of the answer to the contractor.

9-10. INCENTIVE AWARDS COMMITTEE - In May 1961 the Area Engineer appointed an Area Office Incentive Awards Committee for the purpose of making a careful, expeditious, and impartial analysis and evaluation of employee suggestions, inventions, sustained superior performances, and other achievements originating in the Altus Area. This committee made recommendations to the Area Engineer who in turn forwarded his recommendations to the Tulsa District for processing.

9-11. VISITS BY THE ENGINEER INSPECTOR GENERAL - During the life of the Altus Area Office the command was inspected twice by field office representatives of the Office of the Engineer Inspector General. These general inspections were conducted by the personnel on the dates as noted below:

a. 24-25 April 1961 - Lieutenant Colonel Eugene E. Morath, Jr, 058980, CE, Assistant Engineer Inspector General, Atlanta Field Office, The Engineer Inspector General, Atlanta, Georgia.

b. 5-6 February 1962 - Colonel Clyde F. Townsend, 031526, CE, Assistant Engineer Inspector General, Chicago Field Office, The Engineer Inspector General, Chicago, Illinois accompanied by Mr. Miles E. Robertson, Los Angeles Field Office, The Engineer Inspector General, Los Angeles, California.

(NOTE - In both instances the overall Area Office operations were rated as Superior by these inspectors.)

9-12. APPOINTMENT OF ACTING INSPECTOR GENERAL - On 7 September 1961 Major Samuel C. Wood, 060598, CE, was appointed Acting Inspector

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General for the Altus Area Office per Paragraph 6, Special Orders 55, Office of Chief of Engineers. During the interval 7 September 1961 to the close of the Area Office on 27 April 1962 no formal complaints were received or processed by the Area's Acting Inspector General.

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## CHAPTER 10

CONCLUSIONS AND RECOMMENDATIONS

10-01. GENERAL - This chapter of the Altus Area Office Historical Summary contains the conclusions and recommendations not outlined elsewhere in the text and reached from the joint experience of the Area staff in the internal operations of the office; construction operations in the field; and contract administration. To simplify presentation of this subject matter the following text is sub-divided into paragraphs containing the conclusions and recommendations keyed to each functional branch of the Area Office.

10-02. EXECUTIVE OFFICE

## a. Security

## (1) Employee Identification

CONCLUSION - The system used at Altus for employee identification was not entirely satisfactory. The Altus Area utilized an elliptical white badge 2-3/4 inches by 1-3/4 inches with 1/8 inch red lettering stating "ALTUS AREA OFFICE, CEBMCO, CORPS OF ENGINEERS". This badge had a transparent window which permitted the employee's name and job to be typewritten on a cardboard strip and inserted in the window. This type of identification was considered to be adequate at the time of procurement, however, with the large influx of SATAF personnel, contractor and GD/A employees, it became evident that a lost badge could be picked up and with a small amount of effort made to work for anyone desiring to effect an illegal entry to a complex.

RECOMMENDATION - Adopt a CEBMCO wide plastic laminated serially numbered

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photographic type badge similar to the SAC Form 300 badge. This type identification would have a two-fold advantage: (a) Employees transferred from area to area would retain their badge, and (b) CEBMCO employees visiting another area would be able to gain entry to the sites without getting a new badge or visitor's permit.

b. Organization

(1) Assignment of Officers

CONCLUSION - The utilization of assigned company grade military personnel was unsatisfactory. RECOMMENDATION - In order to provide proper training and experience of company grade Corps of Engineer officers in heavy construction methods and exercise of control over civilian contractors on a military construction project such officer should be assigned duties on the actual construction site as project or resident engineers. Lack of any construction experience in these officers could be alleviated by the assignment of an experienced government employee as assistant resident or project engineer.

(2) Supply Functions

CONCLUSION - The assignment of supply functions to the Administration Branch of the Altus Area Office did not result in an efficient operation. Such an assignment created a division of responsibilities between the Contract Administration and Administration Branches. For Example: Contract Modifications involving the use of GFP were not always distributed to the Administration Branch for action by supply personnel, thus supply was not aware of the accounting requirement for certain items of GFP. In other instances reports required by

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higher headquarters necessitated the accumulation of necessary data by personnel of both the Contract Administration and Administration Branches again creating a diversion of responsibilities. RECOMMENDATION - Supply functions be assigned to the Contract Administration element of a CEBMCO Area Office.

10-03. ADMINISTRATION BRANCH

a. Communications

(1) TWX Machine

CONCLUSION - The time difference between the Altus Area employees completing their normal workday 2 hours before their counterparts in CEBMCO headquarters. This fact generated an average delay in transmission of important TWX messages of some 16 hours during the week and 52 hours on weekends. RECOMMENDATION - Install an unattended TWX machine in the CEBMCO Area Offices. Cost of such an installation and monthly rental would approximately be \$72.00 per year more than the rental of an unattended machine. Some \$350.00 annual savings would be realized where considering, such as was the case in the Altus Area Office, the employee overtime expended while awaiting transmission of high priority messages after normal working hours and on Saturdays and Sundays.

(2) Telephone Switchboard

CONCLUSION - Long distance telephone calls were not satisfactorily controlled. In addition and on innumerous occasions occasions Area Office employees being called were phoned on the wrong Area Office number necessitating transferring calls to the right number

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or calling employee to the telephone actually called. RECOMMENDATION - Install a telephone switchboard in the Area Office. Such an installation would permit:

- (a) The switchboard operator to route incoming calls.
- (b) Reduce the number of Class A phones and trunk lines in the Area Office.
- (c) One individual, i.e., switchboard operator, to assign call numbers and maintain a log of long distance calls placed by the Area Office employees.

b. Reproduction

CONCLUSION - The use of a ditto machine for reproduction of Area directives and contract documents was not efficient or satisfactory. Ditto masters are limited in the number of copies, approximately 100 good copies, that they can reproduce. In addition ditto reproductions are subject to fading. RECOMMENDATION - Install and use the multilith process which permits good permanent copies.

10-04. ENGINEERING BRANCH

a. Mobilization of Engineering Branch

CONCLUSION - Mobilization of the branch was not timely. At Altus the mobilization of the branch was not fully accomplished until months after the contract award and the staff was not adequate enough to expeditiously process submittals. RECOMMENDATION - It is believed that the Engineering Branch in an Area Office must be mobilized a minimum of 3 weeks prior to the award of the prime contract.

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This mobilization would permit extensive review of contract; posting of addenda; and preparation for approval of contractor's schedules of submittals.

10-05. CONTRACT ADMINISTRATION BRANCH

a. Estimating Section

CONCLUSION - The number of personnel (6) employed as estimators was insufficient to efficiently handle the workload. In this connection the quality of work produced by personnel on the Altus job left much to be desired. RECOMMENDATION - Hire sufficient number of qualified estimators to adequately handle the workload. At Altus four good estimators could have adequately taken care of this type workload.

10-06. SAFETY BRANCH

a. Safety Regulations

CONCLUSION - The safety regulations (EM 385-1-1) for work under the jurisdiction of the Corps of Engineers are inadequate for use on a missile construction project. These regulations do not take into consideration projects peculiar to the U. S. ICBM effort hence a contractor on a missile construction project can take refuge contractually in this lack of attention to missile site construction. RECOMMENDATION - Update EM 385-1-1 "General Safety Requirements" to include safety requirements concerning space age construction projects.

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- 61-9 "Functions of Office of Counsel"

- 61-18 "Organizational Analysis"

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- 60-31 "Investigating and Processing Non-Contractual Claims" w/l change

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- 60-18 "TDY Personnel in Area Office"

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- 61-42 "Liaison with U. S. Army Audit Agency"

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- 61-51 "Administrative Control of Appropriated Funds"

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- 60-8 "Transportation and Travel of Civilian Personnel" w/l change

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60-27 "Travel of Military Personnel"

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60-39 "Policy on Area Use of Helicopter Service"

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61-14 "Reports Control System"

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60-4 "Correspondence and Messages" w/3 changes

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- 60-15 "Multiple Address Correspondence"
- 60-24 "Office Information, Area Offices" w/4 changes

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- 60-20 "Mail Management"
- 61-38 "Contractor Register and Addressograph Mailing Service" w/1 change

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- 60-43 "Safeguarding Documents Marked FOR OFFICIAL USE ONLY"
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  - 61-16 "Office Security Procedures"
  - \*61-25 "Security Classification Policy for Future ICBM Bases"
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61-8 "Authority for and Operation of Defense Materials  
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A through I

U. S. AIR FORCE STRATEGIC AIR COMMANDMANUALS

SACM 205-3 "Security Clearance and Access Control Procedures"

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GLOSSARY

## -A-

- AE - Architect Engineer
- AF - United States Air Force
- AFB - Air Force Base
- AFBMD - United States Air Force Ballistic Missile Division
- AFRCE - United States Air Force Regional Civil Engineer
- Air Force - United States Air Force

## -B-

- BMC - United States Air Force Air Material Command Ballistic Missile Center, Inglewood, California

## -C-

- CE - Corps of Engineers
- CEBMCO - United States Army Corps of Engineers Ballistic Missile Construction Office
- Chief of Engineers - United States Army Chief of Engineers
- CMR - United States Air Force Contract Management Region
- COC - Change Order Conference
- CVA - Convair Astronautics, now General Dynamics/Astronautics, San Diego California

## -D-

- DAFC - Department of the Air Force Civilian

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GLOSSARY

-E-

- E & T        - Engineering and Technical  
EIG         - Engineer Inspector General  
ENG         - Engineer

-F-

- FRCP        - Facility Remote Control Panel  
FY          - Fiscal Year, i.e., 1 July through 30 June

-G-

- GD/A        - General Dynamics/Astronautics, originally Convair  
              Astronautics  
GEEIA       - Ground Electronics Engineering and Installation Agency  
GFE         - Government Furnished Equipment  
GFP         - Government Furnished Property  
GSE         - Government Supplied Equipment

-H-

- HV & AC     - Heating Ventilating and Air Conditioning

-I-

- I & C        - Installation and Checkout  
ICBM        - Intercontinental Ballistic Missile

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GLOSSARY

-L-

- LAFO - Los Angeles Field Office, Office of Chief of Engineers,  
Los Angeles, California
- LCC - Launch Control Center
- LOX - Liquid Oxygen

-M-

- MEL - Master Equipment List
- Mod - Modification
- MKH, MKH&A - Morrison-Knudsen-Hardeman and Associates

-O-

- OCE - Office of Chief of Engineers, U. S. Army, Washington,  
D. C.

-P-

- PLS - Propellant Loading System

-R-

- RIF - Reduction in Force
- RPIE - Real Property Installed Equipment
- RP-1 - Rocket Propellant Fuel

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GLOSSARY

## -S-

- SAC - United States Air Force Strategic Air Command
- SATAF - Site Activation Task Force, Altus AFB, Oklahoma
- SB&TA - Southwestern Building and Trades Association, Oklahoma City, Oklahoma
- Site - Location at which construction accomplished on missile launch silo; word has same connotation as "complex"
- SOP - Standard Operating Procedure
- Southwestern Division - United States Army Engineer Division, Southwestern, Dallas, Texas
- SWD - United States Army Engineer Division, Southwestern

## -T-

- TDO - Tulsa District Office
- TDY - Temporary Duty
- Tulsa District - United States Army Engineer District, Tulsa, Tulsa, Oklahoma

## -U-

- USAF - United States Air Force
- Using Agency - SATAF

## -W-

- WES - United States Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi

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NOTESCHAPTER 1: GENERAL

1. Reference Engineer Manual 415-5-13 dated 15 August 1948.
2. Aviation Week Magazine, 22 February 1960.
3. TWX, CEBMCO, File ENGMA-VY 2538, dated 19 October 1960.
4. Letter dated 4 November 1960 from Acting Director, Atlas F Construction Directorate to the Altus Area Engineer, subject: "Transfer of Construction of Atlas F Operational Base, Altus Air Force Base" outlining the then new command arrangements.
5. Annex B, Construction Division, "Time Phase Plan for ICBM Construction, Altus Oklahoma" published by the U. S. Army Engineer District, Tulsa, February 1960.
6. Paragraph 4, District Order 60-12, U. S. Army Engineer District, Tulsa, dated 1 March 1960.

CHAPTER 2: EXECUTIVE OFFICE

1. See Chapter 8, Engineer Manual 10-1-2 "Organization and Functions" 15 December 1958.
2. For details the reader is referred to the Tulsa District's publication "Time Phase Plan for ICBM Construction, Altus, Oklahoma" February 1960.
3. Captain Maury F. Cochran, Jr., 070303, Corps of Engineers, was assigned per Paragraph 10, Department of Army Special Order 162 dated 26 July 1960.

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4. Captain James R. McKnight, 073375, Corps of Engineers was assigned per Paragraph 10, Department of Army Special Order 219 dated 27 July 1960.
5. Major Samuel C. Wood, 060598, Corps of Engineers, was assigned per Department of Army Message 61315 dated 23 September 1960 and an amendment thereto per Department of Army Message 61628 dated 27 September 1960.
6. Captain McKnight reassigned per paragraph 99, Special Order 260, Department of the Army dated 18 October 1961.
7. Lt Col Baswell was reassigned per Paragraph 10, Special Order 251, Department of the Army dated 9 October 1961 and amended by Department of Army Message file AGPA-0 79477, dated 28 February 1962.
8. Major Wood was appointed Acting Area Engineer per Paragraph 2, Special Order 14, CEBMCO, dated 27 February 1962.
9. These contracts were:
 

DA-34-066-eng-5909	WS-107 A-1 Operational Base Missile Launch Complexes
DA-34-066-eng-5967	Unitary Silo Water Supply
DA-34-066-eng-5970	25-Ton Liquid Oxygen Plant
DA-34-066-eng-5979	Missile Assembly and Technical Supply Building
DA-34-066-eng-5992	Re-Entry Vehicle Facilities
10. Colonel Howard W. Penney, 022917, Corps of Engineers, District Engineer, U. S. Army Engineer District, Tulsa.
11. Colonel Woodrow W. Wilson, 021755, Corps of Engineers, Director,

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Atlas F Weapons System Directorate, U. S. Army Corps of Engineers  
Ballistic Missile Construction Office

12. See "Statement of Functions for the Altus Area Office, Atlas F Construction Directorate" published by Atlas F Construction Directorate, CEBMCO 12 April 1961.
13. CEBMCO Message File ENGMA-VY 23023 dated 17 March 1961.
14. CEBMCO Message File ENGMA-ABM 5709 dated 18 May 1961.

### CHAPTER 3: ADMINISTRATION BRANCH

1. Quoted from the Tulsa District's publication "Time Phase Plan for ICBM Construction" March 1960.
2. Standard Form 57 "Application for Federal Employment".
3. Conference was attended by Colonel H. W. Penney, CE, Tulsa District; Colonel (then Lieutenant Colonel) A. W. Sanders, CE, CEBMCO; Lieutenant Colonel C. H. Chamberlain, CE, CEBMCO; and Lieutenant Colonel (then Major) C. F. Baswell, CE, Altus Area.
4. Inclosure to letter Atlas F Construction Directorate, CEBMCO 13 Sept 1960 to the Division Engineer, Southwest Division.
5. TWX, CEBMCO, 17 October 1960, file number unknown. This TWX was actually relayed to the Altus Area by telephone and information concerning its contents was derived from notes made by Chief, Administration Branch, Altus.
6. TWX, CEBMCO, 21 October 1960, file ENGMA-VC 2727. This authorization was to be terminated 28 February 1961 and the strength to revert to 168.

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7. ENG Form 2673, Voucher ENGMA-AB-A-1-61, 8 February 1961.
8. ENG Form 2673, Voucher ENGMA-AB-A-2-61, 13 February 1961 withdrew 13 temporary spaces and authorized 1 temporary space through September 1961.
9. Comment 1, DF, Director Atlas F, CEBMCO to Altus Area Engineer, 24 March 1961 established strengths: 31 March - 167; 30 April - 160; 31 May - 150; 30 June - 140.
10. Comment 2, 31 March 1961 to DF noted in above (note 9) requesting personnel ceilings of 31 March - 168; 30 April - 168; 31 May - 162; 30 June - 156.
11. DF, Atlas F, CEBMCO, 21 June 1961 to Area Engineer.
12. ENG Form 2673, 3 July 1961, Voucher ENGMA-AB-A-1-62 reflected the following personnel authorizations for the Altus Area Office:  
11 July - 150; 31 August - 135; 30 September - 120; 30 November - 45; and 31 December - 40.
13. TWX, CEBMCO, 3 August 1961, file ENGMA-AB-4-6030 also designated key personnel in the Area Office.
14. Submission of Standard Forms 57 and 556 to appropriate recruiting districts.
15. TWX, CEBMCO, ENGMA-AB-4-6213, 26 September 1961.
16. TWX, U. S. Engineer District, Fort Worth, 20 October 1961, file MRKDF-E 220 stated that the Whiteman Minuteman Project was delayed. Flights A-E delayed by 30 days; Flights F-J delayed to 15-20 April 1962; and Flights K-O delayed to 15-31 May 1962.
17. TWX, CEBMCO, file ENGMA-VL-1-10579, 17 November 1961.

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18. Personnel had been selected in a conference held in the offices of the U. S. Army Engineer District, Kansas City 30 September 1961. The Altus Area Engineer, Lt Col Carl F. Baswell attended this conference.
19. District Order 60-12, U. S. Army Engineer District, Tulsa 1 March 1960. The account number was #15.
20. Mr. C. W. Surbey, Account #17.
21. DF, Altus Project Engineer, 14 April 1960 to Altus Area Engineer, subject: "Government Property".
22. Mr. Evans was formally notified of this appointment by CEBMCO in a letter dated 29 November 1960, however, the effective date of this action wasn't until 1 December 1960.
23. Vehicles procured from the Tulsa District were Ordnance owned while the purchased vehicles were project owned.
24. Per TWX, CEBMCO, file ENGMA-VO-4-26364, 27 December 1961.
25. This shipment of vehicles consisted of 6 - 1/2-ton pickups and 12 - six passenger pickup trucks per instructions contained in TWX, CEBMCO, file ENGMA-VO-4-26366, 28 December 1961.
26. Shipment consisted of 4 - 1/2-ton pickup trucks.
27. Per TWX, CEBMCO file ENGMA-VO-4-26019, 18 January 1962. Shipment consisted of 10 - 1/2-ton pickups and 2 six passenger pickup trucks.
28. Shipment was made up of 9 - 1/2-ton pickup trucks, 8 sedans, and 1 carryall per CEBMCO TWX file ENGMA-VO-26056.
29. Per DF, CEBMCO, file ENGMA-V, 19 February 1962.
30. Per TWX CEBMCO, file ENGMA-VO-4, dated 26 February 1962.

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31. Paragraph 6, Special Orders 29, CEBMCO, 22 November 1960.
32. Paragraph 6, Special Orders 17, CEBMCO, 15 March 1961.
33. Paragraph 3, Special Orders 44, CEBMCO, 10 August 1961.
34. Paragraph 2, Special Orders 44, CEBMCO, 10 August 1961.
35. Paragraph 6, Special Orders 24, CEBMCO, 18 April 1962.
36. Standard Form 1012 "Travel Voucher" was prepared by the Area Office.
37. 57x3300 077-6526 P321 S34-066. Accounting activities were governed by Tulsa District's Manual "Military Field Cost Accounting Manual".
38. Tulsa District Letter, 9 November 1960, subject "Withdrawal of Funds" notified the Area Engineer that CEBMCO would assume responsibility for Altus 1 December 1960. This letter was confirmed by TWX CEBMCO, file ENGMA-VC-3 5617, 1 December 1960.
39. Use of Standard Forms 44 and 1155.
40. Approximately 18,000 gallons of gasoline.
41. Timekeepers were: Mrs. R. A. Young, Engr Br; Mrs. M. Blackmon, Contract Admin Br; Mrs. P. A. Nagel and Mrs. W. P. Tokarz, Construction Br; Mrs. W. G. Baer, Miss D. T. Anderson, Mrs. R. Thomason (alternate), and Mrs. L. Wilson, Admin Br.
42. Southwestern Division Form 16-J.
43. CEBMCO letter, file ENGMA-VC-1, 22 March 1961, subject "Staff Internal Review - Altus Area Office, Report No AL-1".
44. CEBMCO Atlas F Memo No. 61-21, 30 June 1961, subject "Timekeeping and Maintenance of Leave Records in Area Offices".
45. Radio equipped vehicles were allotted to the Area Engineer; Deputy Area Engineer; Chief of the Construction and PLS Branches; Chiefs

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of the Structural and Electrical Sections; the Sector Engineers and the Mechanical Inspectors.

CHAPTER 4: ENGINEERING BRANCH

1. Mr. C. C. Hawkins, GS-13 (then GS-12).
2. General Engineer, GS-12; Mechanical Engineer, GS-12; Electrical Engineer, GS-12; Structural Engineer, GS-12; 2 Mechanical Engineers, GS-7; and a Draftsman, GS-5.
3. General Engineer, GS-13; 2 Structural Engineers, GS-12; Mechanical Engineer, GS-12; Electrical Engineer, GS-12; Mechanical Engineer, GS-11; 3 Mechanical Engineers, GS-9; Draftsman, GS-9; Clerk-Stenographer, GS-4; and Clerk-Typist, GS-3.
4. Lt Lee had been performing duties since 21 October 1960 as the assistant to the Project Engineer for the Altus "On Base" facilities. He departed this command pursuant to DA Message AGP-O 61148 dated 10 July 1961.
5. Bechtel Corporation, Los Angeles, California was responsible for the Unitary Launch Silo while Stearns-Roger of Denver, Colorado had the responsibility of making site adaptations.
6. Major J. M. Pierce, USAF; Mr. F. L. Huok, DAFC, GS-13; Mr. W. R. Holland, Bechtel Corporation Senior Technical Representative; Mr. C. G. Fort, Bechtel Corporation Electrical Engineer; and Mr. C. G. Boltons, Jr., Bechtel Corporation Mechanical Engineer.

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CHAPTER 5: CONSTRUCTION BRANCH

1. Mr. Ira E. Williams, GS-14 (then GS-13).
2. Annex B, Time Phase Plan for ICBM Construction, Altus, Oklahoma.
3. Actually a project office was to consist of a Supervisory Construction Engr, GS-12; a Construction Mgmt Engr, GS-11 and 3 Construction Inspectors, General, 1 - GS-9 and 2 - GS-7's.
4. Captain Walter P. Tokarz, 087949, CE was assigned to Altus Area Office by DA TWX AGPA-07769 dated 27 July 1960. Departed 27 November 1961 per Par 46, DA SO 185 dated 27 July 61 and LO-9, CEBMCO 15 November 1961.
5. Par 88, DA SO 88 dated 9 August 1961.
6. For complete listing refer to Report ENGMA-AB-28 prepared semi-monthly by Area Office. Reports filed at CEBMCO Headquarters.
7. Does not include cap and overhead doors. All future references with a similar connotation.
8. Less cap and overhead doors. All future references to a silo concrete pour in a similar connotation.
9. As substantially complete. All future references in this section of text will have similar connotations.
10. Claims submitted by the contractor totaled \$2,452,000.00.
11. Primarily Southwestern Oklahoma Building & Construction Trades Council, Oklahoma City, Oklahoma.
12. Major Robert P. McMath, 060603, CE, was assigned to the Area by DA TWX AGPA-O 63401 dated 26 October 1960. Departed 10 December 1961 per Par 97, DA SO 97 dated 7 September 1961.

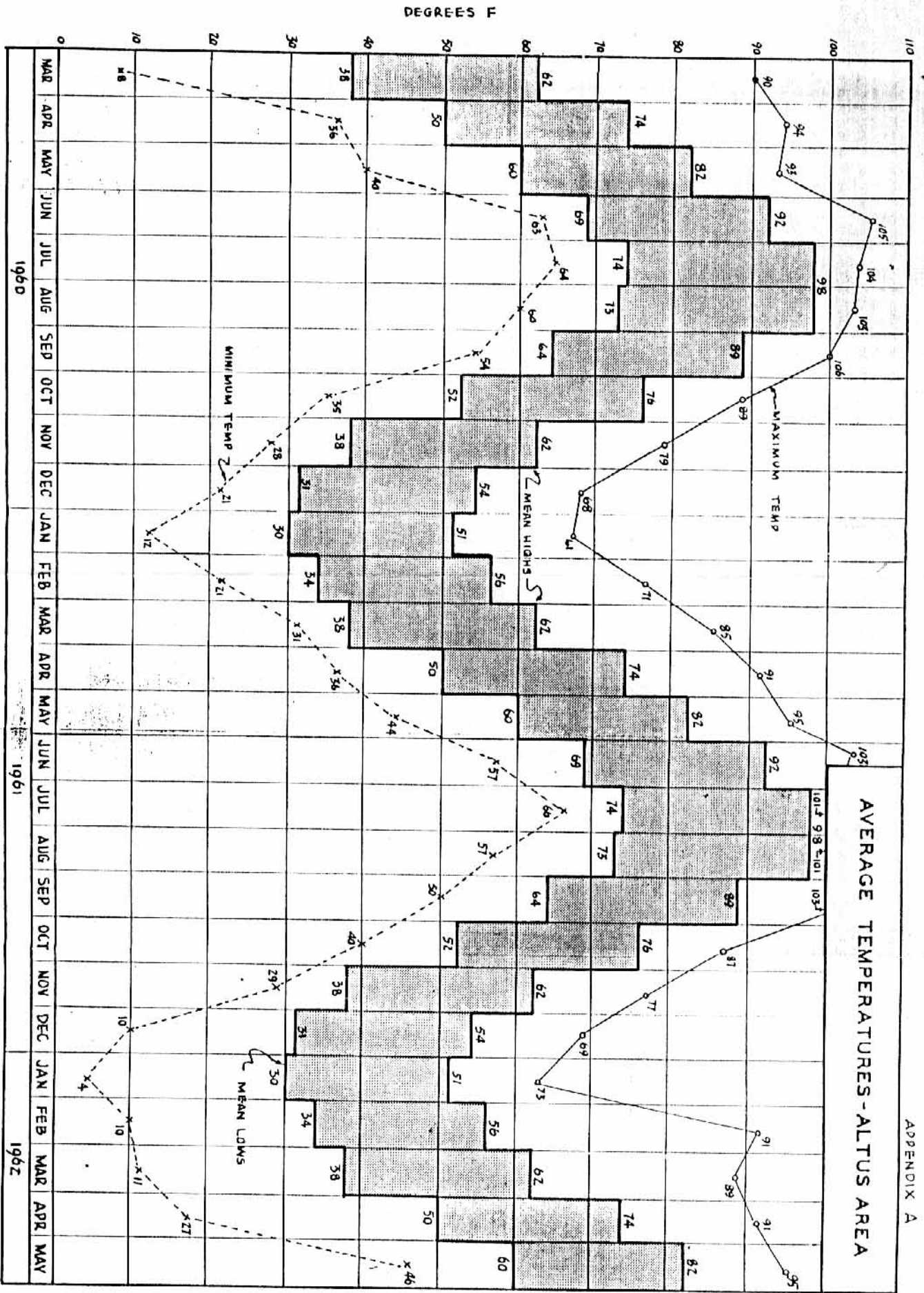
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CHAPTER 6: CONTRACT ADMINISTRATION BRANCH

1. 1 - GS-13 (Chief of Branch), 1 - GS-12 (Expediter), 2 - GS-11's (Estimators), 1 - GS-11 (Reports), 1 - GS-11 (Change Orders), 2 - GS-9's (Change Orders), 1 - GS-7 (Reports), and 2 - GS-3's (clerks).
2. These functions are outlined in detail in: "Anex B, Time Phase Plan for ICBM Construction, Altus, Oklahoma" published by U. S. Army Engineer District, Tulsa, February 1960; SOP I-1 "Organization and Functions of Altus Area Office", published by CEBMCO Altus Area, 20 January 1961; and "Statement of Functions for the Altus Area Office, Atlas F Construction Directorate" published by the Atlas F Construction Directorate, CEBMCO, 12 April 1961.

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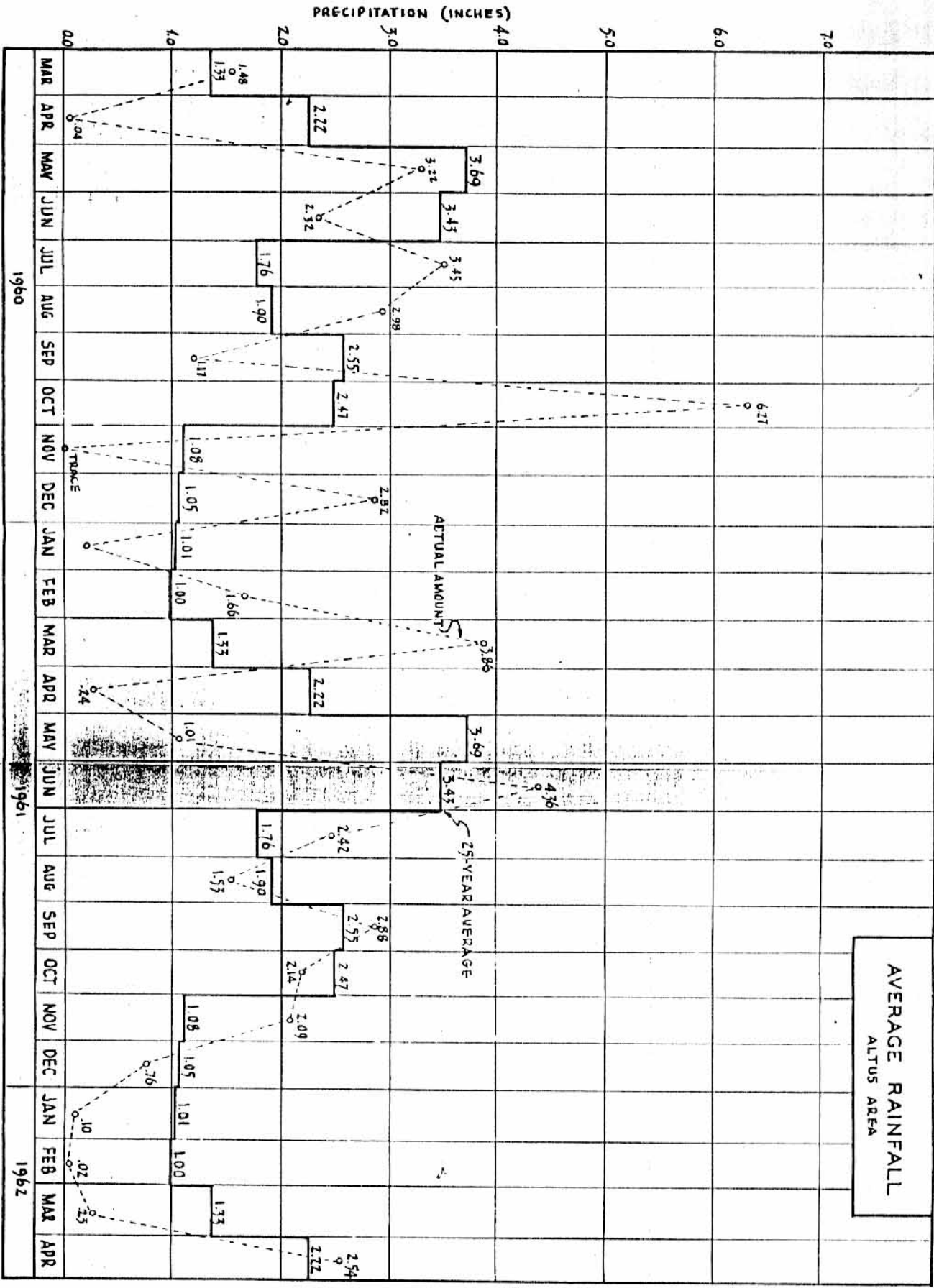
AVERAGE TEMPERATURES-ALTUS AREA



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AVERAGE RAINFALL  
ALTUS AREA



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## APPENDIX B

AREA ENGINEER, ALTUS  
U. S. ARMY CORPS OF ENGINEERS  
BALLISTIC MISSILE CONSTRUCTION OFFICE  
ALTUS, OKLAHOMA

ENGMA-AB-A

20 January 1961

SUBJECT: SOP I-1  
Organization and Functions of Altus Area Office

TO: See Distribution

### SECTION I - GENERAL

1. Purpose.

This SOP is published to establish the functional responsibilities of the various operational elements of the Altus Area Office.

2. Reference.

EM 10-1-2 and changes thereto.

3. Mission.

a. The Area Engineer is directly responsible in the chain of command to the Director, Atlas F, Corps of Engineers Ballistic Missile Construction Office. He and his staff constitute the Area Engineer Office which is the operating component of the Atlas F Directorate, CEBMCO to which broad missions have been assigned as noted in paragraph b below for performance and accomplishment within the area defined by the locations of the Atlas F ICBM complexes in the vicinity of Altus, Oklahoma.

b. The Area Engineer, with the delegation of authority as a representative of the Contracting Officer, is responsible for inspecting the construction of all work under his jurisdiction, for gathering and recording all data pertaining to the execution of each contract, for preparing all reports, payment estimates and other required information and for carrying out the established policies of CEBMCO and OCE.

### SECTION II - ORGANIZATION

4. Organizational Chart.

Chart showing Area Office organization is shown in Appendix 1.

### SECTION III - STATEMENT OF FUNCTIONS

5. Executive Office.

a. Area Engineer.

(1) Directs administration, supervision and inspection of all contract construction assigned to the Area Office.

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SOP I-1

(2) Acts as the authorized representative of the Contracting Officer.

b. Deputy Area Engineer.

(1) Assists the Area Engineer, and acts as the Area Engineer during periods when the Area Engineer is absent from the Area.

(2) Provides direction to the technical and advisory and administrative staff in all matters of a technical and management nature.

(3) Supervises special projects as may be assigned by the Area Engineer.

c. Executive Officer.

(1) Assists the Area Engineer and the 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) Serves as focal point in all matters relating to the Administrative and Advisory staff.

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

(5) During the absence of the Area Engineer acts as the authorized representative of the Contracting Officer.

(6) Serves as the principle administrative assistant to the Executive Office.

(7) Coordinates in those matters relating to overall administration where executive action is required.

(8) Supervises military personnel administration as directed.

(9) Performs additional duties as specifically assigned.

d. Briefing and Liaison Officer.

(1) Serves as the Area Technical Liaison Officer.

(2) Conducts technical briefing for official visitors to the Area Office.

(3) Escorts visiting civil and military dignitaries to and around missile construction sites.

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SOP I-1

(4) Effects liaison, as related to missile site construction between the Area Engineer and Air Force missile organizations located on Altus Air Force Base.

(5) Conducts weekly construction status briefings for SATAF Commander and staff; staff representatives of the Altus AFB Commander; and Liaison Officers of the 11th Bombardment Wing.

(6) Provides factual information in usable form to general public in connection with activities, policies, and procedures of the Area Engineer's Office.

(7) Monitors Area security programs.

a. Supervisory Construction Management Engineer.

(1) Assists Area Engineer with the preparation and defense of government cost estimates covering modifications and changes affecting the project.

(2) Coordinates Area staff activities concerning the development or preparation of government cost estimates.

(3) Participates in negotiation proceedings to defend and/or clarify government cost estimates.

(4) Makes field visits to observe and discuss with Area Office field personnel the scope and effect of design changes having a bearing on cost estimates.

6. Safety Branch.

a. Assists the Area Engineer in administration of the Corps of Engineers Safety Program within the Area.

b. Provides for frequent safety inspections at all work sites.

c. Advises the Area Engineer of potential safety hazards on all sites which he is unable to have corrected.

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

e. Assures prompt reporting of accidents.

f. Prepares formal reports of findings with recommended corrective action on all accidents and serious hazards which hamper efficient uninterrupted construction programs.

g. Prepares recurring safety reports.

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7. Office of Counsel.

- a. Assists and advises the Area Engineer and his supporting elements on legal matters except Real Estate.
- b. Renders staff advice in the negotiation and preparation of contractual documents and reviews all contract actions for legal sufficiency.
- c. Prepares necessary action concerning all contractual and non-contractual claims for the Area.
- d. Processes settlement of contractual documents as delegated by the Office of Counsel, CEBMCO.
- e. Prepares action on appeals made by contractors to decisions made by the Contracting Officer or Contracting Officer's Representative.
- f. Prepares litigation reports as required.

8. Administrative Branch.

- a. Furnishes administrative services to all elements of the Area and Project and Resident Offices as required.
- b. Receives and distributes incoming, and collects and dispatches outgoing communications to include those of a classified nature.
- c. Maintains the Area general and special files to include these allied functions of records management.
- d. Provides for the establishment and operation of electrical communication facilities.
- e. Operates the motor pool.
- f. Monitors Management Improvement Program and Incentive Award Programs and other similar special activities as assigned.
- g. Monitors civilian personnel program for the Area, time and attendance reporting, maintenance of leave records, and other related records and reports.
- h. Handles property and supply functions, including procurement, accounting, issuance of supplies and other related activities to include the maintenance of government furnished and accountable property records.
- i. Supervises custodial services.
- j. Processes Area budget, Area cost records, and Area cost reporting.
- k. Provides stenographic and typist assistance to other branches when required.

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1. Provides reproduction services.
  - m. Prepares transportation requests, travel orders, bureau vouchers, and arranges transportation and reservations as required.
  - n. Assumes initial responsibility for any function not assigned to another branch.
  - o. Maintains budget control of contract construction costs.
  - p. Prepares for signature, in coordination with the Contract Administration and Engineer & Technical Branches, all ENG Forms 290 and the related transfer documents and provide for the distribution of ENG Forms 290 and other documents required in conjunction with transfer of construction.
  - q. Performs labor relations functions, assuring enforcement of contract labor standards and promoting good working relationships between the Corps of Engineers, organized labor and contractors.
  - r. Receives, reviews, and initiates necessary action on all contractors' payrolls.
  - s. Monitors small purchase procedures for the Area.
  - t. Insures a property list included in the construction transfer documents are in proper form for property accounting.
9. Contract Administration Branch.
- a. Assists the Area Engineer in the supervision of all contract administration work for contracts assigned to the Area Office.
  - b. On receipt of recommendations from the Engineering Branch, initiates change order action with the contractor, prepares government estimate when required, conducts negotiations and prepares and distributes modification documents. Initiates and carries to completion administrative modifications.
  - c. Prepares contractor pay estimates from information received from the Construction Branch and from the contractor.
  - d. Prepares progress reports from information received from the Construction Branch.
  - e. Initiates action and follow-up on all government furnished equipment from commencement of construction until arrival at job site or railroad.
  - f. Initiates action, maintains records, and prepares reports for all expediting of construction materials.
  - g. Reviews specifications prior to bid openings and furnishes Engineering Branch with comments for addenda changes.

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h. Maintains a register of proposed Change Orders and modifications within the Area Office.

i. Furnishes monthly to Administration Branch current and projective contractor's earnings for incorporation into Area cost reports.

j. Prepares reports required by EM 415-4-331.

k. Prepares justification for additional funds when the need is generated by proposed modifications or claims.

l. Assists the Office of Counsel in preparing findings of fact and in the resolution of contractor claims.

m. Assists the Office of Counsel in processing contract terminations and negotiation of settlement.

n. Contacts Project and Resident Engineers and other elements of the Area Office and the CEMCO Atlas F Directorate as necessary in connection with processing of contract modifications.

o. Arranges for photographs of project features at important stages of progress.

p. Controls government and contractor-supplied materials and equipment, and expedites and administers the Defense Materials System to insure timely arrival of materials and equipment.

q. Contacts manufacturers and suppliers and assists in obtaining delivery by required dates.

1C. Construction Branch.

a. Supervises and inspects all contract construction work assigned to the Area Office.

b. Coordinates and formulates construction schedules in conjunction with Engineer and Contract Administration Branches for effective prosecution of the work.

c. Coordinates changes to meet existing field changes.

d. Assists as requested in the preparation of estimates, the negotiation of modifications, and the review and settlement of contractual claims.

e. Compiles daily reports of work accomplished, decisions made, action taken, working conditions, comments on progress, and evaluates the current status of all construction.

f. Coordinates closely with the Safety Branch and takes expeditious action to implement safety features agreed to be necessary.

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- g. Monitors as-built drawings concurrently as the work is completed.
- h. Conducts inspector training program.
- i. Supervises the operations of Sector Engineers and Project Engineers and conducts frequent inspections of construction activities.
- j. Provides Contract Administration Branch with feeder reports upon which pay estimates and progress reports are based.
- k. Reviews all proposed changes for construction feasibility and time and acceleration impact, making appropriate recommendation to the Contract Administration Branch.
- l. Arranges for all transfers of construction to the using agency, providing Administration Branch with necessary data required from the field for preparation of ENG Form 290 and related transfer documents.
- m. Promptly advises Engineering Branch of any conflicts in design deficiencies as soon as they are noted.
- n. Reviews plans and specifications prior to bid openings and furnishes comment as to desirable addenda changes to the Engineering Branch.
- o. Establishes and furnishes to Contract Administration Branch construction completion and acceptance dates.
- p. Directs the Area Survey crew.
- q. Operates Area soils, concrete, and materials testing laboratory.
- 11. Engineering and Technical Branch.
  - a. Provides general engineering and specialized technical services in support of construction activities.
  - b. Provides for the procurement, receipt, technical review, approval and proper distribution of plans, specifications, shop drawings and material samples.
  - c. Supervises contracts for services of A-E's and special consultants in connection with its field of responsibility.
  - d. Furnishes technical advice and assistance for special tests as required.
  - e. Initiates or reviews requests for changes in design to meet existing conditions.

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- f. Prepares revised plans and specifications, government cost estimates, and other engineering data required for contract modifications.
- g. When requested by Contract Administration Branch, provides technical assistance and advice in negotiations of contract modifications.
- h. Performs emergency design and prepares supplemental drawings, layout sheets and similar material for field offices.
- i. Performs miscellaneous drafting for all elements of the Area Office.
- j. Maintains current as-built drawings, using data obtained from Construction Branch.
- k. Maintains the record set of contract plans and specifications.
- l. Maintains shop drawing record files.
- m. Maintains a suspense register for samples, shop drawings, test results and similar data required under each contract, and insures timely receipt approval.
- n. Supervises contracts for 'E services in connection with its field of responsibility.
- o. Assists Construction Branch in performing technical and engineering approvals of soils, concrete, and other materials.
- p. Resolves conflicts in design and, where necessary, recommends Change Order action to Contract Administration Branch.
- q. Furnishes limited estimating support to Contract Administration Branch.
- r. Assists as requested in negotiation of modifications and the review of a settlement of contractual changes.
- s. Performs engineering inspections of construction to insure adequate construction standards in compliance with all design criteria upon request of the Construction Branch.
- t. Maintains liaison with architect-engineer, using agency, Atlas F Directorate, supporting district, and other concerned agencies on engineering and technical matters.
- u. Maintains master equipment list.
- v. Maintains technical library for Area Office.

12. PLS Branch.

- a. Assists the Area Engineer by providing specialized technical advice on the procurement, installation, and testing of propellant loading systems.
- b. Acts as the Area liaison element with the PLS Division of CEBMCO.
- c. Provides technical advice during the construction, installation and field operational testing stage for final acceptance.
- d. Coordinates with the Construction Branch the activities of PLS inspectors and the PLS inspection service to operational sites.
- e. Conducts PLS inspector training.
- f. Coordinates with all branches of the Area in phases of their work involving PLS equipment or materials.

13. Sector Engineer.

The following general functions are performed under the staff supervision of the Chief, Construction Branch.

- a. Supervises and inspects construction on four Atlas F Missile Sites at widely separated locations and in different stages of construction.
- b. Effects liaison between project engineers and the Area Office concerning construction deficiencies and solution to field problems.
- c. Relays Area Office instructions for construction changes.
- d. Responsible for safe working conditions at the sites under his control.

14. Project Engineer.

The following general functions are performed under the supervision of the Sector Engineer.

- a. Actively supervises and inspects contract construction work on an Atlas F Missile Site.
- b. Reviews plans and specifications on any new site work for adequacy.
- c. Responsible for safety on his respective work site.
- d. Accomplishes materials inspections for material delivered and used at the construction site.

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e. Supervises the work and utilization of Corps of Engineers personnel assigned to his work site.

f. Assists in accomplishing final inspection of facility upon completion.

15. On-Base Project Engineer.

The following functions are performed under the staff supervision of the Chief, Construction Branch.

a. Actively supervises and inspects contract construction work on Atlas F Missile Support Facilities on Altus Air Force Base.

b. Accomplishes inspection of construction material delivered and used at his sites.


c. Responsible for insuring the use of safe working practices on sites under his control.

d. Supervises the work and utilization of Corps of Engineers employees assigned to his sites.

e. Assists in accomplishing final inspection of facilities at his sites.

1 Invl  
Appendix 1

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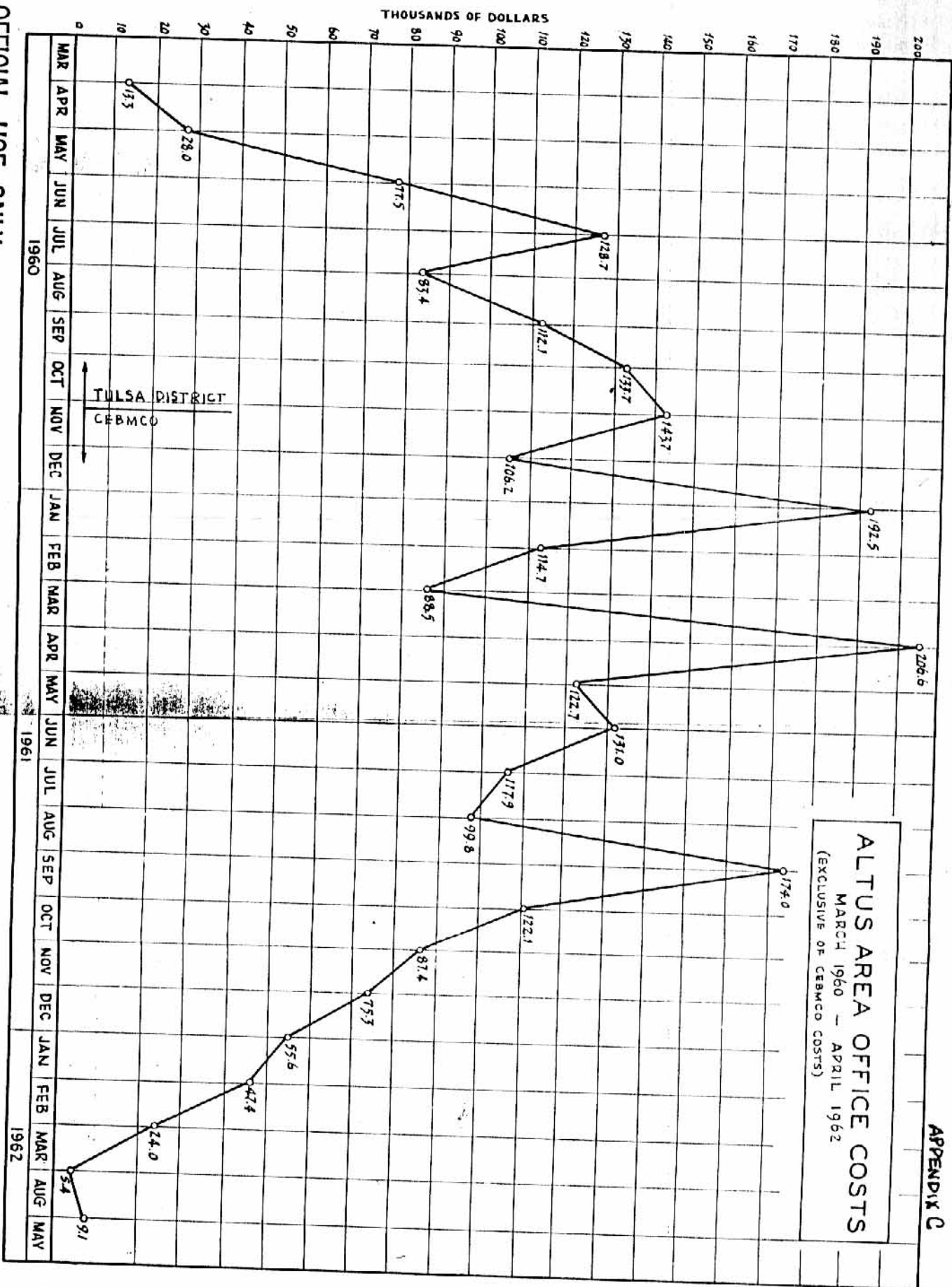
  
CARL F. BASWELL  
Lt Colonel CE  
Area Engineer

10  
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## APPENDIX C

## ALTUS AREA OFFICE COSTS

MARCH 1960 - APRIL 1962  
(EXCLUSIVE OF CEBMCO COSTS)

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APPENDIX D

## STAFF VISITS AND INSPECTIONS

## ALTUS AREA OFFICE, CEBMCO

<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
10 Mar 60	OCE	Lt Col R. G. Liebhardt	Construction
4 May 60	OCE	Lt Col R. J. Shreder & party	Paving Opns
10 May 60	TDO	Col H. W. Penney & party (District Engineer)	Construction
27 May 60	SWD	C. J. Kocian & party (Asst Chief, Constr Div)	Construction
9 Jun 60	SWD	C. J. Kocian & party (Asst Chief, Constr Div)	Construction
9 Jun 60	LAFO-OCE	Harold J. Brown & party (CONSTR Div Rep)	Construction
30 Jun 60	TDO	Col H. W. Penney & party (District Engineer)	Conference
30 Jun 60	SWD	D. W. Love & party (Chief, Constr Div)	Conference
28-29 Jul 60	TDO	Col H. W. Penney & party (District Engineer)	Scheduling Conference
28-29 Jul 60	SWD	Col John E. Carroll (Actg Deputy Div Engr)	Scheduling Conference
28-29 Jul 60	LAFO-OCE	Mr. Wm A. Micam	Scheduling Conference
8-9 Aug 60	TDO	Col H. W. Penney & party (District Engineer)	Conference
8-9 Aug 60	CEBMCO	Lt Col A. W. Sanders (Chief, PLS Div)	PLS
8-9 Aug 60	CEBMCO	Lt Col C. H. Chamberlain (Chief, Engr Div)	Engineering

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
31 Aug 60	TDO	Col H. W. Penney & party (District Engineer)	Conf on Delays
7 Sep 60	OCE	Lt Col R. J. Shreder & party	Concrete Inspection
6-8 Sep 60	SWD	J. F. Gay (Paving Engr)	Concrete Inspection w/OCE Team
7-8 Sep 60	CEBMCO	Col E. D. Comm (Director, Atlas F)	Staff Visit
15 Sep 60	SWD	Col John E. Carroll (Actg Deputy Div Engr)	Construction
27-28 Sep 60	TDO	Lt Col T. D. Quaid & party (Deputy District Engr)	Chg Ord Conf
6-7 Oct 60	CEBMCO	Brig Gen A. C. Welling & party (CG)	Command Insp
6-7 Oct 60	SWD	Col Stanley G. Reiff & party (Dep Div Engr)	Construction
10-11 Oct 60	TDO	Col H. W. Penney & party (District Engineer)	Construction
10-11 Oct 60	SWD	Col John E. Carroll (Actg Deputy Div Engr)	Construction
10-11 Oct 60	CEBMCO	Lt Col T. F. Spencer (Engr Div, Atlas F)	Construction
10-11 Oct 60	OCE	Col F. P. Koisch	Construction
18-19 Oct 60	SWD	C. J. Kocian & party (Asst Chief, Constr Div)	Construction
18-20 Oct 60	TDO	Col H. W. Penney & party (District Engineer)	Construction
22 Oct 60	CEBMCO	G. J. Byrnes (Deputy Dir, Atlas F)	Staff Visit
25-26 Oct 60	TDO	Col H. W. Penney (District Engineer)	Construction

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
28 Oct 60	TDO	Col H. W. Penney (District Engineer)	Staff Visit
28 Oct 60	CEBMCO	Col W. W. Wilson (Director, Atlas F)	Staff Visit
3 Nov 60	OCE	Col B. DeMelker	Staff Visit
3-4 Nov 60	TDO	Col H. W. Penney (District Engineer)	Construction Command Turn- over TDO to CEBMCO
4 Nov 60	CEBMCO	Col W. W. Wilson (Director, Atlas F)	Staff Visit Command Turn- over TDO to CEBMCO
8-9 Dec 60	TDO	Col H. W. Penney (District Engineer)	Construction
17 Jan 61	CEBMCO	L. T. Rose	Property Records
17-19 Jan 61	CEBMCO	N. J. Bleckmann (Coordinator, Atlas F)	Construction
7-10 Feb 61	CEBMCO	N. J. Bleckmann (Coordinator, Atlas F)	Construction
21-24 Feb 61	CEBMCO	N. J. Bleckmann (Coordinator, Atlas F)	Construction
6-7 Mar 61	SWD	Maj John L. Lewis (Security Officer)	Security Insp
6-7 Mar 61	CEBMCO	W. O. Roy W. Lucas (Sec. Ofc)	Security Insp
7-8 Mar 61	CEBMCO	Brig Gen A. C. Welling & party (CG)	Command Insp
7-8 Mar 61	CEBMCO	Col W. W. Wilson (Director, Atlas F)	Construction
14-17 Mar 61	CEBMCO	N. J. Bleckmann (Coordinator, Atlas F)	Construction

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
28 Mar 61	OCE	Lt Col R. J. Shreder	Construction
3 Apr 61	CEBMCO	Maj F. W. Robson (Asst IG)	IG Staff Visit
5-6 Apr 61	CEBMCO	Lt Col T. F. Spencer & party (Exec Ofc, Atlas F)	Construction
10 Apr 61	CEBMCO	R. W. Miller (Coordinator, Atlas F)	Construction
10 Apr 61	CEBMCO	A. Davis (Records Management)	Office Records Insp
11-12 Apr 61	CE, Ft Worth	Mr. D. E. Walker	GFE Inspection
21-22 Apr 61	CEBMCO	Capt Patrick W. Marks (Liaison Officer, Atlas F)	Staff Visit
21-23 Apr 61	CEBMCO	Mr. Howard M. Gray (Office of Counsel)	Staff Visit
26-28 Apr 61	CEBMCO	Mr. L. H. Miller (Construction Br, Atlas F)	Staff Visit
30 Apr 61	Spencer J. Buchanan & Assoc.	Mr. H. N. Buchanan	Consulting Engr, Changed Condi- tions Claim
30 Apr 61	Spencer J. Buchanan & Assoc.	Mr. S. J. Buchanan	Consulting Engr, Changed Condi- tions Claim
1 May 61	CEBMCO	Mr. John J. Martin (Comptroller's Office, Property Acctg Br)	Prop Acctg
1 May 61	CEBMCO	Mr. Howard L. Edison (Safety Engineer)	Safety Survey
8-12 May 61	TDO	Mr. Emmett R. Graves (Audit Branch)	Audit of MKH
9-12 May 61	CEBMCO	Mr. John G. Schenk (Contract Admin Br, Atlas F)	Contract Admin

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
10-13 May 61	CEBMCO	Col W. W. Wilson (Director, Atlas F)	Special Conf & Insp
10-17 May 61	CEBMCO	Mr. John B. Wentzel (PSD)	PLS
16 May 61	CEBMCO	Mr. Arvil C. Sigmon (Engr Br, Atlas F)	Validation Procedures
23 May 61	TDO	Mr. George E. Fox (Office Services Branch)	Security
23-26 May 61	CEBMCO	Mr. John B. Wentzel (PSD)	PLS
23-26 May 61	CEBMCO	Mr. R. Miller (Construction Br, Atlas F)	Construction
24-26 May 61	CEBMCO	Capt Patrick W. Marks	PLS
8 Jun/1 Jul 61	CE Jacksonville	Mr. H. J. Bock (Labor Relations)	Labor Investi- gation
12-13 Jun 61	CEBMCO	Mr. P. E. Smith (Contr Admin Br, Atlas F)	Contr Admin
16 Jun 61	CEBMCO	Mr. C. G. Moore (Engr Branch)	OCE Soils Team
16 Jun 61	WES	Mr. W. G. Fosbby	OCE Soils Team
16 Jun 61	Ohio River Div Lab	Mr. F. M. Mellinger	OCE Soils Team
20 Jun 61	CEBMCO	Mr. James H. Devine (PSD)	PLS
21-23 Jun 61	CEBMCO	Lt Col T. F. Spencer (Exec Ofc, Atlas F)	Staff Visit
28-29 Jun 61	CE, Ft Worth	Mr. D. E. Walker	GFE Inspection
11 Jul 61	CEBMCO	Mr. R. W. Miller (Constr Br, Atlas F)	Staff Visit
25 Jul 61	CEBMCO	Mr. J. M. Peterson (Engr Br, Atlas F)	Staff Visit

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
26 Jul 61	CEBMCO	Col T. J. Hayes (CO)	Staff Visit
26-28 Jul 61	CEBMCO	Mr. Arvil C. Sigmon (Engr Br, Atlas F)	Validation
1 Aug 61	CEBMCO	Col W. W. Wilson (Director, Atlas F)	Ceremonies, Site 2
9-10 Aug 61	CEBMCO	Mr. James H. Devine (PSD)	PLS
9-10 Aug 61	CEBMCO	Mr. L. L. Phillips (Office of Counsel)	Staff Visit
10 Aug 61	CEBMCO	Mr. C. D. Daniel (Security Branch)	Security
10 Aug 61	CEBMCO	Mr. J. B. Wentzel (PSD)	PLS
10 Aug 61	CEBMCO	Mr. J. C. Brown (Office Services Br)	Vehicles
21 Aug 61	CEBMCO	Capt Patrick W. Marks (Liaison, Atlas F)	Staff Visit
21 Aug 61	CEBMCO	Maj Frank W. Robson	Staff Visit
9 Sep 61	BSSL	Lt Col E. J. Moses	Construction Costs
9 Sep 61	BSD	Mr. Ernest J. Prevost	Construction Costs
9 Sep 61	BSSS	Mr. H. Phizenmayer	Construction Costs
9 Sep 61	BSLMA	Mr. L. A. Evans	Construction Costs
9 Sep 61	BSSF	Capt P. T. Harting	Construction Costs
9 Sep 61	BSJ	Maj H. D. Moore	Construction Costs

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
9 Sep 61	BSD-BSBRG	Lt Col R. P. Gingland	Construction Costs
9 Sep 61	DCAS-DCC	Maj P. B. Chervis	Construction Costs
9-12 Sep 61	CEBMCO	Capt H. C. Littlefield (Program Control Officer)	Construction Costs
10-12 Sep 61	CEBMCO	Mr. Allan B. Aaron (Office of Counsel)	Construction Costs
9-12 Sep 61	CEBMCO	Lt Col J. F. Fishback (Operations Division)	Construction Costs
9-12 Sep 61	CEBMCO	Maj F. W. Robson (Asst IG)	Construction Costs
9-12 Sep 61	CEBMCO	Capt Patrick W. Marks (Liaison Ofc, Atlas F)	Construction Costs
15 Sep 61	TDO	Mr. Bill S. Eichert	Personnel Records
18-21 Sep 61	CEBMCO	Mr. Kendall M. Silva (Property Acctg Br)	Property
21-23 Sep 61	CEBMCO	Mr. Arvil C. Sigmon (Engr Branch, Atlas F)	Validation Tests
29 Sep 61	CEBMCO	Mr. J. B. Wentzel (PSD)	PLS
8-10 Oct 61	OCE	Mr. R. A. Gilman (Mil Construction Div)	Staff Visit
17 Oct 61	CEBMCO	Col T. J. Hayes (CO)	Staff Visit
17 Oct 61	CEBMCO	Col W. W. Wilson (Director Atlas F)	Contract Administration
17-20 Oct 61	OCE	Mr. M. L. Bopp	PLS
17-20 Oct 61	OCE	Mr. E. W. Smithman	PLS
16-20 Oct 61	CEBMCO	Mr. J. B. Wentzel (PSD)	PLS

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
23 Oct 61	CEBMCO	Mr. J. M. Peterson (Engr Br, Atlas F)	Estimates
23 Oct 61	CEBMCO	Mr. Delbert E. Lane (Atlas F)	Estimates
23-24 Oct 61	CE, Ft Worth	Mr. Max M. Rechter	PLS Contract
23-24 Oct 61	CE, Ft Worth	Mr. Charles G. Hazlewood	PLS Contract
23-25 Oct 61	CEBMCO	Maj Patrick W. Marks (PSD)	PLS
30 Oct 61	CEBMCO	Mr. LeRoy Aaron	Validation Test
7-9 Nov 61	BSD	Maj Gen A. C. Welling (Deputy for Site Activation)	Staff Visit
30 Nov 61	CEBMCO	Mr. A. Aaron (Office of Counsel)	Claims
8 Dec 61	CEBMCO	Mr. David Leitch	Personnel
18 Dec 61	CE, Ft Worth	Mr. T. F. Calvin	Audit - Hardeman Contract
15 Jan 62	CEBMCO	Mr. L. T. Rose	Property Records
15 Jan 62	CEBMCO	Mr. K. M. Silva	Property Records
15-16 Jan 62	CEBMCO Little Rock	Mr. C. R. Hacker	Water Supply, Site 6
15-16 Jan 62	CEBMCO	Mr. W. K. Stewart	Water Supply, Site 6
15-16 Jan 62	CEBMCO	Mr. S. Levenson	Water Supply, Site 6
29-31 Jan 62	CEBMCO	Mrs. Ann Davis	Area Records Management
2-3 Feb 62	TDO	Mr. Frank Connole	Contract Esti- mates

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<u>PERIOD</u>	<u>AGENCY</u>	<u>INSPECTOR</u>	<u>AREA INSPECTED</u>
5-6 Feb 62	Los Angeles EIG Office	Mr. M. Robertson	Annual EIG Inspection
5-6 Feb 62	Chicago EIG Office	Col C. F. Townsend, CE (EIG)	Annual EIG
13-15 Feb 62	TDO	Mr. R. C. Losornio	GFP Records
12-14 Feb 62	CEBMCO	Mr. Robert Sikora	Missile Finan- cial Status
13-15 Feb 62	CE, Albuquerque	Mr. S. L. Pearson	Water Supply, Site 6
13-15 Feb 62	CE, Albuquerque	Mr. D. B. Carothers	Water Supply, Site 6
15 Feb 62	CE, Albuquerque	Mr. Louie Bradley	Review of Transfer
15 Feb 62	CEBMCO	Col W. W. Wilson, CE (Director, Atlas F)	Staff Visit
17-25 Feb 62	CEBMCO	Capt R. A. Bush, CE	Contractor Labor Costs
21-22 Mar 62	CE, Albuquerque	Mr. J. P. Pearson	Coordination of Follow-On Work
11-13 Apr 62	CEBMCO	Mr. J. B. Wentzel	Inspection of Gaseous High Pressure Ves- sels
12-19 Apr 62	CEBMCO	Col W. W. Wilson, CE (Director, Atlas F)	Inspection of Gaseous High Pressure Ves- sels
17-21 Apr 62	CEBMCO	Major F. W. Robson, CE	Inspection of Gaseous High Pressure Ves- sels
17 Apr 62	CE, Albuquerque	Mr. Louie Bradley	Coordination of Follow-On Work

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APPENDIX EKEY PERSONNEL OF ALTUS AREA\*

<u>NAME</u>	<u>RANK or GRADE</u>	<u>POSITION</u>
<u>EXECUTIVE OFFICE</u>		
Carl F. Baswell	Lt Col, CE	Area Engineer
Walden J. Evans	GS-14	Deputy Area Engineer
Samuel C. Wood	Maj, CE	Executive Officer
		Military Assistant
		Liaison Officer
		Briefing Officer
James R. McKnight	Capt, CE	Security Officer
<u>SAFETY BRANCH</u>		
John E. Geiglein	GS-12	Safety Officer
<u>OFFICE OF COUNSEL</u>		
Maurice F. Ellison, Jr.	GS-12	Attorney-Advisor
Robert E. Moore	GS-11	Labor Relations Officer
<u>ADMINISTRATION BRANCH</u>		
William J. Forsyth	GS-11	Chief of Branch

\* As of 1 July 1961

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ENGINEERING BRANCH

C. Charles Hawkins	GS-13	Chief of Branch
William E. Lee, Jr.	1/Lt, CE	Military Assistant

CONTRACT ADMINISTRATION BRANCH

Paul T. Roberds, Jr.	GS-13	Chief of Branch
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CONSTRUCTION BRANCH

Ira E. Williams	GS-14	Chief of Branch
William E. McGowan	GS-12	Supv Constr Mgt Engr

PROPELLANT LOADING SYSTEM BRANCH

Robert P. McMath	Maj, CE	Chief of Branch
Russell L. Koger	GS-13	PLS Engr Control

ALTUS AFB PROJECT

Frank B. Hawkins	GS-12	Supv Constr Rep
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CONSTRUCTION SECTOR 1

Felix P. Miller, Jr.	GS-12	Sector Engineer
Homer H. Stewart	GS-12	Project Engineer, Site 2
Ben L. Porter	GS-12	Project Engineer, Site 3
Kermit V. Evans	GS-12	Project Engineer, Site 4
Horace D. Brown	GS-12	Project Engineer, Site 11

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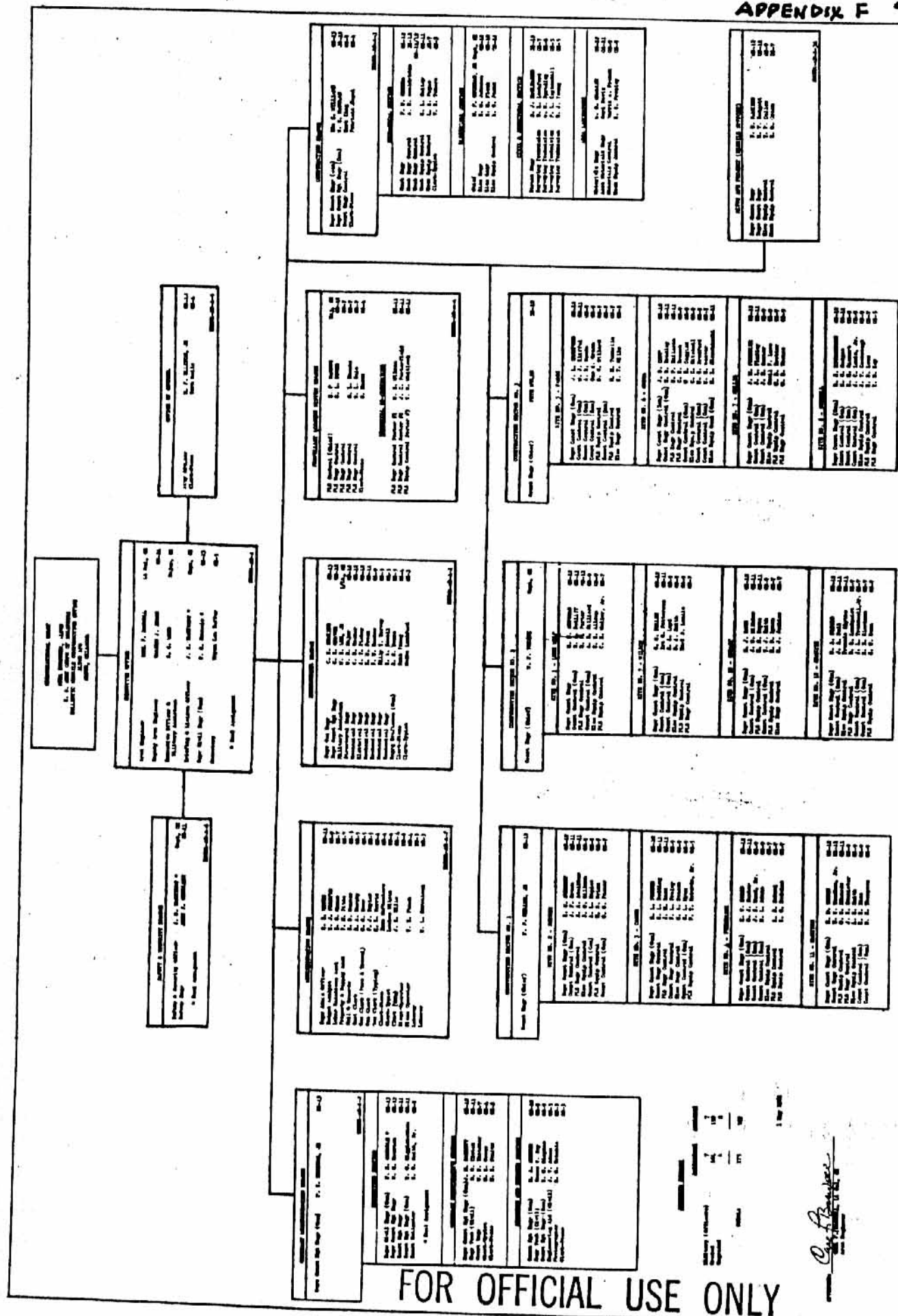
CONSTRUCTION SECTOR 2

Walter P. Tokarz	Capt, CE	Sector Engineer
Royce W. Anstead	GS-12	Project Engineer, Site 1
Gordon S. Dilley	GS-12	Project Engineer, Site 11 and Site 12
Malcolm J. Babb	GS-10	Project Engineer, Site 10

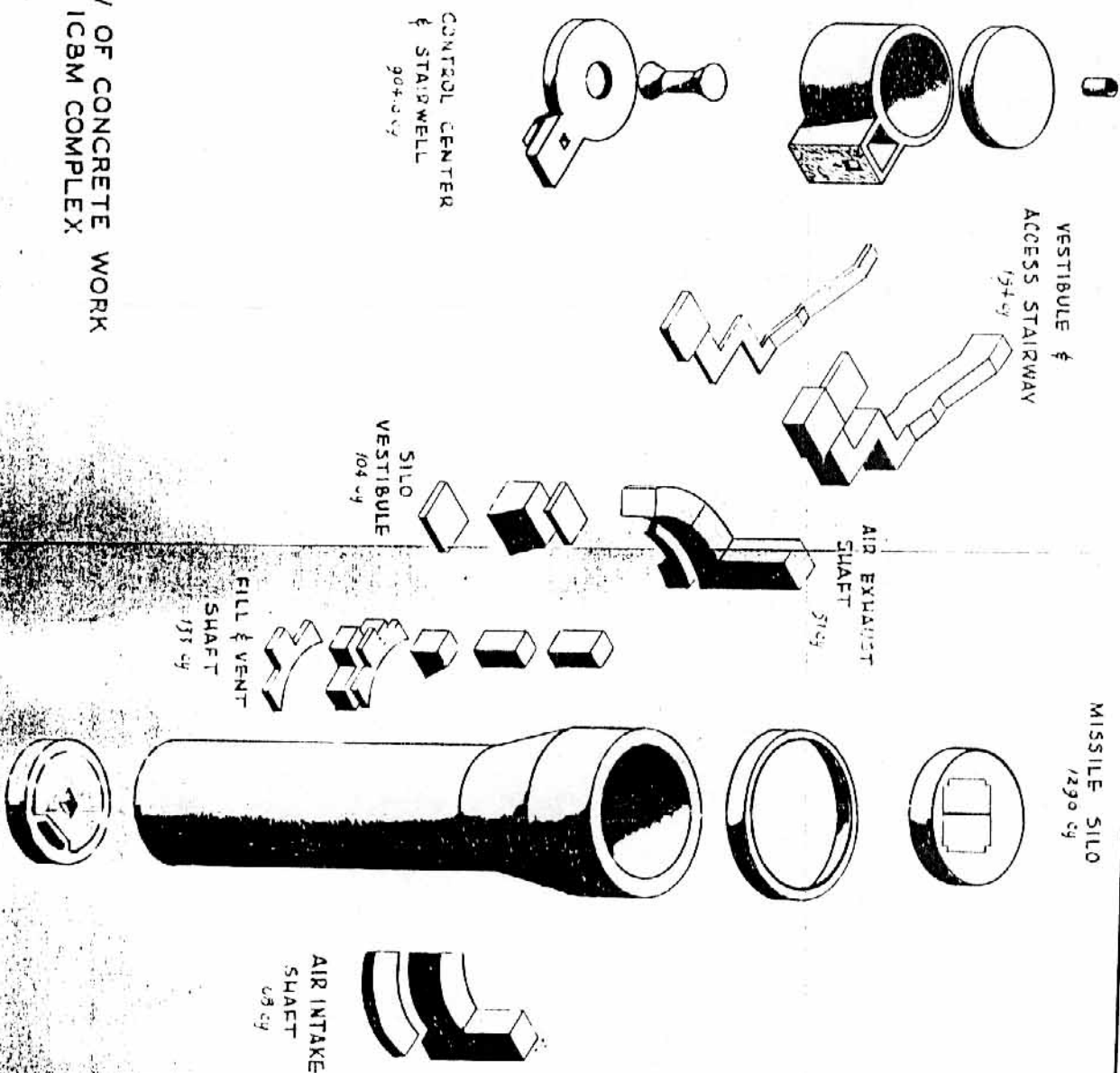
CONSTRUCTION SECTOR 3

James R. McKnight	Capt, CE	Sector Engineer (temporary)
Jack L. Crawford	GS-12	Project Engineer, Site 5
Bradford Camp	GS-12	Project Engineer, Site 6
James L. Findley	GS-12	Project Engineer, Site 7
Russell E. Richardson	GS-12	Project Engineer, Site 8

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# EXPLODED VIEW OF CONCRETE WORK ATLAS F ICBM COMPLEX



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