

2.3 Alternatives

The action alternatives discussed in this section were developed to meet Fort Irwin's maneuverable training area needs. This process involved Army, BLM, cooperating agencies, and public participation. The alternatives carried forward for detailed analysis in this SDEIS are configured primarily in response to training deficiencies identified in the LURS (Refer to Appendix A for details). In order to comply with NEPA, alternatives outside of the congressionally withdrawn areas are evaluated. The action alternatives described in this section include a range of considerations including, but not limited to: redesigning or reconfiguring training options at the NTC to avoid and/or minimize new land acquisitions, the ongoing Army Transformation, the West Mojave Plan and the CDCA, terrain slope and suitability, minimizing the impact on natural and cultural resources, and modifying existing airspace corridors. Also described in this section is a No Action Alternative.

2.3.1 Evaluation Criteria

In evaluating the five action alternatives, the following selection criteria were considered and used in determining which alternatives best met the Army's need for additional maneuverable training areas:

- ❖ The amount of useable maneuverable training area;
- ❖ Minimizing the amount of use for a specified maneuverable training area;
- ❖ Accessibility to the cantonment area;
- ❖ Airspace utilization;
- ❖ Facilitating joint training exercises (exercises using other military services);
- ❖ Ensure that size, shape, and configuration of alternatives are adequate to support and apply Joint Operations Doctrine (e.g., provide sufficient spaces and realistic distances for battlefield and air maneuvers, operations and support units, terrain diversity, access and proximity to airfields, rail systems, and roadways); and
- ❖ Consider constraints such as unusable land (e.g., steep slopes, proximity to the cantonment area and utility corridors), airspace, and sensitive environmental resources

such as critical habitat, wilderness areas, recreation areas, and historic and cultural resources.

2.3.2 Alternative I: East/West (Preferred Alternative)

Alternative I resulted from an evolution of previous alternatives discussed between the Army and the DOI between 1989 and 2000 (see Figure 2.2-1 for a graphic depiction of this evolution). This alternative was proposed by DA and DOI in 2000 and represents a compromise between previously proposed alternatives. The land area proposed in Alternative I is the land withdrawn by Congress. The total maneuverable training area proposed under this alternative is approximately 141,890 acres, which includes approximately 23,220 acres of Fort Irwin land in the UTM 90 area. The eastern portion of this alternative includes the South Avawatz Mountains and runs parallel southwest along the utility lines located in BLM Utility Corridor D. The southern and western areas of this alternative include the UTM 90 area, Superior Dry Lake, and a portion of the Paradise Mountains. This alternative requires approximately 126,960 acres of existing federal land, approximately 2,250 acres of state lands and approximately 12,680 acres of private lands to be set aside for military maneuver training.

The approximate 48,630-acre eastern parcel in the Avawatz area is sought to provide maneuver training land and logistics support areas to extend the central training corridor of Fort Irwin. Reopening the lands in the southern corridor (approximately 23,220 acres between the UTM 90 line and the southern Fort Irwin boundary) would widen and extend the southern training corridor for maneuver training. The western parcel (approximately 70,050 acres) in the upper Superior Valley provides an extension to the southern corridor for maneuver and logistics sites.

Areas with slopes greater than 20 percent are generally considered too steep for maneuver training; however, they may be used for observation posts and training for dismounted infantry, and other training purposes. Appendix F (*NTC and Fort Irwin Operational Information*) provides examples of training scenarios that could be used for maneuver training.

In order to facilitate the use of Superior Valley, the Army proposes to improve a current route through Goldstone. NASA Goldstone occupies approximately 33,030 acres northwest of the cantonment area of Fort Irwin on land permitted for that use by the Army. The proposed NASA Goldstone Route will be used to transport troops and equipment between the cantonment area of Fort Irwin and the Superior Valley parcel of the project area. This improved road will not

only allow vehicles to travel with ease over the surface and without the hazard of washouts and impassible conditions, but also will minimize dust generation. The proposed improved route is already a graded dirt road approximately 30 ft wide (Figure 3.13-2). The final design of the route improvements will depend on engineering, cost, and environmental considerations.

Current land uses within Alternative I include the following:

- ❖ One operational mine in the Avawatz Mountains (the Silver Lakes Mine) and numerous inactive and abandoned mines scattered within the boundaries of this area;
- ❖ A major utility planning corridor, BLM-designated Corridor D, running along the southeastern edge of this alternative. There are no proposed new maneuverable training areas east of the corridor. The corridor is intended to form the southeastern boundary of the study area. A fence and buffer zone will separate it from the maneuverable training area;
- ❖ Dispersed recreation (e.g., rock hounding, sightseeing, on-trail off-highway vehicle (OHV) use), mostly in the Superior Valley portion of the study area;
- ❖ Training on both sides of Fort Irwin Road within the boundaries of Fort Irwin, with three proposed under-crossings for training vehicles;
- ❖ Private lands scattered throughout the Superior and Avawatz portions of this alternative. They mostly coincide with the mining claims that occur in the area. One actual dwelling occurs within this alternative. Private lands encompass approximately 12,680 acres (9 percent) of the land proposed for additional maneuverable training area; and
- ❖ State lands comprise approximately 2,250 acres of the study area.

2.3.3 Alternative II: East Gate/South

Alternative II encompasses approximately 156,290 acres, which includes approximately 23,220 acres of Fort Irwin land in the UTM 90 area and the two square mile parcel of Army land south of Fort Irwin. The general area consists of the South Avawatz Mountain area to the east, runs southwest along the utility lines in BLM Utility Corridor D (same as Alternative I), and continues along the southern border of existing Fort Irwin. The area to the south includes the

Alvord Mountains and Coyote Dry Lake. Fort Irwin Road serves as the western boundary of the southern portion of this alternative.

The approximate 48,630-acre eastern parcel in the Avawatz area is sought to provide maneuver training land and logistics support areas to extend the central training corridor of Fort Irwin. Reopening the lands in the southern corridor (approximately 23,220 acres between the UTM 90 line and the southern Fort Irwin boundary) would widen and extend the southern training corridor for maneuver training.

Appendix F (*NTC and Fort Irwin Operational Information*) provides examples of training scenarios that could be used for maneuver training.

Current land uses within the Alternative II acquisition area include the following:

- ❖ One operational mine in the Avawatz Mountains (the Silver Lake Mine) and numerous inactive and abandoned mines scattered within the boundaries of this area;
- ❖ A major utility planning corridor, BLM-designated Corridor D, running along the southeastern edge of this alternative. There are no proposed lands east of the corridor. The corridor is intended to form the southeastern boundary of the study area. A fence and buffer zone will separate it from the maneuverable training area;
- ❖ Dispersed recreation (e.g., rock hounding, sightseeing, and on-trail off-highway vehicle (OHV) use) occurring in various areas throughout this alternative;
- ❖ Private lands scattered throughout the Alvord area in the southern portion of this alternative and the Avawatz area to the east. Some of the private lands coincide with the mining claims that occur in the area. Private lands encompass approximately 34,980 acres; and
- ❖ State lands comprise approximately 1,380 acres.

2.3.4 Alternative III: East Gate

Alternative III comprises approximately 48,630 acres. The general area consists of the South Avawatz Mountain area and proceeds southwest along Utility Corridor D (same as Alternative I). This alternative represents the smallest land area proposed under any of the five action alternatives.

The approximate 48,630-acre eastern parcel in the Avawatz area is sought to provide maneuver training land and logistics support areas to extend the central training corridor of Fort Irwin.

Appendix F (*NTC and Fort Irwin Operational Information*) provides examples of training scenarios that could be used for maneuver training.

Current land uses within the Alternative III acquisition area include the following:

- ❖ One operational mine is in the Avawatz Mountains (the Silver Lake Mine) and other abandoned non-producing mine shafts scattered within the boundaries of this area;
- ❖ A major utility planning corridor, BLM-designated Corridor D, running along the southeastern edge of this alternative. There are no proposed lands east of the corridor. The corridor is intended to parallel the southeastern boundary of the study area. A fence and buffer zone will separate it from the maneuverable training area;
- ❖ Dispersed recreation (e.g., rock hounding, sightseeing, and on-trail OHV use) occurring in various areas throughout this alternative;
- ❖ Private lands encompassing approximately 420 acres; and
- ❖ State lands comprise approximately 1,300 acres.

2.3.5 Alternative IV: Southwest/East Gate/UTM 90

Alternative IV comprises approximately 183,160 acres of land, which include the reintroduction of approximately 23,220 acres of Fort Irwin land in the UTM 90 area and the two square mile parcel of Army land south of Fort Irwin. The land areas to the east and the UTM 90 area are identical to those proposed in Alternative I. The land area to the southwest and west of current Fort Irwin boundaries includes Superior Dry Lake and Paradise Mountain.

The approximate 48,630-acre eastern parcel in the Avawatz area is sought to provide maneuver training land and logistics support areas to extend the central training corridor of Fort Irwin. Reopening the lands in the southern corridor (approximately 23,220 acres between the UTM 90 line and the southern Fort Irwin boundary) would widen and extend the southern training corridor for maneuver training.

Appendix F (*NTC and Fort Irwin Operational Information*) provides examples of training scenarios that could be used for maneuver training.

In order to facilitate the use of Superior Valley, the Army proposes to improve a current route through Goldstone. NASA Goldstone occupies approximately 33,030 acres northwest of the cantonment area of Fort Irwin on land permitted for that use by the Army. The proposed NASA Goldstone Route will be used to transport troops and equipment between the cantonment area of Fort Irwin and the Superior Valley parcel of the project area. This improved road will not only allow vehicles to travel with ease over the surface and without the hazard of washouts and impassible conditions, but also will minimize dust generation. The proposed improved route is already a graded dirt road approximately 30 ft wide (Figure 3.13-2). The final design of the route improvements will depend on engineering, cost, and environmental considerations.

Current land uses within the Alternative IV acquisition area include the following:

- ❖ One operational mine is in the Avawatz Mountains (the Silver Lake Mine) and numerous inactive and abandoned mines scattered within the boundaries of this alternative;
- ❖ One operational mixing plant (the Daily Transit Mix) south of the current installation boundary;
- ❖ A major utility planning corridor, BLM-designated Corridor D, running along the southeastern edge of this alternative. There are no proposed lands east of the corridor. The corridor is intended to parallel the southeastern boundary of the study area. A fence and buffer zone will separate it from the maneuverable trainings area;
- ❖ Dispersed recreation (e.g., rock hounding, sightseeing, and on-trail OHV use) occurring in various areas throughout this alternative;
- ❖ Fort Irwin Road transects the southwestern portion of this alternative;
- ❖ Private lands scattered throughout the Alvord and Paradise Mountain areas in the southern portion of this alternative and the Avawatz area to the east within this alternative, including 18 residential parcels. Some of the private lands coincide with the mining claims that occur in the area. Private lands encompass approximately 30,670 acres; and

- ❖ State lands comprise approximately 2,250 acres.

2.3.6 Alternative V: East Gate/UTM 90

Alternative V comprises approximately 71,840 acres of land, which include approximately 23,220 acres of Fort Irwin land in the UTM 90 area. The general area consists of the South Avawatz Mountains and the UTM 90 area.

The approximate 48,630-acre eastern parcel in the Avawatz area is sought to provide maneuver training land and logistics support areas to extend the central training corridor of Fort Irwin. Reopening the lands in the southern corridor (approximately 23,220 acres between the UTM 90 line and the southern Fort Irwin boundary) would widen and extend the southern training corridor for maneuver training.

Appendix F (*NTC and Fort Irwin Operational Information*) provides examples of training scenarios that could be used for maneuver training.

Current land uses within the Alternative V acquisition area include the following:

- ❖ One operational mine is in the Avawatz Mountains (the Silver Lakes Mine) and other abandoned non-producing mine shafts scattered throughout the boundaries of this alternative;
- ❖ A major utility planning corridor, BLM-designated Corridor D, running along the southeastern edge of this alternative. There are no proposed lands east of the utilities within the corridor;
- ❖ Dispersed recreation (e.g., rock hounding, sightseeing, and on-trail off-highway vehicle (OHV)) occurring in various areas throughout this alternative;
- ❖ Private lands encompassing approximately 450 acres; and
- ❖ State lands comprise approximately 1,300 acres.

2.3.7 Alternative VI: No Action

Alternative VI adds no additional maneuver training lands to Fort Irwin. The current land area associated with Fort Irwin is approximately 751,980 acres. Of those approximately 751,980

acres, approximately 103,740 acres are the withdrawn land and 23,220 acres of Fort Irwin land in the UTM90 area that cannot be used for training if the no action alternative is selected.

2.4 Alternatives No Longer Under Consideration

Alternatives considered in the 1996 DEIS are illustrated in Figure 2.4-1. These alternatives have not been carried forward for further review in this document, as they are no longer considered to be feasible alternatives.

2.4.1 Summary of Justification to Remove from Further Consideration

Modified Avawatz-Silurian Alternative (preferred alternative in 1996 draft): this alternative encompassed approximately 270,030 acres to the north and east of Fort Irwin in the Denning Springs area, between the northern boundary of Fort Irwin to the southern boundary of Death Valley National Park. This alternative included the Avawatz and south Avawatz Wilderness Study Areas (WSA). It also impacted Dumont Dunes, a popular recreation area. T&E species are known to exist in this area. This alternative did not expand the battle corridor, but did allow the locating of a staging area in the Avawatz Mountains WSA and in the Silurian Valley. The benefit to the NTC's training mission when weighed against the impacts to all resources makes this alternative unreasonable.

Modified Coyote Basin Alternative: this alternative encompassed approximately 259,470 acres to the east, south, and west of Fort Irwin, and included the southern part of the Avawatz and the South Avawatz WSAs. This alternative incorporated a large amount of desert tortoise critical habitat. In addition, Lane Mountain milk-vetch has since been identified as an endangered plant in the abbreviated western portion just south of Goldstone. This alternative also required crossing two power corridors for training activities. The above considerations of this alternative made it infeasible for further consideration.

Superior Valley Alternative: this alternative encompassed approximately 284,890 acres to the east, south, and west of Fort Irwin, and included the southern part of the Avawatz and the South Avawatz WSAs. This alternative incorporated a large amount of desert tortoise critical habitat. In addition, Lane Mountain milk-vetch has since been identified as an endangered plant in the abbreviated western portion just south of Goldstone. This alternative also required crossing two power corridors for training activities. These considerations and the receipt of a