

Supplemental Environmental Assessment  
Operation Skywatch II  
Initial Field Test of the Unmanned Aerial Vehicle



**U.S. Customs and  
Border Protection**

**DEPARTMENT OF HOMELAND SECURITY  
U.S. CUSTOMS AND BORDER PROTECTION  
OFFICE OF BORDER PATROL**

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**FINAL REPORT  
JUNE 2004**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)**  
**Supplemental Environmental Assessment to Operation Skywatch II –**  
**Initial Field Test of the Unmanned Aerial Vehicle**

by  
**Department of Homeland Security**  
**U.S. Customs and Border Protection**  
**Office of Border Patrol**  
**Within**  
**Tucson & Yuma, Arizona Sectors**

**Background:** Operation Skywatch was first initiated in the year 2000 by the Customs and Border Protection (CBP) Office of Border Patrol (OBP) in response to a large increase of heat related deaths of illegal entrants (IE's) across the Arizona Border. These initial operations were conducted in the Tucson and Yuma Sectors. Near record temperatures in the summer of 2001 and 2002 caused even more deaths, resulting in the reinitiating of Operation Skywatch as an emergency response to the potential for imminent loss of life. These actions were addressed in separate Environmental Assessments. Due to the success of these previous operations, the Department of Homeland Security (DHS), Office of Border Protection (OBP) has decided to implement this important program on an annual basis for at least the next five years. Local state, tribal and federal law enforcement officers in Arizona will utilize a cooperative approach enhanced with additional personnel, technology and aviation assets.

The Unmanned Aerial Vehicles (UAVs) will increase border surveillance and enhance the capabilities of Border Patrol agents. Fort Huachuca, AZ is a center for Department of Defense UAV testing and training programs and will serve as the launching area for the UAV during this initial evaluation. This Supplemental Environmental Assessment (SEA) was prepared in compliance with the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) Regulations for implementing the procedural provisions of NEPA. The SEA is incorporated by reference in this FONSI.

**Purpose and Need:** Demonstration of UAV capability will be conducted through direct support of the Arizona Border Control Initiative's Operation Skywatch to be conducted during the period of June 2004 through September 2004. The purpose of Operation Skywatch is to detect illegal entrants that enter the U.S. in the harsh and remote desert regions of Arizona. Operation Skywatch will also provide assistance in identifying and rescuing illegal entrants (IEs) and illegal drug traffickers who may be at risk of dying due to overexposure along the U.S./ Mexico border within the OBP's Tucson and Yuma Sector's Area of Operation (AO). The Tucson and Yuma Sectors of Arizona continue to be the highest trafficked stretch of the border in the entire United States. Uncontrolled illegal immigration in this area brings with it a serious risk to border security. When sections of the border are not effectively controlled due to the overwhelming number of illegal entrants, the likelihood exists that opportunistic criminals will begin to exploit the chaotic border environment.

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**Alternatives:** Four alternatives including the No Action Alternative were initially addressed in the Environmental Assessment.

- **Proposed Action (PA):** The PA is for the Office of Border Patrol to conduct an operational pilot program to determine whether unmanned aerial vehicles (UAV) can enhance the CBP border mission and, if so, to identify, evaluate, and quantify the resources needed, versus the benefits derived from, a long-term CBP UAV program. The pilot program could test the limits of UAV capabilities and resource allocations in some of the more remote regions of the southwestern border. A pilot program will also give the CBP more time to discern whether a joint UAV program with other DHS agencies, such as U.S. Immigration and Customs Enforcement and the U.S. Coast Guard, would lead to economies of scale. The Proposed Action includes the maintenance and operation of (b) (7)(E) (b) (7)(E) UAVs for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Arizona. These aircraft would be staged and operated at Fort Huachuca's Libby Army Airfield in Arizona.
- **Alternative Two:** Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations would be provided, based from the Barry M. Goldwater Range/Gila Bend Air Force Auxiliary Air Field in Arizona.
- **Alternative Three:** Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations would be provided, based from the Yuma Proving Ground (Laguna Region)/Castle Dome Heliport.
- **Alternative Four:** The No Action Alternative.

Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue operations at sites considered under **Alternatives Two and Three** were determined to not be operationally viable or available during the timeframe necessary to meet the mission needs and therefore were not carried forward for detailed analyses. The **No Action Alternative** could result in a continued increase in deaths and increase the risks to CBP agents' health and safety while trying to rescue the IEs in rugged terrain. Therefore, it was not carried forward as a viable option.

**Environmental Effects of the PA:** The SEA documents that the PA will result in no significant environmental impacts, direct, indirect, cumulative, or otherwise.

- Impacts to local air quality resulting from associated activities and increased UAV operations are considered to be *di minimus*. The procedural requirements of the General Conformity Rule are not applicable to the Proposed Action because it occurs entirely within a NAAQS attainment area.

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- Noise levels in the local and regional environment will increase but this will be limited to those areas beneath the UAV flight paths and near the take-off and capture facilities on the Fort. This increased noise level will not pose a threat to human health or safety and will not create a significant impact on humans or wildlife (including Federally-listed Threatened and Endangered Species).
- The Proposed Action Alternative, including nighttime activities both at Libby Army Airfield and within special use restricted airspace, will not create any land use conflicts and will be compatible with underlying land uses.
- Implementation of the Proposed Action Alternative will not significantly impact water resources.
- The Proposed Action Alternative will not affect the climate.
- The Proposed Action Alternative will not affect the physiography of the Arizona border region.
- The Proposed Action Alternative will not significantly affect common wildlife, either on the ground or in the air, due to the height of the flight routes and the temporary and sporadic nature of the reconnaissance missions.
- The Proposed Action Alternative will have no adverse effect on properties listed on, or determined eligible for, the National Register of Historic Places, and will not disturb or damage cultural resources and/or cultural sites.
- The Proposed Action Alternative will have no significant impact on public health and safety.

**Mitigation Measures:** The U.S. Department of Homeland Security, U.S. Customs and Border Protection, Office of Border Patrol, through its Tucson Sector is responsible to ensure full compliance with all mitigation measures as identified herein.

- **BIOLOGICAL OPINION:** All relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions included in Appendix B of the *August 23, 2002 USFWS Biological Opinion on Ongoing and Programmed Future Military Operations and Activities at Fort Huachuca, Arizona* that would be affected by the implementation of the UAV pilot program will be implemented as a part of the Preferred Alternative.

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- **WATER MITIGATION:** OBP will ensure that the entire 6.25 acre-feet of anticipated ground water that will be pumped in support of this action will be mitigated by the OBP in consultation with Fort Huachuca through either a mitigation fee or installation of technology. Vehicle refueling and maintenance procedures and hazardous substance storage areas will be designed to preclude the discharge of hazardous substances; thereby precluding any adverse effect on the surface water.
- **MITIGATION MEASURES FOR LAND USE:** Mitigation measures are currently practiced at Fort Huachuca during UAV activities. Portable toilets will be used at operational sites. Toilets will be removed upon completion of the test period. Any garbage and litter will be collected and removed from operational sites after each use. Vehicle refueling and maintenance procedures and hazardous substance storage areas will be designed to preclude the discharge of hazardous substances (ie: fuels, solvents and lubricants). Such designations will include specific measures to preclude spills or contain hazardous substances, including proper handling and disposal techniques.
- **MITIGATION MEASURES FOR AIR QUALITY:** Fugitive dust emissions created by helicopters during any needed take-off/landing maneuvers will be lessened by making approaches to suitable landing areas and when possible making landings on the ground to avoid hovering. Shallow approach angles maintaining a speed above effective translational lift will be employed to minimize the angle of attack of the rotor blades upon landing. Landing over grassy areas will take place whenever possible to lessen the potentiality of stirring up inordinate amounts of dust.
- **MITIGATION MEASURES FOR NOISE LEVELS:** To ensure maximum mitigation of noise, approach and departure profiles will be applied that will direct UAVs away from residential areas during approach, take-off, and ascent.
- **MITIGATION MEASURES FOR WILDLIFE:** All mitigation measures included in Appendix B of the *August 23, 2002 USFWS Biological Opinion on Ongoing and Programmed Future Military Operations and Activities at Fort Huachuca, Arizona* will be implemented as a part of the Proposed Action.
- **MITIGATION MEASURES for PUBLIC HAZARDS, HEALTH, and SAFETY:** To prevent spillage of petroleum products onto exposed soil or water resources, drip pans will be placed beneath generators and UAVs during refueling. Fuel containers will also be placed on drip pans and positioned at least 25 feet from ignition sources. Vehicles will routinely be inspected for coolant and petroleum

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products leakage.: A fire control station, consisting of a fire extinguisher and a shovel will be provided with each portable generator. In the event of a mishap, the test director will activate the React Team, a pre-assigned group of personnel designated to respond in the event of a crash or other mishap. If the mishap is off military property, permissions will be obtained before trespassing occurs, and the React Team will immediately begin to disarm any hazards. In the event of the UAV catching fire, the vehicle will be left to burn. Personnel will maintain a distance of more than 1,500 feet upwind per protocol, a precaution since some UAVs have the potential to produce toxic gases when burning due to the foam inside the wings. Once the UAV is recovered, the site will be cleaned and cleared of any remaining hazards to meet standards specified in the Fort Huachuca POL Spill Reporting and Containment Plan. Immediate response by the React Team to a mishap will be ensured to minimize any potential risks or hazards to personnel or civilians in the area. Measures will be taken to ensure that there are no uncontrolled releases of hazardous materials onto soil, surface water, air, or groundwater.

**Finding:** Based upon the analysis in the SEA, the implementation of the Proposed Action for Initial Field Test of the Unmanned Aerial Vehicle in Support of Operation Skywatch will not constitute a major federal action significantly affecting the quality of the natural or human environment. Consequently, the proposed action does not require the preparation of an Environmental Impact Statement.

**(b) (6), (b) (7)(C)**

Assistant Chief (b) (6), (b) (7)(C)  
Assistant Chief of Operations  
Office of Border Patrol  
U.S. Customs and Border Protection

15 Jun 2004

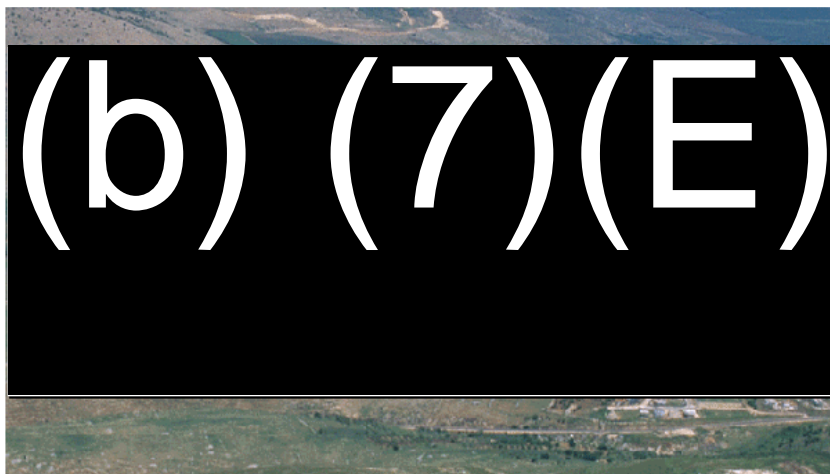
Date

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(b) (6), (b) (7)(C)  
Environmental Program Manager  
U.S. Customs and Border Protection

15 June 2004  
Date

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**U.S. Customs and  
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**Department of Homeland Security  
U.S. Customs and Border Protection  
Office of Border Patrol**

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# EXECUTIVE SUMMARY

## INTRODUCTION

Operation Skywatch was first initiated in the year 2000 by the Customs and Border Protection (CBP) Office of Border Patrol (OBP) in response to a large increase of heat related deaths of illegal entrants (IEs) through the Arizona Border. Near record temperatures in the summer of 2001 and 2002 caused even more deaths, resulting in the reinitiating of Operation Skywatch as an emergency response to the potential for imminent loss of life. These actions were addressed in separate Environmental Assessments (INS 2000, 2001, 2002). Due to the success of these previous operations, the Department of Homeland Security (DHS) and OBP have decided to implement this important program on an annual basis for at least the next five years. Involving hundreds of local, state, tribal and federal law enforcement officers in Arizona, Operation Skywatch will utilize a cooperative approach enhanced with additional personnel, technology and aviation assets. Unmanned Aerial Vehicles (UAVs) will be used to increase border surveillance and enhance the capabilities of Border Patrol agents.

This Supplemental Environmental Assessment (SEA) addresses the potential effects, beneficial and adverse, of the use of Unmanned Aerial Vehicles by the Customs and Border Protection (CBP) Office of Border Patrol (OBP). The OBP intends to establish an operational pilot test of UAVs to determine their ability to act as a force multiplier when used in conjunction with other detection equipment and surveillance measures. The result of these tests will determine if UAV programs should be continued. If, as a result of these tests, it is concluded that UAVs are effective, they will be included in future Operation Skywatch missions. Further Environmental Assessments will be conducted as appropriate at that time.

Furthermore, this SEA addresses the potential effects, beneficial and adverse, of the use of UAVs by OBP in support of Operation Skywatch which is an element of the Arizona Border Control Initiative (ABCI). Operation Skywatch is a temporary expanded air operation designed to reduce the number of fatalities of illegal entrants and the general public. It will also enhance border enforcement activities within the OBP's Tucson and Yuma Sectors. The OBP's Yuma Sector would support Operation Skywatch through operations within the Tucson Sector's Area of Operations (AO).

In summary, due to the high risk for the loss of human life, the UAVs need to be deployed as soon as possible to evaluate their search and rescue, as well as apprehension capabilities in efforts to further enhance the mission capabilities of the U.S. Customs and Border Protection, Office of Border Patrol. All necessary and appropriate actions in support of the described mission are being taken, to include development of this Supplemental Environmental Assessment.

The UAV Pilot Program (Initial Field Test) and ABCI Operation Skywatch Support terminology are used interchangeably through this document as they are essentially the same.

## PROPOSED ACTION

Several action scenarios were found to be reasonable for the OBP to conduct an operational pilot program to determine whether unmanned aerial vehicles (UAV) can enhance the CBP border mission and, if so, to identify, evaluate, and quantify the resources required for, versus the benefits derived from, a long-term CBP UAV program. The pilot program could test the limits of UAV capabilities and resource allocations in some of the more remote regions of the southwestern border. A pilot program would also give the CBP more time to discern whether a joint UAV program with other DHS agencies, such as U.S. Immigration and Customs Enforcement and the U.S. Coast Guard, would lead to economies of scale.

Demonstration of UAV capability will be conducted through direct support of the Arizona Border Control Initiative's Operation Skywatch to be conducted during June 2004 through September 2004. The purpose of Operation Skywatch is to deter illegal entrants from attempting to enter the US in the harsh and remote desert regions of Arizona. Operation Skywatch will also provide assistance in identifying and rescuing illegal entrants (IEs) and illegal drug traffickers who may be at risk of dying due to overexposure along the U.S./ Mexico border within the OBP's Tucson and Yuma Sector's Area of Operation (AO).

The four alternatives considered were evaluated based upon each scenario's ability to provide the required infrastructure and operational capabilities to support the UAV mission. The four alternatives considered were:

- (1) Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations (Fort Huachuca) – the Preferred Alternative;
- (2) Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations Barry M. Goldwater Range/Gila Bend Air Force Auxiliary Air Field;
- (3) Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations Yuma Proving Ground (Laguna Region)/Castle Dome Heliport; and
- (4) No Action.

Alternative (2), the Barry M. Goldwater Range/Gila Bend Air Force Auxiliary Air Field and Alternative (3), the Yuma Proving Ground (Laguna Region)/Castle Dome Heliport were determined to NOT be operationally viable or available during the timeframe necessary to meet the mission needs and therefore were not carried forward for detailed analyses. As a result of this evaluation of the following two alternatives, a Preferred Alternative was selected as the Proposed Action.

### **Alternative A: Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca (Preferred Alternative)**

The Proposed Action includes the maintenance and operation of (b) (7)(E) Unmanned Aerial Vehicles for aerial reconnaissance missions along the (b) (7)(E) (b) (7)(E) Arizona. UAV support personnel for the proposed action would include (b) (7)(E) pilots, (b) (7)(E) mechanics and (b) (7)(E) data analysts for a period of approximately 125 days. These aircraft would be staged and operated at Fort Huachuca's Libby Army Airfield in Arizona. UAVs would typically fly at an altitude of (b) (7)(E) feet above mean sea level (MSL) or higher. Proposed activities related to the Proposed Action include the following:

- Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours.
- UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours.
- Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Cochise counties.
- The UAVs would be deployed in a law enforcement-mode along the international border.

The priorities under which they will operate would be:

1. As an additional deterrent factor by their presence;
  2. Assist ground patrol units to track non-deterred illegal entrants (IEs), and facilitate apprehension;
  3. Act in a rescue assist mode; and
  4. Gather additional (b) (7)(E), where possible, to transfer to the responsible OBP station.
- OBP will employ a flexible rapid response plan to interdict illegal crossing identified by the UAVs.
  - Once the UAV pilots identify IEs, information regarding their locations and apparent conditions would be transmitted to the OBP ground patrol units.
  - If a fatality appears to be imminent without immediate rescue efforts, emergency measures will be enacted and helicopter search and rescue units will be called in.
  - Similarly, if the IEs are spotted in locations that are too remote or rugged for ground vehicles, helicopters will be used to rescue IEs.

Several major organizations currently participate in UAV-related activities on Fort Huachuca. These organizations represent both testing and training in support of a variety of UAV platforms and include:

(b) (7)(E)

The (b) (7)(E) is a (b) (7)(E) UAV similar to (b) (7)(E) with more than 12,000 hours of flight time accumulated. The (b) (7)(E) has been designed to perform surveillance and reconnaissance missions under adverse environmental conditions.

(b) (7)(E)

In general, UAVs take off from designated airstrips (Libby Army Airfield), perform any number of aerial tasks, and return to the ground. Flights are generally confined to Fort

Huachuca Special Use Airspace and to designated Special Use Airspace and Military Operation Areas along the U.S./Mexico Border.

Existing facilities on Fort Huachuca will be used for the UAV program activities. Special considerations for the protection of the environment at these sites have already been enacted as a result of previous environmental review.

Libby Army Airfield (LAAF) is co-located with the Sierra Vista Municipal Airport. LAAF will serve as the operations, logistics, and maintenance center for OBP UAV operations in support of ABCI. (b) (7)(E) provides a site for maintenance and operational support to the UAVs, and a nearby 3,000 ft portion to the southeastern-most taxiway serves as a UAV runway.

The evaluation and operation of UAVs require personnel who are trained to test, operate, and maintain these vehicles. The additional (not already assigned to Fort Huachuca) personnel requirements would be up to (b) (7)(E). These additional personnel would be lodged in local hotels.

**Alternative B: No Action Alternative:**

- Under the Council for Environmental Quality (CEQ) regulations, a proponent must also evaluate the No-Action scenario.
- The No Action Alternative would force the OBP to rely on their current resources to detect and provide humanitarian assistance to IEs at a time when illegal immigration and temperatures are increasing.
- This alternative could result in a continued increase in deaths from heat exhaustion and dehydration and increase the risks to OBP agents' health and safety while trying to rescue the IEs in rugged terrain.
- The result of this alternative would be an additional ground disturbance from off-road vehicles during rescue operations.
- Ultimately, the OBP has determined that this alternative would unduly risk the lives of IEs and OBP agents.

**ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION AND ALTERNATIVES**

The Proposed Action Alternative evaluated in this Supplemental Environmental Assessment will result in no significant environmental impact, direct, indirect, cumulative or otherwise.

- Impacts to local air quality resulting from associated activities and increased UAV operations were found to be *di minimus*. The procedural requirements of the General Conformity Rule are not applicable to the Proposed Action because it occurs entirely within a NAAQS attainment area.
- Noise levels in the local and regional environment will increase but this will be limited to those areas beneath the UAV flight paths and near the take-off and capture facilities on Fort Huachuca. This increased noise level will not pose a threat to human health or safety and will not create a significant impact on humans or wildlife (including Federally-listed Threatened and Endangered Species).

- The Proposed Action, including nighttime activities both at Libby Army Air Field and within special use restricted airspace, will not create any land use conflicts and will be compatible with underlying land uses.
- Implementation of the Proposed Action Alternative would not significantly impact water resources.
- The Proposed Action Alternative will not affect the climate.
- The Proposed Action Alternative will not affect the physiography of the Arizona border region.
- The Proposed Action Alternative will not significantly affect common wildlife, either on the ground or in the air, due to the height of the flight routes and the temporary and sporadic nature of the reconnaissance missions.
- The Proposed Action Alternative will have no adverse effect on properties listed on, or determined eligible for, the National Register of Historic Places, and will not disturb or damage cultural resources and/or cultural sites.
- The Proposed Action Alternative will have no significant impact on public health and safety.

### **SUMMARY OF MITIGATION ACTIONS PLANNED**

**Mitigation Measures:** The U.S. Department of Homeland Security, U.S. Customs and Border Protection, Office of Border Patrol, through its Tucson Sector is responsible to ensure full compliance with all mitigation measures as identified herein.

- **BIOLOGICAL OPINION:** All relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions included in Appendix B of the *August 23, 2002 USFWS Biological Opinion on Ongoing and Programmed Future Military Operations and Activities at Fort Huachuca, Arizona* that would be affected by the implementation of the UAV pilot program will be implemented as a part of the Preferred Alternative.
- **WATER MITIGATION:** OBP will ensure that the entire all 6.25 acre feet of anticipated ground water to be pumped in support of this action will be mitigated by the OBP in consultation with Fort Huachuca through either a mitigation fee or installation of technology. Vehicle refueling and maintenance procedures and hazardous substance storage areas will be designed to preclude the discharge of hazardous substances; thereby precluding any adverse effect on the surface water.
- **MITIGATION MEASURES FOR LAND USE:** Mitigation measures are currently practiced at Fort Huachuca during UAV activities. Portable toilets will be used at operational sites. Toilets will be removed upon completion of the test period. Any garbage and litter will be collected and removed from operational sites after each use. Vehicle refueling and maintenance procedures and hazardous substance storage areas will be designed to preclude the discharge of hazardous substances (ie: fuels, solvents and lubricants). Such designations will include specific measures to preclude spills or contain hazardous substances, including proper handling and disposal techniques.
- **MITIGATION FOR AIR QUALITY:** Fugitive dust emissions created by helicopters during any needed take-off/landing maneuvers will be lessened by making



approaches to suitable landing areas and when possible making landings on the ground to avoid hovering. Shallow approach angles maintaining a speed above effective translational lift will be employed to minimize the angle of attack of the rotor blades upon landing. Landing over grassy areas will take place whenever possible to lessen the potentiality of stirring up inordinate amounts of dust.

- **MITIGATION MEASURES FOR NOISE LEVELS:** To ensure maximum mitigation of noise, approach and departure profiles will be applied that will direct UAVs away from residential areas during approach, take-off, and ascent.
- **MITIGATION MEASURES FOR WILDLIFE:** All mitigation measures included in Appendix B of the *August 23, 2002 USFWS Biological Opinion on Ongoing and Programmed Future Military Operations and Activities at Fort Huachuca, Arizona* will be implemented as a part of the Proposed Action.
- **MITIGATION MEASURES for PUBLIC HAZARDS, HEALTH, and SAFETY:** To prevent spillage of petroleum products onto exposed soil or water resources, drip pans will be placed beneath generators and UAVs during refueling. Fuel containers will also be placed on drip pans and positioned at least 25 feet from ignition sources. Vehicles will routinely be inspected for coolant and petroleum products leakage. A fire control station, consisting of a fire extinguisher and a shovel will be provided with each portable generator. In the event of mishap, the test director will activate the React Team, a pre-assigned group of personnel designated to respond in the event of a crash or other mishap. If the mishap is off military property, permissions will be obtained before trespassing occurs, and the React Team will immediately begin to disarm any hazards. In the event of a UAV catching fire, the vehicle will be left to burn. Personnel will maintain a distance of more than 1,500 feet upwind per protocol, a precaution since some UAVs have the potential to produce toxic gases when burning due to the foam inside the wings. Once the UAV is recovered, the site will be cleaned and cleared of any remaining hazards to meet standards specified in the Fort Huachuca POL Spill Reporting and Containment Plan. Immediate response by the React Team to a mishap will be ensured to minimize any potential risks or hazards to personnel or civilians in the area. Measures will be taken to ensure that there are no uncontrolled releases of hazardous materials onto soil, surface water, air, or groundwater.

## **CUMULATIVE IMPACTS**

- The Council of Environmental Quality (CEQ) defines cumulative impacts as the incremental impact of multiple present and future actions with individually minor but collectively significant effects.
- Cumulative impacts can be concisely defined as the total effect of multiple land uses and developments, including their interrelationships, on the environment.

## **SUMMARY**

Based upon the analysis in the SEA, the implementation of the Proposed Action for Initial Field Test of the Unmanned Aerial Vehicle in Support of operation Skywatch will not constitute a major federal action significantly affecting the quality of the natural or human environment. Consequently, the proposed action does not require the preparation of an Environmental Impact Statement.

Section

1

## 1.0 INTRODUCTION

This Supplemental Environmental Assessment (SEA) addresses the potential effects, beneficial and adverse, of the use of Unmanned Aerial Vehicles (UAV) by the Customs and Border Protection (CBP) Office of Border Patrol (OBP). The OBP intends to establish an operational pilot test of UAVs to determine their ability to act as a force multiplier when used in conjunction with other detection equipment and surveillance measures. The result of these tests will determine if UAV programs should be continued. If, as a result of these tests, it is concluded that UAVs are effective, they will be included in future Operation Skywatch missions.

This SEA addresses the potential effects, beneficial and adverse, of the use of UAVs by OBP in support of Operation Skywatch which is an element of the Arizona Border Control Initiative (ABCI). Operation Skywatch is a temporary expanded air operations designed to reduce the number of fatalities of illegal entrants (IEs) and the general public. It will also enhance border enforcement activities within the OBP's Tucson and Yuma Sectors. The OBP's Yuma Sector would support Operation Skywatch through operations within the Tucson Sector's Area of Operations (AO).

Operation Skywatch was first initiated in 2000 in a response to a large increase of IE heat related deaths. Almost 40 deaths occurred from February to June 2000, creating an emergency situation that required aircraft and personnel to be immediately detailed to the Tucson Sector. Near record temperatures in the summer of 2001 and 2002 caused even more deaths, resulting in the reinitiating of Operation Skywatch as an emergency response to the potential for imminent loss of life. Both of these actions were addressed in separate EAs (INS 2000 and 2001). Due to the success of these previous operations, the Department of Homeland Security (DHS) and OBP have decided to implement this important program on an annual basis for at least the next 5 years (INS 2002). Operation Skywatch will utilize a cooperative approach enhanced with additional personnel, technology and aviation assets. This program will involve hundreds of local, state, tribal and federal law enforcement officers in Arizona. Unmanned Aerial Vehicles (UAVs) will be used to increase border surveillance and enhance the capabilities of Border Patrol agents and other law enforcement agencies.

The ABCI supports the priority mission of Homeland Security agencies to detect and deter terrorist activities and cross-border illegal trafficking of people and drugs. While the principal focus of the plan is border security, border safety is expected to be a byproduct.

The UAV Pilot Program (Initial Field Test) and ABCI Operation Skywatch Support terminology are used interchangeably through this document as they are essentially the same.

## 1.1 Background

### 1.1.1 Office of Border Patrol

As the primary federal law enforcement agency between the ports of entry, the mission of the OBP, a component of the CBP is to enforce the laws that protect America's homeland by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across our Nation's sovereign borders. The OBP is responsible for securing 4,000 miles of border with Canada and 2,000 miles of border with Mexico. It is the most remote areas of these borders where resources and personnel are limited, that the deployment of UAV(s) may be beneficial.

### 1.1.2 Tucson Sector

The mission of the OBP Tucson Sector (within its AO) is to protect the U.S.-Mexico boundary in Arizona through the detection and prevention of smuggling and illegal entry of persons into the United States. The Tucson Sector encompasses all or parts of (b) (7)(E) [REDACTED] counties (Figure 1). The Tucson Sector is responsible for approximately 280 miles of the U.S.-Mexico border, most of which are remote and rugged lands, particularly along the corridor between the (b) (7)(E) [REDACTED] Stations' AO.

The Tucson Sector uses a variety of methods to detect and deter IEs and contraband smugglers. Deterrence is accomplished through the actual presence (24 hours per day, 7 days per week) of the OBP agents on the border, fences and other physical barriers (natural and man-made), lighting, and the knowledge that the illegal entrants will be detected and apprehended. Detection of the IEs and illegal traffickers is accomplished through a variety of low technology and high-technology resources. These include observing physical signs of illegal entry (vehicle tracks and footprints, clothes, etc.), visual observation of the illegal entries from the ground or from aerial reconnaissance, operation of checkpoints, information provided by private landowners or the general public, ground sensors, and remote video surveillance (RVS) systems.

Currently, the Tucson Sector maintains 10 aircraft comprised of eight helicopters, (7) (b) (7)(E) [REDACTED], and one (1) (b) (7)(E) [REDACTED], and two (b) (7)(E) [REDACTED] airplanes (1-(b) (7)(E) [REDACTED] and 1-(b) (7)(E) [REDACTED]), which can provide assistance to any station within the sector. Currently the Yuma Sector maintains five (b) (7)(E) [REDACTED] helicopters and two (b) (7)(E) [REDACTED] airplanes, which can provide assistance to any station within the sector. There are currently no established flight patrol routes within the Tucson Sector; however, when emergency assistance is requested, OBP helicopters will operate throughout the Tucson Sector's AO.

As directed by the President's National Drug Control Strategy, the Tucson Sector is currently employing a border enforcement program, called "Operation Safeguard", to gain, maintain, and extend control of the Arizona border. Operation Safeguard is a complex and diverse program that uses increased surveillance, remote sensing methods and technologies,

search and rescue missions, personnel deployment, and other related efforts to detect and deter IEs and illegal drug traffickers from entering the U.S.

Department of Homeland Security's Under Secretary for Border and Transportation, Asa Hutchinson, announced on March 16, 2004 the initiation of work to implement the ABCI. This initiative is being specifically addressed in a Draft Programmatic Environmental Impact Statement (DPEIS) for overall operations in the ABCI area of operations. The Draft PEIS is anticipated to be ready in 2004. This SEA is project specific and will address the cumulative issues that result from UAV operations under Operation Skywatch in the Tucson Sector.

### 1.1.3 Yuma Sector

The Yuma Sector encompasses all of (b) (7)(E) counties (Figure 1). As with the Tucson Sector, the Yuma Sector has a variety of methods to detect and deter IEs and illegal drug traffickers. Several measures have to be employed by the OBP in order to observe illegal activity or signs of illegal activity including low-level flights. Currently the Yuma Sector maintains five (b) (7)(E) helicopters and two (b) (7)(E) airplanes, which can provide assistance to any station within the sector. The air operations center is located at the Yuma Airport. The Yuma Sector conducts a daily patrol route along the U.S.-Mexico border, which has been reviewed in accordance with the National Environmental Policy Act (NEPA) and Section 7 of the Endangered Species Act (ESA). The Yuma Sector will provide operational assistance on an as needed basis under Operation Skywatch within the (b) (7)(E) desert area of the Tucson Sector.

### 1.1.4 Regulatory Authority

The primary sources of authority granted to officers and agents of the OBP are the Immigration and Nationality Act (INA), found in Title 8 of the United States Code (8 U.S.C.), and other statutes relating to the immigration and naturalization of aliens. The secondary sources of authority are administrative regulations implementing those statutes, primarily those found in Title 8 of the Code of Federal Regulations (8 C.F.R. Section 287), judicial decisions, and administrative decisions of the Board of Immigration Appeals.

Subject to constitutional limitations, OBP officers and agents may exercise the authority granted to them in the Immigration and Nationality Act. The statutory provisions related to enforcement authority are found in Sections 287(a), 287(b), 287(c), and 287(e) [8 U.S.C. § 1357(a, b, c, e)]; Section 235(a) (8 U.S.C. § 1225); Sections 274(b) and 274(c) [8 U.S.C. § 1324(b, c)]; Section 274A (8 U.S.C. § 1324a); and Section 274C(8 U.S.C. § 1324c) of the INA. Other statutory sources of authority are Title 18 of the United States Code (18 U.S.C.), which has several provisions that specifically relate to enforcement of the immigration and nationality laws; Title 19 [19 U.S.C. 1401 § (i)], relating to Customs cross-designation of OBP officers and agents; and Title 21(21 U.S.C. § 878), relating to Drug Enforcement Agency cross-designation of OBP officers and agents.

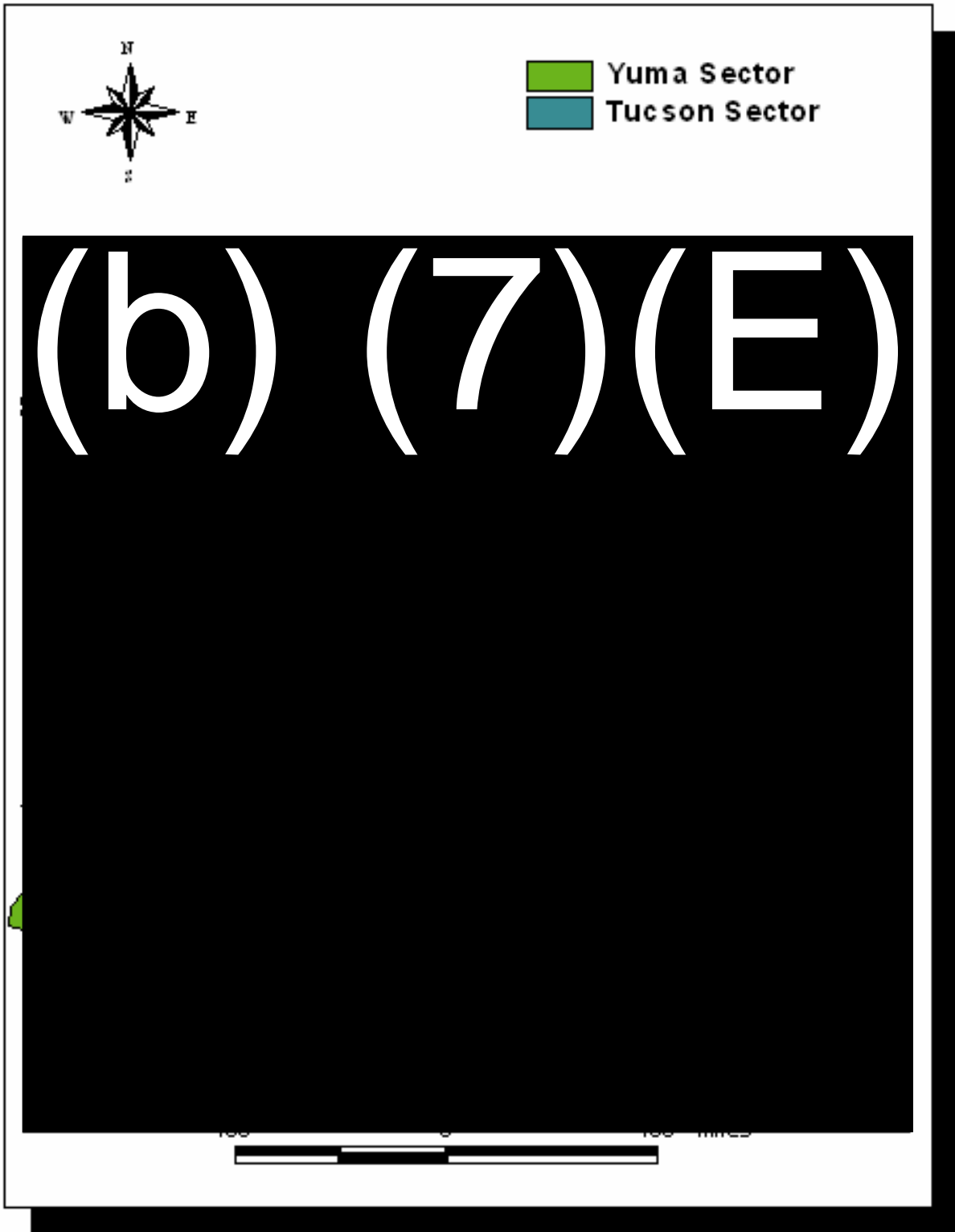


Figure 1 Yuma and Tucson Sectors



## 1.2 Purpose and Need

The Tucson and Yuma Sectors of Arizona (Figure 1) continue to be the highest trafficked stretch of the border in the entire United States. (b)(7)(E)

(b)(7)(E)

(b)(7)(E)

. Illegal entrants falling into distress while traversing the inhospitable terrain of the southwest border, particularly during the summer-months, will continue to be an issue. As the number of IEs increases, so does the number and frequency of IE deaths, primarily due to heat exhaustion and overexposure. Between October 2001 and September 2002 (Fiscal Year [FY] 02) the OBP rescued about 470 IEs in the Tucson Sector. During the same time frame in FY 03, the Tucson Sector reported 120 rescue operations, which involved 363 IEs. Many were suffering from dehydration, hunger, and heat stroke. Some had been injured or assaulted and left for dead by bandits. Others had been abandoned by smugglers (coyotes) when they were unable to keep up with the rest of the group. Over the past three years 289 deaths have occurred in the Tucson Sector while attempting to illegally enter the United States (i.e., 67 in fiscal year [FY] 01, 112 in FY02, and 110 in FY03). In FY 03, Yuma Sector reported 8 deaths. So far this year, the Yuma and Tucson Sectors have reported 1 and 9 deaths, respectively. The majority of these deaths are directly related to migrant smugglers leading groups of IEs through remote and treacherous desert terrain. The migrants are thus exposed to extremely harsh climatic conditions and are not prepared to survive in these situations.

With the hottest temperatures registered between May and September, the number of IE fatalities is anticipated to rise. Although public information programs target migrants to warn them of the dangers of attempting to cross, thousands of migrants ignore these cautions. There is a need, therefore, to deter the IEs from attempting to illegally enter the United States and to provide rapid detection, apprehension and/or rescue to those who do cross the border.

UAV(s) represent an innovative and ambitious new approach toward border enforcement. The Arizona border with Mexico is 350 miles long and contains areas of vast and unpopulated expanses. (b)(7)(E)

(b)(7)(E) Border Patrol agents could potentially manage security of these areas more effectively and efficiently through prompt detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle contraband or tools of terrorism across US Borders.

A pilot program would also give the CBP more time to discern whether a joint UAV program with other DHS agencies, such as U.S. Immigration and Customs Enforcement and the U.S. Coast Guard, would lead to economies of scale.

### 1.3 Proposed Action

The OBP proposes to conduct an operational pilot program to determine whether unmanned aerial vehicles (UAV) could enhance the CBP border mission and, if so, to identify, evaluate, and quantify the resources required for, versus the benefits derived from, a long-term CBP UAV program. The pilot program could test the limits of UAV capabilities and resource allocations in some of the more remote regions of the southwestern border.

Demonstration of UAV capability will be conducted through direct support of the Arizona Border Control Initiative's Operation Skywatch to be conducted during June 2004-September 2004. The purpose of Operation Skywatch is to deter illegal entrants from attempting to enter the U.S. in the harsh and remote desert regions of Arizona. Operation Skywatch will also provide assistance in identifying and rescuing IEs and illegal drug traffickers who may be at risk of dying due to overexposure along the U.S./Mexico border within the OBP's Tucson and Yuma Sector's AO.

The OBP proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles for aerial reconnaissance missions along the along the (b) (7)(E) Arizona (Figure 2). UAV support personnel for the proposed action would include (b) pilots, (b) mechanics and (b) data analysts. These aircraft would be operated at Fort Huachuca's Libby Army Airfield.

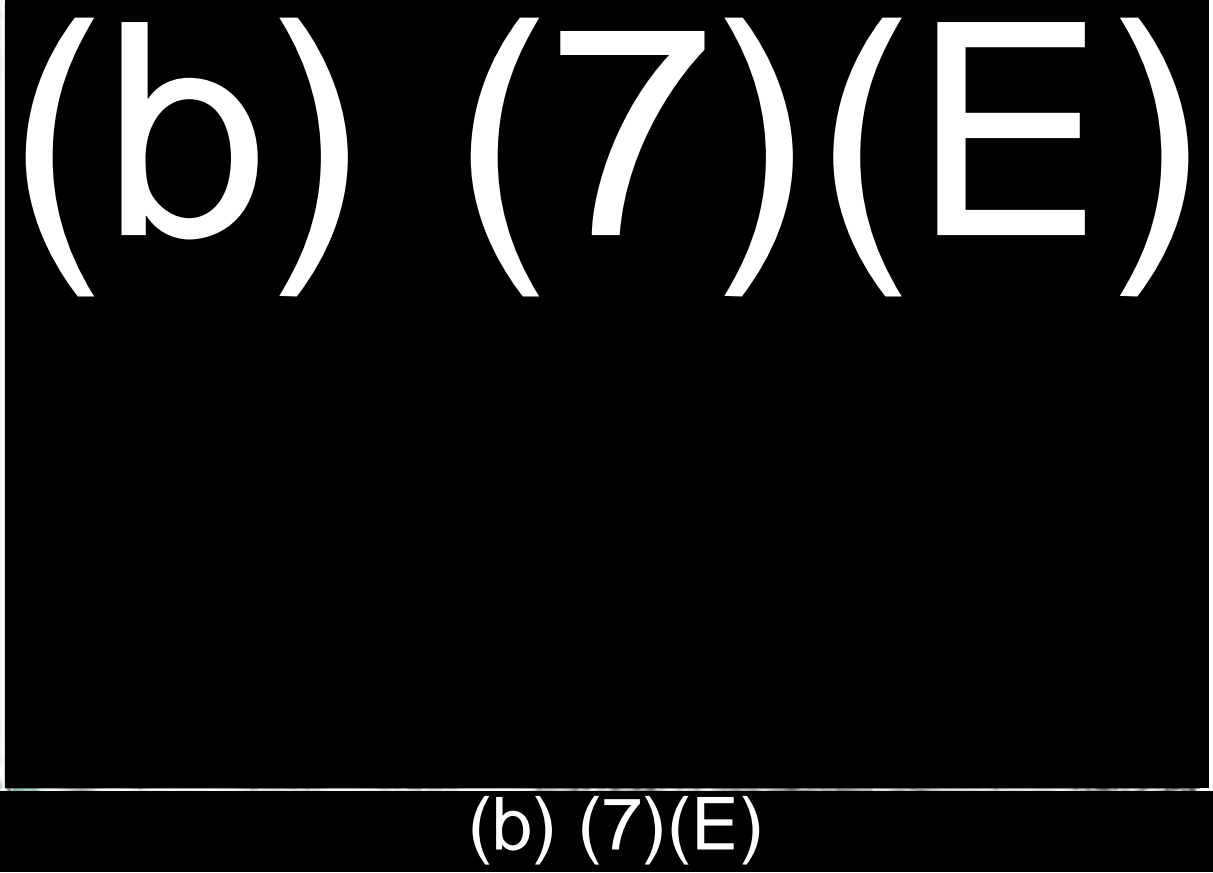
UAVs would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAV's would be operational for approximately (b) (7)(E) per week for an estimated total of (b) (7)(E) flight hours during the test period. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Cochise counties.

The UAVs would be deployed in a law enforcement-mode along the international border. The priorities under which they will operate would be:

1. As an additional deterrent factor by their presence;
2. Assist ground patrol units to track non-deterred illegal entrants, and facilitate apprehension;
3. Act in a rescue assist mode; and
4. Gather additional (b) (7)(E), where possible, to transfer to the responsible OBP station.

OBP will employ a flexible rapid response plan to interdict illegal crossings identified by the UAVs. Once the UAV pilots identify IEs, information regarding their locations and apparent conditions would be transmitted to the OBP ground patrol units. If a fatality appears to be imminent without immediate rescue efforts, emergency measures will be enacted and helicopter search and rescue units will be called in. Similarly, if the IEs are spotted in locations that are too remote or rugged for ground vehicles, helicopters will be used to rescue IEs.





#### 1.4 Public Involvement

In keeping with established policy regarding an open decision-making process, this SEA and resulting decision document of either a Finding of No Significant Impact (FONSI) or a Notice of Intent (NOI) to complete an Environmental Impact Statement (EIS) will be made available to agencies and the general public for review and comment. A Notification of Availability (NOA) will be published in applicable local newspapers and copies of the SEA made available to the general public at local libraries by request.

For further information on the proposed action or to request a copy of the SEA, please contact: (b) (6) U.S. Customs and Border Protection, 1300 Pennsylvania Avenue NW, Washington D.C. 20229, or by e-mail at: (b) (6)

##### 1.4.1 Native American Consultation

Potentially interested Native American tribes were provided with information about the proposed action and invited to provide comments. Letters were sent to Tribal Leaders of the Tohono O'odham Nation as well as Tribal Leaders of other Tribes located throughout the Arizona Border

Area informing them that the OBP was beginning the process of soliciting input in the development of an SEA and inviting them to comment on issues of Tribal concern.

**1.5 Framework for Analysis**

This SEA identifies, evaluates, and documents the effects of a pilot program (field test) of Unmanned Aerial Vehicles by the OBP in support of the Arizona Border Control Initiative (ABCI) Operation Skywatch. This SEA was prepared in compliance with the National Environmental Policy Act (NEPA), (Public Law 91-190, 42 U.S.C. 4321-4347, as amended), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500-1508) and Department of Homeland Security Procedures Relating to the Implementation of the National Environmental Policy Act (28 CFR Part 61, Appendix C).

This SEA is intended to be a concise public document that provides sufficient evidence and analysis for determining whether to prepare an EIS or a FONSI. NEPA requires that agencies of the federal government implement an environmental impact analysis program in order to evaluate "...major federal actions significantly affecting the human environment." In order to assess the full range of the potential impacts, the OBP determined that this SEA should evaluate the following resources.

|                      |  |
|----------------------|--|
| • Land Use           | • Surface Water                          |
| • Air Quality        | • Biological Resources                   |
| • Noise              | • Socioeconomics                         |
| • Cultural Resources | • Public Services, Utilities, and Energy |
|                      | • Public Hazards, Health, and Safety     |

A wide variety of available data and results of previous studies were incorporated and consolidated into this document to serve as a resource and planning baseline. Results from recent consultations with the U.S. Fish and Wildlife Service (USFWS 2002) regarding ongoing and proposed activities at Fort Huachuca as they apply to facilities or activities associated with the Proposed Action, are also incorporated into this SEA. All UAV operations and activities will adhere to the relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions of the USFWS Biological Opinion. These documents are incorporated by reference into this SEA.

- U.S. Immigration and Naturalization Service. *Final Report, Environmental Assessment Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona.* January 2003.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service. *Biological Opinion Fort Huachuca Ongoing and Programmed Future Military Operations and Activities* Arizona Ecological Services Field Office, U.S. Fish and Wildlife Service AESO/2-21-02-F-229 August 2002.
- U.S. Immigration and Naturalization Service. *Final Report, Environmental Assessment For Operation Skywatch USBP Tucson Sector, Arizona.* May 2002.
- U.S. Immigration and Naturalization Service, *Final Supplemental Programmatic Environmental Impact Statement Proposed JTF-6 Support Services to INS.* June 2001.

- U.S. Army Garrison, Fort Huachuca. *Environmental Assessment Comprehensive Unmanned Aerial Vehicle Testing and Training at Fort Huachuca, Arizona*. June 2000.
- U.S. Army Corps of Engineers, Fort Worth District, *Final Programmatic Environmental Impact Statement for JTF-6 Activities Along the U.S./Mexico Border*. 1994.

## 1.6 A Brief History of UAV Programs

Although the notion of using unmanned aircraft has been around since World War I, the United States did not begin seriously experimenting with unmanned reconnaissance drones until the late 1950s. The Vietnam War and Cold War spurred a variety of new development programs, which led to several reconnaissance drones, such as the Firefly and Lightning Bug. The Air Force deployed these early drones for a variety of missions, including gathering signal intelligence and collecting high- and low-altitude imagery, both during the day and night. By the end of the Vietnam War, concern about casualties meant that only two aircraft were allowed to fly reconnaissance missions over North Vietnam: the Lightning Bug UAV and a high altitude, manned reconnaissance plane (the supersonic SR-71).

After the Vietnam War, the Department of Defense (DOD) remained interested in exploring the capabilities that unmanned aircraft had to offer. In particular, from 1979 to 1987 the Army developed and tested a tactical UAV called Aquila. In 1982, the Israelis effectively used drones to destroy Syrian air defenses in Lebanon's Bekaa Valley. Their success inspired the Navy to acquire UAVs, primarily to support targeting by, and battle-damage assessment for, U.S. battleships. The Navy and Marine Corps acquired nine Pioneer UAV systems – which have been employed in U.S operations since the 1980s, including the Gulf War, Bosnia Kosovo, Afghanistan and Iraq.

In recent years, the DOD has begun a number of other UAV development programs: the Predator, Shadow and Global Hawk. Advances in technologies such as miniaturization and noise reduction and increasing experience in the integration of all UAV system components (air vehicle, ground support equipment, sensors or other payloads, and communications equipment), have contributed to the optimism of DOD officials about UAV operations. All three of these systems (Predator, Shadow, and Global Hawk) were employed successfully in support of operations in Afghanistan and Iraq.

## Section

## 2

## 2.0 ALTERNATIVES

This section of the SEA describes the alternatives considered during the preparation of the document. Several alternatives were found to be reasonable for providing the OBP with UAV program capabilities. These were evaluated based on each alternative's ability to provide the required infrastructure and operational capabilities to support the UAV and ABCI mission. As a result of this evaluation, a Preferred Alternative was selected and is presented as the Proposed Action. The other alternatives were considered to be less effective at providing optimal operation and support capabilities to the OBP, but reflect reasonable alternatives for staging and operations sites. Four alternatives were considered:

- (1) Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations (Fort Huachuca) – the Preferred Alternative;
- (2) Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations Barry M. Goldwater Range/Gila Bend Air Force Auxiliary Air Field;
- (3) Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations Yuma Proving Ground (Laguna Region)/Castle Dome Heliport; and
- (4) No Action.

Alternative (2), the Barry M. Goldwater Range/Gila Bend Air Force Auxiliary Air Field and Alternative (3), the Yuma Proving Ground (Laguna Region)/Castle Dome Heliport were determined to NOT be operationally viable or available during the timeframe necessary to meet the mission needs and therefore were not carried forward for detailed analyses. As a result of this evaluation of the following two alternatives, a Preferred Alternative was selected as the Proposed Action.

### 2.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)

This alternative will temporarily detail two additional OBP aircraft ((b) (7)(E) UAVs), (b) pilots, (b) mechanics and (b) data analysts to the Tucson Sector for a period of approximately 125 days. The anticipated water use during the 125-day period based on the forecast number of (b) additional personnel is 6.25 ac-ft. OBP will ensure that all 6.25 acre feet of water anticipated to be pumped in support of this action will be mitigated by the OBP in consultation with Fort Huachuca through either a mitigation fee or installation of technology.

The aircraft will be staged at and operated from the Libby Army Airfield, Fort Huachuca, Arizona. The flight operations would be conducted along the southern Arizona border from the (b) Area of Operation (AO) (b) (7)(E), typically at altitudes of (b) (7)(E) feet MSL or higher.

The UAV's mission will be (1) to deter illegal entry through their presence and, (2) to detect IEs who appear to be at risk and to notify ground/helicopter patrols of their locations and the apparent conditions. These units will then initiate the appropriate emergency response action. Flights along the border would vary in times of operation but would typically be flown during (b) (7)(E) hours to allow OBP agents to make visual observations and assessments by taking advantage of the

(b) (7)(E) The aircraft would be operated from established aircraft operating areas that are equipped with proper fuel and hazardous materials (e.g., cleaning solvents, petroleum, oils and lubricants) storage and handling facilities. Pilots, mechanics, and other support personnel as assigned would be lodged in local hotels.

Several major organizations currently participate in UAV-related activities on Fort Huachuca. These organizations represent both testing and training in support of a variety of UAV platforms and include:

(b) (7)(E)

### 2.1.1 (b) (7)(E) UAV

The (b) (7)(E) is a (b) (7)(E) UAV similar to (b) (7)(E) with more than 12,000 hours of flight time accumulated. (b) (7)(E). These aircraft have been designed to perform accurate surveillance and reconnaissance missions under adverse environments and battlefield conditions. The following are descriptions of current (b) (7)(E) UAV systems.

(b) (7)(E)

(b) (7)(E) is capable of fully autonomous flight with in-flight redirection capability; GPS navigation, advanced dual computers, dual data-links, and redundant electrical and avionics systems. The (b) (7)(E) has been designed to perform surveillance and reconnaissance missions under adverse environmental conditions.

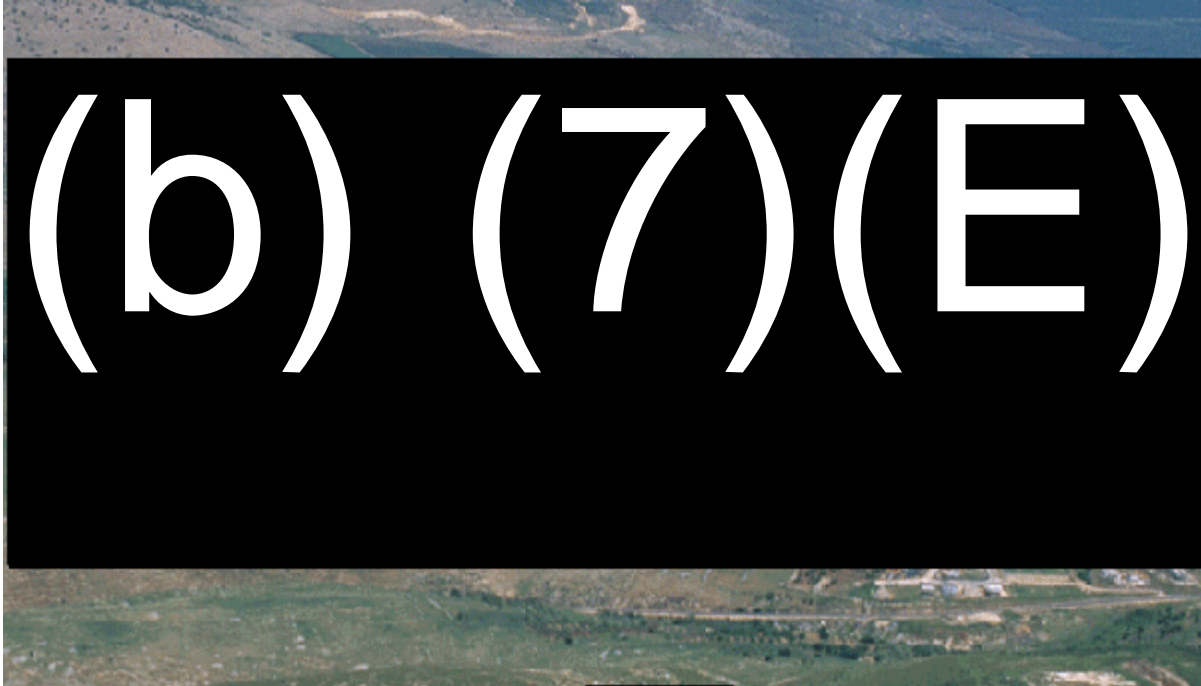


Figure 3 (b) (7)(E)

Photo Courtesy of EFW/Silver Arrow

### 2.1.2 Ground Control Station

The Ground Control Station (GCS) provides aircraft control functions to the UAVs. It serves as the operator (pilot) and payload operator workstations for the UAV and is the manned equivalent of the cockpit. The GCS has a variety of configurations, but in general consists of a (b) (7)(E)

[REDACTED] his sophisticated control center can direct the UAV throughout the mission from a highly mobile militarized shelter. The GCS is the central intelligence information collection station and processing point for analyzing the health of the UAV while airborne.

### 2.1.3 UAV Operations and Ancillary Tasks

In general UAVs take off from designated airstrips (Libby Army Airfield), perform any number of aerial tasks, and then return to the ground. Flights are generally confined to Fort Huachuca Special Use Airspace and to designated Special Use Airspace and Military Operation Areas along the U.S./Mexico Border.

### 2.1.4 UAV Payloads and Applications



(b) (7)(E)

### 2.1.5 Facilities on Fort Huachuca

Under the proposed action, existing facilities on Fort Huachuca will be used for UAV program activities. Special considerations for the protection of the environment at these sites have already been enacted as a result of previous environmental review. These mitigation measures are identified in Section 4 of this document.

#### 2.1.5.1 Libby Army Airfield

Libby Army Airfield (LAAF) is co-located with the Sierra Vista Municipal Airport. LAAF will serve as the operations, logistics, and maintenance center for OBP UAV operations in support of ABCI. Two maintenance buildings support UAV operations and a (b) (7)(E) portion of the southeastern-most taxiway serves as a UAV runway.

### 2.1.6 Personnel Requirements

The evaluation and operation of UAVs require personnel who are trained to test, operate, and maintain these vehicles. For the proposed action, additional personnel (not currently stationed at Fort Huachuca) are required for UAV operational support and testing events. All operational support and testing events require the use of UAVs and ground support equipment. The additional (not already assigned to Fort Huachuca) personnel requirements would be up to (b) (7)(E). These additional personnel would be lodged in local hotels.

### 2.1.7 Airspace

(b) (7)(E)

## 2.2 Alternative B. No Action Alternative

The No Action Alternative would force the OBP to rely on their current resources to detect and provide humanitarian assistance to IEs at a time when illegal immigration and temperatures are increasing. This alternative could result in a continued increase in deaths and increase the risks to OBP agents' health and safety while trying to rescue the IEs in rugged terrain. This alternative would also result in additional ground disturbance from off-road vehicles during rescue operations. Ultimately, the OBP has determined that this alternative would unduly risk the lives of IEs and OBP agents.

## 2.3 Alternatives Considered but Eliminated From Further Evaluation

Several other alternatives and combinations thereof were considered during the preparation of this SEA. However, these were not carried forward for detailed analyses because they were not as effective, were more environmentally damaging, and/or posed a greater health risk to IEs and/or OBP personnel. Deploying additional OBP agents on the ground was considered but eliminated due to the urgency of the situation and the time required to hire/train the number of

agents that would be needed to adequately patrol the area. The addition of these agents would also necessitate the procurement of other support resources including administration facilities, vehicles, and support personnel, and there would still be areas along the border that the agents could not effectively patrol due to natural barriers.

(b) (7)(E)



## 3.0 AFFECTED ENVIRONMENT

As mentioned previously, a large number of INS, JTF-6 and DOD projects are conducted within Arizona mostly within a (b) (7)(E) along the U.S./Mexico border. The baseline, or existing conditions of the human and natural environment along this corridor have been thoroughly described in the following documents.

- U.S. Immigration and Naturalization Service. *Final Report, Environmental Assessment Expansion of U.S. Border Patrol Air Operations and Facilities, U.S. Border Patrol Tucson Sector, Arizona*. January 2003.
- U.S. Immigration and Naturalization Service. *Final Report, Environmental Assessment For Operation Skywatch USBP Tucson Sector, Arizona*. May 2002.
- U.S. Immigration and Naturalization Service, *Final Supplemental Programmatic Environmental Impact Statement Proposed JTF-6 Support Services to INS*. June 2001.
- U.S. Army Garrison, Fort Huachuca. *Environmental Assessment Comprehensive Unmanned Aerial Vehicle Testing and Training at Fort Huachuca, Arizona*. June 2000.
- U.S. Army Corps of Engineers, Fort Worth District, *Final Programmatic Environmental Impact Statement for JTF-6 Activities Along the U.S./Mexico Border*. 1994.

These documents are incorporated herein by reference, as allowed by 40 CFR 1508.02. The resources that have the greatest potential for being affected by the proposed action are briefly discussed in the following paragraphs. These discussions are paraphrases of the detailed descriptions provided in these baseline documents.

### 3.1 Climate

The climate in southern Arizona is quite varied due to differences in elevation and proximity to physical features such as mountains. Two distinct climatic zones, the Mexican Highland Zone and the Sonoran Desert Zone differentiate the Tucson Sector. The Mexican Highland Zone in Santa Cruz, Cochise, and eastern Pima counties is at a higher elevation than the Sonoran Desert Zone. Annual temperature variations in the area range from 111°F to -1°F. Relative humidity ranges from 50 percent in the mornings to 33 percent in the afternoons.

The Sonoran Desert Zone in western Pima, Maricopa, and Pinal counties has a desert climate. Annual precipitation in the area ranges from less than three inches at lower elevations to 12 inches at upper elevations. Almost 50 percent of the normal yearly precipitation occurs from mid-

July to mid-September as a result of moisture-laden air currents moving into Arizona from the Gulf of California. Temperatures in the summer months range from 71° to 108°F with a maximum of 124°F having been reported. Due to the proximity of the Gulf of California, relative humidity ranges from 53 percent in the mornings to 23 percent in the afternoons, which can significantly increase the heat index. Prevailing winds are from the north and are highest (10 mph) in July.

### 3.2 Physiography

Southern Arizona lies within the Basin and Range Physiographic Province and is characterized by intensely deformed and intruded strata within numerous fault blocks. This province has roughly parallel but discontinuous mountain ranges that, in Arizona, tend to be linear and oriented generally northwest to southeast. Broad alluvial valleys separate these block-faulted mountain ranges. The Basin and Range Province in the study area can be subdivided into two physiographic sub-provinces: the Mexican Highlands and the Sonoran Desert (Hayes 1969).

The Mexican Highland subprovince includes Cochise County, Santa Cruz County, and the eastern part of Pima County. Mountain ranges make up nearly half of the area (Hayes 1969) and may rise to more than 9,000 feet mean sea level (MSL). The Sonoran Desert subprovince includes Maricopa County and the western portions of Pima and Pinal counties. In contrast to those of the Mexican Highlands, the mountain ranges in this subprovince are lower and narrower, and cover less than a fourth of the area (Hayes 1969).

A number of landforms are present throughout the Arizona border region. These physiographic features include relatively large-scale features such as mountains, basins, and volcanic cinder cones and flows, and relatively small-scale features such as sand dunes, alluvial fans, pediments, and playas. Landforms present in the study area are features typically associated with desert regions. Much of the shaping of the present southern Arizona landscape occurred during the Quaternary (i.e., the last two million years) (Cooley 1967).

### 3.3 Land Use

The land use in the area includes agriculture, rangeland, urban, forest, recreation/special use, and water. The major Federal agencies controlling large land areas are the U.S. Forest Service (USFS), National Park Service (NPS), Department of Defense (DOD), U.S. Fish and Wildlife Service (USFWS) and the Bureau of Land Management (BLM). The major state agencies controlling large areas of land are the Arizona State Land Department, Arizona State Parks and the Arizona Game and Fish Department. Native American Nations also own significant areas of land. Private and corporate land ownership, a small percentage of the total land area, contains the urban areas and intensive specialized agriculture land, along with large areas of open rangeland.

#### 3.3.1 Fort Huachuca/Libby Army Air Field/Sierra Vista Municipal Airport

Libby Army Airfield/Sierra Vista Municipal Airport (LAAF/SVMA) is located in the north-central portion of the Fort Huachuca Military Reservation (Figure 4). The airfield is a joint-use facility. The city-owned civilian facilities are located on approximately 72 acres of land on the north side of the airfield. The airport is located approximately (b) (7)(E)

(b) (7)(E) While the land on which the civilian facilities are located was deeded to Sierra Vista in 1982, the facilities are under the jurisdiction of the U.S. Department of the Army, and

their use is governed by covenants and conditions. The lands surrounding Fort Huachuca are subject to Cochise County, Santa Cruz County, and the city of Sierra Vista land use restrictions.

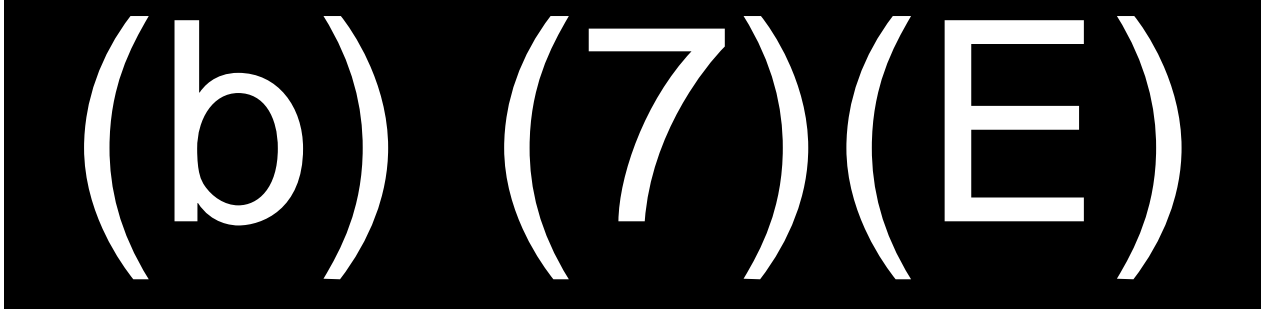
(b) (7)(E)

(b) (7)(E)

(b) (7)(E)

(b) (7)(E)

### 3.4 Existing OBP Air Operations



Once OBP aircraft identify IEs, information regarding their locations and apparent conditions are transmitted to ground patrol units. If a fatality appears to be imminent without immediate rescue efforts, helicopter Border Patrol Search, Trauma and Rescue (BORSTAR) units will be deployed. Similarly, if the IEs are spotted in locations that are too remote or rugged for ground vehicles, helicopters will be used to rescue the IEs. Environmental impacts associated with these activities in the Tucson Sector have been previously evaluated (see INS 2002).

### 3.5 Air Quality

The U.S. Environmental Protection Agency (USEPA) defines ambient air quality in 40 CFR 50 as "that portion of the atmosphere, external to buildings, to which the general public has access". In 40 CFR 50, USEPA has designated "criteria air pollutants" in which ambient air quality standards have been established. Ambient air quality standards are intended to protect public health and welfare and are classified as either "primary" or "secondary" standards. Primary standards define levels of air quality necessary to protect the public health. National secondary ambient air quality standards define levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Primary and secondary standards have been established for carbon monoxide, lead, ozone, nitrogen dioxide, particulate matter (total and inhalable fractions) and sulfur dioxide. Areas that do not meet these standards are called non-attainment areas; areas that meet both primary and secondary standards are known as attainment areas. The state of Arizona has adopted the National Ambient Air Quality Standards (NAAQS) as the state's air quality standards. These standards are presented in Table 1.

The majority of the Arizona segment of the U.S.- Mexico border area is sparsely settled desert or semi-desert. However, this segment contains the large urban areas of the Tucson metropolitan areas. Several "sister cities" are also located along the U.S.-Mexico border. There are a number of air quality problems related to the rural, urban, and industrial areas within this study area. Man-made sources of air contaminants affect the air quality of the study area. These sources include: industrial emissions, mobile (vehicular) emissions, area emissions (e.g., emissions from numerous residences and small commercial establishments in an urban setting), dust resulting from wind erosion of agriculturally disturbed lands, smoke from forestry burns, and pollutants transported into the study area on winds blowing from major urban/industrial areas outside the study area. One of the largest sources of air pollution in Arizona is the prescribed burning of dense understory to reduce the potential for wildland fire. The USEPA has determined that prescribed burns, although they produce airborne particulates, are less detrimental to air quality than wildland fire.

Airborne particulates are a special problem in the border area. Construction activity and windblown dust from disturbed desert are significant sources of fugitive dust. In agricultural areas, farming activity is an additional source of fugitive dust. Many residences in the Mexican border area burn non-traditional fuels such as wood scraps, cardboard, and tires to provide warmth in the winter. The resulting particulate loading can also adversely affect air quality in the Arizona border counties.

In addition to airborne particulates, high concentrations of sulfur dioxide in the study area are of concern. Sulfur dioxide is the primary contributor to acid deposition, which causes acidification of lakes and streams and can damage trees, crops, historic buildings, and statues. In addition, sulfur dioxide compounds in the air contribute to visibility impairment and may affect breathing and aggravate existing respiratory and cardiovascular disease (USEPA 2001). Ambient sulfur dioxide in the study area results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills, and from nonferrous smelters.

**Table 1 National Ambient Air Quality Standards**

| <b>Pollutant</b>                               | <b>Standard Value*</b>              | <b>Standard Type</b> |
|--|-------------------------------------|----------------------|
| <b>Carbon Monoxide (CO)</b>                    |                                     |                      |
| 8-hour average                                 | 9ppm (10mg/m <sup>3</sup> )         | P                    |
| 1-hour average                                 | 35ppm (40mg/m <sup>3</sup> )        | P                    |
| <b>Nitrogen Dioxide (NO<sub>2</sub>)</b>       |                                     |                      |
| Annual arithmetic mean                         | 0.053ppm (100µ/m <sup>3</sup> )     | P and S              |
| <b>Ozone (O<sub>3</sub>)</b>                   |                                     |                      |
| 1-hour average                                 | 0.12ppm (235µg/m <sup>3</sup> )     | P and S              |
| 8-hour average**                               | 0.08ppm (157µg/m <sup>3</sup> )     | P and S              |
| <b>Lead (Pb)</b>                               |                                     |                      |
| Quarterly average                              | 1.5µg/m <sup>3</sup>                | P and S              |
| <b>Particulate&lt;10 micrometers (PM-10)</b>   |                                     |                      |
| Annual arithmetic mean                         | 50µg/m <sup>3</sup>                 | P and S              |
| 24-hour average                                | 150µg/m <sup>3</sup>                | P and S              |
| <b>Particulate&lt;2.5 micrometers (PM-2.5)</b> |                                     |                      |
| Annual arithmetic mean**                       | 15µg/m <sup>3</sup>                 | P and S              |
| 24-hour Average**                              | 65µg/m <sup>3</sup>                 | P and S              |
| <b>Sulfur Dioxide (SO<sub>2</sub>)</b>         |                                     |                      |
| Annual arithmetic mean                         | 0.03ppm (80µg/m <sup>3</sup> )      | P                    |
| 24-hour average                                | 0.14ppm (365µg/m <sup>3</sup> )     | P                    |
| 3-hour average                                 | 0.50ppm<br>(1300µg/m <sup>3</sup> ) | S                    |

Source: EPA 2001. Arizona Department of Environmental Quality 2001.

Legend: P = Primary  
 ppm = parts per million  
 µg/m<sup>3</sup> = micrograms per cubic meter  
 S = Secondary  
 mg/m<sup>3</sup> = milligrams per cubic meter  
 \*Parenthetical value is an approximately equivalent concentration.  
 \*\*The ozone 8-hour standard and the PM 2.5 standards are included for information only.

### 3.6 Noise

Noise is defined as unwanted sound that interferes with normal human activities. The degree to which noise will disrupt an area is dependent on the perception of the people living in the affected area. By definition, noise is unwanted sound; when sound interrupts daily activities such as sleeping or conversation it becomes noise. Typically, noise is measured as a nuisance; the more the noise interferes with daily activities, the greater the level of nuisance. If noise levels cause physical damage to hearing or psychological harm, noise is considered a health hazard.

A decibel (dB) is a unit for expressing the relative intensity of sound on a scale from zero for the average least perceptible sound to about 130 for the average pain level. Figure 5 shows a comparison of different noise sources and associated magnitudes. Because the human ear is more sensitive to certain ranges of the sound spectrum, a weighted scale has been developed to more accurately measure human perception of sound. This measurement is called A-weighted decibels (dBA). For the purposes of measuring annoyance, noise measurements are frequently taken over a period of time (for example, every minute for an hour) and the values are averaged. This value is called an equivalent noise value, or  $L_{eq}$  and allows the steady source of noise (such as a busy road) to be compared to established state and federal noise criteria. Humans are also more sensitive to noise at different times of day. To reflect this sensitivity, a day-night decibel measurement, or  $L_{dn}$ , similar to an  $L_{eq}$  value, measures the average ambient noise and adds 10 dB to all readings taken between 10 p.m. and 7 a.m. A maximum noise reading, or  $L_{max}$ , is typically used to describe noises that occur infrequently.

The Noise Control Act of 1972 was created to ensure that programs are developed to promote an environment that is free from noise that jeopardizes public health or welfare. The EPA is responsible for administering and implementing this act and has set a goal of achieving noise levels of 55 dB  $L_{dn}$  or less for residential areas; however, the 55 dB  $L_{dn}$  goal does not consider the cost of attainment. The Federal Interagency Committee on Noise (FICUN) has taken economic feasibility into consideration in recommending a threshold for residential land use compatibility of 65  $L_{dn}$  (FICUN 1980).

Aviation noise within the Regions of Interest (ROI) is generated by commercial, general aviation, and military activities. There are no major general aviation airports within the region, and noise generated by either commercial or general aviation traffic is low. Maintained airports within the area include LAAF/SVMA, Cochise College, Douglas Municipal, Bisbee-Douglas International, and Sells. None of these airports are served by a major airline; however, regional air service is available to SVMA from Mesa Airlines. General aviation and civil use account for the majority of aircraft using these airports. Military Operating Areas (MOAs) have been specifically designated over regions with little or no population to minimize human exposure to noise and limit safety risks. Noise associated with training activities within regional MOAs has resulted in complaints from rural residents in southern Arizona in the past, particularly in the Tohono O'odham Indian Reservation. As a result, flights over the reservation were addressed in a 1988 Environmental Impact Statement (EIS), and flights in the vicinity of settlements on the reservation are now restricted (ENRD 2000).

Noise is one of the major concerns associated with aerial reconnaissance operations. OBP noise-generating activities include low-level helicopter patrols, fixed-wing aircraft reconnaissance missions, and ground vehicular patrols. Helicopter patrols are flown in accordance with Federal Aviation Administration regulations and typically maintain an elevation of (b) (7)(E) AGL. However, lower flights and even landings can occur in the event of apprehensions and/or rescues.

Helicopter patrols are seldom flown on specific routes or at regular times. Therefore, noise is generally infrequent in any single location. The aerial reconnaissance missions flown by fixed-wing aircraft are typically conducted at altitudes greater than (b) (7)(E) AGL. Again, no routine or specific routes are currently flown and thus infrequent noise is generated at sporadic locations. Vehicular patrols include the daily patrol operations.

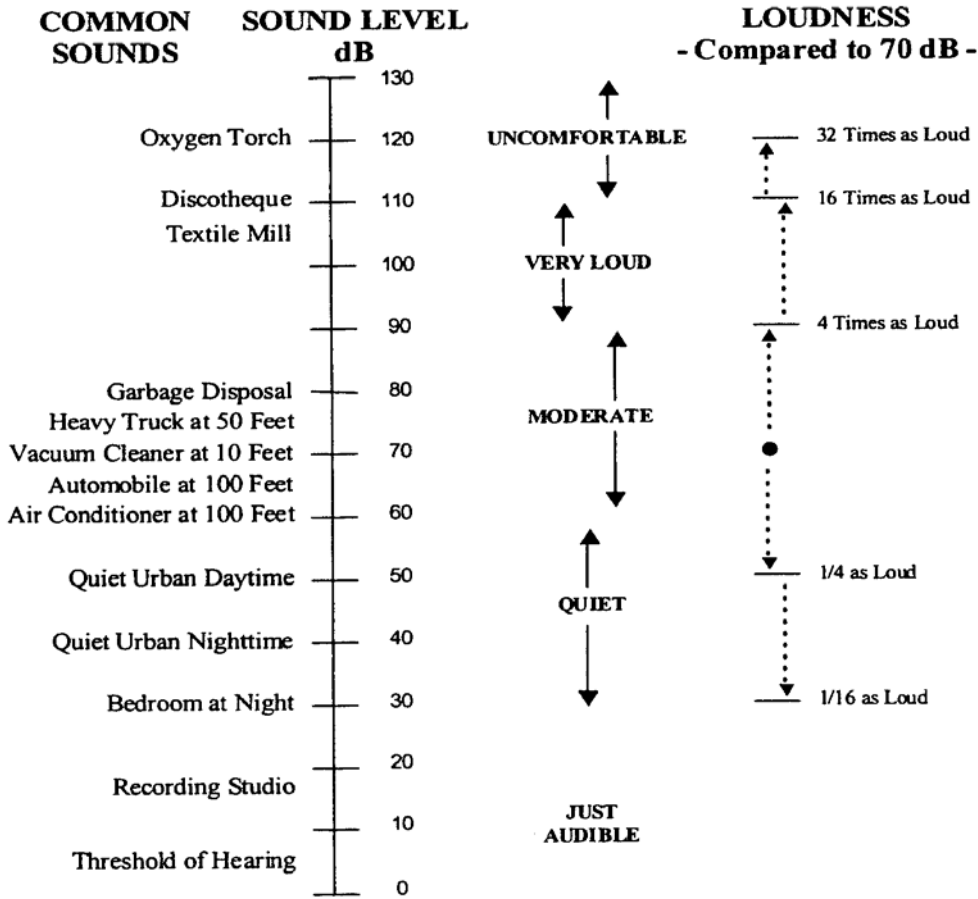


Figure 5 Comparison of Noise Sources

### 3.7 Surface Water

Surface water in southern Arizona is considered to be within the Lower Colorado Hydrologic Region. The state of Arizona has implemented a watershed management approach for its water resources. The major surface water basins in the study area delineated by the Arizona Department of Environmental Quality (ADEQ) are as follows: the Colorado/Lower Gila, the Santa Cruz/Rio Magdalena/Rio Sonoita, the San Pedro/Wilcox Playa/ Rio Yaqui, and the San Carlos/Safford/Duncan basins (ADEQ, Source Water Assessment, 1992). The Wilcox Playa Basin is a topographically closed basin that drains toward the interior. During seasonal flooding, shallow lakes appear that when dry become vast salt playas. The Gila River, San Pedro River, and Santa Cruz River basins ultimately drain into the Southern Colorado River Basin. The Rios

de Mexico Basin, consisting of the Yaqui River and the Sonoran Drainage, drain south into Mexico.

Water quality assessments for the study area indicate that the major problems of surface water (stream/riverine) include heavy metals, ammonia, low dissolved oxygen, turbidity, total dissolved solids, and fecal coliform bacteria. The potential sources contributing to these water quality problems include mining operations, municipal point sources including wastewater effluent, agriculture irrigation and recirculation, range management, and other non-point sources (ADEQ 1992).

### **3.8 Biological Resources**

#### **3.8.1 Biotic Provinces**

There are two biotic provinces within southern Arizona: (1) the Chihuahuan province which runs west from the New Mexico-Arizona state line through a large portion of Cochise County, Santa Cruz County, and parts of Pima County and (2) the Sonoran province which includes the northwestern part of Santa Cruz County and Pima, Pinal, Maricopa, Yuma, and La Paz counties (Dice 1943).

The Chihuahuan biotic province covers the grassy high plains and mountains of southeastern Arizona and consists of plant and wildlife species adapted to semiarid conditions. The Sonoran biotic province covers the desert region of south-central and southwestern Arizona and is characterized by extensive plains from which isolated small mountains and buttes rise abruptly.

The rich flora communities (3,666 species of native and naturalized plants) of Arizona can be defined on the basis of the interaction of geology, soils, climate, animals, and man. These vegetation areas set the stage for a wide array of land uses that varies from intensive cropland agriculture to extensive ranching and urban development. Four major vegetation communities occur along the southern Arizona border (i.e., Forest, Woodland, Grassland, and Desert Scrubland) and are discussed in the following paragraphs as taken from Brown (1994) and Brown and Lowe (1983).

##### **3.8.1.1 Forest**

The forest community of this province consists of the Petran Subalpine Conifer Forest and the Petran Montane Conifer Forest. The Petran Subalpine Conifer Forest is a boreal forest found primarily in Cochise and Santa Cruz counties in the Chiricahua, Huachuca and Santa Rita Mountains at elevations above 2,300 feet MSL. It consists of Engelmann spruce/alpine fir series and bristlecone pine/limber pine series. The Petran Montane Conifer Forest is a cold-temperate forest and occurs in Cochise County in the Chiricahua Mountains between 2,300 and 3,000 feet MSL. The major tree series are Douglas fir/white fir series, Pine series, and Gambel oak series.

##### **3.8.1.2 Woodland**

The only woodland vegetation in the study area is the Madrean Evergreen Woodland. It is a warm-temperate woodland found throughout the mountains of Cochise and eastern Pima counties starting at an elevation of 1,200 feet. This community includes dominant tree species such as alligatorbark juniper, one-seed juniper, Mexican pinyon, Chihuahuan pine, Arizona pine, Arizona white oak, Encinal oak, Mexican blue oak, and Chihuahuan oak.



### **3.8.1.3 Grassland**

Semidesert Grassland communities are found in the valley areas of Cochise, eastern Pima and Santa Cruz counties. This vegetation is dominated by grama grass, tobosa grass, curlymesquite grass, sacaton, and scrub-shrubs such as mesquite, one-seed juniper, littleleaf sumac, false mesquite and desert hackberry. Santa Cruz County also contains Plains and Great Basin Grassland communities, which are dominated by cold-temperate grasses and function as transition zones between the woodland and desert-scrubland communities. Dominant grasses in this habitat type include grama, buffalo grass, wheat grass, mixed bunch grass, rice grass and sacaton.

### **3.8.1.4 Desert Scrubland**

Desert scrubland comprises the vast majority of the habitat within the study area. Desert scrubland is subdivided into Chihuahuan Desert Scrub and Sonoran Desert Scrub. Chihuahuan Desert Scrub is found only in Cochise and eastern Pima counties. Creosote bush is the dominant vegetation, but some cacti, squawbush, ocotillo, yucca, and honey mesquite may also be found. The Sonoran Desert Scrub in the study area is further subdivided into the Lower Colorado River Valley (LCRV) and Arizona Upland (AU) Subdivisions. The LCRV subdivision is the driest of the Sonoran Desert Scrub covering most of the study area in Pima County. The dominant vegetation series within the LCRV is the creosote bush-white bursage. The AU subdivision is primarily located in Pima County and is dominated by the palo verde-cacti-mixed scrub vegetation.

## **3.8.2 Wildlife Communities**

Arizona contains an enormous diversity of environments for wildlife (751 vertebrate species) ranging from hot, dry deserts at low elevations through rich upland deserts, grasslands, and woodlands at mid-elevations to cold, moist montane/alpine habitats. The distribution of these environments is controlled generally by climatic conditions as well as locally, by topographic factors. Physiographic features such as scarps, plateaus, plains, mountains, and drainage systems along with soil types and pedogenic and biotic elements influence wildlife distribution (Hendricks 1985).

### **3.8.2.1 Terrestrial Communities**

The native faunal components of southeastern Arizona include 370 species of birds. The study area is dominated by sparrows and towhees (35 species); wood warblers (32 species); swans, geese, and ducks (31 species); tyrant flycatchers (30 species); and sandpipers and phalaropes (26 species). The majority of these bird species occur in spring and fall when neotropical migrants (e.g., flycatchers and warblers) pass through on their way to summer breeding or wintering grounds and in the winter when summer resident birds (i.e., robins, kinglets, and sparrows) from the north arrive to spend the winter. The majority of the 109 mammalian species found in the study area are bats and rodents (i.e., mice and rats, squirrels) with rodents (e.g., pocket mice and kangaroo rats) being the most commonly encountered mammals. Of the 23 amphibian species that inhabit southeastern Arizona, spadefoot toads and true toads are dominant and the most widespread. A total of 72 species of reptiles can be found in the area with the iguanid lizards and colubrid snakes being the most prevalent along with whiptails (Lowe 1964; Hoffmeister 1986; Lane 1988; USDOI 1989; USACE 1990; Davis and Russell 1991; Lowe and Holm 1992).

### **3.8.2.2 Aquatic Communities**

Distribution patterns of freshwater fish in Arizona are controlled by climatic and geological factors. A total of 47 fish species can be found in the major river basins and springs in the study area. The San Pedro River system supports 19 fish species; the Santa Cruz River system, 12 species; the Rio Yaqui Basin, 11 species; Monkey Spring, 10 species; Sycamore Bear Canyon, four species; and Quitobaquito Spring, two species. The lower Gila River system contains 11 fish species of which only the Desert pupfish is a native species (Minckley 1973; Rinne and Minckley 1991; Robbins et al. 1991).

### **3.8.3 Protected Species and Critical Habitat**

The Endangered Species Act (ESA) [16 U.S.C. 1531 et. seq] of 1973 as amended was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystems upon which these species depend for their survival. All Federal agencies are required to implement protection programs for designated species and to use their authorities to further the purposes of the act. Responsibility for the identification of a threatened or endangered species and any potential recovery plan lies with the Secretary of the Interior and the Secretary of Commerce.

Table 2 presents the species included on the Federal list of threatened or endangered species that are known or presumed to occur in the southeastern Arizona border counties. As can be seen from this table, there are 8 plants, 10 birds, 10 fishes, 5 mammals, 2 reptiles, 2 amphibians, and 1 invertebrate. Most of these also occur along river drainages or canyons within the various mountain ranges. Some, such as masked bobwhite and northern aplomado falcon, however, do use the desert grasslands and scrub habitats found at lower elevations along the border.

**Table 2 Federally Listed, Proposed, and Candidate Species Potentially Occurring within Cochise, Pima, and Santa Cruz Counties, Arizona**

| Common/Scientific Name   | Status | Date Listed | Counties                  | Habitat   |
|--|--------|-------------|---------------------------|---|
| <b>PLANTS</b>  |        |             |                           |   |
| <i>Acuna cactus Echinomastus erectocentrus acunensis</i>                         | C      | 7/1/75      | Pima                      | Well drained knolls and gravel ridges in Sonoran desertscrub                |
| Canelo Hills ladies' tresses<br><i>Spiranthes delitescens</i>                    | E      | 1/6/97      | Cochise, Santa Cruz       | Finely grained, highly organic, saturated soils of cienegas                 |
| Cochise pincushion cactus<br><i>Coryphantha robbinsorum</i>                      | T      | 1/9/86      | Cochise                   | Semidesert grassland with small shrubs, agave, other cacti, and grama grass |
| Huachuca water umbel<br><i>Lilaeopsis schaffneriana ssp. recurva</i>             | E      | 1/6/97      | Cochise, Pima, Santa Cruz | Cienegas, perennial low gradient streams, wetlands                          |
| Kearney's blue star<br><i>Amsonia kearneyana</i>                                 | E      | 1/19/89     | Pima                      | West-facing drainages in the Baboquivari Mountains                          |
| Lemmon fleabane<br><i>Erigeron lemmonii</i>                                      | C      | 7/1/75      | Cochise                   | Crevices, ledges, and boulders in canyon bottoms in pine-oak woodlands      |
| Nichol's turk's head cactus<br><i>Echinocactus horzonthalonius var. nicholii</i> | E      | 10/26/79    | Pima                      | Sonoran desertscrub on limestone slopes in desert hills                     |
| Pima pineapple cactus<br><i>Coryphantha scheeri robustispina</i>                 | E      | 4/20/92     | Pima, Santa Cruz          | Sonoran desertscrub or semi-desert grassland communities                    |
| <b>BIRDS</b>   |        |             |                           |   |
| Bald eagle<br><i>Haliaeetus leucocephalus</i>                                    | T      | 1/12/95     | Cochise, Pima, Santa Cruz | Large trees or cliffs near water with abundant prey                         |
| Brown pelican<br><i>Pelecanus occidentalis</i>                                   | E      | 10/13/70    | Santa Cruz, Cochise       | Feed in shallow estuarine waters; nest on small coastal islands             |
| Cactus ferruginous pygmy-owl<br><i>Glaucidium brasilianum cactorum</i>           | E      | 3/10/97     | Cochise, Pima, Santa Cruz | Mature cottonwood/willow, mesquite bosques, and Sonoran Desertscrub         |
| Masked bobwhite<br><i>Colinus virginianus ridgewayi</i>                          | E      | 3/11/67     | Pima                      | Desert grasslands with diversity of dense native grasses, forbs and brush   |
| Mexican spotted owl<br><i>Strix occidentalis lucida</i>                          | T      | 3/15/93     | Cochise, Pima, Santa Cruz | Nests in canyons and dense forests with structure                           |

Source: USFWS 2001. Last Updated October 11, 2001

**Legend:**

E – Endangered                      C – Candidate  
T – Threatened                      PT – Proposed Threatened

**Table 2 Continued**

| <b>BIRDS cont.</b>   |    |         |                            |  |
|--|----|---------|----------------------------|--|
| Mountain plover <i>Charadrius montanus</i>                       | PT | 2/16/99 | Cochise, Pima              | Open arid plains, short-grass prairies, and scattered cactus                       |
| Northern aplomado falcon <i>Falco femoralis septentrionalis</i>  | E  | 1/25/86 | Cochise, Santa Cruz        | Grassland and Savannah   |
| Southwestern willow flycatcher <i>Empidonax traillii extimus</i> | E  | 2/27/95 | Cochise, Pima              | Cottonwood/willow and tamarisk vegetation communities along rivers and streams     |
| Whooping crane <i>Grus americana</i>                             | E  | 3/11/67 | Cochise                    | Marshes, prairies, natural lakes   |
| Yellow-billed cuckoo <i>Coccyzus americanus</i>                  | C  | 7/25/01 | Cochise, Santa Cruz, Pima  | Broadleaf riparian forests   |
| <b>AMPHIBIANS</b>  |    |         |                            |  |
| Chiricahua leopard frog <i>Rana chiricahuensis</i>               | P  | 6/14/00 | Cochise, Pima, Santa Cruz  | Streams, rivers, backwaters, ponds, and stock tanks                                |
| Sonora tiger salamander <i>Ambystoma tigrinum stebbinsi</i>      | E  | 1/6/97  | Cochise, Santa Cruz        | Stock tanks and impounded cienegas in San Rafael Valley, Huachuca Mountains        |
| <b>INVERTEBRATES</b>   |    |         |                            |  |
| Huachuca springsnail <i>Pyrgulopsis thompsoni</i>                | C  | 1/6/89  | Cochise, Santa Cruz        | Aquatic areas, small springs with vegetation slow to moderate flow                 |
| <b>MAMMALS</b>   |    |         |                            |  |
| Jaguar <i>Panthera onca</i>                                      | E  | 7/27/97 | Cochise, Pima              | Sonoran desert scrub, lowland wet habitats   |
| Black-tailed prairie dog <i>Cynomys ludovicianus</i>             | C  | 10/4/99 | Cochise                    | Short-grass prairie habitats   |
| Lesser long-nosed bat <i>Leptonycteris curasoae yerbabuena</i>   | E  | 9/30/88 | Cochise, Pima, Santa Cruz, | Desert scrub habitat with agave and columnar cacti present as food plants          |
| Mexican gray wolf <i>Canis lupus baileyi</i>                     | E  | 3/11/67 | Cochise, Pima, Santa Cruz  | Chaparral, woodland, and forested areas; may cross desert areas                    |
| Ocelot <i>Felis pardalis</i>                                     | E  | 7/21/82 | Cochise, Pima, Santa Cruz  | Humid tropical and sub-tropical forests, savannahs, and semi-arid thornscrub       |
| Sonoran pronghorn <i>Antilocapra americana sonoriensis</i>       | E  | 3/11/67 | Pima                       | Broad, intermountain alluvial valleys with creosote-bursage/palo verde-mixed cacti |

**Legend:**

E – Endangered  
 T – Threatened  
 C – Candidate  
 PT – Proposed Threatened

**Source:** USFWS 2001. Last Updated October 11, 2001

**Table 2 Continued.**

| <b>REPTILES</b>   |   |          |                           |   |
|---|---|----------|---------------------------|---|
| New Mexican ridge-nosed rattlesnake <i>Crotalus willardi obscurus</i> | T | 4/4/78   | Cochise                   | Presumably canyon bottoms in pine-oak and pin-fir communities                         |
| Sonoyta mud turtle <i>Kinosternon sonoriense longifemorale</i>        | C | 9/19/97  | Pima                      | Ponds and streams   |
| <b>FISHES</b>   |   |          |                           |   |
| Beautiful shiner <i>Cyprinella formosa</i>                            | T | 8/31/84  | Cochise                   | Small to medium sized streams and ponds with sand, gravel, and rock bottoms           |
| Desert pupfish <i>Cyprinodon macularius</i>                           | E | 3/31/86  | Pima, Santa Cruz          | Shallow springs, small streams, and marshes; tolerates saline and warm water          |
| Gila chub <i>Gila intermedia</i>                                      | C | 9/18/85  | Cochise, Pima, Santa Cruz | Pools, springs, cienegas, and streams   |
| Gila topminnow <i>Poeciliopsis occidentalis occidentalis</i>          | E | 3/11/67  | Pima, Santa Cruz,         | Small streams, springs, and cienegas vegetated shallows                               |
| Loach minnow <i>Tiaroga cobitis</i>                                   | T | 10/28/86 | Cochise, Pima             | Cool to warmwater, low gradient streams and rivers in the Gila River basin            |
| Sonora chub <i>Gila ditaenia</i>                                      | T | 4/30/86  | Santa Cruz                | Large, deep, and permanent pools with bedrock-sand substrates                         |
| Spikedace <i>Meda fulgida</i>   | T | 7/1/86   | Cochise, Pima             | Cool to warmwater streams and rivers of moderate gradient in the Gila River basin     |
| Yaqui catfish <i>Ictalurus pricei</i>                                 | T | 8/31/84  | Cochise                   | Moderate to large streams with slow current over sand and rock bottoms                |
| Yaqui chub <i>Gila purpurea</i>                                       | E | 8/31/84  | Cochise                   | Deep pools of small streams, pools, or ponds near undercut banks                      |
| Yaqui topminnow <i>Poeciliopsis occidentalis sonoriensis</i>          | E | 3/11/67  | Cochise                   | Vegetated springs, brooks, and margins of backwaters. Found generally in the shallows |

**Legend:**

**Source:** USFWS 2001. Last Updated October 11, 2001

E – Endangered  
T – Threatened

C – Candidate  
PT – Proposed Threatened

The protected species known to occur within the designated counties of this proposed action are concentrated near the San Pedro River, the Huachuca Mountains, Organ Pipe National Monument and Cabeza Prieta NWR. The loach minnow, spikedace, Huachuca water umbel, and the southwestern willow flycatcher have all been documented in or near the San Pedro River area. The Gila chub has not been documented, but is likely to occur, in the San Pedro River. Additionally, the densely vegetated riparian areas associated with the San Pedro River are preferred habitats for the ocelot, although none have been reported from this area in years. The Huachuca water umbel, lesser long-nosed bat, Sonora tiger salamander and Mexican spotted owl have all been documented within the Huachuca Mountains. The jaguar was recently (December 2001) reported from the Parajito Mountains, west of Nogales.

The Sonoran pronghorn is located primarily on the Cabeza Prieta NWR and the western portions of the Organ Pipe National Monument. Sonoran pronghorn inhabit the broad alluvial valleys of the Sonoran Desert that exhibit more open sandy areas and low hillsides with a variety of palatable forage. The availability of forage is a primary factor that influences pronghorn distribution. Since the U.S. range of the Sonoran pronghorn is contained on Federal lands, no critical habitat has been designated for the species.

However, critical habitat has been designated for 11 species identified as potentially occurring in Cochise, Santa Cruz, and Pima counties (USFWS 2001). Although critical habitat has been designated for the New Mexico ridge-nosed rattlesnake, Yaqui chub, Yaqui catfish, whooping crane, and beautiful shiner, none of their designated critical habitats are present within the project area. The remaining 6 species with designated critical habitat includes 4 fish, 1 plant, and 1 bird.

Seven areas (complexes) were designated as critical habitat for the spikedace and loach minnow on April 25, 2000 (65 FR 24328-24372). Only one, the Middle/Upper San Pedro River Complex 5, is located within the study area. This area is defined as 37 miles of river extending from the confluence with the Babocomari River downstream to the U.S./Mexico Border, within the Naco Station AO, Cochise County, Arizona.

One area was designated as critical habitat for the desert pupfish in Arizona on March 31, 1986 (51 FR 10842-10851). This area includes a Quitobaquito Spring and a 100-foot riparian buffer zone around the spring located in Organ Pipe Cactus National Monument, which is located in the Ajo Station AO, Pima County. Four areas were designated as critical habitat for the Sonoran chub in Arizona on April 30, 1986 (51 FR 16042-16047). These areas are located in the Coronado National Forest within the Tucson and Nogales Stations' AO, in Santa Cruz County.

The USFWS has designated seven areas (units) as critical habitat for the Huachuca water umbel in Arizona {50 CFR 17.96(a)}, 12 July 1999. All seven units are located within the study area and occur within Sonoita and Naco Stations' AO, Santa Cruz and Cochise counties, Arizona. A small portion of this habitat is located within a section of the San Pedro River.

The Mexican spotted owl has several designated units within the project area. There are nine areas in Cochise, Santa Cruz and Pima counties that have been designated as critical habitat for the Mexican spotted owl (USFWS 2001). However, as of 1 February 2001, any of these areas within NFS land is considered excluded from the critical designation {50 CFR 17.95(b)}.

### 3.9 Cultural Resources

The archeology of southern Arizona is quite detailed, and relatively complex considering the various geographic and related cultural features. The cultural chronology of southern Arizona is composed of five periods, namely:

|               |                     |
|---------------|---------------------|
| Paleo-Indian  | 10,000 to 7,500 B.C |
| Archaic       | 7,500 to 400 BC     |
| Formative     | AD 100 to 1450      |
| Protohistoric | AD 1450 to 1539     |
| Historic      | AD 1539 to Present  |

These periods are commonly subdivided into smaller temporal phases based on particular characteristics of the artifact assemblages encountered in each of three archeological regions within southern Arizona. The prehistoric periods and corresponding phases are defined by the presence of particular diagnostic artifacts such as projectile points, certain types of pottery, and occasionally, particular site locations. For the Historic period, documentary information more often is used to distinguish certain phases; nevertheless, particular artifacts also can be used to recognize certain historic affiliations. Numerous sites have been recorded throughout the border region, many of which have subsequently been listed on the National Register of Historic Places (NRHP). Literally hundreds of other sites and structures in southeastern Arizona are considered potentially eligible for NRHP-listing.

### 3.10 Socioeconomic Conditions

#### 3.10.1 Population

The population areas potentially affected by ABCI and Operation Skywatch missions include the urban area of Tucson in Pima County and the smaller cities (i.e., Douglas, Sierra Vista, Ajo, Nogales, and Yuma) scattered throughout Cochise, Santa Cruz, Pima, and Yuma counties. Much of the land area is owned by the Federal government (e.g., Fort Huachuca, San Pedro Riparian National Conservation Area (NCA), Coronado National Forest and Coronado National Monument) and is therefore sparsely populated. According to the latest Census Bureau estimates, the 1999 population in the 4-county area was estimated to be 1,159,908 (Table 3) of which 73 percent is in Pima County. The 1999 population demonstrates an 18 percent increase over the 1990 population. Tucson, the largest city in the study area, had an estimated 2002 population of 507,085 (Table 4).

As can be seen from Table 3, the population density varied from 19.1 persons per square mile in Cochise County to 91.8 persons per square mile in Pima County. The racial mix of the area was mainly comprised of Caucasian (74 percent). The second largest racial group was other races, which accounted for 15 percent of the population, and African-Americans represented 3 percent of the population. Hispanic origins were 34 percent of all the races within the ROI.

#### 3.10.2 Housing

The report, *The State of Housing in Arizona*, produced by the Arizona Housing commission in 2000 states that Arizona is currently going through housing crisis where housing prices are rising twice as fast as income statewide. This is of particular importance to low income and minority households.

**Table 3 Demographic Information for Counties (2000 Census) along the Arizona Land Border**

| County        | Population       | Land Area (sq. miles) | Density (per sq. mile) | Race           |                  |                 |               |                |                |
|---------------|------------------|-----------------------|------------------------|----------------|------------------|-----------------|---------------|----------------|----------------|
|               |                  |                       |                        | White          | African-American | Native American | Asian         | Other          | Hispanic       |
| Cochise       | 117,755          | 6,170                 | 19.1                   | 90,269         | 5,321            | 1,350           | 1,942         | 14,494         | 36,134         |
| Santa Cruz    | 38,381           | 1,238                 | 31                     | 29,168         | 145              | 251             | 201           | 7,607          | 31,005         |
| Pima          | 843,746          | 9,187                 | 91.8                   | 633,387        | 25,594           | 27,178          | 17,213        | 113,305        | 247,578        |
| Yuma          | 160,026          | 5,514                 | 29                     | 109,269        | 3,550            | 2,626           | 1,486         | 37,743         | 80,772         |
| <b>Totals</b> | <b>1,159,908</b> | <b>22,109</b>         |                        | <b>862,093</b> | <b>34,610</b>    | <b>31,405</b>   | <b>20,842</b> | <b>173,149</b> | <b>395,489</b> |

Legend: sq. = square

Source: U.S. Census Bureau 2001

**Table 4 Population of Cities and Towns for Counties (1990, 2000 and 2002)**

| County Population | City         | 1990 Population | 2000 Population | 2002 Population |
|-------------------|--------------|-----------------|-----------------|-----------------|
| Cochise           | Douglas      | 12,822          | 14,312          | 16,710          |
|                   | Sierra Vista | 32,983          | 37,775          | 38,740          |
| Santa Cruz        | Nogales      | 19,489          | 20,878          | 21,110          |
| Pima              | Tucson       | 405,390         | 486,699         | 507,085         |
| Yuma              | Yuma         | 54,923          | 77,515          | 81,380          |

Source: Arizona Department of Commerce 2003

For both minority and non-minority households, the incidence of housing problems increases dramatically as income levels decrease. Since the percent of minority households that is considered to be in the low income bracket far exceeds the proportionate number in the general population, minorities suffer disproportionately in terms of their basic need for adequate, affordable shelter. This is particularly alarming considering the growth rate of minority populations in Arizona (Arizona Housing Commission 2000).

The total number of housing units in the region of influence (ROI) in 2000 was 505,039. The largest amount of housing units is located in Pima County while the smallest is located in Santa Cruz County, Arizona. Santa Cruz County, Arizona also has the smallest percentage of vacant



units, while Pima County, Arizona has the largest number of vacant housing units. The highest household growth is occurring in Santa Cruz County, Arizona, while the lowest is occurring in Cochise County, Arizona. The largest discrepancy between median household income growth and house sales price growth occurs in Pima County, Arizona. House sales prices are growing faster than median household income in all of the counties within the ROI except for Santa Cruz County.

**3.10.3 Employment**

Total employment in the 4 county-area was 462,472 as of 2002. The labor force in 2002 was 525,299 with 77 percent of the labor force being in Pima County. Unemployment averaged 7.4 percent in 2002 for these counties combined, but individually the rates varied from a low of 4.5 percent in Pima County to a high of 23.3 percent in Yuma County (Table 5). This rate of unemployment was slightly higher than the 5.8 percent rate for the state.

**Table 5 Employment and Unemployment Figures for Counties (2002 Annual Average)**

| County        | Employment     | Unemployment  |          |
|---------------|----------------|---------------|----------|
|               |                | Number        | (%) Rate |
| Cochise       | 34,134         | 1775          | 5.2      |
| Santa Cruz    | 12,636         | 1617          | 12.8     |
| Pima          | 350,900        | 15,791        | 4.5      |
| Yuma          | 64,802         | 15,099        | 23.3     |
| <b>Totals</b> | <b>462,472</b> | <b>34,282</b> |          |

Source: Arizona Department of Economic Security, 2003

The economic structure varies from the diversified urban areas of Tucson to the rural areas of the other counties. Leading employment sectors include services, retail trade, and government.

**3.10.4 Income**

Income distribution is similar to the employment sectors of government, services, retail trade, and manufacturing. Per capita personal income averaged \$19,962 in the border region. This is well below the state average of \$25,878.

**3.11 Public Services, Utilities, and Energy Resources**

This section describes the public services, utilities, and energy resources that may be affected by the Preferred Alternative and alternatives.

**3.11.1 Fort Huachuca/Libby Army Air Field**

Several local and regional utility providers serve Fort Huachuca. Fort Huachuca also maintains systems for water, sewer, drainage, and fire protection services, independently from the city of Sierra Vista utility services.

### **3.11.1.1 Emergency Services**

Emergency 911 calls are directed to the Fort Huachuca Fire Department. This fire department maintains two ambulances, which are used to transfer victims with acute injuries to the Fort Huachuca Super Clinic to be treated or stabilized or to the Sierra Vista Community Hospital for treatment. All urgent care victims are taken from the installation to Sierra Vista Community Hospital for treatment (ENRD 1999).

Aircraft Rescue and Firefighting (ARFF) services are provided, maintained, and operated at LAAF by the U.S. Army. These facilities are located on the south side of the airfield and house the emergency fire suppression equipment necessary for initial response to aircraft fires. The City of Sierra Vista Fire Department and the Fort Huachuca Fire Department, depending on the location and intensity of the accident, support this facility. The ARFF meets the requirements of an Index A Facility Plan, a certification awarded by the FAA under Federal Aviation Regulation 139. An Index A Facility, serves aircraft of less than 90 ft in length, and is required to carry at least 500 pounds of sodium-based dry chemical or halon 1211, or equivalent (Coffman 1995).

### **3.11.1.2 Electricity**

The primary power for the Fort is obtained from a Tucson Electric Power Company (TEP). Existing electricity supply facilities on Fort Huachuca can support a population growth of over 13,000 persons (Nakata Planning Group 1997).

### **3.11.1.3 Water Supply and Use**

Groundwater is the source of Fort Huachuca's potable water supply. Eight wells on Fort Huachuca are considered municipal water supply wells with depths between 202 ft (62 m) and 1,230 ft (ADWR). Another five wells support military testing and research activities across the post and have minimal production.

### **3.11.1.4 Stationary Fuels**

Stationary Fuels are used primarily for space heating and in absorption chillers to provide cooling. Heating and cooling fuels used at Fort Huachuca are natural gas and propane. Southwest Gas Company furnishes natural gas to Fort Huachuca through two high pressure underground supply lines. The gas is then distributed within the installation via a network of buried transmission lines.

Propane is produced off-site and transported to Fort Huachuca via truck. There are only 15 buildings on the Fort currently using propane.

### **3.11.1.5 Mobility Fuels**

Mobility fuels are used in military training programs, as well as in facility operation, and include unleaded gasoline (MOGAS), diesel fuel, aviation gasoline (AVGAS), and JP8 jet fuel.

The total quantity of mobility fuels used at the Fort has a minimal effect on the fuel supply and distribution system in southeastern Arizona. The total annual consumption of petroleum fuels represents less than two days of production of a typical refinery. This quantity can be delivered using standard tank trucks at the rate of slightly more than one truck per workday.

### **3.12. Hazardous Materials/Waste and Management**

Hazardous substances are defined within certain laws and regulations to have specific meanings. A hazardous substance is any one of the following: any substance designated pursuant to Section 311(b)(2)(A) of the CWA; any element, compound, mixture, solution, or substance designated pursuant to Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any hazardous waste having the characteristics identified under the Resource Conservation and Recovery Act (RCRA); any toxic pollutant listed under the Toxic Substances Control Act (TSCA); any hazardous air pollutant listed under Section 112 of the CAA; or any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to subsection 7 of TSCA. A list of hazardous substances is found in 40 CFR 302.4

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulates the cleanup of releases or threats of releases of hazardous substances, pollutants, and contaminants. The Resource Conservation and Recovery Act (RCRA) regulates the management of hazardous waste, including storage, handling, transportation, treatment, and disposal of the waste. Generally, RCRA provides regulation of current hazardous waste generators, transporters, and of facilities that treat, store, or dispose of hazardous wastes, whereas CERCLA provides regulation for the cleanup of past or abandoned hazardous substance release sites.

The ADEQ is greatly concerned with the health and safety issues involving hazardous waste management in Arizona. Under the federal Resource Conservation and Recovery Act (RCRA) and state statutes and rules that are modeled on the federal law, ADEQ has the authority to monitor and direct businesses that may generate, transport or dispose of hazardous waste in Arizona. State statutes related to hazardous waste disposal may be found in Arizona Revised Statutes (A.R.S.) Title 49, Chapter 5, and Arizona Administrative Code Title 18, Chapter 8.

A variety of wastes, including municipal solid wastes, regulated wastes, and hazardous waste, are produced at Fort Huachuca. Fort Huachuca is aggressively implementing several environmental plans and programs (Nakata 1997) for hazardous waste management and monitoring including the AR 420-47 Solid and Hazardous Waste Management; Hazardous Waste Management Plan; Hazardous Waste Analysis Plan; Hazardous Waste Training Plan; Installation Spill Contingency Plan (ISCP); Spill Prevention, Control and Countermeasures Plan (SPCCP); and Pollution Prevention Plan (Hazardous Waste Minimization).

#### **3.12.1 Hazardous Materials**

Hazardous material storage follows the National Fire Prevention Association standard codes, and is subject to inspection by both the Installation Safety Office and the Fire Department. In general, existing UAV facilities at Fort Huachuca do not store, use, or generate large amounts of hazardous materials or wastes. UAV operations associated with this project would not generate large amounts of hazardous materials or wastes.

The Fort Huachuca ISCP describes the procedures to be implemented in the event of hazardous materials or POL spill, on- or off-post. A copy of this plan is available for review at the office of the Director of Installation Support (DIS) Environmental and Natural Resources Division. In the event of a hazardous material release, the Directorate of Public Safety has first

responder responsibilities on the installation, with the DIS maintenance contractor responsible for cleanup once imminent danger to life and health has passed. Cochise County and the City of Sierra Vista provide backup for response to accidental spills of hazardous substances or POL on Fort Huachuca.

### **3.12.2 Hazardous Wastes**

Both the EPA and the ADEQ under the provisions of the Federal Resource Conservation and Recovery Act (RCRA) of 1976 and the Arizona Hazardous Waste Management Act regulate hazardous waste management on Fort Huachuca. Fort Huachuca is a large quantity generator, but does not maintain a Part B permit to operate a treatment, storage, and disposal facility (TSDF) under RCRA. The Fort operates one 90-day accumulation point and approximately 35 satellite accumulation points. Transportation to an approved TSDF is through contracts established by the Defense Reuse and Marketing Organization (DRMO) of the Defense Logistics Agency. The DRMO ensures that transporters are qualified, maintain required permits and licenses, and manifest the packaged waste off the installation to a permitted TSDF.

In the case of a hazardous waste release, the Directorate of Public Safety has first responder responsibilities on the installation, and the DIS maintenance contractor is responsible for cleanup once imminent danger to life and health has passed. Under agreement with Cochise County and the City of Sierra Vista, backup for response to accidental spills of hazardous substances or petroleum, oil, and lubricants (POL) on Fort Huachuca is available. The Installation Hazardous Waste Management Plan (HWMP) was designed to provide the procedures to achieve compliance with the foregoing regulations regarding the accumulation, storage, transportation, and disposal of hazardous wastes generated by various organizations on the Fort. A copy of this plan is available for review at the office of the Directorate of Installation Support (DIS) ENRD.

### **3.12.3 Solid Waste Disposal/Toxic Materials**

Collection and disposal of on-site-generated solid waste is conducted in accordance with state permits. Solid waste from the Fort is disposed of in the Huachuca City landfill. Recycling efforts include motor oil, antifreeze, food service grease, white paper, newspaper, cardboard, and aluminum cans. Used oils are poured into a labeled 55-gallon drum and set aside to recycle.

## **3.13 Protection of Children**

Executive Order 13045, *Protection of Children from Environmental Risks and Safety Risks* (April 21, 1997) recognizes a growing body of scientific knowledge that demonstrates that children may suffer disproportionately from environmental health risks and safety risks. These risks arise because (1) children's bodily systems are not fully developed, (2) children eat, drink, and breathe more in proportion to their body weight, (3) their size and weight may diminish protection from standard safety features, and (4) their behavior patterns might make them more susceptible to accidents. Based on these factors, the President directed each federal agency to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. The President also directed each federal agency to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

## 4.0 ENVIRONMENTAL CONSEQUENCES

### 4.1 Climate

Neither of the alternatives would affect the climate. The climatic conditions of the Arizona border region, however, play an integral role in the purpose and need for Operation Skywatch and the UAV pilot program. The upcoming summer months typically experience the highest temperatures and without commitment of additional resources and efforts such as the UAVs, IE deaths are highly likely to occur due to the climatic conditions.

### 4.2 Physiography

Neither of the alternatives would affect the physiography of the Arizona border region. Conversely, the physiography, like the climate, affect IEs' ability to enter the United States. The rugged terrain exacerbates the extreme conditions, and thus increases the likelihood of IE fatalities. In addition, these conditions increase the health and safety risks of the OBP agents attempting to apprehend the IEs before they get in serious medical trouble or rescue IEs who are in trouble. Use of UAVs allows for increased detection capability and monitoring of conditions that would potentially be life threatening.

### 4.3 Land Use

Potential land use impacts were projected based on compatibility of land uses associated with the proposed alternatives with adjacent land uses and zoning, and consistency with general plans and other applicable land use plans and regulations. A determination of significant impact on land use could result if either of the following criteria were met:

- The action is incompatible with surrounding land use.
- Activities are inconsistent or in conflict with the applicable environmental goals, objectives, or guidelines of a community, county general plan, or other applicable federal or state agency land use plan for the area affected.

#### 4.3.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)

No effects to overall land use would be expected as a result of the Preferred Alternative. Some minor, temporary disturbances would occur whenever rescue operations are employed. These disturbances would be temporary and sporadic. Wilderness areas and National

Parks/Monuments may have more stringent requirements for aviation and off road vehicle operations, which would be complied with to the maximum extent practicable.

The Preferred Alternative, including nighttime activities both at Libby Army Air Field and within special use restricted airspace, will not create any land use conflicts and will be compatible with underlying land uses. Noises generated during UAV activities will not change or affect any existing or planned land uses and will not conflict with any land use planning guidelines. On-post (Fort Huachuca) facilities that will be used are designated and developed for these activities with awareness to compatibility with the surrounding land uses. These areas of the installation have a long history of UAV use, and have already been designated for further such use (Nakata 1997). Off-post areas that would be exposed to UAV overflights are predominately unpopulated.

Because of the relatively low noise levels and frequency of overflights, noise impacts will not create any adverse land use conflicts or contribute to any degradation of existing land use value. There will be no significant impacts to land use within the ROI due to the Preferred Alternative at existing aviation-related facilities on Fort Huachuca and off-post areas within local-restricted airspace.

#### **4.3.1.1 Mitigation Measures for Land Use**

Mitigation measures are currently practiced at Fort Huachuca during UAV activities. While no significant impacts to land use are anticipated, these measures will continue to be employed to help lessen overall impacts.

Portable toilets may be use at operational sites. Toilets would be removed upon completion of the test period. Any garbage and litter will be collected and removed from operational sites after each use.

#### **4.3.2 Alternative B. No Action Alternative**

Implementation of this alternative would have no affect on the regional land use. The overall use of the land would not be expected to change.

### **4.4 Air Quality**

A determination of significant impacts on air quality could result if either of the following criteria were met:

- Activities would release criteria pollutants that would exceed federal primary and secondary standards for pollutant species adopted by the State of Arizona.
- Activities are not in conformity with Section 176 of the Federal Clean Air Act for federal actions.

On November 1993, the EPA published the general conformity Final Rule in the Federal Register (58 FR 63214). The purpose of the rule, titled “Determining Conformity of General Federal Actions to State and Federal Implementation Plans” is to ensure that all federal actions conform to the SIP applicable to the project site. The applicable regulations are cited in 40 CFR 6, 51 Subpart W, and 93. A “federal action” is defined as any activity engaged in by a federal entity. “Conformity to SIP” is defined as conformity to a SIP’s purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards.

As a result of the General Conformity Rule, federal actions must be evaluated to assess whether emissions associated with the action will interfere with an area's air quality improvement plan. The General Conformity Rule applies only to federal actions that may emit a criteria pollutant for which an area has been designated as non-attainment or maintenance. While there are areas within the planning area that are non-attainment for PM<sub>10</sub> (near Douglas and Yuma), emissions from Fort Huachuca do not contribute to the non-attainment of the area (ENRD 1999). Since the area within which activities will occur is an attainment area, the activities associated with either of the alternatives will not result in a violation of the General Conformity Rule. The procedural requirements of the General Conformity Rule are not applicable to the Preferred Alternative because it occurs entirely within a NAAQS attainment area.

#### **4.4.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

Unlike larger aircraft, the small engines on UAVs emit a reduced quantity of pollutants. Similar to larger aircraft, however, the majority of the pollution emissions occur during ground activities, take off, and landing. Pollutants emitted at altitude by flying aircraft are diluted and dispersed prior to reaching the ground and are well below significant levels (ENRD 1999). The amount of pollution emitted with the increases in UAV activity associated with the Preferred Alternative will not cause the ambient air quality to exceed the federal or state standards for air quality nor will they result in a violation of standards or requirements established in the State Implementation Plan (SIP). Therefore, due to the short duration and the small size of UAV engines, the increase in flights associated with the Preferred Alternative will not result in a significant impact on air quality.

Under the Proposed Action, (b) (7)(E) UAV personnel (pilots, mechanics, data analysts) will commute to and from the Fort (b) (7)(E). Total emissions from these activities will not exceed federal or state air quality standards for any criteria pollutant, and subsequently, the thresholds of significance will not be exceeded.

Operation of rescue aircraft, as well as the ground patrol vehicles, would create hydrocarbon emissions. Dispersal capabilities within the region would be expected to minimize any effects these emissions would cause. The emissions would also be expected to be below *de minimus* threshold levels; therefore an air quality conformity analysis is not required. Helicopter rescue missions would increase fugitive dust emissions during hovering and take-off/landing maneuvers. However, these conditions would be localized and temporary and, thus, would not be expected to result in violations of air quality standards.

As there will be no new facility construction under this alternative, no construction related emissions will be released.

##### **4.4.1.1 Mitigation Measures for Air Quality**

Fugitive dust emissions created by helicopters during take-off/landing maneuvers can be lessened by making approaches to suitable landing areas and when possible making landings on the ground to avoid hovering. Shallow approach angles maintaining a speed above effective translational lift is preferred to minimize the angle of attack of the rotor blades upon landing. The smaller the angle of attack, the less lift is produced and the less downwash is produced to

stir up dust. Landing over grassy areas, when possible, is preferable as the grass tends to anchor more of the dust, thereby lessening the potential for fugitive dust emissions. When feasible, helicopters should shut off engines when landed.

#### **4.4.2 Alternative B. No Action Alternative**

The No Action alternative would require additional OBP agents and vehicles to patrol the area in search of IEs and illegal drug traffickers. Fugitive dust emissions would be greater under this alternative, since the vast majority of the roads in the border region are dirt or gravel and the patrol traffic would necessarily increase. However, no violations to air quality standards would be expected.

#### **4.5 Noise**

Criteria for the assessment of noise impacts are based on established land Use Compatibility Guidelines established by the FICUN 1980, *Guidelines for Considering Noise in Land Use Planning and Control* and the Federal Interagency Committee on Noise 1992, *Federal Agency Review of Selected Airport Noise Analysis Issues*. The signatories of these sources of criteria include DOD, Department of Housing and Urban Development (HUD), EPA, FAA, and Veterans Administration. These agencies are in substantial agreement concerning the levels and characteristics of noise from different sources on a wide variety of human activities and land use.

The majority of the noise level increases will be attributable to increased vehicle (ground and aviation) in the ROI. Increased noise due to project implementation was quantified in accordance with supporting literature. A determination of significant noise impact on the human environment could result if one or more of the following criteria were met:

- Activities (more than one per week) result in frequent noises at very high levels (e.g., blasts with C-weighted sound exposure levels in excess of 110 dB) in areas not already designated and covered under previous environmental regulatory documentation for such noise events.
- Activity-generated noise emissions expose offsite receptors to long-term noise levels in excess of the 65 dBA.

It should be noted that sound will travel differently and may be more noticeable in restricted topographic areas, such as along mountain fronts or within canyons and during certain meteorological conditions such as strong inversions.

##### **4.5.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

The Preferred Alternative will result in increased noise levels at and around facilities where UAV activities occur due to aircraft generated noise and support equipment.

In general, the operating noise levels from UAVs are relatively low due to the size of their engines. Once UAVs reach operational altitudes, they are difficult to hear from the ground.

A noise survey was conducted on September 18, 1998 by the U.S. Navy to determine the noise levels generated by UAVs during flight operations. Noise readings were taken at various altitudes. Noise levels were measured using dBA, which gives a bias to the human hearing



range. The background noise registered at about 52 dBA. These values are provided in Table 6. While the noise levels are noticeable, they are not significant in terms of human health and safety.

Flying the aircraft over sparsely populated areas reduces the number of people exposed to any level of noise the UAV may generate. Despite the quiet nature of these vehicles, the lack of ambient noise over the more remote communities makes the sound of UAVs more noticeable. While the perceived noise may prove to be an annoyance, the impact is not significant in terms of human health and safety due to the level of the noise and the brief duration of exposure.

**Table 6 Estimated Noise Levels of Medium UAV Aircraft**

| <b>Altitude<br/>(ft. above MSL)</b> | <b>Noise Level<br/>(dBA)</b> | <b>Comments</b>                 |
|-------------------------------------|------------------------------|---------------------------------|
| (b) (7)(E)                          | 57                           | All times                       |
|                                     | 64                           | Max during banking and climbing |
|                                     | 65                           | Max during banking and climbing |
|                                     | 67                           | Max during banking and climbing |

**Source:** U.S. Navy Noise Survey, September 1998.

Helicopter rescue missions, especially those constructed at night, would increase ambient noise levels during the time the helicopters are flying over a given area. Depending upon the time of day and distance to noise receptors, these missions could produce annoying levels of noise to recreationists and/or temporarily disturb or startle wildlife. Some studies have demonstrated that most wildlife species may exhibit startled responses, but rapidly acclimate to such disturbances, including noises generated by aircraft (Ellis, 1982; Krausman and Hervert, 1983; Awbrey and Hunsaker, 1995; Workman et al, 1992; Weisenberger et al, 1996). Helicopter rescue missions would create higher noise levels, above 100 dBA, at the specific rescue locale, but these effects would be temporary, localized, and sporadic. The level of disturbance to humans and wildlife resources would depend upon the time, terrain, vegetation community and distance to receptors. Attenuation of the noise to less than 60 dBA (i.e., ambient conditions) would be anticipated at distances of 0.5 miles and less, depending upon the location the rescue mission.

**4.5.1.1 Use of Generators**

Generators used during testing and operations may emit noise that can fall within the “loud” to “very loud” range (see Figure 5). Testing and operations personnel will be provided with ear protection to prevent hearing loss. As these particular testing and operations activities are conducted away from noise sensitive areas, the noise generated will not adversely affect the general public as a result of using generators during testing and operations events.

**4.5.1.2 Mitigation Measures for Noise**

Approach and departure profiles will be applied that will direct UAVs away from residential areas during approach, take-off, and ascent.

#### **4.5.2 Alternative B. No Action Alternative**

The No Action alternative would not significantly affect the ambient noise levels. Some temporary and minor increases in noise levels would be generated by the increase in ground patrol traffic.

### **4.6 Soil and Water Resources**

#### **4.6.1 Soil Resources**

Impacts to soils resulting from project implementation are related to the amount and type of projected soil disturbance that can be attributed to the preferred action and alternatives. Neither implementation of the Preferred Alternative nor the No Action Alternative would be expected to result in any erosion or significantly affect the region's soil resources. Construction activities are not anticipated for either of the alternatives. All testing and operational activities and vehicle travel will occur on existing roads or at areas that are paved or already disturbed. If testing and operational scenarios require the placement of equipment on unimproved surfaces, or require travel on unimproved roads, those impacts along with applicable mitigation measures will be addressed in a supplement to this document.

Therefore, activities associated with the Preferred Alternative and the No Action Alternative will not result in any significant impacts to soil resources within the ROI.

#### **4.6.2 Water Resources**

Impacts to water resources (surface and groundwater) could be direct, indirect, short-term, or long-term. A determination of significant impact to surface water would result if:

- Grading or other construction activities discontinue the function of drainage facilities or watercourses.
- Stormwater and/or runoff constituents significantly degrade downstream surface water quality.

A determination of significant impact to groundwater could result if:

- A usable groundwater aquifer for municipal, private, or agricultural purposes is adversely affected from depletion or contamination.
- An increase in soil settlement or ground swelling that damages structures, utilities, or other facilities caused by inundation and/or changes in the groundwater level.
- An unmitigated net increase in annual water use is created.

#### **4.6.3 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

##### **4.6.3.1 Surface Water**

Implementation of the Preferred Alternative would not be expected to result in any erosion or significantly affect the region's surface water resources. Construction activities are not anticipated. All testing and operational activities and vehicle travel will occur on existing roads or

at areas that are paved or already disturbed. Therefore, activities associated with the Preferred Alternative will not result in any significant impacts to surface water resources within the ROI.

Project activities would involve the short-term use and storage of hazardous substances such as vehicle fuels and lubricants. Because of the small amounts of these substances used during the test period, it is unlikely that an accidental discharge of such substances during operation or maintenance activities (e.g., while refueling or changing vehicle fluids) would result in significant impacts to surface water quality, especially in areas within or adjacent to drainage courses. The Fort Huachuca Installation Spill Contingency Plan (ISCP) describes the procedures to be implemented in the event of hazardous materials or Petroleum, Oil, Lubricants (POL) spill.

#### **4.6.3.2 Ground Water**

The Preferred Alternative is not anticipated to impact groundwater conditions with regards to groundwater supply (at the local and regional level). No impact on groundwater quality is anticipated from the Preferred Alternative.

The anticipated water use during the 125-day period based on the forecast number of (b) (7) additional personnel is 6.25 ac-ft. Because of these estimates and on-going and planned water conservation, recharge and reuse programs at Fort Huachuca through FY07, the Preferred Alternative is not anticipated to result in a net increase in annual water use at the Fort. OBP will ensure that all 6.25 acre feet of water anticipated to be pumped in support of this action will be mitigated by the OBP in consultation with Fort Huachuca through either a mitigation fee or installation of technology.

The Preferred Alternative is not anticipated to significantly impact the aquifer through accelerated depletion, or contamination. The Preferred Alternative will not result in an increase in soil settlement or ground swelling that damages structures, utilities, or other facilities caused by changes in the groundwater level. The Preferred Alternative will not result in any significant impact to local or regional surface or groundwater resources.

#### **4.6.3.3 Mitigation Measures for Water Resources**

##### **4.6.3.3.1 Surface Water**

Vehicle refueling and maintenance procedures and hazardous substance storage areas will be designed to preclude the discharge of hazardous substances (e.g., fuels, solvents and lubricants). Such designations will include specific measures to preclude spills or contain hazardous substances, including proper handling and disposal techniques.

##### **4.6.3.3.2 Ground Water**

The entire 6.25 acre-feet of anticipated water demand will be offset either through mitigation fees or incorporation of water saving technology as part of the Preferred Alternative. Due to conservation and reuse efforts implemented aboard the Fort, the net annual reduction in the installation's water withdrawal from the local aquifer system and net reduction in annual consumptive use are anticipated to continue. All UAV facilities associated with the Preferred Alternative will, to the maximum extent possible, incorporate water saving features (i.e., waterless urinals, low flow faucets and toilets, etc.). The OBP will work to educate its personnel

on the importance of water conservation and will participate in the Fort's water wise program to the maximum extent possible.

#### **4.6.4 Alternative B. No Action Alternative**

No direct adverse effects to surface or ground water supplies or quality would be anticipated as a result of the No Action Alternative. Indirect effects may occur from erosion and sedimentation caused by the increase patrol traffic. The magnitude of these effects are difficult, if not impossible, to determine and would be dependent upon several biotic and abiotic variables. Such variables would include number and speed of the patrol vehicles, condition of vegetation communities adjacent to roads and drainages, soil types along road beds, extant condition of road beds, and climatic conditions.

#### **4.7 Biological Resources and Critical Habitat**

Impacts on biological resources could occur from testing and operations of UAVs and ancillary ground equipment. These impacts (including vegetation, wildlife and protected species) could be determined significant if one or more of the following conditions would result from implementation of the Preferred Alternative or the No Action Alternative:

- Jeopardy to populations of a Federally-listed threatened or endangered species.
- Adverse modification to designated critical habitat.
- Substantial loss of a critical, yet limited resource of critical importance to a Federally-listed threatened or endangered species.
- Substantial increase in impact from vehicular or human activity on generally pristine or sensitive vegetation resources in the project area as a whole.
- Substantial interference with or complete disruption of heavy-use wildlife movement corridors.

##### **4.7.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

Activities under the Preferred Alternative have the potential to affect vegetation, wildlife and listed species in different ways. Therefore separate discussions on each resource are provided.

###### **4.7.1.1 Vegetation**

Neither implementation of the Preferred Alternative nor the No Action Alternatives would be expected to result in any impact to the region's vegetation. Construction activities are not anticipated for either of the alternatives. All testing and operational activities and vehicle travel will occur on existing roads or at areas that are paved or already disturbed. Therefore, activities associated with the Preferred Alternative and the No Action Alternative will not result in any significant impacts to vegetation resources within the ROI.

###### **4.7.1.2 Wildlife**

UAV aerial reconnaissance missions would not be expected to significantly affect common wildlife either on the ground or in the air, due to the height of the flight routes and the temporary and sporadic nature of the reconnaissance missions. Concern over collisions between birds, bats and

low-flying UAVs is restricted to areas on Fort Huachuca where approach and departure activities (take-offs and landings) occur. There will be no significant impact to wildlife from UAV flight activities associated with the Preferred Alternative.

#### **4.7.1.3 Mitigation Measures for Wildlife**

All relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions included in Appendix B of the *August 23, 2002 USFWS Biological Opinion on Ongoing and Programmed Future Military Operations and Activities at Fort Huachuca, Arizona* (USFWS 2002) that would be affected by the implementation of the UAV pilot program will be implemented as a part of the Preferred Alternative.

#### **4.7.1.4 Federally-Listed Threatened, Endangered, and Candidate Species**

The Preferred Alternative has the potential to directly impact the Federally-listed and candidate species only if the following requirements are met: They occur at the same place, within the immediate proximity, or immediately downstream of activities associated with the Preferred Alternative; and they occur at the same time as activities associated with the Preferred Alternative.

The following discussion evaluates the potential for direct impacts and indirect impacts to Federally-listed species (listed as having the potential to occur at areas affected by the Preferred Alternative) from UAV flights associated with the Preferred Alternative.

Activities associated with the 1998/1999 level of UAV activities at Fort Huachuca were addressed in the *2002 USFWS Biological Opinion on Ongoing and Programmed Future Military Operations and Activities at Fort Huachuca, Arizona*. This Biological Opinion concurred with the Army that the 1998/1999 level of UAV activity at Fort Huachuca would not jeopardize the existence of any federally-listed threatened or endangered species. It also stated that UAV activity would not cause any adverse modification to critical habitat for the southwestern flycatcher, Huachuca water umbel, spikedance and local minnow in the San Pedro Riparian NCA.

To ensure compliance with terms and conditions of the 2002 Biological Opinion, all proposed UAV activities shall conform to the relevant Reasonable and Prudent Mitigation Measures and Term and Conditions listed in the Biological Opinion. As a result, (as discussed in detail below), the proposed increase in UAV activity associated with the Preferred Alternative will not cause any additional potential for significant impact to federally-listed species or critical habitat.

##### **4.7.1.4.1 Canelo Hills Ladies' Tresses**

The Canelo Hills ladies' tresses are known to occur within cienegas in the Canelo Hills near Canelo. The species is not known to exist on Fort Huachuca or in the Patagonia Mountains where UAV activities are proposed. Ladies' tresses are subject to direct mortality, human disturbance, fire, and water use. UAV flights will not impact this species or its habitat.

In the event of a mishap, the test director will activate the React Team. In the event of the UAV catching fire, the vehicle will be left to burn. The occurrence to fires near wetlands might lead to erosion and silting of areas where the species is present, and possibly impact individual plants. Whether fire would impact the wetlands may depend on the time of year and the intensity of the fire. The potential for fire exists but is low.

Considering the small numbers of this species and their limited distribution, the chances of the UAV program affecting the species are very low or discountable. However, there is a remote chance of a fire caused by the Preferred Alternative could affect the species. Therefore, the Preferred Alternative may affect, but is not likely to adversely affect the Canelo Hills ladies' tresses, and will have no significant impact on this species.

#### 4.7.1.4.2 Huachuca Water Umbel

The Huachuca water umbel is a plant that is known to occur in wetlands located in both the Canelo Hills and the Patagonia Mountains. The Huachuca water umbel is also known to occur on Fort Huachuca and the nearby Babocomari River and the San Pedro Riparian NCA. The water umbel is subject to impact from direct mortality, human disturbance, fire, and water use. UAV flights will not impact this species or its habitat.

In the event of a mishap, the test director will activate the React Team. In the event of the UAV catching fire, the vehicle will be left to burn. The occurrence to fires near wetlands might lead to erosion and silting of areas where the species is present, and possibly impact individual plants. Whether fire would impact the wetlands may depend on the time of year and the intensity of the fire. The potential for fire exists but is low.

The Preferred Alternative does not involve any increase in groundwater pumping or surface water. There would be no impact on available water for this species (primarily of concern for the San Pedro NCA populations) due to UAV activities. The Preferred Alternative is not expected to have either a direct or indirect impact on the character or health of critical habitats within the San Pedro Riparian NCA.

Considering species limited distribution, the chances of the UAV program affecting water umbel are very low or discountable. However, there is a remote chance of a fire caused by the Preferred Alternative could affect the species or its critical habitat. Therefore, the Preferred Alternative may affect, but is not likely to adversely affect the water umbel, and will have no significant impact on this natural resource.

To ensure compliance with terms and conditions of the 2002 Biological Opinion, all proposed UAV activities shall conform to the relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions listed in the Biological Opinion.

#### 4.7.1.4.3 Huachuca springsnail

The Huachuca springsnail is known to occur in shallow areas of cienegas, near spring sources in the Canelo Hills and Patagonia Mountains. The Huachuca springsnail is also known to occur on Fort Huachuca and potential habitat exists in the San Pedro Riparian NCA. The springsnail is subject to impact from direct mortality, human disturbance, fire, and water use. UAV flights will not impact this species or its habitat.

In the event of a mishap, the test director will activate the React Team. In the event of the UAV catching fire, the vehicle will be left to burn. The occurrence to fires near wetlands might lead to erosion and silting of areas where the species is present, and possibly impact individual plants. Whether fire would impact the wetlands may depend on the time of year and the intensity of the fire. The potential for fire exists but is low.

Considering the small numbers of this species and their limited distribution, the chances of the UAV program affecting the species are very low or discountable. However, there is a remote chance of a fire caused by the Preferred Alternative could affect the springsnail populations. Therefore, the Preferred Alternative may affect, but is not likely to adversely affect the Huachuca springsnail, and will have no significant impact on this species.

#### 4.7.1.4.4 Mexican Spotted Owl

The Mexican spotted owl is known to nest in the Sky Island mountain ranges of southeastern Arizona and northern Sonora (Block et al. 1995), including the Huachuca and Patagonia Mountains. There are over a dozen designated Protective Activity Centers (PACs) in the Huachuca Mountains and three in the Patagonia Mountains. Owls are usually found in or near their respective PACs throughout the year, although owls do disperse during the fall. This is especially true of immature owls, known to move between mountain ranges.

Dispersing owls can be expected to roost almost anywhere in the Canelo Hills, Patagonia and Huachuca Mountains where there is sufficient cover, such as in larger oaks and riparian vegetation.

The flight of UAVs near roosting, foraging or nesting Mexican Spotted Owls is unlikely to significantly affect their behavior. Although owls may be aware of the presence of a UAV flying overhead, such presence is likely to only momentarily alter owl behavior. There is the possibility that moving air vehicles associated with the UAV testing could strike an owl when owls are moving about. However considering the high altitude of UAV travel (higher than (b) (7)(E) ft MSL), the possibility of an interaction between owls and UAV flights is very limited. Therefore, the Preferred Alternative may affect, but is not likely to adversely affect Mexican Spotted Owls and will have no significant impact on this species.

To ensure compliance with terms and conditions of the 2002 Biological Opinion, all proposed UAV activities shall conform to the relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions listed in the Biological Opinion.

#### 4.7.1.4.5 Southwestern Willow Flycatcher

The southwestern willow flycatcher is not known to occur within the Canelo Hills, Patagonia Mountains, or on Fort Huachuca. Suitable habitat for this species – dense and wet stands of willow, cottonwood and saltcedar – does not exist and there are no known nesting locations of this species in the ROI (Paradzick et, al. 2000). However, the flycatcher is known to occur in the San Pedro Riparian NCA to the east of the Fort.

Although an individual bird could appear in any area used by the UAV program during migration, the possibility of this happening is very low. If an individual were to occur it would probably remain in the area for only a short period of time before leaving.

Considering the very small numbers of this bird in the southwest, the limited time when they can be expected to pass through the region, and the lack of suitable flycatcher habitat in the ROI, the likelihood of UAV associated activities affecting the flycatcher is remote.

The Preferred Alternative is not expected to have either a direct or indirect impact on the character or health of habitats within the San Pedro Riparian NCA. Therefore, the Preferred Alternative is not anticipated to have an affect on the southwestern willow flycatcher or its critical habitat in the San Pedro Riparian NCA and will have no significant impact on this species.

#### 4.7.1.4.6 Lesser Long-nosed Bat

This species is known to roost in the Canelo Hills, Patagonia Mountains and on Fort Huachuca during the summer months in a number of abandoned caves and mines. Foraging areas for this species also exist in the Canelo Hills, Patagonia Mountains, and on Fort Huachuca where bats can be expected to occur at night, foraging on nectar and pollen of agave.

Daytime activities are not expected to impact the species as the bat is then confined to day roost sites or maternity colonies. It is at night that low flying UAVs could potentially affect foraging bats. The potential for direct contact between UAVs and bats does exist, although the actual probability of such an encounter is very low. This is because bats, like many birds, are very maneuverable and avoid a flying UAV. In addition, UAVs generally fly at high altitudes where bats are unlikely to be present.

In a study on the effects of noise on a maternity colony of lesser long-nosed bats, noise levels from a military jet aircraft of 85 to 119 dBA outside the cave had little impact on the bats in the cave due to attenuation (Dalton and Dalton 1993). This may indicate that noise levels from the Preferred Alternative will have no impact on the lesser long-nosed bat in the roost sites on Fort Huachuca.

It is anticipated that the Preferred Alternative is not likely to adversely affect the lesser long-nosed bat and will have no significant impact on this species.

To ensure compliance with terms and conditions of the 2002 Biological Opinion, all proposed UAV activities shall conform to the relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions listed in the Biological Opinion.

#### 4.7.1.4.7 Sonora Tiger Salamander

The Sonora tiger salamander is known to occur on Fort Huachuca and may occur in stock tanks and springs in the Patagonia Mountains and Canelo Hills. The Sonora tiger salamander is subject to direct impact from human disturbance and direct mortality, although loss of aquatic habitat can also impact the species. UAV flights will not impact this species or its habitat.

In the event of a mishap, the test director will activate the React Team. In the event of the UAV catching fire, the vehicle will be left to burn. The occurrence to fires near wetlands might lead to erosion and silting of areas where the species is present, and possibly impact individual plants. Whether fire would impact the wetlands may depend on the time of year and the intensity of the fire. The potential for fire exists but is low.

Considering the small numbers of this species and their limited distribution, the chances of the UAV program affecting the species are very low or discountable. However, there is a remote chance of a fire caused by the Preferred Alternative could affect the species. Therefore, the Preferred Alternative may affect, but is not likely to adversely affect the Sonora tiger salamander, and will have no significant impact on this species.



To ensure compliance with terms and conditions of the 2002 Biological Opinion, all proposed UAV activities shall conform to the relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions listed in the Biological Opinion.

#### 4.7.1.4.8 Sonoran Pronghorn Antelope

Of particular concern to some resource agencies and environmental organization is the potential effects to Sonoran pronghorn. No quantitative data exist to evaluate the effects of UAV or low-level helicopter flights on Sonoran pronghorn, but observations have been made (INS 1999). A USFWS biologist has observed an OBP helicopter at an elevation of less than 200 feet over a group of approximately five bedded Sonoran pronghorn. Some of the animals rose and ran from the helicopter. An AGFD biologist observed an OBP helicopter fly over two female Sonoran pronghorn. Their reaction was limited to standing still and watching the helicopter at a distance of approximately 1000 feet. The pronghorn then resumed feeding. It was noted that pronghorn “always run from a helicopter that is flying directly towards them,” a behavior observed during all capture operations conducted by the AGFD (INS 1999).

Workman *et al.* (1992) conducted a study to examine the physiological responses of American pronghorn to a variety of visual and auditory stimuli. The study monitored heart rate and body temperature responses to human presence, vehicles, helicopters, fixed-wing aircraft, and sonic booms. Workman *et al.* (1992) found that body temperature was not affected by disturbances, but heart rate was altered by varying degrees depending on the type of disturbance. The study also found that the greatest response (increased heart rate) was elicited by a hovering helicopter. Pronghorn would be expected to move greater distances and respond for longer periods of time to helicopters than to fixed-wing aircraft. Evidence suggests that pronghorn may habituate to disturbance from moving helicopters; however, they may not habituate to low-level hovering helicopters (Workman *et al.* 1992).

If it is assumed that Sonoran pronghorn respond in a similar manner to helicopters as other ungulates, some broad statements of the possible affects can be made. In general, areas where low-level helicopters are used most often would have the highest potential for disturbance to the pronghorn. Also, in areas where helicopters fly particularly low and thus create more noise and greater visual stimuli, disturbance to pronghorn would be greater (Weisenberger *et al.* 1996, Workman *et al.* 1992). Evidence from other subspecies of pronghorn and other ungulates suggests that disturbed pronghorn may exhibit elevated heart rates, may flee, and could alter habitat use in response to low-level helicopter flights (INS 1998). On the other hand, Weisenberger *et al.* (1996) reported that elk, mountain sheep, mule deer, caribou, and white-tailed deer often respond more severely to direct, unpredicted human harassment than to mining, helicopters, or other disturbances. Therefore, any deterrence to illegal vehicle and foot traffic provided by the additional aerial reconnaissance could reduce the effects on pronghorn caused by illegal off-road traffic.

The OBP, as part of on-going consultation, has implemented several conservation measures designed to reduce or eliminate potential effects to Sonoran pronghorn on the Cabeza Prieta NWR including:

1. Avoidance of fawning areas
2. Minimizing helicopter hovering and landings to the extent practicable
3. Coordination of flight schedules with the AGFD on a weekly basis

4. Submitting monthly coordination reports to the Cabeza Prieta NWR
5. Restricting USBP vehicles speeds to 25 mph on the Cabeza Prieta NWR

No impacts to protected species, including pronghorn, have been reported during the previous three Skywatch operations, and therefore, none are expected from the continuation of this program. If impacts appear to be imminent or do inadvertently occur, OBP would enter into consultation with the USFWS in as expeditious a manner as possible. UAV and helicopter pilots would notify the USFWS of any protected species that are observed during the reconnaissance and rescue missions.

Therefore, the Preferred Alternative may effect, but is not likely to adversely affect the Sonoran Pronghorn Antelope, and will have no significant impact on this species.

#### **4.7.1.5 Mitigation Measures for Federally-listed species**

All relevant Reasonable and Prudent Mitigation Measures and Terms and Conditions included in Appendix B of the *August 23, 2002 USFWS Biological Opinion on Ongoing and Programmed Future Military Operations and Activities at Fort Huachuca, Arizona* (USFWS 2002) that would be affected by the implementation of the UAV pilot program will be implemented as part of the Preferred Alternative.

#### **4.7.2 Alternative B. No Action Alternative**

Implementation of the No Action Alternative would not be expected to cause significant adverse effects to biological resources including protected species and their habitat. This alternative would increase the need for off-road rescue attempts, thereby increasing the potential for effects to vegetation communities, with concomitant effects to wildlife populations. The magnitude of these effects would depend upon numerous variables including the number of off-road trips required in the same general area, the extant condition of the vegetation communities, climatic conditions, soil types, and topography.

### **4.8 Cultural Resources**

#### **4.8.1. Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

Potential environmental consequences to cultural resources could result from ground-disturbing activities such as rescue missions. A determination of significant impact to cultural resources (prehistoric, historic or traditional) could result if one or more of the following criteria were met:

- Any adverse effect on properties listed on, or determined eligible for, the National Register of Historic Places.
- Proposed rescue missions were to disturb or damage cultural resources and/or cultural resources sites.

Two activities associated with the Preferred Alternative have the potential to impact cultural resources: rescues using ground patrols and helicopter rescue missions. Rescues using ground patrols could potentially disturb significant, but yet unknown, sites. Helicopter rescue missions could also have the potential to disturb cultural resources sites, but the potential would be much less due to the amount of ground actually disturbed in comparison to off-road vehicle traffic.

Given the unlikely potential that activities will occur in the vicinity of historic properties, it is unlikely that the significance criteria listed above would be met or exceeded. Therefore, it is concluded that the Preferred Alternative will have no adverse effect on properties listed on, or determined eligible for, the National Register of Historic Places, and will not disturb or damage cultural resources and /or cultural sites.

No mitigation measures are required for cultural resources, however, to the maximum extent practicable rescue missions will avoid known cultural sites. If cultural or historic material is discovered during the course of rescue operations, their location will be recorded and the State Historic Preservation Officer (SHPO) will be notified. Any necessary mitigation will be coordinated with the SHPO. In this way, any potential cultural resource impacts will be reduced.

#### **4.8.2 Alternative B. No Action Alternative**

Since the No Action Alternative would require that additional ground patrols be conducted, and in particular off-road rescue missions, the potential to adversely affect unknown, but potentially significant cultural resources would be increased. The magnitude of these effects, of course, would be dependent upon the number of off-road trips required, the location, and the number and type of vehicles used in the rescue mission.

#### **4.9 Socioeconomics**

A determination of significant impact or local or regional socioeconomic conditions could result if an alternative was found to induce substantial growth or decline in local or regional population either through provision of employment or permanent housing.

Potential environmental justice impacts are also assessed to determine whether either alternative will result in disproportionately high adverse human or environmental effects to minority or low income populations (Executive Order 12898, Environmental Justice, 59 Federal Register 7629 [1994]).

##### **4.9.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

The Preferred Alternative would require (b) (7) pilots, (b) (7) mechanics and (b) (7) data analysts to live within the Tucson Sector for about 125 days. This is a very negligible and temporary effect to the region's population. Likewise, some additional local expenditures would result upon implementation of the Preferred Alternative, but the effects will be negligible given the temporary nature of the proposed action.

All components of socioeconomics evaluated will only change nominally, and none of the actions associated with the Preferred Alternative will affect any particular population significantly. No single group or population will be disproportionately adversely affected by any of these changes. Therefore, no significant impact in the area of environmental justice is anticipated.

#### **4.9.2 Alternative B. No Action Alternative**

The No Action Alternative may create additional job opportunities, but only if funds were available to employ a sufficient number of OBP agents and support staff that could patrol the same amount of area in a similar time frame as Operation Skywatch. Since this is a highly unlikely situation, especially given the extreme time limitations, no direct effects to socioeconomic resources, beneficial or adverse, would be expected to occur as a result of the No Action Alternative.

#### **4.10 Public Services, Utilities, and Energy Resources**

Potential impacts on public services, utilities or energy could be determined significant if any of the following occurred as a result of the Preferred Alternative and alternatives:

- A resource exceeds its present and/or future capacity to serve.
- A long-term interruption to, or interference of service.
- A significant increase in annual energy consumption or peak potential loading is calculated to exceed the capacity of the transmission line and transformers.

##### **4.10.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

There are no activities associated with the Preferred Alternative with the potential to significantly impact the human environment regarding the provision of public services, utilities, or energy consumption. All utilities at Fort Huachuca are well under maximum capacity and the Preferred Alternative will not cause any utility to exceed its present and/or future capacity to serve.

##### **4.10.2 Alternative B. No Action Alternative**

This alternative reflects a continuation of baseline conditions and as such does not consist of any activity having the potential to significantly impact the human environment regarding the provision of public services or utilities, or energy consumption.

#### **4.11 Public Hazards, Health, and Safety**

Evaluation of the potential generation, use, or transport of hazardous materials and/or waste and its effect on public safety is based on both the potential for upset (accident) and the consequences of any project-related adverse event (negative effect associated with normal operations). Beneficial impacts may result from any direct or indirect safety improvements due to project implementation. A determination of significant impact related to hazardous waste and public safety could result if one or more of the following criteria were met:

- Exposure of humans to unsafe levels of hazardous materials or hazardous waste.
- Generation of hazardous materials or hazardous waste in quantities or of a type that could not be accommodated by the current disposal system.
- Increase in likelihood of an uncontrolled release of hazardous materials that could contaminate soil, surface water, and groundwater.
- Create a situation involving endangerment or unusual risk to personnel, visitors, nearby residents, and the general public off-site.

#### **4.11.1 Alternative A. Unmanned Aerial Vehicle Reconnaissance and Assistance in Search and Rescue Operations – Fort Huachuca/Libby Army Air Field (Preferred Alternative)**

Two activities within the Preferred Alternative have the potential to subject the human environment to safety hazards or hazardous materials: routine vehicle use and UAV mishaps.

##### **4.11.1.1 Routine Vehicle Use**

Petroleum products power electrical generators, UAVs and vehicles used to transport workers and equipment to test sites during UAV operations. On-site refueling and leaking vehicles have the potential to result in an increased likelihood of an uncontrolled release of hazardous materials that could contaminate soil, surface water, and groundwater. Left unmitigated these potential releases could pose a significant adverse impact to public health and safety.

During routine use of vehicles for testing events, no human will be exposed to unsafe levels of hazardous materials or waste, and no large quantities of hazardous materials will be generated. Measures are routinely taken to ensure that there are no uncontrolled releases of hazardous materials into soil, surface water, or groundwater.

##### **4.11.1.2 UAV Mishaps**

Since UAVs are remotely controlled, the potential exists for a UAV to crash during testing and operations. If there would be a loss of control of an in-flight UAV, the vehicle could travel some distance before hitting the ground. Given the unpredictable and uncontrollable nature of these possible mishaps, the *UAV Crash/Incident/Mishap Investigation and Recovery Plan* was written to direct actions following a mishap. The OBP will incorporate the policies and procedures found in this plan into their procedures for activities involving the crash of a UAV.

While there is a potential for a mishap to occur, the potential for loss of control of a UAV in or near populated areas is negligible. Flight profiles do not traverse highly populated areas. Most UAV mishaps occur during take-off and landing, both of which take place on Fort Huachuca in areas designated for this type of use. Responses to the mishaps as delineated in the Plan will mitigate the significance of the impacts below the threshold of significance.

#### **4.11.1.3 Mitigation Measures for Public Hazards, Health, and Safety**

##### **4.11.1.3.1 Routine Vehicle Use**

To prevent spillage of petroleum products onto exposed soil or water resources, drip pans will be placed beneath generators and UAVs during refueling. Fuel containers will also be placed on drip pans and positioned at least 25 feet from ignition sources. Vehicles will be routinely inspected for coolant and petroleum products leakage. Overpack drums, shovels, and other equipment necessary to clean up oil or fuel spills will be available at each test and operations site. All releases will be packed in drums, labeled and turned into HAZMAT facility at Fort Huachuca for proper disposal. This activity may temporarily expose humans to hazardous materials or hazardous waste, but this exposure is strictly regulated by the Fort's Installation Spill Contingency Plan (ISCP) and will be within safe standards and guidelines.

A fire control station, consisting of a fire extinguisher and a shovel will be provided with each portable generator. If UAV Test Officers, determine that 24-hour operation of a generator is required, refueling will be performed using drip pans beneath the fuel tank and fill spouts to prevent soil contamination. When vehicles are parked for over 2 hours, drip pans will be placed underneath each vehicle and a fire control station will be set up before any generator is started. This fire control measure should be adequate to ensure that no uncontrollable fires are started. Disposal of any hazardous material, batteries, petroleum, etc., will be in accordance with all federal and state regulations.

#### 4.11.1.3.2 UAV Mishaps

In the event of a mishap, the test director will activate the React Team, a pre-assigned group of personnel designated to respond in the event of a crash or other mishap. If the mishap is off military property, permissions will be obtained before trespassing occurs, and the React Team will immediately begin to disarm any hazards. In the event of the UAV catching fire, the vehicle will be left to burn. Personnel will maintain a distance of more than 1,500 feet upwind per protocol, a precaution since some UAVs have the potential to produce toxic gases when burning due to the foam inside the wings. Once the UAV is recovered, the site would be cleaned and cleared of any remaining hazards to meet standards specified in the Fort Huachuca POL Spill Reporting and Containment Plan.

Immediate response by the React Team to a mishap will minimize any potential risks or hazards to personnel or civilians in the area. Measures will be taken to ensure that there are no uncontrolled releases of hazardous materials onto soil, surface water, air, or groundwater. Overall, the routine use of vehicles will not endanger any personnel, visitors, residents, or general public on the Fort or at off-site locations. Since none of the threshold criteria will be exceeded, no significant impact will occur.

#### 4.11.2 Alternative B. No Action Alternative

Under the No Action Alternative, which maintains the status quo, there will be no change in the handling or potential release of hazardous materials on Fort Huachuca or in the surrounding area. Since there are no significant impacts associated with the current activities and there would be no changes in the existing programs under this alternative, there will be no significant impacts as a result of this alternative.

#### 4.12 Cumulative Impacts

This section of the SEA addresses the potential cumulative impacts associated with the implementation of either the Preferred Alternative or the No Action Alternative outlined in Chapter 2.0 and other projects/programs that are planned for the region. The following paragraphs present a general discussion regarding cumulative effects that would be expected.

The Council of Environmental Quality defines cumulative impacts as the incremental impact of multiple present and future actions with individually minor but collectively significant effects. Cumulative impacts can be concisely defined as the total effect of multiple land uses and developments, including their interrelationships, on the environment. However, in order to be considered a cumulative impact, the effects must:

- Occur in a common locale or region.
- Not be localized (i.e., they would contribute to effects of other actions)
- Impact a particular resource in a similar manner.
- Be long-term (short-term impacts would be temporary and would not typically contribute to significant cumulative impacts).



(b) (7)(E) An EA was completed for this project. These projects are primarily for the purpose of facilitating deterrence and apprehension efforts. If apprehension is not assured, deterrence will not be achieved. Thus, in the absence of such projects there is the likelihood of an increase in possible border crossings into the rugged terrain and possibly an increase in IE deaths within the summer months. The OBP is currently preparing a Draft Programmatic Environmental Impact Statement (DPEIS) to address the potential effects of the Tucson and Yuma Sectors' daily operations on the human and natural environment along the Arizona border. This DPEIS is scheduled for release in early summer 2004.

Impacts due to off-road rescue or pursuit attempts are unquantifiable because the number of rescues cannot be determined at this point. However, given the relatively random nature of off-road rescues and pursuits, it is doubtful that off-road vehicle traffic will be repeated in the same area such that new roads trails or erosion features would be created. A more likely scenario is that off-road rescues and pursuits would lead to a single or double pass (round trip). There would also be an increase in the noise levels because of the helicopter overflights. The noise impacts would be sporadic and temporary and only for the duration of this project.

Resources, such as soil, water supplies, and air quality, would be impacted during and immediately after completion of Operation Skywatch each year. These impacts would be short term and none of these resources would be expected to incur significant cumulative impacts. None of the projects to date have indicated a potential excursion that could violate National air quality standards. Operation Skywatch would not remove any habitat from ecologic production. If rescue operations occur in areas of designated critical habitat, the OBP would notify the USFWS in as expeditious a manner as possible. Any impacts to cultural resources sites, as a result of unexpected landings, would require immediate notification to the SHPO and interested Native American Nations and possible mitigation. General descriptions of the cumulative effects that occurred to select resources are described in the following paragraphs.

**4.12.1 Wildlife**

Long term indirect cumulative effects on wildlife populations have occurred and would continue to occur. However, these effects, both beneficial and adverse, are difficult, if not impossible, to quantify. Reductions in and fragmentation of habitat from urban development, highway and road construction, off-road traffic, and conversion to farmland have undoubtedly created inter- and intra-species competition for available food and shelter and, eventually, slight reductions in some wildlife populations. Increased patrol activities have increased the potential for some wildlife specimens to be accidentally hit and killed. Such losses would not be expected to result in significant reductions to the populations.

The increase in OBP lighting along the border also could have produced some long-term cumulative effects, although the magnitude of these effects in some areas is not presently known. Some species, such as insectivorous bats, may benefit from the concentration of insects that would be attracted to the lights. Circadian rhythms of other diurnal species, however, may be disturbed enough that breeding or feeding patterns are skewed, causing synergistic physiological changes. Most lighting is placed near urban areas, thus, reducing the chances of indirect effects, if any, to wildlife populations.

#### **4.12.2 Sensitive Areas**

OBP operations have occurred in unique and sensitive areas such as National Parks and National Wildlife Refuges. The OBP is authorized and mandated by the U.S. Congress to enter any lands within 25 miles of the border during the pursuit of illegal entrants. Consequently, when IEs or smugglers attempt to illegally enter the U.S. through these sensitive areas, the OBP agents must attempt to apprehend them. Close coordination and approval from the appropriate agencies would be required for any construction activity potentially affecting any unique or sensitive areas (i.e., wilderness areas, conservation areas, national parks, etc.) to ensure adverse effects would be avoided or substantially minimized. Likewise, the OBP routinely coordinates with all Federal land managers regarding their operations on or above the agencies' lands. The OBP maintains several Memoranda of Understanding (MOU) or Agreement (MOA) with various agencies that stipulate how the USBP will use the land.

The OBP, Yuma Sector has maintained coordination with the USFWS and the AG&FD in their efforts to avoid pronghorn herds in air patrol corridors. The OBP receives weekly telemetry location data for the pronghorn herds on the Cabeza Prieta and the Barry M. Goldwater Range and avoid areas of pronghorn concentration, especially during the fawning period, unless human life is endangered. The OBP has also provided air assistance to the Cabeza Prieta in support of their management efforts for the pronghorn.

#### **4.12.3 Air Quality**

Vehicles, aircraft, and heavy equipment have produced air emissions; however, these have not resulted in significant cumulative impacts due to the short duration of the activities, the dispersion capabilities of the region, and the remote locations of most of the operations.

#### **4.12.4 Summary**

In summary, neither the Preferred Alternative nor the No Action Alternative would be anticipated to result in any significant contribution to past, present, and reasonably foreseeable future actions in the local or regional context for any given resource including water resources and the biological resources and ecosystems.



Section  
**5**

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|                     | Organizational Strategies, Inc | Environmental Planning/Natural Resources                      | 12 years in NEPA and related studies                          | Project Manager and Impact Evaluation   |
|                     | Organizational Strategies, Inc | Licensed Professional Engineer (BSCE)/ Environmental Planning | 20 years of NEPA and environmental related experience         | Technical Editor/Engineering            |
|                     | Organizational Strategies, Inc | Subject Matter Expert UAV Operations                          | 8 years of UAV operations (Pilot)                             | SEA Review                              |
|                     | Office of Border Patrol        | Subject Matter Expert Helicopter Operations                   | 10 years of Helicopter Operations (Pilot)                     | SEA Review                              |
|                     | U.S. Army Corps of Engineers   | Archeology  | 29 years in archeology and cultural resource management       | SEA Review and Section 106 Coordination |
|                     | Customs and Border Protection  | Geology   | 25 years of geotechnical and environmental related studies    | SEA Review                              |

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7

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| <p>(b) (6)<br/>                 Cultural Resources Manager<br/>                 Tohono O’odham Nation<br/>                 Administration Building<br/>                 49 Main Street<br/>                 Sells, Arizona 85634</p>   | <p>Honorable (b) (6)<br/>                 Chairman<br/>                 Pascua Yaqui Tribe<br/>                 7474 S. Camino de Oeste<br/>                 Tucson, AZ 85746</p>  |
| <p>Honorable (b) (6)<br/>                 Chairman<br/>                 Hopi Tribal Council<br/>                 P.O. Box 123<br/>                 Kykotsmovi, AZ 86039</p>  | <p>Honorable (b) (6)<br/>                 President<br/>                 Salt River Pima-Maricopa Indian<br/>                 Community Council<br/>                 10005 E. Osborn<br/>                 Scottsdale, AZ 85256</p> |
| <p>Honorable (b) (6)<br/>                 Chairperson<br/>                 Cocopah Indian Tribe<br/>                 County 15<sup>th</sup> and Avenue G<br/>                 Somerton, AZ 85350</p>   | <p>Honorable (b) (6)<br/>                 Governor<br/>                 Gila River Indian Community Council<br/>                 P.O. Box 97<br/>                 Sacaton, AZ 85247</p>  |
| <p>Honorable (b) (6)<br/>                 Chairperson<br/>                 Ak Chin Indian Community Council<br/>                 42507 W. Peters &amp; Nall Road<br/>                 Maricopa, AZ 85239</p>   | <p>Honorable (b) (6)<br/>                 President<br/>                 Fort Yuma-Quechan Tribe<br/>                 350 Picacho Rd.<br/>                 Winterhaven, CA 92283</p>   |



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|---|--|
| <p>United States Department of the Interior<br/>Bureau of Land Management<br/>District Manager, Safford District Office<br/>711-14<sup>th</sup> Avenue<br/>Safford, Arizona 85546</p> | <p>(b) (6)<br/>Habitat Branch Chief<br/>Arizona Department of Game &amp; Fish<br/>2221 West Greenway Road<br/>Phoenix, AZ 85023</p>    |
| <p>Arizona State Land Department<br/>ATTN: (b) (6)<br/>1616 West Adams<br/>Phoenix, Arizona 85007</p>   | <p>Coronado National Forest<br/>District Ranger<br/>(b) (6)<br/>5990 South Highway 92<br/>Hereford, Arizona 85615</p>                  |
| <p>U.S. Forest Service<br/>ATTN: (b) (6)<br/>300 W. Congress Street<br/>Tucson, Arizona 85701</p>   | <p>Arizona Department of Environmental<br/>Quality<br/>ATTN: Director<br/>3033 North Central Avenue<br/>Phoenix, Arizona 85004</p>     |
| <p>Arizona Department of Water Resources<br/>ATTN: Director<br/>500 N. Third St.<br/>Phoenix, Arizona 85004-3903</p>  | <p>Arizona State Clearing House<br/>ATTN: Manager<br/>Department of Commerce<br/>3800 N. Central Avenue<br/>Phoenix, Arizona 85012</p> |
| <p>Cochise County Board of Supervisors<br/>1415 West Melody Land, Building B<br/>Bisbee, Arizona 85603</p>  | <p>City of Sierra Vista<br/>ATTN: (b) (6)<br/>1011 N. Coronado Drive<br/>Sierra Vista, Arizona 85635</p>                               |
| <p>(b) (6)<br/>Coronado National Monument<br/>4101 East Montezuma Canyon Road<br/>Hereford, Arizona 85615-9376</p>  | <p>Friends of the San Pedro, Inc.<br/>ATTN: President<br/>3577 Kalispell Drive<br/>Sierra Vista, Arizona 85635</p>                     |
| <p>Huachuca Audubon Society<br/>P.O. Box 63<br/>Sierra Vista, Arizona 85635</p>   | <p>National Audubon Society<br/>ATTN: (b) (6)<br/>Box 44<br/>Elgin, Arizona 85611</p>  |
| <p>San Pedro Natural Resources<br/>Conservation District<br/>ATTN: (b) (6)<br/>880 West 4<sup>th</sup> Street, #2<br/>Benson, Arizona 85602</p>                                       | <p>The Sierra Club<br/>ATTN: Chairman, Southeast Arizona<br/>Group<br/>1354 Andrea Drive<br/>Sierra Vista, Arizona 85635</p>           |
| <p>Border Ecology Project<br/>Box 5<br/>Naco, Arizona 85615</p>   | <p>The Southwest Center for Biological<br/>Diversity<br/>ATTN: (b) (6)<br/>P.O. Box 39629<br/>Phoenix, Arizona 85069-9629</p>          |
| <p>Upper San Pedro Watershed Management<br/>Association<br/>ATTN: (b) (6)<br/>1730 North Sander Road<br/>Huachuca City, AZ 85616</p>  | <p>Librarian<br/>Huachuca City Public Library<br/>506 N. Gonzales Blvd.<br/>Huachuca City, Arizona 85616</p>                           |

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|---|---|
| <p>Librarian<br/>Sierra Vista Public Library<br/>2950 E. Tacoma Street<br/>Sierra Vista, Arizona 85635-1352</p> | <p>Librarian<br/>Tombstone Public Library<br/>P.O. Box 218<br/>Tombstone, Arizona 85643</p>         |
| <p>Librarian<br/>Willcox Public Library<br/>450 West Maley Street<br/>Willcox, Arizona 85643</p>                | <p>Librarian<br/>Benson Public Library<br/>P.O. Box 2223<br/>Benson, Arizona 85602</p>              |
| <p>Librarian<br/>Ajo Public Library<br/>33 Plaza St<br/>Ajo Arizina 85321</p>                                   | <p>Librarian<br/>Copper Queen Library<br/>6 Main Street<br/>Bisbee, AZ 85603</p>                    |
| <p>Librarian<br/>Nogales/Santa Cruz County Public Library<br/>518 N. Grand Avenue<br/>Nogales, AZ 85621</p>     | <p>Librarian<br/>Casa Grande Public Library<br/>449 N. Dry Lake Stree<br/>Casa Grande, AZ 85222</p> |
| <p>Librarian<br/>Tucson Pima County Community Library<br/>33 Plaza<br/>Ajo, AZ 85321</p>                        | <p>Librarian<br/>Tucson Pima Library<br/>101 N. Stone Avenue<br/>Tucson, AZ 85726-7470</p>          |
| <p>Librarian<br/>Yuma County Library<br/>350 Third Avenue<br/>Yuma, AZ 85364</p>                                | <p>Librarian<br/>Douglas Public Library<br/>560 East 10th Street<br/>Douglas, AZ 85607-2010</p>     |

Section  
9

## 9.0 ACRONYMS AND ABBREVIATIONS

|            |   |
|------------|---|
| AAAQS      | Arizona Ambient Air Quality Standards                                 |
| AATCC      | Albuquerque Air Traffic Control Center                                |
| ABCI       | Arizona Border Control Initiative                                     |
| ADEQ       | Arizona Department of Environmental Quality                           |
| ADOT       | Arizona Department of Transportation                                  |
| ADWR       | Arizona Department of Water Resources                                 |
| AESO       | Arizona Ecological Services Office                                    |
| AGL        | Above Ground Level  |
| AO         | Area of Operation   |
| AR         | Army Regulation   |
| ARFF       | Aircraft Rescue and Firefighting                                      |
| AST        | Above-ground Storage Tank   |
| ATC        | Air Traffic Control   |
| AU         | Arizona Upland  |
| AVGAS      | Aviation Gasoline   |
| BLM        | Bureau of Land Management   |
| BMGR       | Barry M. Goldwater Range  |
| BO         | Biological Opinion  |
| BORSTAR    | Border Patrol Search Trauma and Rescue                                |
| CAA        | Clean Air Act   |
| CBP        | Customs and Border Protection   |
| CERCLA     | Comprehensive Environmental Response, Compensation, and Liability Act |
| CEQ        | Council on Environmental Quality                                      |
| CFR        | Code of Federal Regulations   |
| CWA        | Clean Water Act   |
| dB         | Decibel   |
| dBA        | Decibel “A” weighted Scale  |
| DHS        | Department of Homeland Security                                       |
| DIS        | Directorate of Installation Support                                   |
| DOD        | Department of Defense   |
| DRMO       | Defense Reuse and Marketing Organization                              |
| EA         | Environmental Assessment  |
| (b) (7)(E) | (b) (7)(E)  |
| EIS        | Environmental Impact Statement  |
| ENRD       | Environment and Natural Resources Division                            |
| EOD        | Explosive Ordnance Disposal   |
| EPCRA      | Emergency Planning and Community Right to Know Act                    |
| ESA        | Endangered Species Act  |

|                          |  |
|--------------------------|--|
| FAA                      | Federal Aviation Administration                  |
| FICUN                    | Federal Interagency Committee on Noise           |
| FONSI                    | Finding of No Significant Impact                 |
| FY                       | Fiscal Year                                      |
| GCS                      | Ground Control Station                           |
| gpm                      | Gallon per minute                                |
| GPS                      | Global Positioning System                        |
| HAZMAT                   | Hazardous Material                               |
| HUD                      | Housing and Urban Development                    |
| HWMP                     | Hazardous Waste Management Plan                  |
| IE                       | Illegal Entrant                                  |
| IEWTD                    | Intelligence Electronic Warfare Test Directorate |
| INA                      | Immigration and Nationality Act                  |
| INS                      | Immigration & Naturalization Service             |
| IR                       | Infra-Red  |
| ISCP                     | Installation Spill Contingency Plan              |
| JP-8                     | Jet Propulsion Fuel-8                            |
| JTF-6                    | Joint Task Force – 6                             |
| km                       | Kilometer  |
| $L_{eq}$                 | Equivalent Sound Level                           |
| $L_{dn}$                 | Day-Night Average Sound Level                    |
| $L_{max}$                | Maximum Sound Level                              |
| LAAF                     | Libby Army Air Field                             |
| LCRV                     | Lower Colorado River Valley                      |
| m                        | Meter  |
| MI                       | Military Intelligence                            |
| MOA                      | Military Operating Area                          |
| MOGAS                    | Mobility Gasoline                                |
| MOU                      | Memorandum of Understanding                      |
| $\mu\text{g}/\text{m}^3$ | Micrograms per cubic meter                       |
| MPH                      | Miles Per Hour                                   |
| $\text{mg}/\text{m}^3$   | Milligrams per cubic meter                       |
| MSL                      | Mean Sea Level                                   |
| NAAQS                    | National Ambient Air Quality Standards           |
| NAMTRAGRUDET             | Naval Air Maintenance Training Group Detachment  |
| NCA                      | National Conservation Area                       |
| NEPA                     | National Environmental Policy Act                |
| NM                       | National Monument                                |
| NOA                      | Notice of Availability                           |
| NOI                      | Notice of Intent                                 |
| NPS                      | National Park Service                            |
| NRCS                     | Natural Resource Conservation Service            |
| NRHP                     | National Register of Historic Places             |
| NWR                      | National Wildlife Refuge                         |
| OBP                      | Office of Border Patrol                          |
| P                        | Primary  |
| PAC                      | Protective Activity Center                       |
| PAR                      | Precision Approach Radar                         |
| PEIS                     | Programmatic Environmental Impact Statement      |
| $\text{PM}_{10}$         | Particulate Matter Less Than 10 Microns          |

|          |   |
|----------|---|
| POL      | Petroleum, Oil, Lubricants                            |
| ppm      | Parts per million                                     |
| RATO     | Rocket Assist Take Off                                |
| RCRA     | Resource Conservation and Recovery Act                |
| ROI      | Region of Interest                                    |
| RVS      | Remote Video Surveillance                             |
| S        | Secondary   |
| SAR      | Search and Rescue                                     |
| SARA     | Superfund Amendments and Reauthorization Act          |
| SAR/MTI  | Synthetic Aperture Radar/Moving Target Indicator      |
| SEA      | Supplemental Environmental Assessment                 |
| SHPO     | State Historic Preservation Officer                   |
| SIP      | State Implementation Plan                             |
| SPCCP    | Spill Prevention Control and Countermeasures Plan     |
| SVMA     | Sierra Vista Municipal Airport                        |
| TEP      | Tucson Electric Power                                 |
| TESAR    | Tactical Endurance Synthetic Aperture Radar           |
| TRADOC   | Training and Doctrine Command                         |
| TSCA     | Toxic Substances Control Act                          |
| TSDF     | Treatment, Storage, & Disposal Facility               |
| TSM      | TRADOC System Manager                                 |
| UAV      | Unmanned Aerial Vehicle                               |
| U.S.     | United States   |
| U.S.C.   | United States Code                                    |
| USACE    | United States Army Corps of Engineers                 |
| USAIC    | United States Army Intelligence Center                |
| USBP     | United States Border Patrol                           |
| USDOI    | United States Department of the Interior              |
| USEPA    | United States Environmental Protection Agency         |
| USFS     | United States Forest Service                          |
| USFWS    | United States Fish & Wildlife Service                 |
| UST      | Under-ground Storage Tank                             |
| WSMR-EPG | White Sands Missile Range – Electronic Proving Ground |

# APPENDIX A – CORRESPONDENCE



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**FORT WORTH DISTRICT, CORPS OF ENGINEERS**  
**P.O. BOX 17300, 819 TAYLOR STREET**  
**FORT WORTH, TEXAS 76102-0300**

May 3, 2004

Planning, Environmental and Regulatory Division

**SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004**

The Honorable (b) (6) Chairwoman  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Dear Chairwoman (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action consists of the annual, but temporary expanded air operations designed to reduce the number of fatalities of undocumented aliens and enhance border enforcement activities within the OBP Tucson Sector. These activities are proposed to occur between the months of June and October. However the exact schedule and duration might change each year due to climatic conditions and illegal traffic patterns. The purpose of the proposed action is to assist in identifying and providing humanitarian assistance to undocumented aliens and illegal drug traffickers who may be at risk of dying due to overexposure along the US/Mexico border within the Office of Border Patrol's Tucson Sector's Areas of Operations. Because of extremely hot weather during the summer in the Tucson Sector, many undocumented immigrants traversing the remote desert and mountain areas are subject to extreme physical stress and probable death without assistance.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north, (b) (7)(E) nautical miles.

The proposed project is scheduled to commence on 1 June 2004 and continue for approximately 123 days (on or about 28 September 2004). The Office of Border Patrol, Tucson Sector proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAVs), on a temporary basis for aerial reconnaissance missions along the (b) (7)(E) Corridor, and the (b) (7)(E) Corridor, Arizona (see attached figures) along with the regularly scheduled fixed winged aircraft and helicopters, which patrol the border.

Due to the very short time frame in which to initiate this proposed action, we are proposing to conduct public meetings in Sells, preferably on the Nation in your Council Chambers, as soon as possible. We propose the following dates as possible meeting dates that might fit your exacting schedule: May 14, 2004, or either the 17<sup>th</sup>, 18<sup>th</sup> or 19<sup>th</sup> of May 2004. We would very much appreciate your cooperation in this matter.

If you have any questions or responses to the above-recommended dates, please feel free to contact (b) (6). We hope to be able to present information to the Nation and other concerned tribes that would inform on their concerns about this proposed project.

Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosures



Copy furnished w/o enclosure

(b) (6)

Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

(b) (6), (b) (7)(C)

Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b) (6), (b) (7)(C) Environmental Program Manager  
Customs and Border Protection, Room (b) (6), (b) (7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**FORT WORTH DISTRICT, CORPS OF ENGINEERS**  
**P.O. BOX 17300, 819 TAYLOR STREET**  
**FORT WORTH, TEXAS 76102-0300**

May 3, 2004

Planning, Environmental and Regulatory Division

**SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004**

Honorable (b) (6), Chairman  
Pascua Yaqui Tribe  
7474 S. Camino de Oeste  
Tucson, AZ 85746

Dear Chairman (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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May 3, 2004

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The Honorable (b) (6) Chairwoman  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Dear Chairwoman (b) (6),

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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Honorable (b) (6) Chairman  
ATTN: Mr. (b) (6)  
Hopi Tribal Council  
P.O. Box 123  
Kykotsmovi, AZ 86039

Dear Chairman (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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**FORT WORTH, TEXAS 76102-0300**

May 3, 2004

Planning, Environmental and Regulatory Division

**SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004**

Honorable (b) (6) President  
ATTN: Cultural Staff, Cultural and Environmental Services Department  
Salt River Pima-Maricopa Indian Community Council  
10005 E. Osborn  
Scottsdale, AZ 85256

Dear President (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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May 3, 2004

Planning, Environmental and Regulatory Division

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Honorable (b) (6) Chairperson  
Cocopah Indian Tribe  
County 15<sup>th</sup> and Avenue G  
Somerton, AZ 85350

Dear Chairperson (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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May 3, 2004

Planning, Environmental and Regulatory Division

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Honorable [REDACTED] (b) (6), Governor  
Gila River Indian Community Council  
P.O. Box 97  
Sacaton, AZ 85247

Dear Governor [REDACTED] (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action consists of the annual, but temporary expanded air operations designed to reduce the number of fatalities of undocumented aliens and enhance border enforcement activities within the OBP Tucson Sector. These activities are proposed to occur between the months of June and October. However the exact schedule and duration might change each year due to climatic conditions and illegal traffic patterns. The purpose of the proposed action is to assist in identifying and providing humanitarian assistance to undocumented aliens and illegal drug traffickers who may be at risk of dying due to overexposure along the US/Mexico border within the Office of Border Patrol's Tucson Sector's Areas of Operations. Because of extremely hot weather during the summer in the Tucson Sector, many undocumented immigrants traversing the remote desert and mountain areas are subject to extreme physical stress and probable death without assistance.



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

May 3, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Honorable (b) (6) Chairperson  
Ak Chin Indian Community Council  
42507 W. Peters & Nall Road  
Maricopa, AZ 85239

Dear Chairperson (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**FORT WORTH DISTRICT, CORPS OF ENGINEERS**  
**P.O. BOX 17300, 819 TAYLOR STREET**  
**FORT WORTH, TEXAS 76102-0300**

May 3, 2004

Planning, Environmental and Regulatory Division

**SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004**

Honorable (b) (6) President  
Fort Yuma-Quechan Tribe  
350 Picacho Rd.  
Winterhaven, CA 92283

Dear President (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

The proposed action consists of the annual, but temporary expanded air operations designed to reduce the number of fatalities of undocumented aliens and enhance border enforcement activities within the OBP Tucson Sector. These activities are proposed to occur between the months of June and October. However the exact schedule and duration might change each year due to climatic conditions and illegal traffic patterns. The purpose of the proposed action is to assist in identifying and providing humanitarian assistance to undocumented aliens and illegal drug traffickers who may be at risk of dying due to overexposure along the US/Mexico border within the Office of Border Patrol's Tucson Sector's Areas of Operations. Because of extremely hot weather during the summer in the Tucson Sector, many undocumented immigrants traversing the remote desert and mountain areas are subject to extreme physical stress and probable death without assistance.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs (b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north (b) (7)(E) nautical miles.

The proposed project is scheduled to commence on 1 June 2004 and continue for approximately 123 days (on or about 28 September 2004). The Office of Border Patrol, Tucson Sector proposes to maintain and operate two Unmanned Aerial Vehicles (UAVs), on a temporary basis for aerial reconnaissance missions along the (b) (7)(E) Corridor, and the (b) (7)(E) Corridor, Arizona (see attached figures) along with the regularly scheduled fixed winged aircraft and helicopters, which patrol the border.

Due to the very short time frame in which to initiate this proposed action, we are proposing to conduct public meetings in Sells, preferably on the Tohono O'odham Nation in their Council Chambers, as soon as possible. We propose the following dates as possible meeting dates that might fit r exacting schedules: May 14, 2004, or either the 17<sup>th</sup>, 18<sup>th</sup> or 19<sup>th</sup> of May 2004. We have asked for Chairwoman Juan-Saunders' cooperation in this matter.

If you have any questions or responses to the above, please feel free to contact (b) (6) (b) (6) We hope to be able to present information to the Nation and other concerned tribes that would inform on their concerns about this proposed project.

Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosures

Copy furnished w/o enclosure

**(b) (6)** Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

**(b)(6);(b)(7)(C)**  
Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

**(b)(6);(b)(7)(C)** Environmental Program Manager  
Customs and Border Protection, **(b)(6);(b)(7)(C)**  
1300 Pennsylvania, NW  
Washington, DC 20229



DEPARTMENT OF THE ARMY  
FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

REPLY TO  
ATTENTION OF

June 1, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Mr. (b) (6) Acting Supervisor  
PHOENIX AREA OFFICE  
Bureau of Indian Affairs  
P.O. Box 10  
Phoenix, AZ 85001

Dear (b) (6)

In a letter dated May 3, 2004, we noted that the Office of Border Patrol was preparing a Supplemental Environmental Assessment for this proposed action. Enclosed is the Draft SEA for the project mentioned above.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7) pilots and (b) (7) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs ((b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concho counties. The operating corridor flown would be from the border to the north, (b) (7) nautical miles.

Due to the very short time frame in which to initiate this proposed action, the review time on this document is extremely short. Comments will be taken through June 11, 2004. If you have any questions or responses to the above, please feel free to contact Mr. (b) (6), (b) (7)(E) at (b) (6), (b) (7)(E). This document can be viewed electronically at the following url: <http://aerc.swf.usace.army.mil/Pages/PublicReviewView.cfm>

Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosure

Copy furnished w/o enclosure

(b)(6);(b)(7)(C)

Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6);(b)(7)(C) Environmental Program Manager  
Customs and Border Protection (b)(6);(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



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FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

June 1, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Honorable (b) (6) Chairperson  
Ak Chin Indian Community Council  
42507 W. Peters & Nall Road  
Maricopa, AZ 85239

Dear Chairperson (b) (6)

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The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs (b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north, (b) (7)(E) nautical miles.

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Sincerely,

(b) (6)  
Chief, Planning, Environmental  
and Regulatory Division

Enclosure

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(b)(6);(b)(7)(C)

Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6);(b)(7)(C) Environmental Program Manager  
Customs and Border Protection, (b)(6);(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



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FORT WORTH DISTRICT, CORPS OF ENGINEERS  
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June 1, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Honorable (b) (6) Chairperson  
Cocopah Indian Tribe  
County 15<sup>th</sup> and Avenue G  
Somerton, AZ 85350

Dear Chairperson (b) (6)

In a letter dated May 3, 2004, we noted that the Office of Border Patrol was preparing a Supplemental Environmental Assessment for this proposed action. Enclosed is the Draft SEA for the project mentioned above.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs ((b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north, (b) (7)(E) nautical miles.



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Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosure

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(b)(6);(b)(7)(C)

Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6);(b)(7)(C) Environmental Program Manager  
Customs and Border Protection (b)(6);(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



REPLY TO  
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**DEPARTMENT OF THE ARMY**  
FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

June 1, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Honorable (b) (6) Governor  
Gila River Indian Community Council  
P.O. Box 97  
Sacaton, AZ 85247

Dear (b) (6)

In a letter dated May 3, 2004, we noted that the Office of Border Patrol was preparing a Supplemental Environmental Assessment for this proposed action. Enclosed is the Draft SEA for the project mentioned above.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs (b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north, (b) (7)(E) nautical miles.

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Sincerely,

(b) (6)  
Chief, Planning, Environmental  
and Regulatory Division

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(b)(6);(b)(7)(C)

Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6);(b)(7)(C)

Environmental Program Manager  
Customs and Border Protection, (b)(6);(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



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FORT WORTH DISTRICT, CORPS OF ENGINEERS  
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FORT WORTH, TEXAS 76102-0300

June 1, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Honorable (b) (6) Chairman  
Pascua Yaqui Tribe  
7474 S. Camino de Oeste  
Tucson, AZ 85746

Dear Chairman (b) (6):

In a letter dated May 3, 2004, we noted that the Office of Border Patrol was preparing a Supplemental Environmental Assessment for this proposed action. Enclosed is the Draft SEA for the project mentioned above.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs (b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north, (b) (7)(E) nautical miles.

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Sincerely,

(b) (6)  
Chief, Planning, Environmental  
and Regulatory Division

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(b)(6);(b)(7)(C)  
Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6)(b)(7)(C) Environmental Program Manager  
Customs and Border Protection, (b)(6)(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



REPLY TO  
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FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

June 1, 2004

Planning, Environmental and Regulatory Division

**SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004**

Honorable (b) (6) President  
Fort Yuma-Quechan Tribe  
350 Picacho Rd.  
Winterhaven, CA 92283

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Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosure

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(b)(6);(b)(7)(C)

Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6)(b)(7)(C) Environmental Program Manager  
Customs and Border Protection, (b)(6)(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



REPLY TO  
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**FORT WORTH DISTRICT, CORPS OF ENGINEERS**  
**P.O. BOX 17300, 819 TAYLOR STREET**  
**FORT WORTH, TEXAS 76102-0300**

June 1, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Honorable (b) (6) President  
ATTN: Cultural Staff, Cultural and Environmental Services Department  
Salt River Pima-Maricopa Indian Community Council  
10005 E. Osborn  
Scottsdale, AZ 85256

Dear President (b) (6)

In a letter dated May 3, 2004, we noted that the Office of Border Patrol was preparing a Supplemental Environmental Assessment for this proposed action. Enclosed is the Draft SEA for the project mentioned above.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E), (b) (6) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E), (b) (6) Corridor and the (b) (7)(E), (b) (6) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E), (b) (6) UAVs (b) (7)(E), (b) (6) (b) (7)(E), (b) (6) would typically fly at an altitude of (b) (7)(E), (b) (6) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E), (b) (6) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north, (b) (7) nautical miles.



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Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosure

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(b)(6);(b)(7)(C)

Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6)(b)(7)(C) Environmental Program Manager

Customs and Border Protection, Room (b)(6)(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



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FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

June 1, 2004

Planning, Environmental and Regulatory Division

**SUBJECT: Draft Supplemental Environmental Assessment (SEA) - Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004**

The Honorable (b) (6) Chairwoman  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Dear Chairwoman (b) (6)

In a letter dated May 3, 2004, we noted that the Office of Border Patrol was preparing a Supplemental Environmental Assessment for this proposed action. Enclosed is the Draft SEA for the project mentioned above.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Heliport Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs (b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Concise counties. The operating corridor flown would be from the border to the north, (b) (7)(E) nautical miles.

Due to the very short time frame in which to initiate this proposed action, the review time on this document is extremely short. Comments will be taken through June 11, 2004. If you have any questions or responses to the above, please feel free to contact Mr. (b) (6) at (b) (6). This document can be viewed electronically at the following url: <http://aerc.swf.usace.army.mil/Pages/PublicReviewView.cfm>

Sincerely,

(b) (6)  
Chief, Planning, Environmental  
and Regulatory Division

Enclosure

Copy furnished w/o enclosure

Mr. (b) (6) Vice Chairman  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Mr. (b) (6) Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

Mr. (b)(6)(b)(7)(C)  
Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

Mr. (b)(6)(b)(7)(C) Environmental Program Manager  
Customs and Border Protection, (b)(6)(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

May 4, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

Mr. (b) (6) State Historic Preservation Officer  
ATTN: (b) (6)  
Arizona State Parks  
1300 West Washington  
Phoenix, Arizona 85007

Dear (b) (6)

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment (EA) for this proposed action and is being tiered off of the Operation Skywatch 2002 EA. As soon as the draft document is available you will be sent a copy for your immediate review and comment. If you do not wish to have a copy of the draft supplemental EA for review, please notify (b) (6) of my office at (b) (6) (b) (6)

The proposed action consists of the annual, but temporary expanded air operations designed to reduce the number of fatalities of undocumented aliens and enhance border enforcement activities within the OBP Tucson Sector. These activities are proposed to occur between the months of June and October. However the exact schedule and duration might change each year due to climatic conditions and illegal traffic patterns. The purpose of the proposed action is to assist in identifying and providing humanitarian assistance to undocumented aliens and illegal drug traffickers who may be at risk of dying due to

overexposure along the US/Mexico border within the Office of Border Patrol's Tucson Sector's Areas of Operations. Because of extremely hot weather during the summer in the Tucson Sector, many undocumented immigrants traversing the remote desert and mountain areas are subject to extreme physical stress and probable death without assistance.

The Office of Border Patrol proposes to maintain and operate (b) (7)(E) Unmanned Aerial Vehicles (UAV) for aerial reconnaissance missions along the (b) (7)(E) Corridor and the (b) (7)(E) Corridor, Arizona (see attached figures). UAV support personnel for the proposed action would include (b) (7)(E) mechanics, (b) (7)(E) pilots and (b) (7)(E) data analysts. These aircraft would be primarily staged at Fort Huachuca's Libby Army Airfield. However, secondary-staging sites would be established at other airports (e.g., Army Helicopter Castle Dome, Air Force Auxiliary Airfield Gila Bend) depending on operational needs. These (b) (7)(E) UAVs (b) (7)(E) (b) (7)(E) would typically fly at an altitude of (b) (7)(E) feet above mean sea level (msl) or higher. Shifts for the aircrews (pilots, mechanics, and other support personnel, as needed) would initially be (b) (7)(E) hours. UAVs would normally fly along the border corridor at varying times during daylight and nighttime hours. Most of the aerial reconnaissance efforts would be conducted over Pima, Santa Cruz, and Coconino counties. The operating corridor flown would be from the border to the north, (b) (7)(E) nautical miles (see attached figures).

The proposed project is scheduled to commence on 1 June 2004 and continue for approximately 123 days (on or about 28 September 2004). The Office of Border Patrol, Tucson Sector proposes to maintain and operate two Unmanned Aerial Vehicles (UAVs), on a temporary basis for aerial reconnaissance missions along the (b) (7)(E) Corridor, and the (b) (7)(E) Corridor, Arizona (see attached figures) along with the regularly scheduled fixed winged aircraft and helicopters, which patrol the border.

Due to the very short time frame in which to initiate this proposed action, we are proposing to conduct public meetings in Sells, preferably on the Tohono O'odham Nation in their Council Chambers, as soon as possible. We propose the following dates as possible meeting dates that might fit r exacting schedules: May 14, 2004, or either the 17<sup>th</sup>, 18<sup>th</sup> or 19<sup>th</sup> of May 2004. We have asked for Chairwoman Juan-Saunders' cooperation in this matter.

Due to the nature of the proposed action, there will be no ground disturbing actions and all flights will occur at or above 9,500 feet, mean sea level (msl). Therefore, in accordance with 36 CFR Part 800.4(d)(1), we have determined that no historic properties will be affected. We ask for your concurrence with our determination. As noted previously, a very short time frame is involved with this action and we would appreciate your comment at the earliest opportunity.

If you have any questions or responses to the above, please feel free to contact (b) (6) (b) (6) at (b) (6). We hope to be able to present information to the Nation and other concerned tribes that would inform on their concerns about this proposed project.

Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosures

Copy furnished w/o enclosure

Mr. (b) (6) Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

(b)(6)(b)(7)(C)  
Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6)(b)(7)(C) Environmental Program Manager  
Customs and Border Protection, (b)(6)(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



REPLY TO  
ATTENTION OF

**SAPD- 2004 - 0838 (19930)**

**DEPARTMENT OF THE ARMY**  
FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 17300, 819 TAYLOR STREET  
FORT WORTH, TEXAS 76102-0300

**RECEIVED**

MAY 05 2004

(b) (6) 5/10/04  
ARIZONA STATE PARKS/S.H.P.O.

May 4, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (BCBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

*Concur*  
**(b) (6)**  
Arizona State Parks Board

Mr. (b) (6) State Historic Preservation Officer  
ATTN: (b) (6)  
Arizona State Parks  
1300 West Washington  
Phoenix, Arizona 85007

*May 21, 2004*

Dear (b) (6)

*I concur upon the  
tribal concerns for TCP's*

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment (EA) for this proposed action and is being tiered off of the Operation Skywatch 2002 EA. As soon as the draft document is available you will be sent a copy for your immediate review and comment. If you do not wish to have a copy of the draft supplemental EA for review, please notify (b) (6) of my office at (b) (6)

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overexposure along the US/Mexico border within the Office of Border Patrol's Tucson Sector's Areas of Operations. Because of extremely hot weather during the summer in the Tucson Sector, many undocumented immigrants traversing the remote desert and mountain areas are subject to extreme physical stress and probable death without assistance.

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If you have any questions or responses to the above, please feel free to contact (b) (6). We hope to be able to present information to the Nation and other concerned tribes that would inform on their concerns about this proposed project.

Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosures

Copy furnished w/o enclosure

(b) (6) Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

(b)(6)(b)(7)(C)  
Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

(b)(6)(b)(7)(C) Environmental Program Manager  
Customs and Border Protection, (b)(6)(b)(7)(C)  
1300 Pennsylvania, NW  
Washington, DC 20229



U.S. Customs and  
Border Protection

**(b) (7)(E)**

**(b) (6)**

Wildlife Biologist  
U.S. Fish and Wildlife Service  
Arizona Ecological Service  
2321 West Royal Palm Road, Suite 103  
Phoenix, AZ 85021-4915

Dear **(b) (6)**

The Headquarters Office of Border Patrol (OBP) intends to prepare an environmental assessment (EA) for temporary expanded air operations (Operation Skywatch 2004) designed to reduce the number of fatalities of undocumented aliens and to enhance border enforcement activities within the Yuma and Tucson Border Patrol Sectors. Enclosed is a quadrangle map showing the projected location.

HQOBP is gathering the most current information available regarding federally listed species potentially inhabiting this area of Arizona. HQOBP requests that the Arizona Ecological Service provide a list of the protected species within Cochise, Santa Cruz, Pima, and Yuma Counties, Arizona, along with a description of the sensitive resources (e.g., rare or unique plant communities, threatened and endangered species, etc.) that you believe may be affected by the proposed Border Patrol enforcement activities. Any information you may have regarding critical habitat areas for these species would also be greatly appreciated.

HQOBP will provide your agency with a copy of the draft EA once it is complete. Please inform us if additional copies are needed and/or if someone else within your agency should receive the draft EA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to call Assistant Chief (b)(6)(b)(7)(C)

Yours truly,

(b)(6)(b)(7)(C)

Chief  
Air and Marine Operations  
Headquarters Office of Border Patrol

cc: (b) (6) U.S. Fish and Wildlife Service



U.S. Customs and  
Border Protection

(b) (7)(E)

MAY 28 2004

(b) (6)

Wildlife Biologist  
U.S. Fish and Wildlife Service  
Arizona Ecological Service  
2321 West Royal Palm Road, Suite 103  
Phoenix, AZ 85021-4915

Dear (b) (6)

As noted in a letter of May 7, 2004, the Office of Border Patrol (OBP) is providing a draft Supplemental Environmental Assessment for temporary expanded air operations (Operation Skywatch 2004) designed to reduce the number of fatalities of undocumented aliens and to enhance border enforcement activities within the Yuma and Tucson Border Patrol Sectors. (See enclosure.)

As indicated in this document, implementation of the planned action would not jeopardize protected species or adversely modify critical habitat. We request your concurrence with our determination of no adverse affect.

If you require any additional information, please contact Assistant Chief (b)(6)(b)(7)(C) (b)(6)(b)(7)(C) at (b)(6)(b)(7)(C)

Yours truly,

(b)(6)(b)(7)(C)

Chief  
Air and Marine Operations

cc: (b) (6) U.S. Fish and Wildlife Service

Enclosure



# United States Department of the Interior

U.S. Fish and Wildlife Service  
2321 West Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4951  
Telephone: (602) 242-0210 FAX: (602) 242-2513



In Reply Refer to:

AESO/SE  
02-21-01-I-0339

May 24, 2004

**(b)(6);(b)(7)(C)**

Department of Homeland Security  
1331 Pennsylvania Avenue NW Suite 1415  
Washington DC 20004

RE: Operation Skywatch 2004

Dear **(b)(6)(b)(7)(C)**

Thank you for your recent request for information on threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may occur in your project area. The Arizona Ecological Service Field Office has posted lists of the endangered, threatened, proposed, and candidate species occurring in each of Arizona's 15 counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: <http://arizonaes.fws.gov>

If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find County Species Lists on the main page. Then click on the county of interest. The arrows on the left will guide you through information on species that are listed, proposed, candidates, or have conservation agreements. Here you will find information on the species' status, a physical description, all counties where the species occurs, habitat, elevation, and some general comments. Additional information can be obtained by going back to the main page. On the left side of the screen, click on Document Library, then click on Documents by Species, then click on the name of the species of interest to obtain General Species Information, or other documents that may be available. Click on the "Cactus" icon to view the desired document.

Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Under the General Species Information, citations for the Federal Register (FR) are included for each listed and proposed species. The FR is available at most public libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

(b)(6)(b)(7)(C)

2

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency will need to request formal consultation with us. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency will need to enter into a section 7 conference. The county list may also contain candidate species. Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, we recommend the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona and some of the Native American Tribes protect some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species, or contact the appropriate Native American Tribe to determine if sensitive species are protected by Tribal governments in your project area. We further recommend that you invite the Arizona Game and Fish Department and any Native American Tribes in or near your project area to participate in your informal or formal Section 7 Consultation process.

Specific guidance information regarding the cactus ferruginous pygmy-owl on private land can also be found on our web page under Document Library. From there, click on Documents by Species, then click on cactus ferruginous pygmy-owl, then click on the document titled "Recommended Guidance for Private Landowners Concerning the Cactus Ferruginous Pygmy-owl."

For additional communications regarding this project, please refer to consultation number 02-21-01-I-0339. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please feel free to contact

(b) (6) for projects in Northern Arizona, (b) (6)  
(b) (6) for projects in central Arizona and along the Lower Colorado River, and (b) (6)  
(b) (6) for projects in southern Arizona.

Sincerely,

(b) (6)

Field Supervisor

(b) (6), (b) (7)(C)

3

cc: Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ  
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ  
Wildlife Biologist, Fish and Wildlife Service, Phoenix, AZ (b) (6)

W: (b) (6) species list letters\Dept of Homeland Security Operation Skywatch 2004.doc:cgg

**(b) (7)(E)**

U.S. Department of Homeland Security  
Washington, DC 20229



U.S. Customs and  
Border Protection

**(b) (6)**

Regional Supervisor  
Arizona Department of Game and Fish  
555 North Greasewood Road  
Tucson, AZ 85745

Dear **(b) (6)**

The Tucson Border Patrol Sector has proposed a special operation called Operation Skywatch 2004. In conjunction with this operation, the Headquarters Office of Border Patrol (HQOBP) intends to prepare an environmental assessment (EA) for temporary expanded air operations designed to reduce the number of fatalities of undocumented aliens and to enhance border enforcement activities within the Yuma and Tucson Border Patrol Sectors. Enclosed is a quadrangle map showing the project location.

HQOBP is gathering the most current information available regarding state listed species potentially inhabiting this area of Arizona. HQOBP requests that the Arizona Department of Game and Fish provide a list of the protected species within Cochise, Santa Cruz, Pima, and Yuma Counties, Arizona, along with a description of the sensitive resources (e.g., rare or unique plant communities, threatened and endangered species, etc.) that you believe may be affected by the proposed Border Patrol enforcement activities. Any information you may have regarding critical habitat areas for these species would also be greatly appreciated.

HQOBP intends to provide the Department of Game and Fish with a copy of the draft EA once it is complete. Please inform me if additional copies are needed and/or whether someone else within the department should receive the draft EA.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please feel free to call Assistant Chief **(b)(6);(b)(7)(C)**

Yours truly,

**(b)(6);(b)(7)(C)**

Chief  
Air and Marine Operations  
Headquarters Office of Border Patrol

Enclosure



OBP (b)(6);(b)(7)(C)

Bcc: (b) (7)(E)

Master Log

(b) (7)(E)

U.S. Department of Homeland Security  
Washington, DC 20229



U.S. Customs and  
Border Protection

MAY 28 2004

(b) (6)

Habitat Branch Chief  
Arizona Department of Game and Fish  
2221 West Greenway Road  
Phoenix, AZ 85023

Dear (b) (6)

As indicated in a letter of May 7, 2004, the Office of Border Patrol (OBP) is providing a draft Supplemental Environmental Assessment for temporary expanded air operations (Operation Skywatch 2004) designed to reduce the number of fatalities of undocumented aliens and to enhance border enforcement activities within the Yuma and Tucson Border Patrol Sectors. (See enclosure.)

As noted in this document, implementation of the planned action would not jeopardize protected species or adversely modify critical habitat. We request your concurrence with our determination of no adverse affect.

If you require any additional information, please contact (b)(6)(b)(7)(C)

(b)(6)(b)(7)(C)

Yours truly

(b)(6)(b)(7)(C)

Chief  
Air and Marine Operations

Enclosure



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**FORT WORTH DISTRICT, CORPS OF ENGINEERS**  
**P.O. BOX 17300, 819 TAYLOR STREET**  
**FORT WORTH, TEXAS 76102-0300**

May 3, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Proposed use of Unmanned Aerial Vehicle (UAV) in concert with Customs and Border Protection (CBP), Office of Border Patrol (OBP) Tucson Sector Operation Skywatch 2004

**(b) (6)**, Acting Supervisor  
PHOENIX AREA OFFICE  
Bureau of Indian Affairs  
P.O. Box 10  
Phoenix, AZ 85001

Dear **(b) (6)**

On behalf of the Office of Border Patrol, Tucson Sector, the U.S. Army Corps of Engineers, Fort Worth District is notifying you of the proposed project noted above. In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the Office of Border Patrol, wishes to continue our consultation process with the appropriate federally recognized Native American tribes who historically used this region or continue to use the area. We welcome your comments on this undertaking and look forward to hearing from you regarding known sacred sites or other traditional cultural properties within the proposed project area. The Office of Border Patrol is also preparing a Supplemental Environmental Assessment for this proposed action. As soon as the draft document is available you will be sent a copy for your immediate review and comment.

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If you have any questions or responses to the above, please feel free to contact (b) (6) (b) (6). We hope to be able to present information to the Nation and other concerned tribes that would inform on their concerns about this proposed project.

Sincerely,

(b) (6)

Chief, Planning, Environmental  
and Regulatory Division

Enclosures

Copy furnished w/o enclosure

**(b) (6)** Cultural Resources Manager  
Tohono O'odham Nation  
Administration Building  
49 Main Street  
Sells, AZ 85634

**(b)(6)(b)(7)(C)**  
Senior Tactical Coordinator  
United State Border Patrol  
Tucson Sector  
1970 West Ajo Way  
Tucson, Arizona 85713

**(b)(6)(b)(7)(C)** Environmental Program Manager  
Customs and Border Protection, **(b)(6)(b)(7)(C)**  
1300 Pennsylvania, NW  
Washington, DC 20229

# APPENDIX B – NOTICE OF AVAILABILITY

## PUBLIC NOTICE

The U.S. Customs and Border Protection, Office of Border Patrol has prepared a Draft Supplemental Environmental Assessment (SEA) to Operation Skywatch II for the Initial Field Test of the Unmanned Aerial Vehicle (UAV) in the Tucson and Yuma, Arizona Sectors. The in accordance with the National Environmental Policy Act of 1969 and Council for Environmental Quality Regulations (40 CFR Parts 1500-1508).

The document can also be viewed via the internet at the USACE, Fort Worth District website at the following address: <http://aerc.swf.usace.army.mil/Pages/Publicreview.cfm>

The UAV's need to be deployed as soon as possible due to the high risk for the loss of human life among illegal entrants along the southern border during this period. The UAV's capabilities to facilitate search and rescue, as well as apprehension efforts, will be evaluated. For this reason, the public review and comment period for the Draft SEA is fifteen (15) days. Comments on the Draft SEA are welcome but must be postmarked or faxed by June 11, 2004. If additional information is required, please contact Mr. David Walls at 202-393-8441, ext 235; or Mr. Steven Beattie at 202-393-8441, ext 244. Comments may sent via fax to 202-393-8442, or mailed to Mr. David Walls, 1331 Pennsylvania Avenue, NW, Suite 1415, Washington, DC 20004-1910.

# The Daily Dispatch

530 11th Street, Douglas, AZ 85607 • (520) 364-3424

Karla Andrade, being first duly sworn deposes and says that she is an agent of The Daily Dispatch, a daily newspaper, published in the City of Douglas, County of Cochise, State of Arizona.

That the Notice, a copy of which is hereto attached, described as follows:

Organizational Strategies,  
(SEA) to Operation  
Skywatch II

was published daily in the entire and regular issue of said THE DAILY DISPATCH, for 3 consecutive weeks, the FIRST publication of said notice being May 28, 2004 in the issue dated \_\_\_\_\_ and LAST publication being in the issue dated June 1, 2004.

The deponent further says that the Notice was published in the newspaper proper, and not in a supplement thereof.

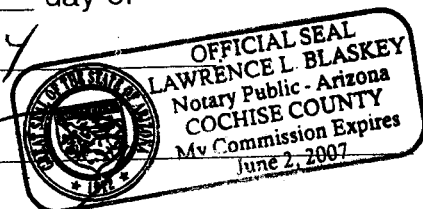
(SIGNED) KP Andrade

Sworn and Subscribed to me this

3 day of

June 2004

Notary Public



My commission expires June 2, 2007.

## PUBLIC NOTICE

**PUBLIC NOTICE**  
The U.S. Customs and Border Protection, Office of Border Patrol has prepared a Draft Supplemental Environmental Assessment (SEA) to Operation Skywatch II for the Initial Field Test of the Unmanned Aerial Vehicle (UAV) in the Tucson and Yuma, Arizona Sectors in accordance with the National Environmental Policy Act of 1969 and Council for Environmental Quality Regulations (40 CFR Parts 1500-1508). Copies of the Draft SEA along with instructions for submitting comments are posted at the Douglas Public Library, 560 East 10<sup>th</sup> Street, Douglas, Arizona 85607-2010, and will be online effective close of business May 28, 2004, at: [necr.swf.usace.army.mil/Pages/Publicreview.cfm](http://necr.swf.usace.army.mil/Pages/Publicreview.cfm). The UAV's need to be deployed as soon as possible due to the high risk for the loss of human life among illegal entrants along the southern border during this period. The UAV's capabilities to facilitate search and rescue, as well as apprehension efforts, will be evaluated. For this reason, the public review and comment period for the Draft SEA is fifteen (15) days. Comments on the Draft SEA are welcome but must be postmarked or filed by June 11, 2004. If additional information is required, please contact Mr. David Walsh at 202-343-5441, ext 235, or Mr. Steven Beagle at 202-343-5441, ext 204. Comments may be sent via fax to 202-343-5442 or mailed to Mr. David Walsh, 1531 Pennsylvania Avenue, NW, Suite 1415, Washington, DC 20004-1918. PUBLISHED: May 28, 2004 and June 1, 2004.



# Ajo Copper News

Hollister David, Publisher  
Gabrielle David, Editor  
Michelle Pacheco, Office Manager

P. O. Box 39 • Ajo, Arizona 85321  
Phone (520) 387-7688  
FAX (520) 387-7505

STATE OF ARIZONA )  
                                  ) ss.  
COUNTY OF PIMA )

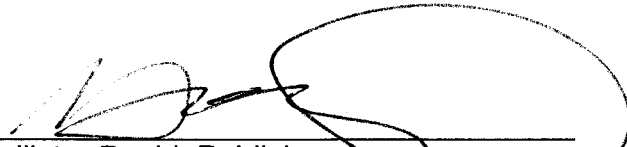
Hollister David deposes and says that he is the publisher of the *Ajo Copper News*, a weekly newspaper of general circulation and established character, published weekly at Ajo, Pima County, Arizona, and that

### Public Notice

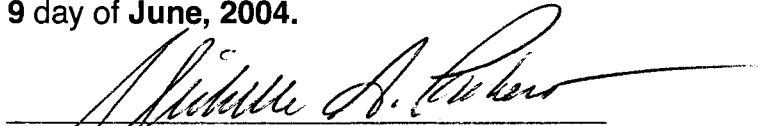
a correct copy of which is attached to this affidavit, was published in the said *Ajo Copper News* every week in the newspaper proper and not in a supplement for

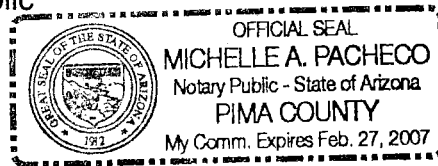
**Publ. May 26, June 2, 9, 2004**

**PUBLIC NOTICE**  
The U.S. Customs and Border Protection, Office of Border Patrol has prepared a Draft Supplemental Environmental Assessment (SEA) to Operation Skywatch II for the Initial Field Test of the Unmanned Aerial Vehicle (UAV) in the Tucson and Yuma Sectors, Arizona in accordance with the National Environmental Policy Act of 1969 and Council for Environmental Quality Regulations (40 CFR Parts 1500-1508). Copies of the Draft SEA along with instructions for submitting comments are posted at the Tucson Pima County Community Library, 33 Plaza, Ajo, Arizona 85321, and will be online effective close of business May 28, 2004, at: [aerc.swf.usace.army.mil/Pages/Publicreview.cfm](http://aerc.swf.usace.army.mil/Pages/Publicreview.cfm)  
Due to the high risk for the loss of human life, the UAVs need to be deployed as soon as possible to evaluate their search and rescue, as well as apprehension capabilities. For this reason, the public review and comment period for the Draft SEA is 15 days. Comments on the Draft SEA are welcome but must be postmarked or faxed by June 11, 2004. If additional information is required, please contact Mr. David Walls at 202-393-8441, ext 235; or Mr. Steven Beattie at 202-393-8441, ext 244. Comments may be FAX'd to 202-393-8442, or mailed to Mr. David Walls, 1331 Pennsylvania Avenue, NW, Suite 1415, Washington, DC 20004-1910.  
**PUBLISH: May 26, June 2, and June 9, 2004**

  
\_\_\_\_\_  
Hollister David, Publisher,  
Ajo Copper News

Sworn to and subscribed before me, a Notary Public in and for the County of Pima, Arizona, this **9 day of June, 2004.**

  
\_\_\_\_\_  
Notary Public



# Nogales International

## Fax Transmission Cover Sheet

**(b) (6)**

To: \_\_\_\_\_ Location: \_\_\_\_\_

From: Sandra

Fax Number: 202-393-8442

Total Number of Pages: 2 (Including Cover Sheet)

Date Sent: 6-15-04

Time Sent: \_\_\_\_\_

Additional Message (If Any): \_\_\_\_\_

### AFFIDAVIT OF PUBLICATION

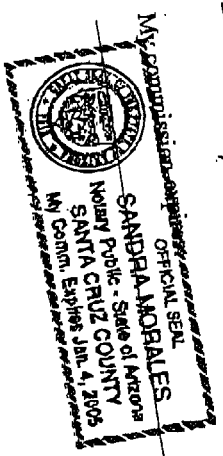
STATE OF ARIZONA }  
COUNTY OF SANTA CRUZ } ss.

BOB KIMBALL, being of first duty sworn,  
PUBLISHER  
deposes and says: that he/she is \_\_\_\_\_  
of the NOGALES INTERNATIONAL, a newspaper  
published in the County of Santa Cruz, State of Arizona,  
and of general circulation in said County, State and  
elsewhere and that the hereto attached legal notice  
PUBLIC NOTICE

was printed and published correctly in the regular and  
entire issue of said NOGALES INTERNATIONAL for  
issues, that the first publication was made on  
the 28 day of \_\_\_\_\_, 20\_\_ 4\_\_ day of  
last publication thereof was made on the  
JUNE 20\_\_.

NOGALES INTERNATIONAL

By Sandra Subscribed and sworn to before me this 4  
day of JUNE 20\_\_  
Notary Public



# Publisher's Affidavit of Publication

oOo

STATE OF ARIZONA }  
COUNTY OF YUMA }

## PUBLIC NOTICE

The U.S. Customs and Border Protection, Office of Border Patrol has prepared a Draft Supplemental Environmental Assessment (SEA) to Operation Skywatch II for the Initial Field Test of the Unmanned Aerial Vehicle (UAV) in the Tucson and Yuma, Arizona Sectors in accordance with the National Environmental Policy Act of 1969 and Council for Environmental Quality Regulations (40 CFR Parts 1500-1508). Copies of the Draft SEA along with instructions for submitting comments are posted at the Yuma County Library, 350 Third Avenue, Yuma, Arizona 85364, and will be online effective close of business May 28, 2004, at: [aerc.swf.usace.army.mil/Pages/Publicreview.cfm](http://aerc.swf.usace.army.mil/Pages/Publicreview.cfm)

The UAV's need to be deployed as soon as possible due to the high risk for the loss of human life among illegal entrants along the southern border during this period. The UAV's capabilities to facilitate search and rescue, as well as apprehension efforts, will be evaluated. For this reason, the public review and comment period for the Draft SEA is fifteen (15) days. Comments on the Draft SEA are welcome but must be postmarked or faxed by June 11, 2004. If additional information is required, please contact Mr. David Walls at 202-393-8441, ext 235; or Mr. Steven Beattie at 202-393-8441, ext 244. Comments may sent via fax to 202-393-8442, or mailed to Mr. David Walls, 1331 Pennsylvania Avenue, NW, Suite 1415, Washington, DC 20004-1910.  
Daily May 28, 29, 30, 2004  
#L28470

Julie Moreno or Lee Knapp, having been first duly sworn, deposes and says: that The Sun is a newspaper of general circulation published daily in the City of Yuma, County of Yuma, State of Arizona; that (s)he is the publisher or business manager of said paper; that the

PUBLIC NOTICE (SKYWATCH II)

a printed copy of which, as it appeared in said paper, is hereto attached and made a part of this affidavit, was published in The Sun

For THREE issues; that the date of the first publication of said PUBLIC NOTICE (SKYWATCH II)

was MAY 28, 2004 and the date of the last publication being MAY 30, 2004 and that the dates when said

PUBLIC NOTICE (SKYWATCH II)

was printed and published in said paper were

MAY 28, 29, 30, 2004

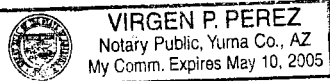
Lee Knapp

Subscribed and sworn to before me, by the said Julie Moreno or Lee Knapp

3rd day of June, 2004

Virgen P. Perez Notary Public

My commission expires May 10, 2005



STAR PUBLISHING COMPANY

Tucson, Arizona

STATE OF ARIZONA)  
COUNTY OF PIMA)

Janice Anderson, being first duly sworn deposes and says: that she is the Legal Advertising Representative of the STAR PUBLISHING COMPANY, a corporation organized and existing under the laws of the State of Arizona, and that the said STAR PUBLISHING COMPANY prints and publishes The Arizona Daily Star, a daily newspaper printed and published in the City of Tucson, Pima County, State of Arizona, and having a general circulation in said City, County, State and elsewhere, and that the attached

*Legal Notice*

was printed and published correctly in the entire issue of the said The Arizona Daily Star on each of the following dates, to-wit:

*May 28, 29, 30, 2004*

*Janice Anderson*

Subscribed and sworn to before me this 10<sup>th</sup> day of June, 2004

*Valerie S Gonzales*  
Notary Public



VALERIE S. GONZALES  
Notary Public - Arizona  
Pima County  
Expires 09/30/06

My commission expires \_\_\_\_\_

TNI AD NO. 2811768

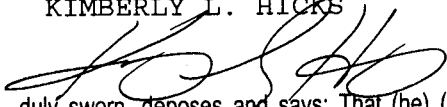
**PUBLIC NOTICE**

The U.S. Customs and Border Protection, Office of Border Patrol has prepared a Draft Supplemental Environmental Assessment (SEA) to Operation Skywatch II for the Initial Field Test of the Unmanned Aerial Vehicle (UAV) in the Tucson and Yuma, Arizona Sectors in accordance with the National Environmental Policy Act of 1969 and Council for Environmental Quality Regulations (40 CFR Parts 1500-1508). Copies of the Draft SEA along with instructions for submitting comments are posted at the Tucson Pima Library, 101 N. Stone Avenue, Tucson, Arizona 85726-7470, and will be online effective close of business May 28, 2004, at: [aerc.swf.usace.army.mil/Pages/Publicreview.cfm](http://aerc.swf.usace.army.mil/Pages/Publicreview.cfm)  
The UAV's need to be deployed as soon as possible due to the high risk for the loss of human life among illegal entrants along the southern border during this period. The UAV's capabilities to facilitate search and rescue, as well as apprehension efforts, will be evaluated. For this reason, the public review and comment period for the Draft SEA is fifteen (15) days. Comments on the Draft SEA are welcome but must be postmarked or faxed by June 11, 2004. If additional information is required, please contact Mr. David Walls at 202-393-8441, ext. 235; or Mr. Steven Beattie at 202-393-8441, ext. 244. Comments may sent via fax to 202-393-8442, or mailed to Mr. David Walls, 1331 Pennsylvania Avenue, NW, Suite 1415, Washington, DC 20004-1910.  
PUBLISH: May 28, 29, 30, 2004  
The Arizona Daily Star  
Tucson Citizen

**AFFIDAVIT OF PUBLICATION**

STATE OF ARIZONA )  
 )  
 ) :ss.  
 )  
COUNTY OF COCHISE )

KIMBERLY L. HICKS



being first

duly sworn, deposes and says: That (he) (she) is the Agent to the Publisher of the SIERRA VISTA HERALD and the BISBEE DAILY REVIEW newspapers printed and published six days a week in the County of Cochise, State of Arizona, and of general circulation in the cities of Sierra Vista and Bisbee, County of Cochise, State of Arizona and elsewhere, and thehereto attached

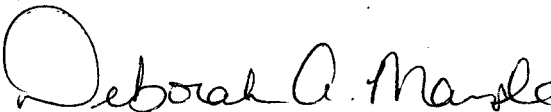
**DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (SEA)**

was printed and published correctly in the regular and entire issue of said SIERRA VISTA HERALD and BISBEE DAILY REVIEW for 3 issues, that the first was made on the 28th day of MAY 20 04 and the last publication thereof was made on the 2nd day of JUNE 20 04 that said publication was made on each of the following dates, to wit:

- 05/28/04
- 06/01/04
- 06/02/04

Request of

~~SIERRA VISTA HERALD~~  
**Sierra Vista Herald**  
**Bisbee Daily Review**

By 

Subscribed sworn to before me this 2nd day of JUNE 20 04



Notary Public in and for the County of Cochise, Sate of Arizona

My Commission Expires: 6/30/05

**PUBLIC NOTICE**  
The U.S. Customs and Border Protection, Office of Border Patrol has prepared a Draft Supplemental Environmental Assessment (SEA) to Operation Skywatch II for the Initial Field Test of the Unmanned Aerial Vehicle (UAV) in the Tucson and Yuma, Arizona Sectors in accordance with the National Environmental Policy Act of 1969 and Council for Environmental Quality Regulations (40 CFR Parts 1500-1508). Copies of the Draft SEA along with instructions for submitting comments are posted at the Sierra Vista Public Library, 2600 E. Tacoma St., Sierra Vista, Arizona, and will be online effective close of business May 28, 2004, at: aerc.swf.usace.army.mil/Page/s/Publicreview.cfm  
The UAV's need to be deployed as soon as possible due to the high risk for the loss of human life among illegal entrants along the southern border during this period. The UAV's capabilities to facilitate search and rescue, as well as apprehension efforts, will be evaluated. For this reason, the public review and comment period for the Draft SEA is fifteen (15) days. Comments on the Draft SEA are welcome but must be postmarked or faxed by June 11, 2004. If additional information is required, please contact Mr. David Walls at 202-393-8441, ext 235; or Mr. Steven Beattie at 202-393-8441, ext 244. Comments may sent via fax to 202-393-8442, or mailed to Mr. David Walls, 1331 Pennsylvania Avenue, NW, Suite 1415, Washington, DC 20004-1910.  
**PUBLISH: May 28, June 1, 2, 2004**

# APPENDIX C – RESPONSE TO PUBLIC COMMENTS



United States  
Department of  
Agriculture

Forest  
Service

Coronado National Forest  
Supervisor's Office

360 W. Congress  
Tucson, Arizona 85701  
Phone (b) (6)  
FAX (b) (6)  
TTY (b) (6)

File Code: 1950  
Date: June 10, 2004

(b)(6);(b)(7)(C)

1331 Pennsylvania Avenue, NW  
Suite 1415  
Washington, DC 20004-1910

Dear (b)(6);(b)(7)(C)

Thank you for the opportunity to review and comment on the Supplemental Environmental Assessment (SEA), *Operation Skywatch II for the Initial Field Test of the Unmanned Aerial Vehicle (UAV) in the Tucson and Yuma Sectors (May 2004)*, which describes the proposed deployment of UAVs by the Office of Border Patrol from June through September 2004. The UAVs would be deployed to enhance deterrence of illegal immigration, as well as to improve search and rescue operations along the Arizona border with the Republic of Mexico. Flyovers of UAVs that are of interest to the USDA Forest Service are those which will traverse airspace above National Forest System lands in Pima, Santa Cruz, and Cochise Counties, Arizona.

We offer the following comments for your consideration.

General Comments:

- Because Tucson Sector projects include Coronado National Forest lands in Pima, Santa Cruz, and Cochise Counties, we request that, in addition to the Sierra Vista District Ranger, your future distribution of environmental documents include (b) (6) District Ranger, Douglas, Arizona, and (b) (6) District Ranger, Nogales, Arizona.
- We suggest numbering the subheadings in Section 3.0, Affected Environment, and Section 4.0, Environmental Consequences, correspondingly for easier reference.
- Some of the discussions in Section 4.0, Environmental Consequences, state the following: "Neither implementation of the Preferred Alternative nor any of the alternatives would be expected to result in any impacts..." (e.g., p. 66, Section 4.6.3.1, Surface Water, and p. 69, Section 4.7.1.1, Vegetation). This SEA evaluates impacts from the Preferred Alternative and No-Action Alternative only, and includes a subheading for reporting impacts of the No Action Alternative for each resource area. Therefore, statements about "other alternatives" are mistaken and confusing, as "other alternatives" were eliminated from further evaluation in Section 2.3.

General Comments: Noted

Specific Comments:

Section 1.3, Proposed Action, p. 20

The approximate total duration of flight time for the vehicles should be reported, even if it is a range of total hours over the 4-month operations period.

The approximate range of hours has been added to Section 1.3

Section 2.1.1 (b) (7)(E) UAV, p. 26

The SEA should disclose information regarding the nature of the (b) (7)(E) UAV, such as the type and quantity of fuel it uses and the hazardous components that comprise the vehicle structure.

The description of the (b) (7)(E) has been expanded.

Section 2.1.3, UAV Operations and Ancillary Tasks, p. 28

The SEA should include a map showing the path of travel of the UAV from Ft. Huachuca to the border zone for which it will provide surveillance. Areas of the Coronado National Forest over which the UAV will fly should be identified.

Comment Noted.

Section 2.2, Alternative B, No-Action Alternative, p. 29

This paragraph should simply state what "no action" entails. Extraneous information on the potential risks of taking no action should be deferred to the Environmental Consequences discussion of the EA.

Comment Noted.

Section 3.1, Climate, and Section 3.2, Physiography, pp. 31 and 32

These discussions are extraneous, as the proposed action is known to have no potential to impact these resources. Suggest deletion.

Comment Noted.

Section 3.5, Air Quality, p. 35

Given that there is no need for air quality modeling of estimated incremental changes to ambient air quality resulting from UAV flyovers, there is no corresponding need for the lengthy tutorial discussion of air quality standards as presented herein. Suggest deletion or brief mention of EPA national ambient air quality standards using reference or a website.

Comment Noted.

Section 3.8.1, Forest, pp. 40 to 42

This discussion should identify the vegetation communities and locations on the Coronado National Forest within the flyover routes of the UAVs, given the potential for mishaps and consequent risk of fire ignition, resource damage, and threat to public health and safety.

Comment Noted.

Section 3.10, Socioeconomic Conditions, pp. 50 to 52

The information provided in this section is peripheral to the implementation of the proposed action. Emphasis should be placed on the demographics of the Ft. Huachuca area (as in Section 3.11) and the border towns that would be affected by noise and potential accidents involving UAV flights (add to EA).

Comment Noted.

Section 3.12, Hazardous Materials/Waste Management, p.55 to 57

This lengthy discussion of hazardous materials management at Ft. Huachuca is beyond the scope of the proposed action. The potential for impacts from the proposal is from the

While the possibility of a release of hazardous components of the UAV due to fire or leakage following an accident exists, it is more likely that an impact from hazardous materials could occur from the handling of Petroleum, Oils, and Lubricants required for the fueling and maintenance of these aircraft. Therefore, the lengthy discussion of hazardous materials management at Ft. Huachuca.



release of hazardous components of the UAV due to fire or leakage following an accident. Suggest discussing the nature of the potential hazards posed by UAV materials.

Section 4.1, Climate, and 4.2, Physiography, p. 58

Suggest discounting the potential for impacts to climate and physiography in an introductory statement in the Environmental Consequences section, eliminating the need for these two sections.

Comment Noted.

Section 4.5.1.1, Use of Rocket Assisted Take-Off, p. 64

If this activity is unrelated to the proposed action, the section should be deleted.

This section has been deleted.

Section 4.6, Soil and Water Resources, p. 65

There is no corresponding discussion of soils in Section 3.0, Affected Environment. As there is no potential impacts to soils, Section 4.6.1 should be deleted.

Comment Noted.

Section 4.7.1.4, Federally Listed Threatened, Endangered, and Candidate Species, p. 69

Concurrence by the U.S.D.I. Fish and Wildlife Service on the findings of "may affect, not likely to adversely affect" listed species is required prior to project implementation. No evidence of such concurrence is provided in the Appendix A, Correspondence.

Comment Noted. The USFWS has been asked to concur with our findings.

Section 4.8, Cultural Resources, p. 78

Concurrence by the State Historic Preservation Office (b) (6) Appendix A) is incomplete as it is contingent upon there being no tribal concerns regarding Traditional Cultural Properties. Evidence to this effect should be provided in the SEA.

Comment Noted. Tribal leaders have been asked to participate in the process and provide comments.

Section 4.9.1, Alternative A (re: Environmental Justice), p. 79

The SEA provides no details regarding the demographics of low income and minority populations in the border areas affected by UAV flyovers. Therefore, the conclusion that no disproportional impacts to such communities would result from the proposed action is unsupported. Indeed, any mishaps that would occur as a result of the proposed action would affect minority and low income populations, which predominate in the border towns of Arizona and Mexico. Suggest adding information to Section 3.0 regarding demographics.

Comment Noted.

Section 4.11.1.2 UAV Mishaps, p. 81

In this section, and in other previous sections, reference is made to a REACT team, which is prepared for deployment in the event of a UAV mishap and undesirable consequences, such as a fire. The SEA should disclose who comprises this team, and as noted under General Comments, the Forest Service should be an integral part of the team.

Comment Noted.

On p. 84, first paragraph, there is mention of a Programmatic EIS being scheduled for release in early summer 2002. Either this has already occurred or there is typographic error with regard to the date of issue.

Comment Noted. Correction has been made.

The period (two weeks) for public, agency, and tribal review is very short. Resource specialists on the Coronado National Forest have not had sufficient time to review and comment on the SEA. I suggest that comments be considered for an additional two week period.

Comment Noted

Please direct questions regarding this letter to (b) (6) Coronado National Forest NEPA Coordinator, at (b) (6) and email: (b) (6)

Sincerely,

(b) (6)

(b) (6)

Forest Supervisor

cc:

(b)(6)(b)(7)(C) Environmental Program Manager  
Customs and Border Protection  
1330 Pennsylvania Avenue, NW  
Washington, D.C. 20229

(b) (6)

U.S. Fish and Wildlife Service  
Arizona Ecological Services Field Office  
2321 W. Royal Palm Rd., Suite 103  
Phoenix, AZ, (b) (6)

- (b) (6) Sierra Vista District Ranger
- (b) (6) Nogales District Ranger
- (b) (6) Deputy Forest Supervisor
- (b) (6) Program Leader (Ecosystem Management and Planning)
- (b) (6) Program Leader (Natural Resources)
- (b) (6) Program Manager (NEPA Coordinator)

(b)(6)(b)(7)(C)

JUNE 2, 2004

1331 PENNSYLVANIA AV. SUITE 1415  
WASHINGTON DC 20004-1910

Postmarked  
June 2, 2004.  
Received,  
June 15, 2004  
SHALS

RE: DEPLOYMENT OF UAV'S IN TUCSON AND YUMA  
SECTORS.

I HAVE NO OBJECTION TO THE AERIAL DEVICES.

HOWEVER, I WISH TO POINT OUT, HOWEVER  
FUTILELY, THAT THE BORDER PATROL GROUND  
OPERATIONS IN THE SUBJECT AREAS ARE  
RAPIDLY DESTROYING AN ENTIRE ECOSYSTEM.

THE ULTIMATE CONTROL OF IMMIGRATION  
WILL BE EFFECTED BY THE REDUCTION  
OF THE SONORAN DESERT TO A WASTERLAND,  
UPON WHICH NO LIVING THING CAN SURVIVE.

I DON'T KNOW WHAT MIGHT BE DONE  
TO REVERSE THIS PROCESS, BUT I KNOW  
IT IS A CATASTROPHE OF IMMENSE PROPORTION.

Comments  
Noted

(b) (6)