Table III-1. General Types of Manmade Sound in the Ocean and Estimated Levels of Maritime Activity

	Source Level Frequency Gulf of M			Gulf of Mexico
Activity	Sources	(dB re 1 µPa-m)	Range (Hz)	Level of Activity
Renvity	Aircraft (fixed-wing and helicopters)	156-165	45-7,000	Moderate flight activity estimated to be in the range of several hundred flights annually (most low level flights for oil and gas support, aerial surveys)
	Small vessels (ships, boats)	145-170	37-6,300	High activity level; hundreds to thousands of fishing vessels, pleasure craft, small ships daily; millions of angler trips per year (MMS 2004b: append F, sec. II.B); oil and gas support vessel activity estimated to be 304,807 to 319, 921 trips per year, with most concentrated in the Central Planning Area.
	Large vessels	169-198	6.8-428	In the U.S. Gulf of Mexico in 1999, tankers and other freight vessels completed a total approximately 279,000 vessel trips in the Gulf and Gulf Intracoastal Waterway waters
	Ice breakers	171-191	10-1000	None
	Hovercraft and vehicles on ice	130	224-7,070	None; related watercraft would include "jet skis," whose numbers are estimated to range into the thousands
Dredging and Construction	Dredging	150-180	10-1000	Precise levels unknown, although harbor maintenance activity is very common for major Gulf ports; very limited in shipping channels
	Tunnel boring	Low	10-500	Unknown; expected to be rare in the Gulf of Mexico
	Other construction operations	Low	<1,000	Unknown; expected to be limited in the Gulf of Mexico

Table III-1. General Types of Manmade Sound in the Ocean and Estimated Levels of Maritime Activity (Continued)

		Source Level	Frequency	Gulf of Mexico
Activity	Sources	(dB re 1 µPa-m)	Range (Hz)	Level of Activity
	Drilling from islands and caissons	70-100	10-160	None in the Gulf of Mexico
	Drilling from bottom- founded platforms	119-127 (received)	5-1,200	Variable; may range from tens to hundreds of wells drilled from Gulf platforms annually; January 2001 drilling activity levels: 61 wells. MMS notes 40,361 approved applications to drill in Gulf of Mexico Federal waters
Oil and Gas Drilling and	Drilling from vessels	154-191	10-10,000	Low level of activity, on the order of tens of drill ships operating in Gulf waters annually
Production		Low	50-500	4,019 production platforms on 7,564 active leases in Federal waters of the Gulf of Mexico, as of 31 July 2001; as of 2 September 2003, there were 3,476 active offshore production platforms in GOM Federal waters.
	Support activity	See small vessels	See small vessels	304,807 to 319,921 trips per year, with most (-90%) concentrated in the Central Planning Area; -10% of support vessel activity occurs in the Western Planning Area, while 0.2% to 0.3% is projected for the Eastern Planning Area
Geophysical	Airguns	216-259	<120	Tens to 30+ surveys per year, may have as many as five surveys running concurrently (MMS 2004b: append D, sec. V)
Surveys	Sleeve exploders and gas guns	217	Low	Unknown; expected to be rare

Table III-1. General Types of Manmade Sound in the Ocean and Estimated Levels of Maritime Activity (Continued)

	V 1	Source Level	Frequency	Gulf of Mexico
Activity	Sources	(dB re 1 μPa-m	Range (Hz)	Level of Activity
	Vibroseis	187 to >210, instantaneous level dependent upon sweep length (i.e., -18 to 22 dB less than an airgun pulse)	10-70	Estimated to be rare (MMS 2004b: append F, sec. II.D)
	Other techniques (sparkers, boomers)	212-221	N/A	Estimated to be rare
Navigation and	Fathometers	180+	12,000+	Potentially high, given the presence of thousands of ships and boats in the Gulf
Target Detection (sonars, pingers)	Military active sonars	230+	4-1,000	Unknown; expected to be periodic, infrequent (e.g., tens to 100 or more annually)
	Transponders	180-200	7,000-60,000	Unknown; expected to be periodic, infrequent (e.g., several hundred per year)
	Military ordinance	>279	Peak	Low; live fire testing very limited in the Gulf of Mexico
Explosions	Ship and weapons testing	>294 (10,000 lb charge)	Broadband	Periodic, infrequent
2	Offshore demolition (structure removals)	267-279 (based on charge weights)	Peak	53-130 removals per year
	Seismology	N/A	N/A	Unknown, expected to be limited
Ocean Science	Acoustic propagation	220	Broadband	None
Studies	Acoustic tomography	N/A	N/A	Unknown, expected to be limited
	Acoustic thermometry	195	Broadband	None

Source: Adapted from: Richardson et al. (1995); MMS (2004b), as noted

**Table III-2. Population Estimates for Marine Mammal Species in the Northern Gulf of Mexico** 

Normern Gun of Mexico	Population	Population
Species	Estimate <sup>1</sup>	Estimate <sup>2</sup>
Killer Whale (Orcinus orca)	180	122
False Killer Whale ( <i>Pseudorca crassidens</i> )	1,515	1,014
Pygmy Killer Whale (Feresa attentuata)	443	342
Dwarf Sperm Whale (Kogia sima)	809 <sup>a</sup>	699 <sup>a</sup>
Pygmy Sperm Whale (Kogia breviceps)	809 <sup>a</sup>	699 <sup>a</sup>
Melon-headed Whale (Peponocephala electra)	3,320	3,308
Risso's Dolphin ( <i>Grampus griseus</i> )	1,777	2,692
Short-finned Pilot Whale (Globicephala	2.252	2.290
macrorhynchus)	3,252	2,289
Sperm Whale ( <i>Physeter macrocephalus</i> )	1,315	1,256
Bryde's Whale (Balaenoptera edeni)	42	56
Cuvier's Beaked Whale (Ziphius cavirostris)	88	96
Blainville's Beaked Whale (Mesoplodon	98 <sup>b</sup>	110 <sup>b</sup>
densirostris)		110
Gervais' Beaked Whale (Mesoplodon europaeus)	98 <sup>b</sup>	110 <sup>b</sup>
Bottlenose Dolphin (Turisops truncatus)	26,852	25,163
Atlantic Spotted Dolphin (Stenella frontalis)	39,545°	29,519
Pantropical Spotted Dolphin (Stenella attenuatus)	93,174 <sup>c</sup>	87,097
Striped Dolphin (Stenella coeruleoalba)	6,258 <sup>c</sup>	6,746
Spinner Dolphin (Stenella longirostris)	11,550°	16,293
Rough-toothed Dolphin (Steno bredanensis)	2,469 <sup>c</sup>	1,273
Clymene's Dolphin (Stenella clymene)	16,439	15,381
Fraser's Dolphin (Lagenodelphis hosei)	698 <sup>c</sup>	1,014
Absent from Stock Assessment:		
Northern Right Whale (Eubalaena glacialis)	Extralimital	n/a
Minke Whale (Balaenoptera acutorostrata)	Rare	n/a
Sei Whale (Balaenoptera edeni)	Rare	n/a
Blue Whale (Balaenoptera musculus)	Extralimital	n/a
Fin Whale (Balaenoptera physalus)	Rare	n/a
Humpback Whale (Megaptera novaeangliae)	Rare	n/a
Sowerby's Beaked Whale (Mesoplodon bidens)	Extralimital	n/a

Source: Waring et al., 2004.

Extralimital: Known on the basis of only a few records that probably resulted from unusual wanderings of animals into the region (Wursig et al., 2000).

Rare: Present in such small numbers throughout the region that it is seldom seen (Wursig et al., 2002).

<sup>&</sup>lt;sup>2</sup> Source: USDOI, MMS, 2004b.

<sup>&</sup>lt;sup>a</sup> This estimate of abundance is for pygmy and dwarf sperm whales combined.

This estimate is based on the undifferentiated complex of beaked whales (*Ziphius* and *Mesoplodon* spp.).

<sup>&</sup>lt;sup>c</sup> This estimate is for oceanic waters, which is the best available for the Gulf of Mexico.

Table III-3. Marine and Coastal Birds of the Gulf of Mexico

Category	Order	Family Name	Common Name
Seabirds			
	Charadriiformes	Laridae	gulls and terns
		Scolopacidae	phalaropes
	Gaviiformes	Gaviidae	loons
	Pelicaniformes	Fregatidae	frigatebirds
		Pelicanidae	pelicans
		Phaethontidae	tropicbirds
		Phalacrocoracidae	cormorants
		Sulidae	gannets and boobies
	Procellariiformes	Diomedeidae	albatrosses
		Hydrobatidae	storm-petrels
		Procellariidae	petrels and shearwaters
Shorebirds			
	Charadriiformes	Charadriidae	plovers
		Haematopodidae	oystercatchers
		Recurvirostridae	stilts and avocets
		Scolopacidae	sandpipers, snipes, and allies
Wetland Birds	S		
	Charadriiformes	Jacanidae	jacanas
	Ciconiiformes	Aramidae	limkins
		Ardeidae	bitterns, egrets, and herons
		Ciconiidae	storks
		Threskiornithidae	ibises and spoonbills
	Gruiformes	Gruidae	cranes
		Rallidae	rails and coots, moorhens, and gallinules
	Pelicaniformes	Anhingidae	darters and anhingas
	Podicipediformes	Podicipedidae	grebes
Waterfowl	<u> </u>	· -	
	Anseriformes	Anatidae	ducks, geese, and swans

Table III-4. Common Taxa Representing Major Shelf and Oceanic Fish Assemblages in the Gulf of Mexico

Category	Assemblage	Common Name	Scientific Name
Shelf Fishes	12000222024	0022220221(₩2220	
	soft bottom pink shrimp brown shrimp	dusky flounder sand perch silver jenny pigfish Atlantic bumper longspine porgy horned sea robin leopard sea robin dwarf goatfish	Syacium papillosum Diplectrum formosum Eucinostomus gula Orthopristis chrysoptera Chloroscombrus chrysurus Stenotomus caprinus Bellator militaris Prionotus scitulus Upeneus parvus
	white shrimp	Atlantic croaker star drum Atlantic cutlassfish sand sea trout silver sea trout hardhead catfish	Micropogonias undulatus Stellifer lanceolatus Trichiurus lepturus Cynoscion arenarius Cynoscion nothus Arius felis
	hard bottom (< 50 m depths)	tomtate red snapper gag bank sea bass blue angelfish gray triggerfish	Haemulon aurolineatum Lutjanus campechanus Mycteroperca microlepis Centropristis ocyurus Holacanthus bermudensis Balistes capriscus
	(> 50 m depths)	roughtongue bass bank butterflyfish scamp tattler short bigeye	Pronotogrammus martinicensis Chaetodon aya Mycteroperca phenax Serranus phoebe Pristgenys alta
	coastal pelagic	Spanish mackerel king mackerel cobia crevalle jack bluefish	Scomberomorus maculatus Scomberomorus cavalla Rachycentron canadum Caranx hippos Pomatomus saltatrix
Oceanic Fishes			
	epipelagic	blue marlin yellowfin tuna dolphin wahoo swordfish	Makaira nigricans Thunnus albacares Coryphaena hippurus Acanthocybium solanderi Xiphias gladius
	midwater	bristlemouths lanternfishes hatchetfishes	Gonostomatidae Myctophidae Sternoptychidae
	demersal	grenadiers cusk-eels hakes eels	Macrouridae Ophidiidae Gadidae Synaphobranchidae

Table III-5. Managed Species of Invertebrates and Reeffishes for Which Essential Fish Habitat Has Been Designated in the Gulf of Mexico

Species	Life Stages	Habitat
Броссо	(Reproductive	<b></b>
	Activity)	
Invertebrates		
brown shrimp (Penaeus aztecus)	adults; larvae	soft bottom; pelagic
white shrimp (Penaeus setiferus)	adults; larvae	soft bottom; pelagic
pink shrimp (Penaeus duorarum)	adults; larvae	soft bottom; pelagic
stone crab (Menippe spp.)	adults; larvae	soft bottom; pelagic
spiny lobster (Panulirus argus)	adults; larvae	hard bottom; pelagic
royal red shrimp (Hymenopenaeus robustus)	adults; larvae	soft bottom; pelagic
Reeffish		
red grouper (Epinephelus morio)	adults and juveniles; eggs and larvae	hard bottom; pelagic
gag (Mycteroperca microlepis)	adults and juveniles; eggs and larvae	hard bottom; pelagic
scamp (Mycteroperca phenax)	adults and juveniles; eggs and larvae	hard bottom; pelagic
red snapper (Lutjanus campechanus)	adults; juveniles; eggs and larvae	hard bottom; soft bottom; pelagic
lane snapper (Lutjanus synagris)	adults and juveniles; eggs and larvae	hard bottom; pelagic
yellowtail snapper (Ocyurus chrysurus)	adults and juveniles; eggs and larvae	hard bottom; pelagic
tilefish (Lopholatilus chamaeleonticeps)	adults and juveniles; eggs and larvae	soft bottom; pelagic
greater amberjack (Seriola dumerili)	adults and juveniles; eggs and larvae	hard bottom; pelagic
lesser amberjack (Seriola fasciata)	adults and juveniles; eggs and larvae	hard bottom; pelagic
gray triggerfish (Balistes capriscus)	adults; eggs; larvae and juveniles	hard bottom; pelagic
black grouper (Mycteroperca bonaci)	adults; eggs; larvae and juveniles	hard bottom; pelagic
vermillion snapper ( <i>Rhomboplites</i> aurorubens)	adults; eggs; larvae and juveniles	hard bottom; pelagic
gray snapper ( <i>Lutjanus griseus</i> )	adults; eggs; larvae and juveniles	hard bottom; pelagic

Table III-6. Managed Species of Coastal Pelagic Fishes and Red Drum for Which Essential Fish Habitat Has Been Designated in the Gulf of Mexico

Species	Life Stages (Reproductive Activity)	Habitat	
Coastal Pelagic Fishes			
cobia (Rachycentron canadum)	adults; juveniles/subadults; larvae and eggs	pelagic	
king mackerel (Scomberomorus cavalla)	adults; juveniles/subadults; larvae and eggs (spawning area)	pelagic	
Spanish mackerel (Scomberomorus maculatus)	adults; juveniles/subadults; larvae and eggs (spawning area)	pelagic	
dolphin (Coryphaena hippurus)	adults; juveniles/subadults; larvae and eggs (spawning area)	pelagic	
bluefish (Pomatomus saltatrix)	adults; juveniles/subadults; larvae and eggs (spawning area))	pelagic	
little tunny (Euthynnus alletteratus)	adults; juveniles/subadults; larvae and eggs (spawning area)	pelagic	
Red Drum			
red drum (Sciaenops ocellatus)	adults; larvae and eggs (spawning area)	soft bottom; pelagic	

Table III-7. Managed Highly Migratory Species for Which Essential Fish Habitat Has Been Designated in the Gulf of Mexico

Species	Life Stages	Habitat
	(Reproductive Activity)	
Swordfish		
swordfish (Xiphias gladius)	adults; larvae and eggs (spawning area)	pelagic
Tuna		
skipjack tuna (Katsuwonus pelamis)	adults; larvae and eggs (spawning area)	pelagic
yellowfin tuna (Thunnus albacares)	adults; juveniles/subadults; larvae and eggs (spawning area)	pelagic
bluefin tuna (Thunnus thynnus)	adults; larvae and eggs (spawning area)	pelagic
Sharks	,	
nurse shark (Ginglymostoma cirratum)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
longfin mako shark (Isurus paucus)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
blacknose shark (Carcharhinus acronotus)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
spinner shark (Carcharhinus brevipinna)	) late juvenile/subadult	pelagic
silky shark (Carcharhinus falciformis)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
bull shark (Carcharhinus leucas)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
blacktip shark (Carcharhinus limbatus)	late juveniles/subadults	pelagic
dusky shark (Carcharhinus obscurus)	neonates/early juveniles	pelagic
Caribbean reef shark ( <i>Carcharhinus</i> perezi)	adult; late juveniles/subadults	pelagic
sandbar shark (Carcharhinus plumbeus)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
tiger shark (Galeocerdo cuvieri)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
lemon shark (Negaprion brevirostris)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
scalloped hammerhead (Sphyrna lewini)	adults; late juvenile/subadults	pelagic
great hammerhead (Sphyrna mokarran)	adults; late juvenile/subadults	pelagic
bonnethead (Sphyrna tiburo)	adults; late juvenile/subadult; neonates/early juveniles	pelagic
Atlantic sharpnose shark (Rhizoprionodon		
terraenovae)	adults; late juvenile/subadult; neonates/early juveniles	pelagic

Source: NMFS (1999).

Table III-8. Sea Turtles of the Gulf of Mexico

Table III-o. Sea Turue		Typical Adult	Juvenile/Hatchlings	
Species	Status	Habitat	Potentially Present?	Nesting
Family Cheloniidae				
Loggerhead turtle (Caretta caretta)	Т	Estuarine, coastal, and shelf waters	Yes	Some nesting along northern Gulf Coast; main U.S. nesting beaches are in southeast Florida
Green turtle (Chelonia mydas)	T,E <sup>a</sup>	Shallow coastal waters, seagrass beds	Yes	Isolated and infrequent nesting in northern Gulf
Hawksbill turtle (Eretmochelys imbricata)	Е	Coral reefs, hard bottom areas in coastal waters; adults not often sighted in northern Gulf	Yes	Nesting in continental U.S. is limited to southeastern Florida and Florida Keys
Kemp's ridley turtle (Lepidochelys kempi)	Е	Shallow coastal waters, seagrass beds	Yes	Nests mainly at Rancho Nuevo, Mexico; minor nesting on Padre and Mustang Islands, Texas
Family Dermochelyidae		<u>,                                      </u>		
Leatherback turtle (Dermochelys coriacea)	Е	Slope, shelf, and coastal waters; considered the most "pelagic" of the sea turtles	Yes	Some nesting in northern Gulf, especially Florida Panhandle; nearest major nesting concentrations are in Caribbean and southeast Florida

Status: E = endangered species and T = threatened species under the Endangered Species Act of 1973.

<sup>&</sup>lt;sup>a</sup> Green sea turtles are listed as threatened except for the Florida where breeding populations are listed as endangered.

Table III-9. Topographic Features of the Central and Western Gulf of Mexico

Shelf Edge Banks	Midshelf Banks	South Texas Banks
Bright Bank	Sonnier Bank	Mysterious Bank
McGrail Bank	29 Fathom Bank	Baker Bank
Rankin Bank	Fishnet Bank	Aransas Bank
Alderdice Bank	Claypile Lump	Southern Bank
Rezak Bank	32 Fathom Bank	North Hospital Bank
Sidner Bank	Coffee Lump	Hospital Bank
Ewing Bank	Stetson Bank	South Baker Bank
Jakkula Bank		Dream Bank
Bouma Bank		Blackfish Ridge
Parker Bank		Big Dunn Bar
Sackett Bank		Small Dunn Bar
Diaphus Bank		
Sweet Bank		
East Flower Garden Bank		
West Flower Garden Bank		
Geyer Bank		
Elvers Bank		
MacNeil Bank		
Applebaum Bank		

Source: MMS (1996a).

Table III-10. Benthic Zones Characteristic of Western and Central Gulf of Mexico Topographic Features

Topographic reatures			
Benthic Zone	Depth Range	Description	
Diploria-Montastrea- Porites	< 20 – 36 m	diverse community of hermatypic corals and coralline algae	
Madracis and leafy algae	28 – 46 m	branching coral <i>Madracis mirabilis</i> and various species of leafy algae	
Stephanocoenia- Millepora	36 – 52 m	less diverse community of hermatypic corals and coralline algae	
algal-sponge	55 – 85 m	coralline algae producing algal nodules with abundant leafy algae and sponges	
Millepora-sponge	< 20 – 36 m	hydrocoral <i>Millepora</i> sp. and various sponges abundant	
antipatharian	85 – 90 m	antipatharians and crinoids most abundant fauna	
nepheloid	> 90 m	highly turbid zone with occasional deepwater octocorals and solitary stony corals	

Source: Rezak et al. (1983).

Table III-11. Deep-Sea Faunal Zones in the Gulf of Mexico

Faunal Assemblage	Depth Range
Shelf/Slope Transition Zone	300 – 500 m
Upper Archibenthal Zone	500 – 800 m
Lower Archibenthal Zone	800 – 1,650 m
Upper Abyssal Zone	1,650 – 2,250 m
Mesoabyssal Zone	2,250 – 3,000 m

Source: Gallaway and Kennicutt (1988).

Table III-12. National Wildlife Refuges Along the Gulf of Mexico Coast From Texas Through Florida

National Wildlife Refuge Name	Total Area (ha)	<b>Includes Wetlands</b>
Texas		
Laguna Atascosa	23,402	+
Aransas	46,296	+
San Bernard	12,249	+
Brazoria	17,767	+
Anahuac	13,880	+
Texas Point	3,623	+
Louisiana		
Shell Keys	3	_
Bayou Sauvage	9,009	+
Delta	19,749	+
Breton	3,661	+
Mississippi		
Grand Bay	2,072	+
Alabama		
Grand Bay	1,010	+
Bon Secour	2,703	+
Florida		
St. Vincent	5,055	+
St. Marks	27,164	+
Cedar Keys	361	+
Chassahowitzka	12,482	+
Pinellas	160	+
Egmont Key	133	_
Passage Key	26	_
Matlacha Pass	159	+
Island Bay	8	+
Pine Island	244	+
J.N. Ding Darling	2,556	+
Ten Thousand Islands	14,178	+
Caloosahatchee	16	+
Key West	84,302	+
Great White Heron	77,939	+
National Key Deer	3,486	+
Crocodile Lake	2,707	+

Source: National Audubon Society (2001); FWS (2001b).

Table III-13. Gulf of Mexico Economic Impact Areas (EIA's) and Labor Market Areas (LMA's)

Tireas (Liviry 5)	Economic		
State	Area	Labor Market	County
Alabama	Al-1	Mobile	Baldwin
			Clarke
			Conecuh
			Escambia
			Mobile
			Monroe
			Washington
			Wilcox
Mississippi	MS-1	Biloxi-Gulfport	George
Mississippi	IVIS-1	Bhoxi-Guilpoit	Greene
			Hancock
			Harrison
			Jackson
			Pearl River
			Stone
Louisiana	LA-1	Lake Charles	Allen
			Beauregard
			Calcasieu
			Cameron
			Jefferson Davis
			Vernon
	LA-2	Lafayette	Acadia
			Evangeline
			Iberia
			Lafayette
			St. Landry
	+		St. Martin
	+		Vermillion
	LA-3	Baton Rouge	Ascension
		Daton Rouge	East Baton Rouge
	+		Iberville
			Livingston
			Tangipahoa
		Houma	West Baton Rouge
		Houma	Assumption
			Lafourche
			St. Mary
			Terrebonne

Table III-13. Gulf of Mexico Economic Impact Areas (EIA's) and Labor Market Areas (LMA's) (Continued)

State         Area         Labor Market         County           LA-4         New Orleans         Jefferson           Orleans         Plaquemines           St. Bernard         St. Bernard           St. James         St. James           St. James         St. Tammany           Washington         Washington           Texas         TX-1         Brownsville         Cameron           Hidalgo         Starr         Willacy           Corpus Christi         Aransas         Brooks           Duval         Jim Wells         Kenedy           Kleberg         Nueces         Refugio           Nueces         Refugio         San Patricio           TX-2         Brazoria         Matagorda           Wharton         Victoria         Calhoun           Colorado         Dewitt         Fayette           Goliad         Gonzales           Jackson         Lavaca           Victoria         Hardin           TX-3         Beaumont – Port Arthur         Jasper           Jefferson         Jefferson	Arcas (LIVIA 5)		Economic				
LA-4   New Orleans   Jefferson   Orleans   Plaquemines   St. Bernard   St. Charles   St. James   St. James   St. James   St. James   St. John the Baptist   St. Tammany   Washington	State		Labor Market	County			
Orleans   Plaquemines	2000						
Plaquemines   St. Bernard   St. Charles   St. James   St. John the Baptist   St. John the Baptist   St. Tammany   Washington   Washington			Tion officials				
St. Bernard   St. Charles   St. James   St. James   St. James   St. John the Baptist   St. Tammany   Washington   Washington   Hidalgo   Starr   Willacy   Willacy   Corpus Christi   Aransas   Brooks   Duval   Jim Wells   Kenedy   Kleberg   Nueces   Refugio   San Patricio   San Patricio   TX-2   Brazoria   Brazoria   Brazoria   Matagorda   Wharton   Victoria   Calhoun   Colorado   Dewitt   Fayette   Goliad   Gonzales   Jackson   Lavaca   Victoria   Calhoun   TX-3   Beaumont – Port   Arthur   Jasper   Jefferson   Jefferson							
St. Charles   St. James   St. James   St. John the Baptist   St. Tammany   Washington   Washington   Washington   Hidalgo   Starr   Willacy   Willacy   Corpus Christi   Aransas   Brooks   Duval   Jim Wells   Kenedy   Kleberg   Nueces   Refugio   San Patricio   TX-2   Brazoria   Brazoria   Matagorda   Wharton   Victoria   Calhoun   Colorado   Dewitt   Fayette   Goliad   Gonzales   Jackson   Lavaca   Victoria   Calhoun   TX-3   Beaumont – Port   Arthur   Jasper   Jefferson   Jeffer							
St. James St. John the Baptist St. Tammany Washington  Texas TX-1 Brownsville Cameron Hidalgo Starr Willacy Corpus Christi Aransas Brooks Duval Jim Wells Kenedy Kleberg Nueces Refugio San Patricio Brazoria Matagorda Wharton Victoria Colorado Dewitt Fayette Goliad Gonzales Jackson Lavaca Victoria TX-3 Beaumont – Port Arthur Jasper Jefferson							
St. John the Baptist St. Tammany Washington  Texas  TX-1  Brownsville  Cameron  Hidalgo Starr  Willacy  Corpus Christi Aransas Brooks Duval Jim Wells Kenedy Kleberg Nueces Refugio San Patricio TX-2  Brazoria Brazoria  TX-2  Brazoria  Matagorda Wharton Victoria Calhoun Colorado Dewitt Fayette Goliad Gonzales Jackson Lavaca Victoria TX-3  Beaumont – Port Arthur Jasper Jefferson							
St. Tammany   Washington							
Texas         TX-1         Brownsville         Cameron           Hidalgo         Starr           Willacy         Willacy           Corpus Christi         Aransas           Brooks         Duval           Jim Wells         Kenedy           Kleberg         Nueces           Refugio         San Patricio           TX-2         Brazoria         Brazoria           Matagorda         Wharton           Victoria         Calhoun           Colorado         Dewitt           Fayette         Goliad           Gonzales         Jackson           Lavaca         Victoria           TX-3         Beaumont – Port Arthur         Hardin           Jefferson         Jefferson							
Texas         TX-1         Brownsville         Cameron           Hidalgo         Starr           Willacy         Willacy           Corpus Christi         Aransas           Brooks         Duval           Jim Wells         Kenedy           Kenedy         Kleberg           Nueces         Refugio           San Patricio         San Patricio           TX-2         Brazoria         Matagorda           Wharton         Wharton           Victoria         Calhoun           Colorado         Dewitt           Fayette         Goliad           Gonzales         Jackson           Lavaca         Victoria           TX-3         Beaumont – Port Arthur         Hardin           Jasper         Jefferson							
Hidalgo Starr Willacy Corpus Christi Aransas Brooks Duval Jim Wells Kenedy Kleberg Nueces Refugio San Patricio TX-2 Brazoria Brazoria Matagorda Wharton Victoria Calhoun Colorado Dewitt Fayette Goliad Gonzales Jackson Lavaca Victoria TX-3 Beaumont – Port Arthur Jasper Jafferson				Washington			
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Kleberg   Nueces   Nueces							
Nueces   Refugio   San Patricio							
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San Patricio     TX-2							
TX-2 Brazoria Brazoria  Matagorda  Wharton  Victoria Calhoun  Colorado  Dewitt  Fayette  Goliad  Gonzales  Jackson  Lavaca  Victoria  TX-3  Beaumont – Port Arthur  Jasper  Jefferson							
Matagorda   Wharton     Victoria   Calhoun     Colorado     Dewitt     Fayette     Goliad     Gonzales     Jackson     Lavaca     Victoria     TX-3   Beaumont – Port     Arthur   Jasper     Jefferson							
Wharton   Victoria   Calhoun   Colorado   Dewitt   Fayette   Goliad   Gonzales   Jackson   Lavaca   Victoria   TX-3   Beaumont – Port   Arthur   Hardin   Jasper   Jefferson   Jefferson		TX-2	Brazoria				
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Colorado Dewitt Fayette Goliad Gonzales Jackson Lavaca Victoria  TX-3 Beaumont – Port Arthur Jasper Jefferson							
Dewitt   Fayette   Goliad   Gonzales   Jackson   Lavaca   Victoria   TX-3   Beaumont – Port   Arthur   Jasper   Jefferson			Victoria				
Fayette Goliad Gonzales Jackson Lavaca Victoria  TX-3 Beaumont – Port Arthur Jasper Jefferson							
Goliad   Gonzales   Jackson   Lavaca   Victoria				Dewitt			
Gonzales   Jackson   Lavaca   Victoria				Fayette			
Jackson Lavaca Victoria  TX-3 Beaumont – Port Arthur Hardin Jasper Jefferson				Goliad			
Lavaca   Victoria				Gonzales			
TX-3  Beaumont – Port Arthur  Hardin  Jasper  Jefferson				Jackson			
TX-3  Beaumont – Port Arthur  Hardin  Jasper  Jefferson				Lavaca			
Arthur Hardin  Jasper  Jefferson		1 TX-3		Victoria			
Jefferson				Hardin			
Jefferson				Jasper			
				-			
1 1 10 W ICH				Newton			
Orange							
Polk				9			
Tyler							

Table III-13. Gulf of Mexico Economic Impact Areas (EIA's) and Labor Market Areas (LMA's) (Continued)

Areas (LWA s) (C	Economic		
State	Area	Labor Market	County
	TX-3	Houston - Galveston	Austin
			Chambers
			Fort Band
			Galveston
			Harris
			Liberty
			Montgomery
			San Jacinto
			Waller
			Washington
Florida	FL-1	Panama City	Bay
			Franklin
			Gulf
		Pensacola	Escambia
		Tensuesia	Okaloosa
			Santa Rosa
			Walton
	FL-2	Tallahassee	Calhoun
	1122	Turidiussee	Gadsden
			Holmes
			Jackson
			Jefferson
			Leon
			Liberty
			Wakulla
		Lake City	Washington Columbia
		Lake City	Hamilton
			Lafayette
			Madison
			Suwannee
	EL 2	0 1	Taylor
	FL-3	Ocala	Citrus
		C-i'11	Marion
		Gainesville	Alachua
			Bradford
			Dixie
			Gilchrist
			Levy
		m ~ ~ ~ ·	Union
		Tampa - St. Petersburg	Hernando
			Hillsborough
			Pasco
			Pinellas

Table III-13. Gulf of Mexico Economic Impact Areas (EIA's) and Labor Market Areas (LMA's) (Continued)

	Economic		
State	Area	Labor Market	County
	FL-4	Ft. Myers	Collier
			Lee
		Miami	Broward
			Miami-Dade
			Monroe
		Sarasota	Charlotte
			DeSoto
			Manatee
			Sarasota

**Table III-14. Gulf of Mexico Coastal Population Overview (Thousands)** 

State	1980	1990	2000	2003
Texas	4,932	5,727	7,063	7,494
Louisiana	3,022	3,057	3,275	3,298
Mississippi	370	389	460	467
Alabama	581	609	677	685
Florida	6,424	8,179	9,916	10,432
<b>Total Region</b>	15,329	17,961	21,391	22,377

Source: Woods and Poole Economics, Inc. (2004, 2006)

Table III-15. Gulf of Mexico Coastal Region Population and Employment Composition

	1980	1990	2000	2005	
	1980	1990	2000	2005	
Total Population	15,329,000	17,960,740	21,391,270	23,114,240	
Age Structure (%)					
Under 5	7.4%	7.6%	6.9%	7.2%	
5 to 14	15.4%	14.5%	14.6%	13.8%	
15 to 24	13.4%		14.6%		
25 to 34		14.2%		14.1%	
	16.3%	16.9%	13.8%	13.2%	
35 to 44	11.1%	14.6%	15.7%	14.4%	
45 to 54	9.7%	9.8%	13.0%	13.9%	
55 to 64	9.5%	8.6%	8.8%	10.2%	
65+	12.6%	13.8%	13.5%	13.2%	
Race and Ethnic Composition (%)					
Black	17.40%	17.0%	17.7%	17.6%	
White	68.30%	63.6%	57.0%	54.2%	
Hispanic	13.40%	17.5%	22.6%	25.1%	
Other	0.90%	1.8%	2.7%	3.1%	
Education of Persons Age 25+ (%)					
0 - 8 years schooling	20.5	12.6	9.6		
9 - 11 years schooling	15.8	15.9	14.1		
high school graduates	32.1	28.6	27.8		
13 - 15 years schooling	15.9	24.4	26.9		
college graduates	15.6	18.4	21.6		
Employment by Industrial Sector (%)					
Farm Employment	2.0%	1.5%	1.2%	1.1%	
Agricultural Services	1.0%	1.3%	1.4%	1.5%	
Mining	2.9%	1.9%	1.3%	1.2%	
Construction	8.0%	6.5%	6.9%	6.7%	
Manufacturing	11.8%	8.9%	7.1%	5.9%	
Transportation, Communication &					
Public Utilities	6.0%	5.3%	5.5%	5.1%	
Wholesale Trade	5.7%	5.0%	4.7%	4.4%	
Retail Trade	16.8%	17.6%	16.9%	16.6%	
Finance, Insurance & Real Estate	8.3%	7.7%	7.8%	8.1%	
Services	22.4%	29.0%	33.5%	35.4%	
Federal Civilian Govt	1.8%	1.8%	1.4%	1.3%	

Source: Woods & Poole Economics, Inc. (2004, 2006)

Table III-16. Gulf of Mexico Employment in the Oil and Gas Industry in 2004, by Labor Market Area (LMA)

Labor Market Area (L	Total		Establishments by					
	Mid-		<b>Employment Size Class</b>					
	March	Total		10 to	50 to	250 or		
LMA	Employees	Establishments	1 to 9	49	249	more		
Mobile	295	15	6	9	0	0		
Alabama State Total	521	38	23	12	3	0		
Biloxi-Gulfport	59	2	1	1	0	0		
Mississippi State								
Total	511	72	61	9	2	0		
Lake Charles	249	26	19	6	1	0		
Lafayette	761	78	59	15	4	0		
Baton Rouge	4	132	10	6	4	0		
Houma	8	469	27	14	11	2		
New Orleans	3,578	70	41	19	7	3		
Louisiana State	,							
Total	8,811	408	270	106	27	5		
Brownsville	56	6	5	1	0	0		
Corpus Christi	967	102	86	13	2	1		
Brazoria	52	10	9	1	0	0		
Victoria	253	36	30	6	0	0		
Beaumont-Port								
Arthur	159	13	11	1	1	0		
Houston-Galveston	11,882	564	427	95	34	8		
Texas State Total	32,572	2,926	2414	392	103	17		
Panama City	0	0	0	0	0			
Pensacola	68	8	5	2	1	0		
Lake City	0	0	0	0	0	0		
Tallahassee	9	1	1	0	0	0		
Gainesville	0	0	0	0	0	0		
Ocala	9	1	1	0	0	0		
Tampa-St. Petersburg	18	2	2	0	0	0		
Ft. Myers	18	3	3	0	0	0		
Miami	16	5	5	0	0	0		
Sarasota	0	0	0	0	0	0		
Florida State Total	170	36	31	4	1	0		

Source: U.S. Census Bureau (2006)

Table III-17. Gulf of Mexico Employment in the Oil and Gas Industry in 2004, by Economic Impact Area (EIA)

Economic Impact Ar	Total		Establishments by						
	Mid-		<b>Employment Size Class</b>						
	March	Total			50 to	250 or			
EIA	<b>Employees</b>	<b>Establishments</b>	1 to 9	10 to 49	249	more			
AL-1	295	15	6	9	0	0			
MS-1									
	59	2	1	1	0	0			
LA-1									
LA-2									
LA-3	249	26	19	6	1	0			
LA-4	761	78	59	15	4	0			
Louisiana EIA									
Total	295	15	6	9	0	0			
	3,578	70	41	19	7	3			
TX-1	4,883	189	125	49	12	3			
TX-2									
TX-3	1,023	108	91	14	2	1			
Texas EIA Total	305	46	39	7	0	0			
	12,041	577	438	96	35	8			
FL-1	13,369	731	568	117	37	9			
FL-2									
FL-3	68	8	5	2	1	0			
FL-4	9	1	1	0	0	0			
Florida EIA Total	27	3	3	0	0	0			

Source: U.S. Census Bureau (2006)

**Table III-18. Gulf of Mexico Coastal Economic Zones Population Projections (Thousands)** 

	Gui of Mexico Coustai Deolionic Zones i opulation i rojections (Thousands)								
	Age Group								
	0 to	9	20 to	34	35 to	64	65-	-	
		% of		% of		% of		% of	Total
Year	Number	Total	Number	Total	Number	Total	Number	Total	Population
1980	4,866.99	31.8	3,899.23	25.4	4,636.12	30.2	1,926.65	12.6	15,329.00
1985	5,042.00	29.6	4,384.17	25.8	5,355.63	31.5	2,232.59	13.1	17,014.39
1990	5,245.13	29.2	4,304.21	24.0	5,931.43	33.0	2,479.96	13.8	17,960.74
1995	5,723.70	29.0	4,348.21	22.0	6,930.53	35.1	2,732.67	13.8	19,735.12
2000	6,119.28	28.6	4,356.75	20.4	8,024.78	37.5	2,890.45	13.5	21,391.27
2005	6,480.20	28.0	4,667.38	20.2	8,905.52	38.5	3,061.13	13.2	23,114.24
2010	6,708.06	27.2	5,033.44	20.4	9,562.43	38.7	3,381.20	13.7	24,685.12
2015	7,033.84	26.6	5,419.35	20.5	10,024.06	37.9	3,936.96	14.9	26,414.21
2020	7,504.93	26.6	5,550.89	19.7	10,532.47	37.4	4,600.48	16.3	28,188.77
2025	7,915.14	26.4	5,767.71	19.2	10,975.87	36.6	5,369.36	17.9	30,028.09
2030	8,352.37	26.1	6,058.33	18.9	11,464.86	35.9	6,099.00	19.1	31,974.57

Source: Woods and Poole Economics, Inc. (2004, 2006)