# CHAPTER 2

# DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

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This chapter describes the proposed action and the potential alternatives to the proposed action. Section 2.2.1 discusses current 172nd Infantry Brigade (Separate) (172nd SIB) and U.S. Army Alaska (USARAK) actions and serves as the baseline condition for this analysis. Proposed 172nd SIB transformation actions unique to each alternative are discussed in Sections 2.2.2, 2.2.3, and 2.2.4. These unique actions include quantified mission readiness requirements for transformation. In addition, mitigation measures to offset impacts from the activity groups have been proposed for each alternative. A discussion of transformation actions that are common to Alternatives 2, 3 and 4 is presented in Section 2.3. Following the narrative of the alternatives, a brief summary of alternatives eliminated from further investigation is presented. The alternatives chosen for further analysis are organized into a matrix to compare alternatives in relation to their environmental impacts to the various resource categories.

## 2.1 PROPOSED ACTION

The action proposed by U.S. Army Alaska (USARAK) is to transform the 172nd SIB into a Stryker Brigade Combat Team (SBCT). The SBCT is a step towards the Future Force. The proposed action also includes the transformation of USARAK to provide a baseline capability and foundation to support Army transformation requirements.

The proposed action includes changes to force structure and stationing, and modifications of ranges, facilities, and infrastructure designed to meet the objectives of Army transformation in Alaska. Proposed locations for changes in force structure and stationing include Fort Wainwright (FWA) and Fort Richardson (FRA). Proposed activity changes on FWA would occur within the cantonment area, Tanana Flats Training Area (TFTA), Yukon Training Area (YTA), and Donnelly Training Area (DTA) (formerly Fort Greely). The outlying Gerstle River and Black Rapids training areas would also be affected. Proposed activity changes on FRA would occur within the cantonment area and all outlying training areas and ranges. Proposed systems acquisition includes the Stryker (light armored vehicle) and the unmanned aerial vehicle (UAV).

Under the proposed action, the SBCT would use 10 variants that comprise the new family of light armored vehicles known as the Stryker (Figure 2.1.a). The Stryker is an eight-wheel-drive, hard-steel structured vehicle designed to greatly increase ground mobility and firepower over the current light infantry brigade vehicle.

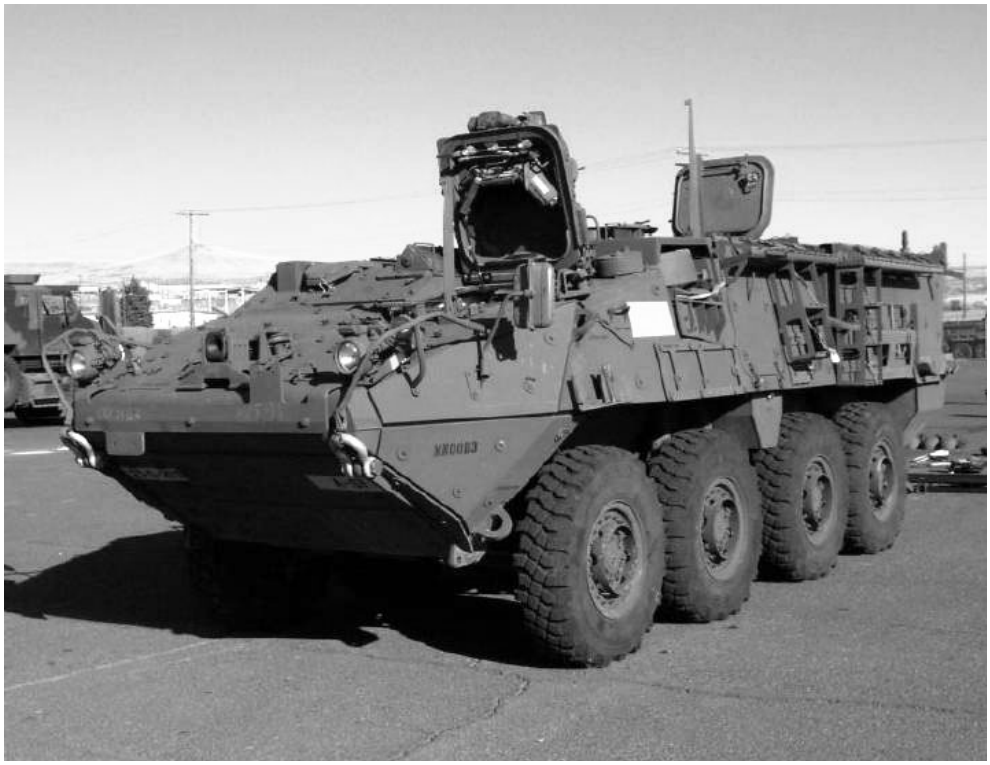

**Figure 2.1.a** Stryker Command Vehicle

The UAV is a small, unmanned aircraft designed to provide the Stryker Brigade with real-time reconnaissance, surveillance, target acquisition, and battle damage assessment capabilities, greatly improving situational awareness and understanding of the enemy threat (Figure 2.1.b).

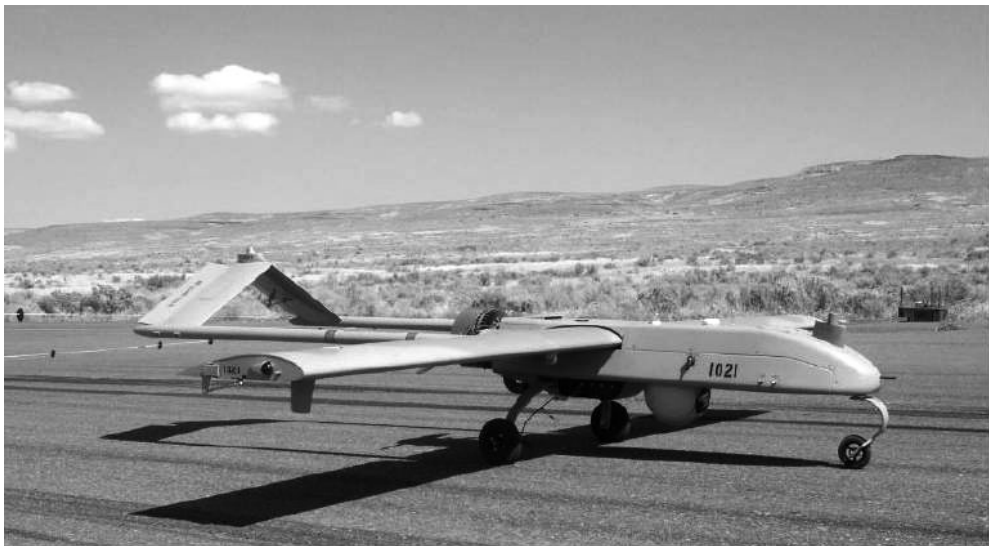


**Figure 2.1.b** Unmanned Aerial Vehicle

### 2.1.1 Activity Groups

Seven activity groups were identified in the Army's Programmatic Environmental Impact Statement (PEIS) for Army transformation (U.S. Army 2002). Potential impacts of each alternative were analyzed by all activity groups except for "land transactions" because no land transactions are proposed. In addition, USARAK is not acquiring or disposing of land as part of the proposing action.

**(1) Stationing.** This activity group involves distribution of forces within USARAK in a manner that best supports achievement of the SBCT mission.

**(2) Construction.** This activity group involves all types of construction activities, including the creation of buildings, training facilities, and infrastructure, as well as demolition of buildings and facilities.

**(3) Training.** This activity group involves achieving and maintaining readiness to perform assigned missions on both an individual and collective (unit) basis.

**(4) Systems Acquisition.** This activity group involves the development, testing, production, fielding, and disposal of the weapons systems and equipment necessary to achieve the SBCT mission.

**(5) Deployment.** This activity group involves operational deployment of forces and specific training for deployment.

**(6) Land Transactions.** This activity group is not analyzed in this document. No land transactions have been planned.

**(7) Institutional Matters.** This activity group involves the diverse day-to-day actions, plans and programs not accounted for in other activities.

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# 2.2 DETAILED DESCRIPTION OF THE ALTERNATIVES

## 2.2.1 Alternative 1 (No Action)

**The 172nd SIB would not transform into an SBCT. None of the actions specifically planned for transformation would occur.**

The primary military mission of USARAK after the Cold War has been peacetime deployment to support U.S. interests worldwide, the defense of Alaska, and the coordination of Army National Guard and Reserve activities in the state. A majority of USARAK combat forces, notably the 172nd SIB, are stationed at FWA, with FRA as the primary support base. Subordinate commands to the 172nd SIB include the 1st Battalion, 17th Infantry Brigade; the 2nd Battalion, 1st Infantry Brigade; the 1st Battalion, 501st Parachute Infantry Regiment; the 172nd Battalion Support Brigade; 4-11th Field Artillery Battalion; 562nd Engineer Company; 21st Signal Company; 572nd Military Intelligence Detachment; E-1 Calvary Troop; and the Headquarters and Headquarters Company. Under the No Action Alternative, these units would continue to follow their current military missions and would be maintained as the Current Force.

The following sections describe the current, ongoing mission activities of the 172nd SIB and USARAK at FWA and FRA. The 172nd SIB and USARAK would continue to achieve its current mission under the No Action Alternative. Mission-sustaining activities and construction upgrades that are not SBCT-specific would continue to occur. The Current Force structure and training would also remain unchanged. Table 2.3.a contains a matrix comparing the readiness requirements for each activity group.

Training would continue to be designed to fulfill the current USARAK mission. A total of 6,577 Soldiers are now stationed at USARAK and would continue to be stationed at USARAK. Equipment and vehicles necessary for the current USARAK mission would continue to be utilized under this alternative. Increased training use of land and airspace would not be expected.

### 2.2.1.1 Stationing

Currently, USARAK units are stationed at FWA and FRA main posts only (Table 2.2.a). There are no units stationed at the YTA, TFTA, DTA, or Gerstle River and Black Rapids training areas. A description of personnel stationed at USARAK, by subunit, can be found in Appendix C.

**Table 2.2.a** Current USARAK Stationing Requirements Under the No Action Alternative.

| Major Unit | Personnel | | |
|---|---|---|---|
| | Fort Wainwright | Fort Richardson | Total |
| 172nd SIB | 2,581 | 1,018 | 3,599 |
| Other USARAK | 1,812 | 1,166 | 2,978 |
| USARAK Total | 4,393 | 2,184 | 6,577 |

Several mission-essential construction projects on USARAK lands are ongoing or are planned in support of the current mission (Table 2.2.b and Appendix D). Mission-essential projects include revitalization or modernization of existing USARAK facilities and ranges for the purpose of supporting the Current Force. These actions were planned or scheduled prior to the Army's proposal to transform the 172nd SIB and station an SBCT in Alaska (April 11, 2002).

### 2.2.1.2 Construction

While many of these projects are essential to the proposed alternatives, they remain mission requirements of the 172nd SIB and USARAK. National Environmental Policy Act (NEPA) analyses for these projects were initiated prior to this EIS. Some projects were addressed in separate NEPA documents while other analyses are pending. These projects are part of the No Action Alternative and will be considered in the discussion of their cumulative environmental impacts. Table 2.2.b lists current major construction projects by location and planned construction period. Each project is described in greater detail in Appendix D.

**Table 2.2.b** List of Current USARAK Mission-Essential Construction Projects at USARAK.

| Year | Projects | | | |
|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Donnelly Training Area** | **Fort Richardson** |
| 2002 | | | | Modified MOUT and Range Upgrade (Infantry Platoon Battle Course, Infantry Squad Battle Course, Urban Assault Course, Breach Facility, and Shoot House) |
| 2003 | Modified MOUT and Range Upgrade (Breach Facility, Urban Assault Course, and Shoot House)<br>Modified Record Fire Range<br>Sniper Field Fire Range<br>Mission Support Training Facility<br>Whole Barracks Renewal<br>Family Housing New Construction<br>Vehicle Maintenance Facility<br>Pallet Processing Facility<br>Alert Holding Area Facility<br>Ammunition Supply Point Upgrade | Multi-Purpose Training Range<br>Infantry Squad Battle Course<br>Infantry Platoon Battle Course<br>Demolition Area | | Multi-Purpose Training Range<br>Sniper Field Fire Range<br>Whole Barracks Renewal |

**Table 2.2.b cont.** List of Current USARAK Mission-Essential Construction Projects at USARAK.

| Year | Projects | | | |
|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Donnelly Training Area** | **Fort Richardson** |
| 2004 | Whole Barracks Renewal<br>Installation Boundary Fence | | Battle Area Complex<br>Combined Arms Collective Training Facility<br>Collective Training Range | Rapid Deployment Facility<br>Ammunition Supply Point Upgrade<br>Upgrade Hardstands 20 & 21 and Hot Cargo Pad<br>Whole Barracks Renewal<br>Installation Boundary Fence |
| 2005 | Family Housing Replacement<br>Whole Barracks Renewal | | | Community Center<br>Whole Barracks Renewal |
| 2006 | Library/Military Occupational Specialty/ Education Center<br>Family Housing Replacement<br>Whole Barracks Renewal | | | Vehicle Maintenance Shop |
| 2007 | Family Housing Replacement | | | Replace Ship Creek Bridge |

### 2.2.1.3 Training

#### 2.2.1.3.1 Mission

The USARAK mission is to train and equip forces to deploy rapidly in support of combat missions and other operations worldwide. USARAK specializes in conducting operations in cold regions and mountainous terrain, serving as the land force component command for joint operations and providing installation support for Alaska. The mission of the 172nd SIB is to deploy worldwide when ordered, secure a location, and conduct military operations in support of U.S. national interests. Training operations within USARAK primarily consist of live fire and maneuver training.

The U.S. Air Force is a major user of USARAK lands for routine training, Major Flying Exercises and Joint Training Exercises. Routine training involves aircraft departing from their base, participating in training missions, and returning to their base. These missions are usually completed within the restricted airspace areas over the YTA or DTA. During Major Flying Exercises and Joint Training Exercises, a combat scenario is developed and roles are given to participating aircraft and ground forces. The U.S. Marines have also participated in past Joint Training Exercises.

#### 2.2.1.3.2 Live-Fire Training

Live-fire training includes direct and indirect fire weapons training with dudded and non-dudded munitions. Live-fire training is conducted primarily on fixed live-fire ranges with potentially dud-producing munitions, such as high-explosive munitions, landing in dedicated impact areas. Non-dudded munitions, including small arms and sub-caliber munitions, can be used on permanent fixed ranges or temporary ranges set up almost anywhere in authorized training areas.

Table 2.2.c shows the annual training requirements for the 172nd SIB and other USARAK units occurring at various live-fire ranges.

**Table 2.2.c** Annual Training Requirements for 172nd SIB and Other USARAK Units Under the No Action Alternative.

| Range | Soldier User Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Tanana Flats Training Area** | **Donnelly Training Area** | **Gerstle River** | **Fort Richardson** | **Total** |
| Small Arms | 45,797 | 0 | 0 | 0 | 0 | 23,645 | 69,442 |
| Major Weapons Systems | 15,110 | 0 | 0 | 0 | 0 | 4,935 | 20,045 |
| Collective | 9,690 | 3,384 | 0 | 1,944 | 0 | 2,190 | 17,208 |
| Non-Live Fire | 3,220 | 0 | 0 | 0 | 0 | 1,569 | 4,789 |
| Total | 73,817 | 3,384 | 0 | 1,944 | 0 | 32,339 | 111,484 |

#### 2.2.1.3.3 Impact Areas

No new impact areas are proposed under the No Action Alternative. Existing impact areas (281,093 acres) would continue to be utilized. Use of USARAK-controlled impact areas by the 11th Air Force would continue under this alternative.

#### 2.2.1.3.4 Munitions

Current munitions requirements are not separated by training area. Data listed for FWA include the requirements for Main Post, YTA, TFTA, and DTA. Currently, no munitions requirements are listed for the Gerstle River Training Area. No high explosive munitions use within Gerstle River Training Area would be required under this alternative. No munitions use would be required for Black Rapids Training Area. Table 2.2.d shows the current annual munitions requirements for the 172nd SIB and other USARAK units at FWA and FRA.

**Table 2.2.d** Annual Munitions Requirements for 172nd SIB and Other USARAK Units Under the No Action Alternative.

| Munition | Rounds per Year | |
|---|---|---|
| | **Fort Wainwright[1]** | **Fort Richardson** |
| Small Arms | 6,104,075 | 2,987,710 |
| Practice and Simulation | 88,905 | 44,453 |
| High Explosive | 130,426 | 65,211 |
| Total | 6,323,406 | 3,097,374 |

[1] Includes FWA Main Post, YTA, TFTA, DTA, and Gerstle River.

The following table lists the munitions used for the year 2001 by the Air Force on USARAK lands. Public Law 106-65 requires the preparation of a report detailing annual munitions decontamination actions on publicly withdrawn lands at FWA. Recordkeeping has been expanded to include TFTA and FRA.

**Table 2.2.e** Annual Munitions Use by 11th Air Force in 2001.

| Munition | Rounds per Year | | |
|---|---|---|---|
| | **Yukon Training Area** | **Tanana Flats Training Area** | **Donnelly Training Area** |
| Small Arms | 146,810 | 70,737 | 143,299 |
| Practice and Simulation | 27 | 0 | 28 |
| High Explosive | 2,358 | 6,446 | 1,586 |
| Total | 149,195 | 77,183 | 144,913 |

### 2.2.1.3.5 Maneuver Training

#### Maneuver Training Space Requirements

The space requirements for maneuver training areas are classified based on the requirements for platoon, company, and battalion-sized units. The area is expressed in terms of square kilometer days ($km^2$ days). This is calculated by combining the area required for each task, the number of units performing the task (unit density), the number of days the task requires, and the number of times each unit performs the task over the course of a year (iterations). For example, a light infantry platoon requires 3,564 $km^2$ days to perform its training annually. The training requirement is calculated as follows:

| Area ($km^2$) | | Iterations | | Days | | Unit Density | | Total Area ($km^2$ days) |
|---|---|---|---|---|---|---|---|---|
| 16.5 | X | 4 | X | 2 | X | 27 | = | 3,564 |

Table 2.2.f lists the calculated maneuver space training requirements for the 172nd SIB and other USARAK units.

#### Training Load

Training load is used to describe the collective impact of all mission activities that occurs on a given parcel of land. Mission activities include individual training events, unit training events,

testing activities, and institutional training. These activities include an infantry company field training exercise, combat training center rotation, individual gunnery, basic combat training, and combat vehicle testing. Each of these activities may be part of the training load at an Army installation.

One measure of training load for mission activities is maneuver impact miles (MIMs). All standard military training events for each military unit are described in relation to a standardized unit of measure referred to as a MIM. It is a conceptual unit of measure for military training representing the impact of training on training lands. A MIM is a scaling factor used to convert the effect of each vehicle's impact scaled to the impact equivalent of an M1A2 tank. One MIM has the equivalent impact on soil erosion as an M1A2 tank driving one mile in an armor battalion field training exercise.

MIMs are calculated Army-wide for each type of exercise that a unit conducts. This process involves identification of military unit type, military training event, types and numbers of vehicles, and the number of miles each vehicle drives in a typical training day for that event. MIMs were calculated for each alternative as an attempt to compare varying levels of training intensity (Table 2.2.f). For further information on MIMs, refer to Appendix F.

### Training Capacity

Calculated MIMs were compared to the predicted carrying capacity, which is also measured in MIMs, for each post (Table 2.2.f). Training land capacity is a measure of the total capacity of a given parcel of land and was determined for summer and winter conditions (Appendix F).

**Table 2.2.f** Maneuver Training Space, MIMs Requirements, and MIMs Capacity for 172nd SIB and Other USARAK Units Under the No Action Alternative.

| Unit | Km² Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Tanana Flats Training Area** | **Donnelly Training Area** | **Gerstle River** | **Fort Richardson** | **Total** |
| 172nd SIB | 2,032 | 31,608 | 2,500 | 11,556 | 0 | 13,604 | 61,300 |
| Other USARAK | 254 | 842 | 200 | 3,490 | 0 | 1,006 | 5,792 |
| Total Space Requirement | 2,286 | 32,450 | 2,700 | 15,046 | 0 | 14,610 | 67,092 |
| **Unit** | **Maneuver Impact Miles** | | | | | | |
| 172nd SIB | 300 | 8,100 | 2,300 | 16,100 | 0 | 3,100 | 29,900 |
| Other USARAK | 350 | 450 | 0 | 700 | 0 | 200 | 1,700 |
| Total MIMs | 650 | 8,550 | 2,300 | 16,800 | 0 | 3,300 | 31,600 |
| **Season** | **Maneuver Impact Miles Capacity** | | | | | | |
| Summer | 201,692 | | | 62,517 | | 109,075 | 373,284 |
| Winter | 4,905,872 | | | 3,552,312 | | 203,455 | 8,661,639 |

### 2.2.1.4 Systems Acquisition

#### 2.2.1.4.1 Weapons Systems and Vehicles

The 172nd SIB and other USARAK units use various types of military weapons. Weapons are standardized within the U.S. Armed Forces and are normally common to U.S. allies. Military weapons are designed with a specific target in mind (e.g., anti-tank, anti-aircraft, or personnel). Military weapons are designated as small arms (up to .50 caliber) and heavy weapons (above .50 caliber). Table 2.2.g lists the weapons systems utilized by USARAK units.

The 172nd SIB and other USARAK units use various types of military vehicles. Table 2.2.g lists the type and number of vehicles utilized by USARAK.

**Table 2.2.g** Weapons Systems and Vehicles Utilized by the 172nd SIB and Other USARAK Units Under the No Action Alternative.

| **Weapons Systems[1]** | **Number** | | |
|---|---|---|---|
| | **Fort Wainwright[2]** | **Fort Richardson** | **Total** |
| Small Arms | 2,292 | 1,145 | 3,437 |
| Artillery | 20 | 10 | 30 |
| Vehicle | 0 | 0 | 0 |
| Anti-Tank | 0 | 0 | 0 |
| Demolition | 0 | 0 | 0 |
| Total | 2,312 | 1,155 | 3,467 |
| **Vehicles** | **Number** | | |
| Small Unit Support Vehicle (SUSV) | 170 | 60 | 230 |
| High Mobility Multi-purpose Wheeled Vehicle (HMMWV) | 396 | 132 | 528 |
| Mid-weight Tactical Vehicle (MTV) | 207 | 61 | 268 |
| Other (Five-ton truck, etc) | 111 | 40 | 151 |
| Total | 884 | 293 | 1,177 |

[1] A description of weapons systems is presented in Section 2.3.5.

[2] Includes FWA Main Post, YTA, TFTA, DTA, and Gerstle River.

### 2.2.1.5 Deployment

#### 2.2.1.5.1 Deployment Within Alaska

Deployment is defined as the movement of troops from one location to another to conduct mission-essential activities, usually in the form of large field exercises. One hundred thirty-nine platoon, company and battalion-sized deployments of the 172nd SIB and other USARAK units occur per year to all USARAK training lands for a total of 437,600 miles. Deployments include use of vehicles, equipment, munitions, and other supplies used to conduct training exercises. Air, ground, and rail transportation methods are used during these deployments. Table 2.2.h lists the distance of USARAK deployment actions between USARAK installations.

**Table 2.2.h** Deployment Size, Frequency, and Miles Within Alaska Under the No Action Alternative.

| Route | Unit Level | Total Vehicle Miles Per Year |
|---|---|---|
| Fort Wainwright to Yukon Training Area | Platoon | 32,400 |
| Fort Wainwright to Donnelly Training Area | Company | 144,000 |
| Fort Richardson to Donnelly Training Area | Company | 139,200 |
| Fort Wainwright to Donnelly Training Area | Battalion | 48,800 |
| Fort Richardson to Donnelly Training Area | Battalion | 73,200 |
| Total Unit Deployment Miles | | 437,600 |

#### 2.2.1.5.2 Deployment Outside of Alaska

As a premier force, the 172nd SIB has the ability to deploy worldwide. The 172nd SIB is routinely deployed for training outside of Alaska between 30 and 60 days per year. However, this deployment rate is variable based on training needs.

### 2.2.1.6 Institutional Matters

Institutional matters can be described as the plans and programs that may potentially affect, protect, and manage the biological, physical, and socioeconomic environment at USARAK. Several management programs have been written to address the sustainability of specific resources. The following programs are currently established and operating at USARAK: Environmental Management System; Sustainable Range Program; range management; Integrated Training Area Management; environmental management; Sustainment, Restoration, and Modernization program; and existing land management plans and programs. The Army would continue to fund these programs under the No Action Alternative on an "as funding is available" basis. Refer to Appendix C and Appendix H for a more detailed discussion of these programs.

#### 2.2.1.6.1 Environmental Management System

An Environmental Management System is a tool that can provide the Army with a means to manage environmental activities and resources. The Environmental Management System requires the Army to define its environmental goals and document the processes it uses to achieve those goals. By imposing this discipline, the Army would improve compliance with environmental laws and reduce environmental impacts. USARAK already has mature environmental programs with many elements of an Environmental Management System. The next step is to leverage existing capabilities into a systematic approach aligned with mission priorities.

Executive Order 13148, *Greening the Government through Leadership in Environmental Management,* requires implementation of an Environmental Management System at all appropriate federal facilities by December 31, 2005. The policy calls for systematic integration of environmental management into all missions, activities, and functions. The policy requires current processes to be continually reviewed to identify better ways to reconcile national defense and environmental stewardship missions.

An Environmental Management System is not a new requirement, but a change in management practices. The approach is to adapt existing management processes to identify and reduce the

environmental risks inherent in mission activities. This approach is intended to make compliance with environmental laws simpler, less costly, and a routine part of mission planning and execution.

#### 2.2.1.6.2 Sustainable Range Program

The Army is undertaking a new approach to its range management. The Sustainable Range Program would improve the integration of all programs that affect or are affected by live-fire training. The Sustainable Range Program begins at Headquarters, Department of the Army, and would be integrated at the Major Command and installation levels. Through the Sustainable Range Program, the Army seeks to ensure that its ranges will be available indefinitely to support training readiness. Army ranges are considered to be a combination of live-fire training infrastructure, installation facilities, and the environment. This program is an integration of training, facility, and environmental management.

#### 2.2.1.6.3 Range Management

The Range and Training Land Program is the Army program that conducts range operations and maintenance on lands that Soldiers use for training. The Range and Training Land Program provides a military-centered framework for land management since USARAK lands are primarily classified for military use. Range Division (which includes Range Control) implements this program, operates firing ranges, and regulates use of training and impact areas. In addition, Range Division regulates access to training areas and ranges, and supports protection and conservation of sensitive natural resources from military and recreational use.

The key Range and Training Land Program planning device is an installation Range Development Plan. The Range Development Plan defines the range and training land requirements; this plan is incorporated into the USARAK Real Property and Master Plan, the Integrated Natural Resources Management Plans, and the Integrated Cultural Resources Management Plan. These efforts, together with the Integrated Training Area Management Work Plan, produce a sound approach for consistent and proactive management of training land while balancing mission, infrastructure, and environmental stewardship. Specific range management actions that are conducted on an annual basis at FWA and FRA are range scheduling, inspection, target repair and replacement, and maintenance.

Range target repair and replacement, and general range maintenance do not occur at either Gerstle River Training Area or Black Rapids Training Area. No targets or impact areas are located at these sites.

#### 2.2.1.6.4 Integrated Training Area Management

The Integrated Training Area Management program is the Army's formal strategy for implementing the sustainable use of training and testing lands. The intent of the Integrated Training Area Management program is to systematically provide uniform training land management capability across USARAK and to ensure that the carrying capacity of the training lands is maintained over time. The Army manages its lands to ensure no net loss of training capabilities in order to support current and future training and mission requirements. The integration of stewardship principles into training land and conservation management practices ensures that the Army's lands remain viable to support future training and mission requirements.

Integrated Training Area Management establishes a systematic framework for decision-making and management of Army training lands. It integrates elements of operational, environmental,

master planning, and other programs that identify and assess land use alternatives. The Integrated Training Area Management program also supports sound natural and cultural resources management practices and stewardship of its land assets while sustaining land attributes conducive to supporting training, testing, and other installation missions. These management requirements are:

- Integrate training requirements with training land management
- Conduct annual monitoring and analysis
- Conduct repair and maintenance of training land
- Enhance mobility, maneuverability, access, and availability in training areas
- Conduct environmental education

These requirements are applicable at FWA (including Main Post, YTA, TFTA, DTA, Gerstle River, and Black Rapids training areas) and FRA.

The following four components of the Integrated Training Area Management program work in unison to accomplish the program's monitoring, planning, rehabilitation, and educational goals: Land Condition Trend Analysis (LCTA), Training Requirements Integration (TRI), Land Rehabilitation and Maintenance (LRAM), and Sustainable Range Awareness.

LCTA is the component of the Integrated Training Area Management program that provides for the collecting, inventorying, monitoring, managing, and analyzing data concerning land conditions at USARAK. LCTA provides data needed to evaluate the capability of training lands to meet multiple use demands on a sustainable basis. These data are intended to provide information to effectively manage land use and natural resources at USARAK. LCTA was implemented in 1996.

TRI is a decision support procedure that integrates all requirements for land use with natural and cultural resources management processes. TRI integrates USARAK's training and testing requirements for land use derived from the Range and Training Land Program, the range operations and training land management processes, and installation training readiness requirements with the installation's natural resources condition. TRI was implemented in 1997.

TRI supports the Army's requirements for environmentally sustainable training lands. TRI improves coordination and facilities cooperation, decision-making, and allocation by providing uniform information regarding land conditions, trends, and any necessary modification of requirements. The output of the TRI process is incorporated into USARAK's Integrated Natural Resources Management Plan.

LRAM is a preventive and corrective land rehabilitation and maintenance procedure that reduces long-term impacts of training and testing at USARAK. It mitigates training and testing effects by combining land rehabilitation, repair, and maintenance practices, including training area redesign and/or reconfiguration to meet training requirements. LRAM uses revegetation and erosion control techniques to maintain soils and vegetation required to support the military mission. Several LRAM projects have been completed since 1996.

Sustainable Range Awareness is the component of the Integrated Training Area Management program that helps to foster a conservation ethic in military personnel by providing a means to educate land users on their environmental stewardship responsibilities. It also provides for the development and distribution of educational materials to land users. Principles relating to land stewardship; methods of reducing training and testing impacts; and land use effects to resident wildlife and vegetation are emphasized under this program. This program was initiated in 1997.

#### 2.2.1.6.5 Environmental Management

The Army environmental strategy consists of four pillars representing the major areas of activity: pollution prevention, compliance, restoration, and conservation. Projects under each major activity area are implemented and managed at FWA and FRA.

The primary objective of pollution prevention is source reduction. Pollution prevention eliminates or reduces the sources of pollutant discharges or emissions. This includes substituting materials and changing processes to avoid the use of hazardous substances. The program reduces operating costs and liability from environmental compliance and clean-up.

The goal of the compliance program is to meet federal, state, local, and Army environmental laws, regulations, and other requirements. The compliance program at USARAK consists of eight major program areas: Air Quality, Asbestos, Water Quality, Hazardous Waste and Hazardous Materials, Lead Hazard, Solid Waste, Storage Tanks, and Wastewater.

The restoration program identifies, investigates, and cleans up contamination from hazardous substances, pollutants, and contaminants. The primary priority of the restoration program is to identify and clean up the sites that present the highest risk to public health and the environment. Remediation of contaminants such as chlorinated solvents, which are regulated by the Comprehensive Environmental Restoration, Compensation, and Liability Act (CERCLA) is a priority. In addition, USARAK investigates and remediates all types of contaminants such as polychlorinated biphenyls (PCBs) and petroleum. These contaminants are not regulated under CERCLA, but are regulated by various other federal, state, and Army regulations.

The conservation program consists of natural and cultural resources management as well as compliance with the National Environmental Policy Act. The conservation program focuses on responsibly managing Army lands to ensure long-term natural resource productivity so the Army can achieve its mission.

#### 2.2.1.6.6 Sustainment, Restoration, and Modernization Program

Real property management is the planning process used by the Army to identify facility requirements, design and construct new facilities, maintain existing facilities, and reuse or dispose of obsolete facilities. The Sustainment, Restoration, and Modernization program includes activities such as writing long and short-range plans, updating the tabulation of facilities required and available program, developing capital investment strategies, mapping of installations and surrounding areas, and maintaining Installation Design Guides written to unify the overall appearance of installation facilities. Real property management also includes a variety of supporting elements, including traffic plans and inventories of historical properties.

Land is real property. It is a priceless, non-renewable asset that has been loaned to the Army for use in supporting our national defense mission. Family housing, barracks, offices, roads, recreational areas, live-fire ranges and maneuver areas are all real property assets occupying Army lands. Master planning uses land use planning, or zoning, as the primary method to balance compatible and incompatible land usage to meet industrial, residential, and recreational requirements.

#### 2.2.1.6.7 Existing Land Management Plans and Programs

The following plans and programs have been implemented by USARAK at FWA and FRA. The Army would continue to fund these programs under the No Action Alternative on an "as funding is available" basis.

- Implement Range Development Plan
- Implement Institutional Controls
- Implement Integrated Natural Resources Management Plans
- Implement Integrated Cultural Resources Management Plan

### 2.2.2 Alternative 2 (Transform the 172nd SIB and USARAK – No New Infrastructure)

**All organizations and elements of the 172nd SIB would transform to an SBCT, using existing USARAK ranges, facilities, and infrastructure. The transformed 172nd SBCT and USARAK would see a slight increase in personnel and equipment.**

Alternative 2 would result in the transformation of all organizations and elements currently within the 172nd SIB into an SBCT using existing ranges, facilities, and infrastructure as well as the preparation of USARAK to support Stryker Force requirements and a Future Force. Alternative 2 was designed to achieve the force characteristics articulated in the Army Vision while not initiating any new construction activities. No new structures to facilitate transformation would be constructed under this alternative. Training would be designed to fulfill the current USARAK mission as well as the SBCT mission. Increased training use of land and airspace would be expected, but would not be as intensive as described in Alternatives 3 and 4. Acquisition of new equipment and vehicles necessary for transformation, such as the Stryker and the UAV, would also occur under this alternative.

Alternative 2 proposes the stationing of an SBCT, which includes three infantry battalions, one reconnaissance, surveillance, and target acquisition squadron, one brigade support battalion, one field artillery battalion, one engineer company, one signal company, one military intelligence company, one anti-tank company, and one headquarters company at FWA and FRA. The new SBCT would replace the existing 172nd SIB, which includes three infantry battalions, one brigade support battalion, one field artillery battalion, one engineer company, one signal company, one military intelligence detachment, one cavalry troop, and one headquarters company (see Appendix C for further description). Under Alternative 2, the SBCT would be stationed at both FWA and FRA. Full stationing of the SBCT at FWA would not occur; thus no interim or end-state activity group (as listed in Section 2.1.1) data are available. Table 2.3.a contains a matrix of the alternatives comparing the readiness requirements for each activity group.

#### 2.2.2.1 Stationing

Alternative 2 would result in a decrease of 113 Soldiers at FRA and an increase of 332 Soldiers at FWA. A total of 6,796 Soldiers would be stationed at USARAK. Stationing for both the proposed SBCT and residual USARAK units are shown below in Table 2.2.i.

**Table 2.2.i** Proposed Stationing Requirements of SBCT and Other USARAK Units Under Alternative 2.

| Major Unit | Personnel | | |
|---|---|---|---|
| | Fort Wainwright | Fort Richardson | Total |
| SBCT[1] | 3,136 | 682 | 3,818 |
| Other USARAK | 1,589 | 1,389 | 2,978 |
| USARAK Total | 4,725 | 2,071 | 6,796 |

[1] A description of the SBCT subunits to be stationed at USARAK under Alternative 2 is presented in Section 2.3.2.

### 2.2.2.2 Construction

No additional proposed construction activities would occur under this alternative. Ongoing construction projects, as articulated in the No Action Alternative, would continue under this alternative.

### 2.2.2.3 Training

#### 2.2.2.3.1 Mission

The two primary training operations conducted at USARAK are live fire and maneuver.

The SBCT would participate in Joint Training Exercises with any unit under this alternative. Because of the increased warfighting capability and the flexibility and ease of deployment of the SBCT, it is reasonable to expect that the requests for Joint Training Exercise participation would increase. However, specific Joint Training Exercises for the SBCT are not currently scheduled. The SBCT would be available to participate in local Joint Training Exercises when tasked.

#### 2.2.2.3.2 Live-Fire Training

Live-fire training exercises are required by the SBCT using both direct and indirect fire weapons and dudded and non-dudded munitions. The annual training requirements for the proposed SBCT under Alternative 2 are shown in Table 2.2.j.

**Table 2.2.j** Annual Training Requirements for the Proposed SBCT and Other USARAK Units Under Alternative 2.

| Range | Soldier User Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | Fort Wainwright Main Post | Yukon Training Area | Tanana Flats Training Area | Donnelly Training Area | Gerstle River | Fort Richardson | Total |
| Small Arms | 49,460 | 0 | 0 | 0 | 0 | 30,501 | 79,961 |
| Major Weapons Systems | 12,461 | 0 | 0 | 0 | 0 | 2,897 | 15,357 |
| Collective | 12,113 | 5,139 | 0 | 2,657 | 0 | 2,811 | 22,720 |
| Non-Live Fire | 3,478 | 0 | 0 | 0 | 0 | 2,024 | 5,502 |
| Total | 77,512 | 5,139 | 0 | 2,657 | 0 | 38,233 | 123,540 |

#### 2.2.2.3.3 Impact Areas

Impact areas are required to conduct live-fire training at USARAK, described in the No Action Alternative. No new impact areas are proposed under Alternative 2. Use of USARAK-controlled impact areas by the 11th Air Force would continue under this alternative.

#### 2.2.2.3.4 Munitions

Munitions requirements for Alternative 2 are not separated by training area. Data listed for FWA include the requirements for Main Post, YTA, TFTA and DTA. No munitions requirements are listed for the Gerstle River and Black Rapids training areas but small arms, practice, and simulation munitions may be required in the future. High explosive munitions use within Gerstle River Training Area would not be required under this alternative. The current annual munitions requirements for the proposed SBCT and other USARAK units at FWA and FRA are shown below in Table 2.2.k.

**Table 2.2.k** Annual Munitions Requirements for the Proposed SBCT and Other USARAK Units Under Alternative 2.

| Munition | Rounds per Year | |
|---|---|---|
| | Fort Wainwright[1] | Fort Richardson |
| Small Arms | 8,547,774 | 2,849,258 |
| Practice and Simulation | 91,007 | 46,249 |
| High Explosive | 187,737 | 70,479 |
| Total | 8,826,518 | 2,965,986 |

[1] Includes FWA Main Post, YTA, TFTA, DTA, and Gerstle River.

The 11th Air Force munitions use is projected to remain at the same level as listed under the No Action Alternative.

#### 2.2.2.3.5 Maneuver Training

**Maneuver Training Space Requirements**

Maneuver training space requirements have been calculated using the same formula as discussed in the No Action Alternative. The end-state requirements for maneuver training space are shown in Table 2.2.l.

**Training Load**

Training load is used to describe the collective impact of all mission activities that occur on a given parcel of land. Training load is measured in terms of maneuver impact miles (MIMs). One MIM has the equivalent impact on soil erosion as an M1A2 tank driving one mile in an armor battalion field training exercise. MIMs requirements of the proposed SBCT under Alternative 2 are listed in Table 2.2.l. For further information on MIMs, refer to Appendix F.

### Training Capacity

Calculated MIMs for each alternative were compared to the predicted carrying capacity, which is also measured in MIMs, for each post (Table 2.2.l). Training land capacity is a measure of the total capacity of a given parcel of land and was determined for summer and winter conditions (Appendix F).

**Table 2.2.l** Maneuver Training Space, MIMs Requirements, and MIMs Capacity for the Proposed SBCT and Other USARAK Units Under Alternative 2.

| Unit | $Km^2$ Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Tanana Flats Training Area** | **Donnelly Training Area** | **Gerstle River** | **Fort Richardson** | **Total** |
| SBCT | 4,638 | 20,378 | 3,360 | 53,908 | 4,000 | 11,264 | 97,548 |
| Other USARAK | 266 | 842 | 212 | 3,514 | 0 | 1,006 | 5,840 |
| Total Space Requirement | 4,904 | 21,220 | 3,572 | 57,422 | 4,000 | 12,270 | 103,388 |
| **Unit** | **Maneuver Impact Miles** | | | | | | |
| SBCT | 10,100 | 53,000 | 20,000 | 65,000 | 0 | 3,000 | 151,100 |
| Other USARAK | 1,350 | 650 | 500 | 1,100 | 0 | 400 | 4,000 |
| Total MIMs | 11,450 | 53,650 | 20,500 | 66,100 | 0 | 3,400 | 155,100 |
| **Season** | **Maneuver Impact Miles Capacity** | | | | | | |
| Summer | 201,692 | | | 62,517 | | 109,075 | 373,284 |
| Winter | 4,905,872 | | | 3,552,312 | | 203,455 | 8,661,639 |

### 2.2.2.4 Systems Acquisition

#### 2.2.2.4.1 Weapons Systems and Vehicles

The number of weapons systems to be utilized by the proposed SBCT would increase from current levels as listed under the No Action Alternative. An additional 1,547 small arms weapons and 136 artillery weapons systems would be utilized by the proposed SBCT under Alternative 2. A total of 253 new vehicle weapons systems, 308 new anti-tank weapons systems, and 111,217 new demolition weapons systems would also be utilized under this alternative. Table 2.2.m lists the proposed systems.

Under Alternative 2, 322 new Stryker light armored vehicles and four UAVs would be fielded (Table 2.2.m). These vehicles have not been previously used on USARAK lands.

**Table 2.2.m** Weapons Systems and Vehicles Utilized by the Proposed SBCT and Other USARAK Units Under Alternative 2.

| Weapons Systems[1] | Fort Wainwright[2] | Fort Richardson | Total |
|---|---|---|---|
| Small Arms | 4,263 | 1,422 | 5,685 |
| Artillery | 66 | 22 | 88 |
| Vehicle | 220 | 73 | 293 |
| Anti-Tank | 91 | 30 | 121 |
| Demolition | 5 | 2 | 7 |
| Total | 4,645 | 1,549 | 6,194 |
| **Vehicles** | | | |
| Stryker[1] | 248 | 74 | 322 |
| UAV[1] | 4 | 0 | 4 |
| SUSV | 30 | 14 | 44 |
| HMMWV | 514 | 100 | 614 |
| MTV | 182 | 42 | 224 |
| Other (Five-ton trucks, etc.) | 152 | 31 | 183 |
| Total | 1,130 | 261 | 1,391 |

[1] A description of weapons systems and vehicles, including the Stryker and UAV, is presented in Sections 2.3.4, 2.3.5, and 2.3.6.

[2] Includes FWA Main Post, YTA, TFTA, DTA, and Gerstle River.

### 2.2.2.5 Deployment

#### 2.2.2.5.1 Deployment Within Alaska

Under current training doctrine, deployment would not increase on a unit basis (e.g., individual platoon unit deployments would remain at four times a year regardless of alternative). However, the number of units, to include platoon, company, and battalion, would increase under the proposed action. Therefore, the total number of unit deployments and miles would increase.

Under Alternative 2, platoon, company and battalion-sized deployments of the proposed SBCT and other USARAK units to all USARAK training lands would occur a total of 164 times per year. This is an increase of 210,400 miles compared to the No Action Alternative. Table 2.2.n lists the length of USARAK deployment actions between USARAK installations.

**Table 2.2.n** Deployment Size, Frequency, and Miles Within Alaska Under Alternative 2.

| Route | Unit Level | Total Vehicle Miles Per Year |
|---|---|---|
| Fort Wainwright to Yukon Training Area | Platoon | 54,000 |
| Fort Wainwright to Donnelly Training Area | Company | 249,600 |
| Fort Richardson to Donnelly Training Area | Company | 187,200 |
| Fort Wainwright to Donnelly Training Area | Battalion | 78,600 |
| Fort Richardson to Donnelly Training Area | Battalion | 78,600 |
| Total Unit Deployment Miles | | 648,000 |

#### 2.2.2.5.2 Deployment Outside of Alaska

As a premier force, the SBCT would be one of the most deployable forces within the Army and would be deployed worldwide during wartime activities. The operations tempo and deployment time of the SBCT is expected to increase under this alternative.

### 2.2.2.6 Institutional Matters

Institutional matters can be described as the plans and programs that may potentially affect, protect, and manage the biological, physical, and socioeconomic environment at USARAK. Several management programs have been written to address the sustainability of specific resources as described under the No Action Alternative (Section 2.2.1.6). The Army would continue to fund these programs under Alternative 2 on an "as funding is available" basis.

Army transformation includes not only the units, their organization, equipment, and personnel, but also installation management. Installation management that directly affects the environment includes range management, environmental management, and real property management. Transformation from the Stryker Force to the Future Force is not highly defined. Therefore transformation of institutional matters would focus on implementing programs and processes that would mitigate impacts of transformation no matter what they may ultimately be.

The following programs, which are included as part of the proposed action and described in Section 2.3.8, would be developed and implemented on an "as funding is available" basis under Alternative 2:

- Impact Area Management
- Soil and Water Quality Monitoring
- Training Area Recovery Program
- ISO 14001
- Ecosystem Management
- Alternative Procedures for Cultural Resources Management
- Existing Management Plans and Programs

### 2.2.2.7 Mitigation

The existing and proposed mitigation measures that have been proposed under Alternative 2 are the same as those proposed for Alternative 3. These mitigation measures are listed in Section 2.2.3.7.

### 2.2.3 Alternative 3 (Transform the 172nd SIB and USARAK – New Infrastructure)

**All organizations and elements of the 172nd SIB, except for the 1-501st Parachute Infantry Regiment, would transform to an SBCT. The transformed 172nd SBCT and USARAK would see a significant increase in personnel and equipment. The 1-501st Parachute Infantry Regiment would be assigned to USARAK, and forces would be added to the SBCT to replace the reassigned 1-501st Parachute Infantry Regiment. Construction of five new facilities and the use of existing USARAK ranges, facilities and infrastructure would occur.**

Compared to the baseline conditions described under the No Action Alternative, Alternative 3 would involve the stationing of additional troops, increased training requirements, and the construction of new facilities. Alternative 3 also involves transforming the 172nd SIB to an SBCT. The transformed 172nd SBCT includes:

- The creation of a new infantry battalion.
- The reconstitution of the cavalry troop as one of four companies within a new reconnaissance, surveillance, and target acquisition squadron (101 individuals to 463 individuals).
- A decrease in personnel by almost half (448 individuals to 273 individuals) within the field artillery battalion.
- A slight increase in personnel within the two remaining infantry battalions (1,140 individuals to 1,334 individuals) and military intelligence detachment (40 individuals to 71 individuals).
- A slight personnel decrease within the engineer company (157 individuals to 118 individuals).
- A significant decrease within the brigade support battalion (586 individuals to 384 individuals), signal company (181 individuals to 73 individuals), and the headquarters company (304 individuals to 132 individuals).

The 1st Battalion, 501st Parachute Infantry Battalion (1-501st PIR), located at FRA, would not be included as part of the proposed transformation but would remain a component of USARAK. Personnel numbers within the 1-501st PIR would remain at 570 individuals.

Under Alternative 3, the new SBCT, replacing units currently located at FWA and FRA, would ultimately be stationed at FWA. Existing FWA infrastructure does not support the full stationing of the SBCT. When sufficient housing facilities are available, the SBCT stationed at FRA would move north to FWA, leaving the 1-501st PIR at FRA. The phased move from FRA to FWA would begin in 2009 and be completed by 2010. The USARAK support infrastructure not designated as part of the 172nd SIB would remain unchanged. Under Alternative 3, end-state stationing would move 682 personnel assigned to the new infantry battalion from FRA to FWA. Alternative 3 would result in a net increase of 19 Soldiers at FRA and a net increase of 1,014 Soldiers at FWA, as compared to the No Action Alternative. The end-state total would be 7,610 Soldiers.

Alternative 3 proposes the construction of five new facilities, specifically designed to promote and enhance the training and effectiveness of the SBCT. The proposed construction includes a new barracks facility, a mission support training facility, and the Port of Anchorage deployment staging area near FRA; two company operations facilities at FWA; and an UAV maintenance

support facility at DTA. An alternative analysis specific to each construction project is presented in Appendix D.

The use of new light armored vehicles and unmanned aircraft would also occur under this alternative. This would create a net increase of 322 Stryker vehicles plus 15 replacement-type vehicles and four UAVs per SBCT. The pre-existing 921 non-Stryker vehicles would remain as part of the proposed SBCT.

USARAK would continue to support Stryker Force requirements and prepare for a Future Force under Alternative 3. Data presented in the following sections represent the end-state transformation requirements for each activity group (as defined in Section 2.1.1) except where specific interim data are presented. Table 2.3.a contains a matrix of the alternatives comparing the readiness requirements for each activity group.

### 2.2.3.1 Stationing

Alternative 3 would include stationing of three SBCT battalions to replace the two infantry battalions currently located at FWA. One of these new SBCT battalions would be temporarily stationed at FRA until sufficient housing is available at FWA. The 1-501st PIR would remain intact at FRA. Under Alternative 3, end-state stationing would move 682 personnel assigned to the new infantry battalion from FRA to FWA. Alternative 3 would result in an end-state net increase of 19 Soldiers at FRA and an end-state net increase of 1,014 Soldiers at FWA as compared to the No Action Alternative, totaling 7,610 Soldiers. Stationing for both the proposed SBCT and residual USARAK units is shown below in Table 2.2.o.

**Table 2.2.o** Proposed Interim and End-State Stationing Requirements of the Proposed SBCT and Other USARAK Units Under Alternative 3.

| Major Unit | Personnel | | | | |
|---|---|---|---|---|---|
| | Fort Wainwright | | Fort Richardson | | Total at End State |
| | Interim | End State | Interim | End State | |
| SBCT[1] | 3,136 | 3,818 | 682 | 0 | 3,818 |
| Other USARAK | 1,589 | 1,589 | 2,203 | 2,203 | 3,792 |
| USARAK Total | 4,725 | 5,407 | 2,885 | 2,203 | 7,610 |

[1] A description of the SBCT subunits to be stationed at USARAK under Alternative 3 is presented in Section 2.3.2.

### 2.2.3.2 Construction

Alternative 3 proposes new construction of five facilities in addition to the ongoing construction projects articulated in the No Action Alternative, as listed in Table 2.2.b. Table 2.2.p lists the five proposed SBCT construction projects and their locations. Under this alternative, construction is scheduled to begin in 2005. General project descriptions and their alternative analyses are detailed in Appendix D.

**Table 2.2.p** Description of Proposed SBCT Construction Projects Under Alternative 3.

| Projects | | |
|---|---|---|
| **Fort Wainwright Main Post** | **Donnelly Training Area** | **Fort Richardson** |
| Two Company Operations Facilities | UAV Maintenance Support Facility | New Barracks Facilities |
| | | Mission Support Training Facility |
| | | Port of Anchorage Deployment Staging Area |

#### 2.2.3.2.1 Purpose and Need for Specific SBCT Construction Projects

This section summarizes the purpose and need of the five SBCT construction projects - two company operations facilities at FWA; a UAV maintenance support facility at DTA; and a new barracks facility, the mission support training facility, and the Port of Anchorage deployment staging area at FRA.

**Two Company Operations Facilities at FWA**

This project is necessary to support the new stationing requirements of units to be reconfigured to FWA as a result of the transformation of the 172nd SIB to an SBCT. This action would require additional company operational facilities beyond those currently available at FWA. The requirement for this new mission is not currently being met at the installation.

An additional 300 troops are projected as part of the transformation of the 172nd SIB to the SBCT. Sufficient space does not exist to support all of the proposed elements of the SBCT to be stationed at FWA. New company operations facilities are not available at FWA, and existing facilities are fully utilized. Company operational facilities serve as the administrative offices for the headquarters section of each subordinate company in a battalion. The new facilities support the company commander and staff in their planning, operational reporting, and other command and control activities as required.

**UAV Maintenance Support Facility at DTA**

This project would be required to provide support for the proposed transformation of the 172nd SIB, implementation of the Training and Doctrine Command's Combat Doctrine and Training Strategy, and the SBCT Force structure. A UAV maintenance facility is needed to support training exercises at DTA. This project is a climate-controlled facility for maintenance and inspection of UAVs. This project would provide the adequate space necessary to achieve mission requirements in a timely and cost effective manner.

There are no existing facilities on DTA that meet the necessary space requirements in which to perform maintenance on UAV engines, airframes, and/or electronic/optical systems and other support equipment. UAV electronic and optical systems are extremely sensitive to adverse conditions and require a climate-controlled facility for maintenance. If this project is not provided, aircraft and all support equipment will require transportation to FWA for repair and maintenance. This would disrupt mission support activities by interrupting training and causing hardship for support personnel, thus decreasing wartime readiness capability.

**New Barracks Facilities at FRA**

The project would provide new and substantially improved living quarters for approximately 60 enlisted personnel with a maximum utilization of 72 Soldiers. New housing facilities would meet USARAK and Department of the Army requirements for improved quality of life for military personnel, enhance the capability to perform military activities in military operations, and be compatible with current standards and criteria.

This project would be required to fill a housing shortage due to the proposed transformation of the 172nd SIB to an SBCT. Transformation stationing requirements would increase Soldier populations at FRA. Adequate housing is not currently available. Inadequate, substandard and crowded military housing increase maintenance and operational costs, increase energy use, and decrease quality of life for military personnel, which results in low retention rates for highly trained and skilled Soldiers.

**Mission Support Training Facility at FRA**

This project would support the new digital training mission requirements of transformation at FRA. The construction would contain selected components of the FWA mission support training facility in order to provide concurrent individual and collective training of the entire 172nd SIB. This facility would support the Training and Doctrine Command's digital training strategy.

Currently there are no facilities available to house the virtual leader effects, the engagement skills or the fire effects training equipment at FRA. The electrical, mechanical and functional demands of the training equipment are not met at existing facilities. Transformed USARAK military units require the use of the multiple training scenarios available in a virtual training environment to improve their situational training effectiveness. New mission requirements rely on leveraging technology to reinforce and sustain skills, knowledge, and abilities in a more compressed time frame. Simulation training facilities would replace some field exercise training events, which are more expensive, create environmental impacts, use more fuel, and unnecessarily create wear and tear on combat equipment. The Training and Doctrine Command's digital training strategy cannot be implemented without facilities to support those programs.

**Port of Anchorage Deployment Staging Area at FRA**

This project would establish a deployment staging area for USARAK at the Port of Anchorage. The port staging area would greatly expedite the import or export of materials and equipment in support of military and crisis operations in the Pacific area of operations by the proposed SBCT. The project would provide basic services for access to the Alaska Railroad and the capability to load and unload 80 rail cars per day.

The proposed SBCT needs the ability to deploy or receive materials or equipment in a timely manner from a strategic port location. The existing site has only two loading racks and minimal support features. Construction of the staging area at the Port of Anchorage would be required in order to support SBCT requirements in the event of an impending strategic operation. Requirements include four parallel berthing lands (rail spurs) for off and on-loading; a hardened pad for heavy equipment loading and unloading; a maneuver, staging, and maintenance yard; plowed snow holding area; security fencing and lighting; and an administrative access control facility with utilities and paved parking.

### 2.2.3.3 Training

#### 2.2.3.3.1 Mission

The two primary training operations conducted at USARAK are live fire and maneuver.

The SBCT would participate in Joint Training Exercises with any unit under this alternative. Because of the increased warfighting capability and the flexibility and ease of deployment of the SBCT, it is reasonable to expect that the requests for Joint Training Exercise participation would increase. However, specific Joint Training Exercises for the SBCT are not currently scheduled. The SBCT would be available to participate in local Joint Training Exercises when tasked.

#### 2.2.3.3.2 Live-Fire Training

Live-fire training exercises are required by the SBCT using both direct and indirect fire weapons and dudded and non-dudded munitions. The annual training requirements for the proposed SBCT under Alternative 3 are shown in Table 2.2.q.

**Table 2.2.q** Annual Training Requirements for the Proposed SBCT and Other USARAK Units Under Alternative 3.

| Range | Soldier User Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | Fort Wainwright Main Post | Yukon Training Area | Tanana Flats Training Area | Donnelly Training Area | Gerstle River | Fort Richardson | Total |
| Small Arms | 56,880 | 0 | 0 | 0 | 0 | 27,756 | 84,636 |
| Major Weapons Systems | 14,331 | 0 | 0 | 0 | 0 | 2,640 | 16,971 |
| Collective | 13,930 | 5,910 | 0 | 3,056 | 0 | 2,558 | 25,454 |
| Non-Live Fire | 3,999 | 0 | 0 | 0 | 0 | 1,842 | 5,841 |
| Total | 89,140 | 5,910 | 0 | 3,056 | 0 | 34,796 | 132,902 |

#### 2.2.3.3.3 Impact Areas

Impact areas are required to conduct live-fire training at USARAK as described in the No Action Alternative. No new impact areas are proposed under Alternative 3. Use of USARAK-controlled impact areas by the 11th Air Force would continue under this alternative.

#### 2.2.3.3.4 Munitions

Munitions requirements for Alternative 3 are not separated by training area. Data listed for FWA includes the requirements for Main Post, YTA, TFTA, and DTA. No munitions requirements are listed for the Gerstle River and Black Rapids training areas but small arms, practice, and simulation munitions may be required in the future. High explosive munitions use within Gerstle River Training Area would not be required under this alternative. The annual munitions requirements for the proposed SBCT and other USARAK units at FWA and FRA are shown below in Table 2.2.r.

**Table 2.2.r** Annual Munitions Requirements for the Proposed SBCT and Other USARAK Units Under Alternative 3.

| Munitions | Rounds per Year | | | |
|---|---|---|---|---|
| | Fort Wainwright[1] | | Fort Richardson | |
| | Interim | End State | Interim | End State |
| Small Arms | 7,640,500 | 8,547,774 | 6,838,218 | 5,128,664 |
| Practice and Simulation | 169,400 | 210,386 | 156,800 | 114,788 |
| High Explosive | 154,250 | 194,236 | 146,250 | 108,240 |
| Total | 7,964,150 | 8,952,396 | 7,141,268 | 5,351,692 |

[1] Includes Main Post, YTA, TFTA, DTA, and Gerstle River.

The 11th Air Force munitions use is projected to remain at the same level as listed under the No Action Alternative.

#### 2.2.3.3.5 Maneuver Training

**Maneuver Training Space Requirements**

Maneuver training space requirements have been calculated using the same formula as discussed in the No Action Alternative. The area requirements for maneuver training for Alternative 3 are shown in Table 2.2.s.

**Training Load**

Training load is measured in terms of maneuver impact miles (MIMs) and has been calculated using the same method as discussed in the No Action Alternative. The MIMs required under Alternative 3 are listed in Table 2.2.s. For further information on MIMs, refer to Appendix F.

**Training Capacity**

Calculated MIMs for each alternative were compared to the predicted carrying capacity, which is also measured in MIMs, for each post (Table 2.2.s). Training land capacity is a measure of the total capacity of a given parcel of land and was determined for summer and winter conditions (Appendix F).

**Table 2.2.s** End-State Maneuver Training Space, MIMs Requirements, and MIMs Capacity for the Proposed SBCT and Other USARAK Units Under Alternative 3.

| Unit | $Km^2$ Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Tanana Flats Training Area** | **Donnelly Training Area** | **Gerstle River** | **Fort Richardson** | **Total** |
| SBCT | 9,144 | 27,136 | 3,360 | 53,908 | 4,000 | 0 | 97,548 |
| All Other USARAK | 266 | 842 | 212 | 7,366 | 0 | 14,610 | 23,296 |
| Total Space Requirement | 9,410 | 27,978 | 3,572 | 61,274 | 4,000 | 14,610 | 120,844 |
| **Unit** | **Maneuver Impact Miles[1]** | | | | | | |
| SBCT | 13,100 | 29,644 | 23,100 | 85,000 | 256 | 0 | 151,100 |
| All Other USARAK | 1,612 | 650 | 238 | 1,100 | 0 | 3,500 | 7,100 |
| Total MIMs | 14,712 | 30,294 | 23,338 | 86,100 | 256 | 3,500 | 158,200 |
| **Season** | **Maneuver Impact Miles Capacity** | | | | | | |
| Summer | 201,692 | | | 62,517 | | 109,075 | 373,284 |
| Winter | 4,905,872 | | | 3,552,312 | | 203,455 | 8,661,639 |

[1] MIMs during the interim phase are less than those at the end state for all locations except for FRA. Total interim MIMs at FRA are 10,570 under Alternative 3.

### 2.2.3.4 Systems Acquisition

#### 2.2.3.4.1 Weapons Systems and Vehicles

The number of weapons systems to be utilized by the proposed SBCT would increase from the current levels listed under the No Action Alternative. A total of 265 new vehicle weapons systems, 340 new anti-tank weapons systems, and 117,606 new demolition weapons systems would also be utilized under this alternative. Table 2.2.t lists the proposed systems.

Under this alternative, 322 new Stryker light armored vehicles and four UAVs would be fielded (Table 2.2.t).

**Table 2.2.t** End-State Weapons Systems and Vehicles Utilized by the Proposed SBCT and Other USARAK Units Under Alternative 3.

| Weapons Systems[1] | Fort Wainwright[2] | Fort Richardson | Total |
|---|---|---|---|
| Small Arms | 4,263 | 2,596 | 6,839 |
| Artillery | 66 | 31 | 97 |
| Vehicle | 220 | 73 | 293 |
| Anti-tank | 91 | 30 | 121 |
| Demolition | 5 | 2 | 7 |
| Total | 4,645 | 2,712 | 7,357 |
| **Vehicles** | | | |
| Stryker[1] | 322 | 0 | 322 |
| UAV[1] | 4 | 0 | 4 |
| SUSV | 30 | 60 | 90 |
| HMMWV | 564 | 120 | 684 |
| MTV | 195 | 83 | 278 |
| Other (Five-ton trucks, etc.) | 156 | 65 | 221 |
| Total | 1,271 | 328 | 1,599 |

[1] A description of weapons systems and vehicles, including the Stryker and UAV, is presented in Sections 2.3.4, 2.3.5, and 2.3.6.

[2] Includes FWA Main Post, YTA, TFTA, DTA, and Gerstle River.

### 2.2.3.5 Deployment

#### 2.2.3.5.1 Deployment Within Alaska

Under current training doctrine, deployment would not increase on a unit basis (e.g., individual platoon unit deployments would remain at four times a year regardless of alternative). However, the number of units, to include platoon, company, and battalion, would increase under the proposed action. Therefore, the total number of unit deployments and miles would increase.

Under Alternative 3, platoon, company and battalion-sized deployments of the proposed SBCT and other USARAK units to all USARAK training lands would occur a total of 197 times per year. This is an increase of 304,400 total deployment miles as compared to the No Action Alternative. Table 2.2.u lists the length of USARAK deployment actions between USARAK installations.

**Table 2.2.u** Interim and End-State Deployment Size, Frequency, and Miles Within Alaska Under Alternative 3.

| Route | Unit Level | Total Vehicle Miles Per Year | |
|---|---|---|---|
| | | Interim | End State |
| Fort Wainwright to Yukon Training Area | Platoon | 54,000 | 64,800 |
| Fort Wainwright to Donnelly Training Area | Company | 230,400 | 312,000 |
| Fort Richardson to Donnelly Training Area | Company | 345,600 | 187,200 |
| Fort Wainwright to Donnelly Training Area | Battalion | 73,200 | 104,800 |
| Fort Richardson to Donnelly Training Area | Battalion | 146,400 | 73,200 |
| Total Unit Deployment Miles | | 849,600 | 742,000 |

#### 2.2.3.5.2 Deployment Outside of Alaska

As a premier force, the SBCT would be one of the most deployable forces within the Army and would be deployed worldwide during wartime activities. The operations tempo and deployment time of the SBCT is expected to increase under this alternative.

### 2.2.3.6 Institutional Matters

Institutional matters can be described as the plans and programs that may potentially affect, protect, and manage the biological, physical, and socioeconomic environment at USARAK. Several management programs have been written to address the sustainability of specific resources as described under the No Action Alternative (Section 2.2.1.6). The Army would continue to fund these programs under Alternative 3 on an "as funding is available" basis.

Army transformation includes not only the units, their organization, equipment, and personnel, but also installation management. Installation management that directly affects the environment includes range management, environmental management, and real property management. Transformation from the Stryker Force to the Future Force is not highly defined. Therefore transformation of institutional matters should focus on implementing programs and processes that would mitigate impacts of transformation no matter what they may ultimately be.

The following programs, which are included as part of the proposed action and described in Section 2.3.8, would be developed and implemented on an "as funding is available" basis under Alternative 3:

- Impact Area Management
- Soil and Water Quality Monitoring
- Training Area Recovery Program
- ISO 14001
- Ecosystem Management
- Alternative Procedures for Cultural Resources Management
- Existing Management Plans and Programs

### 2.2.3.7 Mitigation

#### 2.2.3.7.1 Existing Mitigation

The following mitigation measures are currently implemented on USARAK lands. These programs would be funded and would continue to be implemented under Alternative 3. A detailed description of each measure is presented in its corresponding resource section in Chapter 4.

**Air Quality – Section 4.2**

- Continue to comply with asbestos National Emission Standard for Hazardous Air Pollutants during renovation or demolition activities when friable asbestos materials are present.
- Continue to submit required construction permit applications to Alaska Department of Environmental Conservation.
- Continue to collect Prevention of Significant Deterioration ambient air quality data.
- Continue existing air quality monitoring efforts.

**Geology Resources – Section 4.3**

- None

**Soil Resources – Section 4.4**

- Continue training exercise regulations as stipulated by USARAK Range Regulation 350-2.
- Continue to use environmental limitations maps to determine when and where USARAK units can train effectively while limiting environmental disturbance.
- Continue to apply Integrated Training Area Management program to inventory and monitor, repair, maintain, and enhance training lands.
- Continue the Land Condition and Trend Analysis program and the Land Rehabilitation and Maintenance program to inventory land conditions, monitor vegetation trends, repair damaged areas, and minimize future damage.
- Continue to obtain wetlands permits to conduct military training in wetland areas.
- Continue to implement programs to track munitions usage.
- Continue to use the Range Facilities Management Support System and input range use data.
- Continue to implement recreational vehicle use policy at USARAK.
- Continue to implement soil and water monitoring program for DTA and YTA.

**Surface Water – Section 4.5**

- Continue to monitor surface water within existing monitoring program.
- Continue to implement Integrated Natural Resources Management Plans at USARAK.
- Maintain protective buffer zones along some waterways to reduce maneuver impacts.

**Groundwater – Section 4.6**

- Continue to monitor groundwater within existing monitoring program.
- Continue to implement Integrated Natural Resources Management Plans at USARAK.

**Wetlands – Section 4.7**

- Continue to use and update environmental limitations maps.
- Continue to conduct planning-level surveys, wetlands management, and develop re-vegetation plans.
- Continue implementation of Integrated Natural Resources Management Plans, with specific actions for management to wetlands.
- Continue to obtain wetlands permits.
- Continue damage control measures.
- Continue to implement recreational vehicle use policy at USARAK.

**Vegetation – Section 4.8**

- Continue to conduct forest resource inventories to aid ecosystem management program.
- Continue implementation of Integrated Natural Resources Management Plans, with specific actions for management of vegetation.
- Continue Land Condition Trend Analysis and Land Rehabilitation and Maintenance programs to minimize and rehabilitate vegetation damage.
- Continue to implement recreational vehicle use policy at USARAK.

**Wildlife and Fisheries – Section 4.9**

- Continue implementation of Integrated Natural Resources Management Plans, with specific actions for management of wildlife and fisheries.
- Continue to conduct a detailed study to assess the impacts and effects of noise on wildlife.
- Continue to monitor effects of military training on select wildlife species during critical seasons.

**Threatened or Endangered Species and Species of Concern – Section 4.10**

- Continue to extract information regarding threatened and endangered species from other ongoing surveys.

**Fire Management – Section 4.11**

- Continue to use the fire index in cooperation with BLM.
- Coordinate live-fire training exercises when fire weather and indices are low to help prevent the spread of wildfire.
- Avoid ordnance use during periods when weather and fuels conditions are conducive to quick fire starts and spreading.
- Continue to update and implement fire management plans written by USARAK and the BLM Alaska Fire Service for each installation. The plans assess current fire hazards and list recommendations to reduce them.
- Maintain existing firebreaks on USARAK lands, including on the northern boundary of Stuart Creek Impact Area on YTA, and the southern end of Main Post, from the Richardson Highway to Jarvis Creek on DTA.
- Comply with existing range regulations and restrictions (USARAK Regulation 350-2).
- Follow existing range guidelines to prevent wildfires.
- Remove 60 acres of dead spruce near Stuckagain Heights on FRA.

- Treat Grezelka Range on FRA with a 15 acre prescribed burn.
- Remove 10 acres of dead spruce and thin trees on FRA that are near housing.
- Remove two acres of dead spruce on observation point 6A on DTA.
- Create fuel break on Jarvis North on DTA.
- Treat Texas Range on DTA with a 3,000 acre prescribed fire.
- Conduct prescribed burning where grass is the primary fuel type.

**Cultural Resources – Section 4.12**

- Continue to perform Section 110 cultural resource surveys at USARAK.
- Continue to meet Section 106 obligations at USARAK.
- Continue to implement the Integrated Cultural Resources Management Plan.
- Continue to curate artifacts found on USARAK lands with federally certified museums per the National Historic Preservation Act.
- Continue to work with Tribes in identifying and transferring graves and associated artifacts found on USARAK lands per the Native American Graves Protection and Repatriation Act.

**Socioeconomics – Section 4.13**

- None

**Public Access and Recreation – Section 4.14**

- Continue to implement recreational vehicle use policy at USARAK.
- Continue to implement USARAK automated check-in phone system.
- Continue to streamline public access lands through the universal recreation permit.
- Maintain the extended two-year renewal duration on the permit.
- Continue hunter safety education courses and work to provide educational opportunities on USARAK lands.
- Continue to monitor recreational usage of training areas through the USARTRAK system.

**Subsistence – Section 4.15**

- Work with relevant federal and state officials to protect subsistence use, per Alaska National Interest Lands Conservation Act.
- Continue soil and water quality monitoring to trace the fate of munitions.
- Continue to implement Integrated Natural Resources Management Plans with specific actions for the management of wildlife, fisheries, vegetation, and habitat.

**Noise – Section 4.16**

- Continue to implement existing USARAK Range Regulation 350-2.
- Continue public notification of night-time firing.

**Human Health and Safety – Section 4.17**

- Continue to implement institutional controls.
- Continue to implement Integrated Natural Resources Management Plans.
- Split convoys into smaller vehicle groups and stagger departure times per Army Regulation 55-2.

- Continue to provide containment systems for in-field refueling operations.
- Continue convoy permitting process with Alaska Department of Transportation and Public Facilities.

**Environmental Justice – Section 4.18**

- Maintain USARAK informational website.
- Continue publication and distribution of *Environmental Resources Newsletter* and *Environmental Restoration Newsletter.*
- Continue Restoration Advisory Board functions, as appropriate.
- Continue existence of full-time Native tribal coordination within USARAK.

**Infrastructure – Section 4.19**

- Continue to implement Range Development Plan.
- Continue to implement Integrated Training Area Management program.
- Continue to implement Integrated Natural Resources Management Plans.
- Continue environmental, conservation, and cultural resource management programs.

#### 2.2.3.7.2 Proposed Mitigation

The Army has identified relevant and reasonable measures to mitigate environmental impacts of the proposed action. The following mitigation measures are proposed to be implemented as funding is available under Alternative 3. Mitigation measures would be fully implemented under Alternative 4. A detailed description of each measure is presented in its corresponding resource section in Chapter 4. In addition to these proposed measures, existing mitigation would be funded and would continue to be implemented under both Alternatives 3 and 4.

**Air Quality – Section 4.2**

- Conduct air quality monitoring projects to assess impacts due to transformation.
- Collect data to determine impacts of fugitive dust generation, and investigate need for dust control plans to control fugitive dust generation.

**Geology Resources – Section 4.3**

- None

**Soil Resources – Section 4.4**

- Conduct maneuverability analysis of Strykers and associated military vehicles during seasonal variation of soil conditions to define operational limitations.
- Collect Stryker maneuver data to support and calibrate maneuverability modeling studies (no data currently exists).
- Conduct maneuverability analysis of Tanana Flats.
- Assess ground truth soil conditions for potential high-use maneuver locations.
- Conduct permafrost mapping, sensitivity analysis, and model development.
- Analyze seasonal ground strength for maximizing training land use.
- Study the effect of fire on active layer thickness and permafrost degradation as it affects maneuver lands.
- Conduct real-time analysis of ground conditions to support maneuver land use.
- Expand the soil and water monitoring program to include all USARAK lands.

**Surface Water – Section 4.5**

- Expand existing surface water monitoring program to include areas not currently being monitored.
- Harden approaches to fords and ice bridges on anadromous creeks and rivers.
- Rehabilitate maneuver trails and areas on a rotational basis.
- Modify current practices to reduce chance of firing high explosive munitions into active river channels.
- Place new targets further away from open waterways.
- Promote vegetated buffer zones between small arms range footprints and lakes and streams.

**Groundwater – Section 4.6**

- Expand existing groundwater monitoring program to include areas not currently being monitored.

**Wetlands – Section 4.7**

- Implement additional wetlands mitigation on a case-by-case basis.
- Develop and maintain USARAK wetlands information database.
- Complete a wetlands survey.
- Conduct a detailed study to assess impacts of recreational vehicles to sensitive wetlands.

**Vegetation – Section 4.8**

- Conduct a detailed study to assess impacts of recreational vehicles to vegetation.

**Wildlife and Fisheries – Section 4.9**

- Implement natural resources conservation program, Integrated Natural Resources Management Plans, and ecosystem management.
- Develop and implement an information and education program for personnel using USARAK lands.

**Threatened or Endangered Species and Species of Concern – Section 4.10**

- Develop management guidelines with U.S. Fish and Wildlife Service and Alaska Department of Fish and Game to address threatened and endangered species, if found on USARAK lands.

**Fire Management – Section 4.11**

- Review access to firing ranges.
- Locate operational areas within hardwood forests to minimize the risk of wildfire.
- Create defensible space around existing and new structures.

**Cultural Resources – Section 4.12**

- Develop and implement a Historic Properties Component to the Integrated Cultural Resources Management Plan under Army Alternate Procedures to 36 CFR 800.
- Review and update Integrated Cultural Resources Management Plan as needed.
- Develop a predictive model to identify archaeologically high probability areas.
- Perform Section 110 cultural resource surveys.

- Plan proposed undertakings to avoid impacts to cultural resource sites and historic properties.
- Develop protective measures to avoid impacts to cultural resources.
- Consult with interested tribal governments.
- Conduct Properties of Traditional, Religious, and Cultural Significance studies.
- Evaluate and recover data from identified archaeological sites as necessary.
- Adaptively re-use historic buildings for contemporary needs.
- Follow Secretary of the Interior's Standards for the Treatment of Historic Properties in rehabilitating historic buildings, adaptively re-using historic buildings and adding new construction to historic districts.
- Develop a cultural resources interpretive program at USARAK.
- Document buildings to Historic American Buildings Survey Standards as needed at USARAK.
- Prepare historic structures reports on buildings that contribute to the Ladd Field National Historic Landmark.

**Socioeconomics – Section 4.13**

- None

**Public Access and Recreation – Section 4.14**

- Conduct a detailed study to assess the impacts of recreational vehicles on hunting access.
- Build kiosks at all entrances to recreational areas.
- Monitor recreational impacts on stocked lakes and streams, and upgrade access and recreational opportunities.
- Fully fund conservation officers to enforce state and federal game laws, and military rules and restrictions.

**Subsistence – Section 4.15**

- Consult with subsistence parties to determine subsistence use levels and areas on USARAK lands.
- Implement an education and awareness program for military personnel and others applying for hunting and fishing permits on USARAK lands to emphasize the importance of subsistence resources to rural dwellers and to discourage the waste of any subsistence resource.
- Ensure through tribal consultation and use of a newsletter that subsistence users are aware of and provided opportunity to comment on existing hunting and fishing programs on USARAK lands.
- Institute research and cooperative studies with Tribes to address possible effects of Army activities on subsistence resources both directly within USARAK installation boundaries and those outlying resources that may also be affected by Army activities.

**Noise – Section 4.16**

- Relocate firing point locations to contain Level II and III contours within post boundaries.
- Calculate noise contours using actual firing data.

**Human Health and Safety – Section 4.17**

- Consider alternate travel routes and methods for military convoys.
- Expand public notification of convoy activity.

**Environmental Justice – Section 4.18**

- Publish and distribute newsletter pertaining to Alaska Native Tribes and organizations.
- Establish government-to-government relationships with Alaska Native Tribes whose interests may be affected by USARAK activities.

**Infrastructure – Section 4.19**

- Implement a Training Area Recovery Plan.
- Implement the Range Development Plan, Integrated Training Area Management Work Plan, Environmental Management Systems, Integrated Natural Resources Management Plans, Integrated Cultural Resources Management Plan, Ecosystem Management Program, and Sustainable Range Program.

### 2.2.4 Alternative 4 (Transform the 172nd SIB and USARAK – New Infrastructure and Airborne Task Force)

**All organizations and elements of the 172nd SIB, except for the 1-501st Parachute Infantry Regiment, would transform to an SBCT. The transformed 172nd SBCT and USARAK would see a significant increase in personnel and equipment. The 1-501st Parachute Infantry Regiment would be assigned to USARAK and would expand to an Airborne Task Force. Additional forces would be added to the SBCT to replace the newly created Airborne Task Force. Construction of five new facilities and the use of existing USARAK ranges, facilities and infrastructure would occur.**

Alternative 4 involves transforming the 172nd SIB to an SBCT. The transformed 172nd SBCT includes:

- The expansion of the 1-501st PIR to a newly created Airborne Task Force which involves an increase in personnel (570 individuals to 1,115 individuals).
- The creation of a new infantry battalion.
- The reconstitution of the cavalry troop as one of four companies within a new reconnaissance, surveillance, and target acquisition squadron (101 individuals to 463 individuals).
- A decrease in personnel by almost half (448 individuals to 273 individuals) within the field artillery battalion.
- A slight increase in personnel within the two remaining infantry battalions (1,140 individuals to 1,334 individuals) and military intelligence detachment (40 individuals to 71 individuals).
- A slight personnel decrease within the engineer company (157 individuals to 118 individuals).
- A significant decrease within the brigade support battalion (586 individuals to 384 individuals), signal company (181 individuals to 73 individuals), and the headquarters company (304 individuals to 132 individuals).

Alternative 4 would result in a large increase of Soldiers at FWA (1,014) and a smaller increase in Soldiers at FRA (321), due to the Airborne Task Force, when compared to Alternative 3. The Airborne Task Force, located at FRA, would remain a component of USARAK. Personnel numbers within the Airborne Task Force would increase to 1,115 individuals.

Interim stationing would involve 7,912 Soldiers at USARAK posts, with 3,187 at FRA (an increase of 1,003 Soldiers from the No Action Alternative) and 4,725 at FWA (an increase of 332 Soldiers from the No Action Alternative). However, existing FWA infrastructure does not support the full stationing of the SBCT. A phased move from FRA to FWA would begin in 2009 and be completed by 2010. End-state stationing would move 682 personnel assigned to the new infantry battalion from FRA to FWA. The total number of end-state personnel at USARAK would be 7,912.

Alternative 4 supports the proposed construction projects as described in Alternative 3. This construction involves five new facilities specifically designed to promote and enhance the training and effectiveness of the SBCT. The proposed construction includes a new barracks facility, a mission support training facility, and the Port of Anchorage deployment staging area near FRA; two company operations facilities at FWA; and an UAV maintenance support facility at DTA. An alternative analysis specific to each construction project is presented in Appendix D.

Live-fire training levels listed for Alternative 4 represent the same SBCT training standards as listed for Alternative 3 but also reflect the increased requirements of the Airborne Task Force to be located at FRA. Additional munitions use requirements under Alternative 4, as compared to Alternative 3, also reflect the stationing of the Airborne Task Force.

Alternative 4 proposes to continue the same high level of readiness as required under Alternative 3. However, with the addition of the Airborne Task Force at FRA, maneuver space requirements would increase at FRA and at DTA. Training load requirements (MIMs) would also increase under Alternative 4 but only at FRA.

Under Alternative 4, the same number of anti-tank and demolition weapons systems would be used as listed for Alternative 3 but the number of vehicle, artillery, and small arms weapons systems would increase. This increase reflects the addition of the Airborne Task Force at FRA.

The use of new vehicles and unmanned aircraft would also occur under Alternative 4. This would result in the acquisition of 322 Stryker vehicles plus 15 replacement-type vehicles and four UAVs (same as Alternative 3). Under Alternative 4, the effects of the Airborne Task Force requirements are reflected in the increase in the number of HMMWVs and MTVs.

Under Alternative 4, the number of deployments between posts and the number of miles traveled on non-military roads would increase as compared to Alternative 3. At the end state of transformation, which is reflected in the following tables, FRA units will continue to travel to DTA for training exercises. However, the number of convoys and vehicles deployed would be less than those occurring during the interim phase. When the final infantry battalion of the SBCT is moved to FWA, the number of total miles traveled would decrease, but the number of deployments would remain the same.

USARAK would continue to support Stryker Force requirements and prepare for a Future Force under Alternative 4. Data presented in the following sections represent the end-state transformation requirements for each activity group except where specific interim data are presented. Table 2.3.a contains a matrix of the alternatives comparing the readiness requirements for each activity group.

### 2.2.4.1 Stationing

Alternative 4 would include stationing of three SBCT battalions to replace the two infantry battalions currently located at FWA. One of these new SBCT battalions would be temporarily stationed at FRA until sufficient housing is available at FWA. The newly created Airborne Task Force would also be stationed at FRA.

Under this alternative, the Airborne Task Force would operate out of FRA. The Airborne Task Force of 1,115 personnel would include a battalion as the main fighting force with an additional task force headquarters (commanded by the airborne battalion commander), and a number of supporting companies and platoons (commanded by the task force commander).

The Airborne Task Force would include the following: a headquarters and headquarters company; companies A, B, and C; an anti-tank company; a combat support company with a ground surveillance radar platoon, combat engineer platoon, and air defense artillery platoon; a forward support company; and a field artillery battery (105mm). Stationing for both the proposed SBCT and residual USARAK units is shown below in Table 2.2.v.

**Table 2.2.v** Proposed Interim and End-State Stationing Requirements of the Proposed SBCT and Other USARAK Units Under Alternative 4.

| Major Unit | Personnel | | | | |
|---|---|---|---|---|---|
| | Fort Wainwright | | Fort Richardson | | Total at End State |
| | Interim | End State | Interim | End State | |
| SBCT[1] | 3,136 | 3,818 | 682 | 0 | 3,818 |
| Other USARAK | 1,589 | 1,589 | 2,505 | 2,505 | 4,094 |
| USARAK Total | 4,725 | 5,407 | 3,187 | 2,505 | 7,912 |

[1] A description of the SBCT subunits to be stationed at USARAK under Alternative 4 is presented in Section 2.3.2.

### 2.2.4.2 Construction

There are five proposed construction activities under Alternative 4, which are the same as those proposed as part of Alternative 3. A discussion of the proposed construction activities and their associated building options is presented as part of Alternative 3. An alternative analysis specific to each construction project is presented in Appendix D. In addition, the ongoing construction projects, as articulated in the No Action Alternative, would continue.

### 2.2.4.3 Training

#### 2.2.4.3.1 Mission

The two primary training operations conducted at USARAK are live fire and maneuver.

The SBCT would participate in Joint Training Exercises with any unit under this alternative. Because of the increased warfighting capability and the flexibility and ease of deployment of the SBCT, it is reasonable to expect that the requests for Joint Training Exercise participation would increase. However, specific Joint Training Exercises for the SBCT are not currently scheduled. The SBCT would be available to participate in local Joint Training Exercises when tasked.

#### 2.2.4.3.2 Live-Fire Training

The annual training requirements for the 172nd SIB and other USARAK units are shown in Table 2.2.w.

**Table 2.2.w** Annual Training Requirements for the Proposed SBCT and Other USARAK Units Under Alternative 4.

| Range | Soldier User Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | Fort Wainwright Main Post | Yukon Training Area | Tanana Flats Training Area | Donnelly Training Area | Gerstle River | Fort Richardson | Total |
| Small Arms | 56,880 | 0 | 0 | 0 | 0 | 55,513 | 112,393 |
| Major Weapons Systems | 14,331 | 0 | 0 | 0 | 0 | 5,280 | 19,611 |
| Collective | 13,930 | 5,910 | 0 | 3,056 | 0 | 5,116 | 28,012 |
| Non-Live Fire | 3,999 | 0 | 0 | 0 | 0 | 3,684 | 7,683 |
| Total | 89,140 | 5,910 | 0 | 3,056 | 0 | 69,593 | 167,699 |

#### 2.2.4.3.3 Impact Areas

Impact areas are required to conduct live-fire training at USARAK as described in the No Action Alternative. No new impact areas are proposed under Alternative 4. Use of USARAK-controlled impact areas by the 11th Air Force would continue under this alternative.

#### 2.2.4.3.4 Munitions

The annual munitions requirements for the SBCT at FWA and FRA are shown below in Table 2.2.x.

**Table 2.2.x** Annual Munitions Requirements for the Proposed SBCT and Other USARAK Units Under Alternative 4.

| Munition | Rounds per Year | | | |
|---|---|---|---|---|
| | Fort Wainwright[1] | | Fort Richardson | |
| | Interim | End State | Interim | End State |
| Small Arms | 7,640,500 | 8,547,774 | 9,628,201 | 7,918,647 |
| Practice and Simulation | 169,400 | 210,386 | 201,933 | 159,933 |
| High Explosive | 154,250 | 194,236 | 212,716 | 173,866 |
| Total | 7,964,150 | 8,952,396 | 10,042,850 | 8,252,446 |

[1] Includes Main Post, YTA, TFTA, DTA, and Gerstle River.

The 11th Air Force munitions use is projected to remain at the same level as listed under the No Action Alternative.

### 2.2.4.3.5 Maneuver Training

#### Maneuver Training Space Requirements

Maneuver training space requirements have been calculated using the same formula as discussed in the No Action Alternative. The area requirements for maneuver training for Alternative 4 are shown in Table 2.2.y.

#### Training Load

The maneuver impact miles (MIMs) required under Alternative 4 are listed in Table 2.2.y. For further information on MIMs, refer to Appendix F.

#### Training Capacity

Calculated MIMs for each alternative were compared to the predicted carrying capacity, which is also measured in MIMs, for each post (Table 2.2.y). Training land capacity is a measure of the total capacity of a given parcel of land and was determined for summer and winter conditions (Appendix F).

**Table 2.2.y** End-State Maneuver Training Space, MIMs Requirements, and MIMs Capacity for the Proposed SBCT and Other USARAK Units Under Alternative 4.

| Unit | $Km^2$ Days | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Tanana Flats Training Area** | **Donnelly Training Area** | **Gerstle River** | **Fort Richardson** | **Total** |
| SBCT | 4,638 | 20,378 | 3,360 | 53,908 | 4,000 | 11,264 | 97,548 |
| Other USARAK | 266 | 842 | 212 | 11,218 | 0 | 28,214 | 40,752 |
| Total Space Requirement | 4,904 | 21,220 | 3,572 | 65,126 | 4,000 | 39,478 | 138,300 |
| **Unit** | **Maneuver Impact Miles[1]** | | | | | | |
| SBCT | 11,000 | 30,600 | 23,100 | 85,000 | 0 | 4,500 | 154,200 |
| Other USARAK | 1,850 | 650 | 0 | 1,100 | 0 | 3,500 | 7,100 |
| Total MIMs | 12,850 | 31,250 | 23,100 | 86,100 | 0 | 8,000 | 161,300 |
| **Season** | **Maneuver Impact Miles Capacity** | | | | | | |
| Summer | 201,692 | | | 62,517 | | 109,075 | 373,284 |
| Winter | 4,905,872 | | | 3,552,312 | | 203,455 | 8,661,639 |

[1] MIMs during the interim phase are less than those at the end state for all locations except for FRA. Total interim MIMs at FRA are 10,570 under Alternative 4.

### 2.2.4.4 Systems Acquisition

#### 2.2.4.4.1 Weapons Systems and Vehicles

The number of weapons systems to be utilized by the proposed SBCT would increase from current levels as listed under the No Action Alternative. The additional 1,911 small arms weapons and 166 artillery weapons systems would be utilized by the proposed SBCT under Alternative 4.

A total of 277 new vehicle weapons systems, 359 new anti-tank weapons systems, and 119,450 new demolition weapons systems would also be utilized under this alternative. Table 2.2.z lists the proposed systems.

Under this alternative, 322 new Stryker light armored vehicles and four UAVs would be fielded (Table 2.2.z).

**Table 2.2.z** End-State Weapons Systems and Vehicles Utilized by the Proposed SBCT and Other USARAK Units Under Alternative 4.

| Weapons Systems[1] | Fort Wainwright[2] | Fort Richardson | Total |
|---|---|---|---|
| Small Arms | 4,263 | 3,715 | 7,978 |
| Artillery | 86 | 48 | 134 |
| Vehicle | 220 | 73 | 293 |
| Anti-Tank | 91 | 30 | 121 |
| Demolition | 5 | 2 | 7 |
| Total | 4,665 | 3,868 | 8,533 |
| **Vehicles** | | | |
| Stryker[1] | 322 | 0 | 322 |
| UAV[1] | 4 | 0 | 4 |
| SUSV | 30 | 95 | 125 |
| HMMWV | 598 | 192 | 790 |
| MTV | 239 | 119 | 358 |
| Other (Five-ton trucks, etc.) | 161 | 80 | 241 |
| Total | 1,354 | 486 | 1,840 |

[1] A description of weapons systems and vehicles, including the Stryker and UAV, is presented in Sections 2.3.4, 2.3.5, and 2.3.6.

[2] Includes FWA Main Post, YTA, TFTA, DTA, and Gerstle River.

### 2.2.4.5 Deployment

#### 2.2.4.5.1 Deployment Within Alaska

Under current training doctrine, deployment would not increase on a unit basis (e.g., individual platoon unit deployments would remain at four times a year regardless of alternative). However, the number of units, to include platoon, company, and battalion, would increase under the proposed action. Therefore, the total number of unit deployments and miles would increase.

Under Alternative 4, platoon, company and battalion-sized deployments of the proposed SBCT and other USARAK units to all USARAK training lands would occur a total of 222 times per year. This is an increase of 572,000 total deployment miles as compared to the No Action Alternative. Table 2.2.aa lists the length of USARAK deployment actions between USARAK installations.

**Table 2.2.aa** Interim and End-State Deployment Size, Frequency, and Miles Within Alaska Under Alternative 4.

| Route | Unit Level | Total Vehicle Miles Per Year | |
|---|---|---|---|
| | | Interim | End State |
| Fort Wainwright to Yukon Training Area | Platoon | 54,000 | 72,000 |
| Fort Wainwright to Donnelly Training Area | Company | 230,400 | 312,000 |
| Fort Richardson to Donnelly Training Area | Company | 518,400 | 374,400 |
| Fort Wainwright to Donnelly Training Area | Battalion | 73,200 | 104,800 |
| Fort Richardson to Donnelly Training Area | Battalion | 219,600 | 146,400 |
| Total Unit Deployment Miles | | 1,095,600 | 1,009,600 |

#### 2.2.4.5.2 Deployment Outside of Alaska

As a premier force, the SBCT would be one of the most deployable forces within the Army and would be deployed worldwide during wartime activities. The operations tempo and deployment time of the SBCT is expected to increase under this alternative.

### 2.2.4.6 Institutional Matters

Institutional matters can be described as the plans and programs that may potentially affect, protect, and manage the biological, physical, and socioeconomic environment at USARAK. Several management programs have been written to address the sustainability of specific resources as described under the No Action Alternative (Section 2.2.1.6). The Army would fully fund these programs under Alternative 4.

Army transformation includes not only the units, their organization, equipment, and personnel, but also includes installation management. Installation management that directly affects the environment includes range management, environmental management, and real property management. Transformation from the Stryker Force to the Future Force is not highly defined. Therefore transformation of institutional matters should focus on implementing programs and processes that will mitigate impacts of transformation no matter what they may ultimately be.

The following programs, which are included as part of the proposed action, would be developed and fully implemented under Alternative 4.

- Impact Area Management
- Soil and Water Quality Monitoring
- Training Area Recovery Program
- ISO 14001
- Ecosystem Management
- Alternative Procedures for Cultural Resources Management
- Existing Management Plans and Programs

### 2.2.4.7 Mitigation

The existing and proposed mitigation measures that have been proposed under Alternative 4 are similar to those proposed for Alternative 3. Programs and plans would be implemented as funding is available under Alternative 3, while those same plans would be fully implemented under Alternative 4. These mitigation measures are listed in Section 2.2.3.7.

## 2.3 SUMMARY OF TRANSFORMATION ACTIONS COMMON TO THE ALTERNATIVES

Several transformation actions are standard to the alternatives and are discussed below. Additional descriptions of the SBCT by activity group are located in Appendix C. Table 2.3.a contains a summary matrix of the alternatives comparing the readiness requirements for each activity group.

**Table 2.3.a** Comparison of Readiness Requirements for Each Alternative by Activity Group.

| Activity Group | Alternatives | | | |
|---|---|---|---|---|
| | **1 No Action** | **2 Transform with No New Infrastructure** | **3 Transform with New Infrastructure[1]** | **4 Transform with New Infrastructure and Airborne Task Force[1]** |
| **Stationing** | | | | |
| *Total Personnel* | 6,577 | 6,796 | 7,610 | 7,912 |
| FWA | 4,393 | 4,725 | 5,407 | 5,407 |
| FRA | 2,184 | 2,071 | 2,203 | 2,505 |
| **Construction** | | | | |
| *Projects* | Continue mission-essential projects | Continue mission-essential projects | Construct five new facilities | Construct five new facilities |
| **Training** | | | | |
| *Mission* | Continue existing Current Force mission | New SBCT mission | New SBCT mission | New SBCT and Airborne Task Force mission |
| *Live-Fire Training* | | | | |
| Impact Areas (acres) | 281,093 | No change | No change | No change |
| Annual Total Munitions (rounds) | 9,420,780 | 11,792,504 | 14,304,061 | 17,204,842 |
| *Maneuver Training* | | | | |
| Maneuver Space ($km^2$ days) | 67,092 | 103,388 | 120,844 | 138,300 |
| Maneuver Impact Miles | 31,600 | 155,100 | 158,200 | 161,300 |
| *Maneuver Impact Miles Capacity* | | | | |
| Summer | 373,284 | No change | No change | No change |
| Winter | 8,661,642 | | | |

**Table 2.3.a cont.** Comparison of Readiness Requirements for Each Alternative by Activity Group.

| Activity Group | Alternatives | | | |
|---|---|---|---|---|
| | **1 No Action** | **2 Transform with No New Infrastructure** | **3 Transform with New Infrastructure[1]** | **4 Transform with New Infrastructure and Airborne Task Force[1]** |
| **Systems Acquisition** | | | | |
| *Weapons* | | | | |
| Small Arms | 3,437 | 5,685 | 6,839 | 7,978 |
| Artillery | 30 | 88 | 97 | 134 |
| Vehicle | 0 | 293 | 293 | 293 |
| Anti-tank | 0 | 121 | 121 | 121 |
| Demolition | 0 | 7 | 7 | 7 |
| Total Weapons | 3,467 | 6,194 | 7,357 | 8,533 |
| *Vehicles* | | | | |
| Stryker | 0 | 322 | 322 | 322 |
| UAV | 0 | 4 | 4 | 4 |
| SUSV | 230 | 44 | 90 | 125 |
| HMMWV | 528 | 614 | 684 | 790 |
| MTV | 268 | 224 | 278 | 358 |
| Other | 151 | 183 | 221 | 241 |
| Total Vehicles | 1,177 | 1,391 | 1,599 | 1,840 |
| **Deployments** | | | | |
| *Platoon* | | | | |
| FWA-YTA | 108 | 120 | 144 | 160 |
| *Company* | | | | |
| FWA-DTA | 24 | 32 | 40 | 40 |
| FRA-DTA | 4 | 8 | 8 | 16 |
| *Battalion* | | | | |
| FWA-DTA | 2 | 3 | 4 | 4 |
| FRA-DTA | 1 | 1 | 1 | 2 |
| *Total Unit Deployment Miles Per Year* | 437,600 | 648,000 | 742,000 | 1,009,600 |

[1] Numbers indicate end-state totals.

### 2.3.1 Mission

The SBCT has been designed as a full spectrum, early entry combat force. The SBCT has utility in all operational environments against all projected future threats but is optimized primarily for small-scale contingencies in complex and urban terrain, confronting low-end and mid-range threats that may employ both conventional and asymmetric capabilities. The SBCT would deploy rapidly, execute early entry, and conduct effective combat operations immediately on arrival to prevent, contain, stabilize, or resolve a conflict under the command and control of a fully integrated division within the joint contingency force. The SBCT would participate in a major theater war as a subordinate maneuver component within a division or corps. The SBCT would also participate in stability and support operations as an initial entry force and/or as a force to provide security for stability forces.

### 2.3.2 Stationing

The SBCT includes three infantry battalions; a reconnaissance, surveillance, and target acquisition squadron; a field artillery battalion; an anti-tank company; an engineer company; a military intelligence company; a signal company; a brigade support battalion; and a brigade headquarters and headquarters company.

Each SBCT infantry battalion would consist of 682 personnel. Its main subordinate elements include the battalion headquarters and headquarters company, three rifle companies, a mortar platoon, a reconnaissance platoon, a sniper squad, and other support units. The major subordinate elements of each rifle company include three rifle platoons and a mobile gun system platoon.

The reconnaissance, surveillance, and target acquisition squadron would include the squadron headquarters; three reconnaissance troops consisting of headquarters, three reconnaissance platoons and a mortar section and a surveillance troop consisting of UAV, sensor, and nuclear, biological, and chemical detection platoons. The squadron would consist of 423 personnel.

The field artillery battalion would consist of three firing batteries, a headquarters and headquarters battery with a target acquisition platoon, and a medical platoon. Meteorological and survey teams are also included in the battalion, but the brigade support battalion provides all other combat service support. The field artillery battalion would consist of 290 personnel.

The SBCT anti-tank company would include the company headquarters and three anti-tank platoons and would consist of 53 personnel.

The SBCT engineer company would include the company headquarters, three combat mobility platoons, and a mobility support platoon and would consist of 120 personnel.

The military intelligence company would include a company headquarters team; an intelligence, surveillance, and reconnaissance analysis platoon; an intelligence, surveillance and reconnaissance integration platoon; a tactical human intelligence platoon; and a staff weather officer crew and would consist of 67 personnel.

The SBCT brigade signal company would include the company headquarters and three platoons and would consist of 74 personnel.

The SBCT support battalion would consist of three companies including a headquarters and distribution company, a combat service support company, a forward maintenance company, and a brigade support medical company and would consist of 624 personnel. The brigade headquarters

and headquarters company would include a tactical command post, main command post, rear command post, and a logistical support area and consist of 121 personnel.

### 2.3.3 Live-Fire Training

Firepower is the capacity of an individual or unit to deliver effective ammunition ordnance on a target or area that kills or suppresses the enemy in its positions, deceives the enemy, and supports tactical maneuver. Without effective firepower support, infantry units cannot maneuver.

Weapons proficiency is a critical component of combat. Realistic combat conditions and scenarios train individuals and units to exacting standards of gunnery proficiency and test those skills of individuals and the capabilities of weapons systems. Live-fire training normally entails an individual gunner, the crew of a weapons system, or a collective unit firing at predetermined targets from designated firing positions on a designated range facility. Direct fire (where the gunner can observe and engage the target using direct line weapons ballistics) live-fire training does occur on USARAK ranges. Field artillery and mortar units fire live ammunition indirectly (where the gunner relies on an observer to direct fire using indirect overhead arching ballistics) into the impact area from designated firing points.

The requirement for live-fire training varies depending upon individual and unit mission, weapons assigned, and ammunition available. Unit commanders must assure that live-fire training is accomplished to meet readiness standards. Each weapons system and military manning position has an assigned annual or semiannual live-fire requirement.

Impact areas are required to conduct live fire-training at USARAK. Dedicated impact areas that receive dud-producing munitions are located within YTA, TFTA, DTA and FRA. There are no impact areas in Gerstle River Training Area or Black Rapids Training Area. No additional impact areas are planned for USARAK lands under the proposed action. Existing impact areas within USARAK to be utilized by the SBCT are listed in Table 2.3.b.

**Table 2.3.b** Existing Impact Areas Within USARAK.

| Impact Area Type | Acres | | | | |
|---|---|---|---|---|---|
| | **Fort Wainwright Main Post** | **Yukon Training Area** | **Tanana Flats Training Area** | **Donnelly Training Area** | **Fort Richardson** |
| Dudded | 5,730 | 25,822 | 26,218 | 63,138 | 2,483 |
| Non-Dudded | 0 | 2,375 | 32,608 | 74,565 | 0 |

The U.S. Air Force is a major user of FWA, as well as DTA. The 11th Air Force plans, conducts and coordinates air operations in accordance with tasks assigned by the Commander, Pacific Air Forces. The ability to conduct air-to-air and air-to-ground operations in the same airspace is key to the effectiveness of training. The Department of Defense has identified FWA's impact areas as the primary sites for military aircraft air-to-ground training. With the close proximity of Military Operations Areas, tactical operations are conducted in and around the FWA and the DTA areas. Existing Air Force use of these impact areas would not change under the proposed action, as shown in Table 2.2.e.

### 2.3.4 Maneuver Training

Maneuver is the means that a tactical maneuver force (infantry or cavalry) uses to detect, then close on and defeat an enemy force. Maneuver training exercises are conducted at all levels

from brigade to squad to ensure a combat ready fighting force. Maneuver entails the movement of forces supported by real or notional firepower to achieve a position of advantage from which to destroy or threaten an enemy. Units must train as they will fight, and training exercises must replicate combat conditions as closely as possible. Trainers must simulate training realism to ensure a high level of combat readiness.

Unit movement during maneuver activities can be soldiers in tactical (when contact with an enemy is likely) and non-tactical (when contact with an enemy is not likely) formations moving in a predetermined direction to accomplish a mission. Individual infantry soldiers move in non-tactical formations by wheeled trucks or HMMWVs, walking in administrative formations on roads or trails, by helicopter, or walking overland. Individual soldiers move in tactical formations by walking in loose groups over land in designated directions to accomplish a mission. Direction of movement depends on terrain and tactical scenarios. The objective is to remain concealed from an enemy or under terrain cover if engaged with an enemy. Due to risks of ambush, tactical formations do not follow roads or trails. If engagement with an enemy has happened or is likely, soldiers seek cover or concealment and low crawl from protected area to protected area. Maneuver training, while simulating contact with an enemy, is accomplished by one section of a unit providing a base of weapons fire while the other section maneuvers toward an enemy. Airborne units may parachute in under administrative or tactical scenarios. Paratroopers parachute from transport aircraft into designated drop zones.

### 2.3.5 Weapons Systems Acquisition

Units would be equipped to the maximum extent possible from commercial-off-the-shelf and government-off-the-shelf equipment to accelerate development of the SBCT and reduce costs. To meet its demanding deployment threshold, the SBCT's design capitalizes on the widespread use of highly-mobile, light armored vehicles (i.e., Stryker), coupled with the minimization of the personnel and logistical footprint during combat operations. The following weapons systems would be utilized by USARAK under the proposed action (Table 2.3.c).

**Table 2.3.c** Weapons Systems Utilized by USARAK.

| Weapons System | Description |
|---|---|
| Small Arms | Man portable, individual, and crew-served weapons systems used mainly against personnel and lightly armored equipment. Ammunition for small arms includes all ammunition up to and including 40mm. |
| Artillery/ Indirect Fire Systems | Self-propelled, man-packed or towed, large caliber (60mm or larger) tube-launched or rocket-propelled munitions delivered on a target that is not itself used as a point of aim for the weapons or the director. |
| Vehicle | A weapon that is integral to the vehicle on which it is mounted and intended for use from the vehicle (i.e., the MK-19 40mm automatic grenade launcher on the Stryker or the main gun (105mm) on the mobile gun system). |
| Anti-tank | A weapon designed specifically for use in the destruction of armored targets such as enemy battle tanks (i.e., Javelin or AT4). |
| Demolition/ Grenades | Any combination of single or multiple explosive charges and their accompanying ignition systems designed to destroy enemy targets or gain access to facilities. |

## 2.3.6 Vehicles and Equipment Acquisition

### 2.3.6.1 Stryker

Under the proposed action, the SBCT would use several variants that comprise the new family of light armored vehicles known as the Stryker. The Stryker is an eight-wheel-drive, hard-steel structured vehicle designed to provide greatly increased ground mobility and firepower over the current light infantry brigade vehicle. Additionally, the vehicle is light enough to allow for the SBCT's rapid deployment in response to worldwide contingencies aboard the Air Force's C-5, C-17, and C-130 transport aircraft. It can attain road speeds of up to 60 miles per hour and can operate on rugged terrain as well. The vehicle would be armed primarily with the .50 caliber machine gun, 7.62mm machine gun, or the MK-19 40mm automatic grenade launcher. Variations of the Stryker designed for specific battlefield uses will also include other weapons systems such as mortars, a 105mm direct fire gun, and anti-tank guided missiles.

In addition to its armaments, the Stryker also provides enhanced optics for greater night or limited visibility operations and digital communication links to provide an unprecedented level of battlefield situational awareness for the Soldiers.

There are 10 variants of the Stryker that would be fielded with the SBCT. Within the main ground combat maneuver units, the infantry carrier vehicle will serve as the primary means to quickly move Soldiers around the battlefield as required and support their dismounted maneuver against enemy forces. Other Stryker variants include the mobile gun system, mortar carrier, reconnaissance vehicle, command vehicle, fire support vehicle, engineer squad vehicle, medical evacuation vehicle, anti-tank guided missile vehicle, and the nuclear, biological, and chemical reconnaissance vehicle.

### 2.3.6.2 Unmanned Aerial Vehicle (UAV)

The UAV and its accompanying system and maintenance section can be transported aboard C-130 transport aircraft for early entry into an area of operations. It possesses an automatic landing and takeoff system, portable ground control station, and portable data terminal that would allow for operation of the system in remote locations. Within the SBCT, there would be four UAV systems assigned to and operated by the reconnaissance, surveillance, and target acquisition squadron, the primary ground reconnaissance force. Weather minimums for the UAV are a 1,000-foot ceiling, three mile visibility and no operation under Special Visual Flight Rules. It cannot operate in heavy rains, and no flights would be conducted in snowing, icing, or forecasted extreme or severe turbulence conditions.

The UAV is a small, unmanned aircraft designed to provide the SBCT with real-time reconnaissance, surveillance, target acquisition, and battle damage assessment capabilities. With a wing span of 13 feet and a weight of 350 pounds, the UAV flies at a maximum airspeed of 105 knots and has a range up to 80 miles from its launch point. Flying at an altitude of 14,000 feet, the vehicle carries advanced electronic sensors and optics as a means of enhancing the SBCT's battlefield intelligence gathering capabilities, thereby greatly improving situational awareness and understanding of the enemy threat.

An operator at the ground control station controls the UAV remotely. Normally only one UAV would be airborne at a time; however, for continuous battlefield surveillance it is possible to launch a second UAV while the first is recovering. For launch and recoveries, an additional operator is located in a portable ground control station for back up. Flight observers would view the UAV in the air. If aircraft or other hazards (such as birds) were observed in or around the

flight path, they would notify the ground control station immediately and the launch or recovery would be delayed until the hazard is cleared.

New restricted airspace is not being requested by USARAK for the operation of the UAV. Procedures established for existing restricted airspace would continue to apply to all UAV operations.

### 2.3.7 Deployment

Although its organization resembles that of a separate brigade, the SBCT is a divisional brigade that would normally fight as the first-to-deploy brigade under a division headquarters. Pre-configured in ready-to-fight combined arms packages, the entire SBCT is intended to deploy within 96 hours of the first aircraft take-off and begin operations immediately upon arrival at the aerial port of debarkation. The SBCT cannot conduct forced entry, but it provides the joint force commander an improved capability to arrive immediately behind forced entry forces and begin operations to shape the battle space and expedite decisions.

### 2.3.8 Institutional Matters

Army transformation includes not only the units, their organization, equipment, and personnel, but also installation management. Installation management that directly affects the environment includes range management, environmental management, and real property management. Transformation through the Stryker Force to the Future Force is not highly defined. Therefore transformation of institutional matters should focus on implementing programs and processes that will mitigate impacts of transformation no matter what they may specifically be. The following programs reflect the proposed Army transformation changes at USARAK.

#### 2.3.8.1 Develop and Implement Impact Area Management

USARAK intends to develop best management practices on how to manage lands used as impact areas. The proposed program would be similar to the current Integrated Training Area Management (Section 2.2.1.6.4 and Appendix H) program but would involve the management of impact lands as opposed to maneuver lands.

#### 2.3.8.2 Develop and Implement Soil and Water Quality Monitoring

Groundwater, surface water, and soil monitoring would be conducted to evaluate the presence of contaminants on USARAK lands. Monitoring water quality is important for measuring ecosystem health. Soil and water quality monitoring evaluates water quality coming onto and leaving USARAK and identifies any potential contaminants leaving impact areas. Water quality monitoring would be required to comply with the Clean Water Act and other environmental laws and regulations, as well as to formulate options for managing those species particularly dependent upon high water quality, as required by the Sikes Act and AR 200-3, *Natural Resources – Land, Forest, and Wildlife Management.*

Management areas for soil and water quality monitoring include impact areas and ranges. Surface water sampling locations would be concentrated where rivers and creeks enter and leave each installation. Soil sampling would occur in rivers and creeks at the edge of impact areas.

Annual objectives of the soil and water quality monitoring program include the monitoring of surface water as it enters and leaves USARAK lands to identify potential contaminants or potential contaminant migration, the monitoring of soils and sediments in streambeds along

USARAK boundaries to identify potential contaminants or potential contaminant migration and to provide appropriate agencies results of sampling studies.

#### 2.3.8.3 Develop and Implement Training Area Recovery Program

USARAK proposes to develop and implement a Training Area Recovery Plan program, a rotational system of rest, rehabilitation, and erosion control, as part of the proposed action. Each training area on FWA would be taken out of rotation and placed off-limits to military and recreational vehicle once every ten years for a period of two years. Maintenance actions for erosion control, Land Rehabilitation and Maintenance, range maintenance, and roads and grounds maintenance would be scheduled during the first year each training area is scheduled for rest and repair, although emergency actions to repair damage must take place anytime, anyplace.

#### 2.3.8.4 Develop and Implement ISO 14001

The Army program will adopt ISO 14001. The ISO 14000 family of standards is widely recognized. ISO 14001 is the core standard of the ISO 14000 family. ISO 14001 requires organizations to create an environmental policy and carefully document procedures. This program is not a new requirement, but a change in management practices. The approach is to adapt existing management processes to identify and reduce the environmental risks inherent in mission activities. This approach is intended to make compliance with environmental laws simpler, less costly, and a routine part of mission planning and execution.

#### 2.3.8.5 Develop and Implement Ecosystem Management

The goal of the USARAK Ecosystem Management Program is to maintain ecosystem integrity at a broad landscape scale and to continue to train Soldiers to a high level of military readiness. There are two components to the Ecosystem Management Program. First, there is a multi-species management tool that is designed to help in land use and land alteration decisions on Army lands, and second, there is the Army's commitment to an ecoregional approach to land management in Alaska. Both of these components are parts of the overall strategy of the Ecosystem Management Program, which is to integrate military training with the management of a suite of species that are important to ecosystem integrity in boreal environments and to manage Army lands in the context of the broader landscapes surrounding each of the Army posts in Alaska.

#### 2.3.8.6 Develop and Implement Alternate Procedures for Cultural Resources Management

USARAK proposes to transform cultural resources management by implementing the Army's Alternate Procedures as provided for under the National Historic Preservation Act and 36 CFR 800 and approved by the Advisory Council on Historic Preservation. The Army Alternate Procedures provides USARAK the ability to streamline the process it will follow to satisfy Section 106 requirements of the National Historic Preservation Act. In lieu of following 36 CFR 800, USARAK will develop an Alternate Procedure to address management of its historic properties as a program specific to the installation's and resource's needs rather than on a project-by-project basis. This approach will provide a better management of the installation's historic properties through a planning approach to compliance, closer integration with the Army's mission, and by encouraging innovative means for stakeholders to become involved in the process.

### 2.3.8.7 Fully Implement Existing Management Programs and Plans

Several programs and plans are in place or would be developed to mitigate potential impacts of the proposed action as well as to protect and manage the biological, physical, and socioeconomic environment at USARAK during transformation. The following programs and plans are currently in place and operating at USARAK. They would be fully implemented under Alternative 4.

- Integrated Training Area Management
- Institutional Controls
- Integrated Natural Resources Management Plans
- Integrated Cultural Resources Management Plan
- Range Development Plan

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## 2.4 DESCRIPTION OF ALTERNATIVES CONSIDERED AND ELIMINATED FROM DETAILED STUDY

NEPA requires that all reasonable alternatives for federal actions be analyzed. With the input received during the scoping process, the Army examined all possible actions to build an effective and reasonable range of alternatives.

Several alternatives were considered and eliminated from further study because they were outside the scope of this analysis as determined by the Department of the Army. Table 2.4.a lists three potential alternatives and the reasons for their elimination.

**Table 2.4.a** Discussion of Three Alternatives Considered and Eliminated.

| **Criteria** | **Alternatives Considered and Eliminated** | | |
|---|---|---|---|
| | **Two Brigades** – Transform the 172nd SIB to an SBCT and station a second, new SBCT in Alaska | **Airborne Brigade** – Transform the 172nd SIB to an SBCT and station a second, new Airborne Brigade in Alaska | **Outside Division** – Support division-level training events by outside units whose equipment would be housed in Alaska |
| The Army is reducing the number of divisions and brigades on an Army-wide basis. | Stationing an additional brigade within Alaska is not practical with Current Force limitations and unit mission assignments. | Creating a new brigade is not practical due to current manpower limitations and unit allocations. | N/A |
| Minimize costs associated with construction of support infrastructure necessary for transformation. | Construction of infrastructure necessary to support added brigade is not cost effective, as Current Force limitations make stationing of a second, new brigade impractical. | Construction of infrastructure necessary to support a new brigade is not cost effective, as Current Force limitations make creation of a new brigade impractical. | N/A |
| Reduce costs associated with conducting division-level training events outside of the division's primary installation. | N/A | N/A | Contrary to Army goals for maximizing unit training cost-effectiveness. |

### 2.4.1 Discussion of Selection Criteria

The Army considered alternatives to be reasonable if they could be implemented without impairing the Army's ability to complete its mission in Alaska. Since the Department of the Army has selected USARAK as one of four locations for transformation, the range of alternatives to be examined in this EIS was refined to include only those alternatives that included the transformation of, at minimum, the 172nd SIB.

The following objectives define the standards that the proposed action and alternatives must meet. As a result, these items are used as selection criteria to assist USARAK in determining the range of reasonable alternatives to be analyzed in this EIS. Ultimately, these objectives drive the individual actions within each alternative. Table 2.4.b illustrates how adequately each alternative achieves each objective. Both the Army and USARAK have unique objectives.

The following items are the Army's objectives for transformation:

- Proximity to critical areas of interest for the United States.
- Capability to execute full spectrum military missions, including operations in complex terrain.
- Close association with sea and air bases for extensive SBCT deployment capability.

The following items are USARAK's objectives for transformation:

- Provide training infrastructure to sustain combat readiness.
- Provide infrastructure to meet rapid deployment requirements.
- Provide UAV support and maintenance facilities.
- Provide a port staging area for SBCT sea deployment.
- Ensure USARAK provides support for interim and future Army transformation requirements.

**Table 2.4.b** Achievement of Army and USARAK Transformation Objectives Under Each Alternative[1].

| Objectives | Alternatives | | | |
|---|---|---|---|---|
| | **1 No Action** | **2 Transform with No New Infrastructure** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| **Army Objectives** | | | | |
| Proximity to critical areas of interest for the United States | Full | Full | Full | Full |
| Capability to execute full spectrum military missions, including operations in complex terrain | Inadequate | Inadequate | Full | Full |

**Table 2.4.b cont.** Achievement of Army and USARAK Transformation Objectives Under Each Alternative[1].

| Objectives | Alternatives | | | |
|---|---|---|---|---|
| | **1 No Action** | **2 Transform with No New Infrastructure** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| Close association with sea and air bases for extensive SBCT deployment capability | Partial | Partial | Full | Full |
| **USARAK Objectives** | | | | |
| Provide SBCT training infrastructure to sustain combat readiness | Inadequate | Inadequate | Full | Full |
| Provide the infrastructure to meet rapid deployment requirements | Partial | Partial | Full | Full |
| Provide UAV support and maintenance facilities | Inadequate | Inadequate | Full | Full |
| Provide a port staging area for SBCT sea deployment | Inadequate | Inadequate | Full | Full |
| Provide a foundation to support interim and future Army transformation requirements | Inadequate | Inadequate | Partial | Full |

[1] Inadequate = The alternative does not achieve the objective; Partial = The alternative only partially achieves the objective; Full = The alternative fully achieves the objective.

If more than half (four or more) of the stated objectives were not met by a particular alternative, it was eliminated from further study. Alternative 2: Transformation of 172nd SIB – No New Infrastructure, was considered and eliminated from further study because it did not adequately achieve the stated objectives. Although the No Action Alternative would not adequately achieve the objectives, it will be considered in the analysis as required by NEPA to define the baseline conditions.

### 2.4.2 Identification of Alternatives to Be Analyzed In This EIS

The following alternatives will be analyzed in this EIS:

- **Alternative 1 (No Action)** – Do not transform the 172nd SIB into an SBCT.
- **Alternative 3 (New Infrastructure)** – Transform all organizations and elements of the 172nd SIB, except for the 1-501st Parachute Infantry Regiment (PIR), to an SBCT including the construction of five new facilities and the use of existing USARAK support infrastructure. The 1-501st PIR would be assigned to USARAK and forces would be added to the SBCT to replace the reassigned 1-501st PIR.
- **Alternative 4 (New Infrastructure and Airborne Task Force)** – Transform all organizations and elements of the 172nd SIB, except for the 1-501st PIR, to an SBCT including the construction of five new facilities and the use of existing USARAK support infrastructure. The 1-501st PIR would be assigned to USARAK and would expand to an Airborne Task Force. Additional forces would be added to the SBCT to replace the newly created Airborne Task Force.

## 2.5 COMPARISON OF ALTERNATIVES AND ENVIRONMENTAL CONSEQUENCES

Table 2.5.a contains a matrix of the alternatives that compares environmental consequences for the specific resource categories. Impact categories may vary slightly according to the resource being assessed. See Chapter 4, Sections 4.2 through 4.19 for specific category definitions. The qualitative terms used in the matrix are generally defined as:

- None – No measurable impact is expected to occur.
- Minor – Impacts are expected to occur; impacts would be measurable and may have slight impact to resource.
- Moderate – Impacts are expected to occur; impacts would be noticeable and would have a measurable effect on resource.
- Severe – Impacts are expected to occur; impacts would be obvious and would have serious consequences to resource.
- Beneficial – Only beneficial impacts are expected to occur.

The impacts within Table 2.5.a refer to end-state conditions at FWA Main Post, TFTA, YTA, and DTA. Interim phase impacts are discussed in corresponding resources sections in Chapter 4.

**Table 2.5.a** Comparison of Alternatives and End-State Environmental Consequences Prior to Mitigation.

| **Resource Categories** | **Alternatives** | | |
|---|---|---|---|
| | **1 No Action** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| **Fort Wainwright Main Post[1]** | | | |
| Air Quality | Minor | Minor | Minor |
| Geology Resources | None | None | None |
| Soil Resources **Issue D** | Minor | Moderate | Moderate |
| Surface Water | Minor | Minor | Minor |
| Groundwater | Minor | Minor | Minor |
| Wetlands **Issues C and D** | Minor | Moderate | Moderate |
| Vegetation (Factor: Vegetative Cover) | Minor | Minor | Minor |
| Wildlife and Fisheries (Factor: Wildlife) **Issue C** | Minor | Minor | Minor |
| Wildlife and Fisheries (Factor: Fisheries) **Issue C** | Minor | Minor | Minor |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Plants) | Minor | Minor | Minor |

**Table 2.5.a cont.** Comparison of Alternatives and End-State Environmental Consequences Prior to Mitigation.

| Resource Categories | Alternatives | | |
|---|---|---|---|
| | **1 No Action** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Wildlife) | Minor | Minor[3] | Minor[3] |
| Fire Management **Issue E** | Minor | Moderate | Moderate |
| Cultural Resources (Factor: Historic Resources) **Issue F** | Severe | Severe | Severe |
| Socioeconomics (Factor: Regional Economic Activity) | Beneficial | Beneficial | Beneficial |
| Socioeconomics (Factor: Public Services) | Minor[4] | Minor | Minor |
| Public Access and Recreation **Issues A and C** | Minor | Minor | Minor |
| Subsistence | Minor | Minor | Minor |
| Noise | Minor | Minor | Minor |
| Human Health and Safety (Factor: Traffic) **Issue B** | Minor | Moderate | Moderate |
| Environmental Justice (Factor: Alaska Native Groups) | Minor | Minor | Minor |
| Infrastructure | None | Beneficial | Beneficial |
| **Tanana Flats Training Area[1]** | | | |
| Air Quality | Minor | Minor | Minor |
| Geology Resources | None | None | None |
| Soil Resources **Issue D** | Minor | Moderate[5] | Moderate[5] |
| Surface Water (Factor: Bank-side Erosion) | Minor | Moderate | Moderate |
| Groundwater | Minor | Minor | Minor |
| Wetlands **Issues C and D** | Minor | Moderate | Moderate |
| Vegetation (Factor: Forest Resources) | Minor | Moderate | Moderate |
| Wildlife and Fisheries (Factor: Wildlife) **Issue C** | Minor | Minor[6] | Minor[6] |
| Wildlife and Fisheries (Factor: Fisheries) **Issue C** | Minor | Minor | Minor |

**Table 2.5.a cont.** Comparison of Alternatives and End-State Environmental Consequences Prior to Mitigation.

| Resource Categories | Alternatives | | |
|---|---|---|---|
| | **1 No Action** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Plants) | Minor | Minor | Minor |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Wildlife) | Minor | Minor[3] | Minor[3] |
| Fire Management **Issue E** | Minor | Minor | Minor |
| Cultural Resources (Factor: Prehistoric Resources) **Issue F** | Moderate | Moderate | Moderate |
| Socioeconomics | N/A | N/A | N/A |
| Public Access and Recreation **Issues A and C** | Minor | Minor | Minor |
| Subsistence | N/A | N/A | N/A |
| Noise | Minor | Minor | Minor |
| Human Health and Safety **Issue B** | Minor | Minor | Minor |
| Environmental Justice | Minor | Minor | Minor |
| Infrastructure | None | Minor | Minor |
| **Yukon Training Area[1]** | | | |
| Air Quality | Minor | Minor | Minor |
| Geology Resources | None | None | None |
| Soil Resources **Issue D** | Minor | Moderate[5] | Moderate[5] |
| Surface Water (Factor: Bank-side Erosion) | Minor | Moderate | Moderate |
| Groundwater | Minor | Minor | Minor |
| Wetlands **Issues C and D** | Minor | Moderate | Moderate |
| Vegetation (Factor: Forest Resources) | Minor | Moderate | Moderate |
| Wildlife and Fisheries (Factor: Wildlife) **Issue C** | Minor | Minor[6] | Minor[6] |
| Wildlife and Fisheries (Factor: Fisheries) **Issue C** | Minor | Minor | Minor |

**Table 2.5.a cont.** Comparison of Alternatives and End-State Environmental Consequences Prior to Mitigation.

| Resource Categories | Alternatives | | |
|---|---|---|---|
| | **1 No Action** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Plants) | Minor | Minor | Minor |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Wildlife) | Minor | Minor[3] | Minor[3] |
| Fire Management **Issue E** | Minor | Moderate | Moderate |
| Cultural Resources **Issue F** | None | None | None |
| Socioeconomics | N/A | N/A | N/A |
| Public Access and Recreation **Issues A and C** | Minor | Minor | Minor |
| Subsistence | N/A | N/A | N/A |
| Noise | Minor | Minor | Minor |
| Human Health and Safety (Factor: Traffic) **Issue B** | Minor | Moderate | Moderate |
| Environmental Justice | Minor | Minor | Minor |
| Infrastructure | None | Minor | Minor |
| **Donnelly Training Area, Gerstle River Training Area, and Black Rapids Training Area** | | | |
| Air Quality | Minor | Minor | Minor |
| Geology Resources | None | None | None |
| Soil Resources **Issue D** | Minor | Moderate[5] | Moderate[5] |
| Surface Water (Factor: Bank-side Erosion) | Minor | Moderate | Moderate |
| Groundwater | Minor | Minor | Minor |
| Wetlands **Issues C and D** | Minor | Moderate | Moderate |
| Vegetation (Factor: Forest Resources) | Moderate | Moderate | Moderate |
| Wildlife and Fisheries (Factor: Wildlife) **Issue C** | Minor | Minor[7] | Minor[7] |
| Wildlife and Fisheries (Factor: Fisheries) **Issue C** | Minor | Minor | Minor |

**Table 2.5.a cont.** Comparison of Alternatives and End-State Environmental Consequences Prior to Mitigation.

| Resource Categories | Alternatives | | |
|---|---|---|---|
| | **1 No Action** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Plants) | Minor | Minor | Minor |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Wildlife) | Minor | Minor[3] | Minor[3] |
| Fire Management **Issue E** | Minor | Moderate | Moderate |
| Cultural Resources (Factor: Prehistoric Resources) **Issue F** | Moderate | Moderate | Moderate |
| Socioeconomics (Factor: Regional Economic Activity) | None | Beneficial | Beneficial |
| Socioeconomics (Factor: Recreational Activities) | Minor | Minor | Minor |
| Public Access and Recreation (Factor: Time Available) **Issues A and C** | Minor | Moderate | Moderate |
| Subsistence | Minor | Minor | Minor |
| Noise | Minor | Minor | Minor |
| Human Health and Safety (Factor: Traffic) **Issue B** | Minor | Moderate | Moderate |
| Environmental Justice (Factor: Alaska Native Groups) | Minor | Moderate | Moderate |
| Infrastructure | None | Minor | Minor |
| **Fort Richardson** | | | |
| Air Quality | Minor | Minor | Minor |
| Geology Resources | None | None | None |
| Soil Resources **Issue D** | Minor | Moderate | Moderate |
| Surface Water | Minor | Minor | Minor |
| Groundwater | Minor | Minor | Minor |
| Wetlands **Issues C and D** | Minor | Minor | Minor |
| Vegetation | Minor | Minor | Minor |
| Wildlife and Fisheries (Factor: Wildlife) **Issue C** | Minor | Minor[8] | Minor[8] |

**Table 2.5.a cont.** Comparison of Alternatives and End-State Environmental Consequences Prior to Mitigation.

| Resource Categories | Alternatives | | |
|---|---|---|---|
| | **1 No Action** | **3 Transform with New Infrastructure** | **4 Transform with New Infrastructure and Airborne Task Force** |
| Wildlife and Fisheries (Factor: Fisheries) **Issue C** | Minor | Minor | Minor |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Plants) | Minor | Minor | Minor |
| Threatened or Endangered Species[2] and Species of Concern (Factor: Wildlife) | Minor | Minor[9] | Minor[9] |
| Fire Management **Issue E** | Minor | Moderate | Moderate |
| Cultural Resources (Factor: Historic Resources) **Issue F** | Minor | Minor | Minor |
| Socioeconomics (Factor: Regional Economic Activity) | Beneficial | Beneficial | Beneficial |
| Socioeconomics (Factor: Public Services) | Minor[4] | Minor | Minor |
| Public Access and Recreation (Factor: Time Available) **Issues A and C** | Minor | Minor | Moderate |
| Subsistence | Minor | Minor[10] | Minor[10] |
| Noise | Minor | Minor | Minor |
| Human Health and Safety (Factor: Traffic) **Issue B** | Minor | Moderate | Moderate |
| Environmental Justice | None | None | None |
| Infrastructure | None | Minor | Minor |

N/A = Not applicable.

[1] Impacts assessment in some Chapter 4 Tables were combined to include Fort Wainwright Main Post, TFTA, and YTA.

[2] No threatened or endangered species are located on USARAK lands. Effects refer to Species of Concern.

[3] Possible moderate effects to gray-cheeked thrush, Townsend's warbler, and blackpoll warbler at FWA.

[4] Minor impacts to public services currently exist. No additional impacts would be expected.

[5] Impacts could be severe in localized areas with susceptible soil or permafrost characteristics.

[6] Possible moderate effects to swans, moose, waterfowl, sharp-tailed grouse, boreal owl, Hammond's flycatcher, varied thrush, rusty blackbird, and white-winged crossbill at TFTA and YTA.

[7] Possible moderate effects to grizzly bear, caribou, bison, boreal owl, Hammond's flycatcher, sharp-tailed grouse, white-winged crossbill, Bohemian waxwing, and great gray owl at DTA.

[8] Possible moderate effects to wolverine, wolf, grizzly, black bear, waterfowl, raptors, Steller's jay, and golden-crowned kinglet at FRA.

[9] Possible moderate effects to Townsend's warbler and blackpoll warbler at FRA.

[10] Possible moderate effects to access and plant gathering/berry picking during the interim phase at FRA.

## 2.6 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The Army's preferred alternative is Alternative 4 (Transform the 172nd SIB and USARAK – New Infrastructure and Airborne Task Force). All organizations and elements of the 172nd SIB, except for the 1-501st Parachute Infantry Regiment, would transform to an SBCT. The transformed 172nd SBCT and USARAK would see a significant increase in personnel and equipment. The 1-501st Parachute Infantry Regiment would be assigned to USARAK and would expand to an Airborne Task Force. Additional forces would be added to the SBCT to replace the newly created Airborne Task Force. Construction of five new facilities and the use of existing USARAK ranges, facilities and infrastructure would occur. This alternative is described in detail in Section 2.2.4.

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