DRAFT ENVIRONMENTAL IMPACT STATEMENT

PEACEKEEPER RAIL GARRISON PROGRAM

EXECUTIVE SUMMARY

UNITED STATES AIR FORCE
JUNE 1988

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19.

Abstract: The U.S. Air Force proposes to deploy 50 Peacekeeper missiles on 25 trains, which will be based at F.E. Warren AFB, Wyoming, and at up to ten other garrison installations. If the Peacekeeper Rail Garrison system is approved for deployment, F.E. Warren AFB would be the Main Operating Base (MOB) and the first garrison installation. After the Final EIS is filed, the other garrison installations to be used would be selected from the ten candidates and the decision would be documented in one or more Records of Decision. Up to four trains could be deployed at each selected garrison installation. Peacekeeper missiles would be assembled and integrated onto the missile launch cars at F.E. Warren AFB and then dispatched to other selected garrison installations. Periodically, a training train, with no missile propellants or warheads onboard, would travel to each of the garrison installations for operations, security, and maintenance training. Periodically, for maintenance or test launches, missiles (without warheads) would be moved by rail between garrisons and F.E. Warren AFB or Vandenberg AFB. During periods of national need and upon receipt of direction from the National Command Authority, Peacekeeper trains could be dispersed onto the nation's rail network to improve their survivability. The Alternative Action is to deploy 100 Peacekeeper missiles on 50 trains. With this alternative, between four and six trains would be deployed at F.E. Warren AFB, the MOB, and at up to ten other candidate garrison installations. Operations, maintenance, and training activities for the Alternative Action would be similar to those described for the Proposed Action. Potential environmental impacts associated with both of these actions are considered in the DEIS under the following environmental resource categories: socioeconomics, utilities, transportation, land use, cultural, biological, water, geology and soils, air quality, and noise. In addition, national economic impacts, national railroad transportation impacts, and safety considerations are discussed. Finally, mitigation measures that can be taken to rehabilitate or restore the affected environment or to reduce significant adverse impacts are identified.

(2)

Draft
Environmental Impact Statement
Peacekeeper Rail Garrison Program

Executive Summary

United States Air Force

June 1988

Cover Sheet

Draft Environmental Impact Statement
Peacekeeper Rail Garrison Program

a. Responsible Agency: U.S. Air Force

b. Proposed Action: Deployment of the Peacekeeper Rail Garrison System

c. Written comments and inquiries on this document should be received by 31 August 1988 and addressed to: Director of Environmental Planning, AFRCE-BMS/DEV, Norton AFB, San Bernardino, California 92409-6448.

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In December 1986, President Reagan announced his decision to begin development of the Rail Garrison basing mode for the deployment of Peacekeeper missiles. In this basing mode, Peacekeeper missiles are deployed on trains garrisoned at specified Air Force installations. Missile trains would remain in garrisons on a day-to-day basis, and would move off the installations onto the national rail network only during times of national need. F.E. Warren Air Force Base (AFB), near Cheyenne, Wyoming, was designated by the President as the Main Operating Base (MOB) and the first garrison installation. In February 1987, the Air Force identified ten additional installations as candidate garrison locations. These candidate installations are Barksdale AFB, Louisiana; Dyess AFB, Texas; Eaker (formerly Blytheville) AFB, Arkansas; Fairchild AFB, Washington; Grand Forks AFB, North Dakota; Little Rock AFB, Arkansas; Malmstrom AFB, Montana; Minot AFB, North Dakota; Whiteman AFB, Missouri; and Wurtsmith AFB, Michigan (Figure S-1).

This Draft Environmental Impact Statement (DEIS) was prepared to aid in the following interrelated decisions: whether or not to deploy Peacekeeper missiles in the Rail Garrison basing mode, how many Peacekeeper missiles to deploy in this mode, at which installations to deploy the system, where to site facilities at deployment locations and which mitigation actions would be implemented to reduce the effect of significant adverse impacts. Final selection of garrison installations and determination of the sequence of deployment will be made after the Final EIS is filed and will be documented in a Record of Decision.

The EIS considers the Proposed Action of basing 50 Peacekeeper missiles on 25 trains, with garrisons at F.E. Warren AFB and up to ten other candidate garrison installations. The EIS also considers the Alternative Action of deploying 100 Peacekeeper missiles on 50 trains, cumulative impacts from other programs, and the No Action Alternative. The impacts upon ten resource categories (issue areas) are discussed. These resource categories are: socioeconomics, utilities, transportation, land use, cultural, biological, water, geology and soils, air quality, and noise. Significant environmental issues identified during the scoping process have been incorporated into the analysis. Mitigation measures to reduce significant adverse impacts are also identified.

PURPOSE AND NEED

In January 1983, President Reagan established the President's Commission on Strategic Forces, also referred to as the Scowcroft Commission, a bipartisan group of experts charged with reviewing the strategic forces modernization program of the United States. One of the Scowcroft Commission's recommendations was to deploy 100 Peacekeeper missiles in Minuteman silos in order to hold hardened Soviet targets at risk and promote arms talks. Congress and the President endorsed this recommendation. Accordingly, in January 1984, the Air Force prepared and filed an EIS for the deployment of 100 Peacekeeper missiles in modified Minuteman silos at F.E. Warren AFB. Later, in the 1986 Department of Defense Authorization Act, Congress limited the deployment of Peacekeeper missiles in Minuteman silos to 50 and asked the President to propose a more survivable basing mode for the other 50 Peacekeeper missiles.

SYSTEM OVERVIEW

The Peacekeeper Rail Garrison concept is to place two Peacekeeper missiles on each train (Figure S-2). The trains and necessary support facilities would be located at the MOB and up to ten candidate garrison installations located at existing Air Force installations.

The missiles, complete except for their reentry systems that contain the nuclear warheads, would be assembled at F.E. Warren AFB (the MOB), and transported by rail to each garrison. The reentry systems would be shipped separately and installed at the

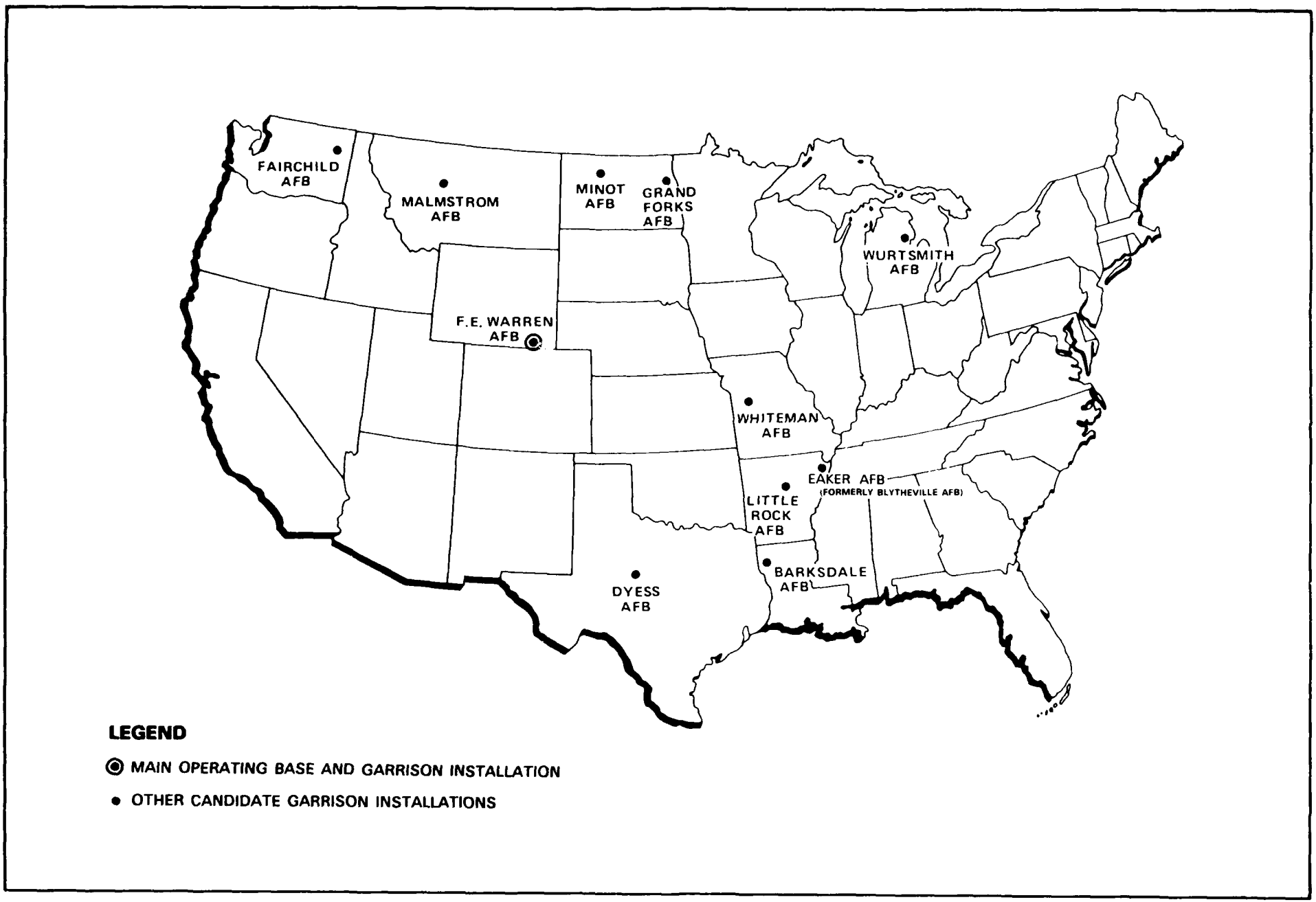

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FIGURE S-1 LOCATION OF AIR FORCE BASES PROPOSED FOR DEPLOYMENT OF THE PEACEKEEPER RAIL GARRISON SYSTEM

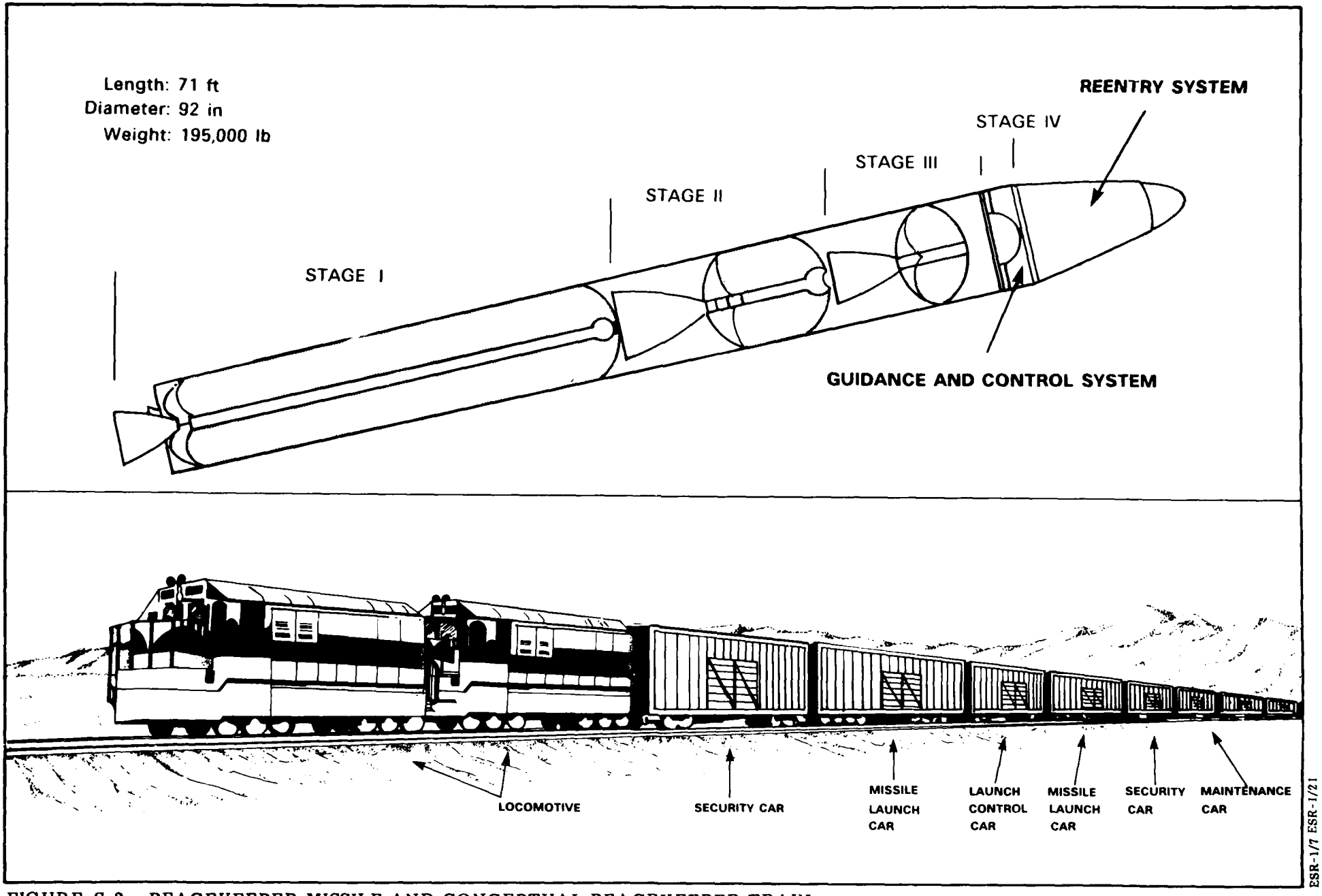

FIGURE S-2 PEACEKEEPER MISSILE AND CONCEPTUAL PEACEKEEPER TRAIN

garrisons. Routine missile maintenance would be provided at the garrisons by Air Force personnel. The missiles, without reentry systems, would be returned by rail to F.E. Warren AFB when required for major maintenance, repair, or preparation for flight testing. From time to time, a randomly selected missile, with its reentry system removed, would also be transported by rail to Vandenberg AFB, California, for flight testing.

The garrison complex is the major new facility needed at each candidate garrison installation and would be a secured area of approximately 150 acres (Figure S-3), enclosed by a double chain link security fence. It would accommodate four to six Train Alert Shelters (TASs) and the major Rail Garrison security and maintenance facilities.

Support facilities at the garrison installations would include those necessary for system operations, maintenance, training, and personnel support.

Onbase rail lines would interconnect the garrison, Training Train Shelter, and other support facilities. In addition, a rail spur would connect the garrison to the commercial rail network (as shown in Figure S-4). Construction of a second rail connection from a garrison to a main rail line is being considered as a possible future option at all garrison installations. Before implementation of this option, the specific proposed routes and their reasonable alternatives will be determined for each garrison installation, and appropriate environmental analysis will be accomplished at that time.

Training trains which physically and electronically simulate the missile train but have no missile propellants or warheads onboard would be moved periodically on the national rail network to provide crew training. All train movements, including training and maintenance trips, would be coordinated with appropriate rail company personnel to ensure safe and efficient movement.

As currently planned, the Peacekeeper Rail Garrison program would achieve initial operational capability, defined as deployment of one train with two missiles and one training train, as early as December 1991. Full operational capability of the system would be achieved by the deployment of the remaining trains and missiles, and could be reached as early as December 1993.

PROPOSED ACTION

The Proposed Action is to deploy 50 Peacekeeper missiles on 25 trains at F.E. Warren AFB and at up to ten other garrison installations. Up to four trains could be deployed at each selected garrison. Activities related to the Proposed Action are described below and involve construction, operations, maintenance and training, as well as the commitment of various resources.

Construction

Construction activities for the Peacekeeper Rail Garrison program would include both new construction and modifications of facilities, roads, railroads, and utilities at F.E. Warren AFB and the other selected garrison installations. The Air Force Site Activation Task Force will serve as the field managing organization for construction, and for assembly and checkout of mechanical and electrical equipment. Details of the construction program for the MOB and the other candidate installations will vary with the type of mission at the installation, the number of people assigned to support the Peacekeeper Rail Garrison mission, the availability of existing facilities, and safety considerations. Facility locations at each candidate base are shown on Figures S-5 through S-18.

Construction activities at the MOB may begin as early as March 1989 for the Missile Assembly Building with completion scheduled for November 1990. Construction of the garrison and support facilities could begin in March 1990 and finish by July 1992.

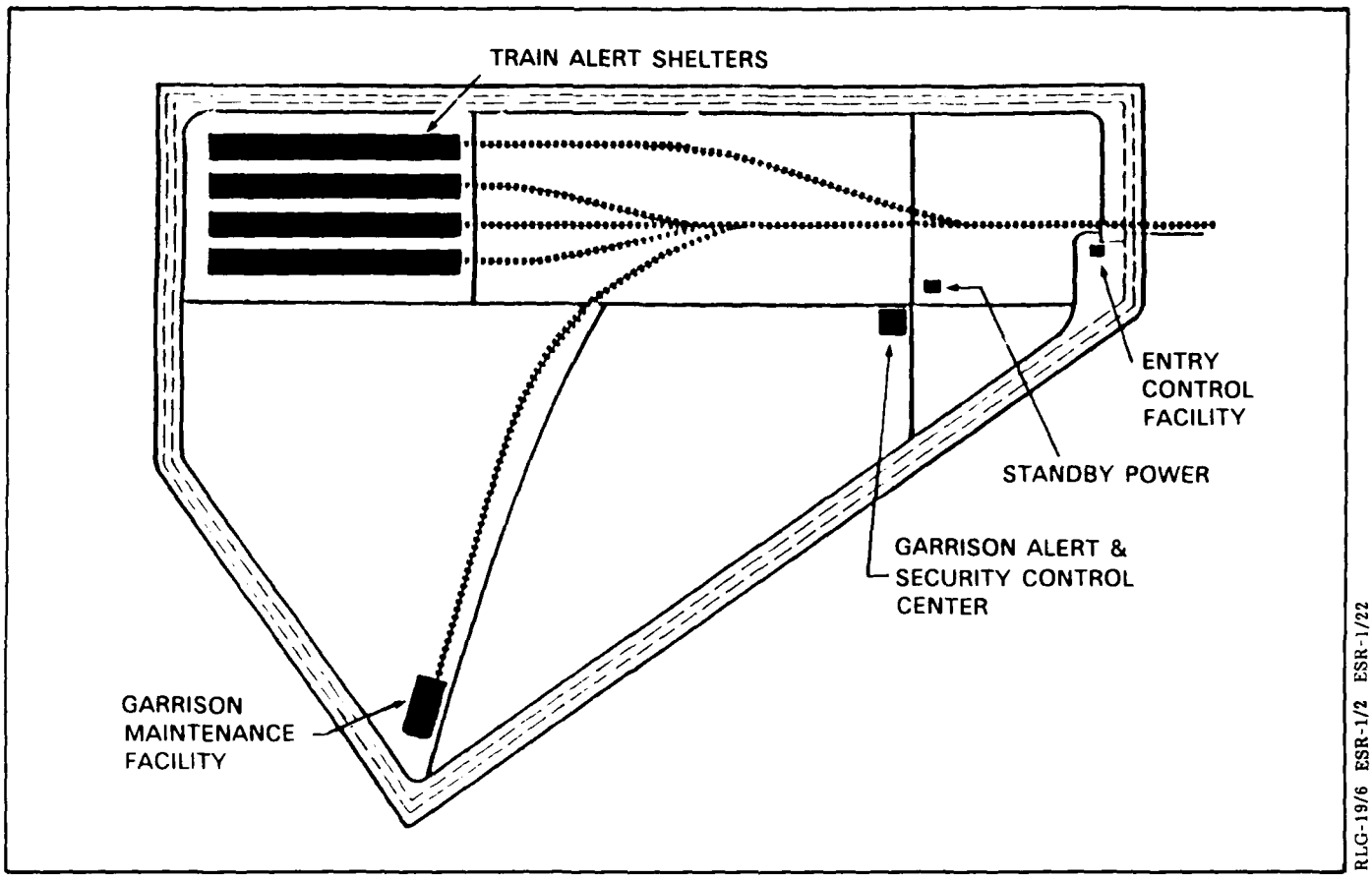

FIGURE S-3 TYPICAL RAIL GARRISON FACILITY LAYOUT

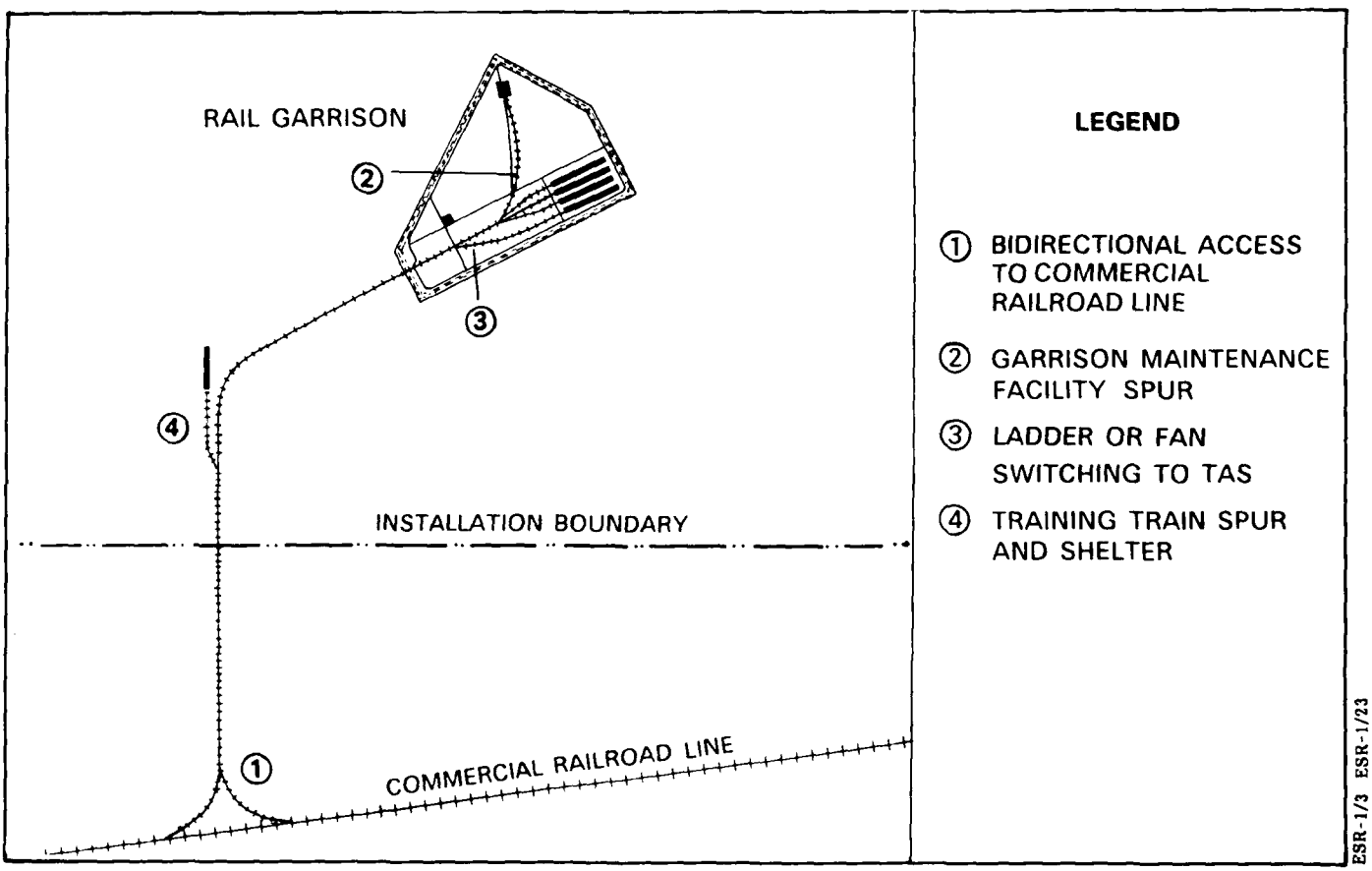

FIGURE S-4 TYPICAL RAIL NETWORK CONNECTING GARRISON FACILITIES TO THE COMMERCIAL RAILROAD LINE

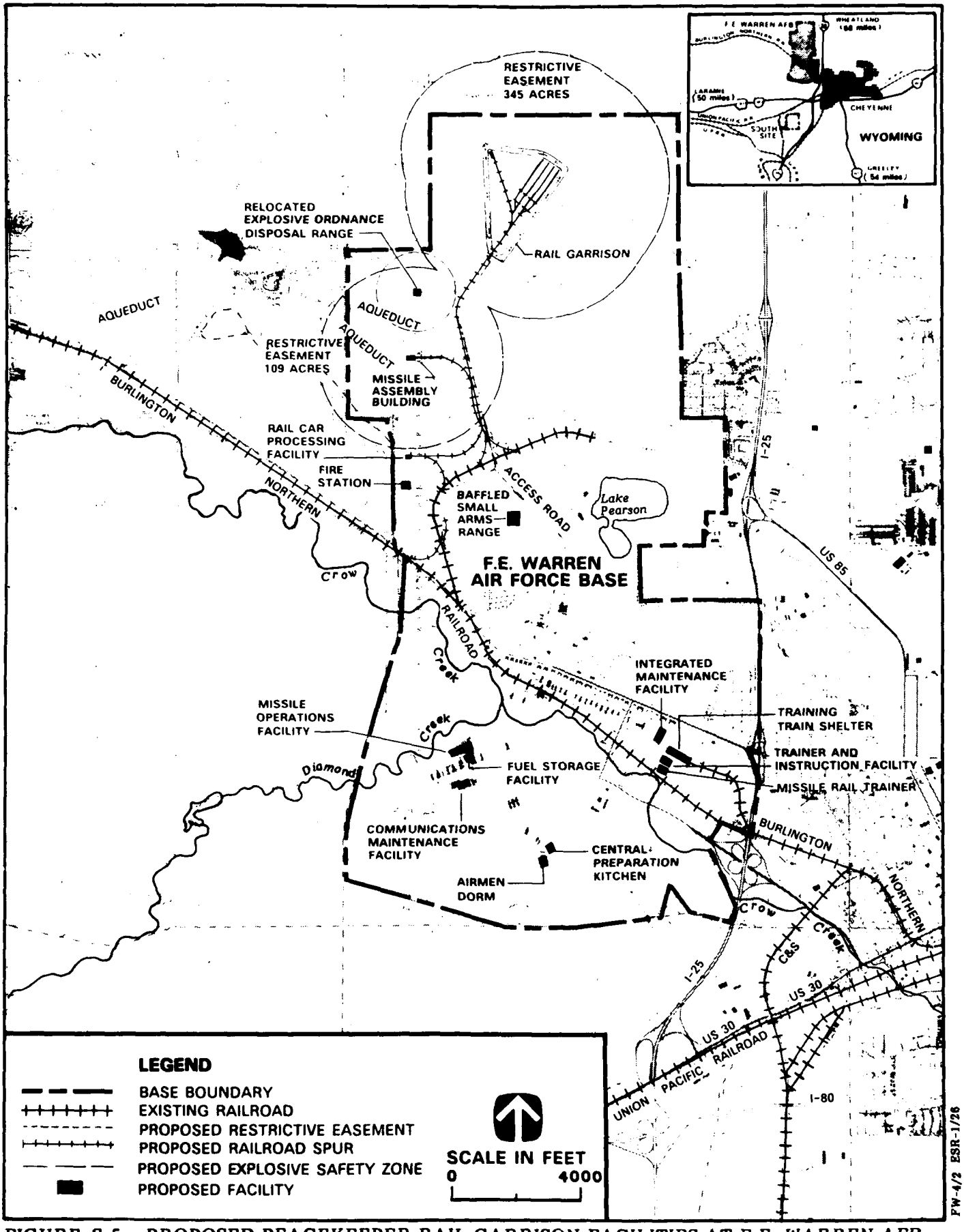

FIGURE S-5 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT F.E. WARREN AFB, WYOMING (NORTH SITE OPTION)

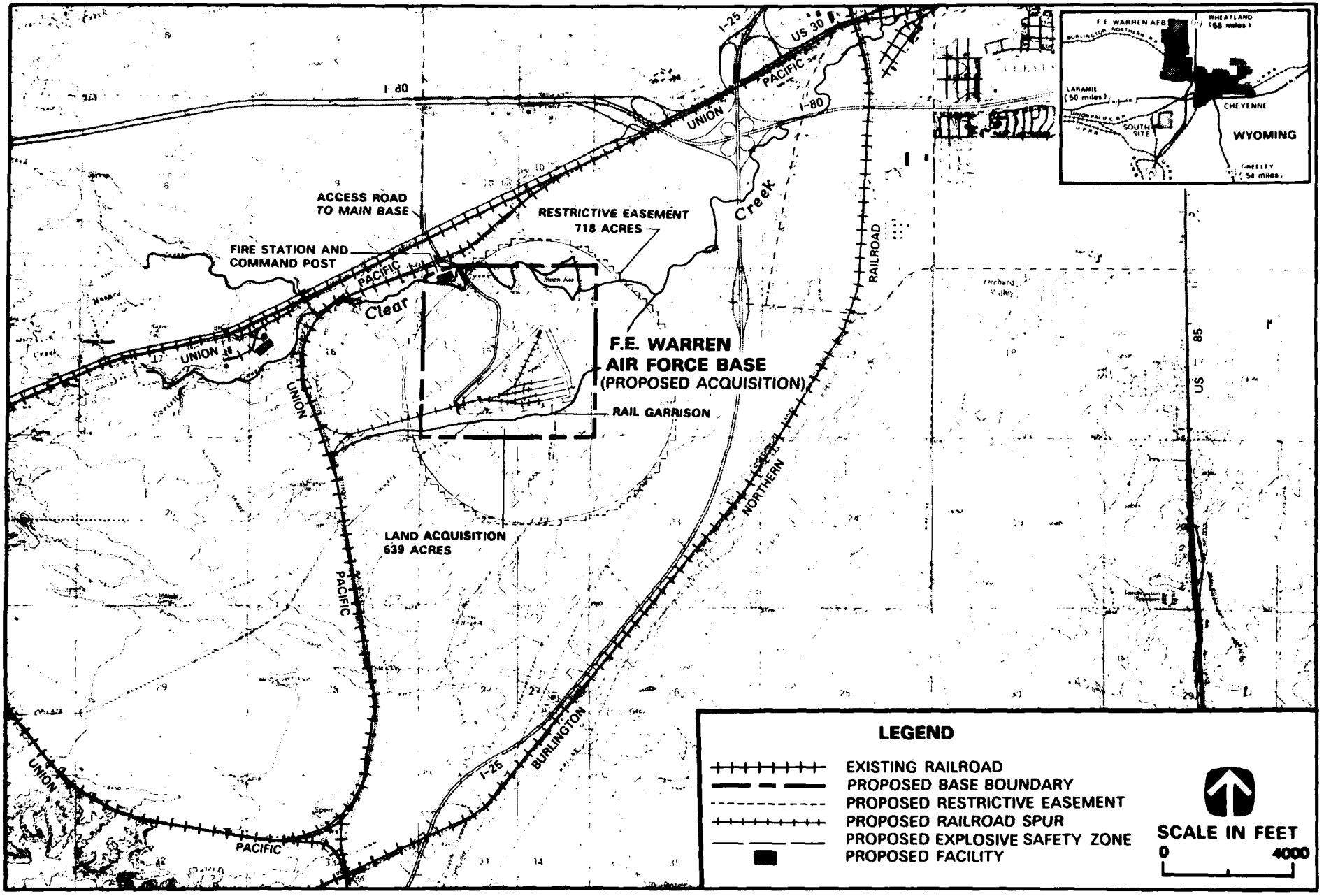

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FIGURE S-6 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT F.E. WARREN AFB, WYOMING (SOUTH SITE OPTION)

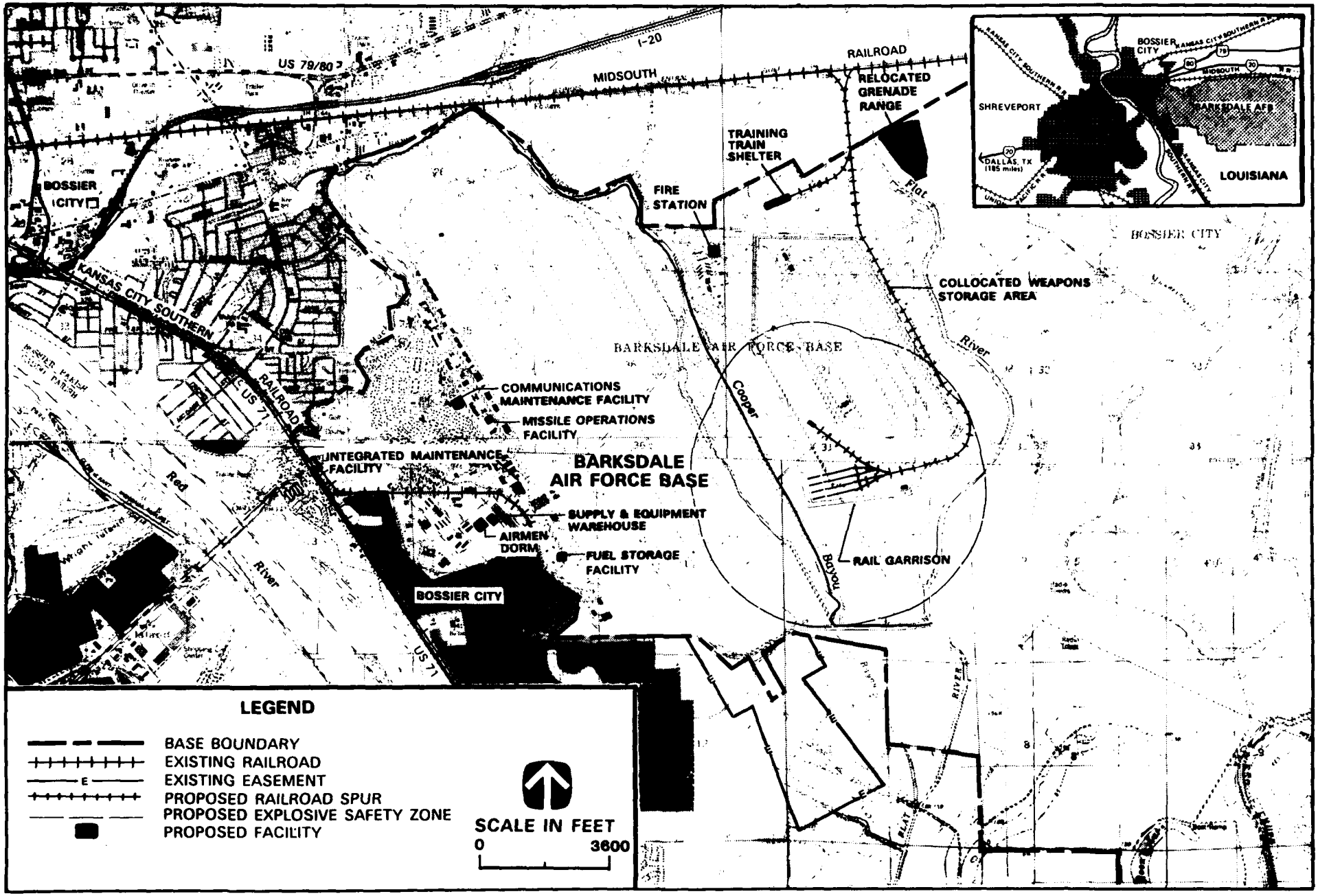

FIGURE S-7 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT BARKSDALE AFB, LOUISIANA

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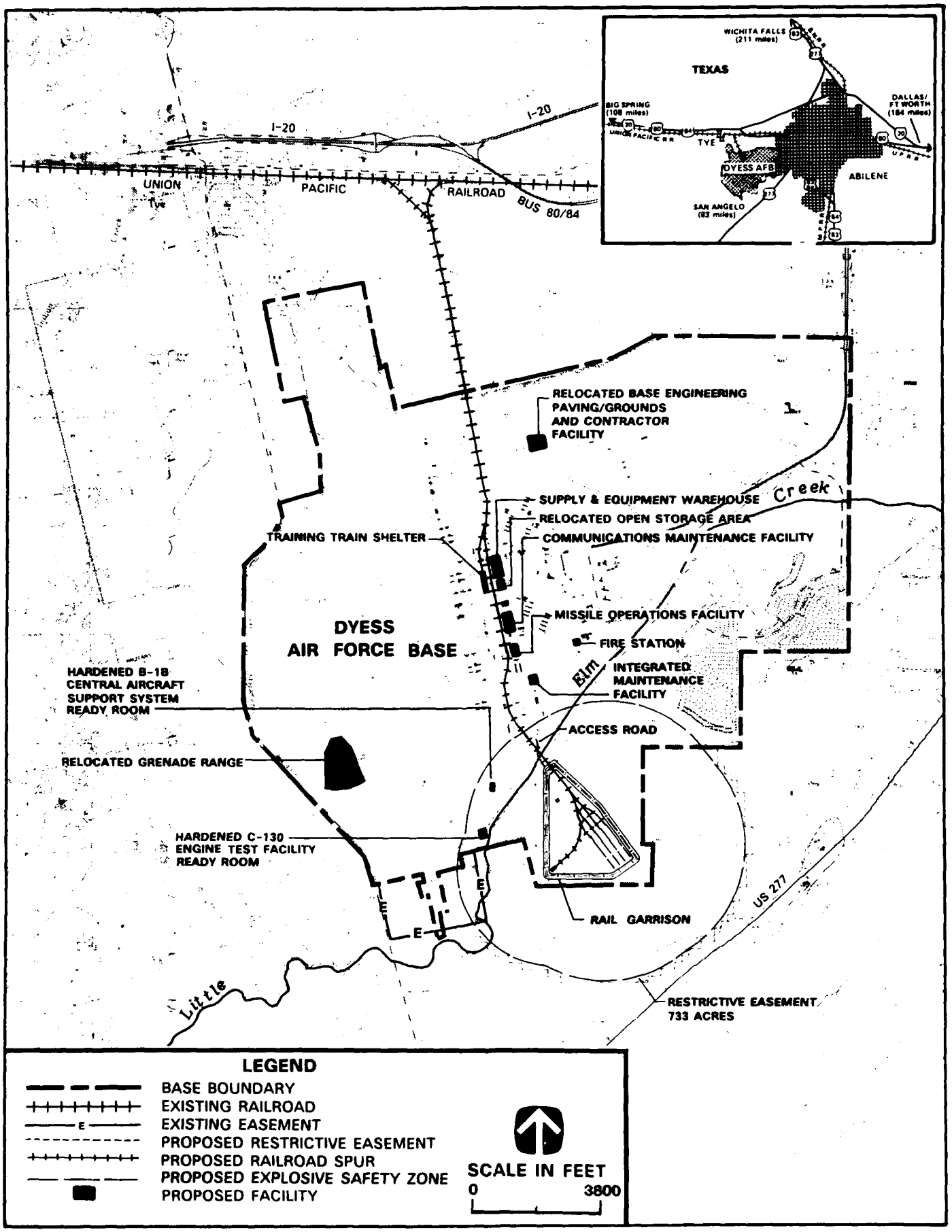

FIGURE S-8 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT DYESS AFB, TEXAS

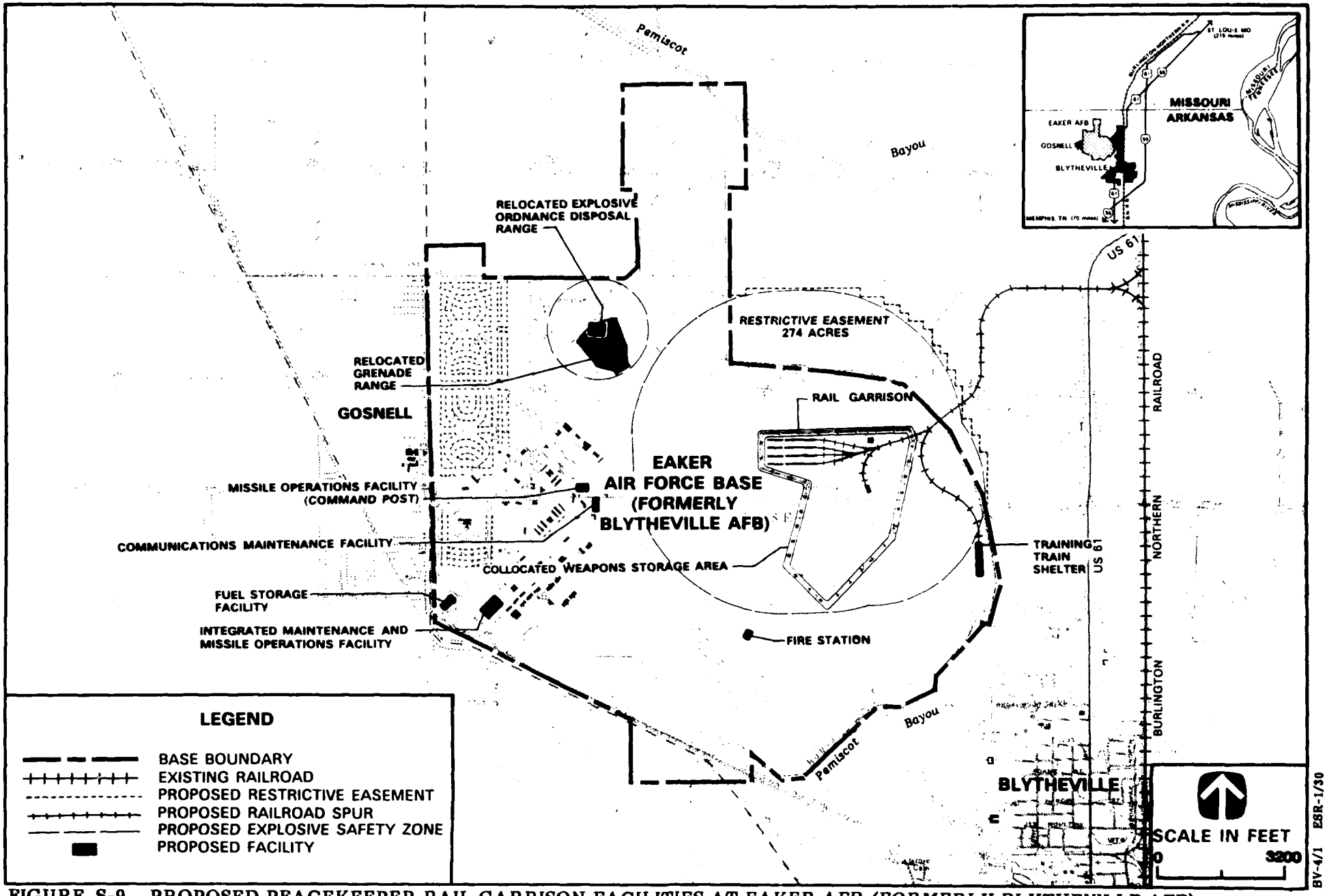

FIGURE S-9 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT EAKER AFB (FORMERLY BLYTHEVILLE AFB), ARKANSAS (ONBASE OPTION)

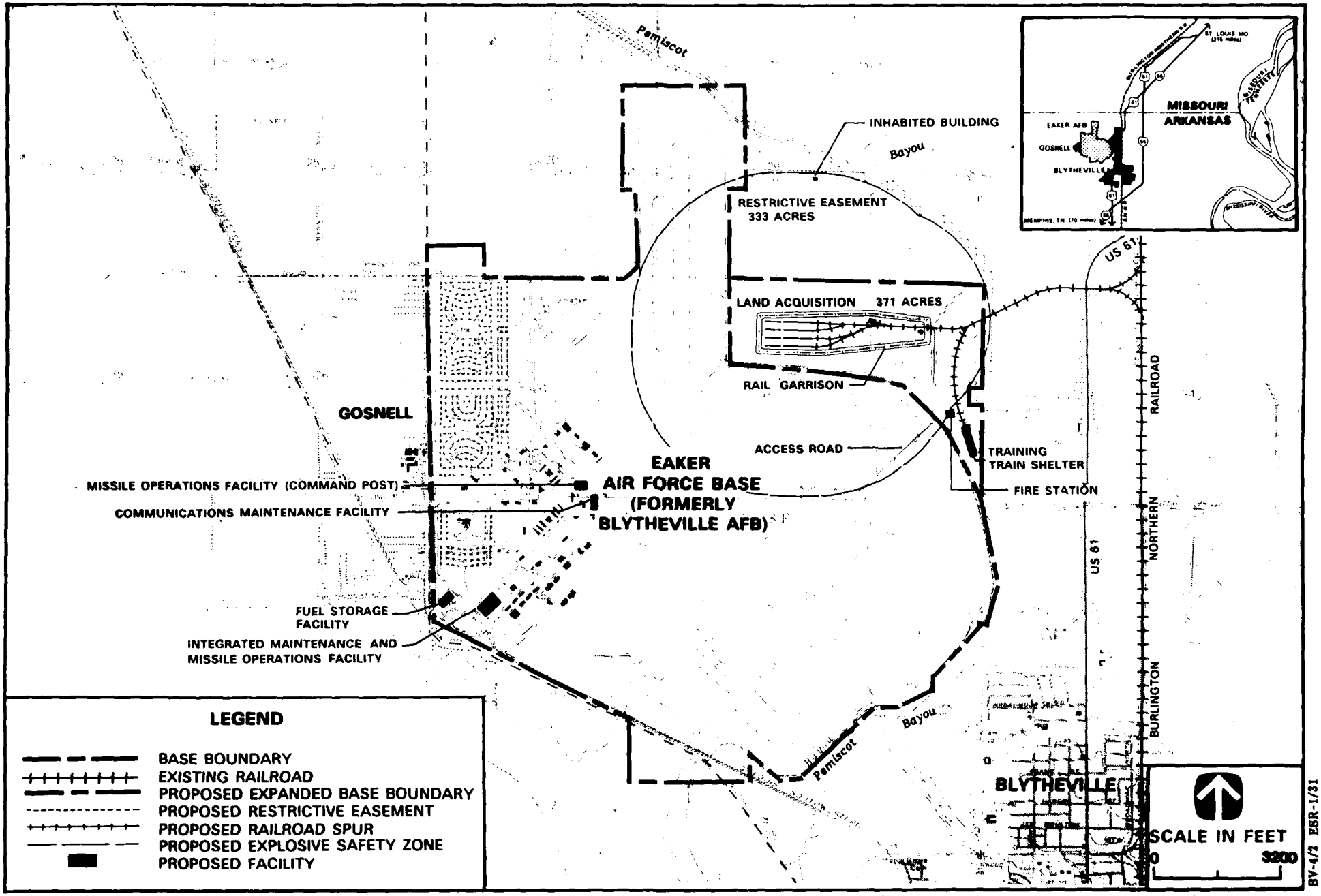

FIGURE S-10 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT EAKER AFB (FORMERLY BLYTHEVILLE AFB), ARKANSAS (OFFBASE OPTION)

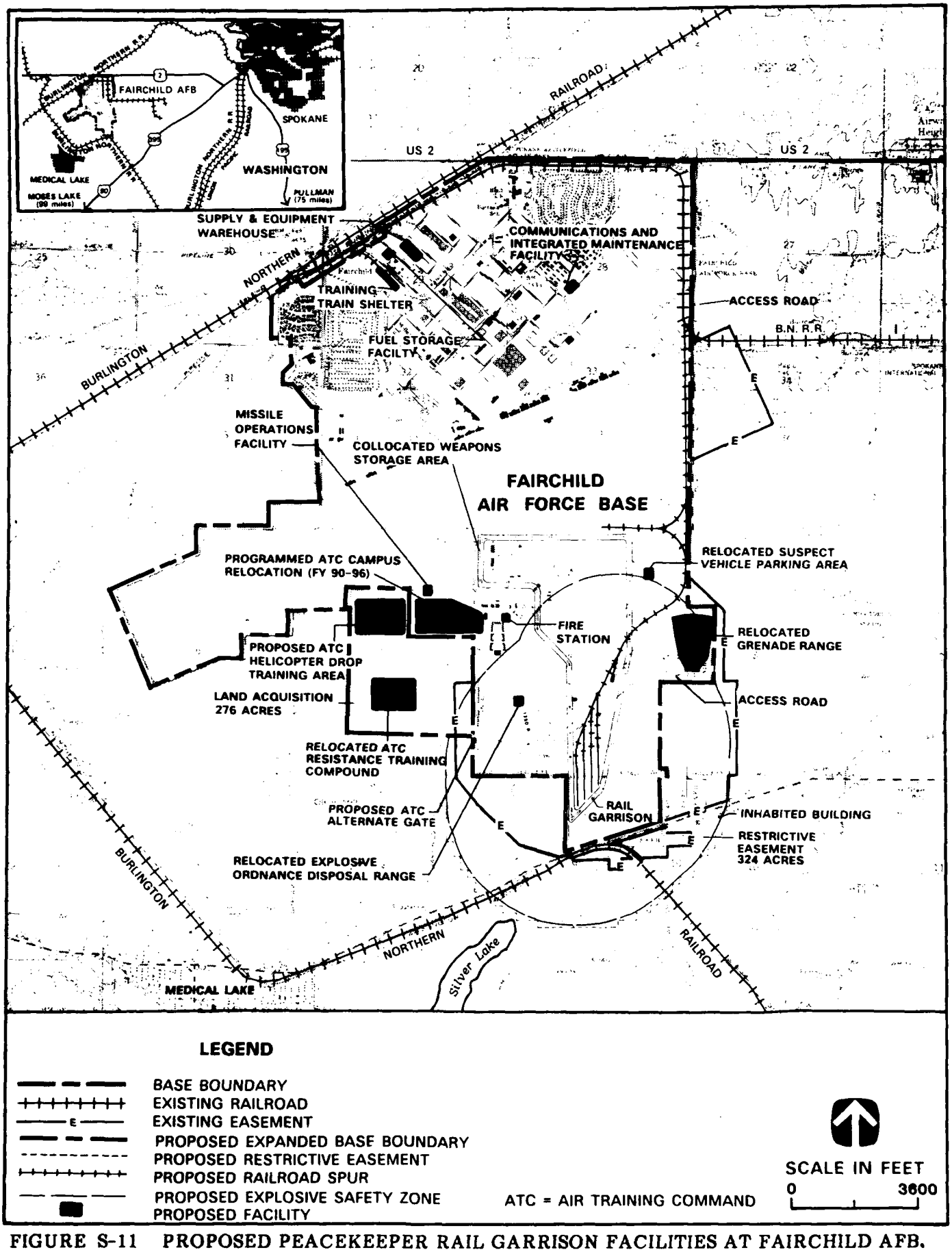

FIGURE S-11 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT FAIRCHILD AFB, WASHINGTON

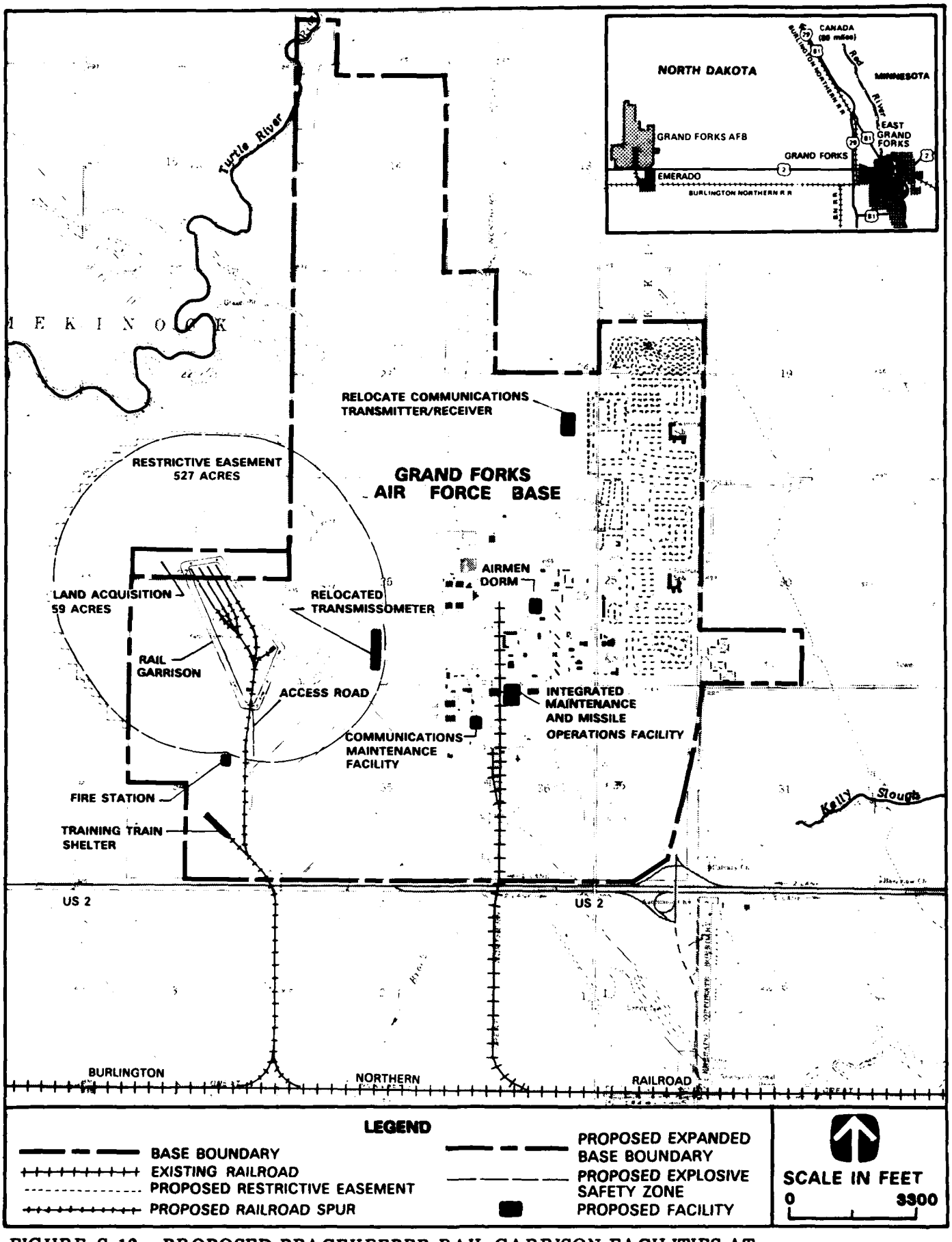

FIGURE S-12 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT GRAND FORKS AFB, NORTH DAKOTA

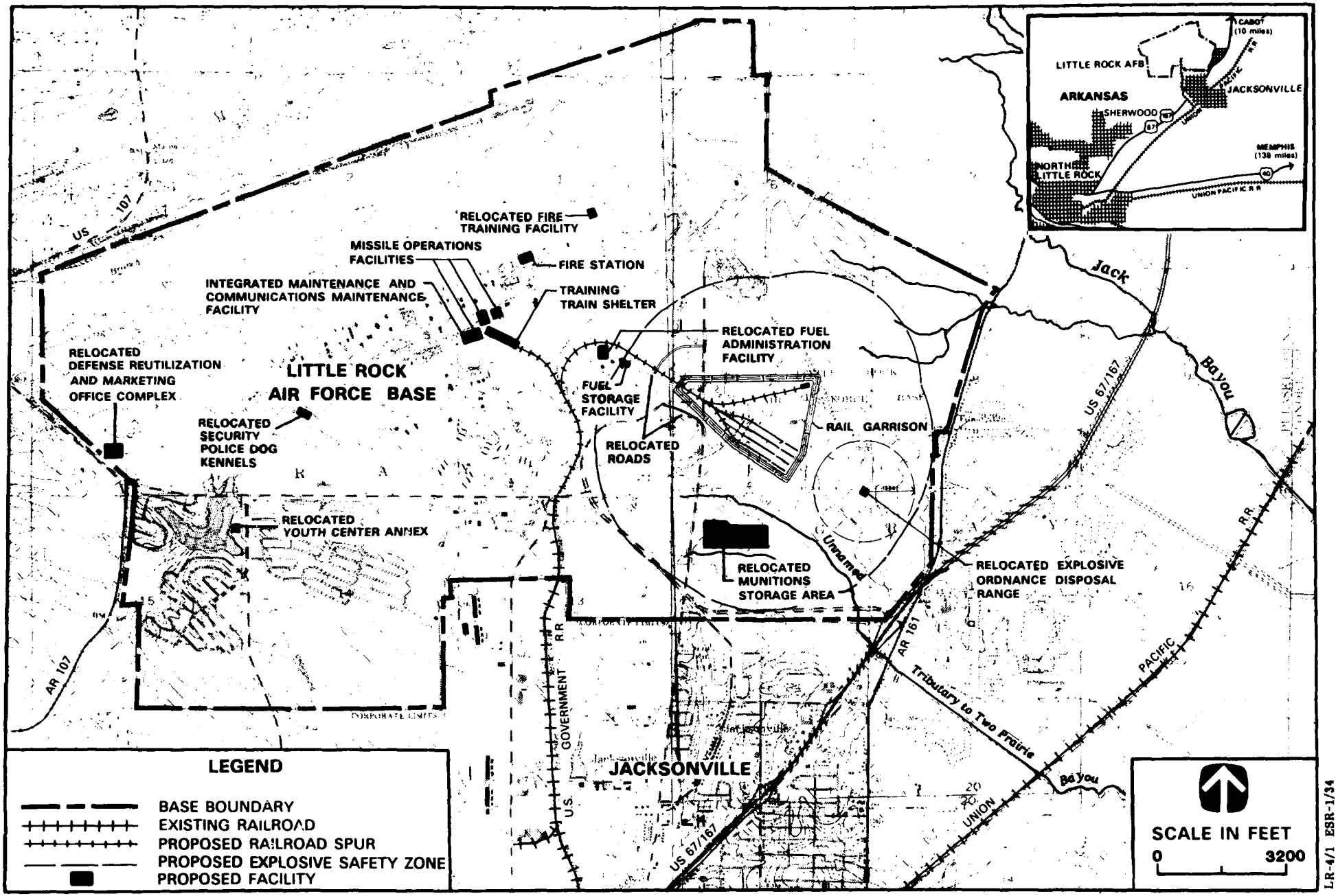

FIGURE S-13 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT LITTLE ROCK AFB, ARKANSAS

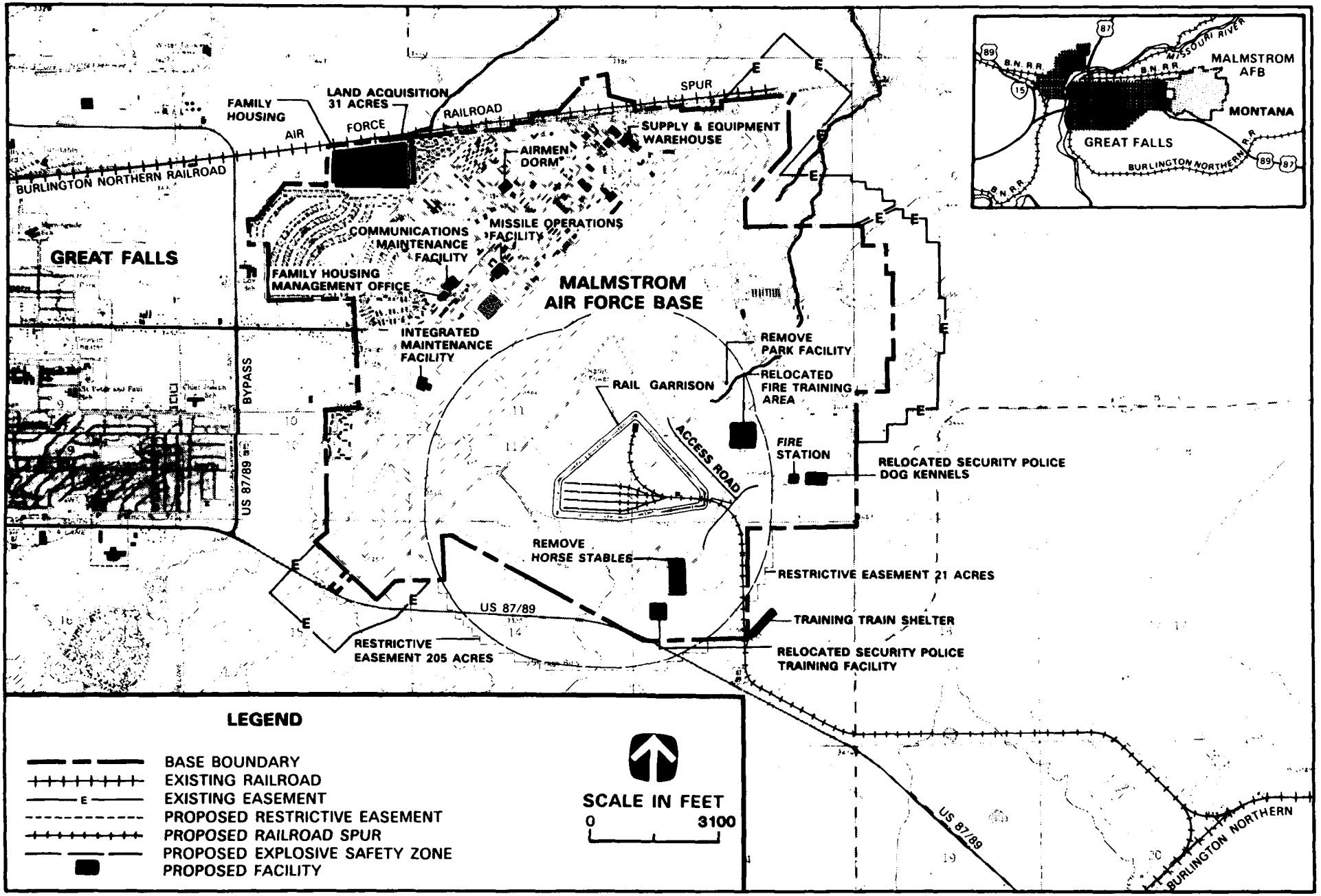

FIGURE S-14 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT MALMSTROM AFB, MONTANA (SOUTH SITE OPTION)

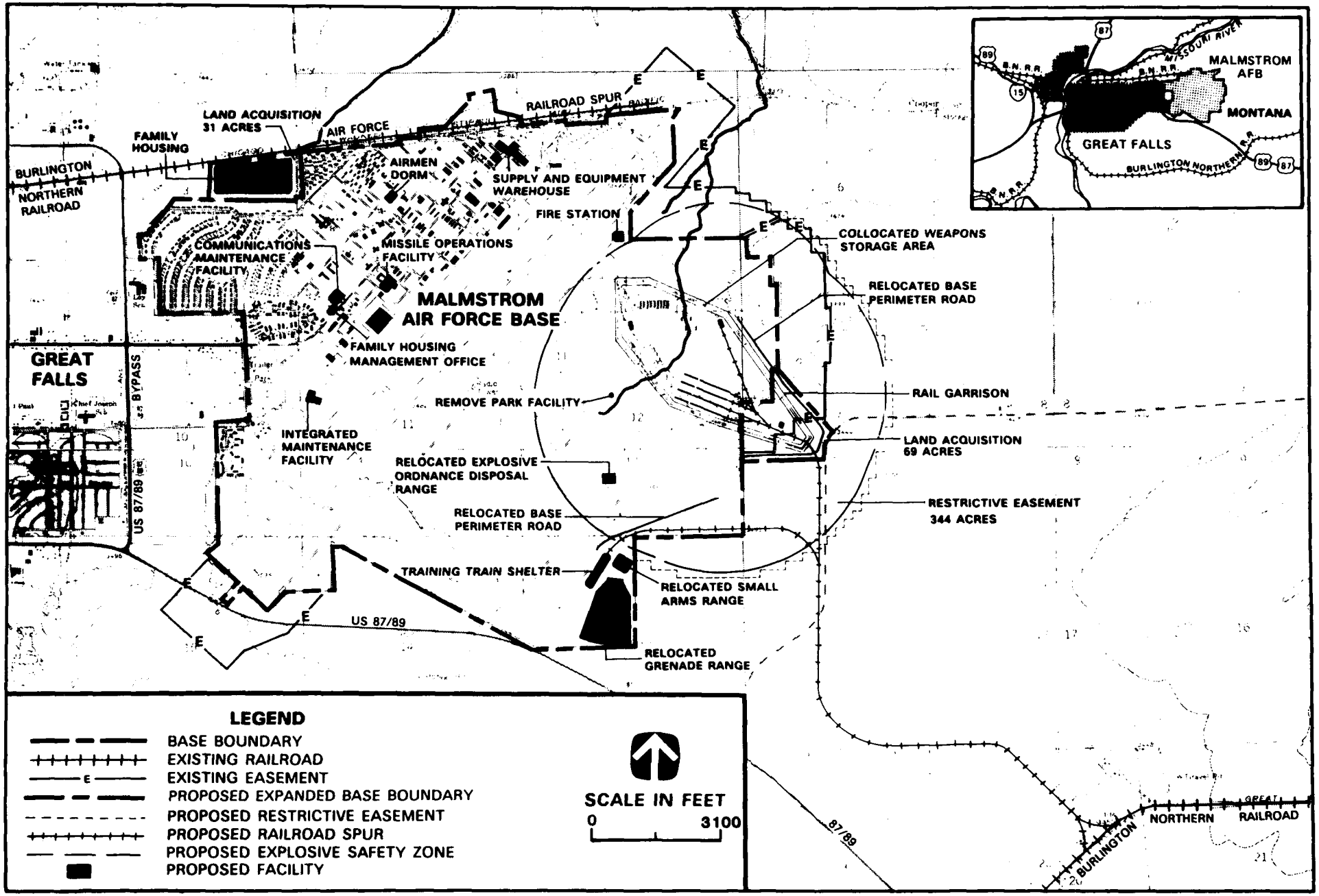

FIGURE S-15 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT MALMSTROM AFB, MONTANA (EAST SITE OPTION)

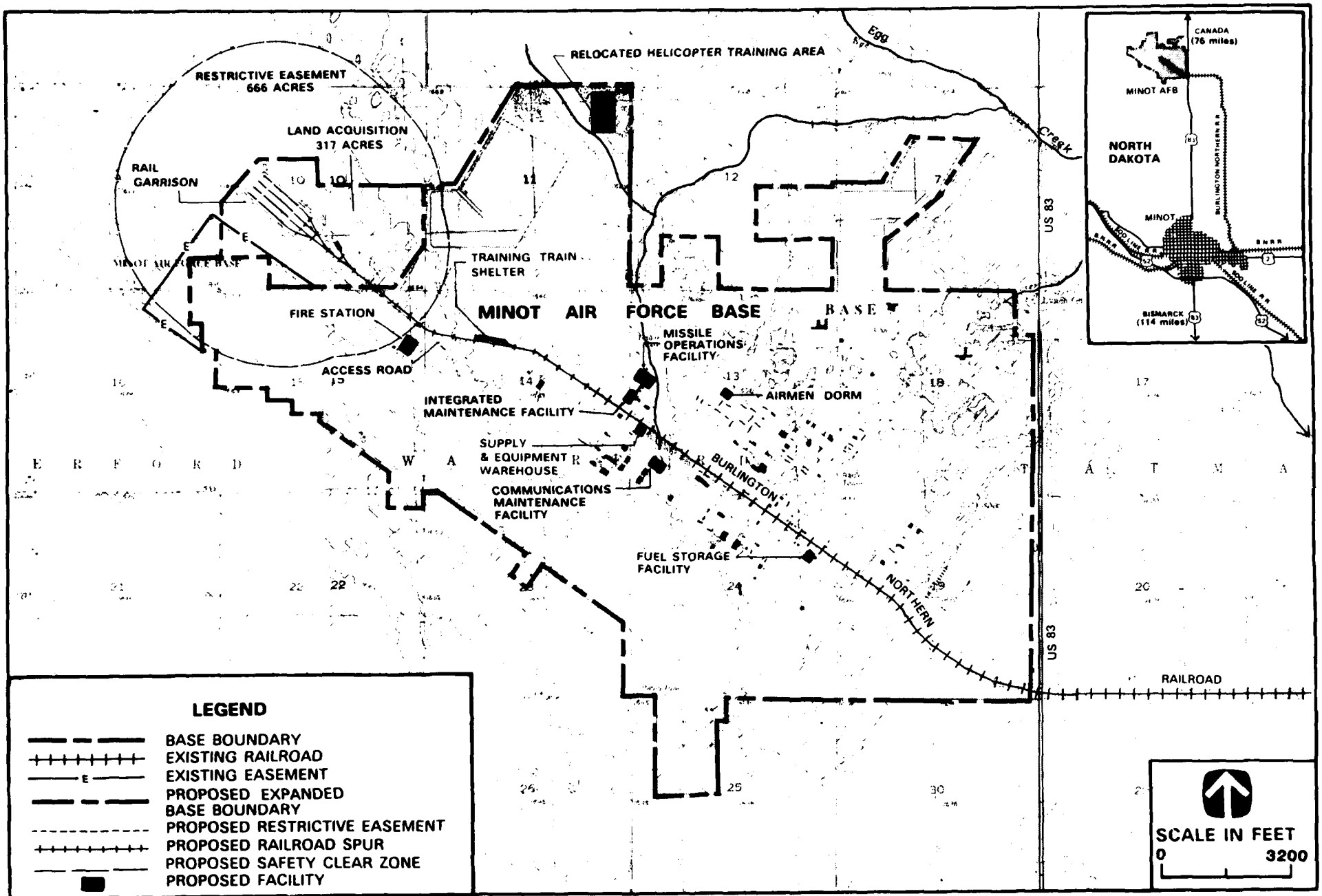

FIGURE S-16 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT MINOT AFB, NORTH DAKOTA

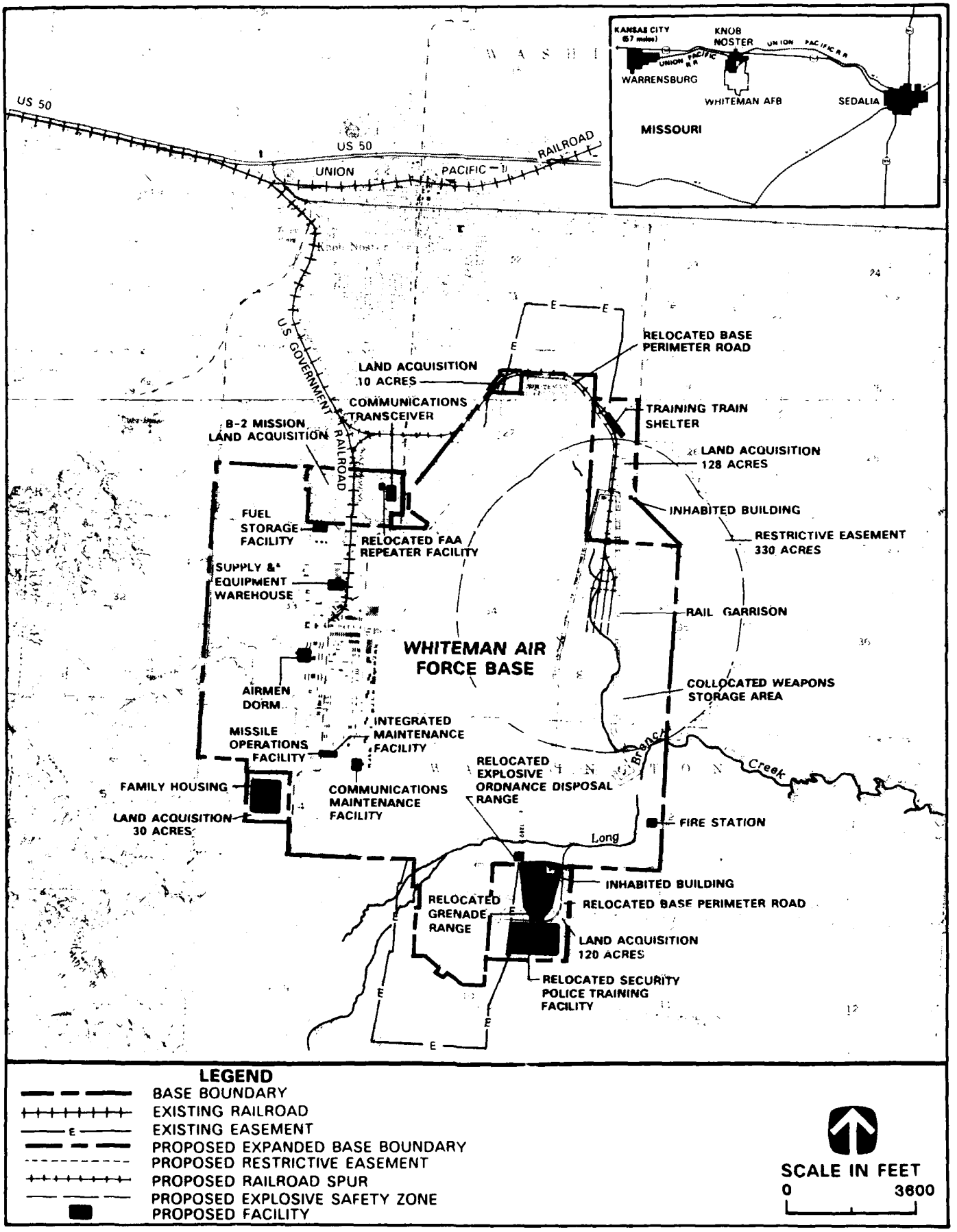

FIGURE S-17 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT WHITEMAN AFB, MISSOURI

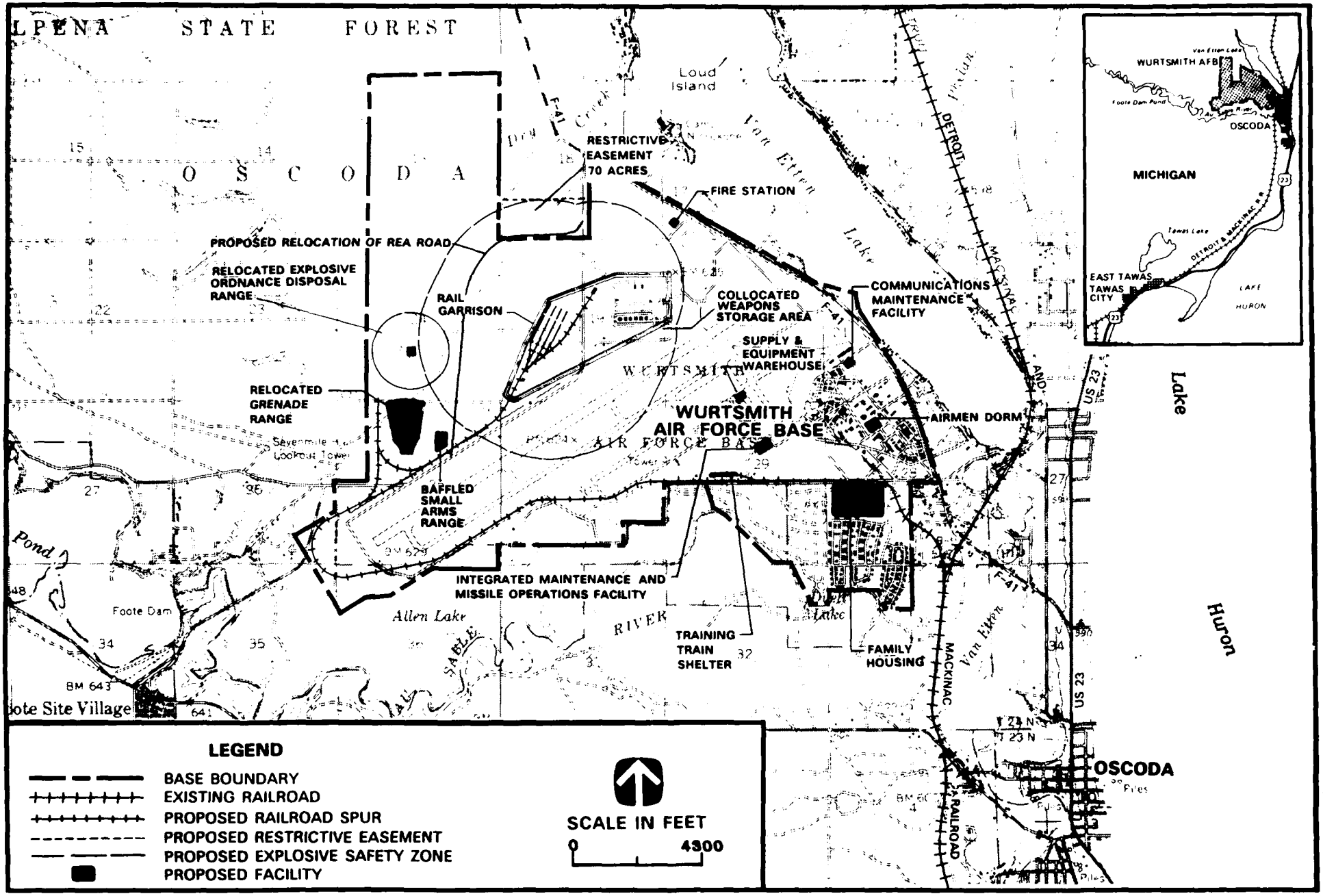

FIGURE S-18 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT WURTSMITH AFB, MICHIGAN

Operations-related manpower could begin to arrive in July 1991 and could reach a full complement by December 1991.

Construction activities for the other candidate installations would occur over a 27-month period in the early 1990s. Site preparation, and road and utilities construction would be appropriately phased and followed by technical and personnel support facility construction during this period.

Operations

Peacekeeper missiles would be assembled and integrated onto the missile launch cars at F.E. Warren AFB, the MOB. They would then be dispatched to the selected Peacekeeper Rail Garrison installations. F.E. Warren AFB would also have a garrison area with Peacekeeper trains on alert.

Day-to-day functions at the garrison installations would consist of maintaining the parked Peacekeeper trains on alert, security operations, and minor maintenance activities. Periodically, a training train, with no missile propellants or warheads onboard, would travel to each of the garrison installations for operations, security, and maintenance training.

In times of national need, when directed to disperse by the National Command Authority, the Air Force would contact the railroad dispatch offices to request clearance onto the main line. After clearance is received, trains would move onto the national rail network. Once on the network, the Peacekeeper trains would operate in a manner similar to existing commercial freight trains.

The Air Force would comply with Federal Railroad Administration rules for operation and would provide crews qualified to operate the locomotives. The railroads would provide a pilot who is fully knowledgeable of the physical characteristics and rules of operations over the segment of railroad on which the train is to be moved. The use of pilots is a standard railroad practice to provide safe operations on the commercial railroad network.

The Peacekeeper train would carry its own security system and security personnel. The trains would be equipped with a variety of sensors that detect direct threats and with others that provide 24-hour surveillance.

Once dispersed, the Peacekeeper train would continue to operate on the nation's rail network until directed by the National Command Authority to return to the garrison. Supplies such as fuel, food, or water would be carried onboard the train. When necessary, resupply would be accomplished in a variety of ways, including local purchases, servicing in train yards, servicing by mobile servicing vehicles, and servicing from military installations located in the train's dispersal area.

Maintenance

Peacekeeper missile maintenance would be performed at the garrisons; MOB; existing Air Force depots; and on the railroad network when the system is in the dispersed mode of operation. At the garrisons, train maintenance would consist of removal and replacement of operational support equipment and minor inspection and servicing of trains. Maintenance of the canisterized missile would require removal of the reentry system at the Garrison Maintenance Facility (at the garrison installation) and transportation of the missile to the MOB or other depot facilities for disassembly and repair.

Train maintenance would be performed in accordance with Federal Railroad Administration and American Association of Railroads requirements, and would meet or exceed their standards. The missile train's onboard maintenance team would perform

repair/replacement of launch-critical components and operation support equipment during dispersal.

Training

Training of Air Force personnel for operations and maintenance activities would be conducted at existing designated technical training centers. These include Chanute AFB, Illinois; Lowry AFB, Colorado; Keesler AFB, Mississippi; Lackland AFB, Texas; and Vandenberg AFB, California. Simulators would be used to provide hands-on training for both maintenance and operations personnel. These simulators and other training tools would be located at the technical training centers, the MOB, and at each garrison installation. Training on the actual system equipment would occur at the MOB and other garrison installations. In addition to fixed trainers, two training trains would be based at F.E. Warren AFB and would travel to each garrison to conduct dispersal training exercises. Air Force train operators may be trained at existing commercial railroad training centers.

Resource Requirements

The total cost of the Peacekeeper Rail Garrison program is estimated at between $10 billion and $15 billion (in 1986 dollars). This includes research and development, production, construction, deployment, and operations over a 20-year period.

Direct manpower requirements at F.E. Warren AFB, the MOB, and the candidate garrison installations are shown in Table S-1.

At a typical base, about 150 acres to 180 acres of land would be needed for the garrison facilities and another 50 acres for technical and support facilities. Table S-2 presents the permanent, temporary, and total land area disturbed at each installation.

ALTERNATIVE ACTION

The Alternative Action is to deploy 100 Peacekeeper missiles on 50 trains. With this alternative, between four and six trains would be deployed in the garrisons at F.E. Warren AFB, the MOB, and at up to ten of the candidate military installations. Construction, operations, maintenance, and training activities for the Alternative Action would be similar to those described for the Proposed Action. Facility locations at each base are shown on Figures S-19 through S-32.

The Alternative Action would involve constructing six TASs at the MOB and at each of the selected garrison bases to accommodate additional trains. It would require slightly higher construction and operations manpower than those required for the Proposed Action. Direct manpower requirements for the Alternative Action are presented in Table S-1.

Land area disturbed by the garrison and other technical and personnel support facilities for the Alternative Action is shown in Table S-2.

OTHER FUTURE AIR FORCE PROGRAMS AT PEACEKEEPER RAIL GARRISON BASES

A number of programs, some publicly announced and some classified, are being considered or programmed for deployment at some of the 11 bases. The publicly announced programs include possible deployment of Small Intercontinental Ballistic Missiles (ICBMs) at Malmstrom AFB, Montana and F.E. Warren AFB, Wyoming; deployment of a second squadron of KC-135R air refueling aircraft at Malmstrom AFB; deployment of B-2 bombers at Whiteman AFB, Missouri; and construction of a Central Radar System, Over-the-Horizon Backscatter radar facility at Grand Forks AFB, North Dakota. Discussion of the unclassified programs is included in the future baseline or cumulative

Table S-1

Direct Employment - Construction and Operations Phases
Peacekeeper Rail Garrison Program
Proposed and Alternative Actions

	F.E. Warren AFB	Barksdale AFB	Dyess AFB	Eaker AFB	Fairchild AFB	Grand Forks AFB	Little Rock AFB	Malmstrom AFB	Minot AFB	Whiteman AFB	Wurtsmith AFB
Proposed Action											
Construction Phase	624	505	533	476	507	429	515	439	440	437	520
Operations Phase	442	416	418	400	419	345	426	338	345	339	408
Alternative Action											
Construction Phase	687	549	576	516	550	465	558	474	476	472	562
Operations Phase	486	459	460	439	461	380	468	372	380	373	449

Notes: Construction phase data are for the peak year, 1992. For purposes of analysis and comparison, construction at all bases except F.E. Warren AFB is assumed to start in 1990 and finish in 1992. At F.E. Warren AFB, construction is assumed to start in 1989 and finish in 1994.

Operations phase data are for 1993 except for F.E. Warren AFB, which are for 1995. Employment at this level will continue for the life of the program.

Construction phase employment includes site activation task force, construction, assembly and checkout, and some military operations personnel. Operations phase workers are nearly all military personnel.

Table S-2

Summary of Area Disturbed by the Peacekeeper Rail Garrison Program
Proposed and Alternative Actions
(acres)

Base	Garrison Facilities		Support Facilities		Rail Spur		Relocated Facilities		Total		Grand Total
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary	
Proposed Action											
F.E. Warren (north)	52.8	93.2	19.2	71.1	17.5	19.9	1.0	0.0	90.5	184.2	309.1[1]
F.E. Warren (south)	52.8	91.2	20.7	76.9	6.0	4.7	1.0	0.0	80.5	172.8	287.7[1]
Barksdale	94.2	165.4	19.9	15.7	14.7	11.5	40.8	0.2	169.6	192.8	362.4
Dyess	53.6	101.4	8.8	10.7	10.4	16.5	8.5	10.5	81.3	139.1	220.4
Eaker (onbase)	67.1	140.7	29.7	30.1	10.9	8.5	6.2	1.0	113.9	180.3	294.2
Eaker (offbase)	50.0	52.0	29.3	32.6	8.2	6.4	0.0	0.0	87.5	91.0	178.5
Fairchild	95.7	129.0	39.8	66.2	16.9	26.3	16.2	9.2	168.6	230.7	399.3
Grand Forks	53.4	67.6	31.2	41.5	12.5	9.8	0.7	1.0	97.8	119.9	217.7
Little Rock	52.9	90.1	15.6	15.7	8.2	21.6	23.9	15.8	100.6	143.2	243.8
Malmstrom (south)	50.0	92.0	55.0	70.0	24.0	18.7	3.5	2.8	132.5	183.5	316.0
Malmstrom (east)	63.6	132.8	60.6	75.4	16.9	13.2	11.1	2.0	152.2	223.4	375.6
Minot	51.4	52.6	43.1	70.7	6.0	74.7	0.0	0.0	100.5	198.0	298.5
Whiteman	82.6	98.7	49.5	87.8	12.5	14.0	6.3	6.8	150.9	207.3	358.2
Wurtsmith	71.5	147.4	16.9	80.0	35.5	30.9	15.3	39.0	139.2	297.3	436.5
Alternative Action											
F.E. Warren (north)	62.4	124.6	19.2	71.1	16.4	19.1	1.0	0.0	99.0	214.8	348.2[1]
F.E. Warren (south)	62.7	116.3	20.7	76.9	5.5	4.2	1.0	0.0	89.9	197.4	321.7[1]
Barksdale	99.6	165.2	19.9	15.7	13.6	10.6	40.8	0.2	173.9	191.7	365.6
Dyess	60.3	124.7	8.8	10.7	10.4	16.5	8.5	10.5	88.0	162.4	250.4
Eaker (onbase)	72.7	147.9	29.7	30.1	10.9	8.5	6.2	1.0	119.5	187.5	307.0
Eaker (offbase)	54.9	68.1	29.3	32.6	8.2	6.4	0.0	0.0	92.4	107.1	199.5
Fairchild	100.3	146.5	40.0	66.4	16.9	26.3	16.2	9.2	173.4	248.4	421.8
Grand Forks	61.5	100.6	31.2	41.6	12.5	9.8	0.7	1.0	105.9	153.0	258.9
Little Rock	61.5	114.5	15.6	15.7	7.6	21.2	38.9	15.8	123.6	167.2	290.8
Malmstrom (south)	56.9	114.1	55.0	70.0	24.0	18.7	4.0	2.8	139.9	205.6	345.5
Malmstrom (east)	70.3	160.6	60.6	75.4	16.9	13.2	11.1	2.0	158.9	251.2	410.1
Minot	56.9	75.1	43.1	70.9	6.0	74.7	0.0	0.0	106.0	220.7	326.7
Whiteman	86.9	152.0	49.5	87.8	12.5	14.0	6.3	6.8	155.2	260.6	415.8
Wurtsmith	80.5	189.8	16.9	80.0	34.9	30.5	15.3	39.0	147.6	339.3	486.9

Note: [1]Disturbed area totals for F.E. Warren AFB (north and south site options) include 11.9 acres of permanent and 22.5 acres of temporary disturbance for construction of MOB facilities.

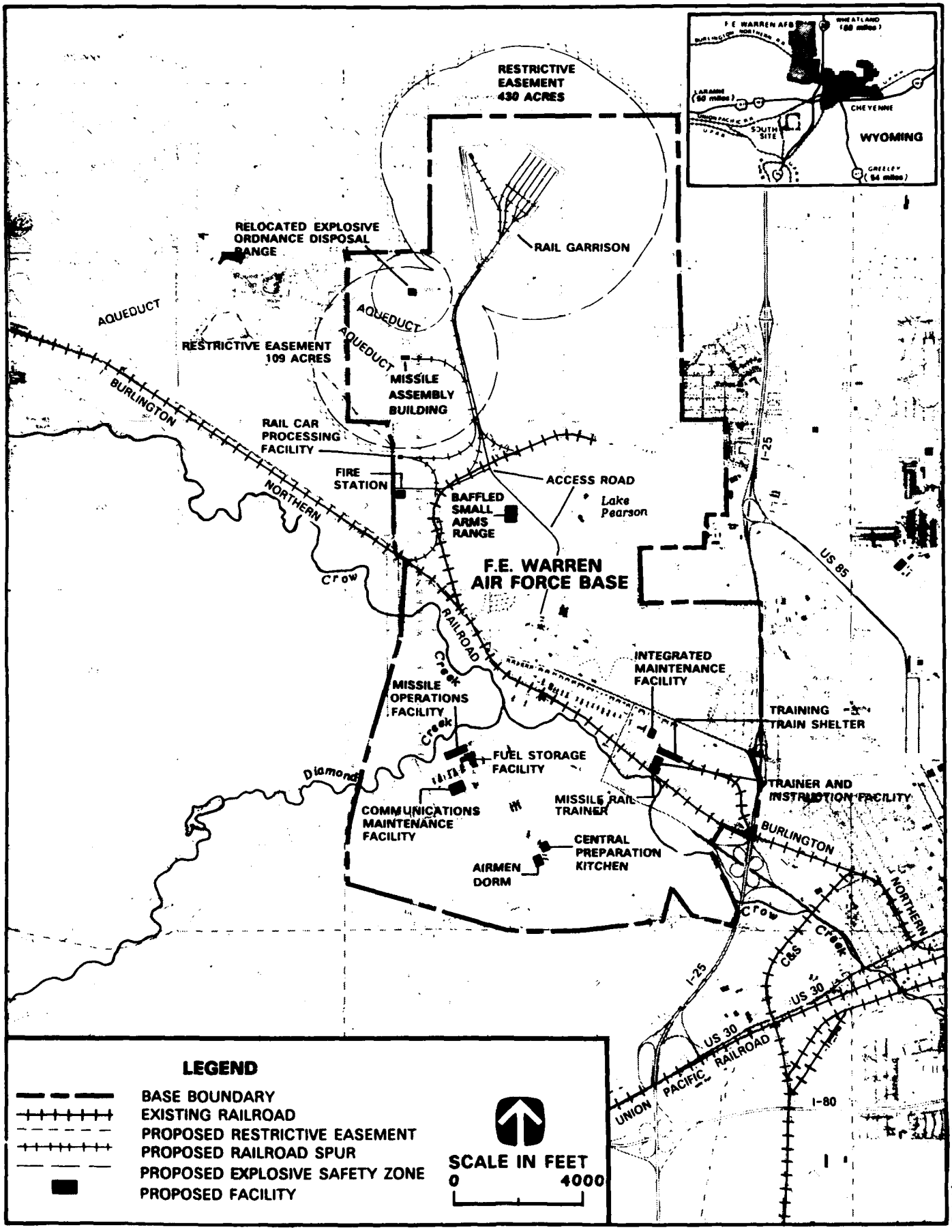

FIGURE S-19 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT F.E. WARREN AFB, WYOMING (NORTH SITE OPTION) (ALTERNATIVE ACTION)

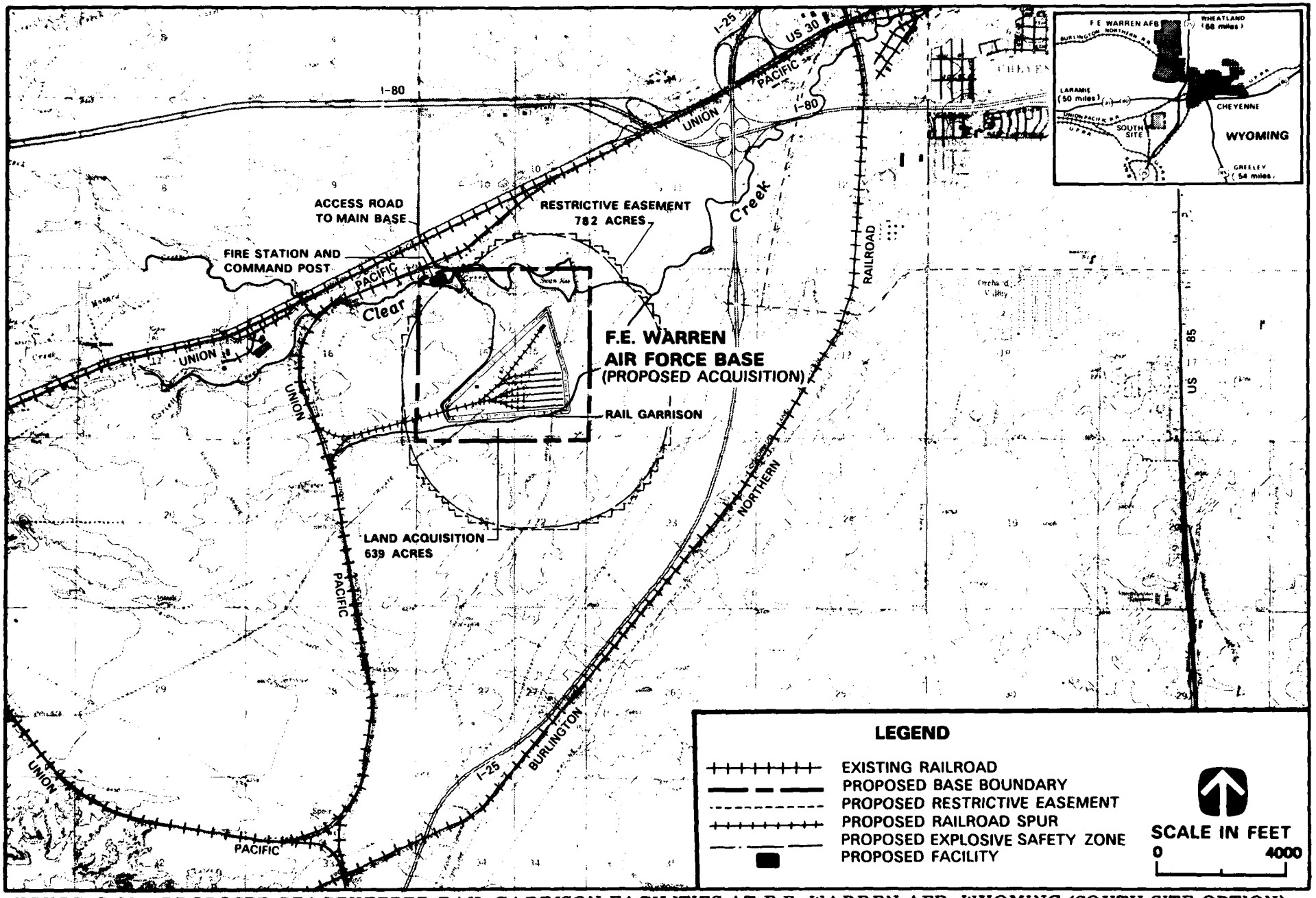

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FIGURE S-20 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT F.E. WARREN AFB, WYOMING (SOUTH SITE OPTION) (ALTERNATIVE ACTION)

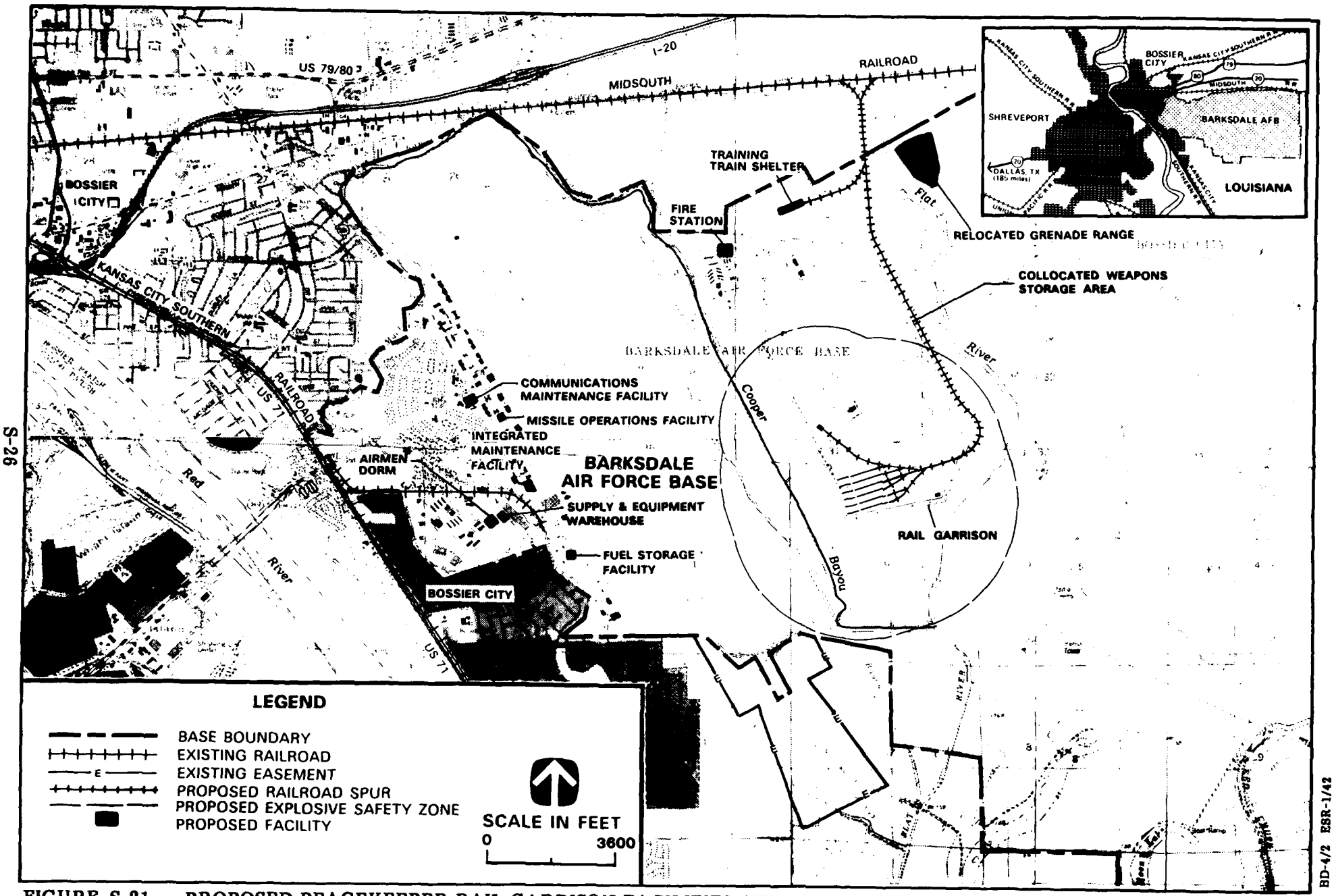

FIGURE S-21 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT BARKSDALE AFB, LOUISIANA (ALTERNATIVE ACTION)

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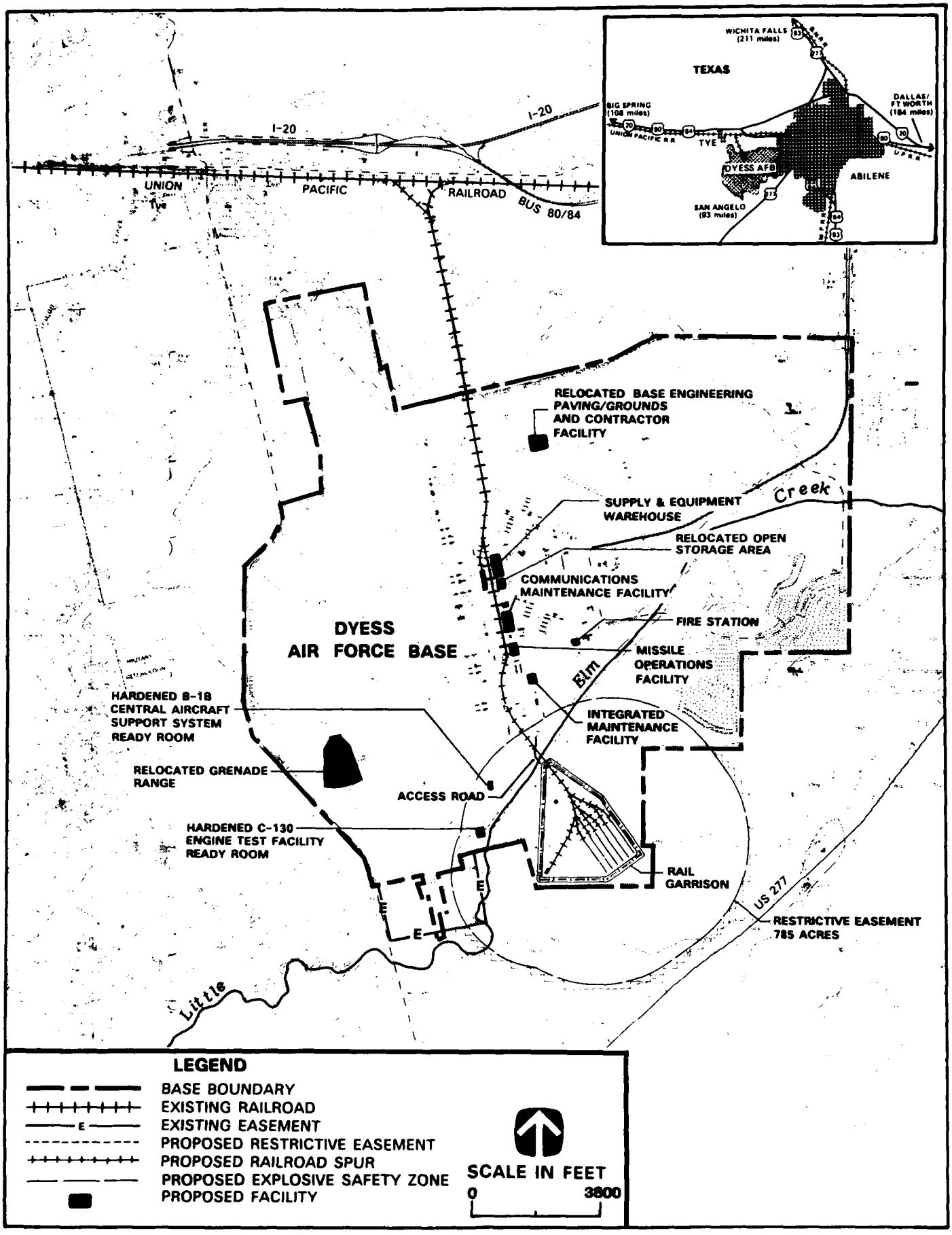

FIGURE S-22 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT DYESS AFB, TEXAS (ALTERNATIVE ACTION)

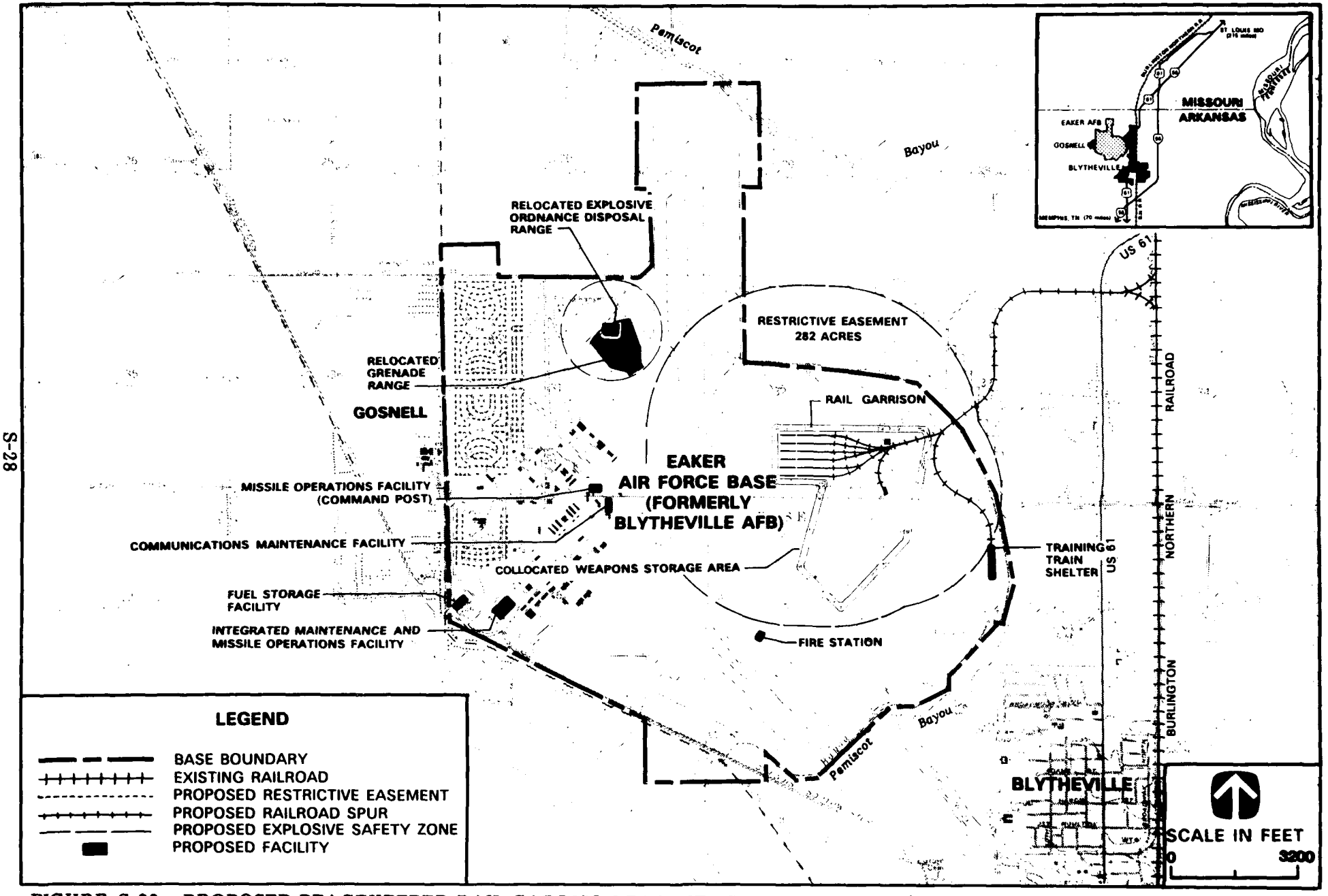

FIGURE S-23 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT EAKER AFB (FORMERLY BLYTHEVILLE AFB), ARKANSAS (ONBASE OPTION) (ALTERNATIVE ACTION)

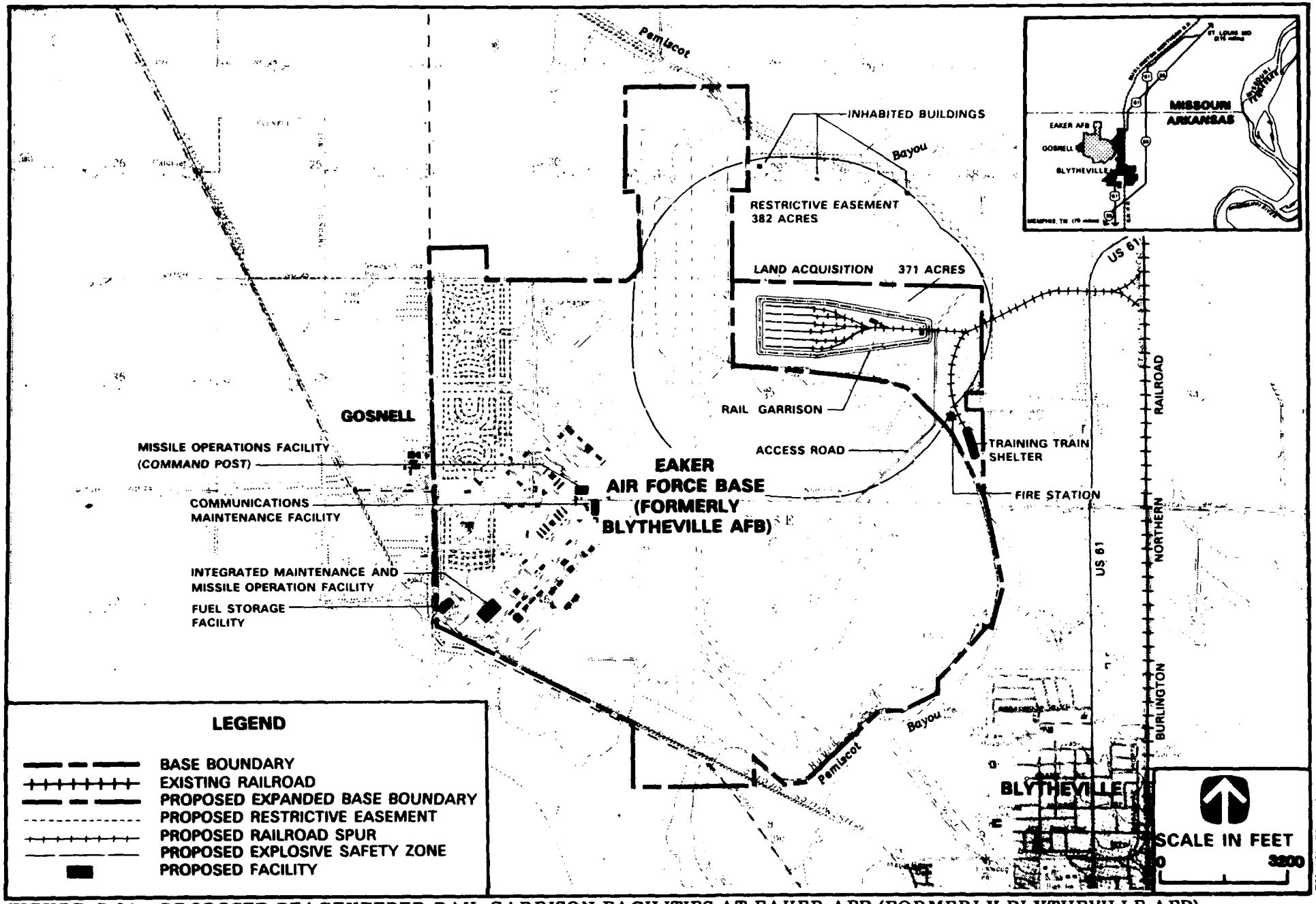

FIGURE S-24 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT EAKER AFB (FORMERLY BLYTHEVILLE AFB), ARKANSAS (OFFBASE OPTION) (ALTERNATIVE ACTION)

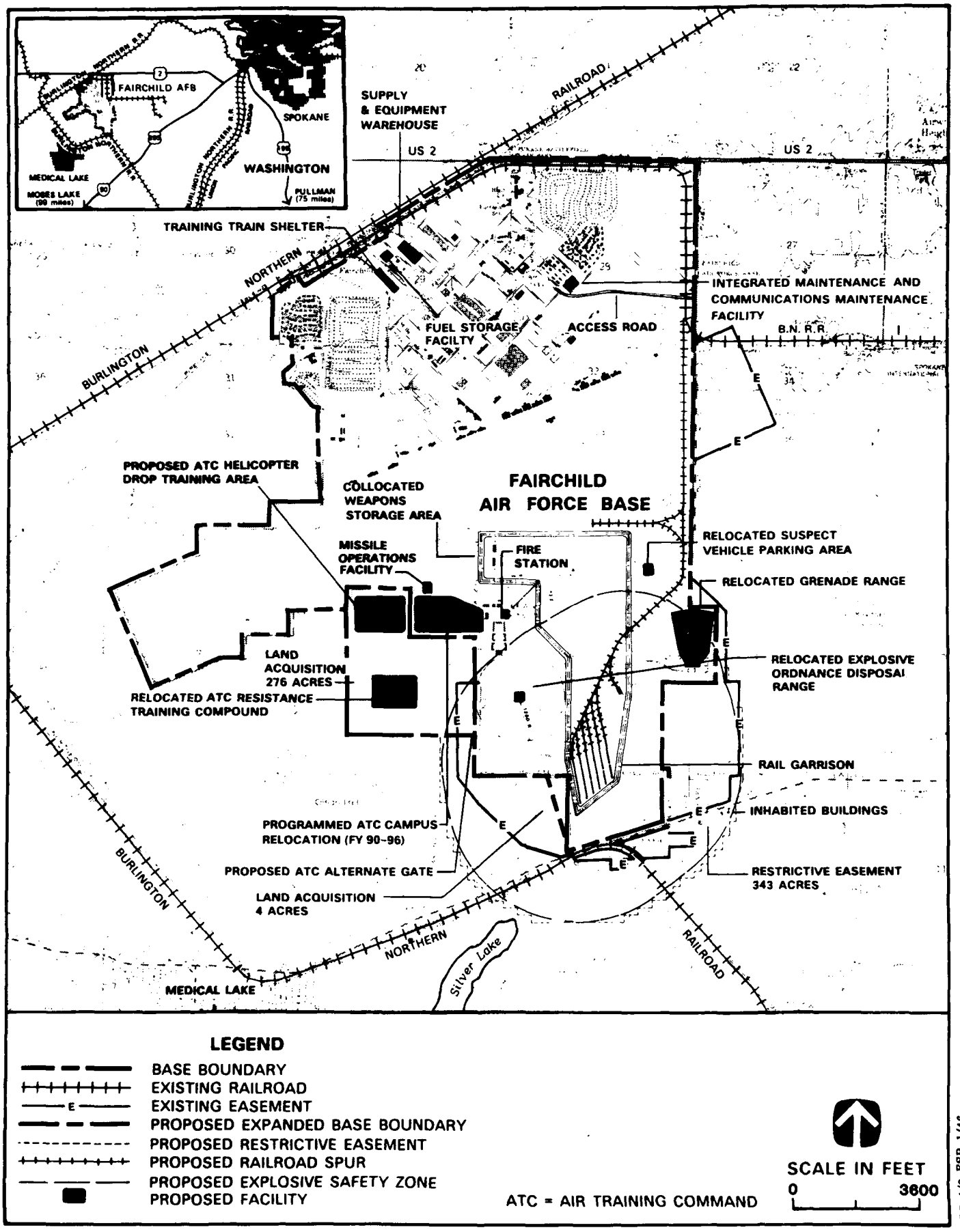

FIGURE S-25 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT FAIRCHILD AFB, WASHINGTON (ALTERNATIVE ACTION)

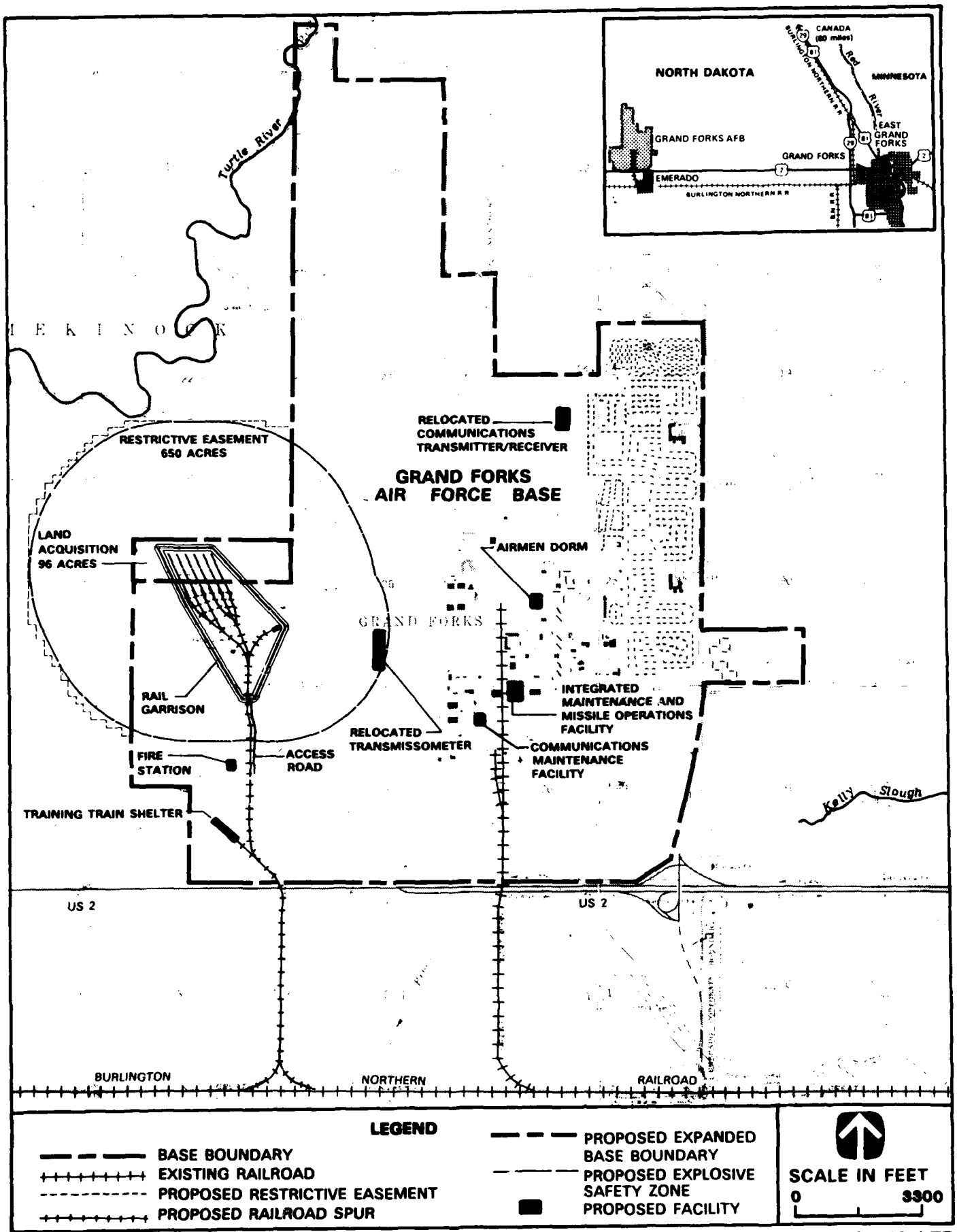

FIGURE S-26 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT GRAND FORKS AFB, NORTH DAKOTA (ALTERNATIVE ACTION)

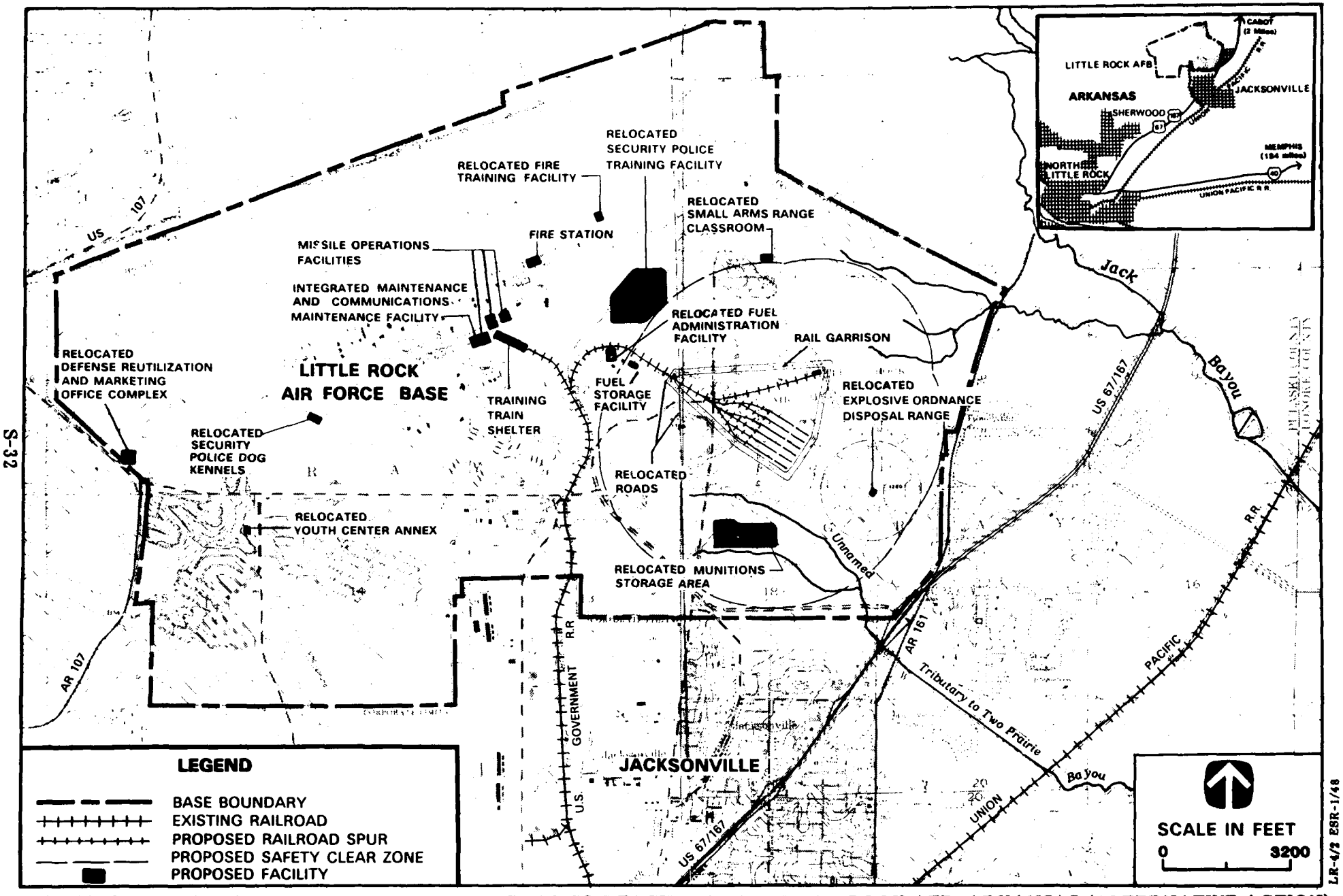

FIGURE S-27 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT LITTLE ROCK AFB, ARKANSAS (ALTERNATIVE ACTION)

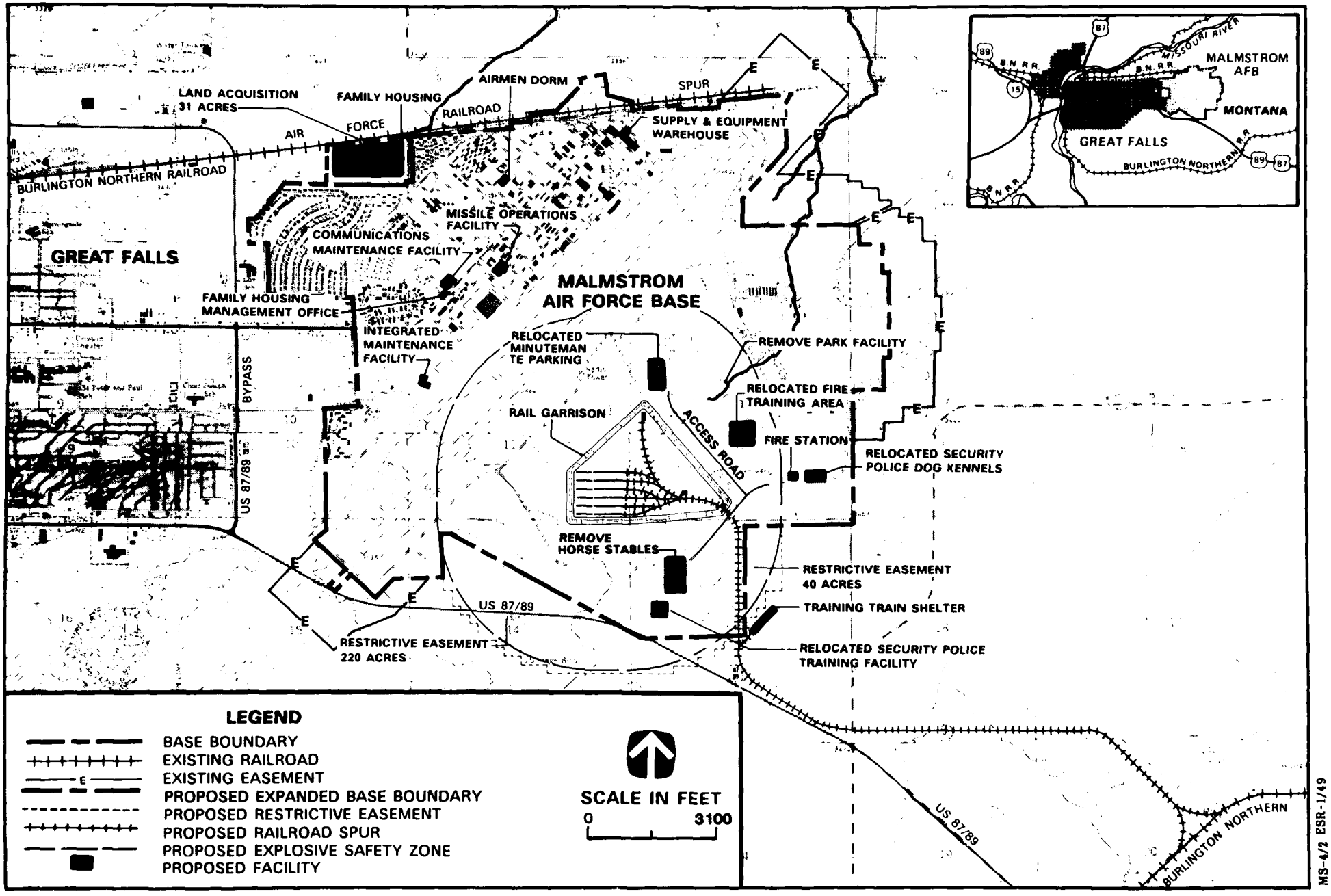

FIGURE S-28 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT MALMSTROM AFB, MONTANA (SOUTH SITE OPTION) (ALTERNATIVE ACTION)

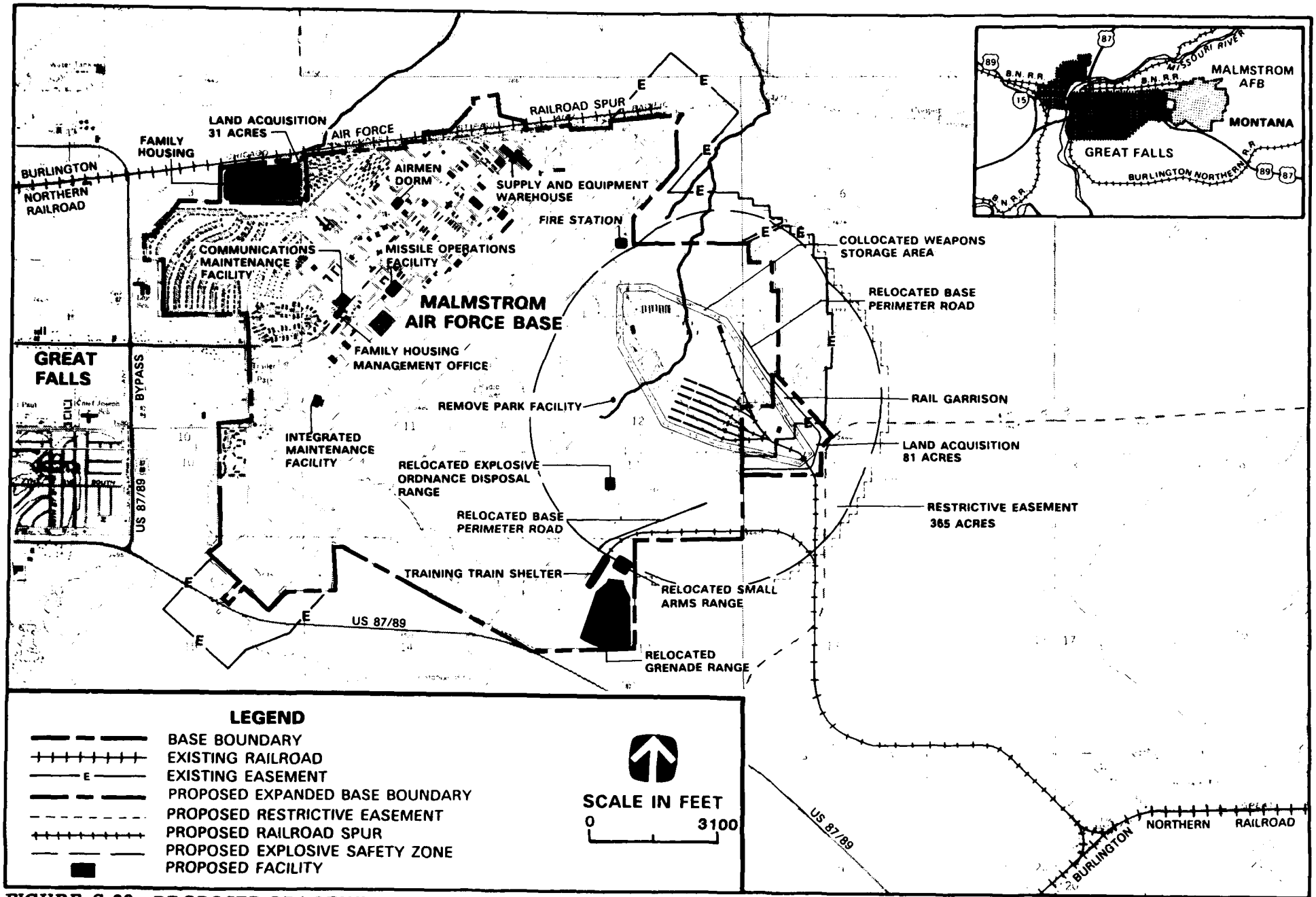

FIGURE S-29 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT MALMSTROM AFB, MONTANA (EAST SITE OPTION) (ALTERNATIVE ACTION)

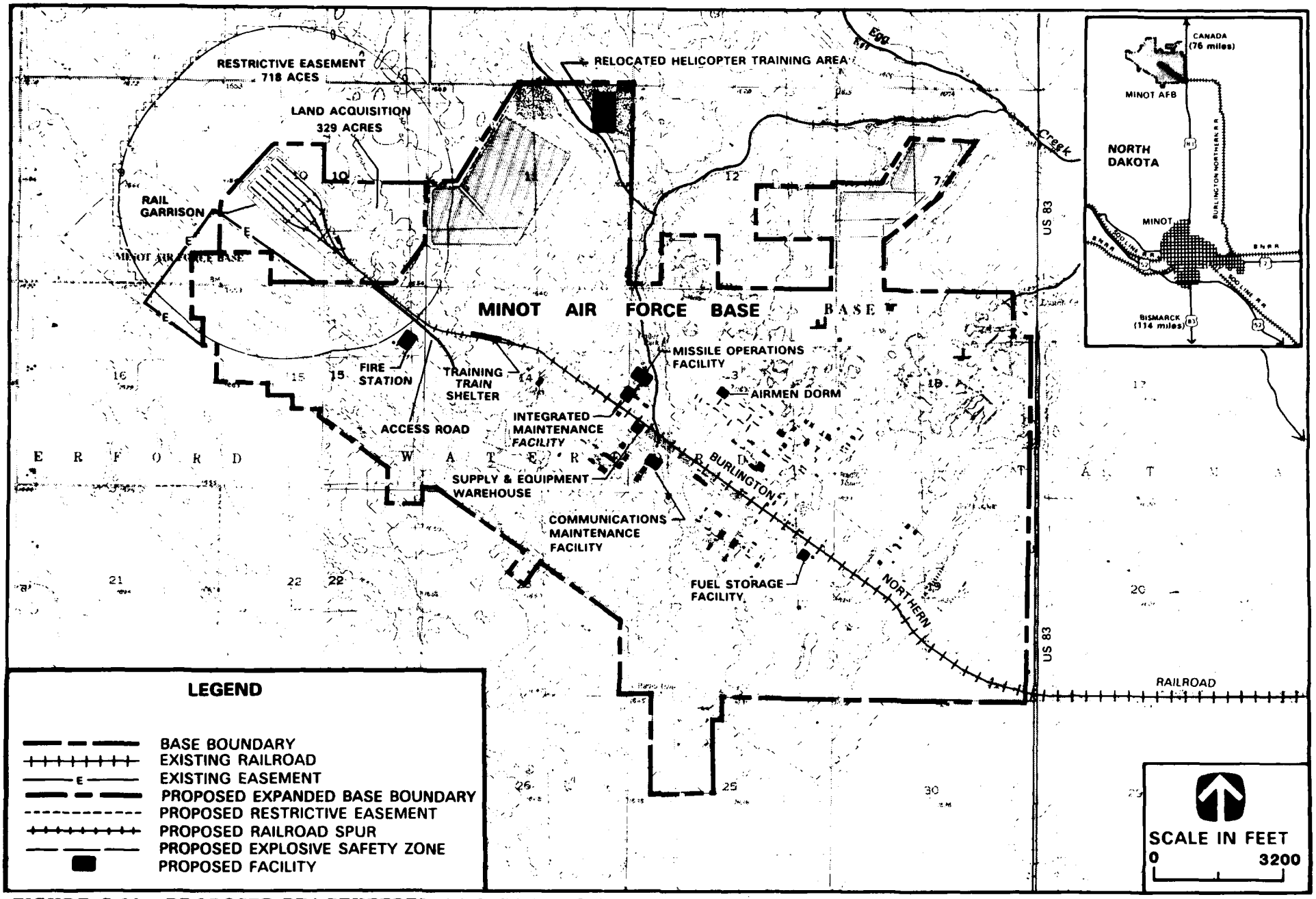

FIGURE S-30 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT MINOT AFB, NORTH DAKOTA (ALTERNATIVE ACTION)

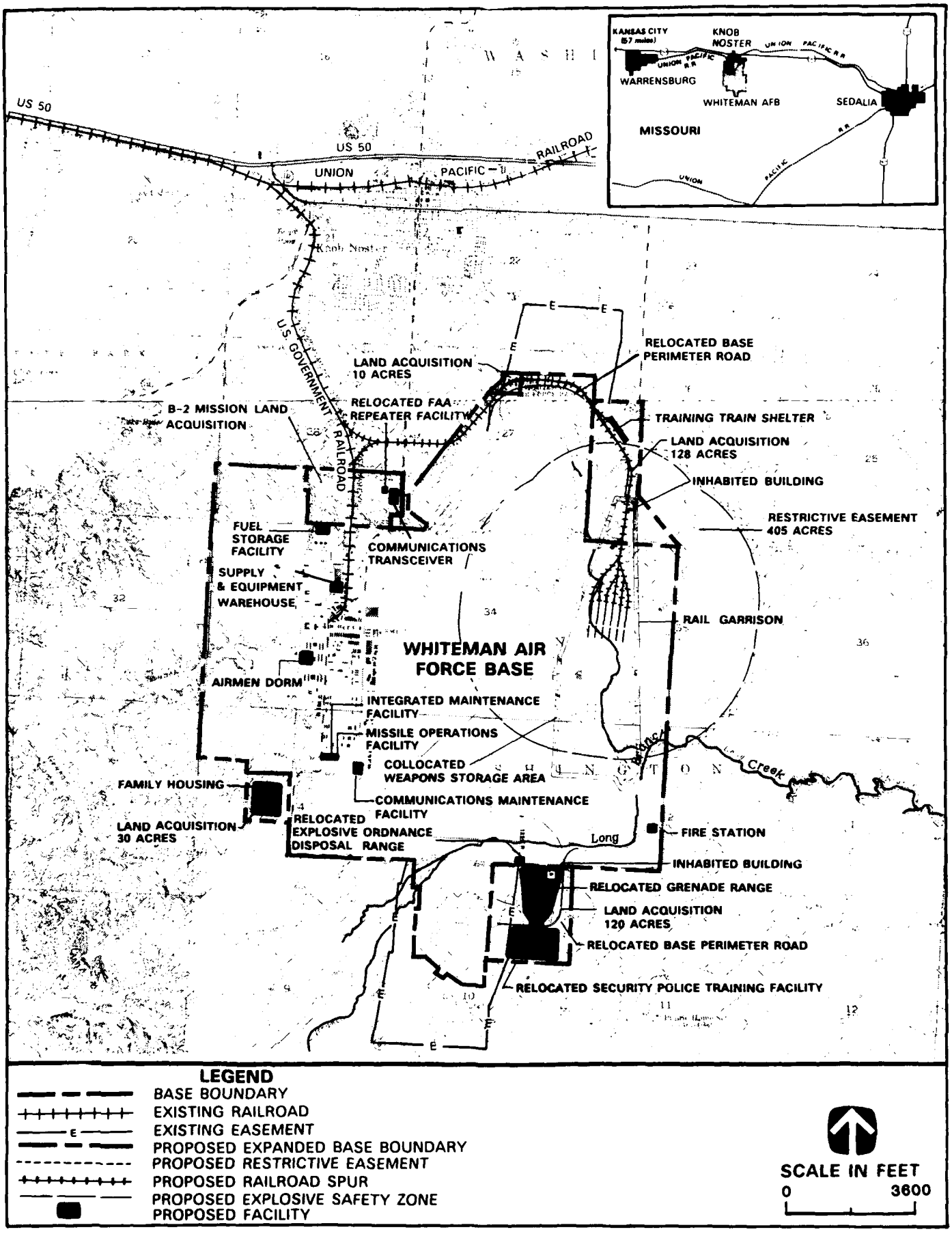

FIGURE S-31 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT AT WHITEMAN AFB, MISSOURI (ALTERNATIVE ACTION)

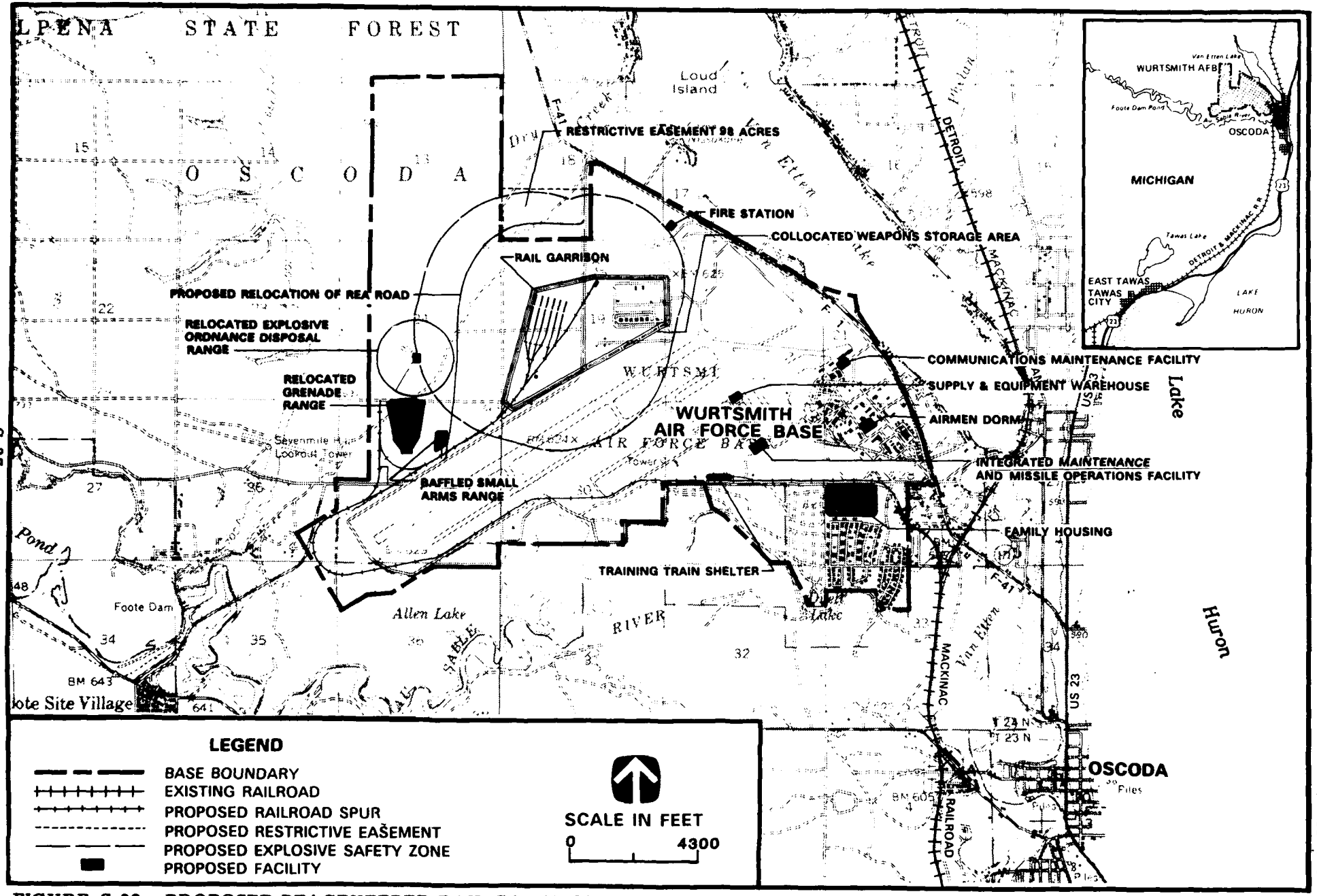

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FIGURE S-32 PROPOSED PEACEKEEPER RAIL GARRISON FACILITIES AT WURTSMITH AFB, MICHIGAN (ALTERNATIVE ACTION)

impact sections as appropriate. The cumulative environmental impacts of classified programs are covered in a classified annex to this EIS.

DECOMMISSIONING

It is difficult to predict how the Peacekeeper Rail Garrison system would be decommissioned. The relevant laws and procedures may change substantially in the 20 or more years the system would be in use. Moreover, techniques for handling the disposal of obsolete missile fuel and the reclamation or disposal of the nuclear material contained in the warheads may well change during the period the Peacekeeper is actively deployed. Consequently, the Air Force has focused this EIS on those actions which are reasonably foreseeable. The Air Force will follow all relevant laws at the time of decommissioning.

ENVIRONMENTAL IMPACT ANALYSIS PROCESS

In 1987, Congress appropriated $350 million for Peacekeeper Rail Garrison research and development. The Senate Armed Services Committee report that accompanied the fiscal year 1988-1989 Department of Defense Authorization Act (April 1987) urged the Air Force to continue to preserve the option for an early 1990s deployment, including the conduct of siting studies and a site-specific EIS on the peacetime deployment and operation of the Peacekeeper Rail Garrison system. This EIS analyzes the potential environmental impacts of proposed deployment of the Peacekeeper Rail Garrison system at F.E. Warren AFB and up to ten other garrison installations. Within the EIS, program-related impacts are reported for ten resource categories at each location for the Proposed Action and the Alternative Action. These resource categories are: socioeconomics, utilities, transportation, land use, cultural, biological, water, geology and soils, air quality, and noise.

PUBLIC SCOPING PROCESS

The purpose of scoping is to identify the significant issues for study in the EIS, and to determine the scope of the research for each issue. Scoping activities were undertaken in response to federal requirements and as part of the assessment of environmental impacts of major federal actions. Preliminary data and information were collected from federal, state, and local government organizations in the areas near candidate deployment installations prior to scoping. Scoping meetings with the public and with governmental organizations were conducted during March and April 1988. A wide range of issues related to the physical and social environment, including safety considerations, were identified through the scoping process and have been incorporated into the analysis.

SUMMARY AND COMPARISON OF PROGRAM IMPACTS

The environmental consequences of the proposed Peacekeeper Rail Garrison program are evaluated in terms of the magnitude and significance of impacts. Magnitude is a measure of the numbers and kinds of environmental consequences of the program as compared to existing and future baseline conditions. Magnitude is defined by the level of impact (LOI), which can be negligible, low, moderate, or high. Significance requires consideration of both the context and the intensity of impacts. Context includes consideration of whether impacts are of short or long duration. Intensity refers to the severity of an impact, which includes consideration of its magnitude.

The LOI and significance of short- and long-duration impacts were evaluated separately. Short-duration impacts are transitory effects of the proposed program that are generally caused by construction activities or the starting of operations. Long-duration impacts would occur over an extended period of time, whether they begin in the construction phase or the operations phase. Most impacts from the operations phase are expected to be of long duration because program operations essentially represent a steady-state condition (i.e., impacts result from actions that occur repeatedly over a long period of

time). However, long-duration impacts can also be caused by construction activities if a resource is destroyed or irreparably damaged, or if the recovery rate of the resource is very slow.

This summary highlights the major findings from the environmental analysis. First, the impacts on the national economy and national railroad network are presented. Second, the significant adverse impacts at F.E. Warren AFB and each candidate deployment location are presented. Finally, the conclusions of an extensive safety analysis are discussed.

National Economic Impacts

The Peacekeeper Rail Garrison program is expected to cost between $10 billion and $15 billion (in 1986 dollars) including expenditures for research and development, production, construction, and operations over the system's lifetime. Peak annual expenditures during the deployment period would occur in 1991, amounting to $2.8 billion. Annual costs for operation and support of the program over a 20-year period are projected at about $0.2 billion.

Total (direct and secondary) employment generated by the program is expected to increase from 40,000 jobs in 1989 to 148,000 jobs in 1991 at the peak of nationwide program expenditures. About 59,000 of these peak year jobs would be in manufacturing, with the remainder distributed among other sectors of the economy. By 1994, total program-related employment is projected to be at a steady-state level of about 12,000 jobs.

National Rail Transportation Impacts

For the purpose of analyzing the Proposed Action, 2 Peacekeeper trains are assumed to be deployed at F.E. Warren AFB, the MOB, and 23 at other garrison installations. Initial deployment of the Peacekeeper trains, which would involve 11 to 12 train trips per year for two years, would have negligible effects on the normal operations of the commercial railroads. If all 25 Peacekeeper trains are dispersed on the commercial rail network simultaneously, an additional 25 train trips per day would be generated for the duration of the dispersal activity. Compared to the 5,000 to 7,000 daily train trips on the nation's rail network, the additional trips are considered insignificant.

For the Alternative Action, 4 Peacekeeper trains are assumed to be deployed at F.E. Warren AFB, the MOB, and 46 at other garrison installations. If all 50 trains are dispersed on the commercial rail network simultaneously, the additional 50 train trips per day for the duration of dispersal activity would likewise have an insignificant effect on the nation's rail network.

Comparative Analysis of Environmental Impacts of the Proposed and Alternative Actions by Candidate Garrison Installation

The construction and deployment of the Peacekeeper Rail Garrison program at each candidate garrison installation would result in both beneficial and adverse environmental impacts. Beneficial socioeconomic effects, such as increases in employment and income and greater utilization of vacant housing, would occur at all locations and are not discussed further. Significant adverse impacts occurring at the MOB (F.E. Warren AFB, Wyoming) and at each of the other ten candidate garrisons are presented to provide an overview of the extent of programwide impacts on ten resource categories: socioeconomics, utilities, transportation, land use, cultural, biological, water, geology and soils, air quality, and noise. Cumulative impacts including those associated with other potential programs in conjunction with the Proposed Action and the Alternative Action are also presented (Figures S-33 and S-34). Impacts which are not considered significant are not discussed in this summary text but are shown in Figures S-33 and S-34.

PROPOSED ACTION IMPACTS

ENVIRONMENTAL RESOURCES → / IMPACT DURATION → / CANDIDATE BASES ↓	SOCIOECONOMICS*		UTILITIES		TRANSPORTATION		LAND USE		CULTURAL RESOURCES		BIOLOGICAL RESOURCES		WATER RESOURCES		GEOLOGY AND SOILS		AIR QUAILITY		NOISE	
	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR	SHORT DUR	LONG DUR
F.E. WARREN AFB (NORTH)	○	○		○	○	○	○	○		●	○	○	○	○	◯	○				
F.E. WARREN AFB (SOUTH)	○	○		○	○	○	○	○		●	○	○	◯	○	◯					
F.E. WARREN AFB (CUMULATIVE)	●	●		◯	●	●	●	●		●	○	○	○	◯	◯	●				
BARKSDALE AFB	○	○		○	●	●				◯	○	●	◯	○	◯				◯	
DYESS AFB					○	○					○	○	○	○	◯				○	
EAKER AFB (ONBASE)	○	○		◯			◯	◯		●			○	○	◯				◯	
EAKER AFB (OFFBASE)	○	○		◯			●	●		●			○	○	◯				◯	
FAIRCHILD AFB	○	○		○			●	●			○	●	○	○	◯					
GRAND FORKS AFB	○	○		○			○	○			○	○	○	○	◯	○				
LITTLE ROCK AFB	○	○		○							○	◯	○	○	◯					
MALMSTROM AFB (SOUTH)	●	●		○	●	●					○	○	○	○	◯				◯	
MALMSTROM AFB (EAST)	●	●		○	●	●	◯	◯			○	○	○	○	◯				◯	
MALMSTROM AFB (CUMULATIVE)	●	●		◯	●	●	◯	◯		○	◯	◯	○	◯	◯	●			◯	
MINOT AFB	○	○		○	○	○					○	◯	○	○	◯	○				
WHITEMAN AFB	◯	◯		◯	○	○	●	●		○	○	●	◯	○	◯				◯	
WURTSMITH AFB	●	◯		◯						○	○	●	◯	●	◯		◯		◯	

LEVEL OF IMPACT

	NOT SIGNIFICANT	SIGNIFICANT
NEGLIGIBLE		
LOW	○	●
MODERATE	◯	●
HIGH	◯	●

* Beneficial short- and long-duration impacts would occur at each location.

ESR-2/1 ESR-1/24

FIGURE S-33 IMPACTS ASSOCIATED WITH THE PROPOSED PEACEKEEPER RAIL GARRISON PROGRAM (PROPOSED ACTION)

ALTERNATIVE ACTION IMPACTS

ENVIRONMENTAL RESOURCES → / IMPACT DURATION → / CANDIDATE BASES ↓	SOCIOECONOMICS*		UTILITIES		TRANSPORTATION		LAND USE		CULTURAL RESOURCES		BIOLOGICAL RESOURCES		WATER RESOURCES		GEOLOGY AND SOILS		AIR QUALITY		NOISE	
	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.	SHORT DUR.	LONG DUR.
F.E. WARREN AFB (NORTH)	○	○		○	○	○	○	○		●	○	○	○	○	◯	○				
F.E. WARREN AFB (SOUTH)	○	○		○	○	○	○	○		●	○	○	◯	○	◯					
F.E. WARREN AFB (CUMULATIVE)	●	●		○	●	●	●	●		●	○	○	○	○	◯	●				
BARKSDALE AFB	○	○		○	●	●				○	○	●	◯	○	◯				○	
DYESS AFB					○	○					○	○	○	○	◯				○	
EAKER AFB (ONBASE)	○	○		◯			○	○		●			○	○	◯				○	
EAKER AFB (OFFBASE)	○	○		◯			●	●		●			○	○	◯				○	
FAIRCHILD AFB	○	○		○			●	●			○	●	○	○	◯					
GRAND FORKS AFB	○	○		○			○	○			○	○	○	○	◯	○				
LITTLE ROCK AFB	○	○		○							○	○	○	○	◯					
MALMSTROM AFB (SOUTH)	●	●		○	●	●					○	○	○	○	◯				○	
MALMSTROM AFB (EAST)	●	●		○	●	●	○	○			○	○	○	○	◯				○	
MALMSTROM AFB (CUMULATIVE)	●	●		◯	●	●	○	○		○	○	○	○	○	◯	●			○	
MINOT AFB	○	○		○	○	○					○	○	○	○	◯	○				
WHITEMAN AFB	○	○		○	○	○	●	●		○	○	●	○	○	◯				○	
WURTSMITH AFB	●	○		◯						○	○	●	○	●	◯		○		○	

LEVEL OF IMPACT

	NOT SIGNIFICANT	SIGNIFICANT
NEGLIGIBLE		
LOW	○	●
MODERATE	○	●
HIGH	○	●

* Beneficial short- and long-duration impacts would occur at each location.

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FIGURE S-34 IMPACTS ASSOCIATED WITH THE PROPOSED PEACEKEEPER RAIL GARRISON PROGRAM (ALTERNATIVE ACTION)

F.E. Warren Air Force Base, Wyoming. At F.E. Warren AFB, two siting options (north and south sites) are being considered. Impacts on all resources except cultural would not be significant for either siting option. The Proposed Action (for both siting options) is expected to result in significant long-duration impacts on cultural resources. These long-duration impacts at the north site would be moderate because 11 National Register of Historic Places (NRHP)-eligible sites and the Fort D.A. Russell/F.E. Warren National Register District would be affected. These impacts would be significant because of the NRHP recognition afforded the district. The long-duration cultural resource impacts at the south site would be low but also significant because the Fort D.A. Russell/F.E. Warren National Register District would continue to be affected either directly or through disturbance of sites outside but potentially associated with the district.

The LOI and significance ratings for all resources for both north and south siting options in the Alternative Action are the same as those in the Proposed Action.

The cumulative impacts of either the Proposed Action (north siting option) or the Alternative Action (north siting option) and the Small ICBM program would result in significant impacts for five resources. These are: socioeconomics, transportation, land use, cultural, and geology and soils. Short-duration socioeconomic impacts would be moderate and long-duration impacts would be high because inmigration would increase population in the Cheyenne area by 7.5 percent during construction (1995) and nearly 13 percent over baseline projections during operations (1991). These impacts would be significant because of the requirement for new housing and expanded school facilities, and the potential for revenue shortfalls in local jurisdictions.

Short- and long-duration transportation impacts would be high because the level of service rating along Randall Avenue would be reduced from B to D. These impacts would be significant because the level of service rating would drop to D, a substandard level. Short- and long-duration land use impacts would be low because one inhabited building is located within the land to be acquired in fee for the Small ICBM program. These impacts would be significant because the inhabited building within the explosive safety zone may require relocation. Long-duration cultural resource impacts would be high because of greater disturbance of historic sites. These impacts would be significant because of their national recognition. Long-duration geology and soil impacts would be moderate because of accelerated rates of erosion at the Small ICBM Hard Mobile Launcher (HML) vehicle operations training area, which would be barren for the life of the program. These impacts would be significant because soil erosion would result in an appreciable net loss of topsoil.

Impacts for all other resources would not be significant.

Barksdale Air Force Base, Louisiana. The Proposed Action at Barksdale AFB would result in significant impacts on transportation and biological resources. Both short- and long-duration impacts on transportation would be low because the level of service rating along Barksdale Boulevard would not change, remaining at D. These impacts would be significant because program-induced traffic would aggravate existing congested conditions. Long-duration impacts on biological resources would be high because the program would affect large areas, cause disturbances in surrounding wetland habitats, affect sensitive wildlife populations, and result in the degradation of local and regional biological communities. These impacts would be significant because of the ecological importance of the habitat and the concern these potential impacts would cause in natural resource management agencies.

Impacts for all other resources would not be significant.

The LOI and significance ratings for all resources with the Alternative Action are the same as those with the Proposed Action.

Dyess Air Force Base, Texas. The Proposed Action and the Alternative Action at Dyess AFB would not result in significant impacts on any resource.

Eaker Air Force Base, Arkansas. At Eaker AFB, two possible siting options (onbase and offbase sites) are being considered. The Proposed Action at Eaker AFB (onbase option) would result in significant impacts on cultural resources. Long-duration impacts on cultural resources would be high because construction would destroy portions of two sites, including a major prehistoric archaeological site, one of the most important of its kind in the region. These impacts would be significant because of the loss of its considerable research potential, reflected in its eligibility for the NRHP.

Impacts on all other onbase option resources would not be significant.

The Proposed Action at Eaker AFB (offbase option) would result in significant impacts on two resources: land use and cultural. Short- and long-duration impacts on land use would be low because one inhabited building is located within the proposed explosive safety zone. These impacts would be significant because one inhabited building may require relocation. Long-duration impacts on cultural resources would be low because two prehistoric sites of a type common in the region would be disturbed. These impacts would be significant because of the sites' research potential.

Impacts on all other offbase option resources would not be significant.

The LOI and significance ratings for all resources with the Alternative Action (both onbase and offbase options) are the same as those with the Proposed Action.

Fairchild Air Force Base, Washington. The Proposed Action at Fairchild AFB would result in significant impacts on land use and biological resources. Short- and long-duration land use impacts would be moderate because of impacts on visual attributes, and because one inhabitable building is within the explosive safety zone. These impacts would be significant because of the necessity to relocate the inhabitable building. Long-duration impacts on biological resources would be moderate because wetland areas would experience permanent disturbance and several federal-candidate and state-recognized sensitive species would likely be affected. These impacts would be significant because of the ecological importance of the habitats and the concern these potential wetland impacts would cause in natural resource management agencies.

Impacts for all other resources would not be significant.

The LOI and significance ratings for all resources with the Alternative Action are the same as those with the Proposed Action.

Grand Forks Air Force Base, North Dakota. The Proposed and Alternative Actions at Grand Forks AFB would not result in significant impacts on any resource.

Little Rock Air Force Base, Arkansas. The Proposed and Alternative Actions at Little Rock AFB would not result in significant impacts on any resource.

Malmstrom Air Force Base, Montana. At Malmstrom AFB, two possible siting options (south and east sites) are being considered. The Proposed Action (both south and east options) would result in significant impacts on socioeconomics and transportation. Short- and long-duration socioeconomic impacts (both south and east options) would be low because program-induced inmigration would cause population increases of 1.3 percent over baseline levels during construction (1992) and 1.1 percent over baseline levels during operations (1993). This level of program-induced population growth would result in low impacts on housing, education, public services, and public finances in the Great Falls area for both the peak and succeeding years. However, additional program-related population could aggravate existing overcrowded conditions in the Cascade County jail,

generating a significant impact for public services. Short- and long-duration transportation impacts (both south and east options) would be moderate because the level of service rating for segments of 10th Avenue South would further degrade existing D and E ratings. These impacts would be significant because program-induced traffic would aggravate existing congested conditions.

Impacts for all other resources would not be significant.

The LOI and significance ratings for all resources with the Alternative Action (both south and east siting options) are the same as those with the Proposed Action.

The cumulative impacts of either the Proposed or Alternative Actions, a second KC-135R squadron, and the proposed Small ICBM program would result in significant impacts on three resources: socioeconomics, transportation, and geology and soils. Both short- and long-duration socioeconomic impacts would be high because inmigration would increase population in the Great Falls area by more than 13 percent above baseline projections during the construction phase and 12.3 percent over baseline during operations. These impacts would be significant because of the need for expanded school facilities near the base, the aggravation of existing overcrowded conditions in the Cascade County jail, and revenue shortfalls in Cascade County. Both short- and long-duration transportation impacts would be high because the level of service rating for segments of 10th Avenue South would be reduced from D to E, and E to F. These impacts would be significant because the level of service would drop to lower substandard levels. Long-duration geology and soils impacts would be moderate for soil erosion because of increased rates of soil loss resulting from the deployment of the three programs. These impacts would be significant because of the permanent disturbance of 350 acres in the Small ICBM HML vehicle operations training area which would be barren for the life of the program, resulting in an appreciable loss of topsoil.

Minot Air Force Base, North Dakota. The Proposed and Alternative Actions at Minot AFB would not result in significant impacts on any resource.

Whiteman Air Force Base, Missouri. The Proposed Action at Whiteman AFB would result in significant impacts on two resources: land use and biological. Short- and long-duration land use impacts would be low because two inhabited buildings are within the explosive safety zone or on land to be acquired. These impacts would be significant because inhabited buildings may require relocation. Long-duration biological resources would be moderate because important wetland and forest habitat would be lost and the wildlife inhabiting those areas would be affected. These impacts would be significant because of the ecological importance of the habitats affected and the concern these potential impacts would create in natural resource management agencies.

Impacts on all other resources would not be significant.

The LOI and significance ratings for all resources with the Alternative Action are the same as those with the Proposed Action.

Wurtsmith Air Force Base, Michigan. The Proposed Action at Wurtsmith AFB would result in significant impacts on three resources: socioeconomics, biological, and water. Short-duration impacts on socioeconomics would be moderate because the program-related inmigration would cause population in the Oscoda area to increase by 7.6 percent over baseline forecasts in 1992 and by 7.2 percent in 1993. These impacts would be significant because of a potential shortage of temporary housing during the construction phase of the program.

Long-duration impacts on biological resources would be moderate because disturbances of the wetland areas onbase and offbase would be of concern, local drainage patterns would be altered, and the wildlife populations inhabiting those areas would be affected.

These impacts would be significant because of the ecological importance of the habitats which would be affected and the concern these impacts would create in natural resource management agencies. Long-duration impacts on water resources would be low because the additional water needed to supply program requirements is expected to have only a minor effect on local groundwater drawdown. These impacts would be significant because program water needs would be drawn from wells vulnerable to groundwater contamination from adjacent areas of the local aquifer.

Impacts on all other resources would not be significant.

The LOI and significance ratings for all resources with the Alternative Action are the same as those with the Proposed Action.

Safety Considerations

Public safety has been and will continue to be of utmost concern throughout the development and deployment of the Peacekeeper Rail Garrison system. Safety programs implemented during the original Peacekeeper in Minuteman Silos development are being continued and those involving deployment are being revised and expanded to reflect the Rail Garrison mobile basing concept. The analysis of safety concerns associated with the proposed deployment of the Peacekeeper Rail Garrison system included an evaluation of the risks posed by rail, air, and truck transportation of the missile stages and warheads. The potential for fires, explosions, and radioactive and nonradioactive material releases was evaluated. In addition, risk to the missile crews from exposure to radiation during day-to-day operations (the "mishap-free" risk) was analyzed along with the mishap-free risk to the general public which might exist during dispersal operations.

The analysis showed that while there is a very slight potential for mishaps with the deployment of the Peacekeeper Rail Garrison system, the system would be safe and would pose a negligible risk to human health and the environment. In the absence of a mishap, the materials in the Peacekeeper missile would not impose a health risk to those who would be exposed to them on a daily basis or to the general public.

All Peacekeeper Rail Garrison trains are expected to have a substantially better safety record than commercial rail traffic because the Peacekeeper locomotives and cars would be the most modern available, contain special safety features, be better maintained, and would be subjected to less wear than commercial rolling stock. If there were a mishap involving a train carrying missiles, protection would be afforded the missile by the launch canister and the missile launch car structure. Further, the inherent stability of the solid propellants make the missile an unlikely source of explosion or fire. Operational Peacekeeper trains have the added potential of a mishap involving radioactive materials. In the exceedingly unlikely event of a fire or explosion causing airborne dispersal of radioactive materials, the chance of exposed persons eventually developing cancer would increase. Though the consequence of developing cancer is considered serious, radioactive material dispersal is so unlikely to occur that it is considered a negligible risk.

The proposed routine uses of the national rail network are for training trains, for occasional movement of missiles (without warheads) between garrison installations and the MOB (F.E. Warren AFB, Wyoming) for maintenance, and for transferring a small number of missiles to Vandenberg AFB, California, for flight testing. Since the training trains would not carry missiles or warheads, there would be no additional hazard from the train cargo in a mishap. The train transport of missiles (without warheads) for maintenance and flight testing would involve a few trips and constitute a very small risk.

Air transport will be the primary means of moving the reentry systems, with nuclear warheads, to the deployment installations. The reentry system would be transported to the deployment bases by nuclear-certified Air Force aircraft and crews. The probability

of a mishap during air transport of the reentry systems is extremely small. In fact, the Air Force Special Cargo Squadron that handles these systems has transported nuclear materials for 25 years and has never experienced a mishap which created possibility of damage to the reentry system.

In the unlikely event of a mishap, the Department of Defense (DOD) and the U.S. Environmental Protection Agency (EPA) would respond by deploying teams specially trained and equipped to deal with any contingency. The control of access to the site, fires, and the rescue and treatment of casualties would be the most immediate concerns, and DOD teams would assist responding local, state, and federal agencies with these efforts. Recovery and safe removal of any weapons would begin as soon as DOD or U.S. Department of Energy explosive ordnance disposal and emergency response personnel arrive at the site. If radioactive materials were dispersed, the public would be kept at a safe distance and all contaminated areas would be treated to comply with EPA cleanup standards.

United States nuclear weapons include safety and arming mechanisms that assure that there is virtually no possibility of an inadvertant nuclear detonation during transportation or handling of the reentry system, or when it is on alert. There has never been even a partial nuclear detonation of a United States nuclear weapon as a result of a mishap. The few past mishaps involving nuclear weapons have imposed forces on the weapons as great as those which could result from a Peacekeeper Rail Garrison mishap. The Peacekeeper weapons can withstand these forces -- and even greater ones -- without resulting in a nuclear detonation.

No Action Alternative

With this alternative, the Peacekeeper Rail Garrison system would not be deployed. Activities at F.E. Warren AFB and the other candidate Air Force installations will continue to support other existing or proposed missions.

Mitigation Measures

Mitigation measures are undertaken to minimize the adverse environmental impacts of a given program. For the Peacekeeper Rail Garrison program, efforts have been made in the planning process and will continue to be made to avoid environmentally sensitive areas and thereby eliminate or reduce program impacts. In addition, other mitigation programs may be employed to rehabilitate or restore the affected environment or to reduce or eliminate impacts through preservation procedures.