

**APPENDIX A
CONSULTATION LETTERS**



DOE/NAE

Janice K. Brewer
Governor

Bryan Martyn
Executive Director



Board Members

Walter D. Armer, Jr., Vail, *Chair*
 Mark Brnovich, Phoenix
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 Larry Landry, Phoenix
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July 12, 2013

Mr. Kevin Wakefield
 Base Cultural Resource Manager
 Department of the Air Force
 355th Civil Engineer Squadron
 Davis-Monthan Air Force Base
 Davis-Monthan AFB, AZ 85707-4927

RE: Project; Location; Agency; **SHPO-2013-0702 (113064)**;

Dear Mr. Wakefield:

Thank you for consulting with our office regarding the above referenced project. Pursuant to 36 C.F.R. Part 800, the implementing regulation for Section 106 of the National Historic Preservation Act, we have reviewed the documentation submitted and have the following comments:

1. It is our understanding that the proposed project is an update to the 2002 563 RQG Personnel Recovery EA. Apparently, it is necessary to increase the number of helicopter landing zones (HLZ). The proposed project involves the addition of 20 new HZLs.
2. The cultural resources inventory report identified two newly recorded sites [AZ BB:15:92(ASM) and AZ BB:15:93(ASM)] and six isolated occurrences. The two newly recorded sites are located on lands managed by ASLD. Davis-Monthan AFB has determined these sites to be eligible for listing on the NRHP. In discussions with the ASLD archaeologist, we concur with your determination of eligibility for these sites.

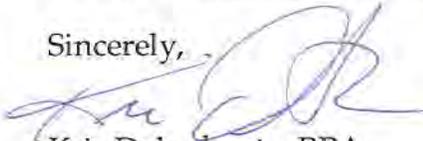
It is our understanding that the two HZLs, which include the newly identified sites, will be removed from the list of potential HZLs to prevent adverse effects to the site.

3. Davis-Monthan AFB has proposed a finding of No Adverse Effect to historic properties. We concur with your finding of No Adverse Effect so long as the two potential HZLs with the historic properties are removed from further consideration.

4. We understand that you have initiated your Native American consultation. Please keep us informed on any correspondence that you may receive regarding this project.
5. We have reviewed the cultural resource report entitled, *Cultural Resources Survey in Support of Personnel Recovery Activities, 563rd Rescue Group, Davis-Monthan Air Force Base, Tucson, Arizona* and have the following comments:
 - a. There appears to be several previous investigations maps for several HZLs that are missing from the report. These include Pentias, Rancho Seco, Paige, Pinnacle, Jeep, Froelich, and Jenna. Please ensure that all project areas have maps documenting the class I data.
 - b. In the future, please be sure that all previously recorded surveys and sites are shown on the topographic maps, not just the information obtained from AZSITE. In this specific instance, the USFS has several previously surveyed areas that are not shown on the map.
 - c. The eligibility of isolated occurrences needs to be specifically discussed in the report. Please make this modification to the report.
 - d. The site descriptions include quantities of artifacts noted at each site. Please add to the survey methodology your site recordation procedures so that we can understand how quantities were obtained.
 - e. For sketch maps of sites, please include elevation lines and topographic elements as well as a site datum. Also, please include feature numbers on the features.
 - f. For descriptions of ground stone, please specify whether the ground stone were one-handed manos, two handed-manos, basin metates or slab metates.

As always, we appreciate your continued cooperation with this office in complying with the historic preservation requirements for federal undertakings. If you have any questions or concerns, then please do not hesitate to contact me via e-mail, kdobschuetz@azstateparks.gov, or by phone, 602-542-7141.

Sincerely,



Kris Dobschuetz, RPA
Compliance Specialist/Archaeologist
Arizona State Historic Preservation Office



United States Department of the Interior



Fish and Wildlife Service

Arizona Ecological Services Office

2321 West Royal Palm Road, Suite 103

Phoenix, Arizona 85021-4951

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AESO/SE

02EAAZ00-2014-I-0188

2-21-02-I-0521

2-21-95-F-114-R2

2-21-96-F-094-R1

November 21, 2014

Mr. James B. Barker, P.E.
3775 South Fifth Street
Davis-Monthan Air Force Base, Arizona 85707-3012

Dear Mr. Barker:

Thank you for your correspondence of March 7, 2014, received in our office on March 7, 2014. This letter documents our review of the proposed increase in the number of helicopter landing zone and drop zone sites throughout southern Arizona available for personnel recovery training use by the 563rd Rescue Group at Davis-Monthan Air Force Base (AFB), Pima County, Arizona, in compliance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.). We note that the current proposed action is in addition to prior activities addressed in our evaluation of effects of the 2002 West Coast Combat Search and Rescue Beddown at Davis-Monthan AFB. The U.S. Air Force Air Combat Command requested concurrence with a no effect determination for Sonoran pronghorn for the original 2002 project. Although concurrence for a no effect determination is not required under the ESA, we provided concurrence at the request of Davis-Monthan AFB in a letter dated October 17, 2002 (File number 2-21-02-I-052).

In your March 7, 2014 letter, you concluded that the proposed action will have no effect to the threatened Mexican spotted owl (*Strix occidentalis lucida*) and its critical habitat, the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) and its critical habitat, endangered Gila chub (*Gila intermedia*) and its critical habitat, endangered spikedace (*Meda fulgida*) and its critical habitat, and endangered loach minnow (*Tiaroga cobitis*) and its critical habitat. Species and critical habitats with no effect determinations do not require written concurrence from the U.S. Fish and Wildlife Service (FWS). However, we recommend that you maintain a complete administrative record documenting your decision process and supporting information for your "no effect" determinations.

Your letter also concluded that the proposed action may affect, but is not likely to adversely affect, the endangered Pima pineapple cactus (*Coryphantha sheeri* var. *robustispina*), the endangered lesser long-nosed bat (*Leptonycteris curasoae yerbabuena*), the endangered ocelot (*Leopardus pardalis*), and the endangered jaguar (*Panthera onca*). We concur with your determinations for these species for the reasons discussed below.

Description of the Proposed Action

With your letter of March 7, 2014, you submitted a draft supplemental environmental assessment (SEA) that evaluates the potential environmental impacts associated with the current proposed action in accordance with the National Environmental Policy Act of 1969 (NEPA). Highlights of the proposed action are as follows:

1. In 2002, U.S. Air Force West Coast Combat Search and Rescue (CSAR) initiated a beddown of 7 combat rescue officer-led squadrons at Davis-Monthan AFB that added 12 HH-60 helicopters, 10 HC-130 cargo aircraft, and 1,059 personnel to the base that currently use approximately 40 drop zones and landing zones during day and night routine training events in Arizona. CSAR training in Arizona occurs along Military Training Routes (MTR), in Low Altitude Tactical Navigation (LATN) areas, East Tactical (TAC) Range of the Barry M. Goldwater Range (BMGR), northern areas of North TAC, Yuma Tactical Air Crew Combat Training Systems (TACTS) Range, Jackal Low Military Operations Area (MOA), Sells Low MOA.
2. The U.S. Air Force CSAR now proposes to use an additional 20 sites in Arizona as helicopter landing zones and drop zones for routine training use by the 563rd Rescue Recovery Group at Davis-Monthan AFB. For various reasons described in the SEA, four of these sites were removed from consideration. All additional sites are on previously disturbed Federal and State lands. Davis-Monthan AFB must obtain a special use permit for each site from the corresponding landowner that must be renewed every two years. Each site would be used from 0 – 150 times annually (average per site is 25.5 times annually) by HC-130 and HH-60 aircraft during both day and night training activities with one to three HH-60s landing and deploying personnel during a training event. No changes in current airspace structure or management are proposed, although sortie routes to the 20 new sites would differ slightly from those already used. There would be no increase in total sorties identified in the 2002 CSAR EA.
3. Aircraft will normally fly < 3,000 feet above ground level (AGL). Sound exposure levels for aircraft flying at an altitude of 500 feet above ground level can reach 90dBA for the HH-60 and 95 dBA for the HC-130. Two LATNs are designated for HH-60s with flying altitudes ranging from 100-1,500 feet AGL and the MOAs have minimum flight floors down to 100-ft AGL. Effects of CSAR training missions (ie. insertions, extractions, cross country patrols) at the landing and drop zones are described in the SEA as only resulting

in minor trimming or other minor disturbances to vegetation. There will be no live fire nor expenditures of ammunition at any of the sites.

4. Each visit to each site will have a duration of 30 minutes or less. There will be little to no personnel use on the ground and, if it does occur, it will only be in the immediate vicinity of the landing zone (personnel may momentarily step off the helicopter). Personnel will not be performing any operations or exercises outside of the immediate area of the landing zone.
5. Although not noted in the 2014 SEA, CSAR operations on East TAC and northern areas of North TAC of BMGR, and Yuma TACTS Range are covered by the following current biological opinions: Reinitiation of Formal Section 7 Consultation on Military Training on the Barry M. Goldwater Range East (USFWS 2010a; 22410-1996-F-0094-R003) and West Coast Basing and operations of the F-35B Joint Strike Fighter 2 and Reinitiation of Formal Section 7 Consultation on Ongoing Activities at the Barry M. Goldwater Range by the Marine Corps Air Station (USFWS 2010b; 22410-1995-F-0114-R006). These biological opinions address effects to Sonoran pronghorn (*Antilocapra americana sonoriensis*) and lesser long-nosed bat, and include conservation measures for these two species that must be followed by CSAR when training in these areas.

Conclusions

Pima pineapple cactus

According to the SEA, the Pima pineapple cactus is known at the proposed Caliente site (Gulf South Research Corporation [GSRC] 2014). Davis-Monthan AFB natural resource staff of 355 CES/CEAN will develop standard operating procedures to instruct 563rd Rescue Group personnel how to identify and avoid Pima pineapple cactus during training events so that effects to existing plants from the proposed action will be minimized. However, ground-based activities at the Caliente site could potentially degrade habitat for the Pima pineapple cactus. This degradation is likely to be insignificant due to the fact that most of this site is devoid of vegetation and has been previously disturbed as described in the SEA. We recommend that the standard operating procedures for this site include permanently marking or caging the existing Pima pineapple cacti so that the occupied area can be avoided during operations. We ask that, when these standard operating procedures are finalized, a copy be provided to our Tucson Arizona Ecological Services suboffice as part of the record for this consultation.

Lesser long-nosed bat

According to the SEA, no lesser long-nosed bats have been detected at any of the proposed new sites (GSRC 2014). Mine adits that could be used for roosting by the lesser long-nosed bat were found within the vicinity of the Silvermine site. Our review of the proposed locations for the landing and drop zones indicates that, while there are known lesser long-nosed bat roosts in the

vicinity of the Pipeline and Jeep sites, as well as the Caliente site, these proposed sites are greater than one mile from the roost sites. Consequently, disturbance effects from the proposed action are discountable. Davis-Monthan AFB natural resource staff of 355 CES/CEAN will establish standard operating procedures that the 563rd Rescue Group will properly implement to ensure mine adits will be avoided during training activities identified in the proposed action. If surveys or other observation reveal that lesser long-nosed bats are roosting at the Silvermine or alternate sites, training will cease at the site until reinitiation of consultation with the FWS is completed.

Primary foraging plants for the lesser long-nosed bat occur at 4 proposed sites including Brooke, Paige, Pinnacle, and Silvermine, as well as just outside of Jenna (GSRC 2014). Davis-Monthan AFB natural resource staff of 355 CES/CEAN will develop standard operating procedures to instruct 563rd Rescue Group personnel how to identify and avoid primary foraging plants of the bat including Palmer's agave (*Agave palmeri*) and saguaro (*Carnegiea gigantea*) during training events so that these plants will not be impacted by the proposed action. Additionally, we recommend that the standard operating procedures for these sites include permanently marking or caging the existing agaves and saguaros found at the four sites identified in Table 4-5 of the SEA. This is so that the occupied area can be avoided during operations. We ask that, when these standard operating procedures are finalized, including the efforts to monitor mine adits and avoid lesser long-nosed bat forage resources, a copy be provided to our Tucson Arizona Ecological Services suboffice as part of the record for this consultation. Use of the outlined standard operating procedures will result in effects that are insignificant and discountable.

Ocelot

According to the SEA, no ocelots have been detected at any of the proposed new sites, although search methods for this species were not described (GSRC 2014). Since 2009, ocelots have been detected in the Whetstone, Huachuca, and Santa Rita mountains, as well as near Globe Arizona (USWFS files). Ocelots are generally active for more than half of each 24-hour period and are typically most active at night and during crepuscular periods with more limited diurnal activity (Ludlow and Sunquist 1987, Crawshaw and Quigley 1989, Fernandez 2002, Avila-Villegas and Lamberton-Moreno 2013). Ocelots are also secretive animals that generally avoid areas of high human use and associated noise, infrastructure, and lights. Based on recent and limited records in Arizona, ocelots appear to be associated with Madrean evergreen woodland (Avila-Villegas and Lamberton-Moreno 2012), Madrean lower montane pine-oak forest and woodland (Tim Snow, AGFD, March 13, 2013, electronic mail), and semi-desert grasslands. Five of the proposed new sites fall within these habitat types (Pipeline, Brooke, Jeep, Stronghold, and Jenna). Additionally, two existing sites near Pipeline also fall within these habitat types. Disturbance to ocelots could potentially occur at these seven sites from both auditory and visual stimulus arising from human presence (both pedestrians and aircraft), lights, and noise associated with ground and air-based training operations, especially at night. However, none of the proposed drop and landing sites are in areas where ocelots have been documented. In addition, DMAFB provided additional information in a October 21, 2014 letter that characterizes the drop zones within the range of the ocelot as lacking dense cover, water, and other habitat elements that support ocelots.

Therefore, it is highly unlikely that an ocelot will occur at any of these sites. Additionally, because training is expected to be temporary and sporadic at each site (an average of 25.5 visits annually, lasting 30 minutes or less), and because there is such a low potential for ocelots to occur in proximity to the proposed drop and landing sites, we find that the potential effects to ocelot are discountable and that effects to ocelot habitat are insignificant due to the existing disturbed nature of the proposed sites.

Jaguar

According to the SEA, no jaguars have been detected at any of the proposed new sites, although search methods for this species were not described (GSRC 2014). From 1996 through 2013, several individual adult jaguars have been documented within Arizona and New Mexico. Jaguars have large home ranges and are known from a variety of vegetation communities (Brown and López-González 2001, Seymour 1989). Two jaguars were documented in three different mountain range complexes in southeastern Arizona, over an area extending from the U.S./Mexico international border north 66 km (47 mi) and 63 km (39 mi) east to west (McCain and Childs 2008). Furthermore, they were found using areas from rugged mountains at 1,577 m (5,174 ft) to flat lowland desert floor at 877 m (2,877 ft) (McCain and Childs 2008). We designated critical habitat for the jaguar on March 14, 2014 (79 FR 12571). None of the new or existing sites fall within critical habitat for the jaguar, although two are immediately adjacent to critical habitat (Caliente and existing site in Santa Cruz County). Disturbance to jaguars could potentially occur at these two sites from both auditory and visual stimulus arising from human presence (both pedestrians and aircraft), lights, and noise associated with ground and air-based training operations, especially at night. Although jaguars may occur outside of proposed jaguar critical habitat, we anticipate impacts from low altitude overflights and any ground-based training included in the proposed action in jaguar critical habitat would have the most significant effects to jaguars. However, none of the proposed drop and landing sites are in areas where jaguars have been documented. In addition, DMAFB provided additional information in a October 21, 2014 letter that characterizes the drop zones within the range of the jaguar as lacking dense cover, water, and other habitat elements that support jaguars. Therefore, it is highly unlikely that a jaguar will occur at any of these sites. Additionally, because training is expected to be temporary and sporadic at each site (an average of 25.5 times annually, with a duration of 30 minutes or less), and because there is such a low potential for jaguars to occur in proximity to the proposed drop and landing sites, we find that the potential effects to jaguar are discountable and that effects to jaguar habitat are insignificant due to the existing disturbed nature of the proposed sites

Thank you for your coordination and efforts to avoid and minimize effects to proposed, threatened, and endangered species protected under the ESA. We look forward to receiving copies of your final standard operating procedures as discussed above. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered. In all future correspondence on this matter, please refer to consultation numbers 02EAAZ00-2014-I-0188 and 2-21-02-I-0521.

Mr. Barker, P.E.

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We also encourage you to coordinate the review of this project with the Tohono O'odham Nation, Coronado National Forest, and Arizona Game and Fish Department.

Should you require further assistance, or if you have any questions, please contact Cat Crawford at (520) 670-6150 (x232) or Scott Richardson at (x242).

Sincerely,



Steven L. Spangle
Field Supervisor

cc (hard copy):

Field Supervisor, Fish and Wildlife Service, Phoenix, AZ (2 copies)

Jean Calhoun, Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ

cc (electronic copy):

Karen Howe, Tribal Ecologist, Tohono O'odham Nation, Sells, AZ

Josh Taiz, Acting Wildlife, Fish, & Rare Plant Program Manager, Coronado National Forest, Tucson, AZ

pep@azgfd.gov, Habitat Program Manager, Arizona Game & Fish Department, Phoenix, AZ

Stephen Williams, Natural Resources Div., Arizona State Land Department, Phoenix, AZ

Literature Cited

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