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USAF PLAN OF ACTION FOR THE
PHASE-OUT AND DISPOSITION OF
THE ATLAS E, ATLAS F, AND TITAN I
(20 JANUARY 1965)

FILE 45-226

COORDINATION SHEET

USAF PLAN OF ACTION FOR THE PHASE-OUT AND
DISPOSITION OF THE ATLAS E, ATLAS F, AND
TITAN I

AFLC COORDINATION

/s/

H. C. Porter
Major General, USAF
Chief of Staff

ATC COORDINATION

W. W. Momyer
Lt General, USAF

ATCCR 00009 Message, dated 6 January 1965. Concur with proposed USAF Plan of Action for Missile Phase Out as finalized at your Headquarters on 30 Dec 64.

ATXPP-G 69032 Message, dated 18 January 1965, indicates concurrence in below referenced message MCGM 5007; also additional changes proposed by ATC have been incorporated in this plan.

SAC COORDINATION

DPL 03314 Message, dated 13 January 1965. The USAF Plan of Action for the Phase-Out and Disposition of the Atlas E, F and Titan I, which was finalized by AFLC/SAC/ATC representatives at Hq AFLC on 30 Dec 64, has been reviewed by this Hq and is concurred in provided the following changes/additions are made.

MCGM 5007 Message, dated 15 January 1965 indicates SAC concurrence with revisions to the changes.

Recommended changes have been incorporated in the body of the plan.

FOREWORD

The attached phase-out plan has been prepared in accordance with AFLC message MCOOG 1980, dated 24 July 1964, and AFCVC message 96605, dated 8 December 1964.

PLAN OF ACTION

USAF Plan for Phase-Out and Disposition of the ATLAS E, F and
Titan I Operational Systems.

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1. DIRECTION AND GUIDANCE:

The direction and guidance for this plan is contained in PCP 64-60, 64-61 and other Directives/messages contained in Tab A. It is anticipated that additional implementing direction will be in the form of Operations Plans, Base Support Agreements, Local Operation Procedures, etc.

2. OBJECTIVES:

To insure an effective, orderly phase-out, attrition/utilization and disposition of the ATLAS E, F and TITAN I operational system assets realizing a maximum dollar return to the Air Force/DOD.

3. FACTUAL DATA:

a. System Documentation is contained in:

- (1) Atlas System Package Program, 10 Dec 62, as revised;
SPD 107A-65-1, 20 Nov 64.
- (2) Titan I: System Package Program, 10 Dec 62, as revised;
SPD 107B/C-65-2, 23 Dec 64.

b. This plan applies to the Atlas E, F and Titan I operational systems with the exception of Vandenberg Air Force Base and Sheppard Air Force Base Missile Training facilities.

(1) ATLAS E Operational System:

- 567th SMS Fairchild AFB
- 548th SMS Forbes AFB
- 566th SMS Warren AFB

(2) ATLAS F Operational System:

- 550th SMS Schilling AFB
- 551st SMS Lincoln AFB
- 577th SMS Altus AFB
- 578th SMS Dyess AFB
- 579th SMS Walker AFB
- 556th SMS Plattsburgh AFB

(3) TITAN I Operational System:

- 724th SMS Lowry AFB
- 725th SMS Lowry AFB
- 569th SMS Mt. Home AFB
- 850th SMS Ellsworth AFB
- 568th SMS Larson AFB
- 851st SMS Beale AFB

(4) In the event certain Vandenberg/ATC facilities are declared excess to USAF requirement, disposition actions will generally be as outlined herein.

c. The Airborne Vehicle contains an airframe with propulsion system, guidance system, re-entry vehicle and flight control system.

d. The AGE primarily consists of Missile Launcher, Launch Control Equipment, Checkout Equipment, Guidance Equipment, Power and Maintenance Equipment, Communication, Propellant Loading.

e. Receiving facilities are contained in the missile assembly and maintenance shop (MAMS).

f. The RPIE sub-systems are identified as Air Conditioning, Power Generation and Distribution, Water Pumping and Distribution, Utility Air System, LOX/RP-1 and Diesel Vapor Detection System, Blast Detection, Flame Tunnel, Overhead Handling System, Waste Disposal System, Security System, LCC Silo Suspension System, and Personnel Elevator.

g. Communication System, i.e., HG/UHG, SSB, Radios, TV system.

h. The Atlas E, F and Titan I Systems have completed the operational phase. These systems will no longer be required for combat operation.

4. ASSUMPTIONS:

a. SAC will develop and USAF will approve the ATLAS and TITAN I complex alert removal schedules.

b. AFSC and other Air Force activities will utilize the Airborne Booster, selected AGE and supporting range of Spare Parts (Airborne, RPIE and AGE) for future programs, e.g., (ABRES/NIKE etc.) where possible.

c. System Peculiar End Items, Spares and operational residue will be disposed of as prescribed in para 6 of this plan. Common End Items and Spares will be retained where required to support continuing operational programs.

d. There will be Airborne and Installed AGE items for which there is no continuing requirement, which, because of security or proprietary implications must be demilitarized or destroyed under Air Force supervision. Reference AFM 67-1, Vol VI, Chapter 10.

e. AGE, RPIE, Airborne Items, C-E-M Items and associated spares will be disposed of through proper channels: IM, DSA, Base R&M, etc., in accordance with this plan and existing directives to insure maximum use or dollar return to the Air Force.

f. Existing SAC personnel and equipment will be used to remove and ship missiles and classified items, RV, Cryogenics/gases as required, mobile AGE and USAF Save List Items (identified by

AFLC). SAC may require AFLC Maintenance/Engineering assistance (T.O. 00-25-107), specialized engineering and/or planning assistance during dismantling, removal and packaging of such items.

AFLC). SAC may require AFLC Maintenance/Engineering assistance (T.O. 00-25-107), specialized engineering and/or planning assistance during dismantling, removal and packaging of such items.

g. SAC assigned personnel will remain as SAC resources and be reassigned in accordance with AFM 35-11 and 39-11. AFLC will provide SAC with mutually developed minimum standards for preservation of facilities after completion of SAC actions stated in paragraph 4f. SAC will retain at each base sufficient personnel to accomplish missile site preservation. Transfer of some SAC personnel to other Commands will be required to accomplish this function.

h. The existing DOD/USAF/AFLC/SAC organizations established for reclamation and disposal of Air Force property will be used to accomplish this task.

i. No further Air Force utilization is currently programmed for facility or real estate at the operational site.

j. A minimum expenditure of Air Force funds will be made to restore to safe condition and dispose of the operational facilities and real estate.

k. The System Support Manager (SSM) will be relieved of Operational Support responsibility upon removal of the weapon systems from Alert Status.

l. The Host Base will retain Real Property title and provide necessary government equipment preservation/environmental control pending receipt of disposal and/or transfer instructions for the ICBM off-base installations. Appropriate SAC/ATC personnel will be retained to insure compliance with USAF approved care and custody standards.

5. GROUND RULES:

a. AFSC with assistance from AFLC and SAC will develop plans for future utilization of Atlas E, F and Titan I resources which become excess to operational requirements.

b. Assets will be screened and redistributed in the following order of precedence:

(1) USAF Operational force requirements.

(2) Excess to USAF operational requirements, but required by other Air Force agencies.

(3) Excess to AF requirements, but required by other DOD agencies.

(4) Excess to AF and DOD requirements, but required by other government agencies.

(5) Other (Schools, cities, R&M, etc.)

c. Existing regulations as modified and amplified by USAF message, AFCVC 96605, dated 8 Dec 64, and this plan will apply.

d. Schedules will be compressed where possible to provide for concurrent screening by Air Force, DOD and other government agencies.

e. Available USAF "Blue Suit" personnel will be utilized where possible to reduce costs.

f. Materiel which is excess to the missile programs will be used in other programs to preclude new buys.

g. Site security will be reduced to "Surveillance Only" after classified removal and commensurate with accountability requirement.

h. AFLC will assume executive management responsibility for the disposition of system assets, including RPIE, but excluding other real property which will be disposed of in accordance with existing instructions.

i. AFLC will establish a Deactivation Task Force to monitor and control the disposition processes to include DOD and other governmental agency screening of excess assets, scheduling for removal of items, provision of engineering support and necessary GEEIA support.

j. AFLC will establish at each base a military representative as the Executive Manager to assume operational control of the personnel to be provided by SAC/ATC. Operational control for the purpose of this plan is defined as that technical guidance and direction necessary to assure the preservation, dismantling, and orderly economic disposition of weapon system assets. He will assume the above responsibilities at such time as mutually agreed upon by SAC/ATC/AFLC.

k. SAC will provide personnel support to the AFLC Deactivation Task Force Commander, both at AFLC and at each base (150-200 personnel at each base).

l. MAC Host Bases will retain responsibility and accountability for equipment and facilities pending appropriate disposition.

m. Host Base support agreements will be prepared in accordance with AFR 11-4.

n. SAC Units will utilize locally developed inactivation operations plans as necessary to augment this plan.

o. Hq USAF will provide funding beyond Major Air Command capabilities.

6. ASSIGNMENT OF TASKS: To accomplish the objectives of this plan within the parameters established in USAF, AFCVC 96605, dated 9 December 64, the following tasks are assigned:

<u>TARGET DATE</u>	<u>ACTIVITY</u>	<u>ASSIGNED TASKS</u>
	AFLC	Establish a Headquarters Deactivation Task Force to monitor and control the disposition processes to include DOD and other governmental agency screening of excess assets, scheduling for removal of items and provision for engineering support.
	AFLC	Assume management responsibility for the disposition of Systems Assets.
	AFLC/SAC/AFSC ATC	Establish focal points at each Headquarters for inputs to this plan and for controlling and accomplishing actions as detailed herein.
	AFLC/SAC/AFSC ATC	Prepare implementing plans to support this plan as required.
	SAC	Establish and secure USAF approval of a phase-out schedule by complex.
	AFLC	Establish at each base an AFLC military representative of appropriate rank responsive only to the Hq, AFLC Task Force Commander. This representative will assume operational control of a local task force to be provided by SAC/ATC to be utilized in the care/custody/disposal of materiel. The AFLC local task force commander will assume the responsibility

TARGET DATEACTIVITYASSIGNED TASKS

for control of all disposal processes relating to organizational materiel and equipment, including RPIE, in accordance with approved policies and procedures. Additionally, he will be responsible to assure the provision of adequate environmental control and such care as may be required until the sites have been reported to GSA for disposition.

USAF Approve phase-out schedule and reallocate boosters.

SAC/ATC Prepare necessary equipment excess listings.

AFLC/MAC Prepare Brochure material for submission to DSA.

DLSC Publish and distribute brochure for DOD and other government agency screening.

SAC Redistribute excesses within MAC in accordance with AFM 67-1.

AFLC/SAC/
ATC Establish critical Item Requirements (AGE, RPIE, C-E-M) to take action to schedule removal and redistribution as applicable.

SAC/ATC/AFLC
(SBAMA) Provide transportation coordination for timely missile movement.

TARGET DATE

ACTIVITY

ASSIGNED TASKS

AFLC

Provide adequate storage facilities for phase-down missiles.

AFLC

Establish materiel requirements to support future booster utilization. Transportation funding for surface and air movement of missiles from missile sites/host bases is an AFLC responsibility.

SAC

Remove missiles, RV, cryogenics/gasses, classified materiel, and Save List items.

SAC/AFLC
(SBAMA)

Detailed preservation tasks will be developed jointly by SAC and AFLC.

AFLC

Provide surveillance and direction for the disposition of AGE Save List requirements.

SAC/AFLC/
DSA

Provide redistribution of remaining asset requirements in accordance with established priorities. Non-mobile AGE, C-E-M and RPIE normally will be left in-place while being circularized for other than Host Base requirements. Funding for the dismantling, removing,

TARGET DATE

ACTIVITY

ASSIGNED TASKS

and packing of equipment excess to USAF IM programmed operational requirements is the responsibility of the gaining agency. Transportation costs for movement of this equipment to another Air Force agency will be borne by the shipping activity. Transportation costs for movement to other than AF agencies will be borne by the gaining agency.

AFLC

Provide transportation management services for airlift and commercial over-the-road movement of missiles from missile sites/host bases. Insure the availability of missile trailers to meet AFLC/SAC shipment schedules.

<u>TARGET DATE</u>	<u>ACTIVITY</u>	<u>ASSIGNED TASKS</u>
	MAC/Host Base	Provide for disposal of residue materiel/facilities/real estate in accordance with existing directives (AFR 87-4) or by other USAF direction.
	SAC	Deactivate ICBM squadrons in accordance with USAF program.
	AFLC/SAC	Develop appropriate plans and procedures to determine the exact systems, subsystems and components that must remain operational in order to preserve life expectancy of the government equipment at the site after EWO status and forward same to Hq USAF for approval.
	Host Base	Will provide administrative support to the local task force commander as is required.
	Host Base	Provide site security as determined to be necessary by Base Commander, through the phase-out and as required in support of GSA.
	Host Base	Provide utility services as necessary.
	Host Base	Retain accountability of all property until transfer to the receiving organization.
	SAC/MAC	Redesignate as RPIE for disposal purposes only, residual non-mobile AGE and C-E-M equipment

TARGET DATE

ACTIVITY

ASSIGNED TASKS

left in-place during excess screening process and for which no requirement was identified. BEMO/COMM/Civil Engineer records will be adjusted accordingly.

SAC/AFLC/ATC Determine funds requirements and provide appropriate justification.

USAF Provide funding beyond Major Air Command capabilities.

7. Effective Date of Plan:

This plan is effective for planning upon receipt and for implementation upon USAF approval. All Commands will coordinate with other participating Commands on implementation and completion of assigned tasks.

Reference Documents and Messages

1. USAF PG 66-3 June 1964 (S)
Reflects ATLAS "E" and TITAN I phase out dates in accordance with PCP 64-60 and PCP 64-61.
2. Hq USAF PA 66-3 June 1964 (S)
Reflects ATLAS "E" and TITAN I phase out dates in accordance with PCP 64-60 and PCP 64-61.
3. CSAF (AFOAPB) 83491 2 June 1964 (S)
Establishes program life for life-of-type computation for ATLAS "F" inertial guidance system.
4. AF SSSCB/AFSPDB 83926 3 June 1964 (S)
Directs, no further spares procurement be made for ATLAS "D", "E" and TITAN I except for NORS.
5. AFLC (MCG) 1538 9 June 1964 (S)
Reflects proposed ATLAS "E" and TITAN I phase out dates and directs a review of contracts preparatory to decommitment action.
6. PCP 64-60 9 July 1964 (S)
Provides proposed phase out dates for ATLAS "E" and "F" weapon systems.
7. PCP 64-61 9 July 1964 (S)
Provides proposed phase out dates for TITAN I weapon system.
8. AFLC (MCOOS) 1980 24 July 1964 (S)
Directs SBAMA in conjunction with SAC and BSD to develop ATLAS "E" and TITAN I phase out plans.

9. CSAF (AFSPDB) 92162

21 November 1964 (U)

Furnishes SPD WS 107A-65-1 (ATLAS) which directs program changes for the phase out of ATLAS "E" and "F" forces during the last half of FY-65.

10. SPD WS 107B/C-65-2

22 December 1964 (S)

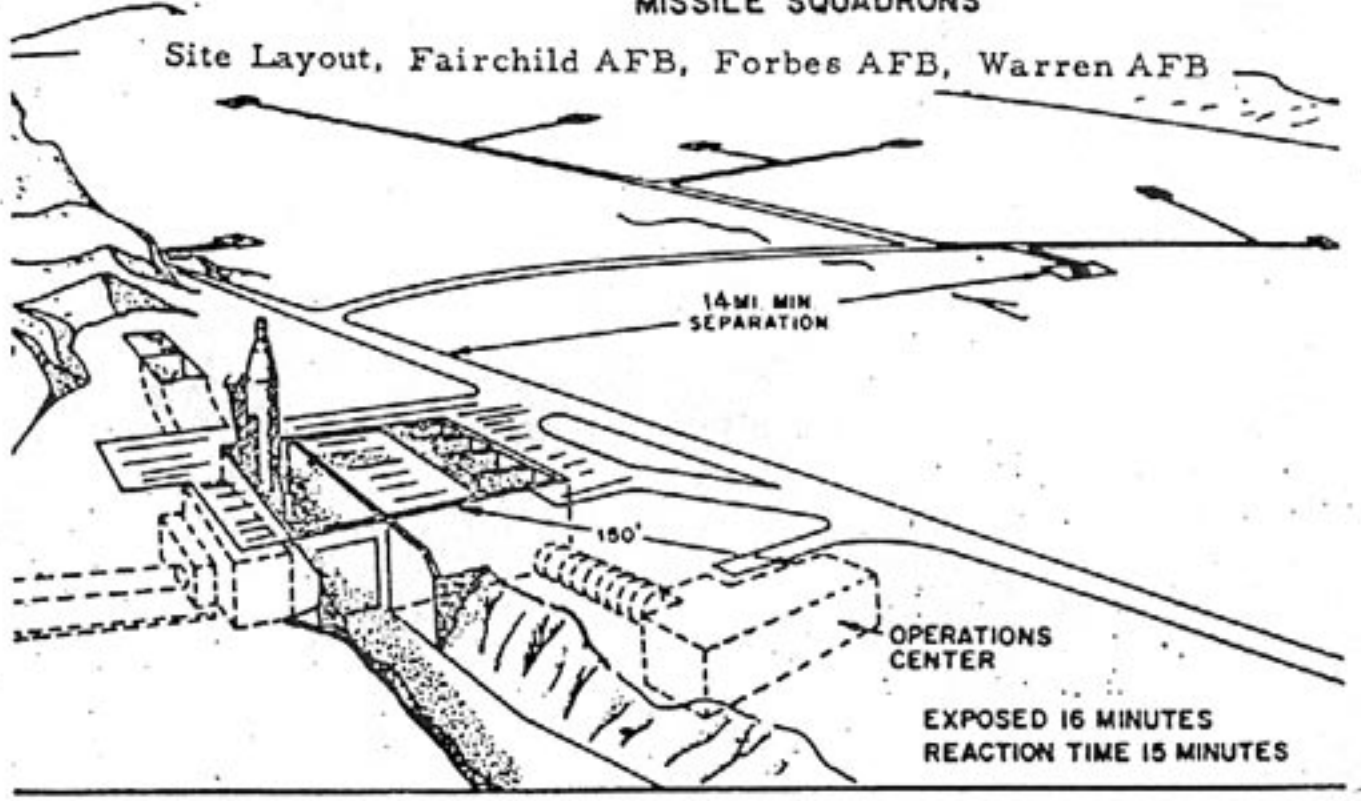
This SPD directs the program changes for the phase out of the TITAN I force during the last half of FY-65.

11. USAF (AFCVC) 96605

8 December 1964 (U)

Furnishes the policies and assigned the Command responsibilities for the disposal of missile complexes and materiel and additionally directs that detailed phase out plans be submitted to USAF for approval.

**IX9 CONFIGURATION,
INERTIAL GUIDANCE (TYPICAL)
567th 548th & 566th STRATEGIC
MISSILE SQUADRONS**



ATLAS "E" LOCATIONS

566 SMS
F. E. WARREN

60-5518 (60E)
60-5516 (58E)
60-5511 (53E)
60-5510 (52E)
60-5509 (51E)
60-5513 (55E)
60-5492 (34E)
62-12124 (73E)
61-2522 (68E)
60-5501 (43E)

548 SMS
FORBES

60-5512 (54E)
60-5521 (63E)
60-5517 (59E)
60-5508 (50E)
60-5507 (49E)
60-5503 (45E)
60-5496 (38E)
60-5491 (33E)
62-12436 (75E)
58-7139 (23E)

567 SMS
FAIRCHILD

58-7131 (15E)
60-5500 (42E)
60-5489 (31E)
60-7130 (14E)
60-5499 (41E)
58-7135 (19E)
60-5497 (39E)
60-5495 (37E)
60-5487 (29E)
62-12437 (76E)

SBAMA STORAGE

60-5504 46E
58-7123 7E
58-7127 11E
60-5486 28E
60-5502 44E
60-5519 61E
60-5414 56E
58-7136 20E

GD/A STORAGE

62-12435 74E
62-12438 77E
62-12439 78E

ATC

58-7126 10E

576C
VANDENBERG

58-7136 (20E)

TAB "B"

ATLAS "E" EQUIPMENT/FACILITY BREAKOUT

1. Operational Missile Area Sub-System (Ground)

Included in this broad category are two basic subdivisions: The operational Ground Equipment which must operate successfully with the missile during readiness, count down and launch, and the Maintenance Ground Equipment which is required to receive, service, maintain and verify the missiles and related equipment.

a. Operational Ground Equipment (OGE)

(1) For series E, the following major elements comprise the OGE:

- Launch Control Equipment (located in LCC)
- Launch Enable System
- Launcher and Erection Mechanism
- Hydraulic Supply System
- Propellant Loading System
- Pressurization Control Equipment
- Inertial Guidance System Checkout Equipment
- Pad and Equipment Air Conditioning Systems
- Communications Equipment (Launch Essential)
- Instrument Air System
- Ground Power Equipment (Launch Essential)

TAB "B"

b. Maintenance Ground Equipment (MGE)

MAPCHE Checkout Equipment

Re-Entry Vehicle Checkout Equipment

Propulsion System Checkout Equipment (in MAMS)

Missile Handling and Service Equipment (In MAMS)

Guidance Maintenance Equipment

Communications Equipment (non Launch Essential)

Gas and Propellant Servicing Equipment

Miscellaneous Tools and Test Equipment

Closed Circuit TV System

Pneumatic Checkout Equipment

Calibration Equipment

Work Platforms

2. Communications

a. Support Communications: This system includes the Base Switching Facility, the Base Nontactical Radio Service, Off-base trucking facilities, tie lines, fire, crash, maintenance expediting and all required navigational and meteorological aids.

b. Intra Complex Communications: This system consists of the conference networks, communications panels, TV Systems, direct line circuits and terminations which provide those communications functions necessary to erect, checkout and launch a missile including all circuits required for facilities and supporting operations during count down.

c. Inter-Complex Communications: These are the point-to-point systems that connect launch complexes with each other and with the support base. Systems may be government owned or commercially leased and consist of a cable or microwave radio or a combination of both.

3. RPIE Sub-Systems are Identified as Follows:

- a. Air Conditioning, heating and ventilation.
- b. Power generation and distribution.
- c. Water pumping and distribution.
- d. Utility air system.
- e. GOX/RP-1 and diesel vapor detection systems.
- f. Mobile Roof.
- g. Security System.
- h. Thrust section heating system.
- i. Blast detection.
- j. Flame door.
- k. Flame bucket.
- l. Overhead handling system.
- m. Waste Disposal System.

ATLAS "E" SITE LAY-OUT

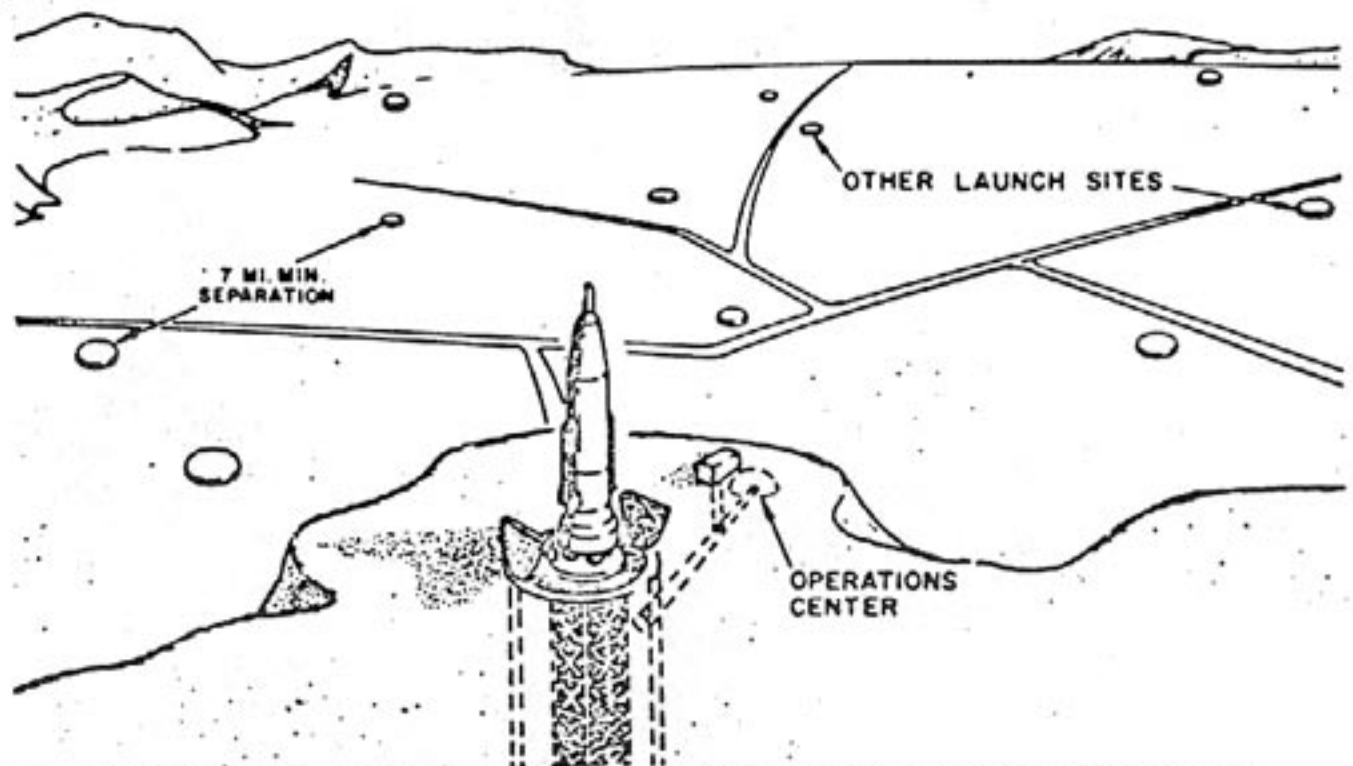
1. Facility Description and Criteria

a. The Atlas "E" Series Squadrons located at Warren, Forbes and Fairchild Air Force Bases consist of nine launch areas separated by approximately 14 to 18 nautical miles. Each launch area includes one horizontal-storage launcher and a launch operations building separated from the launcher by approximately 150 feet.

b. Each launcher is earth covered except for the missile erection area which extends to the surface and is protected by special blast doors. These squadrons are equipped with the ARMA Inertial Guidance System.

c. Each of these squadrons are supported from a squadron maintenance area located on the support base. The launcher contains propellant storage and fast loading propellant systems, and installed facility equipment to maintain the missile in a horizontal position and to erect it to a vertical position.

1 X 12 CONFIGURATION,
INERTIAL GUIDANCE (TYPICAL)
550th & SUBSEQUENT SQUADRONS



Site Layout, Schilling AFB and Subsequent F Series Squadrons

ATLAS "F" LOCATIONS

550th SCHILLING AFB

9F	29F
17F	30F
18F	33F
20F	37F
23F	46F
24F	97F
25F	

551st LINCOLN AFB

19F	40F
22F	47F
26F	49F
34F	59F
35F	101 F
38F	107 F
39F	

577th ALTUS AFB

27F	62F
41 F	67F
42F	69F
43F	82F
50F	87F
51F	108F

578th DYESS AFB

31F	72F
53F	73F
54F	78F
55F	80F
64F	81 F
65F	94F
71F	

TAB "C"

579th WALKER AFB

44F	92F
74F	95F
76F	99F
79F	102F
85F	103F

556th PLATTSBURGH

28F	93F
56F	96F
70F	98F
84F	100F
86F	104F
89F	105F
91F	

576G VANDENBERG AFB

106F (DAS)

STORAGE SBAMA

48F	10F in route(ABRES)
68F	138F " " "
12 F	
66F	
58F	

576E VANDENBERG AFB

111F (DASO)

STORAGE GD/A

75F	114F
32F	112F
60F	116F
113 F	118F
119 F	

PRODUCTION MISSILES

10 each missiles in production

122F	115F	123F	125F	127F	121F
117F	120F	124F	126F		

ATLAS "F" EQUIPMENT/FACILITY BREAKOUT

1. Operational Missile Area Sub-System (Ground)

Included in this broad category are two basic subdivisions: The Operational Ground Equipment which must operate successfully with the missile during readiness, count down, and launch; and the Maintenance Ground Equipment which is required to receive, service, maintain and verify the missiles and related equipment.

a. Operational Ground Equipment (OGE)

Launch Control Equipment (Located in ICC)

Missile List System

Hydraulic Supply System

Propellant Loading System

Pressurization Control System

Inertial Guidance System Checkout Equipment

Communications Equipment (Launch Essential)

Ground Power Equipment (Launch Essential)

b. Maintenance Ground Equipment (MGE)

MAPCHE Checkout Equipment

Re-entry Vehicle Checkout Equipment

Propulsion System Checkout Equipment (In MAMS)

Missile Handling and Service Equipment (In MAMS)

Guidance Maintenance Equipment

Communications Equipment (non launch essential)

Gas and Propellant Servicing Equipment

Miscellaneous Tools and Test Equipment

Pneumatic Checkout Equipment

Calibration Equipment

Work Platforms

2. Communications

a. Support Communications: This system includes the base switching facility, the base nontactical radio service, off-base trunking facilities, tie lines, fire, crash, maintenance expediting and all required navigational and meteorological aids.

b. Intra Complex Communications: This system consists of the conference networks, communications panels, TV Systems, direct line circuits and termination, which provide these communications functions necessary to erect, checkout and launch a missile including all circuits required for facilities and supporting operations during count down.

c. Inter-Complex Communications: These are the point-to-point systems that connect launch complexes with each other and with the support base. Systems may be government owned or commercially leased and consist of a cable or microwave radio or a combination of both:

3. RPIE Sub-Systems are identified as follows:

- a. Air Conditioning, heating and ventilation.
- b. Power generation and distribution.
- c. Water pumping and distribution.
- d. Utility air system.

- e. COX/RP-1 and diesel vapor detection system.
- f. Security system.
- g. Thrust section heating system.
- h. Blast detection.
- i. Flame bucket.
- j. Overhead handling systems.
- k. Waste disposal system.
- l. Instrument air system.
- m. Platforms.

ATLAS "F" SITE LAY-OUT

1. Facility Description and Criteria:

The 550th through 556th SMS (Series F) consists of 12 launch areas separated by approximately seven to ten N. H. Each launch area includes one vertical silo-lift type launcher and a launch operations building separated from the launcher by approximately 150 feet. These squadrons are equipped with ARMA Inertial Guidance Systems. Each of the squadrons are supported from a squadron maintenance area located on the support base.

NOTE: Four launch areas are in a damaged condition, three at the 579th (Walker AFB) and one at the 577th (Altus AFB).

TITAN I LOCATIONS

724th SMS
Lowry AFB

60-3654	(-9)
60-3655	(-10)
60-3662	(-17)
60-3670	(-25)
60-3675	(-30)
60-3691	(-46)
61-4525	(-98)
61-4526	(-99)
61-4527	(-100)

725th SMS
Lowry AFB

60-3658	(-13)
60-3661	(-16)
60-3664	(-19)
60-3666	(-21)
60-3667	(-22)
60-3671	(-26)
60-3672	(-27)
61-4528	(-101)
60-3657	(-12)

850th SMS
Ellsworth AFB

60-3674	(-29)
60-3677	(-32)
60-3681	(-36)
60-3682	(-37)
60-3683	(-38)
60-3684	(-39)
60-3685	(-40)
60-3686	(-41)
60-3687	(-42)

569th SMS
Mt. Home AFB

61-4496	(-69)
61-4497	(-70)
61-4498	(-71)
61-4499	(-72)
61-4502	(-75)
61-4501	(-74)
61-4503	(-76)
61-4503	(-77)
61-4506	(-79)

568th SMS
Larson AFB

60-3692	(-47)
60-3702	(-57)
60-3703	(-58)
60-3704	(-59)
60-3706	(-61)
60-3708	(-63)
60-3709	(-64)
61-4492	(-65)
61-4494	(-67)

851st SMS
Beale AFB

60-3688	(-43)
60-3689	(-44)
60-3693	(-48)
60-3694	(-49)
60-3695	(-50)
60-3697	(-52)
60-3698	(-53)
60-3690	(-45)
60-3699	(-54)

395 A
Bandenberg AFB

60-3660	(1-15)
60-3665	(-20)
60-3668	(-23)

Lowry AFB	18
Ellsworth AFB	9
Mt. Home AFB	9
Larson AFB	9
Beale AFB	10
Vandenberg AFB	3
SBAMA Storage	<u>28</u>

Total 86

TAB "D"

TITAN I EQUIPMENT/FACILITY BREAKOUT

1. Aerospace Ground Equipment:

The aerospace Ground Equipment (AGE) is all that equipment required on the ground to make the weapon system operational in its actual environment. This includes all equipment required to install, launch, arrest, control, inspect, test, adjust, calibrate, measure, assemble, disassemble, handle, transport, safeguard, store, maintain or operate the various elements of the weapon system. Included in this broad category are two basic subdivisions: The Operational Ground Equipment which must operate successfully with the missile during readiness, countdown and launch, and the Maintenance Ground Equipment which is required to receive, service, maintain and verify the missiles and related equipment.

a. Operational Ground Equipment (OGE):

For Titan I, the following major elements comprise the OGE:

- Launch Control Equipment (located in LCC)
- Launch Enable System
- Launch System
- Hydraulic Supply System
- Propellant Loading System
- Pressurization Control Equipment
- Ground Guidance System
- Pad and Equipment Air Conditioning Systems.
- Communications Equipment (Launch Essential)
- Ground Power Equipment (Launch Essential)

b. Maintenance Ground Equipment (MGE):

- Launch Control Checkout Equipment
- Re-entry Vehicle Checkout Equipment

Propulsion System Checkout Equipment
Missile Handline and Service Equipment
Guidance Maintenance Equipment
Communications Equipment (non-launch essential)
Propellant Servicing Equipment
Miscellaneous Tools and Test Equipment
Pneumatic Checkout Equipment
Calibration Equipment
Work Platforms

2. Communications:

The Titan I Communication System is composed of a hardened cable system between launch complexes with a common support base, and between the support base and each launch complex; Launch Enable System (LES); Primary Alert System (PAS); SAC Telephone Net (STN); SAC Control System (SACCS); high frequency single sideband radio and ultra high frequency radio; TV Systems; public address system; direct line telephone system; dial line telephone system; maintenance networks, and common carrier (telephone company) long lines to connect the support base and associated launch sites to Hq SAC and numbered Air Forces.

a. The Launch Enable System (LES) is basically a group of time transmitters and receivers connected in such a way that tones generated at the Command Post (CP) and the Alternate Command Post (ACP) are received at each launch site, energize a relay which inhibits the launch sequence and acknowledges receipt of the tone back to the CP and ACP.

b. The Primary Alert System (PAS) consists of speakers, telephone handsets and recorders. Signals are received from SAC and numbered Air Forces at

the CP, the ACP, and all associated launch complexes simultaneously and are recorded.

c. The SAC telephone net (STN) enters the CP via common carrier long lines and terminates on a switchboard from which it is extended to individual subscribers.

d. The public address system is composed of amplifiers and speakers located throughout each launch complex and accessed from the launch console, the guidance console or the equipment and facilities console.

3. Real Property Installed Equipment (RPIE):

a. RPIE subsystems are identified as follows:

- (1) System I - Electrical Power Generation and Distribution
- (2) System II - Heating, Ventilating and Air Conditioning
- (3) System III - Water Supply, Distribution and Waste
- (4) System IV - Sensing, Warning and Blast Protection
- (5) System V - Mechanical

SITE LAY-OUT

- | | |
|--------------------------------------|--|
| 1. Missile Silo | 18. Service Road |
| 2. Utilities Tunnel | 19. Tunnel Junction 7 |
| 3. Equipment Terminal | 20. Missile Launcher 3 Branch Tunnel |
| 4. Missile Silo Branch Tunnel | 21. Tunnel Junction 9 |
| 5. Equipment Terminal Branch Tunnel | 22. Sewage Stabilization Pond |
| 6. Tunnel Junction 1 | 23. Tunnel Junction 8 |
| 7. Missile Launcher 1 Branch Tunnel | 24. Missile Launcher 3 Tranch Tunnel |
| 8. Tunnel Junction 2 | 25. Main Tunnel |
| 9. Propellant Terminal Branch Tunnel | 26. Tunnel Junction 13 |
| 10. Propellant Terminal | 27. Tunnel Junction 12 |
| 11. Lox Storage Area | 28. Power House Air Filtration facility. |
| 12. Lox Fill and Vent Shaft | 29. Water Storage Tanks |
| 13. Lox Tunnel | 30. Portal |
| 14. Blast Lock 2 | 31. No. 2 Diesel Oil Tank |
| 15. Missile Launcher 2 Branch Tunnel | 32. Blast Lock 3 |
| 16. Tunnel Junction 5 | 33. No. 4 Diesel Oil Tank |
| 17. Tunnel Junction 4 | |

TAB "D"

- 34. Tunnel Junction 11
- 35. Power House Exhaust
- 36. Antenna Silo 2
- 38. Antenna Silo 1
- 39. Tunnel Junction 10
- 40. Nitrogen Blasket Tank
- 41. Missile Fuel Storage Tank
- 42. Launcher Area Air Filtration Facility
- 43. Blast Lock 1

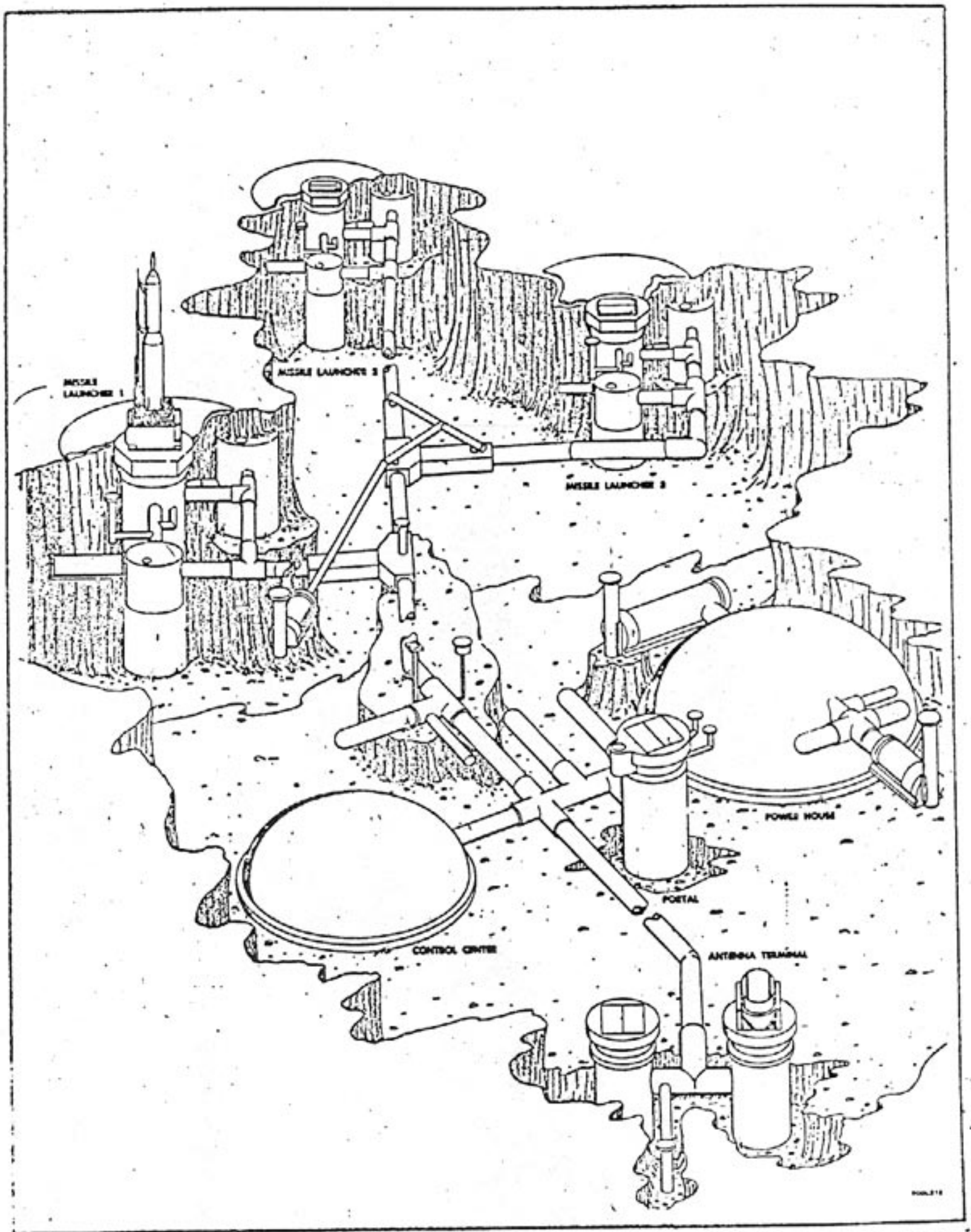
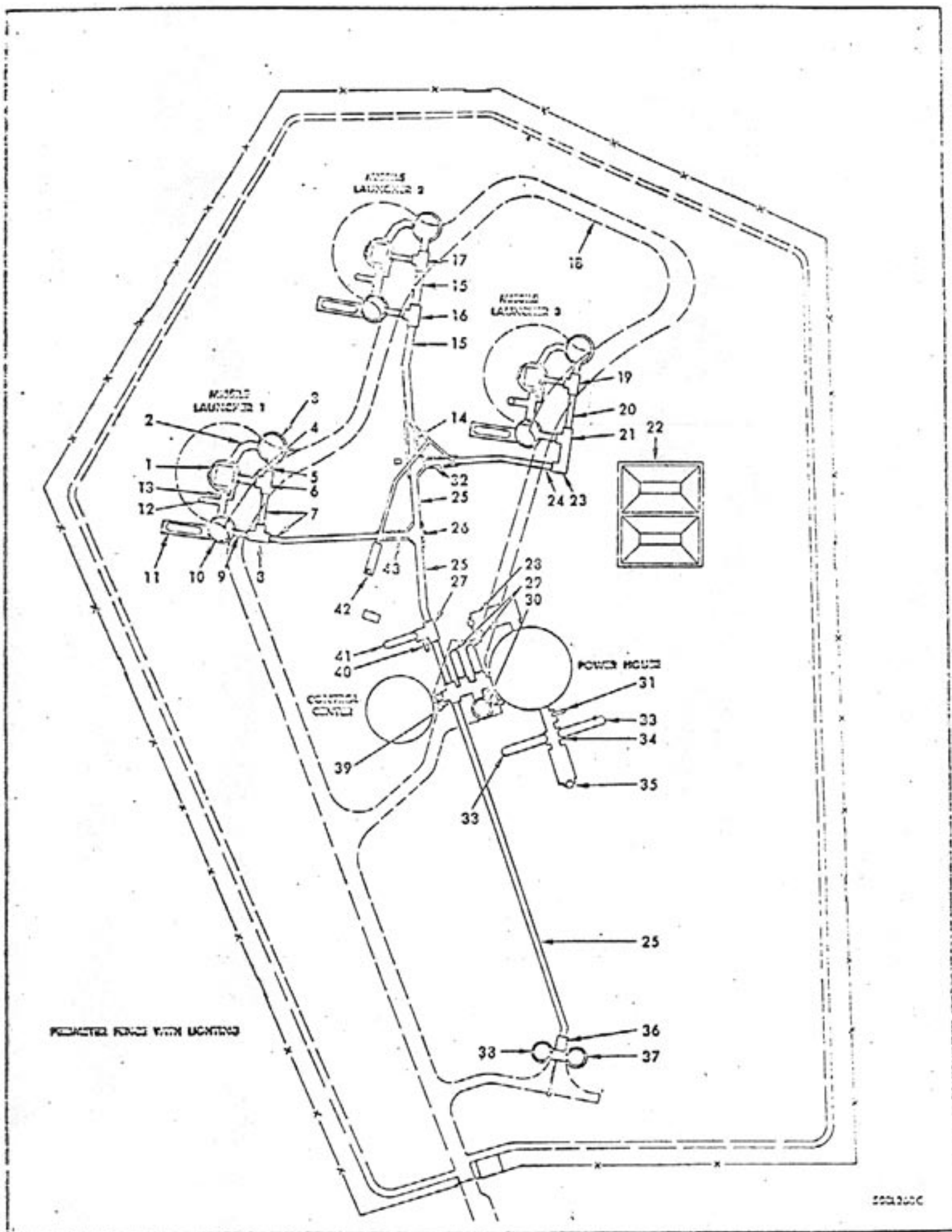


Figure 1-4. Operational Base Launch Complex (Sheet 3 of 3)



Operational Base Launch Complex (Sheet 1 of 3)

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