

APPENDIX D

BIOLOGICAL RESOURCES

STATE AND FEDERAL THREATENED AND ENDANGERED SPECIES POTENTIALLY FOUND WITHIN THE GLOBAL HAWK STUDY AREAS

The following tables provide a list of all state and federally threatened and endangered animal species potentially found within 5 nautical miles of the runways on each of the five Global Hawk alternatives. These lists include both the common and scientific names and state and federal rankings, potential habitat where the species is commonly found and if they are found within the base boundaries. Data was compiled from the U.S. Fish and Wildlife Service, Natural Heritage Programs, Department of Natural Resources and existing base surveys.

Note: No plant species were included in this list as no ground disturbance would occur outside of the base.

Threatened and Endangered Species Potentially Found within 5 Nautical Miles of Beale AFB						
Scientific Name	Common Name	Status		Habitat	Observed at Base	County
		Federal	State			
Birds						
<i>Branta canadensis leucopareia</i>	Aleutian Canada Goose	T		Agricultural lands, lakes	No	Yuba
<i>Buteo swainsoni</i>	Swainson's Hawk		T	Plains, prairies, riparian and dry meadows	Yes	Yuba
<i>Charadrius montanus</i>	Mountain Plover	PT		Prairies with short vegetation and bare ground	No	Yuba
<i>Coccyzus americanus occidentalis</i>	Western Yellow-Billed Cuckoo		E	Deciduous woodlands with large trees	No	Yuba
<i>Falco peregrinus</i>	Peregrine Falcon		E	Open areas for foraging with cliffs or other vertical components	Yes	Yuba
<i>Grus americana tabida</i>	Greater Sandhill Crane		T	Freshwater marshes and prairies	No	Possible migrant
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	E	Larger Rivers and lakes, coast	Yes	Yuba
<i>Laterallus jamaicensis</i>	Black Rail		T	Inland it prefers brackish or freshwater marshes	Yes	Yuba
<i>Riparia riparia</i>	Bank Swallow		T	Bands of rivers, streams, lakes, and seashore	No	Yuba
Reptiles						
<i>Rana aurora draytonii</i>	California Red-Legged Frog	T		River and stream sides and other aquatic environments	No	Yuba
<i>Thamnophis gigas</i>	Giant Garter Snake	T	T	River and stream sides and other aquatic environments	No	Yuba
Fish						
<i>Hypomesus transpacificus</i>	Delta Smelt	T	T	Perennial and intermittent streams	No	Yuba
<i>Oncorhynchus mykiss</i>	Central Valley Steelhead	T		Perennial and intermittent streams	Yes	Yuba
<i>Onocorhynchus tshawytscha</i>	Fall-Run Chinook Salmon	C		Perennial and intermittent streams	No	Yuba
<i>Onocorhynchus tshawytscha</i>	Winter-Run Chinook Salmon	E	E	Perennial and intermittent streams	No	Yuba
<i>Oncorhynchus tshawytscha</i>	Spring-Run Chinook Salmon	T	T	Perennial and intermittent streams	No	Yuba

Threatened and Endangered Species Potentially Found within 5 Nautical Miles of Beale AFB (con't)					
<i>Pogonichthys macrolepidotus</i>	Sacramento splittail	T		Perennial and intermittent streams	No Yuba
Insects					
<i>Desmocerus californicus dimorphus</i>	Valley Elderberry Longhorn Beetle	T		Elderberry trees	No Yuba
Crustaceans					
<i>Branchinecta conservatio</i>	Conservancy Fairy Shrimp	E		Vernal pools	No Yuba
<i>Branchinecta lynchi</i>	Vernal Pool Fairy Shrimp	T		Vernal pools	Yes Yuba
<i>Lepidurus packardii</i>	Vernal Pool Tadpole Shrimp	E		Vernal pools	Yes Yuba
Sources:	USAF. 1999. <i>Draft Habitat Conservations and Management Plan for Beale Air Force Base.</i> USAF. 2000. <i>Special Status Wildlife Species Known or with Potential to Occur on Beale AFB.</i> California Department of Fish and Game. 1999. <i>Natural Diversity Database.</i> California Department of Fish and Game. 2000. <i>State and Federally Listed Endangered and Threatened Animals of California.</i>				

Threatened and Endangered Species Potentially Found within 5 Nautical Miles of Edwards AFB						
Scientific Name	Common Name	Status		Habitat	Observed at Base	County
		Federal	State			
Mammals						
<i>Spermophilus mohavensis</i>	Mohave Ground Squirrel		T	Desert scrub and alluvial valleys of the Mojave Desert	Yes	Kern
Birds						
<i>Buteo swainsoni</i>	Swainson's Hawk		T	Plains, prairies, riparian and dry meadows	No	Kern
<i>Charadrius montanus</i>	Mountain Plover	PT		Prairies with short vegetation and bare ground	No	Kern
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	E	Larger rivers and lakes, coast	Yes	Kern
Reptiles						
<i>Gopherus agassizii</i>	Desert Tortoise	T	T	Arid and semi-arid deserts with soils suitable for burrowing	Yes	Kern
Sources:						
California Department of Fish and Game. 2000. <i>State and Federally Listed Endangered and Threatened Animals of California</i> . USAF. 1997. <i>Integrated Natural Resources Management Plan for Edwards AFB CA</i> .						

Threatened and Endangered Species Potentially Found within 5 Nautical Miles of Ellsworth AFB						
Scientific Name	Common Name	Status		Habitat	Observed at Base	County
		Federal	State			
Mammals						
<i>Felis concolor</i>	Mountain Lion		T	Montane regions and semi-wooded canyons	No	Pennington / Meade
<i>Lontra canadensis</i>	Northern River Otter		T	Streams, lakes, marshes, beaver flowages	No	Pennington
<i>Lynx canadensis</i>	Lynx		T	Boreal forest and regeneration of mix forest	No	Pennington
<i>Mustela nigripes</i>	Black-Footed Ferret		E	Associated with prairie dog towns	No	Pennington / Meade
<i>Vulpes velox</i>	Kit or Swift Fox		C	Open prairie / grassland plains	No	Pennington
Birds						
<i>Cinclus mexicanus</i>	American Dipper		T	Montane streams	No	Pennington / Meade
<i>Falco peregrinus</i>	Peregrine Falcon		E	Open areas for foraging with cliffs or other vertical components	No	Pennington
<i>Grus americana</i>	Whooping Crane		E	Freshwater marshes and wet prairies	No	Pennington / Meade
<i>Haliaeetus leucocephalus</i>	Bald Eagle		T	Larger rivers and lakes, coast	No	Meade
<i>Pandion haliaetus</i>	Osprey		T	Larger rivers and lakes, coast	No	Pennington
<i>Sterna antillarum athalossos</i>	Interior Least Tern		E	Nest on bare ground along river and streams, forages along lakes and rivers	No	Pennington / Meade
Fish						
<i>Catostomus catostomus</i>	Longnose Sucker		T	Coldwater lakes and streams	No	Pennington / Meade
<i>Macrhybopsis gelida</i>	Sturgeon Chub		C	Medium to large turbid rivers with sand or fine gravel substrate	No	Pennington
Sources:	South Dakota Dept. of Game, Fish and Parks. 2000. <i>South Dakota Natural Heritage Database Report</i> . USAF. 1997. <i>Ellsworth AFB Final Integrated Natural Resources Management Plan</i> ; April.					

Threatened and Endangered Species Potentially Found within 5 Nautical Miles of Tinker AFB						
Scientific Name	Common Name	Status		Habitat	Observed at Base	County
		Federal	State			
Birds						
<i>Chardrius melodus</i>	Piping Plover	E	T	Beaches along coast of Great Lakes, migrant	No	Cleveland / Oklahoma
<i>Grus americana</i>	Whooping Crane	E		Freshwater marshes and wet prairies	No	Cleveland / Oklahoma
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	E	Large rivers and lakes, coast	No	Cleveland / Oklahoma
<i>Sterna antillarum</i>	Least Tern	E	E	Nest on bare ground along river and streams, forages along lakes and rivers	No	Cleveland / Oklahoma
<i>Vireo atricapillus</i>	Black-capped Vireo	E	E	Oakscrub, rocky slopes, ridges, and ravines	No	Cleveland / Oklahoma
Fish						
<i>Notropis girandi</i>	Arkansas River Shiner	T	T	Arkansas river drainage	No	Cleveland / Oklahoma
Sources:	Oklahoma Natural Heritage Inventory. 2000. <i>Federal and State Endangered, Threatened and Candidate Species in Oklahoma by County</i> . USAF. 1999. <i>Integrated Natural Resources Management Plan Tinker AFB</i> .					

Threatened and Endangered Species Potentially Found within 5 Nautical Miles of Wright-Patterson AFB						
Scientific Name	Common Name	Status		Habitat	Observed at Base	County
		Federal	State			
Mammals						
<i>Myotis sodalis</i>	Indiana Bat	E	E	Caves, behind loose bark	Yes	5-mile radius about WPAFB
Birds						
<i>Bartamia longcarda</i>	Upland Sandpiper		T	Grasslands, Prairies	Yes	5-mile radius about WPAFB
<i>Cistothorus platensis</i>	Sedge Wren		E	Sedge meadows, wet prairies, grassy boarder of wetland	No	5-mile radius about WPAFB
<i>Dendroica kirtlandii</i>	Kirtlands Warbler	E	E	Only nest in central Michigan	No	5-mile radius about WPAFB
<i>Falco peregrinus</i>	Peregrine Falcon		E	Open areas for foraging with cliffs or other vertical components	No	5-mile radius about WPAFB
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	E	Large rivers and lakes, coast	No	5-mile radius about WPAFB
<i>Nyctanassa violacra</i>	Yellow Crowned Night Heron		E	Wetlands with open water	No	5-mile radius about WPAFB
<i>Pandion haliaetus</i>	Osprey		E	Large rivers and lakes, coast	Yes	5-mile radius about WPAFB
<i>Rallus elegans</i>	King Rail		E	Freshwater swamps and marshes	Yes	5-mile radius about WPAFB
<i>Sterna hirundo</i>	Common Tern		E	Near any body of water	No	5-mile radius about WPAFB
Reptiles						
<i>Sistrurus cateratus</i>	Eastern Massasauga		E	Wetlands, prairies, dry woodlands	Yes	5-mile radius about WPAFB
Fish						
<i>Exoglossum laurae</i>	Tongue-tied Minnow		T	Large Rivers, Mad River	No	5-mile radius about WPAFB
Insects						
<i>Gomphus externus</i>	Plains Clubtail		E	Associated with open water	No	5-mile radius about WPAFB
<i>Papaipema beeriana</i>	Beers Noctuid		E	Prairie endemic-host plant Laitris spp.	No	5-mile radius about WPAFB

Threatened and Endangered Species Potentially Found within 5 Nautical Miles of Wright-Patterson AFB						
Mollusks						
<i>Epioblasma triquetra</i>	Snuffbox		E	Shallow riffles in gravel and sand of medium to large rivers	No	5-mile radius about WPAFB
<i>Pleurobema Clava</i>	Clubshell	E	E	Medium to large rivers with gravel or mixed gravel and sand	Yes	5-mile radius about WPAFB
<i>Truncilla donaciformis</i>	Fawnsfoot		T	Large and medium rivers with sand or gravel substrate	No	5-mile radius about WPAFB
<i>Uniomers tetralasmus</i>	Pondhorn		E	Ponds and small creeks with sand / mud	No	5-mile radius about WPAFB
Sources: Ohio Department of Natural Resources. 2000. <i>List of Species of Concern</i> . International Consultants Incorporated. 1999. <i>Fauna Survey for WPAFB, Dayton, Ohio with Emphasis on Rare, Threatened, and Endangered Species</i> .						