HISTORY
OF THE
FIFTEENTH AIR FORCE

(Unclassified Title)

July 1968 through June 1969

1. Aircraft accidents FY 19
2 Glory Trip
3. Missile - Testing
4. Missile - Launching

Assigned to the

STRATEGIC AIR COMMAND, UNITED STATES AIR FORCE

Home Station

March Air Force Base, Riverside, California

VOLUME I - NARRATIVE

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CHAPTER II

THE ICBM PROGRAM

Introduction

(U) The second weapon system that complemented Fifteenth's tactical aircraft was that of the intercontinental ballistic missile (ICBM). These two systems comprised the defensive weapons of Strategic Air Command (SAC) and were the basis for the primary mission of deterrence. Fifteenth Air Force had always been assigned aircraft during its lifetime, but had possessed missiles for only one decade. On 15 January 1969, the first decade of the ICBM in Fifteenth ended. It was in 1959 that the command gained the ATLAS and TITAN-I missile units assigned to Warren and Lowry Air Force Bases (AFB) respectively. The command waited until 1962 for its first MINUTEMAN-I missile when the 341st Strategic Missile Wing (SMW) was activated (Wing I) at Malmstrom AFB. The first TITAN-II was delivered to the 390th SMW at Davis-Monthan AFB in November 1962. By April 1965, the last TITAN-I came off alert at Mountain Home AFB, thus completing the phaseout. The last ATLAS had come off alert one month earlier, thereby leaving the MINUTEMAN-I/II and TITAN-II as the only ICBMs in the command. Over the years the number of missile wings assigned to Fifteenth varied. The decade had been a busy one, and the second decade began with programs for conversion to the MINUTEMAN-III.

(U) As with the progressive development of weapon systems, parts of the weapons system had to be improved, replaced, and even phased out.

The record for fiscal year (FY) 1969 reflected this work that had been in progress since the very inception of the ICBM program. This treatise examines, then, the progress of the entire ICBM program as it relates to fulfillment of the Emergency War Order (EWO) and certain support elements vital to operation of the ICBM. And, in the context of that earlier mentioned charter of General Catton's, was there any possible way to improve efficiency through better management and utilization of all resources?

RESOURCES

Organization

(U) The Fifteenth Air Force was responsible for five of the nine ICBM units assigned to SAC. These were:

(U) TABLE 1

ICBM Units

Base	Wing	Wing Designation	ICBM
Davis-Monthan	390 SMW		TITAN-II
Malmstrom	341 SMW	I	MINUTEMAN-II
Ellsworth	44 SMW	II	MINUTEMAN-I
Minot	91 SMW	III	MINUTEMAN-I
Warren	90 SMW	V	MINUTEMAN-I

Eighth Air Force was assigned one TITAN-II wing, the 381st SMW at McConnell AFB, and one MINUTEMAN wing, Wing IV, the 351st SMW at Whiteman AFB. Also, Second Air Force had one each: the 308th SMW at Little Rock AFB possessed TITAN-II, while Wing VI, the 321st SMW at Grand Forks AFB was assigned the MINUTEMAN. Another unit vital to SAC ICBM operations was the 1st Strategic Aerospace Division (SAD) at Vandenberg

AFB. This organizational unit was the parent division for the 4315th Combat Crew Training Squadron (CCTS), the unit responsible for training ICBM combat crews in a similar fashion to the 4017th CCTS' mission of training B-52 and KC-135 combat crews for all of SAC. Other units at Vandenberg included the 3901st Strategic Missile Evaluation Squadron (SMES), and the Air Force Western Test Range where the ICBMs were launched in various kinds of operational tests. Also, within Headquarters Fifteenth Air Force, three agencies - missile training and operations, missile maintenance, and force status division - had responsibility for monitoring the missile activities of the command. At the end of the year, there were only 28 personnel in the headquarters who directly monitored missiles. *

(U) Organization of these units had been stable during their tenure, but there were sometimes problems in support from squadrons in the various combat support groups, especially those on two-wing bases that had to support both missile and aircraft units. In early 1969, this headquarters conducted a study to realign the civil engineers and communication squadrons under missile wings. On two-wing bases, the civil engineers, who were responsible for the real property installed equipment (RPIE) of the missile facilities, and the communications specialists, who were responsible for maintenance of all communications equipment, were assigned to the equally aligned combat support groups.

* See Chapter III for more information on missile expertise.

As early as March 1968, this headquarters had been informed by Headquarters SAC that a service test of communications squadron alignment would be performed at Ellsworth and Grand Forks. However, in April 1968, Headquarters USAF answered: "The fact that one organization is provided 80 percent of the communications maintenance workload is not germane." Additional information was required, along with a definite statement of the problems being encountered. The USAF answer further conjectured that if problems did exist, they were more than likely attributed to organizational placement or internal management. By March 1969, General Catton was briefed on the study. The staff did not recommend the civil engineers be realigned under the missile wing because only 20-25 percent of its work load dealt with the missile unit. However, because 80 percent of the communications on a two-wing base did support missiles, the staff recommended realignment of this amount to the missile wings. The tactical communications support to aircraft would remain with the aircraft wing. However, by the end of the fiscal year, all units still remained as they were organized and aligned, and there were no changes. Each missile wing was organized under the deputy commander concept.[1]

Missiles and Crews

There were 19* TITAN-II missiles assigned to the 390th SMW, while there were 704* MINUTEMAN missiles assigned at the other ICBM wings. Although the TITAN-II figure did not change over the year, the MINUTEMAN showed an increase of 33 ICBMs over the number assigned 1 July

* Includes spares. See Chart II "Missile Inventory."

1968. This disparity was due to the number of missiles in modernization programs, and the number changed with each month.[2] There were 577 crews assigned for 575 authorized, with only 25 not combat ready.[3]

Missile Personnel Management

(U) Overall manning, both officer and airman, in the ICBM force was not the major problem like that associated with the aircraft. Although the maintenance officer manning in captain and major grades was termed critical, overall the manning was favorable. As early as August 1968, Major General Edward M. Nichols, Jr., directed the missile wings to ensure their operations and maintenance staffs were manned at 100 percent. Perhaps the most significant concern of the missile crews themselves was their complaint that they were not receiving enough publicity. General Catton recognized this factor in morale and retention of the missile force, but directed all missile personnel to support the information programs and come up with their own fresh ideas.[4]

(U) Manning of the maintenance side of the missile house was a different matter. With the exception of a few maintenance officers, the missile technicians were enlisted men. Management of these personnel resources was studied by this headquarters with some recommendations to support General Catton's desire of using people as efficiently as possible.[5]

(U) In the spring of 1969, the missile maintenance staff of this headquarters conducted a lengthy study at General Catton's direction. The purpose of the study was to determine if missile maintenance personnel

of TITAN-II FOT to save money. Instead, there would be more intensive bench testing to check reliability. This might justify the work load for the maintenance personnel, but inherent in the lack of a launch program was loss of a certain amount of proficiency that might prove immeasurable.[9]

CAPABILITY

Combat Readiness

All of the ICBM wings were C-1 (combat ready) throughout the fiscal year with the exception of the 91st SMW. On 20 August, this wing failed its operational readiness inspection test (ORIT) when an entire squadron failed to meet the timing required to meet the EWO commitment for the MINUTEMAN missiles.* By the end of the year, Fifteenth's ICBM units had 100.3 percent of its authorized missile combat crews, with only 25 of these not combat ready. Stability within the force was not a problem, and the crews manned the launch control facilities to keep 684 MINUTEMAN of the required 695 missiles on alert during June 1969.** TITAN-II missiles remained 100 percent of those 18 required for strategic alert.[10]

Airborne Launch Control System

One other area of capability had become operational in 1968. This was the redundant communications and control system known as the Airborne Launch Control System (ALCS). During a nuclear attack, the

* See Chart XX.
** See Chart XVII.

MINUTEMAN missiles might become isolated from ground command control facilities. Therefore, this redundant communications system to pass the vital go-code was developed. This operational capability to regain control of these missiles was incorporated in Post-Attack Command and Control System (PACCS) aircraft.

(S) When the total PACCS/ALCS as an integrated system was airborne, the PACCS aircraft provided communications coverage to all MINUTEMAN wings, and launch capability to all launch facilities (LF) equipped with ultra high frequency (UHF) receivers. Special ALCS launch equipment was installed in the PACCS configured EC-135 aircraft that could be refueled by KC-135 tankers. Forming the airborne launch control center (ALCC) were qualified two-officer launch crews on the SAC Airborne Command Post (ABNCP) known as LOOKING GLASS, as well as the relay aircraft based at both Minot and Ellsworth.[11]

(U) The primary ALCC functions were performed by the missile combat crew - airborne (MCC-A). In addition, the aircraft crews and communications specialists cooperated with the MCC-A. The aircraft commander operated the classified command enable switch that allowed such commands to be transmitted from the aircraft. The duty of the radio operators was to provide the most reliable communications equipment and to select the appropriate MINUTEMAN wing frequencies as directed by the MCC-A.[12]

(S) The peacetime loiter, or orbit, area for the continuously airborne LOOKING GLASS was close to Whiteman AFB. Four ALCC/relay aircraft were on ground alert at Minot and Ellsworth. During periods of international

tension, or when directed by the Commander in Chief of SAC (CINCSAC), the airborne relay net would be launched. This net covered all six MINUTEMAN wings. The LOOKING GLASS aircraft covered Whiteman, while three other relay aircraft covered Malmstrom, Ellsworth, Minot, F. E. Warren and Grand Forks. The fourth relay aircraft was part of the PACCS link and was also the ALCS spare.[13]

(U) All ALCS capability was assigned to Fifteenth Air Force. The remainder of the PACCS fleet did not have this extra capability.

(U) Since the inception of the ALCS, Minot and Ellsworth dealt directly with Headquarters SAC in most ALCS matters. In the beginning this was a matter of necessity, yet by March 1969, the practice still continued.[14] This headquarters did not think it should continue. When the Headquarters SAC Inspector General (IG) or the 3901st SMES evaluated the ALCS units, the deficiencies noted were charged to this headquarters. Of course, this headquarters had little control of such matters. As the ALCS matured and more responsibilities were assigned to the ALCS units, more knowledgeable personnel were associated with the concept. For example, an ALCS-qualified officer from Ellsworth was assigned to the Headquarters SAC IG team. This would inevitably mean deeper evaluation of the ALCS. The combination of qualified evaluators and the increasing requirements of the ALCS were likely to create many problems in the administration of the program.[15]

(U) This headquarters' missile training division had only one qualified ALCS officer assigned; he had 13 months experience as a crew

General Catton's proposals had been approved by Headquarters SAC and submitted to USAF for final approval.[51]

Missile Competition

(U) General Catton had favored a missile competition over a bombing one during his tenure of command, and when OLYMPIC ARENA was announced for May 1969, he placed emphasis on crew determination and esprit de corps as the final effort required for his units to win. Although there was a problem in using both ICBM systems from the 341st SMW, the competition program went smoothly. Maintenance was emphasized, too, as the teams converged on Vandenberg for the spirited contest. The 90th SMW lagged 1.5 points behind the 321st SMW (Grand Forks AFB), which took the Blanchard Trophy. The competition proved valuable in its objective, and Fifteenth had to be content with seven of the nine awards - at least until the next competition.[52]

TRAINING

Standardization

(U) This headquarters continued to monitor the unit standardization and training programs. Because of the poor showing in 3901st SMES evaluations during 1968, General Catton placed appropriate command emphasis in his search for crew weaknesses and lenient instructors. In May 1969, an analysis of crew deficiencies was forwarded to the units. This headquarters placed emphasis on having the combat crew commander share part of the responsibility for discipline and proficiency of the crew with the training division. It was admitted that a difficult phase of training

pertained to those procedures concerning equipment located only in the alert environment of the LCF. One recommended method to improve training effectiveness was to use 35mm slides of the equipment. The 341st SMW used this program to supplement its facility manager training program. The concept could apply to other training areas as well. As noted previously, the results of the 3901st SMES evaluations during the first half of 1969 were impressive. All units were above the SAC standard. With the exception of a 90 percent rate for the 44th SMW, all other ICBM units within Fifteenth had 100 percent passing rates. This was an overall improvement from 91.0 percent for the last half of 1968 to 97.9 percent for the first half of 1969.[53]

Two-Man Crew

(U) Before MINUTEMAN-II and Force Modernized missiles became operationally ready, Headquarters SAC had determined that the policy to allow one officer to sleep while on alert could no longer be supported. As a result, these two systems were required to employ three-man crews, with one of these men qualified in two positions. Rest periods were permitted for one man at a time. In 1969, it was determined that this dual qualified officer concept was unwieldy and created excessive training and evaluation problems. Also, the desired rest period was not as effective as previously hoped. To eliminate this dual qualified officer concept, Headquarters SAC advanced the proposal to return all MINUTEMAN systems to the two-man crew, 24-hour alert schedule, allowing each crew member a minimum of four hours sleep while on duty. This proposal was

all units were using their standardization and instructor crews for alerts in the ACP/SCP.[56]

(S) To a great extent, the reliability and capability of the ICBM weapons system depended upon the materiel factors of maintenance, modification, and supply. At this point, it is relatively safe to state that generally, the combat crew training was effective, and had improved over the previous year's record. Analysis of materiel factors causing loss of strategic alert showed that Fifteenth's units had higher operational rates than the other NAF units. The problems that did occur were at the 341st SMW, but were caused by that wing undergoing Force Modernization.[57]

MATERIEL FACTORS

MINUTEMAN Modification

Force Modernization Program. (S) When the MINUTEMAN weapon system originated in the late 1950s, the United States needed a larger number of reliable ICBMs in the fastest time possible. These ICBMs had to be capable of surviving a nuclear attack and retaliating immediately. This need was rapidly fulfilled by the five MINUTEMAN-I wings located at Malmstrom, Ellsworth, Minot, Whiteman, and F. E. Warren AFBs. Four of these were completed in less than three years after construction was started. Even as MINUTEMAN construction got underway in late 1961, major MINUTEMAN improvements had developed. A new MINUTEMAN, known as MINUTEMAN-II, was on the drawing boards for Wing VI at Grand Forks. To take advantage of new developments, and to provide greater flexibility,

the Secretary of Defense directed that the MINUTEMAN wings I through V be modernized after first achieving operational effectiveness. This modernized program, termed Force Mod, was underway in FY 1969. All MINUTEMAN-I missiles were originally programmed to be replaced with the more sophisticated LGM-30F or LGM-30G missiles. MINUTEMAN-II may have been more sophisticated, but certain components were proving less reliable than predicted.[58]

(S) Again, the Force Mod program was the most prevalent function in the MINUTEMAN Integrated Deployment Program. Adopted in calendar year (CY) 1966 by the Office of the Secretary of Defense (OSD), and in CY 1967 placed under the direction of SAMSO, an agency of Air Force Systems Command (AFSC), the purpose of Force Mod was to update the MINUTEMAN-I or WS-133A weapon system with new hardware and to increase the system's capabilities. Fundamentally, the program varied from wing to wing, consisting either of replacing MINUTEMAN-I missiles with MINUTEMAN-II (LGM-30F) missiles or MINUTEMAN-III (LGM-30G) missiles and reconfiguring MINUTEMAN-I launch facilities to operate with MINUTEMAN-II or MINUTEMAN-III missiles. Once these modifications were completed, the system was redesignated WS-133A-M. Planning called for a complete phase-out of the WS-133A weapon system with two systems equally consisting of MINUTEMAN-II or MINUTEMAN-III missiles. The objectives of the new program were to provide greater flexibility and control, higher accuracy, greater range, and improvement to the launch control system.[59]

(S) In comparison to the MINUTEMAN-I, the LGM-30F missile was larger

the installation of the MINUTEMAN-II missile included the guidance section cooling system, support and suspension system, alignment, launcher door closure and umbilical retraction systems.[61]

(U) Force Mod required the missile sites and accompanying LCFs to be taken off alert status or "depostured" prior to the retrofit construction. Upon deposturing for Force Mod, the flights were turned over to the Site Activation Task Force (SATAF), the SAMSO representative unit, for custody and maintenance of the flights while undergoing the modernization. Actual work involved replacement of certain items of aerospace ground equipment (AGE), RPIE, and real property. Specifically, the flight turnover consisted of 10 LFs and one LCF. The unit maintained the real estate, RVs, G & C units, electromechanical decoders, volatile code packs, roads and grounds, adjacent buildings, structures, equipment, launch control panel, and the launch control support building living and dining quarters. Hardened intersite cable systems (HICS) were also maintained by the unit.[62]

(S) Scheduling for the modernization program allowed only three flights (30 missiles) of a squadron in a wing to be retrofitted at the same time, thus allowing the wings to remain in a relatively constant alert condition. The normal working period per flight was 120 days. Overlapping work schedules were developed to enable a smooth progression between flights undergoing the modification without causing delays by waiting for completion of one flight before beginning another.[63]

(S) Force Mod for a Fifteenth Air Force unit began on 10 August 1967

(U) After several months of evasive answers, and with a new approach of releasing information to the public by the new Secretary of Defense, the word was out - the 91st SMW at Minot would receive MINUTEMAN-III.

(U) Although actual Force Mod did not begin at Minot in 1969, the wing did have some facilities under construction and training programs in progress at its Operating Location (OL) 92, Patrick AFB, Florida. This headquarters monitored personnel, training, and facilities. Because Malmstrom had a problem with noncommissioned officer (NCO) manning within its wing code vault and Headquarters SAC had granted waivers so that lower ranking NCOs would work in the vault, this headquarters worked with the 91st in its efforts to avert personnel shortages. The first indication of potential trouble came with the early release program for first term airmen. Of 109 airmen in the 91st MIMS programmed for separation in 1970, 60 of these were already assigned to maintenance teams with 24 of the 60 serving as instructors in the team training branch or as evaluators in quality control. Headquarters SAC requested that variable reenlistment bonus (VRB) eligible airmen, or those critically manned Air Force Specialty Codes (AFSC) of highly skilled technicians, be excluded from the early release. Although the defense department might be saving money by releasing airmen earlier than normal, would this savings offset the expense of training more airmen to accomplish the same tasks? The experience of the already trained airmen would be eliminated, and the progress of the training would be interrupted. Instability would reign. This could have an

had been established for the missile units. The following schedule ap-
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plied to Fifteenth Air Force wings.

TABLE 3

EMPSS and CLIP Mod Schedule

Unit	System	EMPSS Mod		CLIP Mod	
		Nbr LCFs	Schedule	Nbr LCFs	Schedule
341 SMW	A-M	3 SCP	Nov 69 - Jan 70	All	Nov 69 - Jan 70
564 SMS	B	1 SCP*	Dec 69 - Jan 70	Not Scheduled	
44 SMW	A	3 SCP	Jan 70	All	With Force Mod
91 SMW	A-M	3 SCP	With Force Mod	All	With Force Mod
90 SMW	A	4 SCP	Jan 70	All	With Force Mod

(U) This headquarters continued to monitor the modifications programs conducted at the units. Frequently this headquarters also received suggestions or recommendations from wings, recommending a modification or introducing a new item of test or handling equipment to ICBM systems. The majority of these recommendations were logical and feasible from a maintenance man's view, and personnel at all levels of command agreed that the ideas were good. However, most ideas were disapproved due to the cost to implement. This cost aspect had always been somewhat of a hazy area, since there were frequently conflicting stories as to the cost of various actions. This headquarters requested that SAC forward the best estimate of overall cost factors involved in changing and publishing one page of weapon system technical data, developing and publishing a time compliance technical order (TCTO) with no hardware kits involved, complete processing and implementation of a Class IV modification (i.e., drawing changes, TCTO

* With CLIP accommodations; SCP is squadron command post.

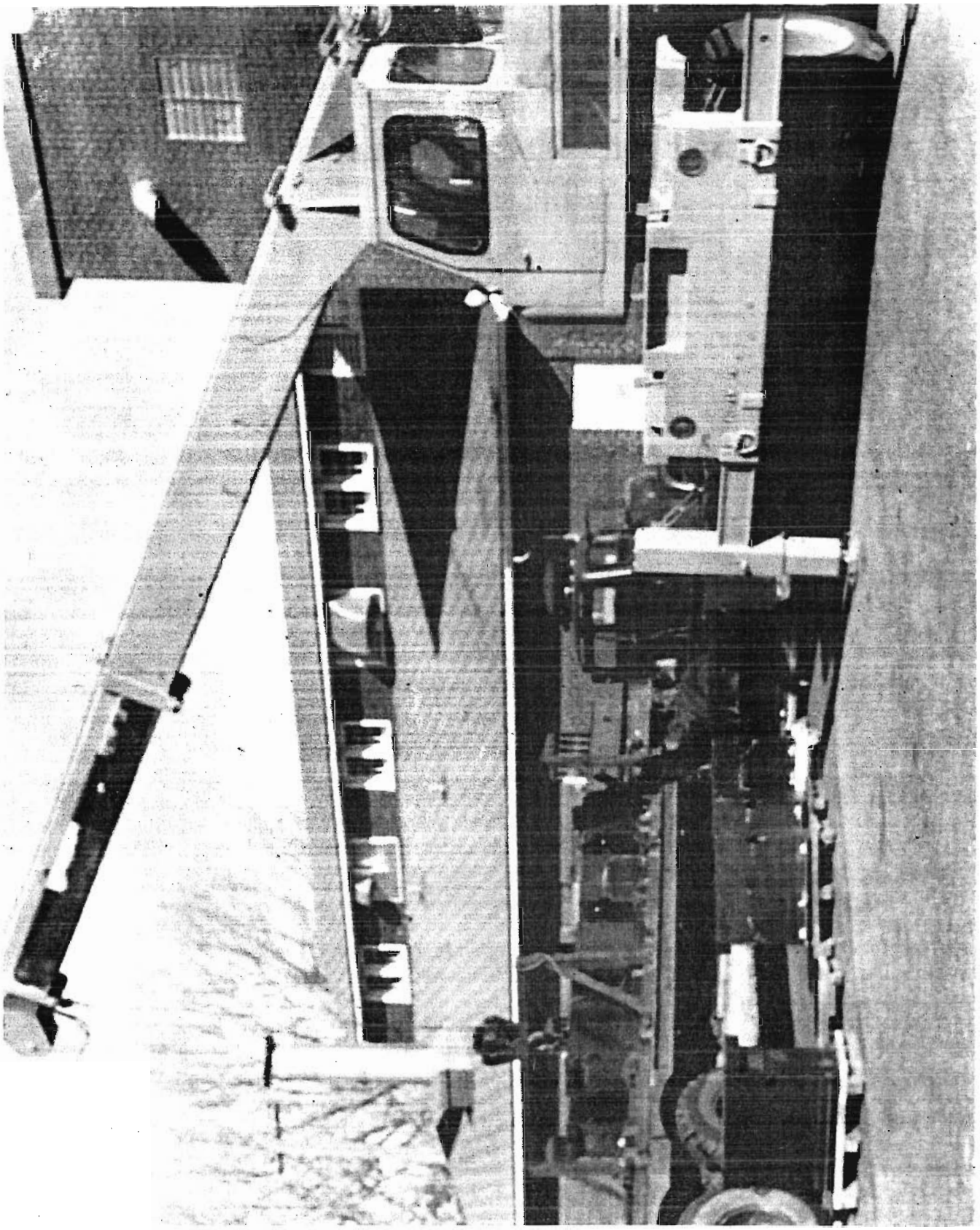
some doubt as to the probability of successfully firing such motors. Inspection of both MINUTEMAN-I and II first stage motors showed that the problem was entirely within the MINUTEMAN-I fleet and the majority of the cracks were in the LGM-30B models. An investigation of the problem in a joint effort by SAMSO, OOAMA, and Thiokol Chemical Corporation produced no evidence of any reliability degradation to the fleet due to cracked propellant. Static firing and actual flying of several first stage motors proved them to be completely reliable. A minimum of 188 MINUTEMAN-I missiles were inspected during this investigation. This headquarters continued to monitor the reports submitted by OOAMA on this problem as part of the business of keeping the commander and key staff informed on problems within the ICBM fleet itself.

(U) This discussion has centered on reliability and maintenance of the missile itself. Other areas that also affect a missile's reliability for launch and targeting were the power systems, the LCFs and LFs, communications, and targeting. These will be discussed next in relation to the maintenance and concern for MINUTEMAN.

Electrical Power System Problems. (U) Headquarters Fifteenth Air Force had long recognized the need for a valid SIOP-oriented requirement to estimate the operational reliability of the MINUTEMAN power system. This system was perhaps the most annoying and most often encountered maintenance problem, and had been one in both reliability and maintainability since 1964. The system, vital to the operations of the weapons system (for if an oversimplification may be used as an example, no matter

how well trained and experienced the person typing this narrative or how well equipped the typewriter, once you remove the source of power to operate the machine, nothing happens) consisted of three basic power sources, each capable of supplying the electrical power to launch the missile. The two main sources were commercial and standby diesel generators for primary power, while the third source was a battery system for emergency power to the LFs and LCFs.

(U) Because of the seemingly endless problems with the system and the unknown reliability, this headquarters made a study of the system's reliability and maintainability. The study, based on 1967 statistics of the system, was completed in June 1968. The results showed that the system's performance was considerably less than the design criteria. It was noted in the study that the results could not be used as a valid comparison for each Fifteenth unit and that it considered the presented statistics to be considerably lower than a more critical realistic result obtained from ORI reports and a Malmstrom incident. In summation, the report stated that the LF power systems were experiencing a failure rate five to 10 times greater than the maximum allowable rate for the weapon system. General Catton decided to establish a method of collecting data on the system's performance so that the staff could identify areas which needed corrective action. The plan called for joint coordination among the missile wing deputy commander for operations, materiel and base civil engineer (DCO/DCM/BCE) in gathering the data needed for analysis. Minot was noted for its excellent coordination in preparing a special staff



A SMALL CRANE UNLOADS BATTERIES FOR LF EMERGENCY POWER SUPPLY,
WARREN AFB, OCT 1968

study of its own problems. In early 1969 this headquarters established 15AFR 85-2, which prescribed the procedures units would take in reporting power systems reliability. It was thought by the staff that once equipped with realistic information on the power system it would be easier to correct different problem areas within the system, or to identify them for contractors at the depots. This would eliminate, or at least reduce, the problems in this particular system.[87]

Standby Power. (U) The 44th SMW had delays in correcting standby power degrades caused by "awaiting parts." This indicated a problem developing in the adequacy of spare parts, bench stock and, occasionally, reparable processing. The 90th SMW delays were due primarily to "awaiting maintenance." This indicated a need to review maintenance reaction and scheduling concepts and efficient utilization of the maintenance personnel. Because Malmstrom's 341st SMW had the largest number of problems, this headquarters analyzed the failures and attributed the fault to hardware performance. This headquarters recognized that the 341st had to take positive and continuing steps to recognize the problems and to ensure that management was not at fault. Within 30 days, by September 1968, the number of facilities that had gone "on battery" had decreased by 60 percent.[88] Action by this headquarters to correct diesel generator problems was taken.[89]

Motor Generator Problem. (U) Another major maintenance program was the motor generator inspection and repair as necessary (IRAN) adopted in July 1968 by Headquarters SAC, Ogden Air Materiel Area (OOAMA), and

Fifteenth Air Force. The program was developed because of a high generator failure rate at the 44th SMW and the approaching six-year operational limitation of the generators throughout the fleet. This limitation was true for the 91st SMW at Minot and the 351st SMW at Whiteman. If the program was started at Ellsworth, it could not be completed before both wings had exceeded the six-year time limit. However, it was decided that Ellsworth would have priority because of its high failure trend as well as OOAMA's ability to recycle only 31 generators per month, which made it impractical to program a complete recycle for two wings simultaneously. It was also decided that the other MINUTEMAN wings would replace their overaged generators during contracted modification programs or through the depot during Ellsworth's IRAN program. The program began at Ellsworth in August 1968. During the IRAN, the 44th SMW experienced several problems at the beginning of the program. The appended exhibits address those concerned with failure of replacement generators and this headquarters' policy on availability of a spare generator should a failure occur. Because a spare was not available at one LF, a missile entered alert degrade. Maintaining adequate equipment to accomplish the IRAN at Ellsworth also came to the attention of this headquarters. When the IRAN was completed in March 1969, 112 generators had been recycled.

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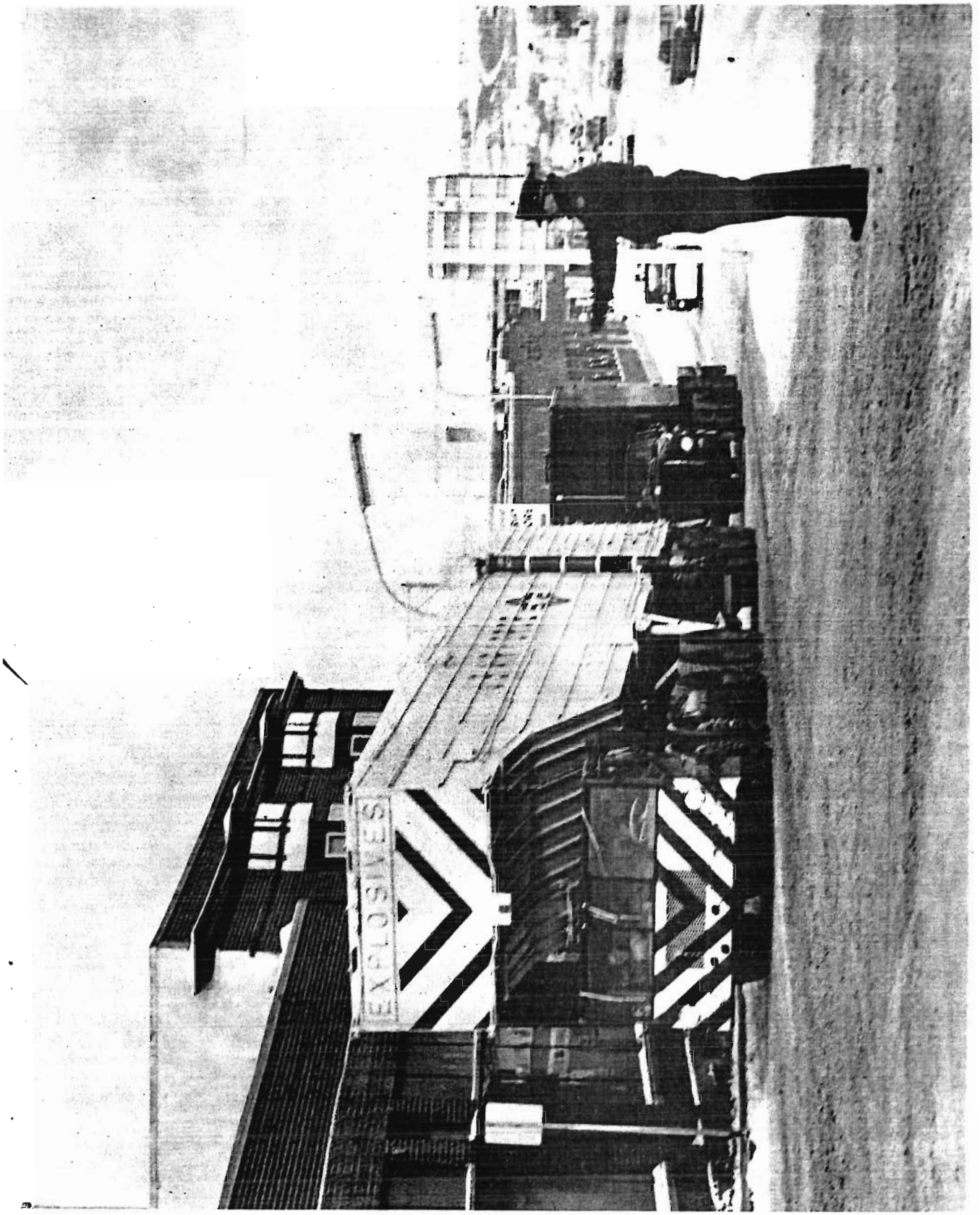
EMP Test. (U) Since September 1967, Malmstrom had been involved with EMP testing at India-6, a launch facility in the 12th SMS. The purpose of the testing was to investigate effects EMP and overvoltages had on an operational LF. The test at Malmstrom was originally scheduled

to end in April 1969, but was extended one year by Headquarters SAC.[91]

Corrosion Control. (U) No weapon system was ever established that condoned any form or amount of corrosion. The prevention and elimination of corrosion was a continuing and recurring action that required active participation of everyone entering an LCF or LF. This was based on the concept that corrosion affected equipment serviceability or longevity and, at the time of discovery, had to be either corrected or documented for correction. There were problems prior to fiscal year 1969 in obtaining enough radio frequency interference (RFI) gaskets for the primary access hatch (PAH) of the LFs. Although several units had suggested that RFI gasket material be obtained in bulk form, and it appeared to this headquarters that the suggestion was valid, no extra supply had been furnished to the units. This method, in this headquarters' opinion, would provide greater flexibility and would eliminate the majority of gasket delayed discrepancies.[92]

(U) A great deal of attention was given to these gaskets in terms of corrosion standards, and splicing criteria. The gaskets were essential in protecting the LFs from EMP interference, as has already been discussed. A new splicing method was instituted by the depot to solve this problem. The number and type of corrosion control air compressors authorized and available to missile wings also came to the attention of this headquarters with a recommendation to use those already in place in the civil engineer area. Headquarters SAC and this headquarters decided to let each wing decide for itself which type of compressor it wanted in this control program.[93]



MISSILE CONVOY, SLOWED BY SNOW AND ICE,
TRAVELS SLOWLY THROUGH THE CITY OF MINOT, N. D.