



# United States Department of the Interior



**Fish and Wildlife Service**  
**Arizona Ecological Services Field Office**  
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  
22410-F-2009-0089-R2

April 29, 2011

Mr. James Riordan  
Executive Director, Program Management Office  
Office of Technology Innovation and Acquisition  
U.S. Customs and Border Protection  
1300 Pennsylvania Avenue NW  
Washington, DC 20229

RE: Reinitiation of Formal Consultation on the *SBI*net Ajo-1 Tower Project, Ajo Area of Responsibility, U.S. Border Patrol, Tucson Sector, Arizona

Dear Mr. Riordan:

This letter is in response to your April 13, 2011, request for reinitiation of formal consultation on the *SBI*net Ajo-1 Tower Project, Ajo Area of Responsibility, U.S. Border Patrol, Tucson Sector, Arizona. Your request, which addressed proposed changes to the *SBI*net Ajo-1 Tower Project construction schedule, was received by us on April 19, 2011, and was made pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). At issue are the impacts to the endangered Sonoran pronghorn (*Antilocapra americana sonoriensis*). See the *SBI*net Ajo-1 Tower Project Biological Opinion issued December 10, 2009 (file number 22410-F-2009-0089), for effects analyses and conclusions regarding other listed species. You found that only the Sonoran pronghorn would be affected by the proposed construction schedule changes; hence, our previous analyses and conclusions stand for those species.

Our December 10, 2009 biological opinion for the *SBI*net Ajo-1 Tower Project included a number of best management practices (BMPs) for Sonoran pronghorn in the "Description of Proposed Action". BMP # 28 stated "Apart from site security, sensor payload installation, tower testing, and maintenance, Customs and Border Protection (CBP) will avoid Ajo 1 work activities from March 15 to July 31 (i.e., the Sonoran pronghorn fawning season) in Sonoran pronghorn habitat (towers TCA-AJO-301 and 310 are outside of Sonoran pronghorn habitat). Sensor payload installation will be conducted on towers TCA-AJO-302 and 003 as close as possible to March 15. CBP will make every attempt possible to complete all sensor payload installation and

testing in Sonoran pronghorn habitat as close as possible to March 15". The reinitiated biological opinion for this project (issued March 15, 2010) allowed for some activities, including grid power installation, to occur during the first month of the Sonoran pronghorn fawning season in 2010 (i.e., March 15-April 15, 2010) (see BMP #28 in the March 15, 2010 biological opinion for a complete list of activities). This document addresses the proposed construction schedule changes (grid power installation at TCA-AJO-170 and 216 during the 2011 pronghorn fawning season). Herein we revise specific sections of the March 15, 2010 biological opinion. Sections not addressed or revised herein remain as presented in that biological opinion.

### **Consultation History**

- See the December 10 and March 15, 2010 biological opinions on this project for consultation history prior to April 19, 2011.
- April 19, 2011: We received your letter requesting reinitiation of formal consultation on the *SBInet Ajo-1 Tower Project* to address changes in the construction schedule.

## **BIOLOGICAL OPINION**

### **DESCRIPTION OF THE PROPOSED ACTION**

A complete description of the proposed action is found in your April 13, 2011, letter, and is incorporated herein by reference.

#### Timing of Tower Construction and Testing

Construction activities began in January 2010 and are complete with the exception of installation of grid power to towers TCA-AJO-170 and 216. The following Ajo 1 Tower deployment activities may take place during Sonoran pronghorn fawning season (March 15 to July 31): 1) Site Security, 2) Sensor Payload Installation, 3) Sensor Acceptance Test Procedure, 4) Communication Acceptance Test Procedure, 5) Site Functional Checkout, 6) Unattended Ground Sensor Testing, 7) Tower Characterization, 8) System Acceptance Test (SAT) Dry-runs, 9) SAT Runs for Record, 10) Trouble shooting and Non-conformance work, and 11) Maintenance of Tower sites<sup>1</sup>. Site security will require one to two security guards be present at all tower sites until construction is completed, and sensor payload installation will require 2 days per site and 12 people to complete. In addition to the aforementioned 11 activities, the following activity (at the specified tower sites) may be conducted for 20 days during the Sonoran pronghorn fawning season in 2011: 1) Grid Power Installation (part of Civil phase) at tower sites TCA-AJO-170 and 216. Grid power installation is tentatively scheduled to begin May 15, 2011. Apart from the aforementioned activities, no work will be conducted on towers during the Sonoran pronghorn fawning season, except at towers TCA-AJO-301 and 310 which are outside of the Sonoran pronghorn range.

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<sup>1</sup> Most of these activities have been completed since the March 15, 2010 biological opinion.

**Conservation Measures**

*Avoidance and Minimization Measures*

Table 1. Avoidance and minimization Best Management Practices for construction and maintenance for the SBInet Ajo-1 tower project.

BMP No.	BMP Category*	BMP text	Success Criteria
28	Seasonal restrictions- Sonoran pronghorn	Apart from the following activities, CBP will avoid Ajo 1 work activities from March 15 to July 31 (i.e., the Sonoran pronghorn fawning season) in Sonoran pronghorn habitat (towers TCA-AJO-301 and 310 are outside of Sonoran pronghorn habitat): 1) Site Security, 2) Sensor Payload Installation, 3) SAT Procedure, 4) Communication Acceptance Test Procedure, 5) Site Functional Checkout, 6) Unattended Ground Sensor Testing, 7) Tower Characterization, 8) SAT Dry-runs, 9) SAT Runs for Record, and 10) Trouble shooting and Non-conformance work, 11) Maintenance of Tower sites. Additionally, Grid Power Installation at tower sites TCA-AJO-170 and 216 may be conducted for 20 days during the Sonoran pronghorn fawning season in 2011.	Apart from the mentioned activities, project work in Sonoran pronghorn habitat is not conducted between March 15 and July 31.

**SONORAN PRONGHORN STATUS OF THE SPECIES**

No changes.

**B. Life History and Habitat**

No changes.

**C. Distribution and Abundance**

*United States*

The December 2004, 2006, 2008, and 2010 aerial surveys resulted in an estimated 58, 58, 68, and 85 (this 2010 estimate does not include the 17 pronghorn released from the pen in December 2010- see below), respectively, pronghorn in the U.S. sub-population, a substantial increase brought on by the implementation of ongoing recovery measures and improved range conditions since 2002. The 2006 to 2010 estimates included a number of captive-born individuals that were released into the wild (see below). During the 2008 and 2010 surveys, observers noted a skewed sex ratio (approximately 2:1) with more males than females; this affects the rate at which the population may increase.

Semi-captive breeding facility

The breeding program has been very successful and there are currently (as of April 2011) 78 pronghorn (52 adults and 26 fawns) in the enclosure. Since establishing the program, 16 pronghorn older than current year have died in the pen due to various causes, including one

confirmed case of epizootic hemorrhagic disease, two from malnutrition prior to the introduction of alfalfa hay in the pen, two from bobcat predation, one from entanglement in the fence, and two from capture operations. Eight deaths were from unknown causes and although disease was suspected, it could not be confirmed. Sonoran pronghorn have been released from the pen every year since 2006. As of April 2011, a total of 62 individuals (44 males, 18 females) have been released, 37 of which are known to still be alive.

A draft Environmental Assessment (EA) and draft 10(j) rule related to the establishment of a second semi-captive breeding facility on the Kofa National Wildlife Refuge were made available for public review and comment in February 2010. The EA was finalized this month, and the final rule is expected to be published in May 2011.

#### **D. Threats**

##### *Barriers that Limit Distribution and Movement*

No changes.

##### *Human-caused Disturbance*

No changes.

##### *Habitat Disturbance*

No changes.

##### *Fire*

No changes.

##### *Drought and Climate Change*

No changes.

##### *Small Population Size and Random Changes in Demographics*

No changes.

##### *Disease*

No changes.

#### **ENVIRONMENTAL BASELINE**

##### **A. Action Area**

No changes.

##### **B. Terrain, Vegetation Communities, and Climate in the Action Area**

No changes.

##### **C. Status of the Sonoran Pronghorn in the Action Area**

*Distribution, Abundance, and Life History*

No changes.

*Drought*

From 2003 to 2011, rainfall and Sonoran pronghorn range conditions have varied, but have improved overall when compared to 2002. Current range conditions are below average and the January 2011 long-term (48-months) drought status report (<http://www.azwater.gov/azdwr/StatewidePlanning/drought/DroughtStatus2.htm>) indicated that southwestern Arizona was experiencing conditions of no drought to abnormally dry conditions.

*Recent Recovery Actions*

A semi-captive breeding facility at Cabeza Prieta National Wildlife Refuge (CPNWR) was first stocked with pronghorn in 2004 and as of April 2011, contains 78 pronghorn (52 adults and 26 fawns).

**D. Past and Ongoing Non-Federal Actions in the Action Area**

No changes.

**E. Past and Ongoing Federal Actions in the Action Area***Federal Actions Addressed in Section 7 Consultations***6) Luke Air Force Base Use of Ground-Surface and Airspace for Military Training on the Barry M. Goldwater Range (BMGR)**

The original biological opinion (consultation number 02-21-96-F-0094), issued August 27, 1997, addressed military use of the airspace above and the ground space on BMGR-East and CPNWR by Luke Air Force Base. Military activities within the area of overlap with the CPNWR were limited to use of airspace and operation of four Air Combat Maneuvering Instrumentation sites. Military activities occurring within BMGR-East included: airspace use, manned air-to-ground ranges, tactical air-to-ground target areas, auxiliary airfields, Stoval Airfield, and explosive ordnance disposal/burn areas. Primary potential effects of the action included habitat loss due to ground-based activities, harassment and possible mortality of pronghorn at target areas, and disturbance of pronghorn due to military overflights and ground activities. We determined that the proposed action was not likely to jeopardize the continued existence of the pronghorn. This opinion was reinitiated in 2001, 2003, and 2010 resulting in revised opinions dated November 16, 2001, August 6, 2003, and May 3, 2010. In the latest (2010) opinion, we anticipated take of one wild Sonoran pronghorn every 10 years, one pen-raised (free ranging) female pronghorn every 10 years, and four pen-raised (free ranging) male pronghorn every 10 years in the form of direct mortality or injury; and one wild Sonoran pronghorn of either sex, one pen raised (free ranging female) every 10 years, and two pen-raised (free ranging) male pronghorn every 10 years in the form of harassment. The following reasonable and prudent measure was provided: monitor incidental take resulting from the proposed action and report to the FWS the findings of that monitoring. We are not aware of any take of pronghorn confirmed attributable to Luke Air

Force Base use of the ground-surface and airspace on the BMGR. A pronghorn found dead near a target may have been strafed (hit with bullets from a low-flying aircraft), but it may also have died from other causes. Because the animal had been heavily scavenged by the time it was found, the cause of death was impossible to determine. It is possible that it was killed by strafing near NTAC or it may have died during combat with another animal.

During the development of these opinions, Luke Air Force Base made substantial commitments to minimize the effects of their activities on the Sonoran pronghorn, and additionally committed to implementing a variety of recovery projects recommended by the Sonoran Pronghorn Recovery Team.

#### **F. Summary of Activities Affecting Sonoran Pronghorn in the Action Area**

Historically, livestock grazing, hunting or poaching, and development along the Gila River and Río Sonoyta were all probably important factors in the well-documented Sonoran pronghorn range reduction and apparent population decline that occurred early in the 20th century. Historical accounts and population estimates suggest pronghorn were never abundant in the 20th century, but recently, the estimated size of the wild population in the action area declined from 179 (1992) to 21 (December 2002). Although the proximate cause of the decline during 2002 was drought, human activities limit habitat use options by pronghorn and increase the effects of drought on the sub-population. The U.S. pronghorn sub-population is isolated from other sub-populations in Sonora by a highway and the U.S./Mexico boundary fence, and access to the greenbelts of the Gila River and Río Sonoyta, which likely were important sources of water and forage during drought periods, has been severed. Since 2002, due to improved drought status and implementation of emergency recovery actions, the wild population increased to 85 in 2010. At 85, however, the wild sub-population is still in grave danger of extirpation due to, among other factors, human-caused impacts, drought, loss of genetic diversity, and predation.

Within its remaining range, the pronghorn is subjected to a variety of human activities that disturb the pronghorn and its habitat, including military training, increasing recreational activities, grazing, significant presence of cross-border violators (CBV), and subsequent required law enforcement activities. OPCNM (2001) identified 165 human activities in the range of the pronghorn, of which 112 were adverse, 27 were beneficial, 26 had both adverse and beneficial effects, and four had unknown effects. OPCNM (2001) concluded that in regard to the pronghorn, "while many projects have negligible impacts on their own, the sheer number of these actions is likely to have major adverse impacts in aggregate." MCAS-Yuma (2001) quantified the extent of the current pronghorn range that is affected by select activities and found the following: recreation covers 69.6 percent of the range, military training on North and South TACs covers 9.8 percent, active air-to-air firing range covers 5.8 percent, proposed EOD five-year clearance areas at North and South TACs and Manned Range 1 cover 1.0 percent, and MCAS-Yuma proposed ground support areas and zones cover 0.29 percent.

CBV traffic and responding U.S. Border Patrol (USBP) enforcement activities occur throughout the range of the pronghorn, and evidence suggests pronghorn are avoiding areas of high CBV and enforcement activities. Historically, pronghorn tended to migrate to the southeastern section of their range (southeastern CPNWR, such as south of El Camino del Diablo, and OPCNM, such

as the Valley of the Ajo) during drought and in the summer. Within the last several years, very few pronghorn have been observed south of El Camino del Diablo on CPNWR. This suggests CBV and the interdiction of these illegal activities have resulted in pronghorn avoiding areas south of El Camino del Diablo; these areas are considered important summer habitat for pronghorn and may have long-term management and recovery implications (personal communication with Curtis McCasland, CPNWR, 2007). Additionally, after the establishment of a Forward Operating Base (FOB) at Bates Well, which was located in the middle of an extremely critical and narrow Sonoran pronghorn movement corridor (Bates Pass) on OPCNM, few pronghorn have been documented using the Valley of the Ajo, and no pronghorn have been documented entering the Valley of the Ajo through the Bates Pass area. As part of the Ajo 1 biological opinion, the FOB was moved in early 2011 to an area near Ajo 1 Tower 302. The valleys at CPNWR and OPCNM, which were once nearly pristine Sonoran Desert wilderness, now have many braided, unauthorized routes through them and significant vehicle use by USBP pursuing CBVs. These areas have also been affected by trash and other waste left by CBVs.

Although major obstacles to recovery remain, since 2002, numerous crucial recovery actions have been implemented in the U.S. range of the species, including 10 emergency waters and four forage enhancement plots, with additional waters and forage plots planned. The projects tend to offset the effects of drought and barriers that prevent movement of pronghorn to greenbelts such as the Gila River and Río Sonoyta. A semi-captive breeding facility, built on CPNWR, currently holds 78 pronghorn. This facility will provide pronghorn to augment the existing sub-population and hopefully to establish additional U.S. populations. Additionally, vehicle barriers on the international border on CPNWR and OPCNM are facilitating recovery of pronghorn by drastically reducing the amount of CBV vehicle traffic in pronghorn habitat.

The current range of the pronghorn in the U.S. is almost entirely comprised of lands under Federal jurisdiction; thus authorized activities that currently affect the pronghorn in the action area are almost all Federal actions. However, CBV foot traffic and off-road vehicle activity and required Federal law enforcement response have been and continue to be significant threats to the pronghorn and its habitat. Prior to November 2001, in seven of 12 biological opinions issued by FWS that analyzed impacts to the pronghorn, we anticipated that take would occur. In total, we anticipated take of five pronghorn in the form of direct mortality every 10-15 years, and an undetermined amount of take in the form of harassment. Given the small and declining population of pronghorn in the U.S. at the time the opinions were written, take at the levels anticipated in the biological opinions would constitute a substantial impact to the population.

Changes made in proposed actions and reinitiated biological opinions plus the findings in other opinions from 2001 to 2009 reduced the amount or extent of incidental take anticipated to occur from Federal actions. During this period, the only opinion in which we anticipated incidental take was the Yuma Sector opinion (up to one pronghorn every 10 years). Since 2009, two additional opinions, the Ajo 1 Tower Project and the Luke Air Force Military Training on BMGR reinitiation, also anticipated incidental take (a total of 14 pronghorn, including wild and pen-raised (free ranging), every 10 years, plus an additional three pronghorn from the time Ajo 1 Tower construction started to one year after the towers are fully operational). Therefore, currently there are three opinions that anticipate a total incidental take of 15 pronghorn every 10 years, plus three additional pronghorn. With the exception of likely capture-related deaths

during telemetry studies and release from the captive breeding facility (which were addressed in 10(a)(1)(A) recovery permits), we are unaware of any confirmed incidental take resulting from the Federal actions described here (although a pronghorn may have been strafed near one of the targets on BMGR-East). Though anticipated incidental take has increased recently, action agencies have worked with us to modify proposed actions and to include significant conservation measures that reduce adverse effects to the pronghorn and its habitat.

We believe the aggregate effects of limitations or barriers to movement of pronghorn and continuing stressors, including habitat degradation and disturbance within the pronghorn's current range resulting from a myriad of human activities, exacerbated by periodic dry seasons or years, are responsible for the present precarious status of the Sonoran pronghorn in the action area. However, collaborative, multi-agency and multi-party efforts to develop forage enhancement plots and emergency waters, reduce human disturbance of pronghorn and their habitat, combined with the success of the semi-captive breeding facility, plus planned future recovery actions, including establishment of additional U.S. sub-populations, provide hope that recovery of the Sonoran pronghorn in the U.S. is achievable. Key to achieving recovery will be a drastic reduction in human disturbance to pronghorn and their habitat caused by CBV and corresponding enforcement activities.

## **EFFECTS OF THE ACTION**

### *Effects from Tower, Road, and FOB Construction, Operation, and Maintenance*

#### Disturbance to Sonoran pronghorn – Direct Effects

Because Grid power installation will be conducted at tower sites TCA-AJO-170 and 216 for 20 days during the Sonoran pronghorn fawning season, we anticipate these activities, particularly at TCA-AJO-170, when compared to the other activities that occurred during the non-fawning season, may adversely affect pronghorn to a greater degree. Grid power installation at tower TCA-AJO-216 may disturb pronghorn; however, disturbance will likely be very minimal given that pronghorn infrequently use the area due to the high amount of vehicle activity and noise associated with State Route 85. Grid power installation at TCA-AJO-170 may disturb pronghorn due to its location in important pronghorn habitat. As described in the status of the species, TCA-AJO-170 is located in Valley of the Ajo (important pronghorn habitat, particularly during the fawning season). Furthermore, current range conditions are less than favorable for pronghorn. As a result, we anticipate that adverse effects to pronghorn from project activities during the fawning season may be increased.

To reduce the likelihood of the adverse effects discussed above, CBP will implement, in addition to other BMPs, a number of Sonoran pronghorn monitoring and avoidance BMPs, some of which are fawning-season specific, to avoid and minimize adverse effects to Sonoran pronghorn to the extent possible during this critical period. These BMPs include #28 (restricts the majority of Ajo 1 construction work to the non-fawning season), #30 (requires Sonoran pronghorn monitoring and avoidance of project construction activities within 2 miles of pronghorn), #31 (requires Sonoran pronghorn monitoring and avoidance of project maintenance activities within 1 mile of pronghorn), #33 (requires that fawning season specific monitoring protocols be followed), and

#37 (ensures the Sonoran pronghorn monitor has the authority to delay and stop any project construction and maintenance per protocol). Additionally, since Sonoran pronghorn monitoring began per the BMPs of this project, no pronghorn have been detected within two miles of towers TCA-AJO-170 and 216. As long as this trend continues, we anticipate adverse effects to pronghorn will be reduced.

Overall, disturbance associated with all grid power installation will be short-term (maximum of 20 days) and will be minimized by the implementation of a number of BMPs including those mentioned above, as well as # 24 (requires the minimization of construction and maintenance trips to tower sites), #25 (requires the minimization of the number construction vehicles), and #29 (places restrictions on construction vehicle activity during the fawning season).

Disturbance – Indirect Effects

No changes.

Habitat Loss and Degradation-Direct Effects

No changes.

Habitat Loss and Degradation – Indirect Effects

No changes.

Injury or Mortality from Collisions with Construction and Maintenance Vehicles

No changes.

*Effects from USBP Operations*

No changes.

*Effects of DOI's Actions*

No changes.

*Effects of Best Management Practices and Offsetting Measures*

No changes.

*Changes in Pronghorn Status with the Project*

No changes.

**CUMULATIVE EFFECTS**

No changes.

**CONCLUSION**

After reviewing the current status of the Sonoran pronghorn, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, we reaffirm our biological opinion that the proposed action is not likely to jeopardize the continued existence of the Sonoran pronghorn. No critical habitat has been designated for this species; therefore, none will be affected. Our conclusion is based on the rationale given in our December 10, 2010 biological opinion, and our discussion in this document found in the **Effects of the Action** section above.

The conclusions of this biological opinion are based on full implementation of the project as described in the “Description of the Proposed Action” section of this document, including any conservation measures that were incorporated into the project design, as well as the appropriate conservation measures found in the original BO and subsequent reinitiations.

**INCIDENTAL TAKE STATEMENT**

No changes.

**AMOUNT OR EXTENT OF TAKE**

No changes.

**EFFECT OF THE TAKE**

No changes.

**REASONABLE AND PRUDENT MEASURES**

No changes.

**TERMS AND CONDITIONS**

No Changes.

**Disposition of Dead or Injured Listed Species**

No changes.

**CONSERVATION RECOMMENDATIONS**

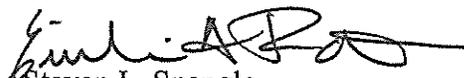
No changes.

**REINITIATION NOTICE**

This concludes formal consultation on the action(s) outlined in the reinitiation request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

The FWS appreciates the U.S. Customs and Border Protection's efforts to identify and minimize effects to listed species from this project. For further information please contact Erin Fernandez (x238) or Jean Calhoun (x223) of our Tucson Suboffice at (520) 670-6150. Please refer to the consultation number, 22410-F-2009-0089-R2 in future correspondence concerning this project.

Sincerely,

for   
Steven L. Spangle  
Field Supervisor

cc (hard copy):

Field Supervisor, Fish and Wildlife Service, Phoenix, AZ ( 2 )  
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ  
Refuge Manager, Cabeza Prieta National Wildlife Refuge, Ajo, AZ  
Superintendent, Organ Pipe Cactus National Monument, Ajo, AZ  
Field Office Manager, Phoenix Field Office, Bureau of Land Management, Phoenix, AZ

cc (electronic copy):

Director, 56th Range Management Office, Luke Air Force Base, Gila Bend, AZ  
Director, Range Management Department, Marine Corps Air Station, Yuma, AZ  
Gulf South Research Corporation, Baton Rouge, LA  
Chairperson, Tohono O'Odham Nation, Sells, AZ  
Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ  
Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ  
Regional Supervisor, Arizona Game and Fish Department, Yuma, AZ