

DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPACEX STARSHIP-SUPER HEAVY LAUNCH VEHICLE AT LAUNCH COMPLEX 39A

at the Kennedy Space Center, Merritt Island, Florida

Volume II, Appendix C.3

August 2025



**Federal Aviation
Administration**

THIS PAGE INTENTIONALLY LEFT BLANK.

TABLE OF CONTENTS

Appendix C	Resource Area Supporting Information	C-1
C.1	Noise Assessment and Noise Assessment Appendix.....	C-1
C.1.1	Noise Assessment	C-1
C.1.2	Noise Assessment Appendix.....	C-2
C.2	Air Quality Assessment.....	C-3
C.2.1	Engine Emissions Analysis	C-3
C.2.2	ACAM Construction Analysis	C-6
C.3	Biological Resources Supplemental Information.....	C-143
C.3.1	State-Listed Species	C-143
C.3.2	Migratory Bird Species.....	C-145
C.3.3	Marine Mammal Species in the Study Area	C-148

THIS PAGE INTENTIONALLY LEFT BLANK.

C.3 Biological Resources Supplemental Information

C.3.1 State-Listed Species

Table C.3-1. State-Listed Animal Species with Potential to Occur within the Counties Overlapped by Launch Area around LC-39A and/or the Contingency Landings Area 1 psf Contour

Common Name	Scientific Name	State Status ¹	County
Amphibians			
Striped newt	<i>Notophthalmus perstriatus</i>	ST	Duval, Flagler, Lake, Orange, Osceola, St. Johns, Volusia
Birds			
Florida sandhill crane	<i>Antigone canadensis pratensis</i>	ST	Brevard, Lake, Orange, Osceola, Seminole, St. Lucie, Volusia
Florida burrowing owl	<i>Athene cunicularia floridana</i>	ST	Duval, Lake, St. Lucie
Florida grasshopper sparrow	<i>Ammodramus savannarum floridanus</i>	FE	Osceola
Florida scrub-jay	<i>Aphelocoma coerulescens</i>	FT	Brevard, Flagler, Indian River, Lake, Orange, Osceola, Seminole, St. Lucie, Volusia
Piping plover	<i>Charadrius melodus</i>	FT	Duval, Nassau, St. Johns, Volusia
Florida burrowing owl	<i>Athene cunicularia floridana</i>	ST	Brevard, Indian River, Lake, Orange, Osceola
Crested caracara	<i>Caracara plancus</i>	FT	Brevard, Indian River, Orange, Osceola, St. Lucie
Red-cockaded woodpecker	<i>Dryobates borealis</i>	FT	Brevard, Indian River, Lake, Orange, Osceola
Little blue heron	<i>Egretta caerulea</i>	ST	Brevard, Duval, Indian River, Lake, Nassau, Orange, Osceola, St. Johns, St. Lucie, Volusia
Reddish egret	<i>Egretta rufescens</i>	ST	Brevard, Indian River, Volusia
Tricolored heron	<i>Egretta tricolor</i>	ST	Brevard, Duval, Indian River, Lake, Orange, St. Johns, St. Lucie, Volusia
Southeastern American kestrel	<i>Falco sparverius paulus</i>	ST	Lake, Osceola, Volusia
American oystercatcher	<i>Haematopus palliatus</i>	ST	Brevard, Duval, Indian River, Nassau, St. Johns, St. Lucie, Volusia
Wood stork	<i>Mycteria americana</i>	FT	Brevard, Duval, Flagler, Indian River, Lake, Nassau, Orange, Osceola, Seminole, St. Johns, St. Lucie, Volusia
Roseate spoonbill	<i>Platalea ajaja</i>	ST	Brevard, Duval, Flagler, Orange, St. Johns, St. Lucie, Volusia
Black skimmer	<i>Rynchops niger</i>	ST	Brevard, Duval, Indian River, Nassau, St. Johns, St. Lucie, Volusia
Least tern	<i>Sternula antillarum</i>	ST	Brevard, Duval, Indian River, Nassau, St. Johns, St. Lucie, Volusia

Table C.3-1. State-Listed Animal Species with Potential to Occur within the Counties Overlapped by Launch Area around LC-39A and/or the Contingency Landings Area 1 psf Contour

Common Name	Scientific Name	State Status ¹	County
Worthington's marsh wren	<i>Cistothorus palustris griseus</i>	ST	Duval, Nassau
Snail kite	<i>Rostrhamus sociabilis</i>	FE	Indian River, Osceola, St. Lucie
Crustaceans			
Black Creek crayfish	<i>Procambarus pictus</i>	ST	Duval, St. Johns
Fishes			
Atlantic sturgeon	<i>Acipenser oxyrinchus oxyrinchus</i>	FE	Brevard, Duval, Nassau, St. Johns
Shortnose sturgeon	<i>Acipenser brevirostrum</i>	FE	Flagler, St. Johns, Volusia
Bluenose shiner	<i>Pteronotropis welaka</i>	ST	Lake, Orange, Seminole, Volusia
Mammals			
North Atlantic right whale	<i>Eubalaena glacialis</i>	FE	Brevard, Duval, Flagler, Indian River, Nassau, St. Johns, Volusia
Southeastern beach mouse	<i>Peromyscus polionotus niveiventris</i>	FT	Brevard, Indian River, St. Lucie
Florida bonneted bat	<i>Eumops floridanus</i>	FE	Osceola
Florida panther	<i>Puma concolor coryi</i>	FE	Seminole
Anastasia Island beach mouse	<i>Peromyscus polionotus phasma</i>	FE	St. Johns
Reptiles			
American alligator	<i>Alligator mississippiensis</i>	FT(S/A)	Brevard, Duval, Flagler, Indian River, Lake, Nassau, Orange, Osceola, Seminole, St. Johns, St. Lucie, Volusia
Loggerhead sea turtle	<i>Caretta caretta</i>	FT	Brevard, Duval, Flagler, Indian River, Nassau, St. Johns, St. Lucie, Volusia
Green sea turtle	<i>Chelonia mydas</i>	FT	Brevard, Duval, Flagler, Indian River, Nassau, St. Johns, St. Lucie, Volusia
Leatherback sea turtle	<i>Dermochelys coriacea</i>	FE	Brevard, Duval, Flagler, Indian River, Nassau, St. Johns, St. Lucie, Volusia
Eastern indigo snake	<i>Drymarchon couperi</i>	FT	Brevard, Duval, Flagler, Indian River, Lake, Nassau, Orange, Osceola, Seminole, St. Johns, St. Lucie, Volusia
Gopher tortoise	<i>Gopherus polyphemus</i>	ST	Brevard, Duval, Flagler, Indian River, Lake, Nassau, Orange, Osceola, Seminole, St. Johns, St. Lucie, Volusia
Atlantic salt marsh snake	<i>Nerodia clarkii taeniata</i>	FT	Flagler, Volusia
Escambia map turtle	<i>Graptemys ernsti</i>	FT(S/A)	Orange, Seminole
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	FE	Brevard, St. Lucie
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	FE	St. Lucie

Table C.3-1. State-Listed Animal Species with Potential to Occur within the Counties Overlapped by Launch Area around LC-39A and/or the Contingency Landings Area 1 psf Contour

Common Name	Scientific Name	State Status ¹	County
Pine snake	<i>Pituophis melanoleucus</i>	ST	Brevard, Duval, Indian River, Lake, Nassau, Orange, Osceola, Seminole, St. Johns, St. Lucie, Volusia
Short-tailed snake	<i>Lampropeltis extenuata</i>	ST	Lake, Orange, Seminole
Blue-tailed mole skink	<i>Plestiodon egregius lividus</i>	FT	Osceola
Sand skink	<i>Plestiodon reynoldsi</i>	FT	Lake, Orange, Osceola

Notes: FE = federally endangered; FT = federally threatened; LC = Launch Complex; psf = pounds per square foot ; S/A = listed due to similarity of appearance; ST = state threatened; U.S. = United States.

¹In Florida, an animal species' state legal status is the same as the listing status designated by the U.S. Fish and Wildlife Service (i.e., FE, FT).

Source: Florida Natural Areas Inventory (FNAI). (2025). FNAI Rare Species and Communities We Track. Searchable Field Guides and Tracking List Tool. Accessed April 14, 2025. <https://www.fnai.org/species-communities/tracking-main>.

C.3.2 Migratory Bird Species

Table C.3-2. Migratory Bird Species that May Warrant Special Attention in Biological Study Area

Common Name (Scientific Name)	Migratory Bird Resource List Category	Areas ¹	Breeding Pattern
American kestrel (<i>Falco sparverius paulus</i>)	BCC	C, L	Breeds April 1 to August 31
American oystercatcher (<i>Haematopus palliatus</i>)	BCC	C, L	Breeds April 15 to August 31
Audubon's shearwater (<i>Puffinus lherminieri</i>)	BCC	C, L, A	Breeds March 1 to August 5
Bachma's sparrow (<i>Peucaea aestivalis</i>)	BCC	C, L	Breeds May 1 to September 30
Bald eagle (<i>Haliaeetus leucocephalus</i>)	-	C, L	Breeds September 1 to July 31
Band-rumped storm-petrel (<i>Hydrobates castro</i>)	BCC	C, L, A	Breeds elsewhere
Black guillemot (<i>Cephus grylle</i>)	-	C	Breeds May 15 to September 10
Black scoter (<i>Melanitta nigra</i>)	-	C, L, A	Breeds elsewhere
Black skimmer (<i>Rynchops niger</i>)	BCC	C, L	Breeds May 20 to September 15
Black-capped petrel (<i>Pterodroma hasitata</i>)	-	C, L, A	Breeds elsewhere
Black-legged kittiwake (<i>Rissa tridactyla</i>)	-	C, L	Breeds elsewhere
Brown pelican (<i>Pelecanus occidentalis</i>)	-	C, L, A	Breeds January 15 to September 30
Brown-headed nuthatch (<i>Sitta pusilla</i>)	-	C	Breeds March 1 to July 15
Cerulean warbler (<i>Setophaga cerulea</i>)	BCC	C	Breeds April 26 to July 20
Chimney swift (<i>Chaetura pelagica</i>)	BCC	C, L	Breeds March 15 to August 25
Chuck-will's-widow (<i>Antrostomus carolinensis</i>)	-	C	Breeds May 10 to July 10
Coastal (waynes) black-throated green warbler (<i>Setophaga virens waynei</i>)	-	C	Breeds May 1 to August 15
Common eider (<i>Somateria mollissima</i>)	-	C, L	Breeds June 1 to September 30
Common loon (<i>Gavia immer</i>)	-	C, L, A	Breeds April 15 to October 31
Common murre (<i>Uria aalge</i>)	-	C	Breeds April 15 to August 15

Table C.3-2. Migratory Bird Species that May Warrant Special Attention in Biological Study Area

Common Name (Scientific Name)	Migratory Bird Resource List Category	Areas¹	Breeding Pattern
Cory's shearwater (<i>Calonectris diomedea</i>)	BCC	C, L, A	Breeds elsewhere
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	-	C, L, A	Breeds April 20 to August 31
Dovekie (<i>Alle alle</i>)	-	C, L, A	Breeds elsewhere
Eastern whip-poor-will (<i>Antrostomus vociferus</i>)	BCC	C	Breeds May 1 to August 20
Florida burrowing owl (<i>Athene cunicularia floridana</i>)	BCC	C, L	Breeds March 15 to August 31
Golden eagle (<i>Aquila chrysaetos</i>)	-	C	Breeds elsewhere
Grasshopper sparrow (<i>Ammodramus savannarum perpallidus</i>)	-	C	Breeds June 1 to August 20
Great blue heron (<i>Ardea herodias occidentalis</i>)	BCC	C, L	Breeds January 1 to December 31
Great shearwater (<i>Puffinus gravis</i>)	-	C, L, A	Breeds elsewhere
Great skua (<i>Stercorarius skua</i>)	-	A	Breeds elsewhere
Gull-billed tern (<i>Gelochelidon nilotica</i>)	BCC	C, L	Breeds May 1 to July 31
Henslow's sparrow (<i>Centronyx henslowii</i>)	BCC	C, L	Breeds elsewhere
Kentucky warbler (<i>Geothlypis formosa</i>)	BCC	C	Breeds April 20 to August 20
King rail (<i>Rallus elegans</i>)	BCC	C, L	Breeds May 1 to September 5
Le Conte's sparrow (<i>Ammodramus leconteii</i>)	BCC	C	Breeds elsewhere
Least tern (<i>Sternula antillarum antillarum</i>)	BCC	C, L	Breeds April 25 to September 5
Lesser yellowlegs (<i>Tringa flavipes</i>)	BCC	C, L	Breeds elsewhere
Long-tailed duck (<i>Clangula hyemalis</i>)	-	C, L	Breeds elsewhere
Magnificent frigatebird (<i>Fregata magnificens</i>)	BCC	C, L	Breeds October 1 to April 30
Manx shearwater (<i>Puffinus puffinus</i>)	BCC	C, L, A	Breeds April 15 to October 31
Marbled godwit (<i>Limosa fedoa</i>)	BCC	C	Breeds elsewhere
Painted bunting (<i>Passerina ciris</i>)	BCC	C, L	Breeds April 25 to August 15
Pectoral sandpiper (<i>Calidris melanotos</i>)	BCC	C, L	Breeds elsewhere
Pomarine jaeger (<i>Stercorarius pomarinus</i>)	-	C, L, A	Breeds elsewhere
Prairie warbler (<i>Setophaga discolor</i>)	BCC	C, L	Breeds May 1 to July 31
Prothonotary warbler (<i>Protonotaria citrea</i>)	BCC	C	Breeds April 1 to July 31
Purple sandpiper (<i>Calidris maritima</i>)	BCC	C	Breeds elsewhere
Razorbill (<i>Alca torda</i>)	-	C, L, A	Breeds June 15 to September 10
Red Phalarope (<i>Phalaropus fulicarius</i>)	-	C, L, A	Breeds elsewhere
Red-breasted merganser (<i>Mergus serrator</i>)	-	C, L, A	Breeds elsewhere
Red-headed woodpecker (<i>Melanerpes erythrocephalus</i>)	BCC	C, L	Breeds May 10 to September 10
Red-necked phalarope (<i>Phalaropus lobatus</i>)	-	C, L, A	Breeds elsewhere
Red-throated loon (<i>Gavia stellata</i>)	-	C, L, A	Breeds elsewhere
Reddish egret (<i>Egretta rufescens</i>)	BCC	C, L	Breeds March 1 to September 15
Ring-billed gull (<i>Larus delawarensis</i>)	-	C, L, A	Breeds elsewhere

Table C.3-2. Migratory Bird Species that May Warrant Special Attention in Biological Study Area

Common Name (Scientific Name)	Migratory Bird Resource List Category	Areas ¹	Breeding Pattern
Roseate tern (<i>Sterna dougallii</i>)	-	C, L	Breeds May 10 to August 31
Royal tern (<i>Thalasseus maximus</i>)	-	C, L, A	Breeds April 15 to August 31
Ruddy turnstone (<i>Arenaria interpres morinella</i>)	BCC	C, L	Breeds elsewhere
Rusty blackbird (<i>Euphagus carolinus</i>)	-	C	Breeds elsewhere
Saltmarsh sparrow (<i>Ammospiza caudacuta</i>)	BCC	C, L	Breeds May 15 to September 5
Semipalmated sandpiper (<i>Calidris pusilla</i>)	BCC	C, L	Breeds elsewhere
Short-billed dowitcher (<i>Limnodromus griseus</i>)	BCC	C, L	Breeds elsewhere
Sooty shearwater (<i>Ardenna grisea</i>)	-	C, L, A	Breeds elsewhere
Sooty tern (<i>Onychoprion fuscatus</i>)	-	C, L, A	Breeds March 10 to July 31
South Polar skua (<i>Stercorarius maccormicki</i>)	-	C	Breeds elsewhere
Surf scoter (<i>Melanitta perspicillata</i>)	-	C, L, A	Breeds elsewhere
Swallow-tailed kite (<i>Elanoides forficatus</i>)	BCC	C, L	Breeds March 10 to June 30
Thick-billed murre (<i>Uria lomvia</i>)	-	C, L	Breeds April 15 to August 15
Whimbrel (<i>Numenius phaeopus hudsonicus</i>)	BCC	C, L	Breeds elsewhere
White-crowned pigeon (<i>Patagioenas leucocephala</i>)	BCC	C, L	Breeds May 1 to September 30
White-winged scoter (<i>Melanitta fusca</i>)	-	C, L, A	Breeds elsewhere
Willet (<i>Tringa semipalmata</i>)	BCC	C, L	Breeds April 20 to August 5
Wilson's plover (<i>Charadrius wilsonia</i>)	BCC	C, L	Breeds April 1 to August 20
Wilson's storm-petrel (<i>Oceanites oceanicus</i>)	-	C, L, A	Breeds elsewhere
Wood thrush (<i>Hylocichla mustelina</i>)	BCC	C	Breeds May 10 to August 31
Worthington's marsh wren (<i>Cistothorus palustris griseus</i>)	BCC	C, L	Breeds April 10 to August 31

Notes: - = not applicable; A = Atlantic landing area (MBCR 19); BCC = Bird of Conservation Concern; BCR = Bird Conservation Region; C = Contingency landing area 1 psf contour (BCR 31 and MBCR19); L = Launch Area around LC-39A (BCR 31); MBCR = Marine Bird Conservation Region; psf = pounds per square foot.

¹For the Pacific Ocean and Indian Ocean landing areas, reports run in the Information for Planning and Consultation (IPaC) tool indicated that there were no USFWS migratory birds of concern within the vicinity of the project area, and the Rapid Avian Information Locator (RAIL) tool reported that insufficient data were available to produce results. Due to the distance from land, these landing areas likely support a limited number of seabird species and other transient species.

Sources: IPaC reports in Appendix B.1.2, *Biological Conference Assessment*; U.S. Fish and Wildlife Service (2021) Birds of Conservation Concern Report. <https://www.fws.gov/sites/default/files/documents/birds-of-conservation-concern-2021.pdf>

C.3.3 Marine Mammal Species in the Study Area

Table C.3-1. Marine Mammals with Potential to Occur in the Study Area

Species	Potential Occurrence in the Study Area					
	Atlantic Ocean Contingency Landing Area (1 to 5 Nautical Miles Offshore)	Atlantic Ocean (greater than 5 Nautical Miles Offshore)	Northwest and Hawaii Pacific Ocean	Northeastern Pacific Ocean	Southeastern Pacific Ocean	Indian Ocean
West Indian manatee* <i>Trichechus manatus latirostrus</i>	X	-	-	-	-	-
Common bottlenose dolphin* <i>Tursiops truncatus</i>	X	X	X	X	-	X
Atlantic spotted dolphin <i>Stenella frontalis</i>	X	X	-	-	-	-
North Atlantic right whale <i>Eubalaena glacialis</i>	X	X	-	-	-	-
Fin whale <i>Balaenoptera physalus</i>	-	X	X	X	X	X
Pygmy right whale <i>Carperea marginata</i>	-	-	-	-	X	-
Common minke whale <i>Balaenoptera acutorostrata</i>	-	X	X	X	X	-
Sei whale <i>Balaenoptera borealis</i>	-	X	X	X	X	X
Antarctic minke whale <i>Balaenoptera bonaerensis</i>	-	-	-	-	X	X
Bryde's whale <i>Balaenoptera edeni</i>	-	X	X	X	X	X
Blue whale/pygmy blue whale <i>Balaenoptera musculus breviceuda</i>	-	X	X	X	X	X

Table C.3-1. Marine Mammals with Potential to Occur in the Study Area

Species	Potential Occurrence in the Study Area					
	Atlantic Ocean Contingency Landing Area (1 to 5 Nautical Miles Offshore)	Atlantic Ocean (greater than 5 Nautical Miles Offshore)	Northwest and Hawaii Pacific Ocean	Northeastern Pacific Ocean	Southeastern Pacific Ocean	Indian Ocean
Omura's whale <i>Balaenoptera omurai</i>	-	-	-	-	-	X
Humpback whale <i>Megaptera - novaeangliae</i>	-	X	X	X	X	X
Sperm whale <i>Physeter macrocephalus</i>	-	X	X	X	X	X
Pygmy sperm whale <i>Kogia breviceps</i>	-	X	X	X	X	X
Dwarf sperm whale <i>Kogia sima</i>	-	X	X	X	X	X
Short-beaked common dolphin <i>Delphinus delphis</i>	-	X	-	X	X	-
Pygmy killer whale <i>Feresa attenuata</i>	-	X	X	X	X	X
Short-finned pilot whale <i>Globicephala macrorhynchus</i>	-	X	X	X	-	X
Long-finned pilot whale <i>Globicephala melas</i>	-	X	-	-	-	-
Risso's dolphin <i>Grampus griseus</i>	-	X	X	X	X	X
Atlantic white-sided dolphin <i>Lagenodelphis acutus</i>	-	X	-	-	-	-
White-beaked dolphin <i>Lagenorhynchus albirostris</i>	-	X	-	-	-	-
Fraser's dolphin <i>Lagenodelphis hosei</i>	-	X	X	X	-	X
Southern right whale dolphin <i>Lissodelphis peronii</i>	-	-	-	-	X	-
Killer whale <i>Orcinus orca</i>	-	X	X	X	X	X

Table C.3-1. Marine Mammals with Potential to Occur in the Study Area

Species	Potential Occurrence in the Study Area					
	Atlantic Ocean Contingency Landing Area (1 to 5 Nautical Miles Offshore)	Atlantic Ocean (greater than 5 Nautical Miles Offshore)	Northwest and Hawaii Pacific Ocean	Northeastern Pacific Ocean	Southeastern Pacific Ocean	Indian Ocean
Melon-headed whale <i>Peponocephala electra</i>	-	X	X	X	X	X
False killer whale <i>Pseudorca crassidens</i>	-	X	X	X	X	X
Australian humpback dolphin <i>Sousa sahulensis</i>	-	-	-	-	-	X
Pantropical spotted dolphin <i>Stenella attenuata</i>	-	X	X	X	X	X
Clymene dolphin <i>Stenella clymene</i>	-	X	-	-	-	-
Striped dolphin <i>Stenella coeruleoalba</i>	-	X	X	X	-	X
Spinner dolphin <i>Stenella longirostris</i>	-	X	X	X	X	X
Rough-toothed dolphin <i>Steno bredanensis</i>	-	X	X	X	X	X
Indo-Pacific bottlenose dolphin <i>Tursiops aduncus</i>	-	-	-	-	-	X
Indo-Pacific finless porpoise <i>Neophocaena phocaenoides</i>	-	-	-	-	-	X
Arnoux's beaked whale <i>Berardius arnuxii</i>	-	-	-	-	X	-
Southern bottlenose whale <i>Hyperoodon planifrons</i>	-	-	-	-	-	X
Longman's beaked whale <i>Indopacetus pacificus</i>	-	-	X	X	-	X

Table C.3-1. Marine Mammals with Potential to Occur in the Study Area

Species	Potential Occurrence in the Study Area					
	Atlantic Ocean Contingency Landing Area (1 to 5 Nautical Miles Offshore)	Atlantic Ocean (greater than 5 Nautical Miles Offshore)	Northwest and Hawaii Pacific Ocean	Northeastern Pacific Ocean	Southeastern Pacific Ocean	Indian Ocean
Blainville's beaked whale <i>Mesoplodon densirostris</i>	-	X	X	X	-	X
Gervais' beaked whale <i>Mesoplodon europaeus</i>	-	X	-	-	-	-
Ginkgo-toothed beaked whale <i>Mesoplodon ginkgodens</i>	-	-	-	X	-	-
Gray's beaked whale <i>Mesoplodon grayi</i>	-	-	-	-	X	X
True's Beaked whale <i>Mesoplodon mirus</i>	-	X	-	-	-	-
Perrin's beaked whale <i>Mesoplodon perrini</i>	-	-	-	X	-	-
Pygmy beaked whale <i>Mesoplodon peruvianus</i>	-	-	-	X	X	-
Stejneger's beaked whale <i>Mesoplodon stejnegeri</i>	-	-	-	X	-	-
Spade-toothed beaked whale <i>Mesoplodon traversii</i>	-	-	-	-	-	X
Shepherd's beaked whale <i>Tasmacetus shepherdi</i>	-	-	-	-	X	-
Cuvier's beaked whale <i>Ziphius cavirostris</i>	-	X	X	X	-	X
Hawaiian Monk Seal <i>neomonachus schauinslandi</i>	-	-	X	-	-	-

Table C.3-1. Marine Mammals with Potential to Occur in the Study Area

Species	Potential Occurrence in the Study Area					
	Atlantic Ocean Contingency Landing Area (1 to 5 Nautical Miles Offshore)	Atlantic Ocean (greater than 5 Nautical Miles Offshore)	Northwest and Hawaii Pacific Ocean	Northeastern Pacific Ocean	Southeastern Pacific Ocean	Indian Ocean
Guadalupe fur seal <i>Arctocephalus townsendi</i>	-	-	-	X	-	-
Harbor seal <i>Phoca vitulina</i>	-	X	-	-	-	-
Juan Fernandez fur seal <i>Arctocephalus philippii</i>	-	-	-	-	X	-
Northern elephant seal <i>Mirounga angustirostris</i>	-	-	-	X	-	-
Southern elephant seal <i>Mirounga leonina</i>	-	-	-	-	X	-
California sea lion <i>Zalophus californianus</i>	-	-	-	X	-	-

Note: X = potential to occur.

*Species also occurs in estuarine waters near LC-39A

Sources: (SpaceX, 2024b; USSF, 2023b)