POPULATION SURVEY OF THE INTERIOR LEAST TERN ON THE MISSISSIPPI RIVER FROM CAPE GIRARDEAU, MISSOURI TO BATON ROUGE, LOUISIANA

2006

By

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Under Contract with URS Corporation

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On and between July 1 and July 15, 2006, Kenneth H. Jones, Associate Professor of Biology at Dyersburg State Community College, under contract with URS Corporation, conducted a survey of interior Least Tern (Sterna antillarum athalassos) nesting colonies along the Mississippi River. This annual survey is performed for the Memphis District Army Corps of Engineers and assists the U.S. Fish and Wildlife Service with its census in determining population size and distribution of the Interior Least Tern. This survey was the 22nd consecutive annual count since the surveys were initiated in 1985 by the Army Corps of Engineers. The survey area extended 777 miles from Cape Girardeau, Missouri (Upper River Mile 53) to Baton Rouge, Louisiana (River Mile 230) (Figure 1). In prior years three types of surveys were performed: towboat, aerial and small boat (Table 4, Figure 2). The towboat surveys were discontinued in 1995 as were the aerial surveys in 1997 when it became obvious that of the three, the small boat survey yielded the highest and most accurate counts. Past years' surveys terminated about 7 miles downstream of Vicksburg, Mississippi because early aerial surveys in 1986 indicated a scarcity of sandbars and relatively few terns downstream of Vicksburg. Beginning in 2004 the survey was extended to Baton Rouge, Louisiana in order to more thoroughly access the entire range of the Least Tern population on the Lower Mississippi River.

From 1985 through 1996, Least Tern surveys were conducted by John Rumancik, fishery and wildlife biologist from the Memphis District Army Corps of Engineers. Since 1997 the surveys have all been conducted by Dyersburg State Community College and Kenneth Jones, Associate Professor of Biology. Observers and crew members of this year's survey included John Rumancik and Mike Thron, both biologists with the Army Corps of Engineers and Elizabeth Burks and Ramona Warren, also Corps personnel. Experienced counters from past surveys helping on this year's count included Mark Campen, Andrea Carpenter, Dennis Davin, Zack Fowlkes, Guy Haglund, and Cliff Milburn. Other observers and crew members in 2006 included Dr. Jack Grubaugh, biology professor at the University of Memphis, and Dr. Larry Griffin.

This year's survey yielded a total count of 8,171 Least Terns and 107 nesting colonies, more colonies than have ever previously been recorded, and the third highest number of Least Terns since the surveys were initiated (the 2004 survey recorded 11,239 and 2005 recorded 10,960 Least Terns). Sixty-three colonies were identified based on the presence of eggs and/or chicks (Tables 1 and 2). Forty-four colonies were identified based on the presence of a large number of nest scrapes, adult behavior and other indicators of likely reproductive effort such as wetting breast feathers, sitting inland, carrying fish or intense mobbing of intruders. The largest colony was located near Island #84 Dikes (RM 533) with 600 adult terns counted. Other large colonies included Sunflower Cut-off (RM 625.0) with 388 birds, Leland Neck Dikes (RM 540.0) with 350, and Randolph (RM 771.1) with 279 Least Terns. The smallest colonies were at Lower Kentucky Bend Bar (RM 517.5), Cat Island Dikes (RM 710.0), and Smith Point Dikes (RM 599.5) with just 6, 7, and 7 birds.

Numbers of adult and juvenile Least Terns were recorded on data sheets developed by the Corps and based on the Cornell University Bird Registry Form. One data sheet was used for each observation with the following noted: date, time, river mile, latitude/longitude (decimal degrees determined from GPS), number of adult terns, presence of juveniles, chicks and eggs, number of nests observed and eggs or chicks in each, locations of sandbars, substrate, distance from vegetation and type, weather conditions, nearest river gage readings, and other notes on bird behavior, signs of predation or other disturbance. Nest counts were determined both by direct observation of scrapes containing eggs (empty scrapes were not counted) or observations of terns setting inland during waterline drift counts. On the data sheets egg counts are listed with number of nests followed with parentheses showing number of eggs (e.g. 1(1) 2(2) 3(3) would mean 1 nest with 1 egg, 2 nests with 2 eggs and 3 nests with 3 eggs). Foraged fingerling fish dropped within the colony were identified and/or collected. Colony locations were marked on 1998 Flood Control and Navigation Maps of the Mississippi River, 61st edition, USACE. Data sheets and colony locations are found in Appendix A.

The average number of adult terns per colony was 72, with colony sizes ranging from as little as 7 adults to as many as 600. The numbers of eggs per nest ranged from 1 to 3 and many nests were associated with debris wrack lines or in close proximity to small, random pieces of drift. Many adults were observed utilizing other habitats often miles away from the nearest colony locations. These habitats included both still and running water of all depths in the channel, behind dikes, in back chutes, tributary mouths, and fast current against revetted banks on the outside of river bends.

The boat survey was initiated July 1, 2006, with the river stage at Memphis, Tennessee at -0.1, and rising (Table 3). A slow rise over the next 7 days amounted to 7 additional ft. at Cairo, Ill., but only 3.5 ft. at Natchez, MS. This year, as in 2005, there was a concerted effort by the American Bird Conservancy to coordinate all Least Tern Monitoring activities within a two-three week time frame. This is to minimize the possibility of different surveys counting the same Least Terns from different areas while terns were still migrating, or recently displaced, looking for optimal breeding habitat. During this 2006 survey the river was exhibiting a slow, continuous rise for every location on the dates surveyed (Table 3). The survey proceeded downstream during daylight hours from Cape Girardeau, Mo., to Baton Rouge, La., at an average pace of 111 miles per day. Due to an outboard engine malfunction, the lower, last section of river just above Baton Rouge, LA (RM 320 to RM 250), was not surveyed until one week later on July 15, 2006.

Upon spotting a likely colony site, the boat would head for the greatest concentration of terns, then approach the bar as close as shallow water levels would allow, cut power, and motor slowly with the current along the perimeter of the bar. Two or more observers would count birds using 7x35 or 8x40 binoculars. One observer counted terns resting along the waterline, while

another observer counted birds in the air or sitting inland, presumably on nests. Usually after this preliminary count, and depending upon the sand bar configuration, the boat would go back and beach near the greatest concentration of terns and one or more observers would then walk toward the perceived center of the colony to find evidence of nesting activity, while others would fan out in different directions to traverse more of the colony area. This technique, counting as the boat proceeds downstream (hereafter referred to as a "perimeter count"), usually produced higher counts than just walking on the sand bar to the colony's center to induce mobbing (hereafter referred to as a "flush count"). It was particularly effective at colonies where terns were dispersed for several miles along the waterline and the sand bar was low enough that the observers could see across it. However, at many sites, especially those with back chutes with shores not visible from the boat on the channel side, it should be construed that many terns were not seen and the counts were conservative.

The presence of eggs or chicks was considered confirmation of nesting activity. Intense mobbing, wetting of breast feathers, and the presence of fresh scrapes were also considered to indicate an active nest colony at the 44 sites where no eggs or chicks were observed. Once a colony was located, several counts were made, both by observers stationed at the boat and those penetrating the colony. The highest number of birds sighted by any one observer was recorded as the total number for the site, but only when at least two observers were within 5% of the same figure. Only in colonies dispersed over ½ mile in length or with back chutes not visible to all observers, were numbers counted by individual observers added together to obtain a total count. One or two fledged juveniles were noted at each of 5 colony sites: Keys Point Dikes Lower (RM 787), Pickett Dikes (RM 703.5), Saint Francis Bend (RM 672), Helena Reach Upper (RM 652.5) and Leland Neck Dikes (RM 540). Since it is usually impossible to discriminate between flying juveniles and adults when determining total colony counts at long ranges, the adult counts at these five sites no doubt included some juveniles. Not all colonies were walked by members of the survey party, especially if the colony was widely dispersed and easily observed from the boat. In those instances, even though no eggs were observed, terns seen sitting higher up on the sand bar, away from the waterline, were counted as indicative of number of nests. This assumption produced the larger nest count totals up to 110, as shown in table 1.

As with previous surveys, observations within the colony were performed as quickly as possible (< 15 minutes) to minimize the disturbance time and limit the exposure of any chicks and eggs to the intense summer heat. Though mobbing behavior was often intense upon the observers first entering the colony, it ceased almost immediately as soon as the observers retreated. The highest counts usually occurred during the initial waterline count or upon the first few minutes of mobbing when most, if not all, of the adults in the colony would join in to dissuade the intrusion. Nesting adults, nest scrapes, and numbers of nests with eggs and chicks were recorded as well as other features of the habitat. Eight thousand one hundred seventy one (8,171) Least Terns were recorded at 144 locations (Table 1, Figure 1). Of these, 107 sites were identified as nesting colonies with 7,679 adults, 26 sites as resting bars only with 419 adults, and 11 observations were of 73 birds that could not be associated with colonies, either flying over feeding areas or in transit along the river. Of the identified nest colonies, 50 had eggs and/or chicks present and 57 had no observed chicks or eggs. Of the 50 colonies with eggs and/or chicks observed, 20 had chicks but no eggs, 15 had eggs but no chicks, and 15 had both chicks and eggs present within the colony.

As with previous years, the typical tern nest colony was located on an unattached (surrounded by water) sand and/or gravel bar usually associated with a dike field. Those colonies that were attached were located on very large, remote point bars, ½ to 1 mile in width, and often 2 to 4 miles in length. Isolation and remoteness appeared to be the main selection criteria. The larger colonies were hundreds of acres in size, while some of the smallest were just a few acres or less.

The locations of the colonies as indicated on the 1998 Navigation Maps (Appendix A-I) should be viewed as only approximations based on river mile markers visible from or nearby the sites. Since many sand and gravel bars do move or change shape often, such features on the maps do not necessarily correspond to the actual conditions at the time of the survey (hence the occasional colony indicated in open water). For exact colony locations the GPS latitude/longitude coordinates (decimal degrees) are the most accurate and should be referenced as occurring at the water's edge on the channel side of the colony (except when specified otherwise on the data sheets). Most colonies were located on the high centers or distributed evenly across the bars showing no preference for river vs. chute sides, though there were some exceptions.

The colonies' proximities to the nearest water (least distance from any nest with eggs to the waterline) varied from 10 to 1,200 feet and averaged ~236 feet. Though some colonies were densely populated, with scrapes occurring within a few feet of each other, many more colonies were extremely dispersed with nests occurring hundreds of feet apart and the colony extending as far as a mile or more across the larger sandbars. Major vegetation was absent or far removed (>300 feet) from 93 colony sites, but 12 did have sparse stands of sapling Cottonwoods (*Populus deltoids*) and/or Black Willows (*Salix nigra*) within 300 feet of active nests. The other colonies with vegetation had only very sparse, recently emerged grasses, sedges and forbs in small patches within the colony. Most open water within 2 miles of active colonies appeared to be utilized by foraging terns. These sites included swift current on revetted outside bends, slack water between dikes, chutes, mouths of tributaries and even mid-channel currents.

Recent evidence of predation on terns, their eggs or chicks was noted at 11 colony sites. Mostly Coyotes, but also dogs, foxes, and in one case, an owl, were considered responsible for those instances as their tracks wandered from scrape to scrape, with pouncing and often leaving egg shell fragments behind as evidence. The presence of coyote, fox and/or dog tracks was noted at 27 sites and suggests that coyotes and/or feral dogs are one of the more common predation threats to nesting Least Terns along the Lower Mississippi River. Of 107 colonies, 33 had track evidence of recent intrusion by humans on foot, by boats and ATVs. In 15 colonies there were day campers present at the time of the survey date, but with most limiting their activities to the water line. The fact that July $1-4^{\rm th}$ was an extended holiday no doubt increased human recreational activity during these dates of the survey.

Besides Coyotes (*Canis latrans*), fox (*Vulpes* or *Urocyon*), and owl (*Bulbo* or *Strix*) other potential predators, or their sign, seen near colonies during this year's survey included Muskrat (*Ondatra zibethica*), Black Bear (*Ursus americanus*), Great Blue Heron (*Ardea herodius*), Egrets (*Casmerodius*, *Egretta*, *Bubulcus*), American Crow (*Corvus brachyrhynchos*), Turkey Vulture

(Cathartes aura), Black Vulture (Coragyps atratus), Mississippi Kite (Ictinia mississippiensis), Osprey (Pandion haliaetus), and Bald Eagle (Haliaeetus leucocephalus).

Other bird species observed on the sand bars or in close proximity to Least Tern colonies included White Pelican (*Pelecanus erythrorhyncos*), Anhinga (*Anhinga anhinga*), Double-Crested Cormorant (*Phalocrorax auritus*), Cattle Egret (*Bubulcus ibis*), Snowy egret (*Egretta thula*), Great Egret (*Casmerodius albus*), Great Blue Heron (*Ardea herodias*), Green Heron (*Butorides striatus*), Belted Kingfisher (*Megaceryle alcyon*) White Ibis (*Eudocius albus*), Canada Goose (*Branta canadensis*), Mallard Duck (*Anas platyrhynchos*), Ring-necked Duck (*Aythya collaris*), Killdeer (*Charadrius vociferous*), Sandpipers (*Calidris sp.*) Pectoral Sandpiper (*Calidris melanotos*) Greater Yellowlegs (*Tringa melanoleuca*), Caspian Tern (*Sterna caspia*), Black Tern (*Chlidonias niger*) Tree Swallow (*Tachycineta bicolor*), Purple Martin (*Progne subis*), Rough-winged Swallow (*Stelgidopteryx serripennis*), Cliff Swallow (*Hirundo Pyrrhonota*), Barn Swallow (*Hirundo rustica*), Red-winged Blackbird (*Agelaius phoeniceus*), and Common Grackle (*Quiscalus quiscula*).

Other birds noted away from Least Tern habitat were Red-tailed Hawk (Buteo jamaicensis), Rock Dove (Columba livia), Mourning Dove (Zenaida macroura), Eastern Kingbird (Tyrannus tyrannus), Prothonotary Warbler (Protonotaria citrea), Indigo Bunting (Passerina cyanea), Yellow-billed Cuckoo (Coccyzus americanus), Common Nighthawk (Chordeiles minor), Chimney Swift(Chaetura pelagica), Blue Jay (Cyanocitta cristata), American Robin (Turdus migratorius), Northern Mockingbird (Mimus polyglottos), European Starling (Sturnus vulgaris), Northern Cardinal (Cardinalis cardinalis), Eastern Meadowlark (Sternella magna), Dickcissel (Spiza americana), Cowbird (Molothrus ater), Summer Tanager (Piranga rubra), and Eastern Pewee (Contopus virens).

Fingerling size fish of shad (*Dorosoma*), Largemouth Bass (*Micropterus salmoides*), White Crappie (*Pomoxis annularis*), Silverside (*Atherinidae*) and Gambusia (*Gambusia*) were found in colonies and are presumed to have been dropped by foraging adults.

This year's survey was the third to cover the additional 200 river miles below Vicksburg, Mississippi and yielded a total count that was down from both the 2004 and 2005 counts by roughly 25%. Though purely speculative, the following factors may have contributed to this drop in numbers.

- 1) Hurricane Katrina (August 2005) may have disrupted the fall migration of Least Terns causing more mortality, either directly or indirectly, than is normally experienced by the inland nesting population.
- 2) Katrina may have enhanced coastal nesting habitats for Least Terns with more breeding birds opting for southern coastal colony locations in 2006 rather than riparian locations farther north.
- 3) Lower than usual river stages produced more available colony sites in 2006, but because of the wide dispersal of terns breeding at these locations, counts were more likely to miss birds than in previous years.
- 4) Or, this year's count simply reflected a downward trend in the population that, according to 20 years of census data, fluctuates with peaks and valleys every 4 to 5 years.

Table 1: Least Tern Survey - July 1 - July 15, 2006 - Mississippi River Cape Girardeau, Missouri, to Baton Rouge, Louisiana

River	cape Girardeau, Missouri, to Bate		,		Least		
Mile	Mississippi River Location	State	Lat. N	Long. W	Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
UR 33.0	Billings Island	МО			7		0
UR 30.5	Bumgard Island	IL	37.04536	89.38146	43	*	19
UR 23.2	Browns Bar	IL			2		0
UR 17.0	Thompson Towhead	МО	37.05447	89.30672	17	*	2
946.0	Island #1 Dikes	KY	36.8899	89.1171	9		0
940.0	Below Campbell Dikes	KY	36.80566	89.13377	16	c*	5
930.5	Wolf Island Bar	KY	36.6884	89.14823	43	c*	19
928.0	Moore Island Dikes	МО	36.65362	89.17402	44	c*	12
924.5	Beckwith Bend	KY	36.60621	89.20321	28	*	5
920.0	Hickman Bend	МО	36.56873	89.23691	35	c*	1
908.0	Island #6	KY	36.5475	89.3989	3		0
887.5	Kentucky Point Dikes Upper	KY	36.6653	89.5460	3		0
884.0	Kentucky Point Dikes Lower	KY	36.52359	89.55793	32	c*	7
880.5	Island #11 Dikes	МО	36.4721	89.5230	7		0
876.0	Marr Towhead	TN	36.4184	89.5363	7		0
872.5	Stewart Towhead Dikes Upper	МО	36.37141	89.51267	51	c*	0
871.5	Stewart Towhead Dikes	МО			160	c*	0
870.0	Stewart Towhead Dikes Lower	МО	36.34520	89.52884	31	c*	0
864.5	Below Cherokee D kes	TN	36.32756	89.61777	26	c*	1
857.3	Chute of Island #14	МО	36.25230	89.56588	32		0
850.5	Island #15 Dikes	TN			3		0
846.3	Opp. Caruthersville Dikes	TN	36.19854	89.64261	26	c*	0
840-843	Linwood Bend	МО			15		0
836.0	Island #18 Towhead Dikes	TN	36.09858	89.65790	84	c*	15
830.0	Island #20 D kes Upper	TN	36.02275	89.69420	14	*	2
828.2	Island #20 D kes Lower	TN	36.01326	89.70654	17	*	5
827.0	Head of Island #21 D kes	TN			7		0
825.2	Island #21	TN	35.96197	89.71049	21	*	0
819.0	Wrights Point Dikes	AR	35.91050	89.64811	62	c*	4
811.5	Below Tamm Bend Dikes Upper	TN	35.9077	89.7404	29		0
810.0	Below Tamm Bend Dikes Lower	TN	35.8973	89.7557	7		0
808.5	Nebraska Point D kes Upper	TN	35.8719	89.7663	59	*	2

SUBTOTAL 940

Table 1 continued: Least Tern Survey - July 1 - July 15, 2006 - Mississippi River Cape Girardeau, MO, to Baton Rouge, LA

River	Cupe Grandeda, 1410, a				Least		
Mile	Mississippi River Location	State	Lat. N	Long. W	Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
807.3	Nebraska Point Dikes Lower	TN	35.85819	89.75436	24	c*	0
805.0	Island #25 Dikes	AR			1		0
803.0	Bend of Island #25	AR	35.82105	89.69914	50	c*	3
799.0	Forked Deer D kes Upper	TN	35.79076	89.74235	18	c*	3
797.5	Forked Deer Dikes Lower	TN	35.78173	89.76920	89	c*	1
794.0	Ashport Goldust Dikes	AR	35.75007	89.91951	48	c*	1
789.5	Keyes Point Dikes Upper	TN	35.72993	89.90128	125	c*	19
787.0	Keyes Point Dikes Lower	TN	35.71472	89.93761	30	c*	6
783.5	Below Plum Point D kes	TN	35.65804	89.91649	96	c*	32
780	Driver Cut-Off	AR			2		0
775.5	Hatchie Towhead	TN	35.568	89.914	38	*	8
771.1	Randolph	TN	35.52663	89.89879	279	c*	63
766.0	Below Richardson Landing Dikes	TN	35.5070	90.0077	16	*	0
760.5	Cedar Point	TN	35.45791	89.99908	33		0
755.0	Densford Bar	TN	35.3902	90.0703	56	*	1
744.5	Hickman Bar	TN	35.25260	90.09265	86	c*	1
740.5	Loosahatchie Bar Dikes	AR	35.20900	90.072429	38	c*	0
733.0	Engineer Bar Dikes	AR	35.1235	90.1020	11	c*	0
730.0	Vice Presidents Island #46	TN	35.11744	90.1707	21	*	14
725.0	Dismal Point D kes Upper	AR	35.06633	90.18530	23	*	0
720.8	Dismal Point Dikes Lower	AR			6		0
716.0	Cow Island Bend Upper	MS	35.00984	90.29417	130	c*	4
714.0	Cow Island Bend Lower	MS	34.96495	90.27486	3		0
710.0	Cat Island Dikes	AR	34.93881	90.2457	7	*	1
707.5	Cat Island No. 50	AR	39.89460	90.26430	56	c*	12
702.5	Pickett D kes	AR	34.87502	90.31190	242	c*	44
700.0	Porter Lake Dikes Upper	AR	34.84440	90.36590	91	c*	12
698.5	Porter Lake Dikes Lower	AR			16		0
693.0	Commerce Dikes	MS	34.8152	90.4563	130	c*	6
687.0	Mhoon Bend	AR	34.73875	90.45414	133	*	3
680.0	Bordeaux Point D kes	MS	34.7300	90.5656	47	c*	2
676.7	Hardin Cut-Off	AR	34.68682	90.56555	252	c*	41

SUBTOTAL 2,197

Table 1 continued: Least Tern Survey - July 1 - July 15, 2006 - Mississippi River Cape Girardeau, MO, to Baton Rouge, LA

River	Cupe Offardeda, 1410, to				Least		
Mile	Mississippi River Location	State	Lat. N	Long. W	Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
676.5	Below Walnut Bend Dikes	AR	34.6742	90.5752	12		0
672.0	St. Francis Bend	MS	34.6241	90.5835	123	c*	9
668.0	Prairie Point D kes	AR	34.5625	90.5536	39	*	4
666.5	Prairie Point Towhead	AR	34.54669	90.54383	86	c*	30
662.5	Helena Reach Upper	MS	34.51256	90.58333	60	c*	11
660.0	Helena Reach Lower	MS	34.4602	90.5827	37	*	1
656	Montezuma Towhead Dikes	AR	34.4106	90.5911	11	*	5
651.5	Friars Point Dikes	MS	34.37736	90.66152	94	*	24
647.0	Kangaroo Point Dikes	AR	34.3661	90.7297	25		0
643.4	Old Town Bend	MS	34.3485	90.7658	26		0
640.0	Island #62 D kes Upper	AR	34.3064	90.7400	27		0
637.0	Island #62 Dikes Lower	AR	34.2764	90.7669	20		0
633.0	Robson Towhead	MS	34.26166	90.83301	15		0
629.0	Island #64 Dikes	AR	34.2203	90.8483	27		0
625.0	Sunflower Cut-Off	AR	34.16858	90.89939	388	c*	110
623.0	Below Ludlow Dikes	AR	34.1583	90.9303	5		0
620.0	Island #67 Dikes	MS	34.1150	90.9490	41	*	7
616.0	Below Knowlton Dikes Upper	AR	34.0811	90.9081	37	*	3
613.6	Below Knowlton D kes	AR	34.04383	90.89169	72	c*	1
611.0	Below Knowlton Dikes Lower	AR			11	*	1
608.0	Island #70 Dikes	MS	34.0233	90.9667	44	*	3
603.0	Henrico D kes	MS	33.9898	91.0500	64	c*	1
599.5	Smith Point Dikes	MS	33.9571	91.0798	7	*	2
595.0	Victoria Bend Dikes	AR	33.9295	91.0186	30	c*	14
589.0	Terrene Dikes	MS	33.8415	91.0632	18	*	7
583.5	Malone Field Dikes	AR	33.7860	91.0517	113	*	18
578.0	Below Prentiss Dikes	MS	33.7502	91.1336	28	c*	7
573.5	Caulk Neck Cut-Off	AR	33.7087	91.1706	67	*	9
568.6	Catfish Point Dikes	MS	33.6781	91.2242	76	*	5
560.0	Choctaw Bar Island	AR			7		
554.0	Huntington Point	MS			30	*	8
550.0	Ashbrook Cutoff Dikes	MS	33.51860	91.19605	92	c*	20

SUBTOTAL 1,732

Table 1 continued: Least Tern Survey - July 1 - July 15, 2006 - Mississippi River Cape Girardeau, MO, to Baton Rouge, LA

River					Least		
Mile	Mississippi River Location	State	Lat. N	Long. W	Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
544.5	Island #82 Miller Bend D kes	AR	33.45265	91.12111	23	*	0
541.5	Tarpley Cutoff Dikes	MS	33.42761	91.11880	103	c*	1
540.0	Leland Neck Dikes	MS	33.40525	91.10829	350	c*	0
533.0	Island #84 D kes Upper	MS	33.31610	91.17846	600	c*	40
532.2	Island #84 Dikes Lower	MS	33.30069	91.16606	49	c*	23
528.3	Refuge D kes	MS	33.2664	91.1222	30	c*	2
523.0	Seven Oaks D kes	AR	33.1814	91.0904	18		0
521.0	Island #86 D kes Upper	AR	33.15335	91.08585	16	*	4
519.5	Island #86 D kes Lower	AR	33.13931	91.09040	16	*	0
518.1	Kentucky Bend Bar Upper	MS	33.1403	91.0899	35	*	7
517.5	Kentucky Bend Bar Lower	MS	33.1214	91.1011	6	*	1
514.0	Leota Dikes	MS	33.0978	91.1592	27	*	1
509.5	Cracraft Lower Dikes	AR	33.03874	91.15846	58	*	3
504.0	Corregidor Dikes	MS	32.95736	91.14347	79	*	5
499.5	Wilson Point D kes	LA	32.9435	91.0833	30	*	2
491.5	Baleshed Landing Dikes	MS	32.8417	91.1278	169	*	30
487.5	Ben Lommond Dikes	MS	32.80114	91.14859	73	*	4
484.0	Ajax Bar Dikes Upper	MS	32.74734	91.14461	10	c*	1
481.6	Ajax Bar D kes Lower	MS	32.7375	91.1192	25		0
476.6	Point Lookout Dike	LA	32.70994	91.05667	152	*	16
468.0	Cottonwood Bar	LA	32.63442	91.15839	16	*	1
467.0	Arcadia Point Dikes	MS	32.6250	91.1375	90	*	22
460.4	Willow Cutoff D kes	LA	32.5361	91.1006	37	*	2
456.0	Milliken Bend	MS	32.4742	91.1042	68	c*	32
446.5	Marshall Cutoff D kes	LA	32.40670	90.99530	149	*	70
440.0	False Point Dikes	LA	32.33000	90.94648	8	*	4
432.5	Racetrack Towhead Dikes	LA	32.28504	90.94882	22	c*	6
429.5	Below Racetrack Dikes	MS	32.2389	90.9694	24	*	8
425.0	Oak Bend	MS			12		0
422.5	Diamond Point Cutoff Dikes	MS	32.1503	91.0085	17	*	1
419.0	Newton Bend Dikes	LA	32.1367	91.0100	11		0

SUBTOTAL 2,323

Table 1 continued: Least Tern Survey - July 1-July 15, 2006 - Mississippi River

Cape Girardeau, MO, to Baton Rouge, LA

River					Least		
Mile	Mississippi River Location		Lat. N	Long. W	Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
414.0	Togo Island D kes	LA	32.1072	91.0997	90	*	39
409.5	Yucatan D kes	MS	32.0589	91.0628	10		0
402.0	Coffee Point Dikes	LA	31.98511	91.13611	90	*	2
398	Below Grand Gulf D kes	MS	31.96746	91.18238	106	*	16
393.5	Bondurant Towhead Dikes	LA	31.89964	91.20785	68	*	2
384.2	Spithead Towhead D kes	MS	31.84327	91.34509	93	c*	10
378.0	Waterproof Dikes		31.7604	91.3708	21	*	4
372.5	Farichilds Bend	MS			18		0
357.0	Carthage Point Dikes	MS	31.5197	91.4103	69	*	17
349.0	Opposite Warnicott Landing Dikes	MS	31.4208	91.4950	13		0
347.5	Esperance Point	LA	31.3580	91.4848	73	*	18
341.3	Washout Bayou	MS			3		0
336.5	Fritz Island Dikes	LA	31.26087	91.56138	165	*	36
329.0	Jackson Point	MS	31.2411	91.6475	26		0
322.0	Homochito Cuttoff	LA	31.1742	91.5947	16	c*	3
305.0	Shreves Bar	LA	30.9960	91.6441	32	*	2
300.5	Hog Point Dikes	LA	30.9347	91.6450	86	c*	13

SUBTOTAL	979

TOTAL INDIVIDUALS	8,171
TOTAL SITES	144
TOTAL COLONIES	107

c Confirmed chicks or eggs

^{*} Nest colony determined by bird behavior (sitting inland, breasting, carrying fish, etc.)

Table 2: Summary of 2006 Least Tern Survey on the Lower Mississippi River

River Reach	Number of Terns (July 1-July 15, 2006)
Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954	69
Cairo, IL, to Osceola, AR RM 954 – RM 790	1,101
Osceola, AR, to Helena, AR RM 790 – RM 670	2,102
Helena, AR, to Greenville, MS RM 670 – RM 530	2,722
Greenville, MS, to Vicksburg, MS RM 530 – RM 430	1,134
Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230	1,043
TOTAL	8,171
River Reach	Number of Colonies
Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954	2
Cairo, IL, to Osceola, AR RM 954 – RM 790	22
Osceola, AR, to Helena, AR RM 790 – RM 670	22
Helena, AR, to Greenville, MS RM 670 – RM 530	27
Greenville, MS, to Vicksburg, MS RM 530 – RM 430	20
Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230	14

107

TOTAL

Table 3: Gage Readings – Lower Mississippi River Least Tern Surveys – July 2006

numbers indicate crest in following river rise. Shaded numbers indicate stages at time of survey.

D .	<i>a</i> ·	NT NG 1:1	C 4 '11	3.6 1.	Bold	A 1 C'	C '11	X7' 1 1	NT 4 1
Date	Cairo	New Madrid	Caruthersville	Memphis	Helena	Arkansas City	Greenville	Vicksburg	Natchez
June	140	4.2	7.4	0.4	6.0	67	17.2	10.7	10.1
20	14.2 13.9	4.2 3.9	7.4	0.4	6.9 7.1	6.7 6.4	17.2 17.0	10.7 10.1	19.1 18.2
	13.7		6.7				16.9		
22	13.7	3.5		-0.2	6.8	6.5		9.9	17.6 17.1
23	14.4	3.2	6.4	-0.6 -1.0	6.6	6.2 6.1	17.0 16.7	9.7	16.9
25	14.4	3.8	6.5	-1.0	5.4	5.6	16.1	9.5 9.3	16.8
26	14.7	3.9	6.7	-1.5	4.9	5.7	16.1	8.9	16.4
27	15.4	4.4	7.0		4.9	5.0	15.5	8.6	16.1
28	15.4	4.9	7.5	-1.4 -1.2	4.7	4.7	15.0	8.1	15.8
29	16.3	5.3	7.9	-0.9	4.7	4.4	14.8	7.5	15.3
30	18.4	6.5	8.5	-0.9	5.1	4.4	14.7	7.3	14.8
July	10.4	0.5	0.5	-0.3	3.1	4.4	14./	7.1	14.0
1	19.0	7.9	9.9	-0.1	5.4	4.7	14.8	6.9	14.4
2	19.6	8.8	10.8	1.1	6.1	5.0	15.5	6.9	14.2
3	20.2	9.4	11.5	2.1	7.2	5.2	15.4	7.2	14.4
4	20.4	10.0	12.1	2.8	8.1	5.7	15.9	7.6	14.6
5	19.0	9.8	12.4	3.6	8.9	6.4	16.6	8.1	14.9
6	15.6	7.9	11.4	4.1	9.7	8.0	17.4	8.8	15.5
7	14.1	5.1	9.1	3.5	9.9	7.6	18.4	9.7	16.1
8	14.2	3.7	7.3	1.9	9.2	7.8	18.5	10.4	16.9
9	14.6	3.8	6.7	-0.1	7.6	7.6	18.5	10.8	17.4
10	15.7	4.4	6.9	-1.2	5.9	6.7	17.8	10.8	17.8
11	17.9	5.9	7.8	-1.4	4.8	5.6	17.3	10.2	17.8
12	17.8	7.3	9.4	-0.8	4.8	4.9	15.5	9.2	17.2
13	16.6	7.0	9.8	0.6	5.4	4.5	15.2	8.1	16.4
14	15.2	5.7	9.1	1.4	6.6	4.8	15.8	7.3	15.4
15	14.6	4.8	8.0	1.1	7.4	6.1	17.4	7.4	14.8
16	16.7	4.7	7.4	0.3	7.2	6.4	17.5	8.2	14.9
17	17.7	6.4	8.5	-0.5	6.5	5.9	16.3	8.8	15.6
18	18.7	7.5	9.5	-0.2	6.1	5.7	16.3	9.0	16.0
19	19.7	8.5	10.5	0.9	6.4	5.7	16.2	8.7	16.0
20	19.8	9.2	11.4	1.8	7.1	5.8	16.1	8.5	15.9
21	18.8	8.8	11.5	2.8	8.0	6.5	16.4	8.4	15.7

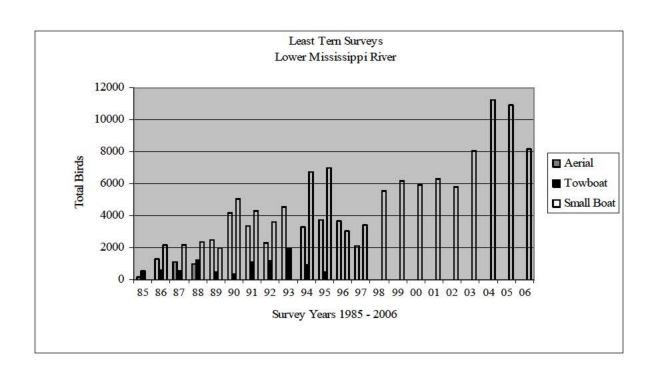
Table 4: Summary of Least Tern Surveys – 1985 – 2006 Lower Mississippi River

Year

Aerial

Colonies

Individuals	187	1,332	1,125	1.018	2,503	4,182	3,358	2,311	4,589	3,303	3,759
Sites	12	37	49	56	58	56	67	80	66	66	63
Colonies	3	16	24	31	46	36	56	61	46	40	51
Towboat											
Individuals	577	595	575	1,235	508	357	1,154	1,216	2,031	965	489
Sites	35	39	45	71	25	31	39	47	48	39	25
Colonies	15	16	21	33	9	3	29	34	21	30	1
Small Boat											
Individuals	0	2,188	2,206	2,356	2,005	5,038	4,297	3,653	0	6,776	6,97
Sites	0	41	50	72	64	38	66	81	0	78	70
Colonies	0	28	46	60	42	32	57	74	0	69	62
											_
Year Aerial	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Individuals	3,677	2,129	0	0	0	0	0	0	0	0	0
Sites	81	81	0	0	0	0	0	0	0	0	0
Colonies	20	23	0	0	0	0	0	0	0	0	0
Towboat											
Individuals	0	0	0	0	0	0	0	0	0	0	0
Sites	0	0	0	0	0	0	0	0	0	0	0
Colonies	0	0	0	0	0	0	0	0	0	0	0
Small Boat											
Individuals	3,067	3,428	5,538	6,159	5,920	6,361	5,802	8,082	11,239	10,960	8,171



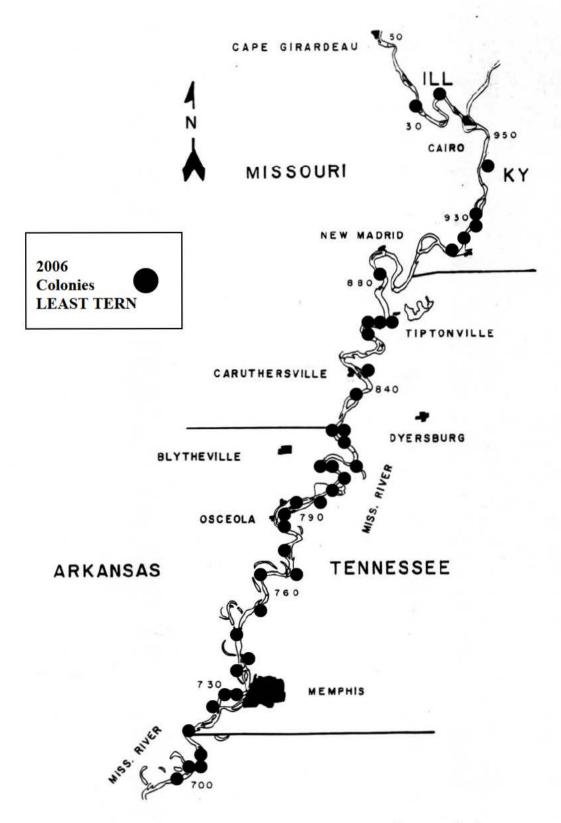


Figure 1: Least Tern Survey – 2006 – Area Map of Nest Colonies on Mississippi River – Cape Girardeau, MO to Baton Rouge, LA

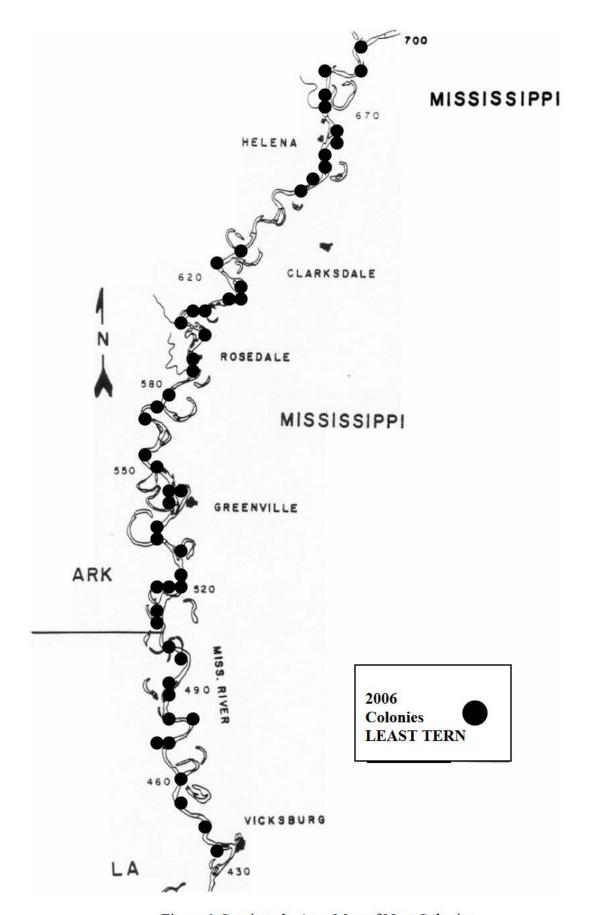


Figure 1 Continued: Area Map of Nest Colonies

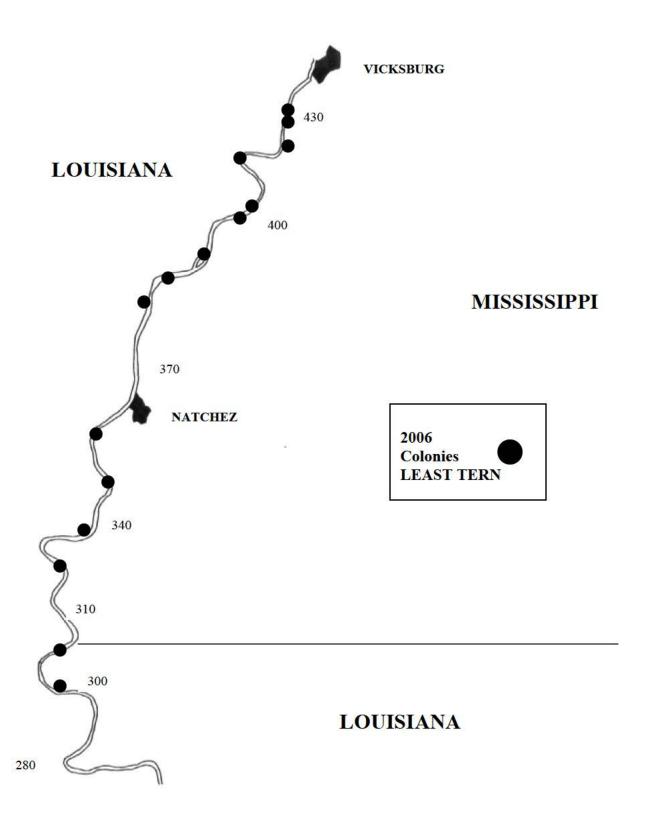


Figure 1 Continued: Area Map of Nest Colonies

Population Survey of the Interior Least Tern On the Mississippi River from Cape Girardeau, Missouri to Baton Rouge, Louisiana

2006

APPENDIX A

APPENDIX A – I

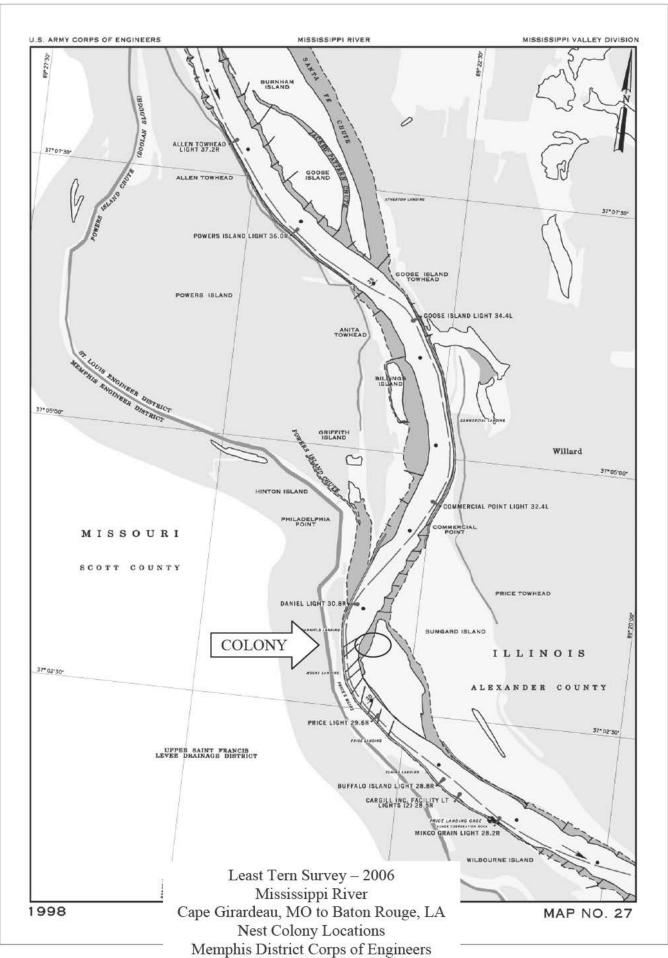
LEAST TERN SURVEY - 2006

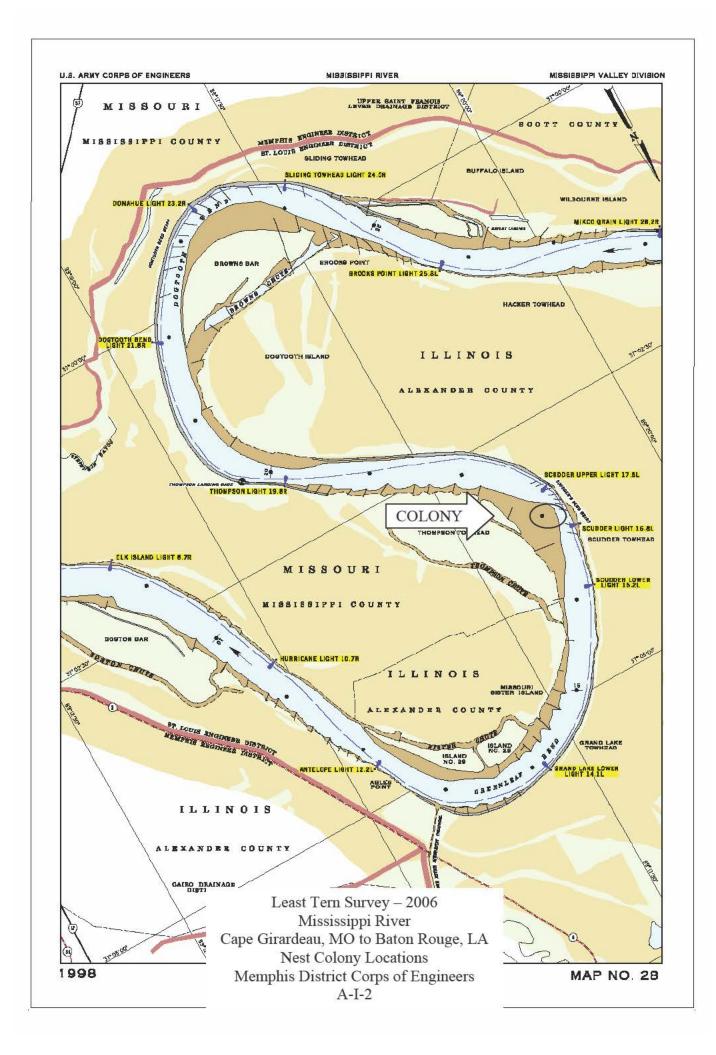
Mississippi River Cape Girardeau, MO to Baton Rouge, LA

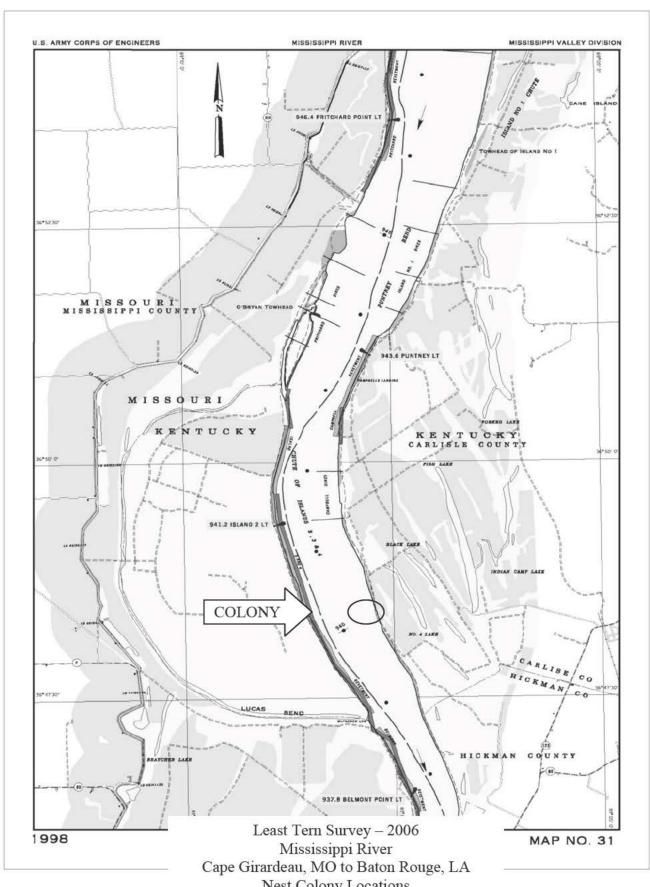
NEST COLONY LOCATIONS

Memphis District, Corps of Engineers

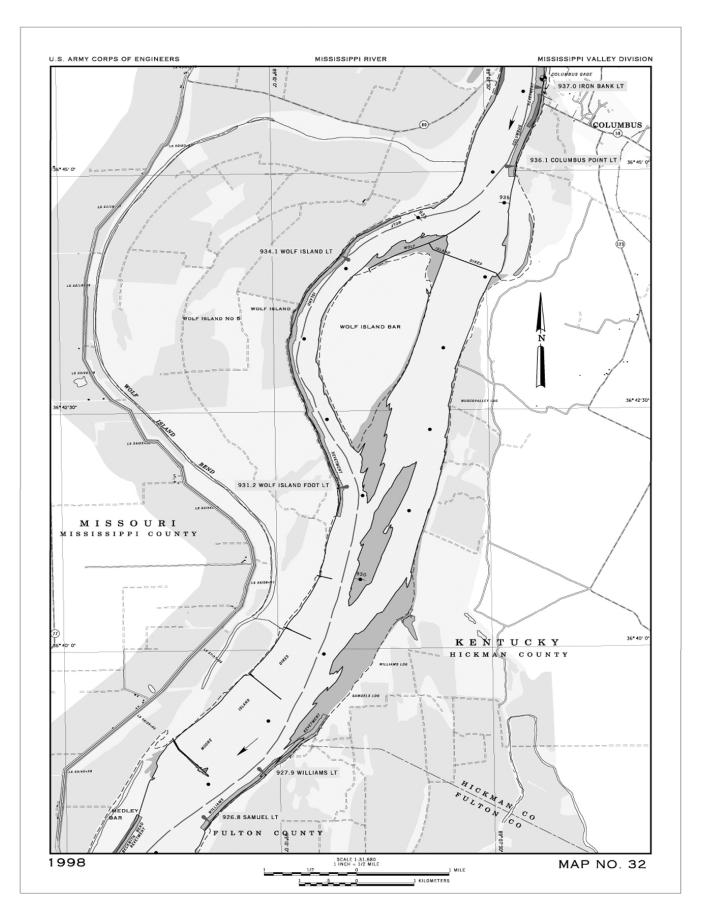
Maps



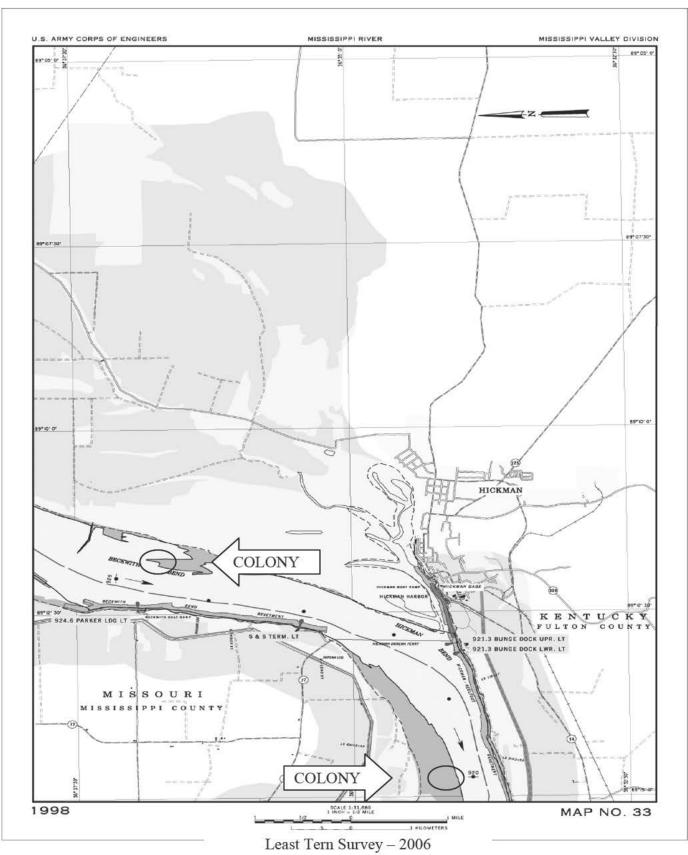




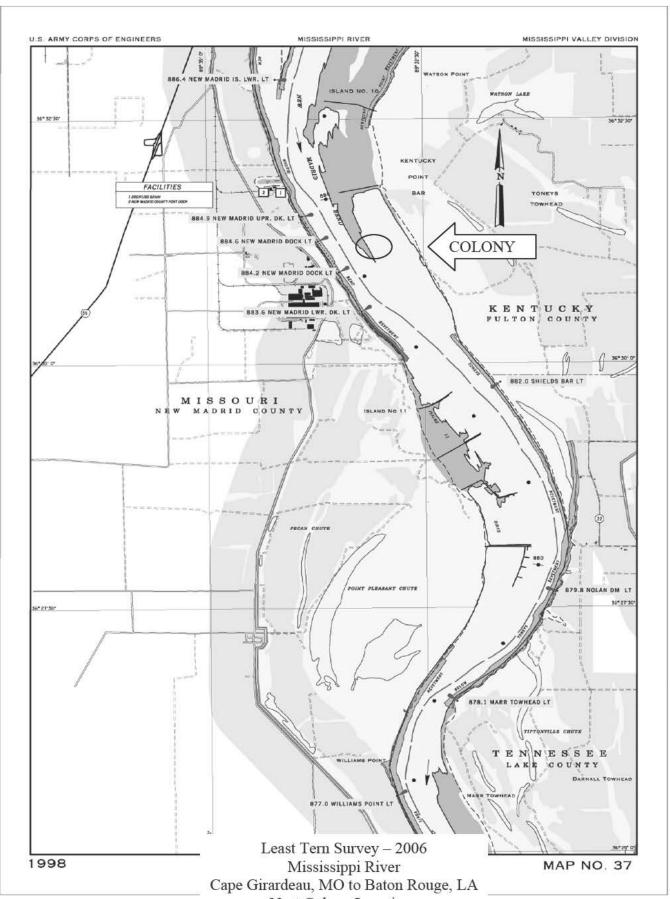
Nest Colony Locations Memphis District Corps of Engineers A-I-3



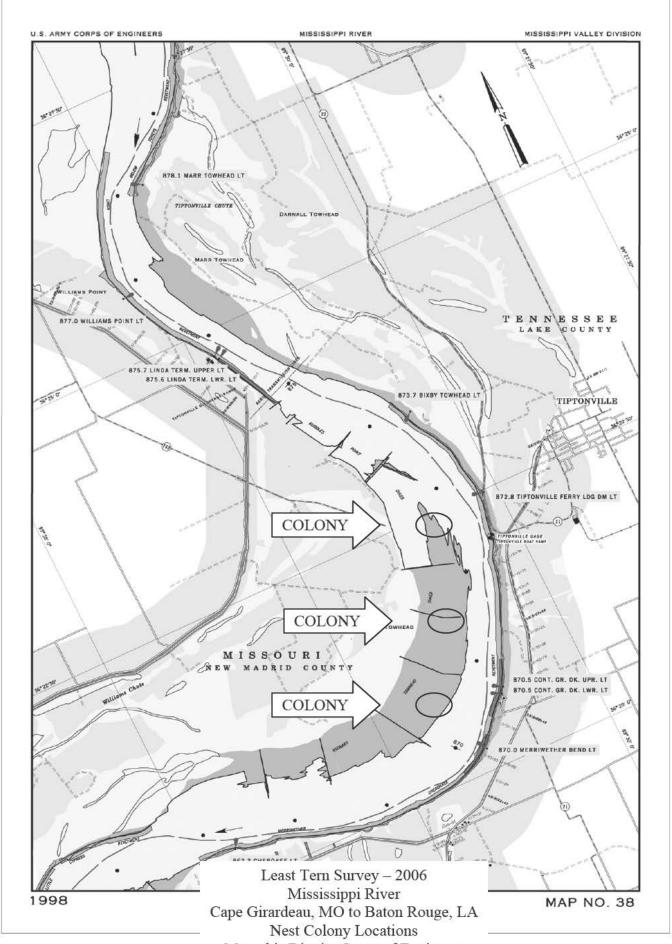
Memphis District Corps of Engineers A-I-4

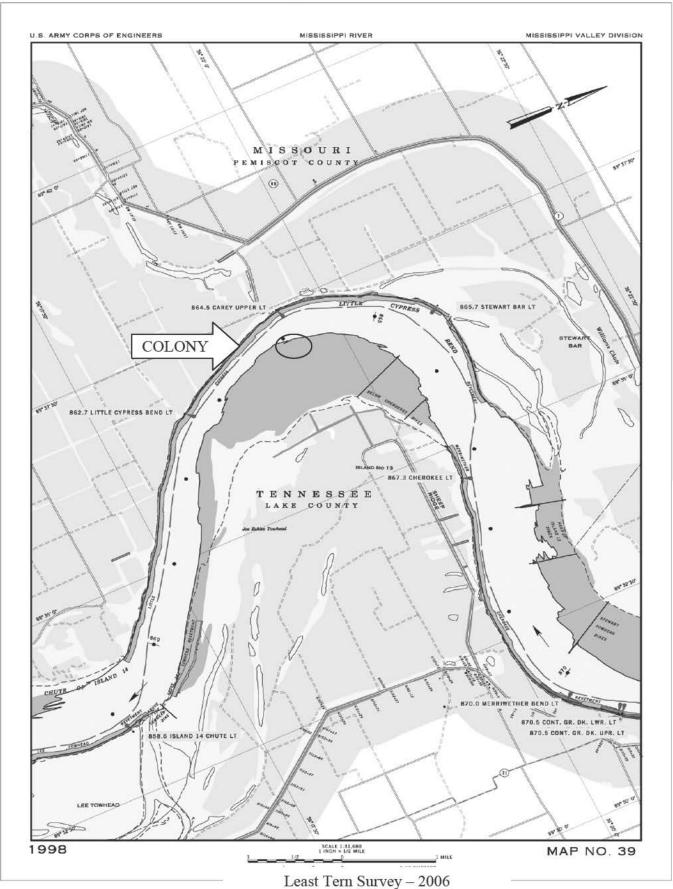


Least Tern Survey – 2006
Mississippi River
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-5

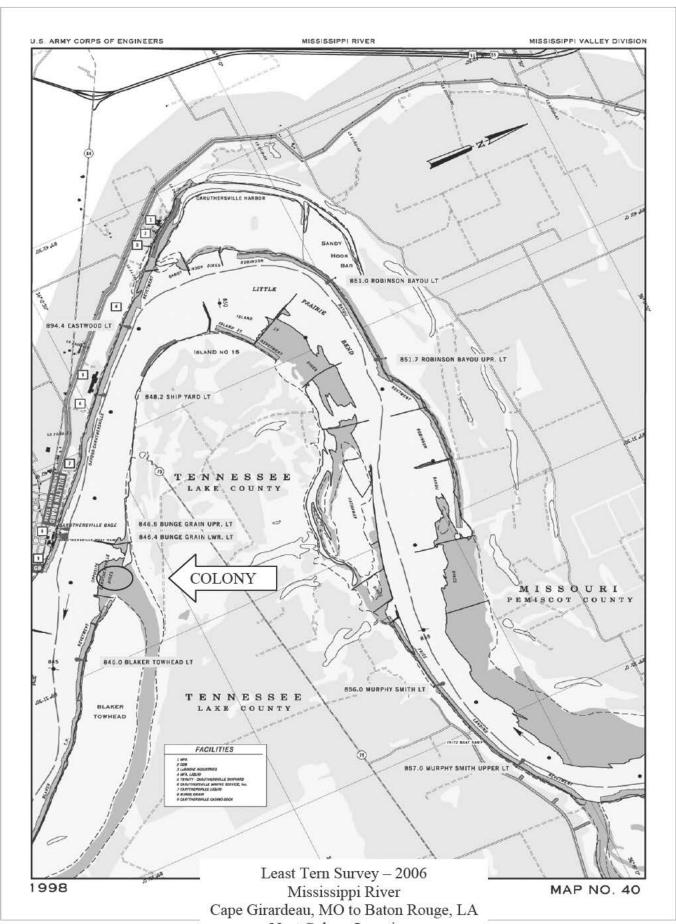


Nest Colony Locations Memphis District Corps of Engineers A-I-6

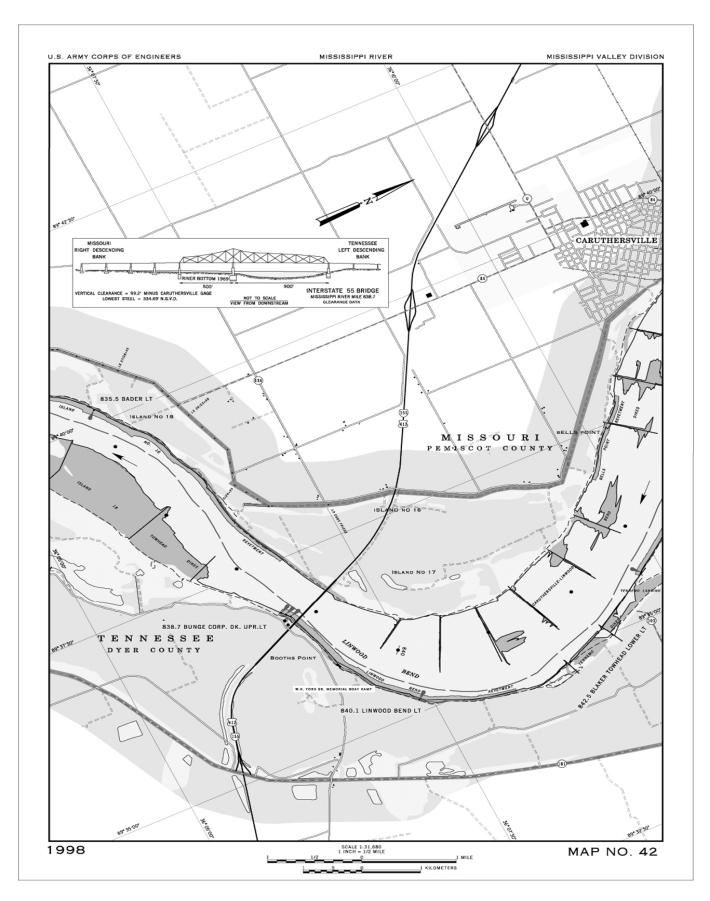




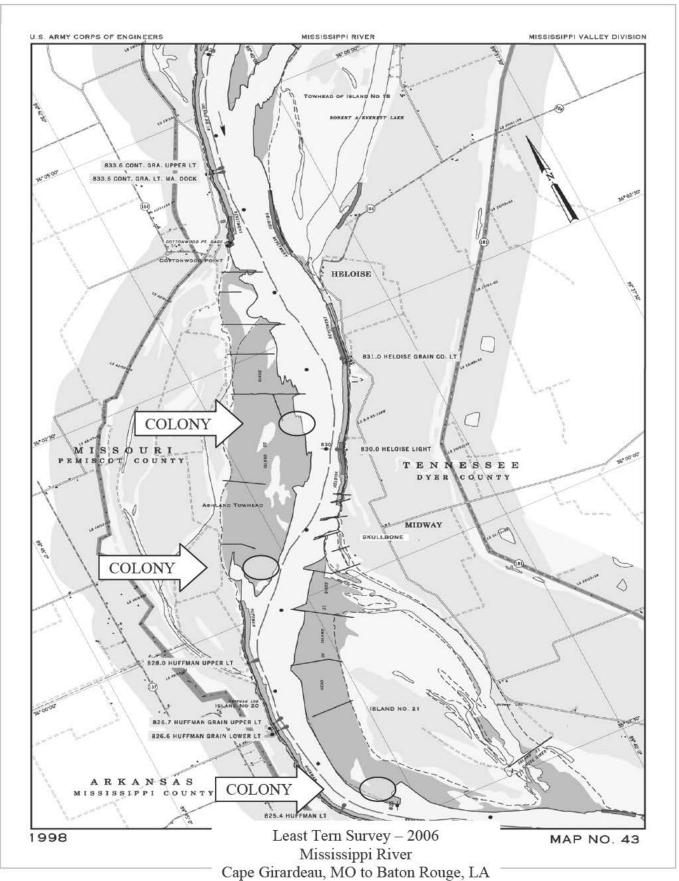
Mississippi River
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-8



Nest Colony Locations Memphis District Corps of Engineers A-I-9



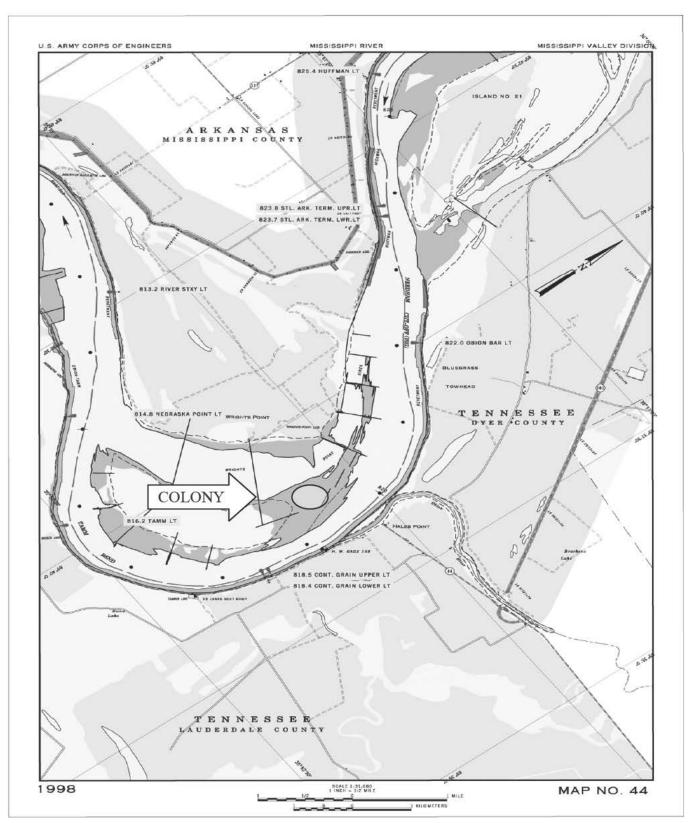
Nest Colony Locations
Memphis District Corps of Engineers
A-I-10



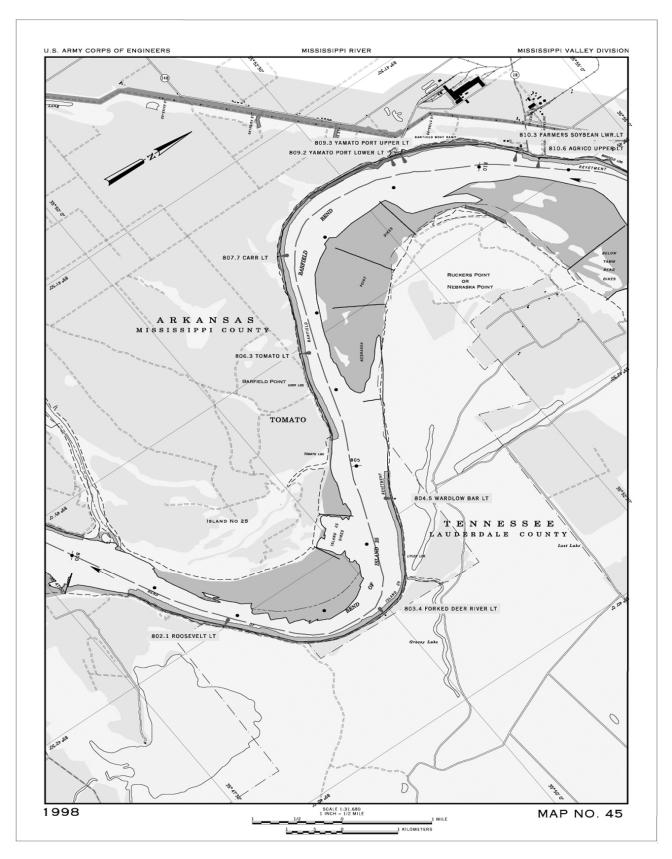
Nest Colony Locations

Memphis District Corps of Engineers

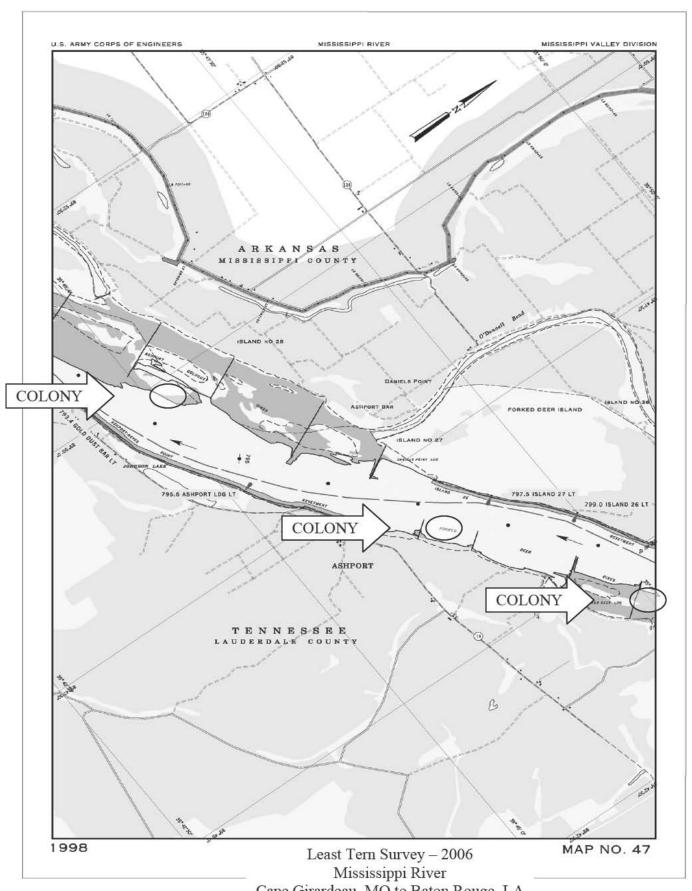
A-I-11



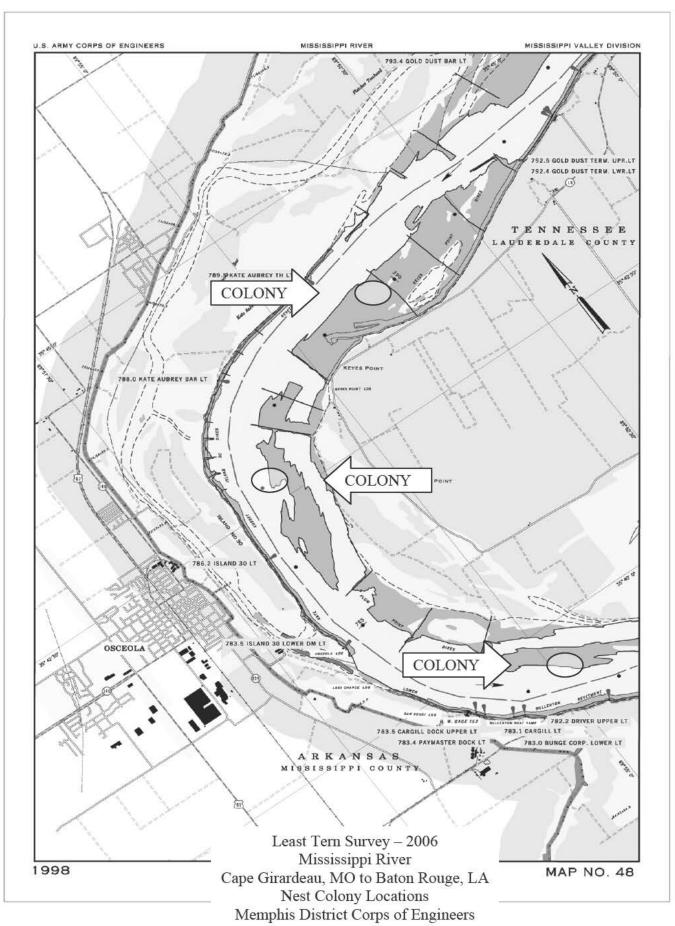
Least Tern Survey – 2006 Mississippi River Cape Girardeau, MO to Baton Rouge, LA Nest Colony Locations Memphis District Corps of Engineers A-I-12

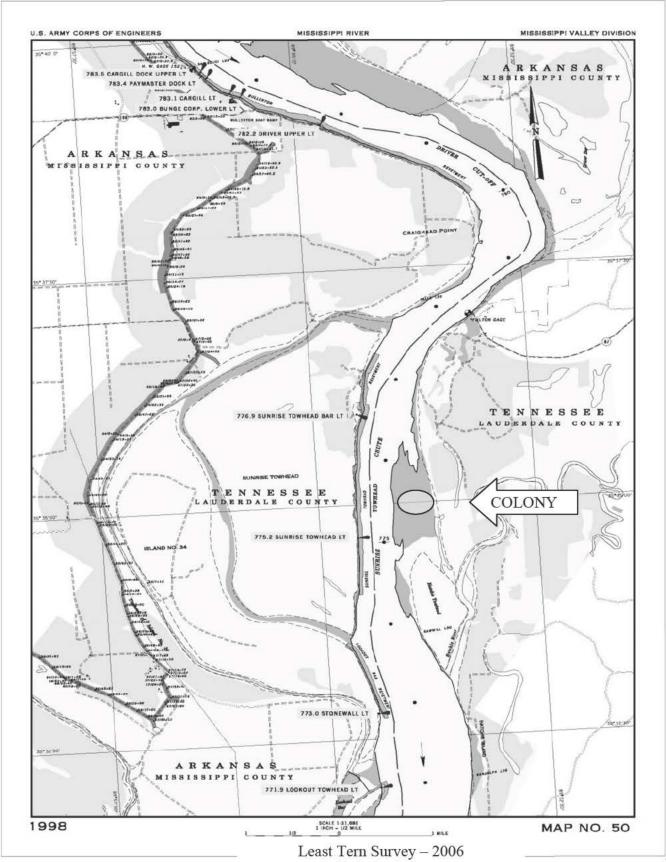


Mississippi Kiver
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-13

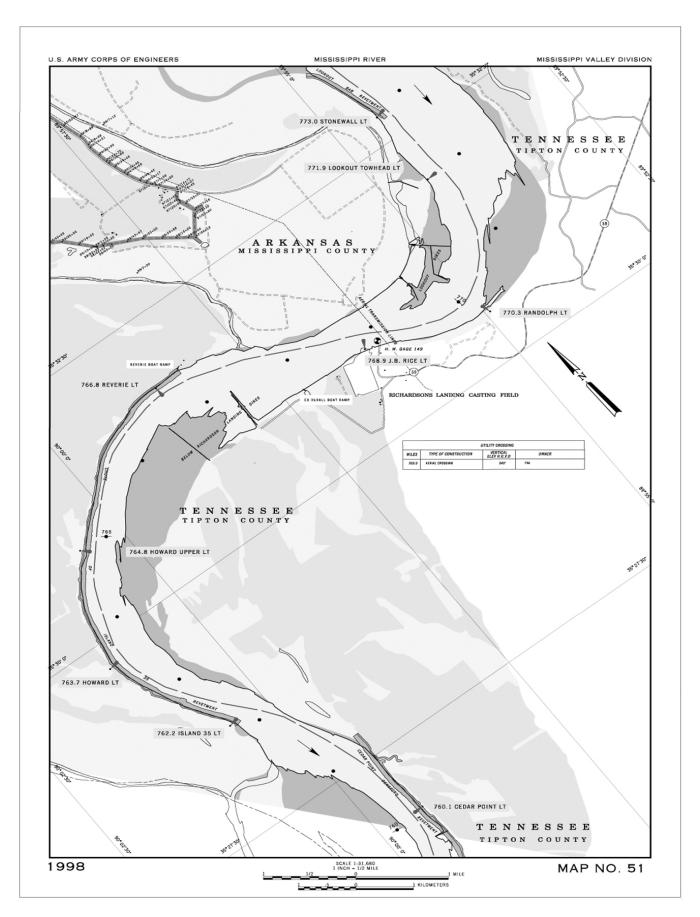


Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-14

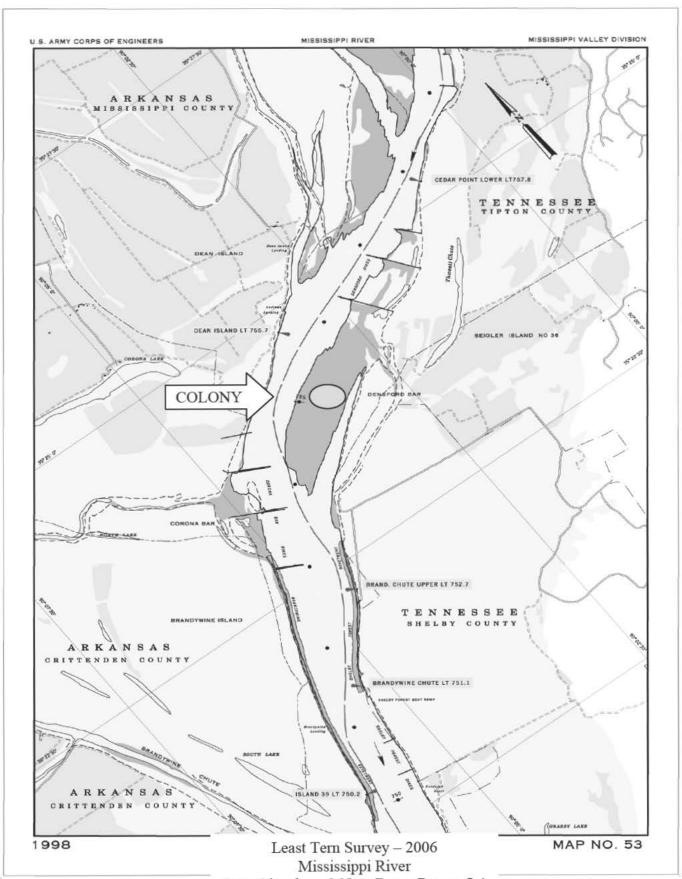


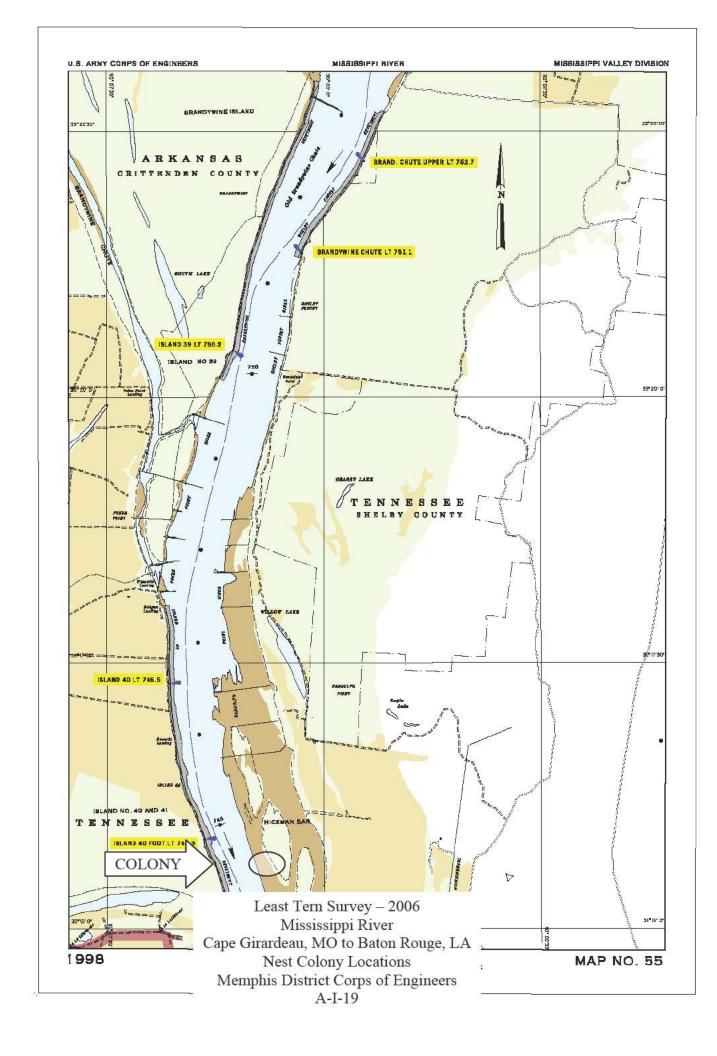


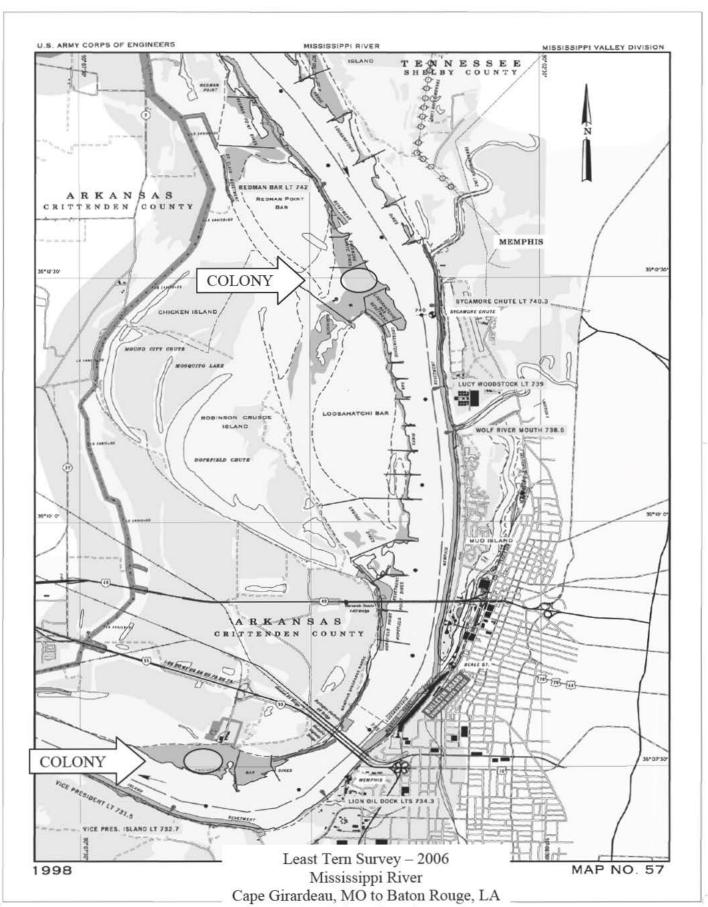
Mississippi River
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-16

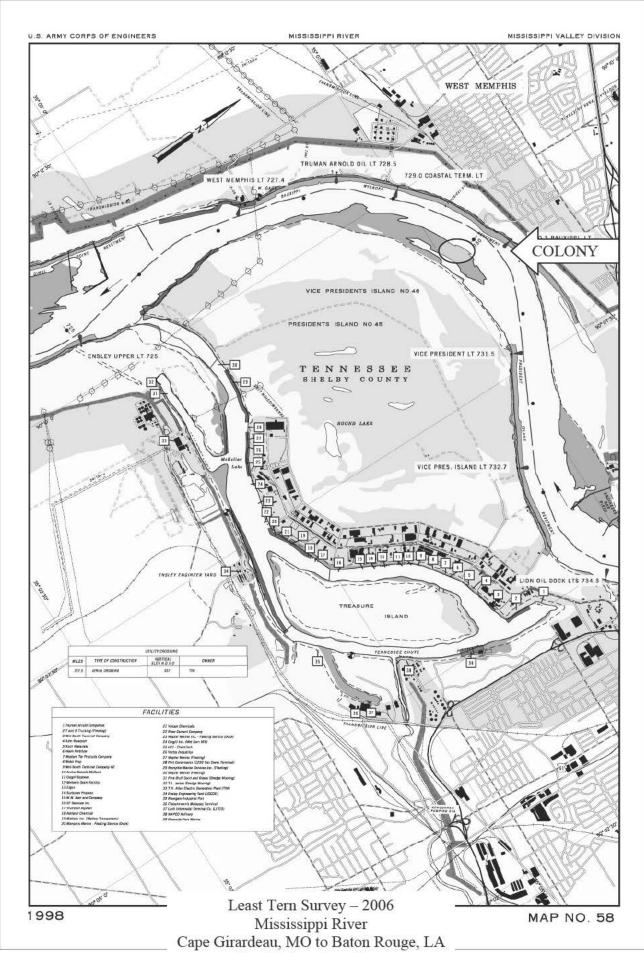


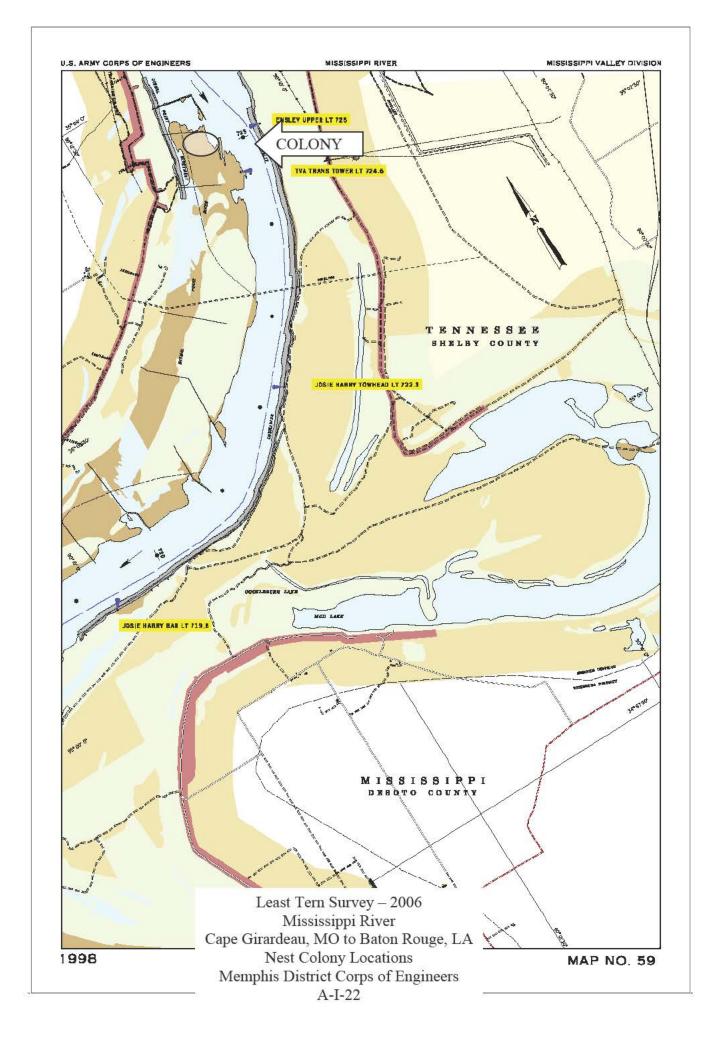
Nest Colony Locations Memphis District Corps of Engineers A-I-17

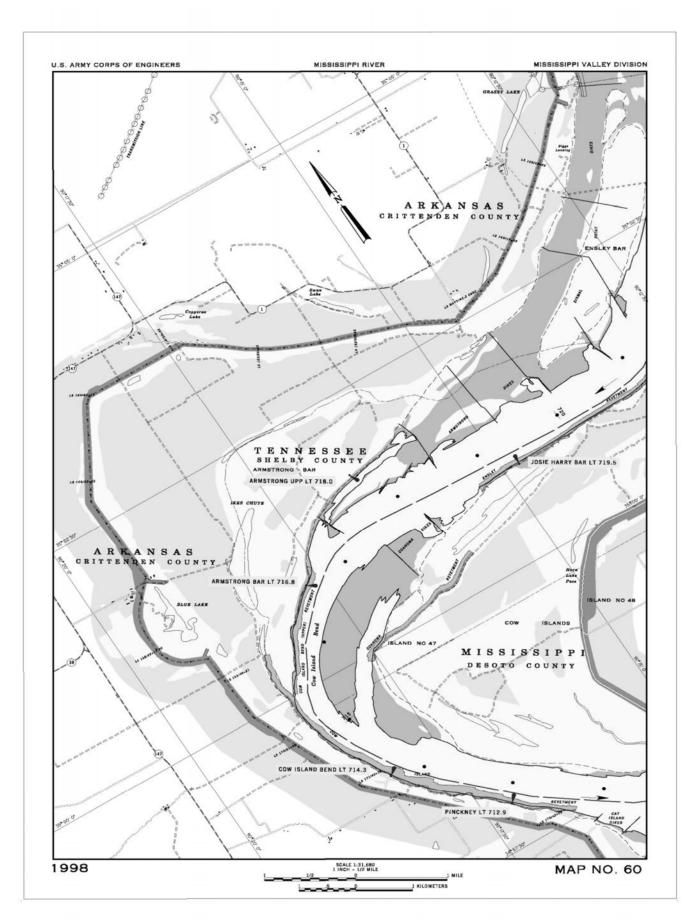




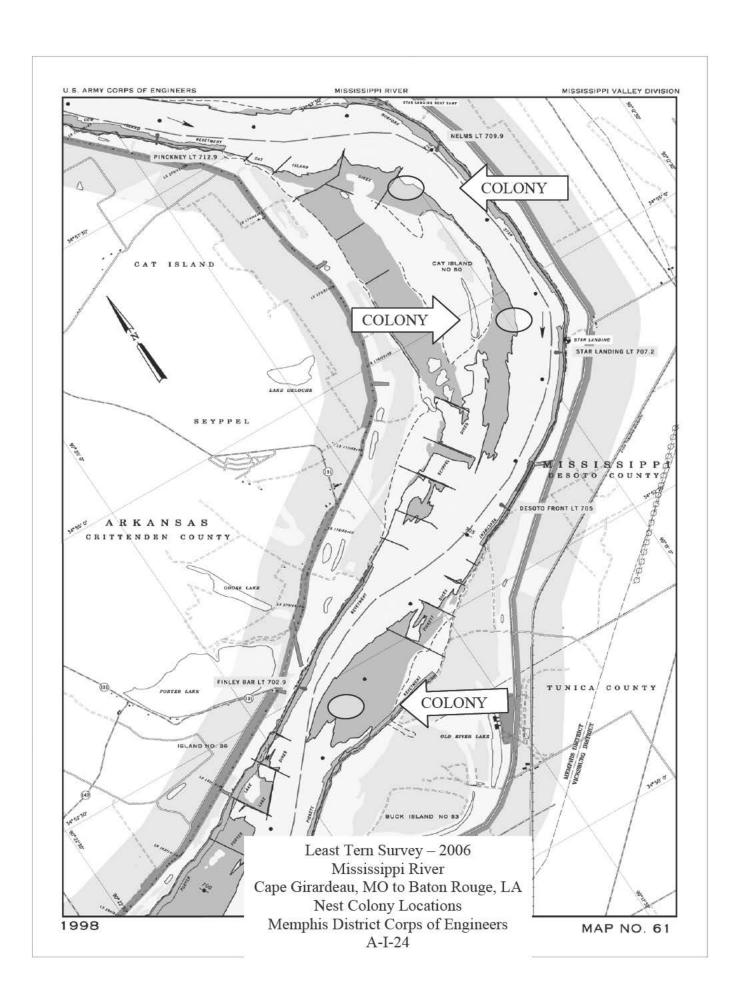


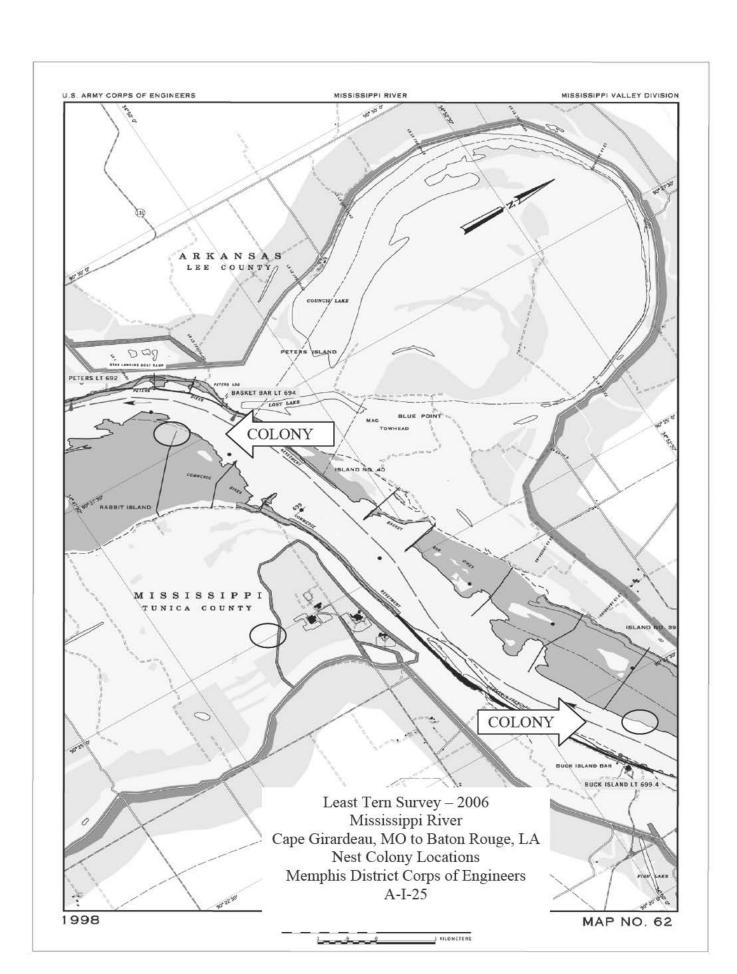


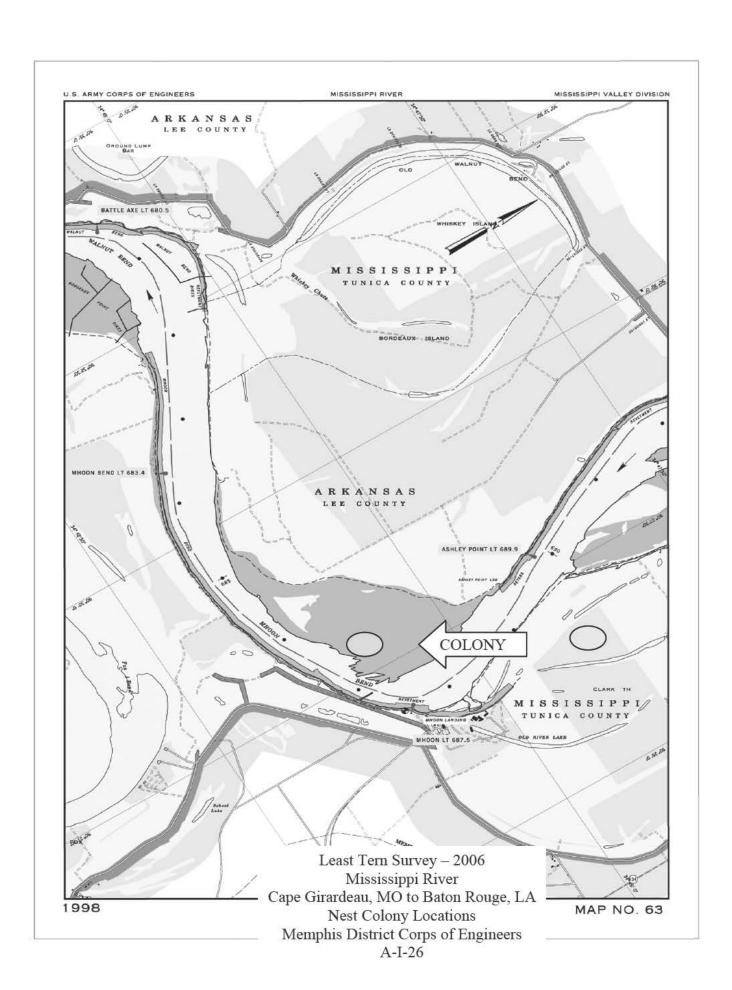


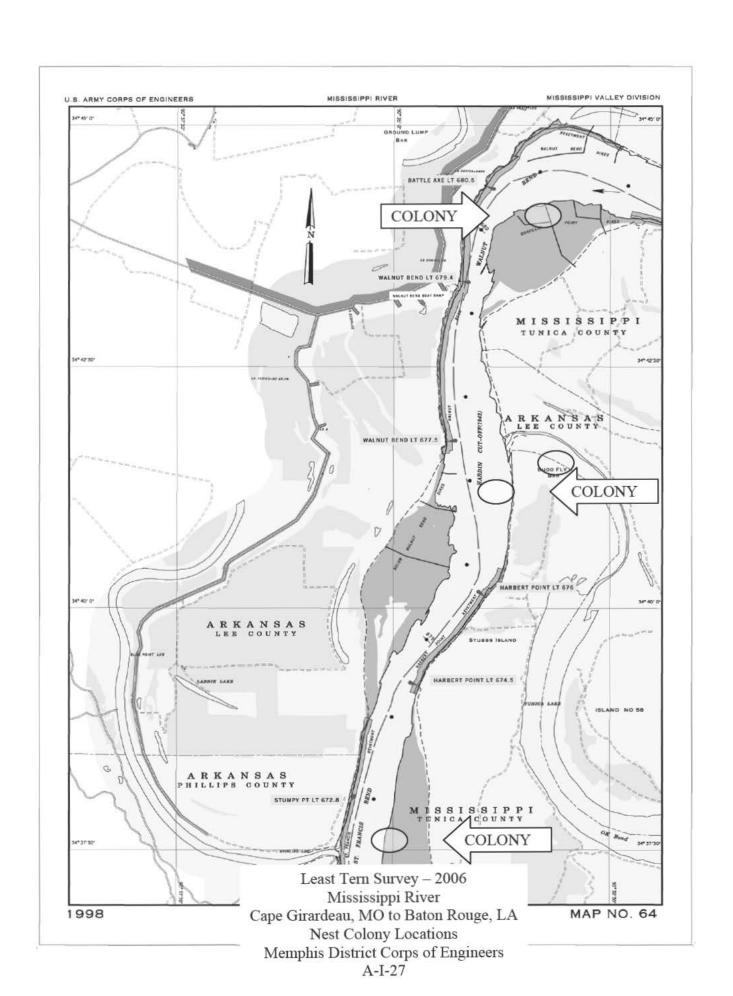


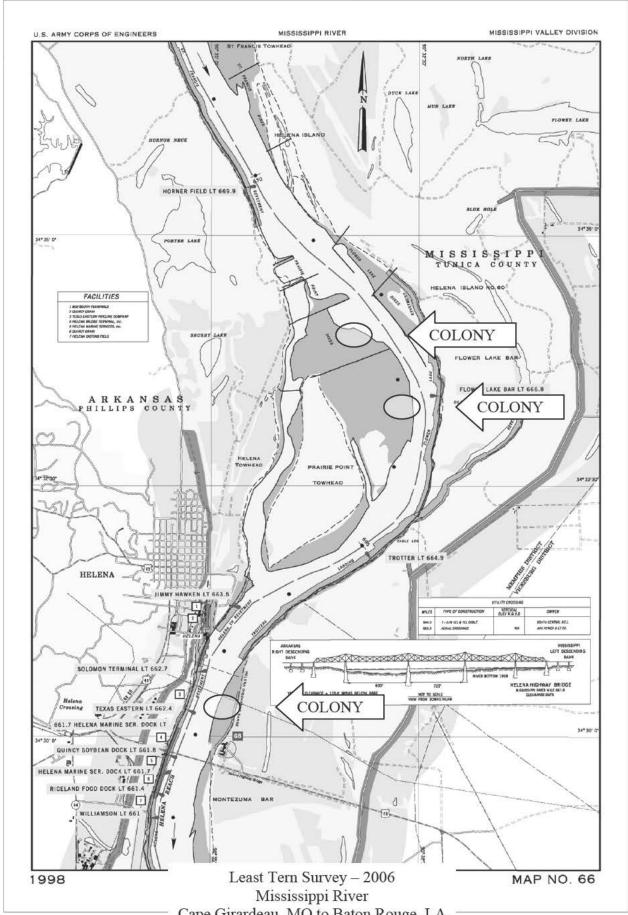
Memphis District Corps of Engineers A-I-23

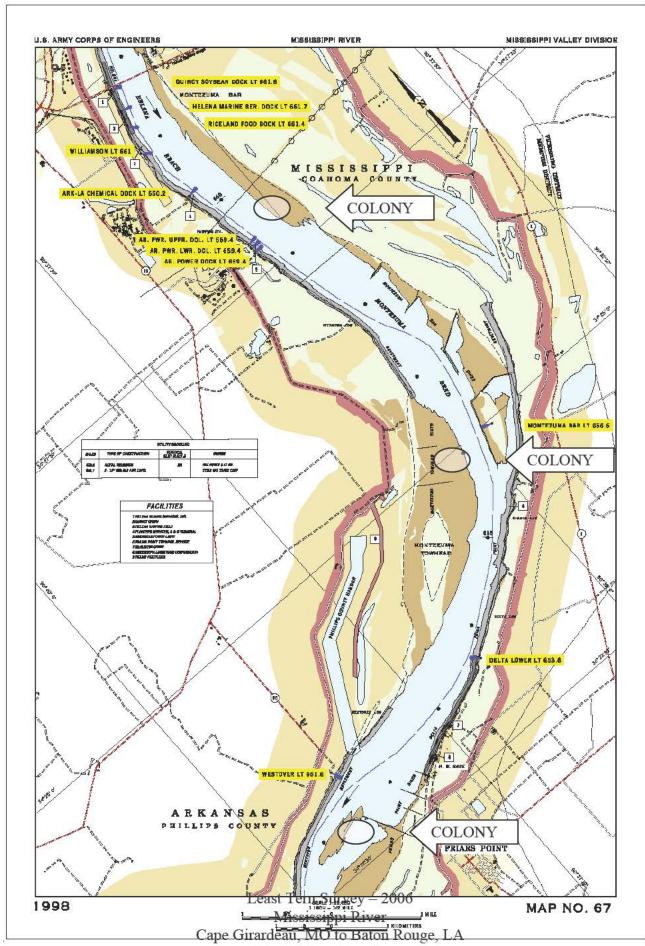




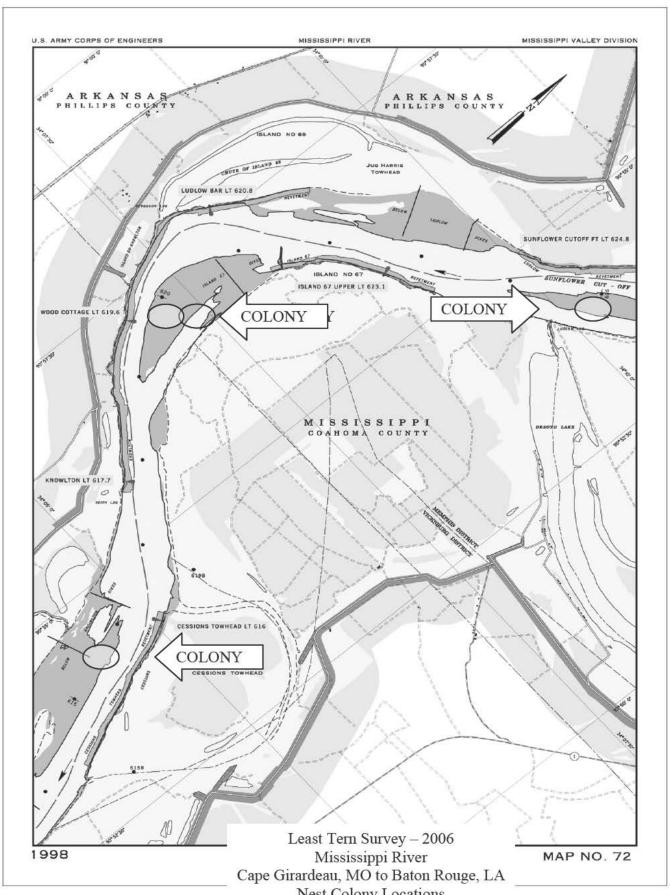


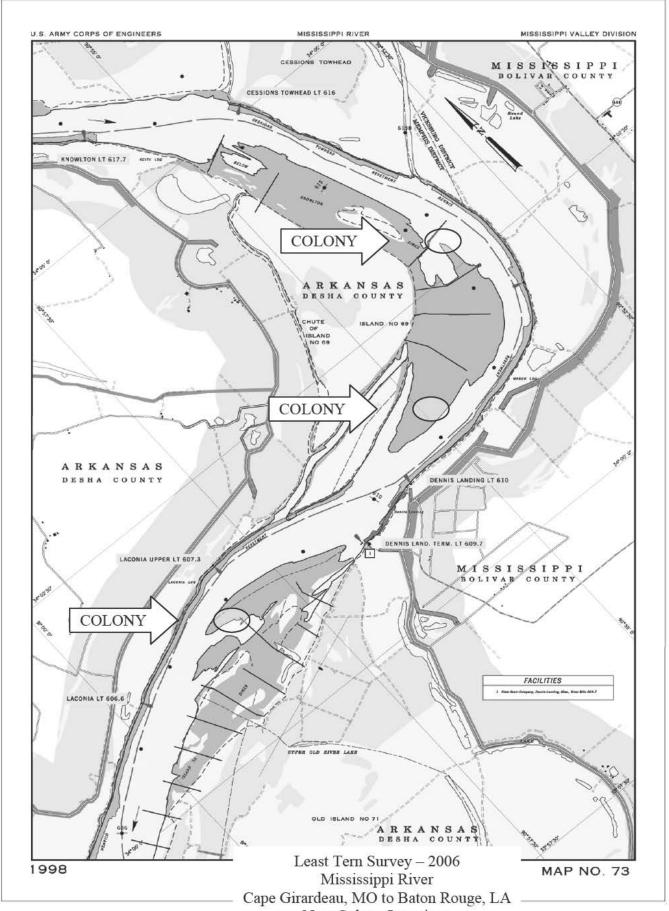


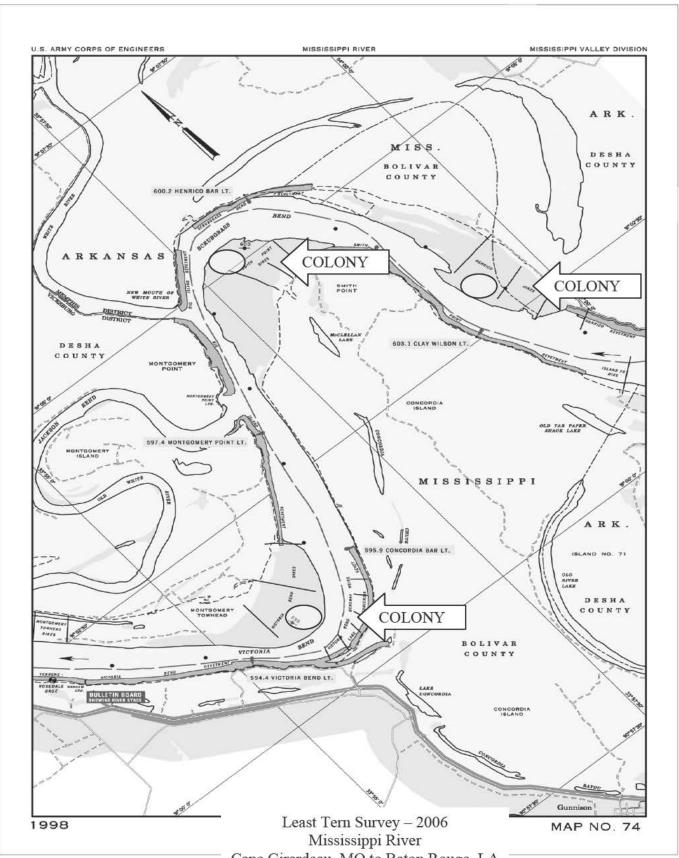


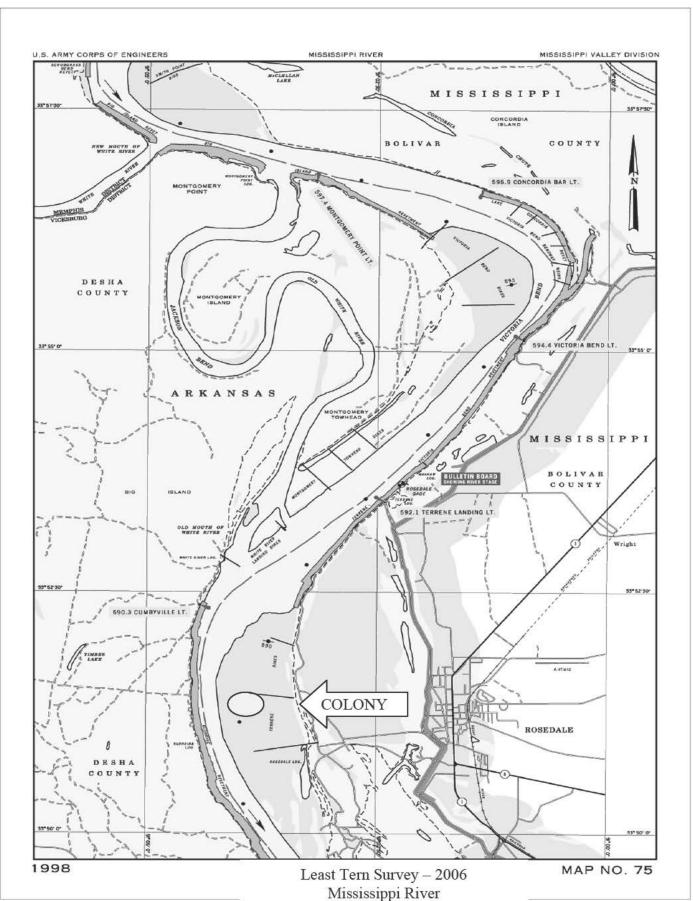


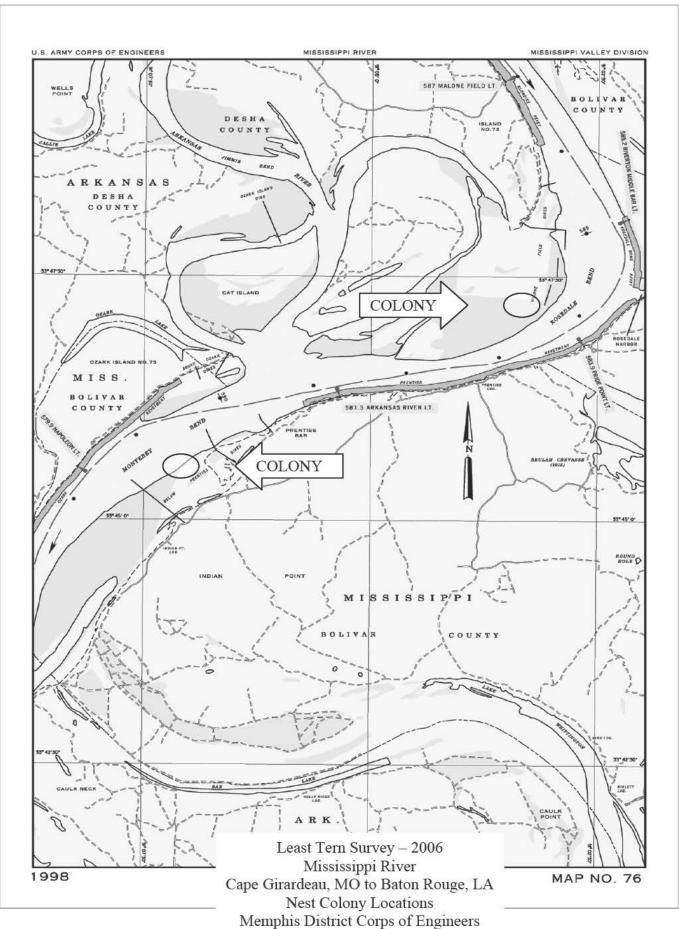
Nest Colony Locations Memphis District Corps of Engineers A-I-29

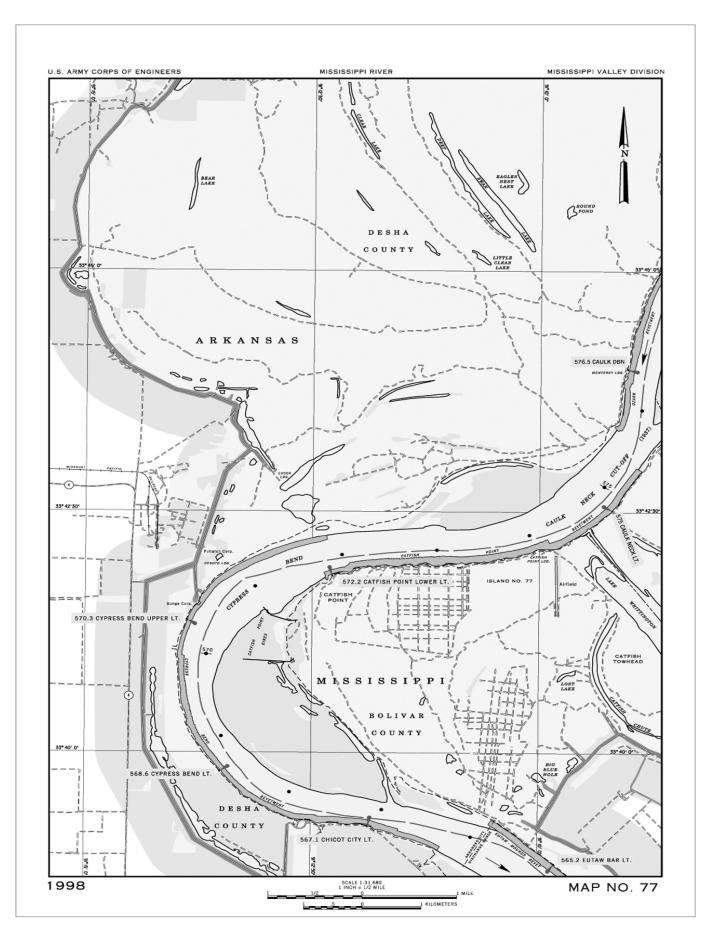




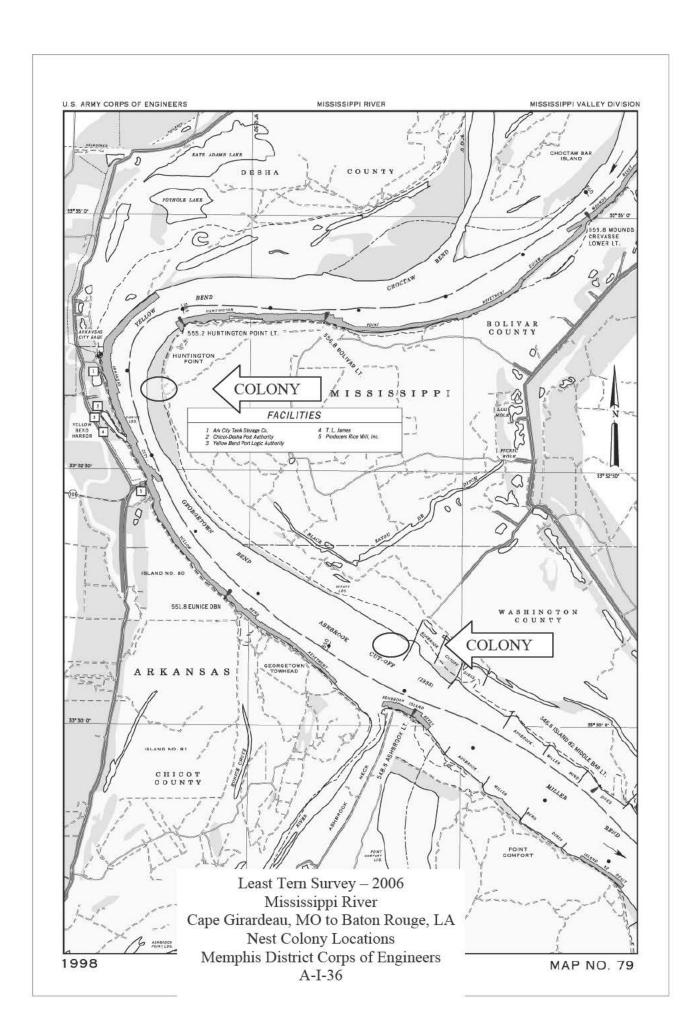


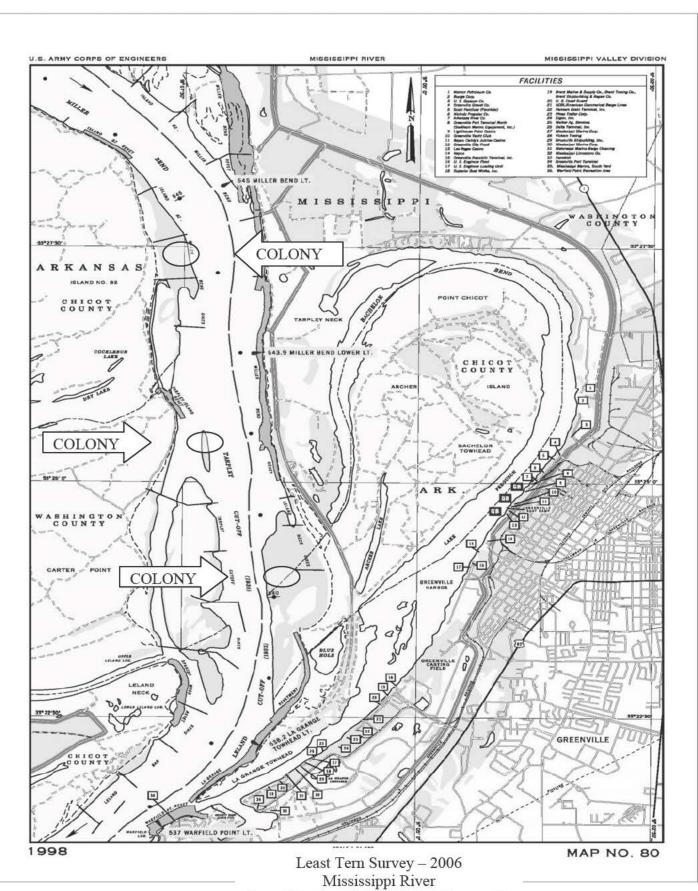


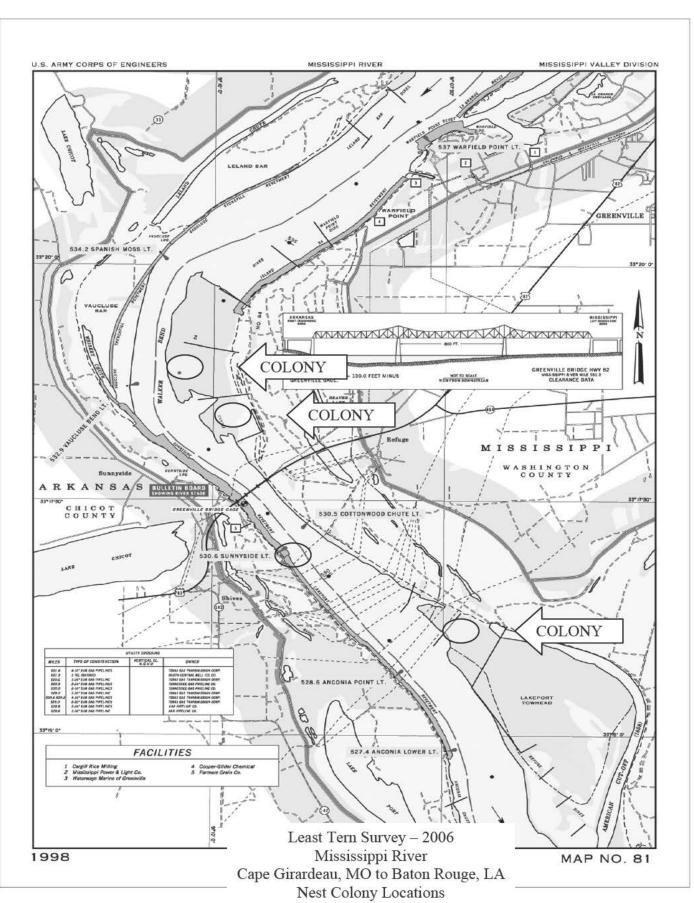


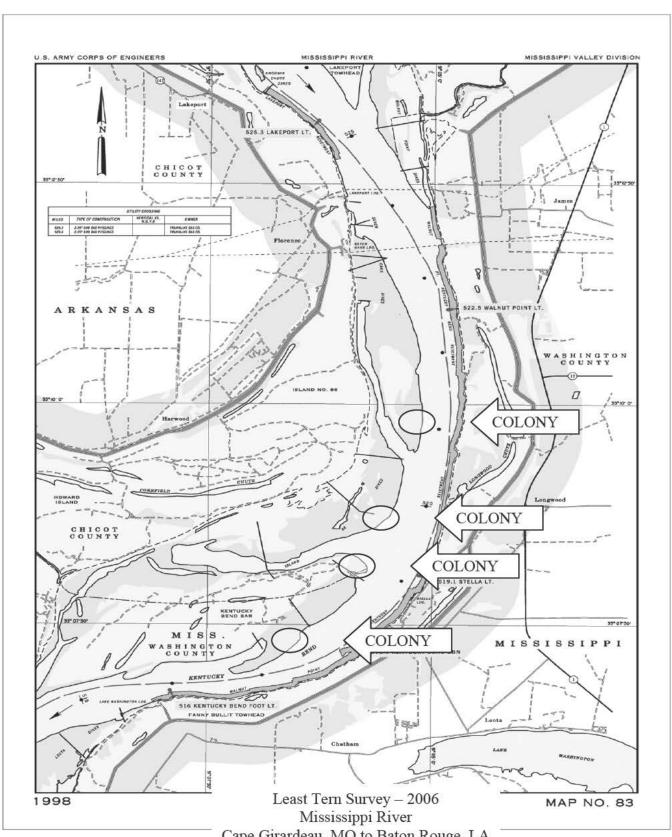


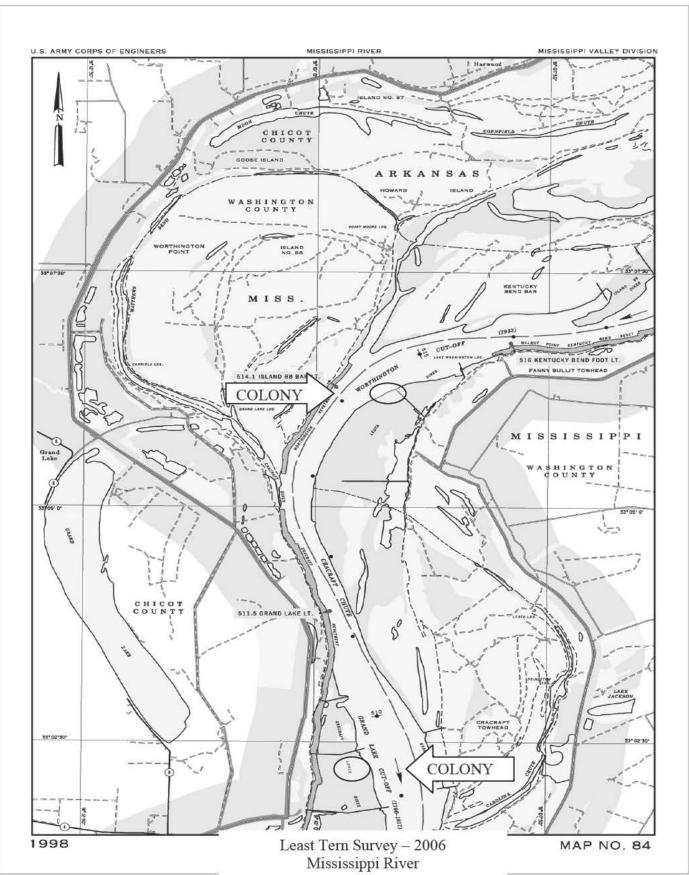
Memphis District Corps of Engineers A-I-35

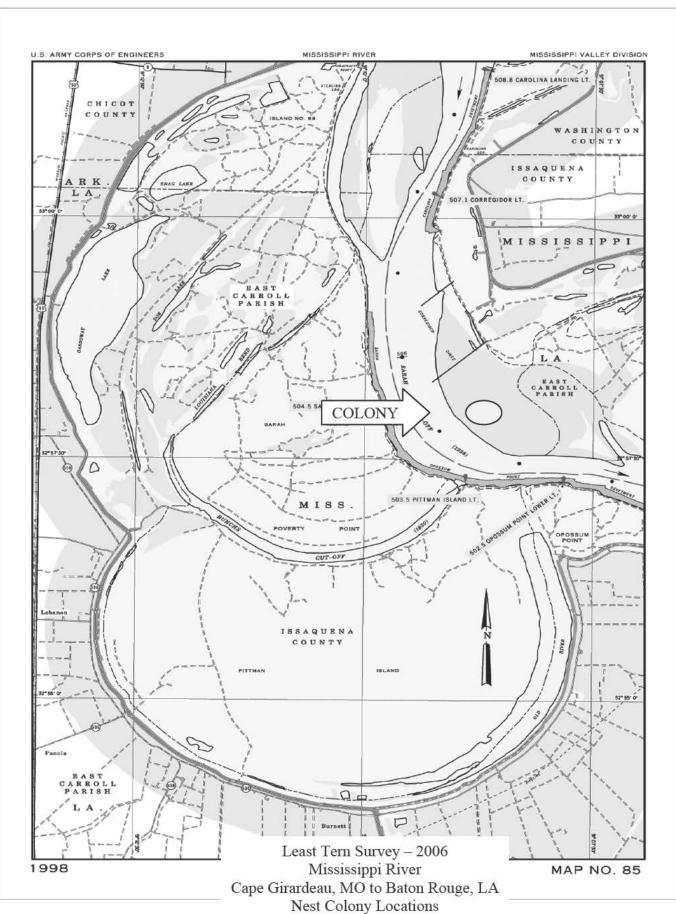


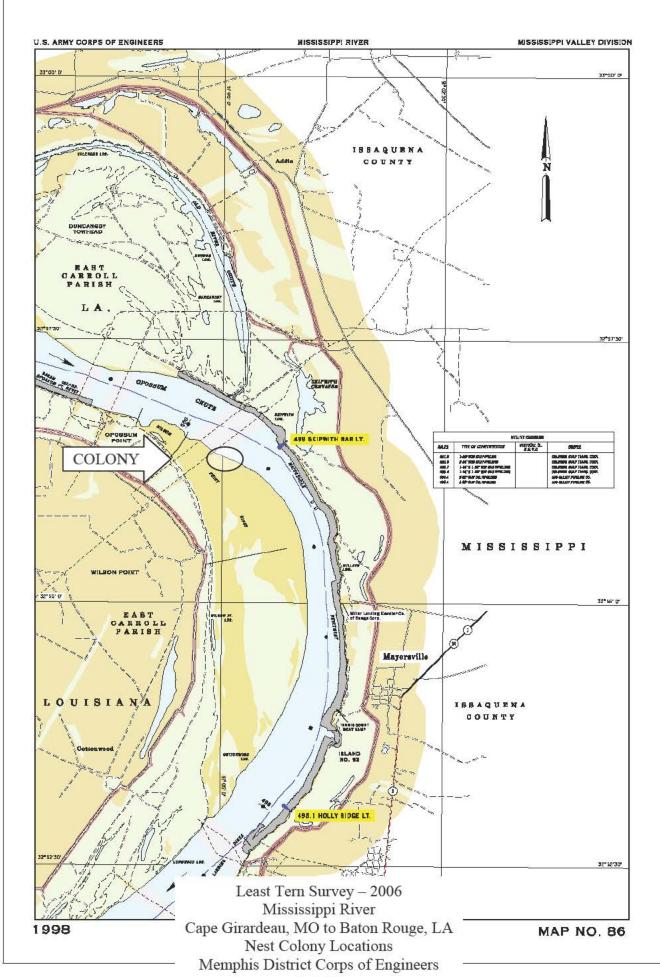


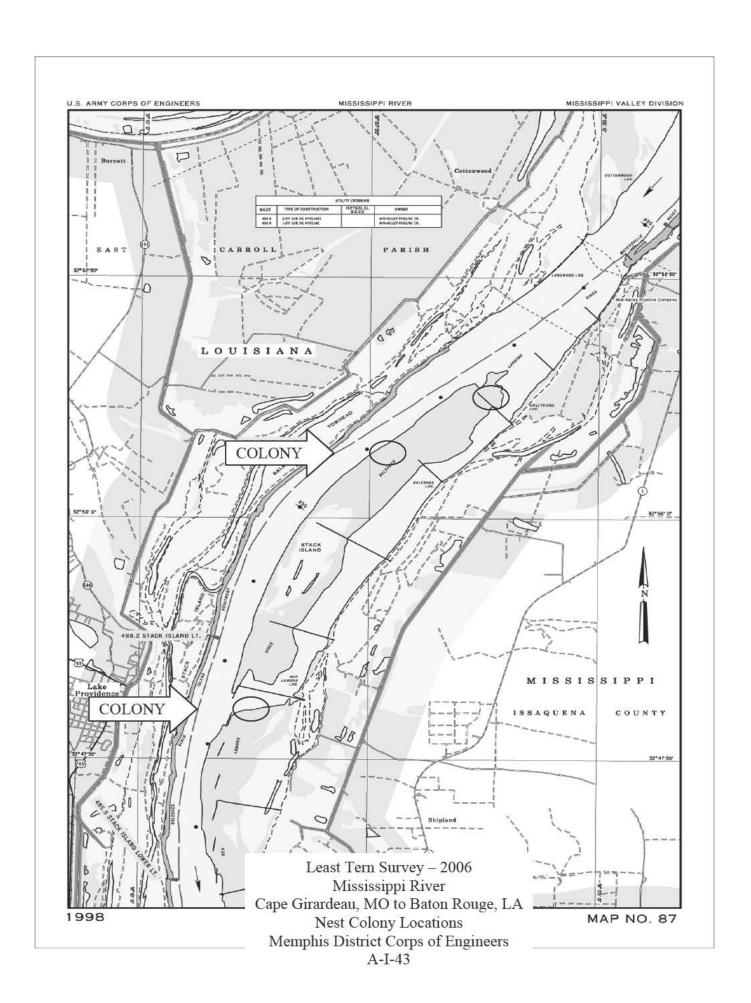


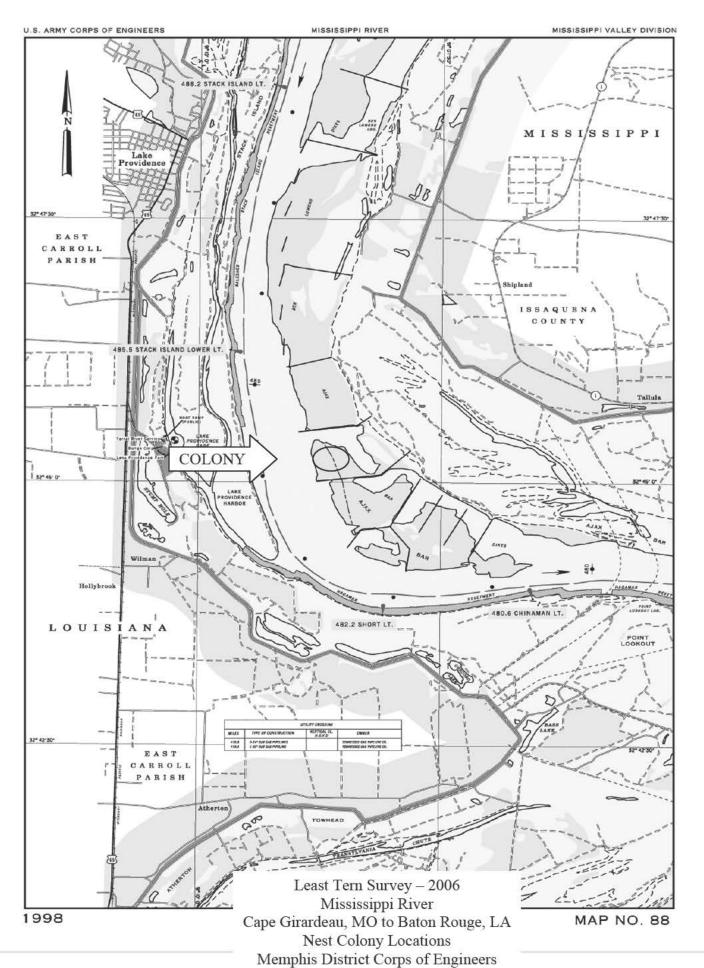


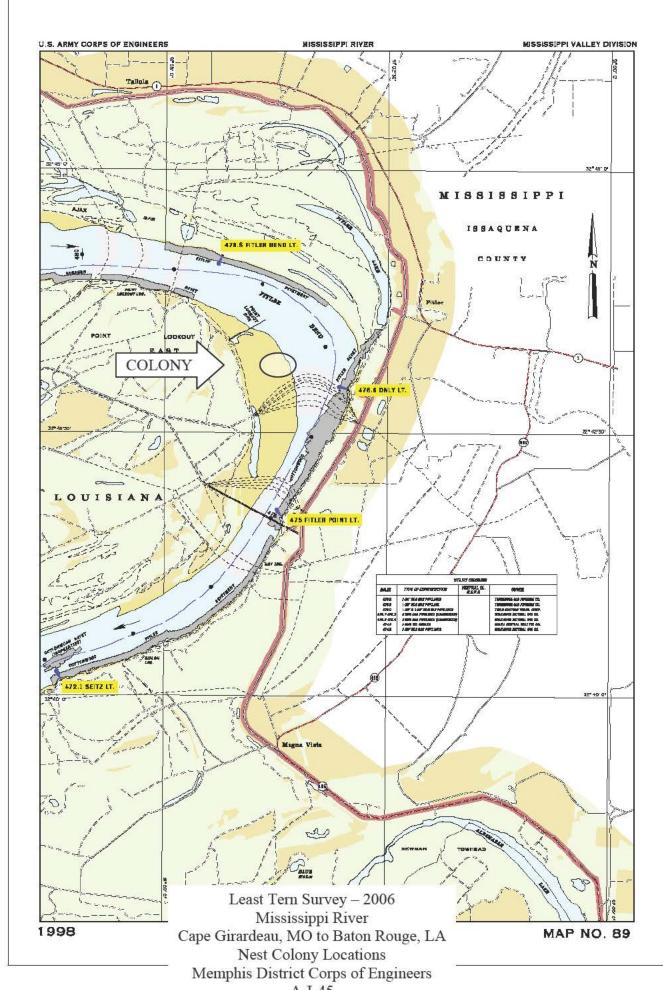




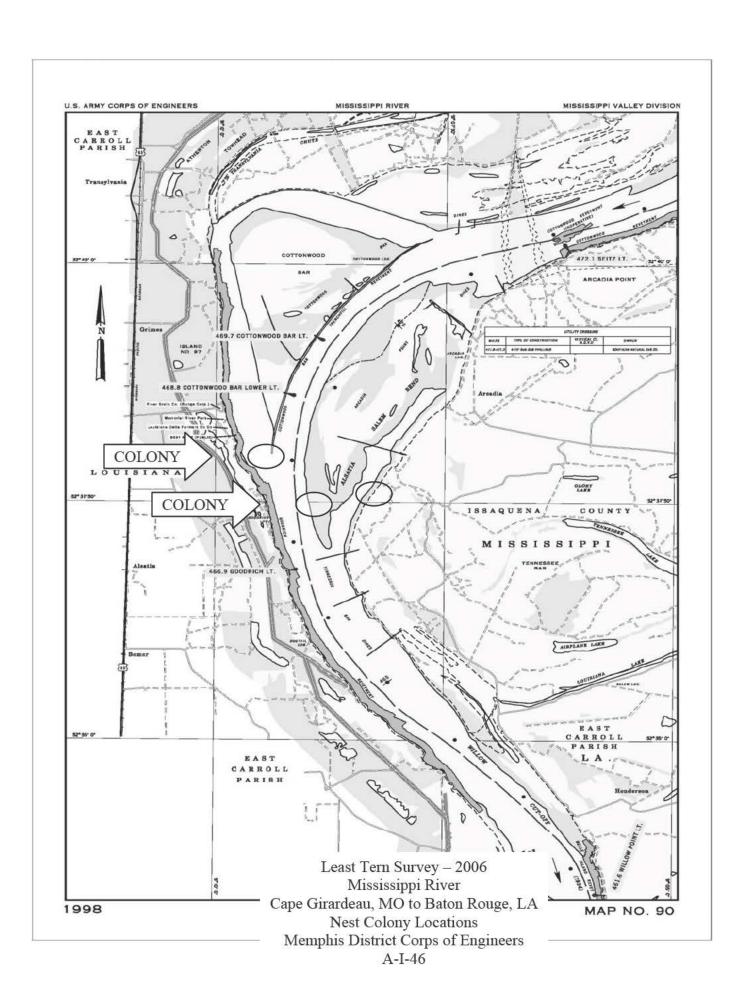


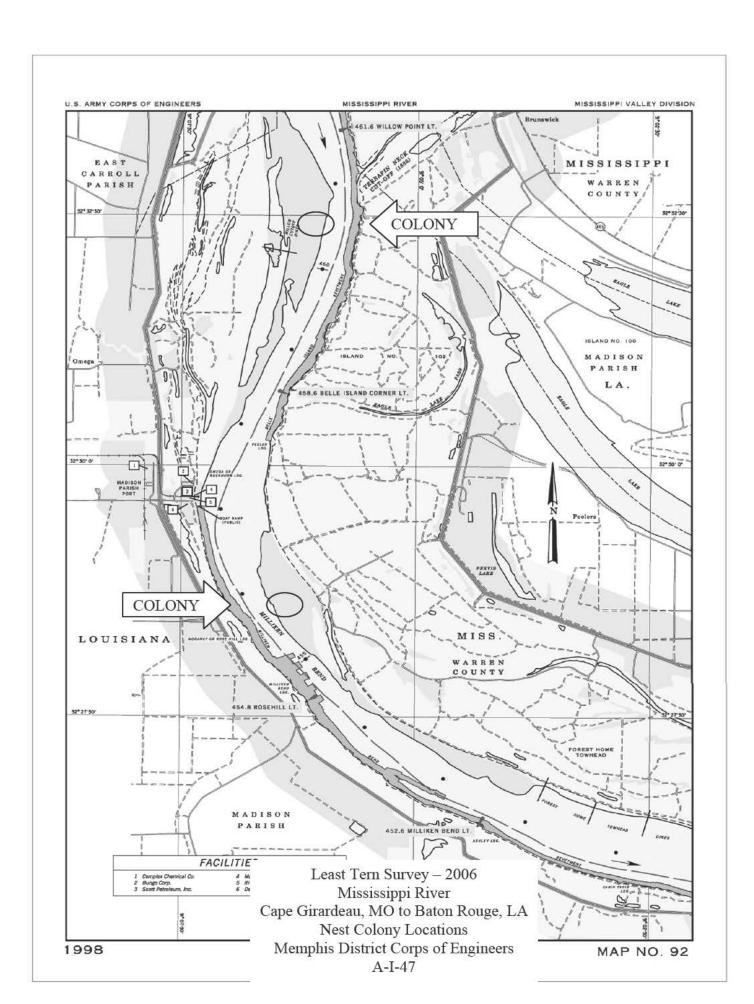


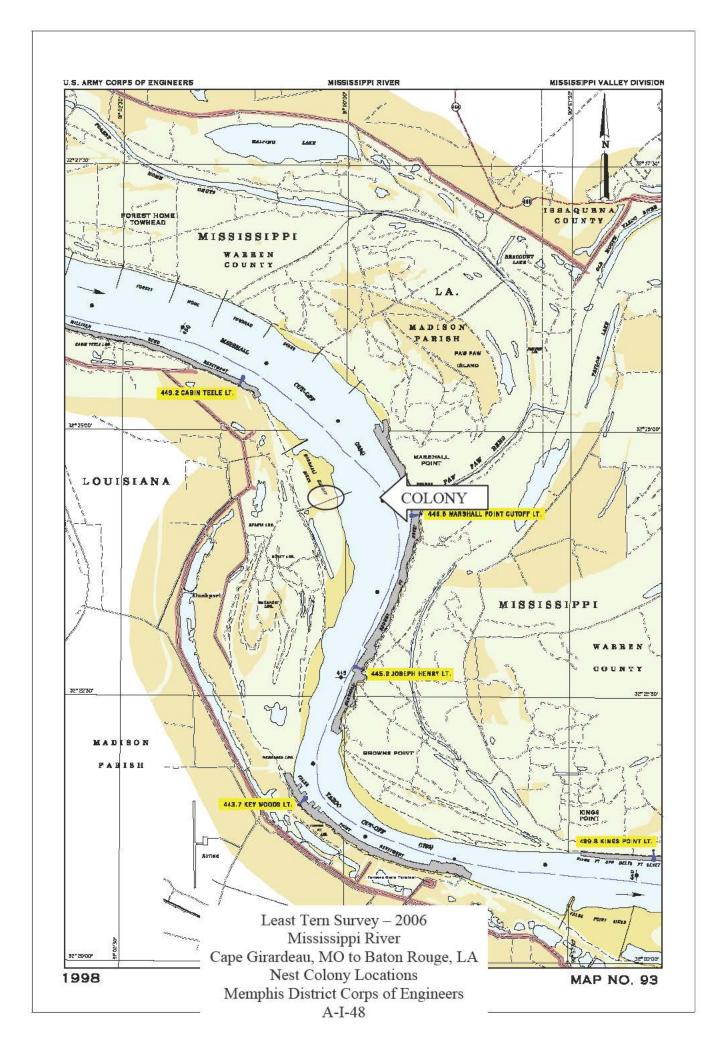


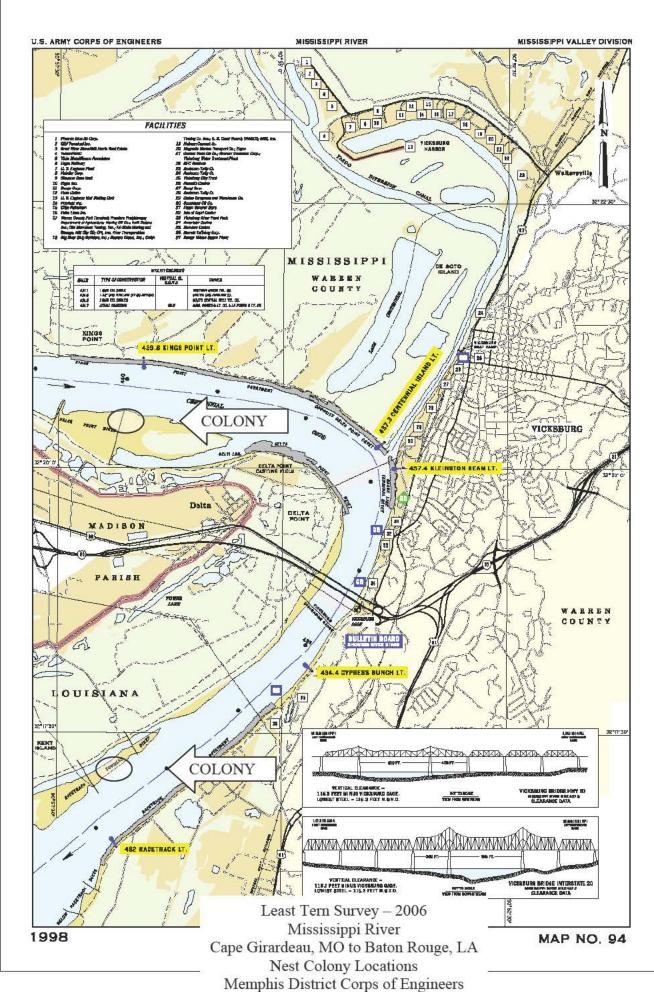


A-I-45

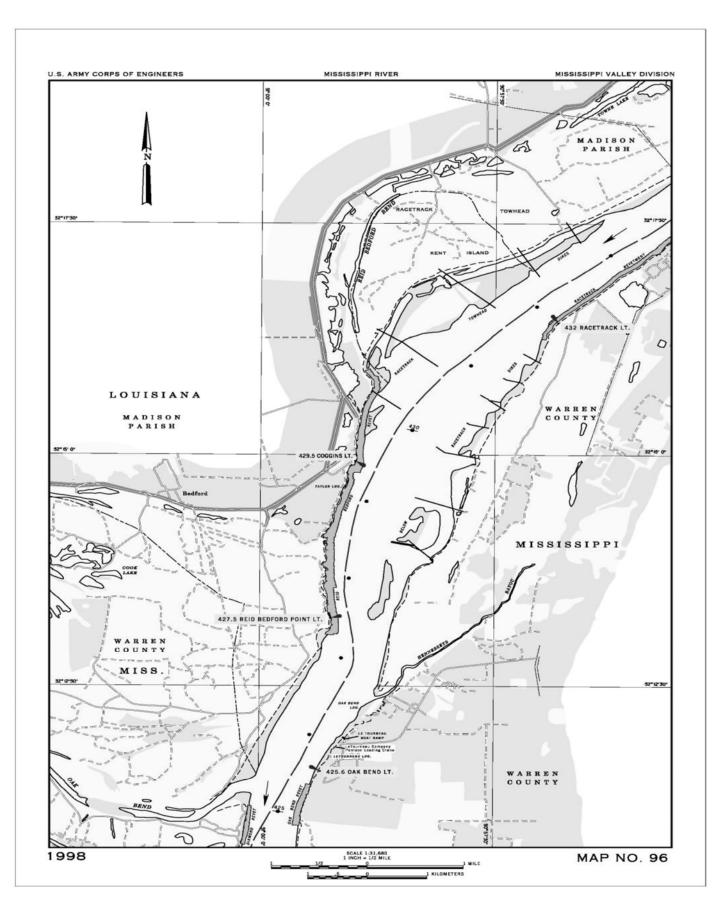




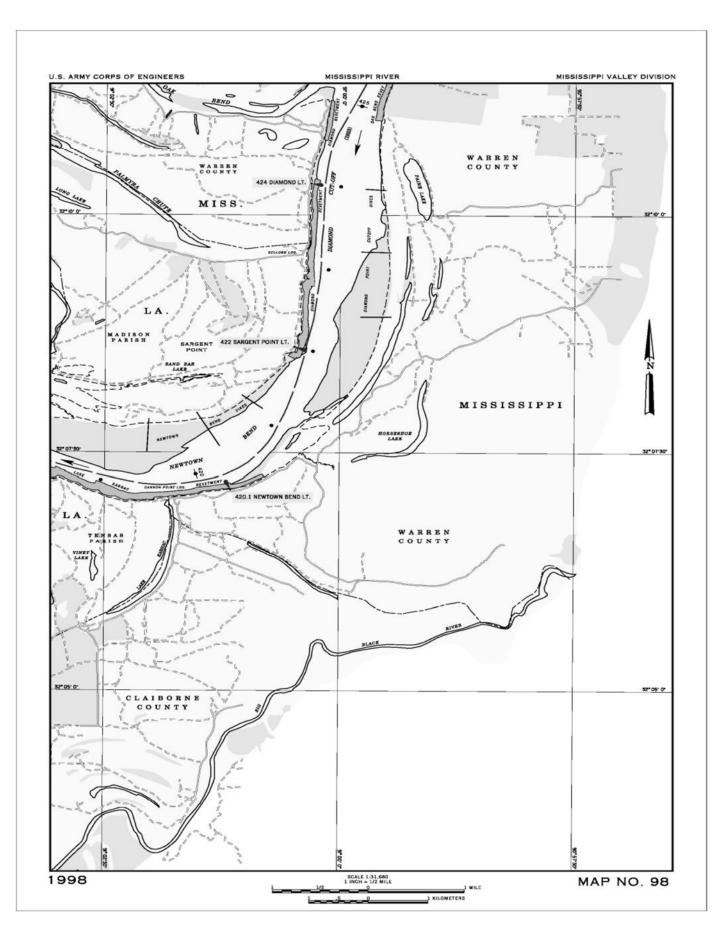




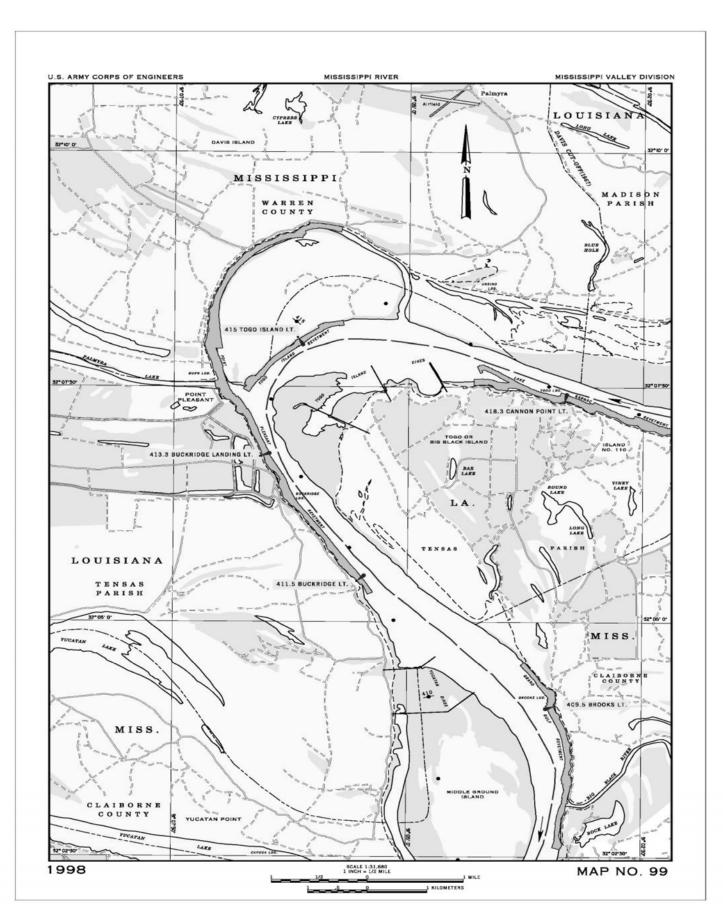
A-I-49



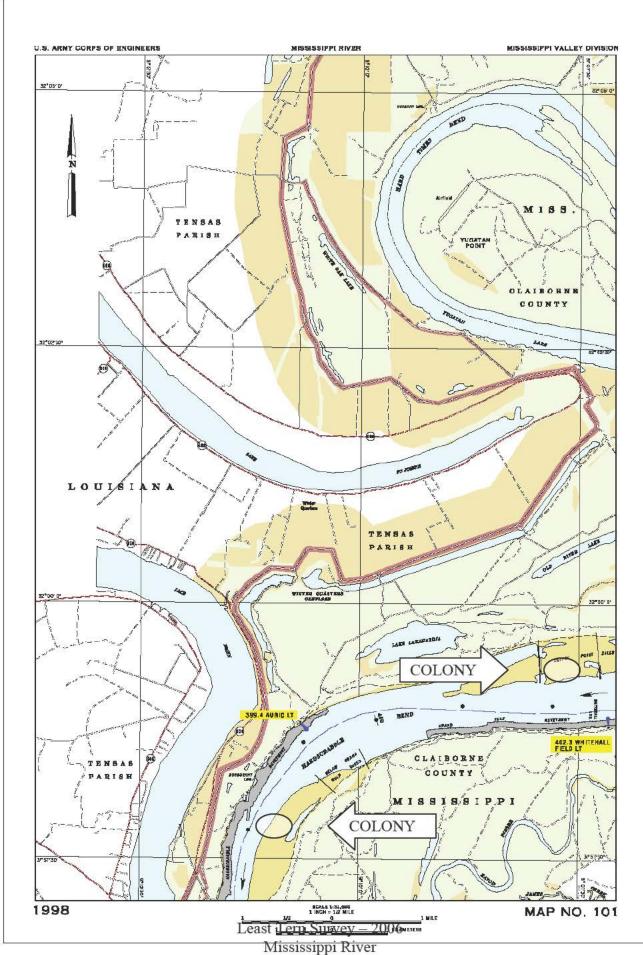
Nest Colony Locations Memphis District Corps of Engineers A-I-50



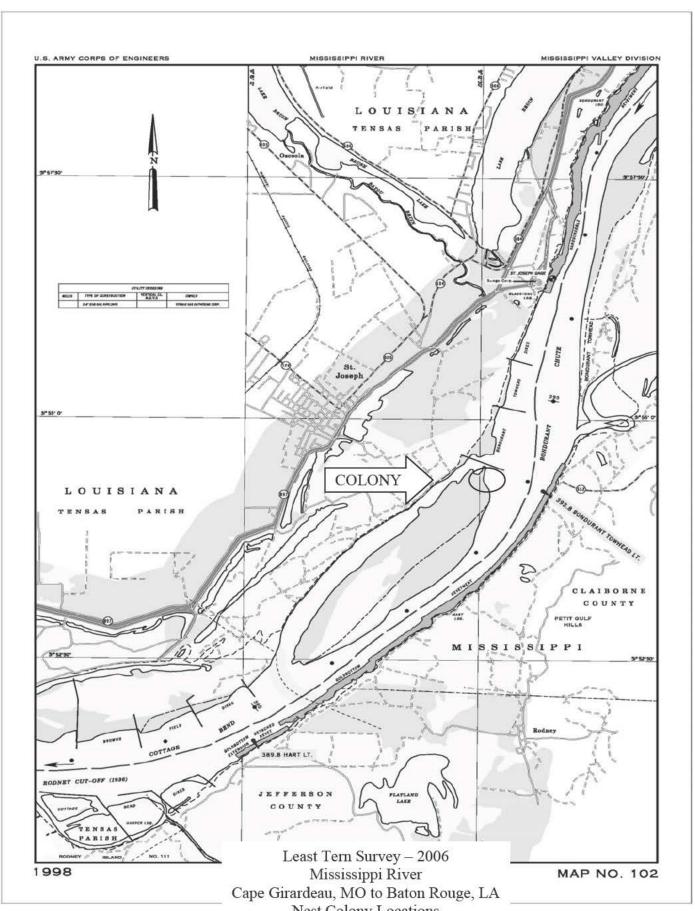
Memphis District Corps of Engineers A-I-51



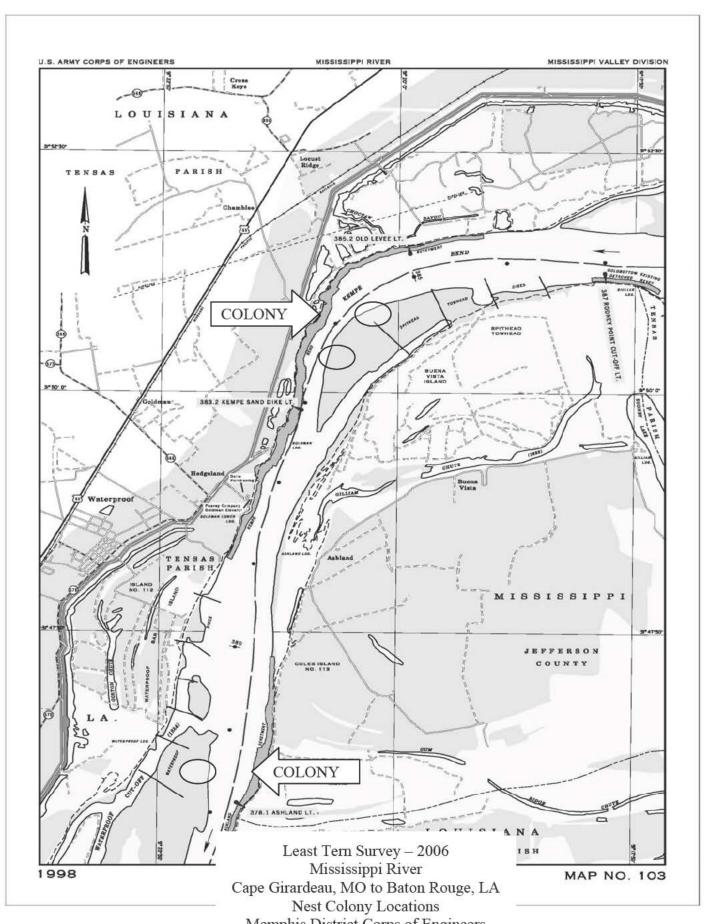
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-52



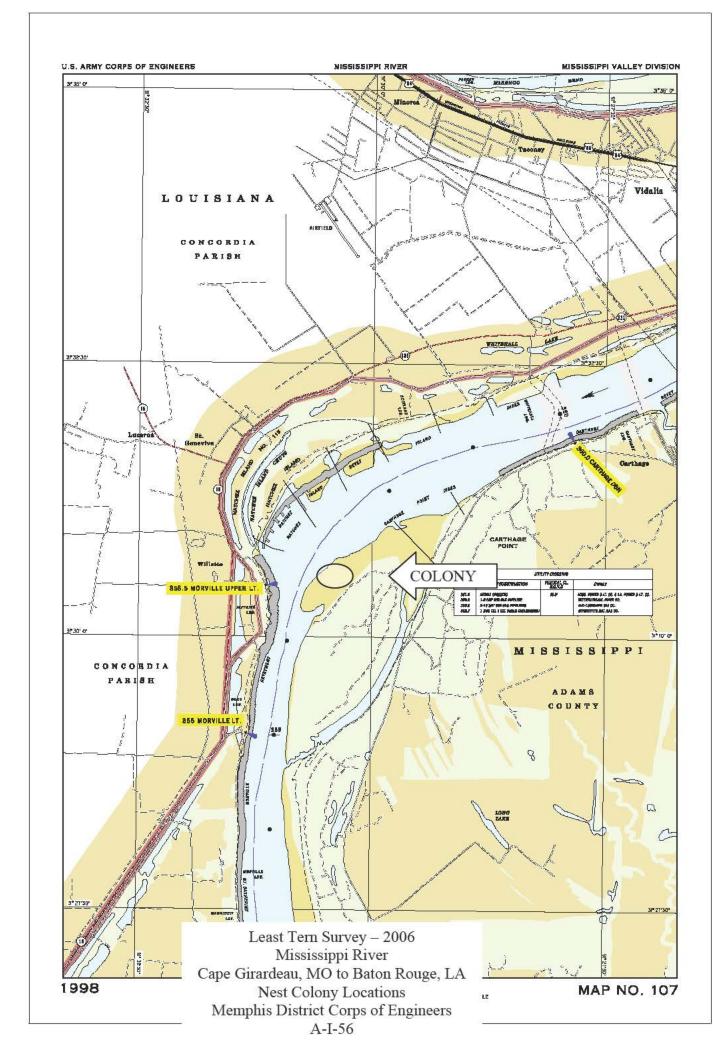
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-53

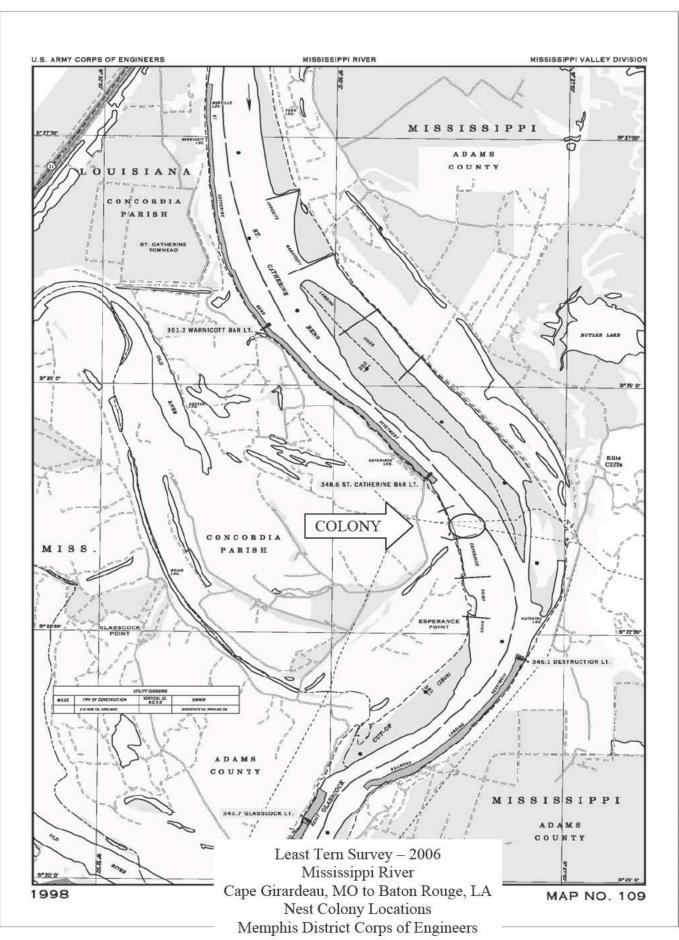


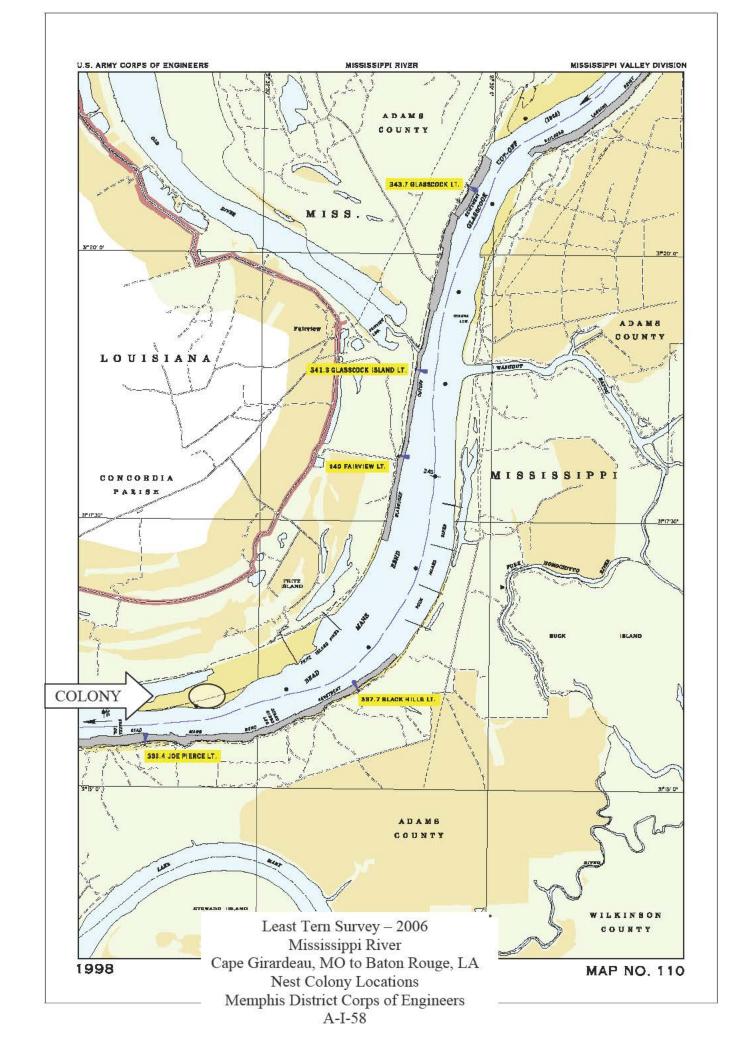
Nest Colony Locations Memphis District Corps of Engineers A-I-54

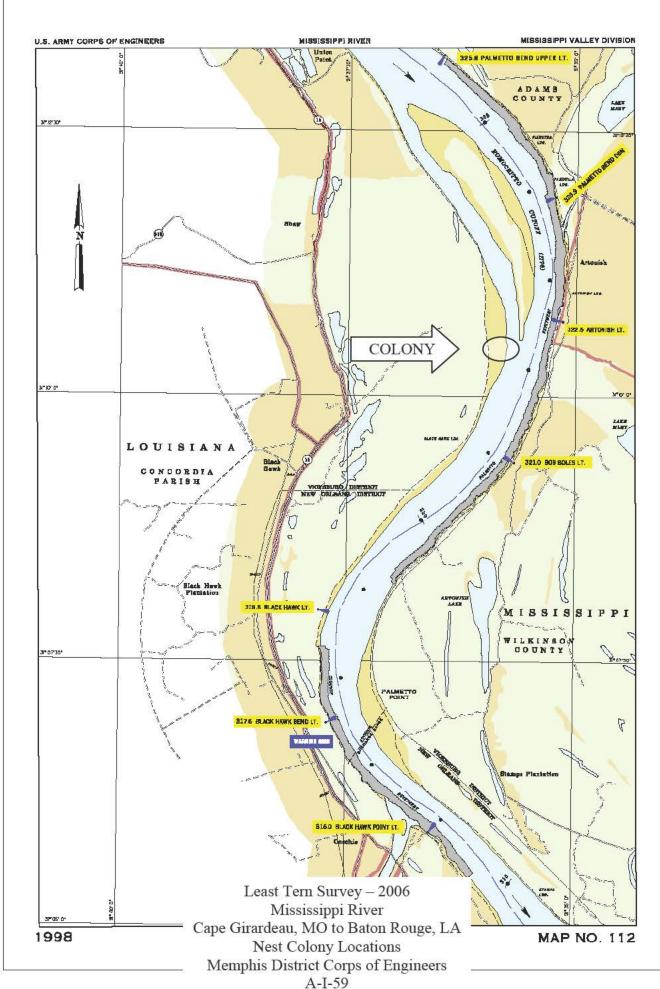


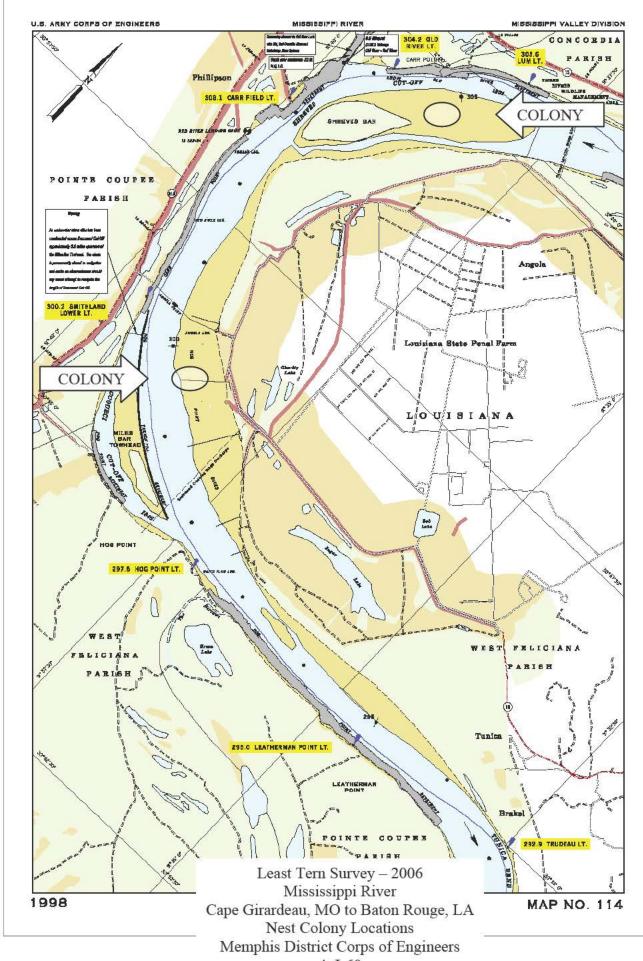
Memphis District Corps of Engineers A-I-55











A-I-60

Appendix A – II

LEAST TERN SURVEY - 2006

Mississippi River Cape Girardeau, MO to Baton Rouge, LA

SMALL BOAT SURVEY July 1 – July 15, 2006

Memphis District, Corps of Engineers

Data Sheets

			FLY 🗌	BOAT 🗸
SPECIES: Interior Least T	ern (Sterna antillar	um athalassos)		
DATE: 7/1/2006	TIME OF DAY: _	8:15	RIVER MILE:	UR 33.0
LOCALITY: Sc	ott MC	SITE NAME:	Billings	sland
County	/Parish Sta	te	NUMBERS SIGHTE	ED:
WHERE SITED: Latin	ude:		Adults:	7
	gitude:		Juveniles:	
			Eggs:	
Approximate Distance to	Water:	Feet	Nests:	0
			Chicks:	No
IN FLIGHT Over Sandbar	CN GROOND	On Nest Area	SUBSTRATE:	
Over Water	<u>'</u>	n Resting Area	Sand:	
Calm Water		~ ./ .	Gravel:	
Land Side	\triangleright		Debris:	
			VEGETATION:	
Channel Side	A MID-CHAI	NNEL ✓ →	Type:	
MID-CHANNEL SANDBAR	Rapid Currents		Market 12	
7 0	River Si		Distance:	Feet
SIDE CI	IANNEL SANDBAR Cente		FIELD CONDITION	:
River Side	Land Si Calm Wa		Temperature:	81 °F
7777	7+7+7		Rain: No	
	///	7-7-7-	Wind: S5m	ph
			% Cloud: haz	e
OTHER NOTES			Make - Responsibility and 1 Memory	
OTHER NOTES:				
Seven terns flying mid-ch	anne.			
5				
S				MO side
OBSERVERS:	Campen, Carpenter,	Davin, Griffin, Grubaug	h, Jones, Rumancik,	Thron
RIVER GAGE READING:	Caj	oe Girardeau		12.0 S
	(Ga	ge Location)	(E	levation)

				FLY		BOAT	~
SPECIES: Interior	Least Tern (Stern	a antillarum at	thalassos)				
DATE: 7/1/20	06 TIME O	F DAY:	8:30	RIVER MILE:	U	R 30.5	
LOCALITY:	Alexander		SITE NAME:	Bum	gard Isla	and	
	County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED:	Latitude:	27 04526		Adults:			
WHERE SITED.	Longitude:			Juveniles:	<u> </u>		
	105-X #1 1-	Distriction Consults (2)		Eggs:	52	0	
Approximate Dist	ance to Water:	500	reet	Nests:	4 <u>4</u>	19	
				Chicks:	58-	No	
111 100 100	80		est Area	SUBSTRATE:			
K	ver Water + 🔽	On Rest	ing Area 🔲	Sand:	✓		
Calm Wat	ter		$\langle \rangle$ / \parallel	Gravel:	✓		
Land Sid	e 🗆			Debris:			
	er . 🛂 🖊	MID CHANNEL		VEGETATION:			
Channel Sid	de "□ A	MID-CHANNEL	∽ ∥	Type: Wil	lows/Co	ttonwood	s
MID-CHANNEL SAN	IDBAR Rapid Current	s [Distance:	2000	Feet	
1	74	River Side	·/	Distance.	2000	1000	
بسمسر ا	SIDE CHANNEL SAND	BAR Center L		FIELD CONDIT		124	
River Side		Calm Water		Temperatu	ıre:	81 °F	
777	7 7 7 7	1	<u> </u>	Rain: No	0		
	/	174	7	Wind: S	5 mph		
			. , ,	% Cloud:	haze		
OTHER NOTES:					120		
	ently sloping to high	center sand ar	nd gravel har 18 ft	in elevation at h	ighest n	oint	
Courting and slight scrape to scrape.	nt mobbing. Signs o	f recent coyote	and fox predation	with tracks in str	raight line	e from	
						ILL side	
OBSERVERS:	Campen, C	arpenter, Davir	n, Griffin, Grubaug	h, Jones, Rumar	ncik, Thr		
RIVER GAGE REA		Cape Gir			12.0		
	193 - W	(Gage Lo		.	(Eleva	11111111	

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 9:10 RIVER MILE: UR 23.2 LOCALITY: _____ Alexander ____ ILL __ SITE NAME: ____ Browns Bar County/Parish State NUMBERS SIGHTED: 2 Adults: WHERE SITED: Latitude: Juveniles: _____ Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 86 F River Side Calm Water Rain: No Wind: S 5mph % Cloud: haze OTHER NOTES: Left Bank. Medium sized bar of mixed sand, gravel and debris. Resting bar only. Sixty Canada Geese along waterline presumed in molt. ILL side OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 12.0 S Cape Girardeau (Gage Location) (Elevation)

			FLY	/ □ BOA	T
SPECIES: Interior Least	Tern <i>(Sterna antillarum</i>	athalassos)			
DATE: 7/1/2006	TIME OF DAY:	9:25	RIVER MILE: _	UR 17.0	,
LOCALITY: Miss		SITE NAME:	Thomp	son Towhead	
Count	y/Parish State		NUMBERS SIG	HTED:	
WHERE SITED: Lat	titude: 37.05447	29	Adults:	17	
Loi	ngitude: 89.30672			<u>*</u> V	
Approximate Distance to	Water: 200	Feet	Eggs: Nests:	2	
				No	
IN FLIGHT Over Sandba	<u> </u>	n Nest Area	SUBSTRATE:		
Over Wate	er - ☑ / On R	esting Area	Sand:		
Calm Water		~ _/	Gravel:	✓	
Land Side	<u>ج</u>	~~	Debris:		
Center . Channel Side	A MID-CHANNE		VEGETATION:		
MID-CHANNEL SANDBAR	Rapid Currents 🔽	7			
7 1	River Side	<u> </u>	Distance:	Feet	
II / 1.8	CHANNEL SANDBAR Center Land Side		FIELD CONDIT	TON:	
River Side ☐	Calm Water		Temperatu	ıre: 86 ⁰ I	=
1/77	71717		Rain: No		
	1 / 74	-7-7-	Wind: S	5-10 mph	
			% Cloud:	haze	
OTHER NOTES:					
	I gravel bar up to 5 ft. elev ine. No tracks or other sig		l sitting on scrap	es inland. Cou	ırting
5					
57 57				MO s	i <mark>de</mark>
OBSERVERS:	Campen, Carpenter, Da	vin, Griffin, Grubaug	h, Jones, Rumar	ncik, Thron	
RIVER GAGE READING:		Girardeau		12.0 S	
	(Gage	Location)		(Elevation)	

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 10:22 RIVER MILE: 946.0 KY SITE NAME: Island #1 Dikes LOCALITY: Carlisle County/Parish State NUMBERS SIGHTED: Adults: 9 WHERE SITED: Latitude: 36.8899 Juveniles: Longitude: 89.1171 ____0 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: On Resting Area Over Water · 🗸 Sand: Calm Water Gravel: ~ Debris: Land Side .Center . VEGETATION: MID-CHANNEL V Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 86 F River Side Calm Water Rain: No Wind: S 5-10 mph % Cloud: haze OTHER NOTES: Left Bank. Long, medium high (8 ft.), unattached bar of sand, some gravel and mud on chute side. Courting and resting at waterline. ATV tracks abundant. KY side OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 19.0 R Cairo (Gage Location) (Elevation)

				FLY	□ BOAT ✓
SPECIES: Inter	ior Least Tern (Stern	na antillarum at	halassos)		
DATE: 7/1	/2006 TIME C	F DAY:	10:55	RIVER MILE: _	940.0
LOCALITY:	Carlisle		SITE NAME:	Below Ca	ampbell Dikes
	County/Parish	State		NUMBERS SIG	HTED:
WHERE SITED	: Latitude:	36 80566		Adults:	16
WHERE OHED	Longitude:			Juveniles:	X
A 2000 200 200 200 E	100 N			Eggs:	3(3) 1(2)
Approximate L	Distance to Water:	80 1	-eet	Nests:	5
				Chicks:	No
IN FLIGHT (4500 St.		est Area 🗸	SUBSTRATE:	
411	Over Water · 🗸	On Rest	ing Area 🗌	Sand:	✓
Calm	Water ✓		./ .	Gravel:	✓
Land	Side 🗆			Debris:	
<i>(</i>	enter .		_ 1	VEGETATION:	
Channe	el Side 🔲 🧳	MID-CHANNEL	□ →	Type:	
MID-CHANNEL	SANDBAR Rapid Curren	ts 🔲	· S		
1		River Side	\	Distance:	Feet
سمسر ا	SIDE CHANNEL SANI			FIELD CONDIT	ION:
River Si	de 🖳	Land Side		Temperatu	re: 86 °F
7	/ 			Rain: No	
	/	174	7-7-7	Wind: S	5-10 mph
				% Cloud:	haze
OTHER NOTES	٠.				
	o. v, flat, unattached sand	l and non cizad	gravel bar (3 ft) w	ith colony of 5 no	ete on contar of har
	cks and fresh ATV trac				sts on center or bar.
5					
S					KY side
OBSERVERS:	Campen, C	Carpenter, Davin	, Griffin, Grubaug	h, Jones, Ruman	cik, Thron
RIVER GAGE R	READING:	Cai	ro		19.0 R
		(Gage Lo	ocation)		(Elevation)

				FLY	/ □ BOAT 🗹
SPECIES: Interior Le	ast Tern (Sterna a	ntillarum ath	nalassos)		
DATE: 7/1/2006	TIME OF D	AY:	11:36	RIVER MILE: _	930.5
LOCALITY:	Hickman	KY	SITE NAME:	Wolf	Island Bar
Co	ounty/Parish	State		NUMBERS SIG	SHTED:
WHERE SITED:	Latitude:36.	6884		Adults:	43
	Longitude: 89.	14823			
Approximate Distan	ce to Water:	400 F	eet		1(3) 4(2) 1(1)
Approximate Distant	oc to Water.	400 1			19
	CDARABAR VI			Chicks:	No
IN FLIGHT Over Sa	42.32		st Area 🗸	SUBSTRATE:	
V_/_/_Over	Water - 🗸	On Restin	ig Area	Sand:	\checkmark
Calm Water	∠		./ ,	Gravel:	
Land Side				Debris:	
Center	A	ID CHANNEL [, II	VEGETATION:	
Channel Side	'Y A M	ID-CHANNEL [¬→	Type: Gra	ss/3ft. Cottonwoods
MID-CHANNEL SANDE	Rapid Currents]		Market At	The same of the sa
1 1		River Side		Distance.	40 Feet
<u>s</u> .	IDE CHANNEL SANDBAF	Center ☐ Land Side ☐		FIELD CONDIT	ION:
/ River Side □		Calm Water		Temperatu	ıre: 84 ⁰ F
7777	} 			Rain: No	
	/ /		/	Wind: S	10 mph
				% Cloud:	haze
OTHER NOTES:					
OTHER NOTES:	id alconoci conductation	an trate sees			ning works. I talk
	nid-channel, undulatir ed egg shells. Evider				
5					KY side
OBSERVERS:	Campen, Carp	enter, Davin.	Griffin, Grubaug	h, Jones. Rumar	
RIVER GAGE READI		Cair	- 11 1 10	T allia	19.0 R
	್ತಾನ್	(Gage Loc		= **	(Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Te	ern (Sterna antillarum	athalassos)		
DATE: 7/1/2006	TIME OF DAY:	12:56	RIVER MILE:	928.0
LOCALITY: Mississ		SITE NAME:	Moore I	sland Dikes
County/l	Parish State		NUMBERS SIGH	HTED:
WHERE SITED: Latitu	.do: 26 65262			44
WHERE SITED: Latitu	itude: 89.17402		Juveniles:	
~	K) #8		Eggs:	5(3) 3(2) 2(1)
Approximate Distance to V	Water: 200	<u>Feet</u>	Nests:	12
			Chicks:	Yes
IN FLIGHT Over Sandbar	75-22 V	Nest Area 🔽	SUBSTRATE:	
Over Water	On R	esting Area	Sand:	Z
Calm Water		47 JI	Gravel:	
Land Side	\triangleright		Debris:	
Channel Side	A MID-CHANNE		VEGETATION:	
\	//	- " →	Type: Willo	w/Cottonwoods
MID-CHANNEL SANDBAR	Rapid Currents River Side		Distance:	500 Feet
SÎDE CH.	ANNEL SANDBAR Center Land Side		FIELD CONDITI	ON:
/ River Side □	Calm Water		Temperatur	re: 84 ⁰ F
7777	/		Rain: No	
	/ / / 7	77-7-	Wind: S	5-1 <mark>0 mph</mark>
			% Cloud:	10% haze
OTHER NOTES:				
Right Bank. Unattached s wrack line. Coyote tracks side. One immature Bald	and one dead chick (cau			
5				MO side
OBSERVERS:	Campen, Carpenter, Da	vin, Griffin, Grubaudl	h, Jones, Rumano	*
RIVER GAGE READING:		Cairo	I III III III III III III III III III	19.0 R
2	23	Location)	= = = = = = = = = = = = = = = = = = =	(Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 13:36 RIVER MILE: 924.5 LOCALITY: Fulton KY SITE NAME: Beckwith Bend County/Parish State NUMBERS SIGHTED: 28 ____ Adults: Latitude: 36.60621 WHERE SITED: Juveniles: _____ Longitude: 89,20321 Eggs: Approximate Distance to Water: 50 Feet 5 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · V On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side Center . VEGETATION: MID-CHANNEL V Channel Side 'V Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side Temperature: 86 °F Calm Water Rain: No Wind: S 10 mph % Cloud: 30% OTHER NOTES: Left Bank. Small, flat, unattached sand/gravel bar 2 ft. in elevation. Perimeter count only with most birds at waterline and 5 observed sitting inland. Recreational day campers one mile above and below colony site. No tracks or disturbance noted within colony. KY side OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: Cairo 19.0 R (Gage Location) (Elevation)

			FLY [BOAT 🗸
SPECIES: Interior Least T	ern (Sterna antillarum	athalassos)		
DATE: 7/1/2006	TIME OF DAY:	13:50	RIVER MILE:	920.0
LOCALITY: Missis	ssippi MO	SITE NAME:	Hickman	Bend
County	Parish State		NUMBERS SIGHTE	ED:
WHERE SITED: Latit	ude: 36.56873	⊒ 8	Adults:	35
Long	gitude: 89.23691	-		03411
Approximate Distance to	Water 400	Feet	Eggs:	74277220
Approximate Biotarice to	· · · · · · · · · · · · · · · · · · ·		-	1
IN FLIGHT Over Sandbar			Chicks:	Yes
IN FLIGHT Over Sandbar Over Water	<u>ON OROGNE</u> 0	n Nest Area 🔽 Resting Area 🗆	SUBSTRATE:	
M-4-4		/ ,	Sand:	
Calm Water		\checkmark \checkmark	Gravel:	
Land Side 🗹	<u> </u>		Debris:	
Channel Side	MID-CHANN		VEGETATION:	
Chainer Side		[™]	Type:	
MID-CHANNEL SANDBAR	Rapid Currents 🗸	_	Distance:	Feet
7	River Side			
	ANNEL SANDBAR Center Land Side		FIELD CONDITION	1 221
River Side 🔲	Calm Water		Temperature:	86 °F
7777	7 7 7 7		Rain: No	
	1174	~ ~~~	Wind: <u>S 10-1</u>	5 mph
			% Cloud: 40%	6
OTHER NOTES:				
Right Bank. Medium size	and heigth (9 ft.) sand b	oar with some nests in	wrack line. One chi	ck 1 week old.
Breasting and fishing cha tracks within colony.				
				MO side
OBSERVERS:	Campen, Carpenter, Da	avin Griffin Grubaud	h Jones Rumancik	MO side
RIVER GAGE READING:		Cairo Location)	=	19.0 R
	(Sage	Location	(EI	levation)

FLY □ BOAT 🗸

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 14:30 RIVER MILE: 908.0 LOCALITY: Fulton KY SITE NAME: Island #6 County/Parish State NUMBERS SIGHTED: ____3 Adults: Latitude: 36.5475 WHERE SITED: Juveniles: _____ Longitude: 89.3989 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: П Land Side . Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Hardwoods Rapid Currents MID-CHANNEL SANDBAR Distance: 1500 Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side V Temperature: 86 °F Calm Water Rain: No Wind: S 5-10 mph % Cloud: 40% OTHER NOTES: Left Bank. Resting bar attached to bank. KY side OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 19.0 R Cairo (Gage Location) (Elevation)

				FLY	□ BOAT ✓
SPECIES: Interior	Least Tern (Stern	a antillarum a	thalassos)		
DATE: 7/1/20	06 TIME O	F DAY:	14:50	RIVER MILE: _	887.5
LOCALITY:	Fulton	KY	SITE NAME:	Kentucky P	oint Dikes Upper
	County/Parish	State		NUMBERS SIG	HTED:
WHERE SITED:	Latitude:	36 6653		Adults:	3
WHERE SHED.	Longitude:			Juveniles:	ν
A	250 40	transferrence (market et al.)	F1	Eggs:	
Approximate Dist	ance to Water:		<u>Feet</u>	Nests:	0
	_			Chicks:	No
<u>IN FLIGHT</u> Over	15 St.		lest Area	SUBSTRATE:	
K / / _ ^ °	ver Water · 🔽	On Resi	ting Area 🔽	Sand:	✓
Calm Wa	ter 🗌			Gravel:	
Land Sid	lo			Debris:	
Cente	er . 🖵 🖊		_]	VEGETATION:	
Channel Si	de 🖰 🧳	MID-CHANNEL	□ →	Type:	
MID-CHANNEL SAN	NDBAR Rapid Current	s 🔽	12	Market 12	1000
A		River Side ✓		Distance:	Feet
ب-رسر	SIDE CHANNEL SAND	BAR Center Land Side		FIELD CONDITI	ION:
River Side		Calm Water		Temperatu	re: 86 °F
777	'} 	4		Rain: No	
	/	17	7-7-7	Wind: S	5-7 mph
				% Cloud:	10
OTHER NOTES:					
TO LOUIS BOOK AS A SECTION OF THE SE	ned sand bar behind	trailer dike's de	ownstream end Tr	wo terns resting a	at waterline 1 in
flight over water.	Day campers just u	pstream. Restin	ng bar only.	wo terrio reating a	at waterinie, 1 iii
S					
					KY side
OBSERVERS:	Campen, C	arpenter, Davi	n, Griffin, Grubaug	h, Jones, Ruman	cik, Thron
RIVER GAGE REA	DING:	New M	1adrid		7.9 R
		(Gage L	ocation)		(Elevation)

				FLY	′ □ BOAT 🗹
SPECIES: Interior I	east Tern (Sterna	antillarum a	thalassos)		
DATE: 7/1/200	6 TIME OF	DAY:	15:22	RIVER MILE: _	884.0
LOCALITY:	Fulton	KY	SITE NAME:	Kentucky F	oint Dikes Lower
Í	County/Parish	State		NUMBERS SIG	HTED:
WHERE SITED:	Latitude: 3	6 52359		Adults:	32
WHERE OHED.	Longitude: 8			Juveniles:	<u> </u>
	350 ST	13		Eggs:	1(3) 1(2)
Approximate Dista	nce to Water:	500	Feet	Nests:	7
				Chicks:	Yes
111 1111 1111	207 NO.		lest Area	SUBSTRATE:	
<u> </u>	er Water · 🗹	On Resi	ting Area	Sand:	✓
Calm Water	er 🗌			Gravel:	
Land Side				Debris:	
	. y /		_ 1	VEGETATION:	
Channel Side	e ' ⊻ 🥖	MID-CHANNEL	⊻ →	Type: Gra	
MID-CHANNEL SANI	DBAR Rapid Currents			NAME OF THE OWNER OWNER OF THE OWNER OWNE	
A	\top	River Side	ir II	Distance:	100 Feet
ببسمه	SIDE CHANNEL SANDE	AR Center .		FIELD CONDIT	ION.
/ River Side [Land Side			ıre: 87 ° F
1 7 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -				Rain: No	
l'''	/////	7	~		(A) (C) (A) (A) (A) (A) (A) (A) (A) (A) (A) (A
		' /-		Wind: S	15 mph
				% Cloud:	30 %
OTHER NOTES:					
Left Bank. Mediur	n high (8 ft.), flat-top				
evidence.	e chicks up to 2 wee	ns old. Offe a	abandoned nest Wil	in only z eggs. N	io recreational
					KY side
OBSERVERS:	Campen, Ca	arpenter, Davi	n, Griffin, Grubaug	h, Jones, Ruman	3)
RIVER GAGE REAL	DING:	New M	Madrid Tadrid		7.9 R
		(Gage L	ocation)	5	(Elevation)

FLY □ BOAT 🗸

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 15:42 RIVER MILE: 880.5 LOCALITY: New Madrid MO SITE NAME: Island #11 Dikes County/Parish State NUMBERS SIGHTED: 7 Adults: Latitude: 36.4721 WHERE SITED: Juveniles: Longitude: 89.5230 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: ~ Land Side .Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 88 °F River Side Calm Water Rain: No Wind: S 15 mph % Cloud: 10 % OTHER NOTES: Right Bank. Seven terns flying in transit. MO side OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: New Madrid 7.9 R (Gage Location) (Elevation)

FLY □ BOAT 🗸

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 15:52 RIVER MILE: 876.0 LOCALITY: _____ Lake ____ TN SITE NAME: ____ Marr Towhead County/Parish State NUMBERS SIGHTED: 7 Adults: Latitude: 36.4184 WHERE SITED: Juveniles: _____ Longitude: 89.5363 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side V Temperature: 88 °F Calm Water Rain: No Wind: S 10 mph % Cloud: 10 % OTHER NOTES: Left Bank. Seven terns resting at waterline. Day campers 2 miles upstream. TN side OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: Caruthersville 9.9 R (Gage Location) (Elevation)

	FLY	□ BOAT ✓
SPECIES: Interior Least Tern (Sterna antillarum athalas	os)	
DATE: 7/1/2006 TIME OF DAY:16:0	RIVER MILE:	872.5
LOCALITY: New Madrid MO	TE NAME:Stewart Tow	head Dikes Upper
County/Parish State WHERE SITED: Latitude: 36.37141	NUMBERS SIG Adults:	HTED: 51
Longitude: 89.51267	Juveniles:	<u> </u>
Approximate Distance to Water: 500 Feet	1000000	0
Approximate distance to water. 300 Feet	Nests:	0
	Chicks:	Yes
<u>IN FLIGHT</u> Over Sandbar ✓ <u>ON GROUND</u> On Nest Are	- OODOTTATE.	
Over Water · 🗸 On Resting Are	Sand:	
Calm Water	Gravel:	✓
Land Side	Debris:	
C	VEGETATION:	
Channel Side ☐ MID-CHANNEL ☑		
MID-CHANNEL SANDBAR Rapid Currents	100.00	Feet
River Side 🗹		
SIDE CHANNEL SANDBAR Center Land Side	FIELD CONDIT	ION:
River Side ☐ Calm Water ☑	Temperatu	re: 87 °F
777777	Rain: No	
(/ / / / / / / / / / / / / / / / / / /	Wind: s	10 mph
	% Cloud:	10
OTHER NOTES:		
Right Bank. Low (3 ft.), flat, clean gravel bar with patches	sand Breasting feeding	carrying fish on both
sides. Perimeter count indicates some birds sitting inland	Mediocre mobbing with flush	count but no nests
could be found. Two chicks observed, 1 fledgling and 1 le and 1 Black Tern also observed.	than 1 week old. Four fish	ng opposite bank
		MO side
OBSERVERS: Campen, Carpenter, Davin, Grit	n, Grubaugh, Jones, Ruman	cik, Thron
RIVER GAGE READING: Caruthersville	=	9.9 R
(Gage Location		(Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 16:26 RIVER MILE: 871.5 ____MO SITE NAME: Stewart Towhead Dikes LOCALITY: New Madrid County/Parish State NUMBERS SIGHTED: Adults: 160 WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: 0 Feet 0 Nests: Chicks: Yes IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side .Center . VEGETATION: MID-CHANNEL V Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side V River Side Temperature: 88 °F Calm Water V Rain: No Wind: S 10 mph % Cloud: 40% OTHER NOTES: Right Bank. High (10 ft.), flat, mostly sand with gravel patches, unattached. Forty chicks of all ages counted but most are from a few days to 1 week of age. Perimeter count only. MO side OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: Caruthersville 9.9 R (Gage Location) (Elevation)

			FLY	′ □ BOAT 🗹
SPECIES: Interior Least Te	rn (Sterna antillarum	athalassos)		
DATE: 7/1/2006	TIME OF DAY:	16:40	RIVER MILE: _	870.0
LOCALITY: New M		SITE NAME:	Stewart Tow	head Dikes Lower
County/I	Parish State		NUMBERS SIG	HTED:
WHERE SITED: Latitu	ide: 36 34520		Adults:	31
	itude: 89.52884		Juveniles:	
~	is the second of	***	Eggs:	
Approximate Distance to V	Vater: 200	Feet	Nests:	0
			Chicks:	Yes
IN FLIGHT Over Sandbar	<u>or or or or</u>	n Nest Area ✓	SUBSTRATE:	
Over Water	☑ / / On R	esting Area	Sand:	✓
Calm Water		۷/.II	Gravel:	✓
Land Side	\succeq		Debris:	✓
Center .		٦	VECETATIONI	
Channel Side	MID-CHANNE	<u></u>	VEGETATION:	
MID-CHANNEL SANDBAR	Rapid Currents		Type:	
بر ا <i>ا</i>	River Side	ian II	Distance:	Feet
SIDE CH.	ANNEL SANDBAR Center	☑ ∵	FIELD CONDIT	ION:
/ River Side □	Land Side	· ·		ıre: 88 ° F
┣ ╸╱┈┋ ┈	Calm water	×. \		
' ' / ' ' /	777		Rain: No	
	, / , , , , ,	لستركر	Wind: S	10 mph
			% Cloud:	40
OTHER NOTES:				
Right Bank. Downstream	point of extended colony	measured in previo	us data sheet. S	imilar description but
slightly lower (8 ft.) and ge waterline. One fingerling s	ntly undulating. Two ne	wly hatched chicks in	one scrape. Th	ree fishermen at
opposite bank.	oliverside presumably di	opped by loraging te	ins. reeding in i	Dack Chule and
5				MO side
OBSERVERS:	Campen, Carpenter, Da	vin, Griffin, Grubaug	n, Jones, Ruman	cik, Thron
RIVER GAGE READING:	Caru	thersville		9.9 R
	(Gage	Location)		(Elevation)

			FLY	′ □ BOAT	V
SPECIES: Interior Least Te	ern (Sterna antillarum	athalassos)			
DATE: 7/1/2006	TIME OF DAY:	17:01	RIVER MILE: _	864.5	
LOCALITY: Lak	re TN	_ SITE NAME:	Below C	herokee Dikes	
County/	Parish State		NUMBERS SIG	HTED:	
WHERE SITED: Latitu	udo: 26.32756			26	
	gitude: 89.61777		Juveniles:	<u> </u>	
	SO SEE COMMENCE SECTION S		Eggs:	1(3)	
Approximate Distance to \	Water: <u>200</u>	Feet	Nests:	1	
		1	Chicks:	No	
IN FLIGHT Over Sandbar	77.72. V	Nest Area ✓	SUBSTRATE:		
Over Water	. ☑ / On Re	esting Area	Sand:	✓	
Calm Water		4/ .	Gravel:		
Land Side			Debris:		
Center .		_ 1	VEGETATION:		
Channel Side	MID-CHANNE	·⊻→∥	Type:		
MID-CHANNEL SANDBAR	Rapid Currents				
1 1	River Side		Distance:	Feet	
SIDE CH	IANNEL SANDBAR Center L		FIELD CONDIT	ION:	
/ River Side □	Calm Water		Temperatu	ıre: 88 ⁰ F	
7777	////////		Rain: No		
	1174	-7-7-	Wind: S	10 mph	
			% Cloud:	50	
OTHER NOTES:					
Left Bank. Attached, very	large broad gently slopi	ing har (5 ft) of soli	d sand 2 miles in	length Many A	\T\
and dog tracks. Perimete				Torigan. Many 7	
5					
5				TN sid	е
OBSERVERS:	Campen, Carpenter, Dav	vin, Griffin, Grubaug	h, Jones, Ruman	cik, Thron	
RIVER GAGE READING:	Carut	hersville		9.9 R	
	(Gage	Location)		(Elevation)	

			FLY	Y 🗆	BOAT	~
SPECIES: Interior Least Te	ern (Sterna antillarum	athalassos)				
DATE: 7/1/2006	TIME OF DAY:	17:30	RIVER MILE:	8	357.3	
LOCALITY: New M	adrid MO	SITE NAME:	Chute	of Island	l #14	
County/l	Parish State		NUMBERS SIG	SHTED:		
WHERE SITED: Latitu	ido: 36 25230		Adults:		32	
	itude: 89.56588		Juveniles:			
_			Eggs:	7 8		
Approximate Distance to V	Vater:	Feet	Nests:	8 <u>V</u>	0	
		1	Chicks:	7 2	No	
IN FLIGHT Over Sandbar	N2-32	Nest Area	SUBSTRATE:			
Over Water	On Re	esting Area	Sand:	✓		
Calm Water		4/ .	Gravel:	✓		
Land Side	>		Debris:			
. Center . □			VEGETATION:	á.		
Channel Side	A MID-CHANNE	┕ ⊔ → ∥	Type:			
MID-CHANNEL SANDBAR	Rapid Currents		1000			
1 /	River Side		Distance:	755 70	reet	
SIDE CH.	ANNEL SANDBAR Center Land Side		FIELD CONDIT	TION:		
River Side 🗸	Calm Water		Temperato	ure:	87 °F	
7777	///////		Rain: No	0		
	1174	7-7-7	Wind: S	5-10 mp	h	
			% Cloud:	50		
OTHER NOTES:						
Right Bank. Attached poir	nt bar clean with no debr	is long and undulati	ng ATV tracks	Restino	har only	,
with no courting or breeding		io, iong and andulas	ing. All vacation	rtooting	Dai Oili	
5						
3	Esc. 2			I Describe trace as	MO side	9
OBSERVERS:	Campen, Carpenter, Dav	vin, Griffin, Grubaug	n, Jones, Rumar	ncik, Thro	on	
RIVER GAGE READING:	Carut	hersville		9.9	R	
	(Gage	Location)		(Eleva	tion)	

FLY □ BOAT ✓ SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/1/2006 TIME OF DAY: 17:52 RIVER MILE: 850.5 LOCALITY: _____ Lake ____ TN SITE NAME: ____ Island #15 Dikes County/Parish State NUMBERS SIGHTED: 3 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 82 °F River Side [Calm Water Rain: No Wind: S 5 mph % Cloud: 50 OTHER NOTES: Three terns in transit. TN side OBSERVERS: _____ Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: Caruthersville 9.9 R (Gage Location) (Elevation)

				FLY	′ □ BOAT 🗹
SPECIES: Interi	or Least Tern (Stern	a antillarum atl	nalassos)		
DATE: 7/2/	2006 TIME OI	DAY:	9:02	RIVER MILE: _	846.3
LOCALITY:	Lake		SITE NAME:	Opp. Caru	uthersville Dikes
	County/Parish	State		NUMBERS SIG	HTED:
WHERE SITED:	Latitude: 3	36.19854		Adults:	26
	Longitude:	39.64261			<u> </u>
Approximate D	istance to Water:	400 F	eet	Eggs:	
				Nests: Chicks:	0 Yes
IN FLIGHT O	ver Sandbar 🗸 ON	GROUND On Ne	st Area ✓	SUBSTRATE:	
4111	Over Water · 🗹	On Restir	2 -3 1	224 1142	▽
Calm V	Vater		. / .	0	
l and	Side 🗆			Debris:	
	enter .	MID OUTBOURE [_]	VEGETATION:	
Channel	7.	MID-CHANNEL	→		ows/Cottonwoods
MID-CHANNEL S	Rapid Currents	⁵┗ ┷		Distance:	500 Feet
l "_	SIDE CHANNEL SAND	River Side BAR Center			
/ River Sid		Land Side	~ `	FIELD CONDIT	ION: ire: 84 ° F
F / -	, II	Calm Water 🗹	\sim		
' ' '	1 111	7		Rain: No	
	5018	' / 7		Wind: ca	alm
				% Cloud:	0
OTHER NOTES:					
	all, undulating, sand ba				
5					TN side
OBSERVERS: _	Davir	n, Griffin, Grubau	ugh, Jones, Milbu	rn, Rumancik, Th	nron
RIVER GAGE RI	EADING:	Caruther			10.8 R
		(Gage Lo	cation)		(Elevation)

FLY □ BOAT 🗸

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/2/2006 TIME OF DAY: 9:30 RIVER MILE: 840-843 LOCALITY: Pemiscott MO SITE NAME: Linwood Bend County/Parish State NUMBERS SIGHTED: ____15 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side [Temperature: 82 °F Calm Water Rain: No Wind: S 5 mph % Cloud: 0 OTHER NOTES: Fifteen terns in transit. MO side OBSERVERS: _____ Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: Caruthersville 10.8 R (Gage Location) (Elevation)

			FLY L	BOAT V
SPECIES: Interior Least Tern	(Sterna antillarum ath	alassos)		
DATE: 7/2/2006	TIME OF DAY:	9:45	RIVER MILE:	836.0
LOCALITY: Dyer		SITE NAME:	Island #18 To	whead Dikes
WHERE SITED: Latitude	rish State		NUMBERS SIGHTE	
	de: 89.65790			1(1)
Approximate Distance to Wa	ter: <u>300</u> Fe	<u>eet</u>	Eggs: Nests:	15
IN FLIGHT Over Sandbar Over Water . Calm Water Land Side . Center .	On Resting	Area 🗆	Chicks: SUBSTRATE: Sand:	
MID-CHANNEL SANDBAR Rapid (oid Currents 🗹	Currents 🗹	Type:	- 100 ANN - 100
River Side	Land Side .		FIELD CONDITION Temperature: Rain: No	l: 84 ^O F
	للملال /		Wind: S5m	ph
OTHER NOTES:			% Cloud: 0	
Left Bank. Large, gently rolli along wrack lines but only 1			oded island. Many fre	esh scrapes
OBSERVERS:	Davin, Griffin, Grubau	ah Jones Milbu	rn Rumancik Thron	TN side
RIVER GAGE READING:	Caruthers	111 - 111	1111	10.8 R
	(Gage Loc			levation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Te	ern (Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	10:20	RIVER MILE:	830.0
LOCALITY:Dy	er TN	SITE NAME:	Island #20	Dikes Upper
County/	Parish State		NUMBERS SIGH	TED:
WHERE SITED: Latitu	ude: 36.02275		Adults:	14
	gitude: 89.69420	_10	Juveniles: _	
·-			Eggs:	
Approximate Distance to \	Water: 50	Feet	Nests:	2
			Chicks:	No
IN FLIGHT Over Sandbar	8 <u>-2</u>	n Nest Area	SUBSTRATE:	
Over Water	On F	Resting Area	Sand:	•
Calm Water		∠ / .∥	Gravel:	
Land Side	\geq		Debris:	3
Center .□		_	VEGETATION:	
Channel Side	A MID-CHANNI	╩╵╼╸║	Type:	
MID-CHANNEL SANDBAR	Rapid Currents			
71 -	River Side		Distance: _	Feet
SIDE CH	ANNEL SANDBAR Center	☑ : , , , ,	FIELD CONDITIO	DN:
River Side	Land Side Calm Water			e: 90 °F
7777	//// //		Rain: No	
	1179		Wind: W 5	5 mph
			% Cloud: 0	
OTHER NOTES.				
OTHER NOTES:				a flandad Tura
Right Bank. Small, barely nests indicated by sitting t		acre sand bar, unatta	ched but soon to be	e nooded. Two
9				
£5				MO side
OBSERVERS:	Davin, Griffin, Gri	ubaugh, Jones, Milbu	rn, Rumancik, Thro	on
RIVER GAGE READING:	13	thersville		10.8 R
	(Gage	Location)		(Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Te	ern (Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	10:28	RIVER MILE:	828.2
LOCALITY: Dye	er TN	SITE NAME:	Island #20	Dikes Lower
County/I	Parish State		NUMBERS SIGH	TED.
WILLEDE CITED.	.d 26.04226			17
WHERE SITED: Latitu		29		
	itude: 89.70654		Eggs:	
Approximate Distance to V	Vater: 100	Feet	Nests:	5
			Chicks: _	No
IN FLIGHT Over Sandbar	<u>ON ORCOND</u> O	n Nest Area ✓	SUBSTRATE:	
Over Water	• ✓ / On R	esting Area	Sand:	•
Calm Water		<u>ار / ک</u>	Gravel:	2
Land Side	>		Debris:	
Channel Side	A MID-CHANNE		VEGETATION:	
\		→	Type: Willow	ws/Cottonwoods
MID-CHANNEL SANDBAR	Rapid Currents River Side		Distance: _	500 Feet
SIDE CH.	ANNEL SANDBAR Center Land Side		FIELD CONDITIO	ON:
River Side 🔲	Calm Water	· · ·	Temperature	e: 90 °F
77777	*+>+>		Rain: No	
	′ ′ ′ / 7		Wind: W	5 mph
		<u></u>	% Cloud: 0	
OTHER NOTES:				
Right Bank. Attached down sitting inland. No tracks of		d island, 2 ft. elevatio	on. Breasting and	carrying fish, 5
5				
\$7 15 15 15 15 15 15 15 15 15 15 15 15 15		11 21 2 11 1 1 CTERV		MO side
OBSERVERS:	Davin, Griffin, Gru	ıbaugh, Jones, Milbu	rn, Rumancik, Thr	on
RIVER GAGE READING:	17	thersville		10.8 R
	(Gage	Location)		(Elevation)

FLY □ BOAT 🗸

SPECIES: Interior Least Tern (Sterna antillarum athalassos) TIME OF DAY: _____ 10:45 ____ RIVER MILE: _____ 827.0 DATE: 7/2/2006 LOCALITY: _____ Dyer ___ TN __ SITE NAME: ___ Head of Island #21 Dikes County/Parish State NUMBERS SIGHTED: 7 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: ____ No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side . River Side [Temperature: 90 °F Calm Water Rain: No Wind: W 5 mph % Cloud: 0 OTHER NOTES: Left Bank. Five resting, 2 flying TN side OBSERVERS: _____ Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: Caruthersville 10.8 R (Gage Location) (Elevation)

			FLY [BOAT ✓
SPECIES: Interior Least Terr	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	10:55	RIVER MILE:	825.2
LOCALITY: Dyer	TN	SITE NAME:	Island	d #21
County/Pa	rish State		NUMBERS SIGHT	ED:
WHERE SITED: Latitud	25 06107		Adults:	21
	ide: 89.71049		Juveniles:	
~	##		Eggs:	
Approximate Distance to Wa	ater:	Feet	Nests:	0
			Chicks:	No
IN FLIGHT Over Sandbar	ON OROGNED OIL	Nest Area 🗸	SUBSTRATE:	
Over Water	2 / / On Re	sting Area	Sand: ✓	
Calm Water		4/ .	Gravel:	
Land Side	<u>``</u>		Debris:	
Channel Side	MID-CHANNE		VEGETATION:	
D.	pid Currents ✓	→	Type: Willow	s/Cottonwoods
MID-CHANNEL SANDBAR	River Side	_0 0740	Distance: 2	00 Feet
SIDE CHAN	INEL SANDBAR Center L		FIELD CONDITION	N:
River Side 🔲	Calm Water	· ·	Temperature:	90 °F
77777	† 7 † 7		Rain: No	
	′′′/		Wind: W 5	mph
			% Cloud: 0	
OTHER NOTES:				
Left Bank. High (22 ft.), bar with dog tracks.	ely attached, steep, nar	row, point bar. No r	mobbing but one eg	g shell fragment
ST .				
5 5				TN side
OBSERVERS:	Davin, Griffin, Grul	oaugh, Jones, Milbu	rn, Rumancik, Throi	1
RIVER GAGE READING:	0.3 17 96 34.54	nersville		10.8 R
	(Gage I	Location)	(E	Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Te	rn (Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	11:18	RIVER MILE:	819.0
LOCALITY: Mississ		SITE NAME:	Wrights	Point Dikes
County/F	Parish State		NUMBERS SIGH	ITED:
WHERE SITED: Latitu	de: 35 91050		Adults: _	62
	tude: 89.64811	<u>-</u> 2	Juveniles: _	
	i de distribution de la company de la compan	-B	Eggs:	1(1) 1(2) 2(3)
Approximate Distance to V	Vater: <u>1200</u>	Feet	Nests:	4
			Chicks:	No
IN FLIGHT Over Sandbar	12-12 V	n Nest Area	SUBSTRATE:	
Over Water	✓ / / On R	esting Area	Sand:	2
Calm Water		∠ / .∥	Gravel:	
Land Side 🗆	<u>></u>		Debris:	
Center .		_ 1	VEGETATION:	
Channel Side	MID-CHANNI	<u></u>	Type:	
MID-CHANNEL SANDBAR	Rapid Currents 🗹		Market 17	
بس الا	River Side	<u> </u>	Distance: _	Feet
SIDE CH/	ANNEL SANDBAR Center	□ : `	FIELD CONDITION	ON.
River Side 🖳	Land Side Calm Water			e: 91 ⁰ F
7777	+++++++++++++++++++++++++++++++++++++++		Rain: No	
10 38 45 35	1179		Wind: W	5 mph
			% Cloud: 0)
OTHER NOTES:			and decompositions.	
	19 ft) attached 50/50 s	and and gravel bar wi	ith nosts in nacked	sand gravel and
Right Bank. Large, high (1 mud along wrack lines. No				
				AR side
OBSERVERS:	Davin, Griffin, Gru	ubaugh, Jones, Milbu	rn, Rumancik, Thr	on
RIVER GAGE READING:	Caru	thersville	= = =	10.8 R
	(Gage	Location)		(Elevation)

			FLY	BOAT	~
SPECIES: Interior Least Terr	(Sterna antillarum	athalassos)			
DATE: 7/2/2006	TIME OF DAY:	12:15	RIVER MILE:	811.5	
LOCALITY:Lauderda		SITE NAME:	Below Tamm E	Bend Dikes Upp	er
County/Pa	rish State		NUMBERS SIGH	ITED:	
WHERE SITED: Latitud	25 0077		Adults:	29	
WHERE SITED: Latitud			Juveniles:		
	ide: 89.7404		Eggs:		
Approximate Distance to Wa	ater:	Feet	Nests:	0	
			Chicks: _	No	
IN FLIGHT Over Sandbar	ON GROUND OR	Nest Area	SUBSTRATE:		
Over Water - [] / / On R	esting Area 🔽	Sand:	•	
Calm Water	~ <i></i>	∠ / .ll	Gravel:		
Land Side 🗆	<u> </u>		Debris:		
Center . Center . Channel Side	# MID-CHANNE		VEGETATION:		
\	<i></i>	⁺ □ →	Туре:		
MID-CHANNEL SANDBAR Re	pid Currents		Distance: _	Feet	
SIDE CHAN	INEL SANDBAR Center Land Side		FIELD CONDITION	ON:	
River Side ☐	Calm Water		Temperature	e: 91 ⁰ F	
77777	7		Rain: No		
	1179	7-7-7	Wind: W	5 mph	
			% Cloud: 1	10	
OTHER NOTES:					
Left Bank. All birds at water	line, resting only. No r	eproductive activity r	noted. Perimeter o	count only.	
о О	M				
<i>a</i>					
000000000000000000000000000000000000000	Davin Criffin Co	hough Jones Miller	rn Dumonaile The	TN side	
OBSERVERS:	111	baugh, Jones, Milbu	in, Kumancik, Inr		
RIVER GAGE READING:	Un 1979C NO	hersville	= = =	10.8 R	
	(Gage	Location)		(Elevation)	

				FL)	Y 🗆	BOAT	~
SPECIES: Inte	erior Least Tern	(Sterna antillarum	athalassos)				
DATE: 7/2	2/2006	TIME OF DAY:	12:25	RIVER MILE:	8	10.0	
LOCALITY:	Lauderdal	e TN	SITE NAME:	Below Tamm	n Bend Di	kes Lov	ver
	County/Par	ish State		NUMBERS SIG	SHTED:		
WHERE SITED). Latitude	35.8973		Adults:	58	7	
WHERE OHEE		le: 89.7557		Juveniles:	9 34		
				Eggs:	5 3.		
Approximate	Distance to Wat	er:	Feet	Nests:	7 <u> </u>	0	
				Chicks:	58-	No	
IN FLIGHT	Over Sandbar		Nest Area	SUBSTRATE:			
K_/_	Over Water -	/ / On Re	esting Area 🔽	Sand:	\checkmark		
Calm	n Water □		4/	Gravel:	✓		
Lan	d Side	5		Debris:			
	Center . 🔲	MID-CHANNE		VEGETATION:			
- Cinami				Type:			
MID-CHANNEL	SANDBAR Rap	id Currents	<u> </u>	Distance:	-	Feet	
رسم 🏻	SIDE CHANN	IEL SANDBAR Center	3 .	FIELD CONDIT	ΓΙΟΝ:		
River S	ide □	Land Side (Temperati	ure: 9	1 °F	
/ /-	777	777		Rain: No			
		′′′		Wind: V	V 5 mph		
				% Cloud:	0		
OTHER NOTE:	S·						
	edium size sand	bar with some mud,	attached at this rive	r stage. All birds	observed	d resting	g at
5							
ODSEDVEDS:		Davin, Griffin, Gru	haugh Jones Milhu	ırn Rumancik T		TN side	;
				in, iximantik, I		_	*
RIVER GAGE	READING:	0.100000	hersville		10.8		
		(Gage	Location)		(Elevat	ion)	

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	12:30	RIVER MILE:	808.5
LOCALITY: Lauderda	20 FF	_ SITE NAME:	Nebraska Poi	int Dikes Upper
County/Par	ish State		NUMBERS SIGH	TED:
WHERE SITED: Latitude	. 35.8710		Adults:	59
	de: 89.7663		Juveniles:	
	en e		Eggs:	
Approximate Distance to War	ter: 200	Feet	Nests:	2
			Chicks:	No
IN FLIGHT Over Sandbar	ON ORCOND ON	Nest Area ✓	SUBSTRATE:	
Over Water - V	On Re	esting Area	Sand:]
Calm Water		4/ .	Gravel:]
Land Side 🗆	5		Debris:]
Center . □		_ 1	VEGETATION:	
Channel Side	MID-CHANNE	└ [☑] → Ⅱ	Type: grass.	forbs
MID-CHANNEL SANDBAR Rap	oid Currents	8	Manager at	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT
	River Side	<u> </u>	Distance:	100 Feet
SIDE CHANI	NEL SANDBAR Center Land Side		FIELD CONDITIO	N:
River Side 🔲	Calm Water		Temperature	: 91
77777	7+7		Rain: No	
	1174	-7-7-7	Wind: W 5	mph
			% Cloud: o	
OTHER NOTES:				
Left Bank. Low, flat, clean sa	and bar between dikes	with two terns sitting	g inland, the rest of	bserved at the
waterline.			,	
5				
O SECURIOR MODEL BUT				TN side
OBSERVERS:	Davin, Griffin, Gru	baugh, Jones, <mark>Mi</mark> lbu	rn, Rumancik, Thro	on
RIVER GAGE READING:		hersville		10.8 R
	(Gage	Location)	((Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	12:44	RIVER MILE: _	807.3
LOCALITY:Lauderda		SITE NAME:	Nebraska P	oint Dikes Lower
County/Par	rish State		NUMBERS SIG	HTED:
WHERE SITED: Latitude	35.85819		Adults:	24
	de: 89.75436		Juveniles:	<u>x</u>
~		8	Eggs:	
Approximate Distance to Wa	ter: 800	reet	Nests:	0
			Chicks:	Yes
<u>IN FLIGHT</u> Over Sandbar ✓	<u>on oncorns</u>	Nest Area	SUBSTRATE:	
Over Water · V	On Re	esting Area	Sand:	✓
Calm Water		47 J	Gravel:	
l and Side To	3	~~	Debris:	✓
Land Side		٦	VECETATION	
Channel Side	A MID-CHANNE	L □ ⊸	VEGETATION:	/F/O\A/
MID-CHANNEL SANDBAR Raj	oid Currents .		Type: Gras	sses/Forbs/CW
MIID-CHANNEL SANDBAK	River Side	<u>~</u> ∥	Distance:	60 Feet
SIDE CHAN	NEL SANDBAR Center	☑ ∵ે. ☑	FIELD CONDIT	ION:
/ River Side □	Land Side (re: 91 ⁰ F
├ ─ /	Calm Water	× ~1		
/ / / / /	'		Rain: No	
	1 1 7		Wind: W	5 mph
			% Cloud:	10
OTHER NOTES:				
OTHER NOTES:	broad bar of coft can	d Camping rompan	to and dog tracks	Chieke observed:
Left Bank. High (20 ft.) long, 2 < 1 week, 3 > 1 week	broad bar of soft same	u. Camping feminan	is and dog tracks	s. Chicks observed.
13				
<i>5</i>				TN side
OBSERVERS:	Davin, Griffin, Gru	baugh, Jones, Milbu	rn, Rumancik, Th	ron
RIVER GAGE READING:	Carut	hersville		10.8 R
	(Gage	Location)	<u>≂</u> ,	(Elevation)

FLY □ BOAT 🗸

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/2/2006 TIME OF DAY: 13:40 RIVER MILE: 805.0 LOCALITY: Mississippi AR SITE NAME: Island #25 Dikes County/Parish State NUMBERS SIGHTED: 1 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL V Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side Temperature: 91 °F Calm Water Rain: No Wind: W 5 mph % Cloud: 10 OTHER NOTES: One observed over dikes in transit. AR side OBSERVERS: _____ Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: Caruthersville 10.8 R (Gage Location) (Elevation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/2/2006 TIME OF DAY: 13:45 RIVER MILE: 803.0 SITE NAME: Bend of Island #25 LOCALITY: Mississippi AR County/Parish State NUMBERS SIGHTED: Adults: 50 Latitude: 35.82105 WHERE SITED: Juveniles: Longitude: 89.69914 1(2) Eggs: Approximate Distance to Water: 100 Feet 3 Nests: Chicks: No IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water -On Resting Area Sand: Calm Water Gravel: Debris: Land Side Center . VEGETATION: MID-CHANNEL Channel Side 'V Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: ___92 OF River Side Calm Water Rain: No Wind: W 5 mph % Cloud: 10 OTHER NOTES: Right Bank. Small, low (4 ft.), flat, unattached mid-channel bar with several sitting on scrapes and breasting. No tracks AR side OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: Caruthersville 10.8 R (Gage Location) (Elevation)

			FLY	/ □ BOAT 🗹
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	14:02	RIVER MILE: _	799.0
LOCALITY:Lauderda	le TN	SITE NAME:	Forked D	eer Dikes Upper
County/Par	rish State		NUMBERS SIG	SHTED:
WHERE SITED: Latitude	e: 35.79076		Adults:	18
	de: 89.74235		Juveniles:	
		F4	Eggs:	1(1, 2 hatchlings)
Approximate Distance to Wa	ter300	reet	Nests:	3
			Chicks:	Yes
<u>IN FLIGHT</u> Over Sandbar ✓	<u>ON ONOOND</u>	Nest Area	SUBSTRATE:	
Over Water	On Re	esting Area	Sand:	
Calm Water		<u>ار ک</u>	Gravel:	✓
Land Side 🗆	3		Debris:	
Center .		_ 1	VEGETATION:	
Channel Side	MID-CHANNE	¹□ → Ⅱ	Type: Wil	
MID-CHANNEL SANDBAR	oid Currents		Market At	NATIONAL DISCONNESS OF
	River Side		Distance:	300 Feet
SIDE CHAN	NEL SANDBAR Center Land Side	₹ ∷``	FIELD CONDIT	ION:
/ River Side ☐	Calm Water		Temperatu	ıre: 92 ⁰ F
77777	7+74		Rain: No	
	1179	لسلاحر	Wind: W	/ 5 mph
			% Cloud:	10
OTHER NOTES:				
Left Bank. Gravel bar and ur	ndulating sand attache	ed to wooded island I	but not to river ba	ank. First use of this
site to be noted. ATV tracks.				
3				
OBSERVERS:	Davin Griffin Gru	baugh, Jones, Milbu	rn Rumancik T	TN side
RIVER GAGE READING:	100 0.010	hersville	, ramanon, 11	10.8 R
MIVER GAGE READING.	10.10000000	Location)	- -	(Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	14:30	RIVER MILE:	797.5
LOCALITY: Lauderdal	e TN	SITE NAME:	Forked Dec	er Dikes Lower
County/Par	ish State		NUMBERS SIGH	HTED:
WHERE SITED: Latitude	: 35.78173		Adults:	89
	de: 89.76920		Juveniles:	
	An elitar el eli		Eggs:	1(2)
Approximate Distance to Wat	er: /5	reet	Nests:	1
			Chicks:	No
<u>IN FLIGHT</u> Over Sandbar ✓		Nest Area ✓	SUBSTRATE:	
Over Water - 🔽	/ / On Re	esting Area	Sand:	Z
Calm Water		47.II	Gravel:	
Land Side 🗆	5		Debris:	
Center .□		٦	VEGETATION:	
Channel Side	MID-CHANNE	<u> </u>	Type:	
MID-CHANNEL SANDBAR Rap	id Currents			
1 /	River Side	<u>₹</u> `	Distance: _	Feet
SIDE CHANN	NEL SANDBAR Center		FIELD CONDITION	ON:
River Side	Land Side (e: 89 °F
7777	7+74		Rain: No	
	// /~	7-7-7	Wind: W	5 mph
			% Cloud:	10
OTHER NOTES:				
Left Bank. Unattached, low (Perimeter count. New site.	3 ft.), flat, sand bar wi	th gravel patches (1	mile x 400 ft. wide	e). Human tracks.
53				
ST STREET, WOODEN BOOK				TN side
OBSERVERS:	Davin, Griffin, Grul	baugh, Jones, Milbu	rn, Rumancik, Thi	ron
RIVER GAGE READING:	***************************************	hersville		10.8 R
	(Gage	Location)		(Elevation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 14:54 RIVER MILE: 794.0 7/2/2006 AR SITE NAME: Ashport Goldust Dikes LOCALITY: Mississippi County/Parish State NUMBERS SIGHTED: 48 Adults: Latitude: 35.75007 WHERE SITED: Juveniles: Longitude: 89.91951 ____1(3) Eggs: Approximate Distance to Water: 60 Feet 1 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 93 °F River Side Calm Water Rain: No Wind: W 5 mph % Cloud: 10 OTHER NOTES: Right Bank. Huge, long, clean, flat sand bar (8-12 ft.) between dikes with highest elevation downstream point. Four boats with day campers lower end of colony and ATV tracks. AR side OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: Caruthersville 10.8 R (Gage Location) (Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006 T	IME OF DAY:	15:16	RIVER MILE:	789.5
LOCALITY:Lauderdale		SITE NAME:	Keyes Poir	nt Dikes Upper
County/Paris	sh State		NUMBERS SIGH	ITED:
WILLERS OFFER.	25 72002			125
WHERE SITED: Latitude:			2.00	
	e: <u>89.90128</u>		Eggs:	7(3) 2(2)
Approximate Distance to Wate	r: <u>300</u>	Feet	Nests:	19
			Chicks:	No
IN FLIGHT Over Sandbar ✓		Nest Area ✓	SUBSTRATE:	
Over Water · 🗸	/ / On Re	esting Area	Sand:	
Calm Water		4/ .	Gravel:	
Land Side			Debris:	
Channel Side	MID-CHANNE		VEGETATION:	
	.	- →	Туре:	
MID-CHANNEL SANDBAR	Currents River Side		Distance: _	Feet
SIDE CHANNE	Land Side		FIELD CONDITION	ON:
River Side 🔲	Calm Water		Temperature	e: 87 °F
77777	747		Rain: No	
	1 1 7	7-7-7	Wind: W	5 mph
			% Cloud: 2	20
OTHER NOTES:				
Left Bank. Flat, medium heigh scrapes with breasting both sic				
5				TN -: J-
OBSERVERS:	Davin Griffin Gru	baugh, Jones, Milbu	rn. Rumancik Thr	TN side
RIVER GAGE READING:	100 100	hersville	, r.s.manom, 1111	10.8 R
THE OFFICE NEADING.	00.10540500	Location)	=======================================	(Elevation)

			FLY [BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	15:43	RIVER MILE:	787.0
LOCALITY:Lauderda	ile TN	SITE NAME:	Keyes Point	Dikes Lower
County/Pa	rish State		NUMBERS SIGHT	ED:
WILLERS OFFER.	25.74.72		Adults:	
WHERE SITED: Latitude			100	1
Longitu	de: <u>89.93761</u>			7(3) 2(2)
Approximate Distance to Wa	ter: 100	Feet	Nests:	6
			Chicks:	Yes
IN FLIGHT Over Sandbar ▶	2	Nest Area ✓	SUBSTRATE:	
Over Water - V	On Re	esting Area	Sand: ✓	
Calm Water		4/ .	Gravel:	
Land Side	-		Debris:	
Channel Side	A MID-CHANNE		VEGETATION:	
\ ·	<i>'</i>	- →	Type:	
MID-CHANNEL SANDBAR	pid Currents River Side		Distance:	Feet
SIDE CHAN	NEL SANDBAR Center Land Side	4	FIELD CONDITION	N:
/ River Side □	Calm Water		Temperature:	87 °F
77777	77		Rain: No	
	117	7-7-7	Wind: W 5	mph
			% Cloud: 20	Ĺ
OTHER NOTES:				
Left Bank. Long, low (7 ft.),	extended sandbar, una	attached. Perimeter	count only.	
	1,000			
220000000	David Califf	Landa Torra Kiro	D 7	TN side
OBSERVERS:	Davin, Griffin, Gru	baugh, Jones, Milbu	rn, Kumancik, Thro	П
RIVER GAGE READING:	0.1040400	hersville	= = = = = = = = = = = = = = = = = = = =	10.8 R
	(Gage	Location)	(I	Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	16:02	RIVER MILE: _	783.5
LOCALITY: Lauderda	le TN	SITE NAME:	Below Plu	ım Point Dikes
County/Par	ish State		NUMBERS SIGI	HTED:
WUEDE OITED	05.05004			96
WHERE SITED: Latitude				
Longitud	de: <u>89.91649</u>			8(3) 1(2)
Approximate Distance to Wat	ter: 20	Feet	Nests:	32
			Chicks:	No
<u>IN FLIGHT</u> Over Sandbar ✓	ON GROUND On	Nest Area ✓	SUBSTRATE:	
Over Water · 🗸	On Re	sting Area	Sand:	✓
Calm Water		47.1	Gravel:	
	5		Debris:	
Land Side		٦	VEGETATION:	
Channel Side	MID-CHANNE	. ☑ →	Type:	
MID-CHANNEL SANDBAR Rap	oid Currents		1000	
7 1	River Side	₹	Distance:	Feet
SIDE CHAN	NEL SANDBAR Center L		FIELD CONDITI	ON:
/ River Side □	Calm Water	· · ·	Temperatu	re: 93 ° F
 	7+74		Rain: No	
10 02 00 00	1174	7-7-7	Wind: W	5 mph
			% Cloud:	10
OTHER NOTES:				
Left Bank. Small, unattached	sand har (300 x 100	vds) less than 2 ft in	n elevation I ight	mobbing with
breasting and fishing on both				
				TN side
OBSERVERS:	Davin, Griffin, Grul	oaugh, Jones, Milbu	rn, Rumancik, Th	
RIVER GAGE READING:	Carutl	nersville		10.8 R
	(Gage	Location)	=	(Elevation)

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/2/2006 TIME OF DAY: 16:20 RIVER MILE: 780 LOCALITY: Mississippi AR SITE NAME: Driver Cut-Off County/Parish State NUMBERS SIGHTED: 2 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL V Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side [Temperature: 93 °F Calm Water Rain: No Wind: W 5 mpn % Cloud: 10 OTHER NOTES: 2 Terns in flight outside bend. TN side OBSERVERS: _____ Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: Memphis 1.1 R (Gage Location) (Elevation)

			FLY	BOAT
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/2/2006	TIME OF DAY:	16:30	RIVER MILE:	775.5
LOCALITY:Lauderda	le TN	SITE NAME:	Hatch	nie Towhead
County/Pa	rish State		NUMBERS SIG	SHTED:
WHERE SITED: Latitude	25 560			38
			Juveniles:	
Lorigitu	de: <u>89.914</u>		Eggs:	-
Approximate Distance to Wa	ter: 100	Feet	Nests:	8
		*	Chicks:	No
IN FLIGHT Over Sandbar	2.	Nest Area ✓	SUBSTRATE:	
Over Water	On Re	esting Area	Sand:	✓
Calm Water		۷/.II	Gravel:	✓
Land Side 🗆	3		Debris:	
Center 💆			VEGETATION:	
Channel Side ✓	A MID-CHANNE	└	Type:	
MID-CHANNEL SANDBAR Ra	oid Currents		100.	
	River Side		Distance:	Feet
SIDE CHAN	NEL SANDBAR Center Land Side		FIELD CONDIT	TION:
/ River Side □	Calm Water		Temperatu	ure: 93 ° F
77777	7		Rain: No	
	1174	المسرحة	Wind: W	V 3-5 mph
			% Cloud:	10
OTHER NOTES:				
Left Bank. Long(1 mile) atta	ched sandbar 5 ft in e	levation at highest n	oint Perimeter	count indicates 8
tending scrapes. No signs o		io ration at mignost p	onni. Torninotor	out manages
2				
5			80%	TN side
OBSERVERS:	Davin, Griffin, Gru	baugh, Jones, Milbu	rn, Rumancik, T	hron
RIVER GAGE READING:	***************************************	mphis		1.1 R
	(Gage	Location)		(Elevation)

				FLY	/ □ BOAT 🗹
SPECIES: Inte	erior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/	/2/2006 T	IME OF DAY:	16:16	RIVER MILE: _	771.1
LOCALITY: _			_ SITE NAME:	R	andolph
	County/Paris	h State		NUMBERS SIG	SHTED:
WHERE SITE	D: Latitude:	35.52663		Adults:	279
		89.89879		Juveniles:	<u> </u>
Annroximate	Distance to Water	r: 50	Feet		23(3) 8(2)
прогодинате	Distance to Water				63
IN ELIQUE	Over Sandbar	.000000000000		Chicks:	Yes
<u>IN FLIGHT</u>	Over Water .		Nest Area esting Area	SUBSTRATE:	
K 44		<u> </u>	/ /	Sand:	\checkmark
Cair	m Water ☑	, , , , , , , , , , , , , , , , , , ,	\leq / -	Gravel:	\checkmark
	nd Side		\sim	Debris:	
	Center . ♥ nel Side ♥	MID-CHANNE		VEGETATION:	
		3/4	→	Type: Gra	ss/Forbs/Cottonwoo
MID-CHANNE	L SANDBAR	Currents	_	Distance:	50 Feet
l ~ ,	SIDE CHANNE	River Side L SANDBAR Center	g. <u>` </u>		
River 5	1 1 1	Land Side	<u> </u>	FIELD CONDIT	10000000
		Calm Water	_ <u>`</u> ~`	Temperatu	ıre: 93 °F
/ /	7 7 /',	777		Rain: No	
		1774	7-7-7	Wind: W	/ 3-5 mph
2 27 27				% Cloud:	10
OTHER NOTE	·s·				
		artificial dredging-si	ooil bar primarily of s	and. Smaller, lo	wer bar just
upstream wit	th 68 Terns, separ	ated from larger cold	ony of 211 by narrow larger colony 211.	chute of running	water. Drift count
campers on l	both. One dead cl	nick, cause unknow	n. Five nests with ne	ewly hatched chic	cks.
STANCES WAS STANCE		(B) (C) (B) (M) (B)			TN side
OBSERVERS:	* # <u></u>	Davin, Griffin, Gru	baugh, Jones, <mark>M</mark> ilbu	rn, Rumancik, Tl	hron
RIVER GAGE	READING:	***************************************	mphis	= -	1.1 R
		(Gage	Location)		(Elevation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 17:18 RIVER MILE: 766.0 7/2/2006 LOCALITY: Tipton TN SITE NAME: Below Richardson Landing Dikes County/Parish State NUMBERS SIGHTED: Adults: 16 WHERE SITED: Latitude: 35.5070 Juveniles: _____ Longitude: 90.0077 Eggs: Approximate Distance to Water: 100 Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side ✓ SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: ___94 OF River Side Calm Water Rain: No Wind: W 5-10 mph % Cloud: 10 OTHER NOTES: Left Bank. Low (3 ft.), long (2-3 miles), attached sand/gravel bar with lignite debris field. Day campers at waterline. Perimeter count indicates 3 scrapes. TN side OBSERVERS: _____ Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: 1.1 R Memphis (Gage Location) (Elevation)

			FLY [□ BOAT ✓
SPECIES: Interior Leas	t Tern <i>(Sterna antillarun</i>	n athalassos)		
DATE: 7/2/2006	TIME OF DAY:	17:40	RIVER MILE:	760.5
LOCALITY:	Tipton TN	SITE NAME:	Ceda	ır Point
Cour	nty/Parish State		NUMBERS SIGHT	TED:
WHERE SITED: La	atitude: 35.45791		Adults: _	33
	ongitude: 89.99908		Juveniles:	
		- Frank	Eggs:	
Approximate Distance	to Water:	<u>reet</u>	Nests:	0
			Chicks:	No
IN FLIGHT Over Sandi	<u>on oncorp</u>	n Nest Area	SUBSTRATE:	
V/Over Wa	on F	Resting Area	Sand: 🗸]
Calm Water		≺./ ,	Gravel:	
Land Side ✓			Debris:]
	Ÿ.		VEGETATION:	
Channel Side _	MID-CHANN	≞⊔ → ∥	Type: Willow	vs
MID-CHANNEL SANDBAR	Rapid Currents		NAMES OF ACT	
1 1	River Side		Distance: <u>1</u>	000 Feet
SIDE	CHANNEL SANDBAR Center Land Side	\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.	FIELD CONDITIO	N:
/ River Side ☐	Calm Water		Temperature	: 94
7777	7+7+7		Rain: No	
	// /~		Wind: W 5	-10 mph
			% Cloud: 10	0
OTHER NOTES:				
	ad, large, attached at least	to wooded island with	large back chute.	Perimeter count
	Eagle is mobbed while trave			
9			NAME OF THE OWNER OWNER OF THE OWNER OWNE	AR side
OBSERVERS:	Davin, Griffin, Gr	ubaugh, Jones, Milbu	rn, Rumancik, Thro	on
RIVER GAGE READING	6: <u>M</u>	emphis		1.1 R
	(Gage	e Location)	((Elevation)

				FLY [BOAT ✓
SPECIES: I	nterior Least Te	rn (Sterna antillarum	athalassos)		
DATE:	7/2/2006	TIME OF DAY:	18:00	RIVER MILE:	755.0
LOCALITY:	Shell	by TN	SITE NAME:	Densfo	ord Bar
	County/F	Parish State		NUMBERS SIGHT	·FD·
WILEDE CIT	'ED. 1-#4	25 2002		Adults:	
WHERE SII		ide: 35.3902		Juveniles:	
	_	itude: 90.0703		Eggs:	1(3)
Approxima	te Distance to V	Vater: 500	Feet	Nests:	1
				Chicks:	Yes
IN FLIGHT		ON GROOND OIL	Nest Area ✓	SUBSTRATE:	
422	Over Water -	☑ / / On Re	esting Area	Sand:	
C	Calm Water 🗸		4/ 』	Gravel:	
	Land Side	<u> </u>		Debris:	
6	Center .	MID CHANNE		VEGETATION:	
- Chi	annel Side ' ✓	A MID-CHANNE	` →	Type: Willow	s/Cottonwoods
MID-CHANN	NEL SANDBAR	Rapid Currents 🗌	_	Distance: 10	000 Feet
<i>1</i>		River Side		Diotarioe. 1	000 1 000
سر ا	1. 🔍	ANNEL SANDBAR Center Land Side		FIELD CONDITION	111
Rive	er Side 🔲	Calm Water		Temperature:	94 °F
77	777	4747		Rain: No	
		1174	~~~	Wind: W 5-	10 mph
				% Cloud: 10	ĺ.
OTHER NO	TEQ.				
		ft.) mid-channel sand ba	ur with over 100 core	nos notad an narim	otor count Foy
tracks indic	cate heavy pred	ation across entire colon	y. Many chicks from		
campers a	t downstream p	oint. One White Crappie	and 1 shad.		
8					TN side
OBSERVER	S:	Davin, Griffin, Gru	baugh, Jones, Milbu	rn, Rumancik, Thro	n
RIVER GAG	E READING:	Me	mphis	=	1.1 R
		(Gage	Location)	(1	Elevation)

(Elevation)

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 18:41 RIVER MILE: 744.5 7/2/2006 LOCALITY: Shelby TN SITE NAME: Hickman Bar County/Parish State NUMBERS SIGHTED: 86 ____ Adults: Latitude: 35.25260 WHERE SITED: Juveniles: Longitude: 90,09265 ____1(1) Eggs: Approximate Distance to Water: 200 Feet ____1 Nests: Chicks: Yes IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · V On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · Temperature: 94 °F River Side Calm Water V Rain: No Wind: W 5 mph % Cloud: 0 OTHER NOTES: Left Bank. Medium size (200 x 400 yds.), 5 ft. in elevation, sand bar unattached except at upstream dike. Terns fishing and resting on both sides. One chick observed, age 3 days. Day campers TN side OBSERVERS: _____ Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron RIVER GAGE READING: 1.1 R Memphis (Gage Location)

(Elevation)

			FLY	Y 🗆	BOAT	~
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)				
DATE: 7/2/2006	TIME OF DAY:	18:59	RIVER MILE:		740.5	
LOCALITY:Crittende	n AR	_ SITE NAME:	Loosaha	tchie Ba	ar Dikes	
County/Par	rish State		NUMBERS SIG	SHTED:		
WHERE SITED: Latitude	e: 35.20900		Adults:	58-	38	
	de: 90.072429		Juveniles:	<u>.</u>		
Approximate Distance to Wa	ter: 300	Feet	Eggs: Nests:	j e	0	
		1	Chicks:			
<u>IN FLIGHT</u> Over Sandbar ✓	ON GROUND On	Nest Area ✓	SUBSTRATE:) .		
Over Water -	On Re	esting Area	Sand:	✓		
Calm Water		4/ /	Gravel:	✓		
Land Side	5	\sim	Debris:	✓		
Channel Side	A MID-CHANNEI		VEGETATION:			
Dor.	oid Currents 🗹	- →	Type: Ha	rdwoods	<u> </u>	
MID-CHANNEL SANDBAR	┝┈┾┰┼┸┯┯┯	<u> </u>	Distance:	1000	Feet	
SIDE CHAN	River Side L NEL SANDBAR Center	⊉ :	FIELD CONDIT	LION.		
River Side _	Land Side (Temperate		94 °F	
77777	7+74		Rain: No	1		
10 38 63 32	1174	7-7-	Wind: _V	V 5 mph		
			% Cloud:	10		
OTHER NOTES:						
Right Bank. Medium size gra and undulating with scattered human tracks. Kildeer nests	lignite. Scrapes but r	no eggs in wrack line	and mud within o e, 1 chick < 1 we	dike field eek of aç	l. Attache je. Dog a	ed and
5	-	100			AR side	
OBSERVERS:	Davin, Griffin, Grul	baugh, Jones, Milbu	rn, Rumancik, T	hron	7 II COINC	****
RIVER GAGE READING:	Mer	mphis	<u> </u>	1.1	R	
	(Gage	Location)	lak	(Eleva	ation)	_

			FLY	/ □ B	OAT	~
SPECIES: Interior Least Tern (St	erna antillarum a	thalassos)				
DATE: 7/3/2006 TIME	OF DAY:	8:58	RIVER MILE:	733	.0	
LOCALITY: Crittenden		SITE NAME:	Engine	er Bar Dike	es	
County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude:	35.1235		Adults:	1	1	
Longitude:	90.1020			EX.		
Approximate Distance to Water:		Feet	Eggs: Nests:)	
			Chicks:	Ye		
IN FLIGHT Over Sandbar	ON GROUND On N	lest Area	SUBSTRATE:			
Over Water :	On Res	ting Area	Sand:	\checkmark		
Calm Water		$\langle \langle \rangle / \rangle$	Gravel:			
Land Side 🗆			Debris:			
Channel Side	MID-CHANNEL		VEGETATION:			
Panid Cur	rents	→	Type: Wil	lows		
MID-CHANNEL SANDBAR	River Side		Distance:	800 Fe	et	
SIDE CHANNEL S	DA 280		FIELD CONDIT	ION:		
River Side ☑	Calm Water		Temperato	ure: 84	°F	
77777	7		Rain: No	0		
	/ / 74	7-7-7	Wind: S	E 8 mph		
			% Cloud:	0		
OTHER NOTES:						
Right Bank. High (10 ft.), flat, med to 1 1/2 weeks old. ATV tracks		d sand bar with all t	terns resting at v	/aterline. C	hicks	up
9						
OBCEDVEDC: Rurke Co	amnen Carnenter	Fowlkes, Haglund	Jones Malone		R side	<u> </u>
			, cones, maiorie		`	
RIVER GAGE READING:	Mem (Gage L	•	=	2.1 R (Elevation	n)	

				FLY	′ □ BOAT •
SPECIES: Int	terior Least Te	rn (Sterna antillarum	athalassos)		
DATE: 7	//3/2006	TIME OF DAY:	9:16	RIVER MILE: _	730.0
LOCALITY: _	Shell	by TN	SITE NAME:	Vice Presi	dents Island #46
	County/F	Parish State		NUMBERS SIG	HTED:
WHERE SITE	:D: Latitu	de: 35.11744		Adults:	21
		tude: 90.1707		Juveniles:	
• Waste Stratte • Anna Anna Anna Anna				Eggs:	fragments
Approximate	Distance to V	Vater: 100	Feet	Nests:	14
				Chicks:	No
IN FLIGHT	Over Water	<u>ON OROOND</u> OII	Nest Area ✓	SUBSTRATE:	
444	Over Water -	<u>▼</u> // / On Re	esting Area	Sand:	✓
Cal	lm Water ✓		<u>ار ک</u>	Gravel:	V
	ınd Side ☑	<u>></u>		Debris:	✓
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, Center , ♥ nnel Side ♥	A MID-CHANNE		VEGETATION:	
\	•	· ·	→	Type: Gra	ISS
MID-CHANNE	ا <u>L SANDBAR</u> سبم ¦	Rapid Currents Rapid Currents River Side		Distance:	60 Feet
سے 🏻	SIDE CH/	ANNEL SANDBAR Center		FIELD CONDIT	ION:
River	Side 🔲	Land Side (Temperatu	ıre: 84 ⁰ F
77	777	+7+7+,		Rain: No	
		1174	المسرح	Wind: S	E 5-10 mph
				% Cloud:	20
OTHER NOTE	= Q.				
	THE STATE OF THE S	ft) cand and gravel wit	h lianita dabria fiold	unattached Fo	utoon coronos
	it no eggs intac	6 ft.) sand and gravel wit ct, just shells. Coyote pr			
1.6 13					TN side
OBSERVERS.	. R	urks, Campen, Carpente	r Fowlkes Hanland	Jones Maloney	
OBSERVERS				, cones, maiorie	
RIVER GAGE	READING:	***************************************	mphis	=======================================	2.1 R
		(Gage	Location)		(Elevation)

			FLY	BOAT	~
SPECIES: Interior Least Te	rn (Sterna antillarum	athalassos)			
DATE: 7/3/2006	TIME OF DAY:	9:55	RIVER MILE: _	725.0	
LOCALITY: Critten	iden AR	SITE NAME:	Dismal Poi	int Dikes Upper	
County/l	Parish State		NUMBERS SIGH	HTED:	
WHERE SITED: Latitu	ide: 35 06633		Adults:	23	
	itude: 90.18530		Juveniles:		
~			Eggs:		
Approximate Distance to V	Vater: 500	Feet	Nests:	0	
			Chicks:	No	
IN FLIGHT Over Sandbar	ON CROONE OIL	Nest Area ✓	SUBSTRATE:		
Over Water	On Re	esting Area	Sand:	✓	
Calm Water		47 JI	Gravel:		
Land Side 🔲	>		Debris:		
Channel Side	MID-CHANNE		VEGETATION:		
\ \	/-	-	Type: Willo	ows	
MID-CHANNEL SANDBAR	Rapid Currents River Side	<u> </u>	Distance:	800 Feet	
SIDE CH.	ANNEL SANDBAR Center		FIELD CONDITI	ON:	
✓ River Side 🔲	Land Side			re: 85 ° F	
	Calm Water		Rain: No		
	1/74	7-7-7	Wind: SE	5-10 mph	
			% Cloud:	20	
OTHER MOTES					
OTHER NOTES:					
Right Bank. Medium high chicks. Coyote and dog tr perched on second dike.	(7 ft.) unattached sand backs with heavy predation	oar with undulations. n evident (egg fragn	Many scrapes bunents). Much cou	ut no eggs or irting. Bald Eagl	е
<i>5</i>				- داد م	
ODOEDVEDO D	urka Campan Carnanta	r Foudkoe Heating	longs Malanay	AR side	<u>8</u>
OBSERVERS: B	urks, Campen, Carpente	i, i owikes, nagiund	, Julies, Maioriey,	, ixumancik	
RIVER GAGE READING:		mphis		2.1 R	
	(Gage	Location)		(Elevation)	

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) TIME OF DAY: ______ 10:15 ____ RIVER MILE: _____ 720.8 DATE: 7/3/2006 LOCALITY: _____ Crittenden ____ AR ___ SITE NAME: ____ Dismal Point Dikes Lower County/Parish State NUMBERS SIGHTED: ____6 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 86 °F River Side Calm Water Rain: No Wind: S 5 mph % Cloud: 10 OTHER NOTES: Right Bank. Small (15 x 50 yds.), barely emergent (1/2 foot) sand bar. Resting only. No disturbance factors. AR side OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik Memphis RIVER GAGE READING: 2.1 R (Gage Location) (Elevation)

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 10:30 RIVER MILE: 716.0 7/3/2006 LOCALITY: Desoto MS SITE NAME: Cow Island Bend Upper County/Parish State NUMBERS SIGHTED: Adults: 130 Latitude: 35.00984 WHERE SITED: Juveniles: Longitude: 90.29417 2(3) 2(2) Eggs: Approximate Distance to Water: 500 Feet Nests: ____Yes Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · V On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side V River Side Temperature: 86 °F Calm Water V Rain: No Wind: S 5 mph % Cloud: 10 OTHER NOTES: Left Bank. Unattached, 2 mile long sand bar (11 ft. elevation) with colony dispersed along entire length. Perimeter and flush count. Terns breasting and feeding on all sides, intense mobbing within colony. Chicks less than 1 week old. Coyote tracks, owl sign and predation from both. MS side OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik RIVER GAGE READING: Memphis 2.1 R (Gage Location) (Elevation)

FLY ☐ BOAT ☑ SPECIES: Interior Least Tern (Sterna antillarum athalassos) TIME OF DAY: _____ 11:12 ____ RIVER MILE: ____ 714.0 DATE: 7/3/2006 LOCALITY: Desoto MS SITE NAME: Cow Island Bend Lower County/Parish State NUMBERS SIGHTED: ____3 Adults: Latitude: 34.96495 WHERE SITED: Juveniles: Longitude: 90.27486 Eggs: Approximate Distance to Water: 0 Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water -On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side V Temperature: 86 °F Calm Water Rain: No Wind: S 5 mph % Cloud: 10 OTHER NOTES: Left Bank. Attached sand resting only. MS side OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik RIVER GAGE READING: Memphis 2.1 R (Gage Location) (Elevation)

				FL)	Υ	BOAT	~
SPECIES: Interior Le	east Tern (Sterna ar	ntillarum atl	halassos)				
DATE: 7/3/2006	TIME OF DA	AY:	11:20	RIVER MILE:		710.0	
LOCALITY:	Crittenden	AR	SITE NAME:	Cat I	sland Di	ikes	
C	ounty/Parish	State		NUMBERS SIG	SHTED:		
WHERE SITED:	Latitude: 34.9	3881		Adults:	58-	7	
	Longitude: 90.2			Juveniles:	(± (*)		
Approximate Distan	ce to Water:	60 F	eet	Eggs: Nests:	j e	1	
				Chicks:		No	
IN FLIGHT Over Sa	andbar ✓ ON GRO	OUND On Ne	est Area 🗸	SUBSTRATE:			
/ / Over	Water	On Restir	ng Area 🔲	Sand:	✓		
Calm Water			\checkmark / \parallel	Gravel:	✓		
Land Side				Debris:	✓		
Center Channel Side	_	D-CHANNEL		VEGETATION:			
	Panid Currente]	→	Type: Cot	tonwood	ds	
MID-CHANNEL SANDE	T /*****	River Side ✓	\	Distance:	200	Feet	
<u>\$</u> بسسمر	IDE CHANNEL SANDBAR			FIELD CONDIT	ΓΙΟΝ:		
/ River Side □		alm Water		Temperati	ure:	85 °F	
7777	+7+7+7+7			Rain: No	0		
	/ /		7-7-7	Wind: S	5 mph		
				% Cloud:	30		
OTHER NOTES:							
Right Bank. Attache waterline or courting	ed upper end of Cat Is g.	sland, sand a	and gravel. One b	oird sitting inland	, others	are restir	ng at
5							
OBSERVERS:	Burks Campen	Carpenter I	Fowlkes, Haglund	Jones Malone	v Rums	AR side	
RIVER GAGE READI		Memp		, correc, maioric	2.1		*
THE CASE READI		(Gage Lo			(Eleva	B41 1 40	

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/3/2006 TIME OF DAY: 11:39 RIVER MILE: 707.5 __ AR SITE NAME: Cat Island No. 50 LOCALITY: Crittenden County/Parish State NUMBERS SIGHTED: 56 ____ Adults: Latitude: 39.89460 WHERE SITED: Juveniles: _____ Longitude: 90.26430 Eggs: Approximate Distance to Water: 60 Feet 12 Nests: Chicks: No IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · Temperature: 85 °F River Side V Calm Water Rain: No Wind: S 5 mph % Cloud: 30 OTHER NOTES: Right Bank. Long, narrow (200 ft.) sand bar most likely attached to Cat Island but not certain. Perimeter count shows widely spaced nests length of bar. AR side OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik RIVER GAGE READING: Memphis 2.1 R (Gage Location) (Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Te	rn (Sterna antillarum	athalassos)		
DATE: 7/3/2006	TIME OF DAY:	12:04	RIVER MILE:	702.5
LOCALITY: Critten	den AR	SITE NAME:	Picke	ett Dikes
County/F	Parish State		NUMBERS SIGH	HTED:
				242
WHERE SITED: Latitu		28	× -	-1
Longi	itude: 90.31190	43	Eggs:	
Approximate Distance to V	Vater: 100	Feet	Nests:	44
			Chicks:	No
IN FLIGHT Over Sandbar	<u>or orcord</u>	n Nest Area	SUBSTRATE:	
Over Water	☑ / / On R	esting Area	Sand:	Z
Calm Water		<u>ار / ک</u>	Gravel:	Z
Land Side 🗆	<u>~</u>		Debris:	
Center . D]	VEGETATION:	
Channel Side	MID-CHANNE	≛ □ - >	Type: Willo	ws.
MID-CHANNEL SANDBAR	Rapid Currents			
ب له ا	River Side		Distance: _	1000 Feet
SIDE CH/	ANNEL SANDBAR Center Land Side		FIELD CONDITION	ON:
River Side	Calm Water		Temperatur	e: 84 ⁰ F
	+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$		Rain: No	
			Wind: S 5	5 mph
		, , ,	% Cloud:	30
OTHER MOTES			70 Olouu. <u>s</u>	
OTHER NOTES:		La companya de la co		
Left Bank. Unattached, mountain upstream dike. Perimeter				
a a a a a a a a a a a a a a a a a a a				
G 53				MS side
OBSERVERS: B	urks, Campen, Carpente	er, Fowlkes, Haglund	, Jones, Maloney,	Rumancik
RIVER GAGE READING:	Me	emphis	===	2.1 R
	(Gage	Location)	Contr	(Elevation)

			FLY		BOAT	~
SPECIES: Interior Least Tern (Ste	erna antillarum a	athalassos)				
DATE: 7/3/2006 TIME	OF DAY:	13:10	RIVER MILE:	7	0.00	
LOCALITY: Crittenden		SITE NAME:	Porter La	ke Dikes	Upper	
County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude:	34.84440		Adults:	52	91	
Longitude:			Juveniles:	<u>.</u>		
Approximate Distance to Water:	40	Feet	Eggs:	S i	-10	
	2-		Nests: Chicks:	<u> </u>		
IN FLIGHT Over Sandbar	ON GROUND On	Nest Area ✓	SUBSTRATE:	5,2	103	
Over Water · 🗹		sting Area	Sand:	~		
Calm Water		4 / II	Gravel:			
I was in the			Debris:	✓		
Land Side Center		_]	VEGETATION:			
Channel Side	MID-CHANNEL	`	Type: Gra			
MID-CHANNEL SANDBAR Rapid Curr	rents 🔽		Distance:		Feet	
SIDE CHANNEL SA	River Side		Diotalio.		1 000	
River Side	Land Side		FIELD CONDIT		0-	
	Calm Water [_ `~~i	Temperatu	ıre: 8	35 F	
	77		Rain: No			
8	' ' ' ' ' ' '	7-7-7	Wind: S	5 mph		
		<u>_</u>	% Cloud:	30		
OTHER NOTES:						
Right Bank. Medium size sand ba chick approx. 5 days old. Empty s			Coyote tracks wi	thin colo	ny. One	<u> </u>
chick approx. 5 days old. Empty s	crapes in wrack i	ine.				==
0				g	AR side	,
OBSERVERS: Burks, Ca	mpen, Carpenter	, Fowlkes, Haglund	, Jones, Malone	y, Rumar	ncik	
RIVER GAGE READING:	Men	nphis		2.1	R	
	(Gage I	ocation)	DOM:	(Elevat	tion)	

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/3/2006 LOCALITY: _____ Crittenden ____ AR ___ SITE NAME: ____ Porter Lake Dikes Lower County/Parish State NUMBERS SIGHTED: ____16 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water -On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side . River Side [Temperature: 85 ° F Calm Water Rain: No Wind: S 3-5 mph % Cloud: 30 OTHER NOTES: Right Bank. Resting bar only, all birds counted at waterline. AR side OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik RIVER GAGE READING: Memphis 2.1 R (Gage Location) (Elevation)

				FL	Υ	BOAT	~
SPECIES: Interior	Least Tern (Sterna	a antillarum at	thalassos)				
DATE: 7/3/20	006 TIME OF	DAY:	14:02	RIVER MILE:		693.0	
LOCALITY:	Tunica	MS	SITE NAME:	Com	merce D	ikes	
	County/Parish	State		NUMBERS SIG	SHTED:		
WHERE SITED:	Latitude:	24 0152		Adults:			
WHERE SITED.	Longitude:			Juveniles:			
	1500 ST	7.3		Eggs:	5 2		
Approximate Dist	ance to Water:	100 I	Feet_	Nests:	8 <u>8</u>	6	
			1	Chicks:	5 2	Yes	
IN FLIGHT Ove			est Area 🗸	SUBSTRATE:			
K111°	ver Water · 🔽	On Rest	ing Area 🔲	Sand:	~		
Calm Wa	ter 🗌		$\langle / \rangle $	Gravel:	✓		
Land Sic				Debris:			
Cent Channel Si	100	MID-CHANNEL		VEGETATION	•		
\			_ →	Type:			
MID-CHANNEL SAM	NDBAR Rapid Currents	River Side		Distance:	58 7	Feet	
<u> </u>	SIDE CHANNEL SANDI	BAR Center		FIELD CONDIT	TION:		
River Side		Calm Water		Temperat	ure:	87 °F	
777	7777	7		Rain: No)		
	/	174	7-7-7	Wind: S	5 mph		
				% Cloud:	50		
OTHER NOTES:							
Left Bank. Large gravel. Most Ter	e, attached 2.5 mile lo ns resting at waterling ne during perimeter c	e. Twenty-five	chicks 2-3 weeks	old. Mobbing. I	Most bire		ed
5						MS side)
OBSERVERS:	Burks, Camp	en, Carpenter,	Fowlkes, Haglund	, Jones, Malone	y, Ruma	ancik	
RIVER GAGE REA	ADING:	Hele	ena	<u> </u>	7.2	:R	
		(Gage Lo	ocation)		(Eleva	ation)	

			FL'	' □	BOAT	~
SPECIES: Interior Least Tern (Ste.	rna antillarum a	athalassos)				
DATE: 7/3/2006 TIME	OF DAY:	14:15	RIVER MILE:		687.0	
LOCALITY: Lee	AR	SITE NAME:	Mh	oon Be	nd	
County/Parish	State		NUMBERS SIG	HTED.		
WUEDE CITED.	24 72075		Adults:			
WHERE SITED: Latitude:			Juveniles:	280		
***	90.45414		Eggs:	-		
Approximate Distance to Water:	150	Feet	Nests:	7 <u>1</u>	3	
			Chicks:	58-	No	
The state of the s		Nest Area	SUBSTRATE:			
Over Water - 🗸	/ On Re	sting Area	Sand:	✓		
Calm Water		47 JI	Gravel:	✓		
Land Side 🔲			Debris:	V		
Channel Side	MID-CHANNEL		VEGETATION:			
	5.5	_ →	Type:			
MID-CHANNEL SANDBAR	enis v 		Distance:	25	Feet	
SIDE CHANNEL SAI	River Side [₹				
River Side	Land Side		FIELD CONDIT		0	
	Calm Water	□ `~ં	Temperate	ure:	86 F	
/ / / / / / / / / / / / / / / / / / / 	7		Rain: No			
/	174	7-7-	Wind: S	5 mph		
			% Cloud:	70		
OTHER NOTES.			an eacher	12-1-17		
OTHER NOTES:	niloo) ottoobod	and and aroual hav	with large stance	ما اشراع م	we of oo	ntor
Right Bank. Another very large (3 n Perimeter count with colony dispers Heron, but no other signs of disturb	ed widely acros					nter.
5 T					AR side	
OBSERVERS: Burks, Car	npen. Carpenter	, Fowlkes, Haglund	. Jones Malone	v. Ruma		
			, ,			***************************************
RIVER GAGE READING:	220000	lena Location)	= = =	7.2 (Eleva	B811 65	

			FLY BOAT 🗹		~
SPECIES: Interior Least T	ern (Sterna antillarun	n athalassos)			
DATE: 7/3/2006	TIME OF DAY:	14:40	RIVER MILE: _	680.0	
LOCALITY:Tur	nica MS	SITE NAME:	Bordeaux Point Dikes		
County	/Parish State		NUMBERS SIG	HTED:	
WHERE SITED: Lati	tude: 3/1 7300		Adults:	47	
	gitude: 90.5656		Juveniles:	<u> </u>	
			Eggs:	72	
Approximate Distance to Water: 100 Feet			Nests:	2	
			Chicks:	No	
IN FLIGHT Over Sandbar	SUBSTRATE:				
Over Water . ✓ On Resting Area □			Sand:	✓	
Calm Water Land Side Center . Channel Side MID-CHANNEL Rapid Currents MID-CHANNEL SANDBAR			Gravel:	✓	
			Debris:		
			VEGETATION:		
			Type:		
SIDE CHANNEL SANDBAR Center ✓ Land Side Calm Water □			FIELD CONDITION: Temperature: 86 ° F		
7777	7+7+7		Rain: No		
	1/79	~~	Wind: S	5 mph	
			% Cloud:	75	
OTHER NOTES:					
Left Bank. Large, slopin	a attached point har of s	cand and gravel Deri	meter count indi	nates 2 on nests	
Campers at the waterline					19
53					
	Burko Common Com	or Coudles Hanker	Jones Melar	MS side	<u>;</u>
OBSERVERS:	Burks, Campen, Carpent	er, rowikes, Haglund	, Jones, Maione	, Rumancik	
RIVER GAGE READING:	**	Helena		=7.2 R	
	(Gage	e Location)	(Elevation)		

			FLY	′ 🗆	BOAT	~
SPECIES: Interior Least Tern	(Sterna antillarum a	athalassos)				
DATE: 7/3/2006	TIME OF DAY:	14:56	RIVER MILE: _	(376.7	;
LOCALITY: Lee	AR	_ SITE NAME:	Hard	din Cut-0	Off	
County/Par	ish State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude	24 60602		Adults:	o en general de la companya de la co	252	
	de: 90.56555		Juveniles:	4		
	(4) (Juniola 4 reconstruction 1.0)	_	Eggs:	15(3) 15(2) 1(1)
Approximate Distance to Wat	ter: <u>30</u>	Feet	Nests:	V <u>V</u>	41	
			Chicks:	ī ā	No	
IN FLIGHT Over Sandbar		Nest Area 🔽	SUBSTRATE:			
Over Water - V	On Re	sting Area	Sand:	✓		
Calm Water 🗸		4/ .	Gravel:			
Land Side 🗹	2		Debris:			
Channel Side	# MID-CHANNEL		VEGETATION:			
		_ →	Type:			
MID-CHANNEL SANDBAR	oid Currents River Side [Distance:	95	Feet	
SIDE CHAN	NEL SANDBAR Center Land Side		FIELD CONDIT	ION:		
River Side □	Calm Water		Temperatu	ıre:	87 °F	
7777	777		Rain: No			
	' ' / 7	7-7-7	Wind: S	10 mph		
			% Cloud:	80		
OTHER NOTES:						
Left Bank. Small, low, flat, m Nests and scrapes along ripp						rs.
<i>5</i>					70000 0000	
				e p arano	MS side	<u> </u>
OBSERVERS: Burk	s, Campen, Carpenter	r, Fowikes, Haglund	, Jones, Maloney	, Ruma	ncik	
RIVER GAGE READING:	2000	lena	=	7.2	28 C	
	(Gage I	_ocation)		(Eleva	tion)	

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 15:10 RIVER MILE: 676.5 7/3/2006 LOCALITY: Lee AR SITE NAME: Below Walnut Bend Dikes County/Parish State NUMBERS SIGHTED: Adults: 12 WHERE SITED: Latitude: 34.6742 Juveniles: _____ Longitude: 90.5752 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 87 °F River Side Calm Water Rain: No Wind: S 5 mph % Cloud: 60 OTHER NOTES: Right Bank. Gently sloping, attached sand bar with patches of gravel. All birds counted along waterline. No apparent disturbance or tracks. AR side OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik RIVER GAGE READING: Helena 7.2 R (Gage Location) (Elevation)

		FLY	□ BOAT	~
SPECIES: Interior Least Tern (Sterna antillarum atl	nalassos)			
DATE: 7/3/2006 TIME OF DAY:	15:45	RIVER MILE: _	672.0	
LOCALITY: Tunica MS	SITE NAME:	St. Fr	ancis Bend	
County/Parish State		NUMBERS SIG	HTED:	
WHERE SITED: Latitude: 34.6241		Adults:	123	
Longitude: 90.5835		Juveniles:	1	
*** **********************************		Eggs:		
Approximate Distance to Water: 200 F	<u>eet</u>	Nests:	9	
		Chicks:	Yes	
The same and the s	st Area 🗸	SUBSTRATE:		
Over Water : 🗸 On Restin	ng Area 🔲	Sand:	✓	
Calm Water ☑	./ .	Gravel:		
Land Side 🗹	\sim	Debris:		
Channel Side 🗹 🚜 MID-CHANNEL		VEGETATION:		
	¬→	Type:		
MID-CHANNEL SANDBAR Rapid Currents River Side		Distance:	Feet	
SIDE CHANNEL SANDBAR Center		FIELD CONDIT	ION:	
River Side Calm Water		Temperatu	re: 87 ° F	
77777	×	Rain: No		
1 1 7		Wind: S	5 mph	
		% Cloud:	50	
OTHER NOTES:				
Left Bank. Very large, flat, high, unattached, clean sa with nests widely scattered. Perimeter count only. The lower end. One Black Tern, 4 Great Blue Herons (1 v	ree chicks at wat			
			MS side	7
OBSERVERS: Burks, Campen, Carpenter, I	owlkes Hadlund	Jones Maloney	Property and the second second	
	1 1 1	, somo, maioricy		
RIVER GAGE READING: Helei (Gage Lo	1100	=	7.2 R	
(Gage Lo	Jalion)		(Elevation)	

				FLY	BOAT	~
SPECIES: Interior L	east Tern (Sterna	antillarum at	thalassos)			
DATE: 7/3/200	6 TIME OF	DAY:	16:20	RIVER MILE:	668.0	
LOCALITY:	Phillips	AR	SITE NAME:	Prairie	Point Dikes	
(County/Parish	State		NUMBERS SIG	SHTED:	
WILEDE OITED		4.5005		Adults:	39	
WHERE SITED:					Se Ex	
	Longitude:9	0.5536		Eggs:		
Approximate Dista	nce to Water:	300 I	Feet	Nests:	4	
				Chicks:	No	
IN FLIGHT Over S	Sandbar 🗸 ON G	ROUND On N	est Area 🔽	SUBSTRATE:		
4 / /Ove	er Water - 🗸	On Rest	ing Area 🗌	Sand:		
Calm Wate	er 🗌		<./li>	Gravel:	✓	
Land Side				Debris:		
Center Channel Side	<u></u>	MID-CHANNEL		VEGETATION:		
- Charlier State	/-		^{''} →	Type:		
MID-CHANNEL SANE	DBAR Rapid Currents	<u> </u>	_	Distance:	Feet	
ــــ ′′ ا	SIDE CHANNEL SANDB	River Side AR Center				
ا River Side	3 POR CHANNE SANDE	Land Side		FIELD CONDIT	100000	
River Side _	割・・	Calm Water [النخر ا	Temperatu	ıre: 87 °F	
/ / / /	/ 7171/			Rain: No	1	
	/	17	7-7-7	Wind: S	5 mph	
L				% Cloud:	40	
OTHER NOTES:						
	, high, gravel bar att	ached to heav	ilv wooded island	Terns were bre	asting fishing ar	nd
	meter count yields 4					
5						
£7					AR side	е
OBSERVERS:	Burks, Campe	en, Carpenter,	Fowlkes, Haglund	, Jones, Malone	y, Rumancik	
RIVER GAGE READ	DING:	Hele	ena		7.2 R	
		(Gage Lo	ocation)		(Elevation)	

			FLY L	BOAT V
SPECIES: Interior Least	Tern (Sterna antillarum	athalassos)		
DATE: 7/3/2006	TIME OF DAY:	16:45	RIVER MILE:	666.5
LOCALITY: Ph	nillips AR	SITE NAME:	Prairie Poin	it Towhead
WHERE SITED: La Lo Approximate Distance to IN FLIGHT Over Sandba Over Water Calm Water Land Side Center Channel Side MID-CHANNEL SANDBAR	titude: 34.54669 ngitude: 90.54383 D Water: 300 ON GROUND OF ON R	Feet Nest Area esting Area	NUMBERS SIGHT Adults: Juveniles: Eggs: Nests: Chicks: SUBSTRATE: Sand:	ED: 86 2(2) 30 No Feet 1: 87 F
	*	777	Wind: <u>S 5-1</u>	
OTHER NOTES: Right Bank. Large poin human tracks with signs	t bar of gravel (attached up s of predation.	oper end) and sand (% Cloud: <u>60</u> unattached lower en	
5				AR side
OBSERVERS:	Burks, Campen, Carpente	er, Fowlkes, Haglund	, Jones, Maloney, R	umancik
RIVER GAGE READING:	Н	elena	=	7.2 R
	(Gage	Location)	(E	Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Terr	(Sterna antillarum ath	alassos)		
DATE: 7/4/2006	TIME OF DAY:	3:26	RIVER MILE:	662.5
LOCALITY: Coahom		SITE NAME:	Helena R	each Upper
County/Pa WHERE SITED: Latitud	e: <u>34.51256</u>		NUMBERS SIGH Adults:	60
	ıde: 90.58333		Juveniles: _ Eggs: _	3
Approximate Distance to Wa	ater: 100 Fe	et		11 Yes
MID-CHANNEL SANDBAR	DZ	Area 🗆	Distance: _	Feet ON: 2: 79
	-		% Cloud: <u>1</u>	00
OTHER NOTES:				
Left Bank. New colony site, breasting on channel side.			hannel sand bar.	Courting and
				MS side
OBSERVERS:	Fowlkes, Grubaugh,	Haglund, Jones,	Milburn, Rumanci	k
RIVER GAGE READING:	Helen			8.1 R
	(Gage Loc	ation)		(Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Leas	st Tern (Sterna antillarum	athalassos)		
DATE: 7/4/2006	TIME OF DAY:	8:43	RIVER MILE: _	660.0
LOCALITY:C	pahoma MS	SITE NAME:	Helena	Reach Lower
Cou	nty/Parish State		NUMBERS SIG	HTED:
WHERE SITED: L	atitude: 34.4602		Adults:	37
	ongitude: 90.5827			<u>v</u>
Approximate Distance	to Water: 100	Feet	Eggs: Nests:	1
				No
IN FLIGHT Over Sand	lbar ✓ <u>ON GROUND</u> On	Nest Area ✓	SUBSTRATE:	
V / / Over Wa	ater · ☑ On Re	esting Area	Sand:	✓
Calm Water		$\langle \langle \rangle \rangle$		
Land Side		\sim	Debris:	
Channel Side	Y] ∌ MID-CHANNE	<u>⊾</u> □ .	VEGETATION:	
MID-CHANNEL SANDBAF	Rapid Currents	→	Type:	
A MID-CHANNEL SANDBAR	River Side		Distance:	Feet
SIDE.	CHANNEL SANDBAR Center Land Side		FIELD CONDIT	ION:
River Side 🗸	Calm Water		Temperatu	re: 79 °F
7777	71717		Rain: No	
	/ / /~	-	Wind: S	5 mph
		<u>_</u>	% Cloud:	100
OTHER NOTES:				
	and bar (5 ft.) of clean, solid erved on scrape in center. I			e. Most resting at
23 23				M0 -: 4-
OBSERVERS:	Fowlkes, Grubau	gh, Haglund, Jones,	Milburn, Ruman	MS side
RIVER GAGE READING		elena	,	8.1 R
	150 20	Location)	= =	(Elevation)

			FLY	BOAT ✓
SPECIES: Interior Least Ter	n <i>(Sterna antillarum</i>	athalassos)		
DATE: 7/4/2006	TIME OF DAY:	9:00	RIVER MILE: _	656.0
LOCALITY: Phillip	s AR	SITE NAME:	Montezuma	a Towhead Dikes
County/P	arish State		NUMBERS SIG	HTED:
WHERE SITED: Latitud	de: 34 4106		Adults:	11
	rude: 90.5911		Juveniles:	7 <u> </u>
~	er dendeten a Dake 1		Eggs:	*
Approximate Distance to W	ater:	Feet	Nests:	5
			Chicks:	No
IN FLIGHT Over Sandbar	ON OROGINE OIL	Nest Area 🔽	SUBSTRATE:	
Over Water	<u>✓</u> / / On Re	esting Area	Sand:	✓
Calm Water		4/.	Gravel:	✓
Land Side 🗆	<u>~~</u>		Debris:	
Center .	MID OLIMANIE		VEGETATION:	
Channel Side	MID-CHANNE	└ 	Type:	
MID-CHANNEL SANDBAR	apid Currents			
1 1	River Side	₹	Distance.	Feet
SIDE CHA	NNEL SANDBAR Center Land Side		FIELD CONDIT	ION:
River Side 📋	Calm Water		Temperatu	re: 80 °F
77777	+7+71,		Rain: No	
	1174	7-7-7	Wind: S	5 mph
			% Cloud:	100
OTHER NOTES.				
OTHER NOTES:	ium aiza aand har with r	estables of grovel C	ourting bobouier	hut na mahhina
Right Bank. Attached med fishing on channel side. M			ourling benavior	but no mobbing,
9				
CONTRACTOR OF THE STATE OF THE		7 71 7 7 7	1 to 1	AR side
OBSERVERS:	Fowlkes, Grubau	gh, Haglund, Jones,	Milburn, Ruman	CIK
RIVER GAGE READING:	1900	elena	=	8.1 R
	(Gage	Location)		(Elevation)

CDECIES: Interior I cost Torn (6	S4	FLY BOAT
SPECIES: Interior Least Tern (5	sterna antiliarum atnaiassos)	
DATE: 7/4/2006 TIM	ME OF DAY: 9:39	RIVER MILE:651.5
LOCALITY:Coahoma	MS SITE NAME:	Friars Point Dikes
County/Parish WHERE SITED: Latitude: Longitude: Approximate Distance to Water: IN FLIGHT Over Sandbar Over Water Over Water Over Water Over Water Calm Water Center Channel Side Rapid Content Side Rapi	State 34.37736 90.66152 250 Feet ON GROUND On Nest Area On Resting Area WID-CHANNEL WITTER Side SANDBAR Center Land Side Calm Water Calm Water	NUMBERS SIGHTED: Adults: 94 Juveniles:
breasting, and 24 sitting inland.	(8 ft.), flat sand bar, attached upstrean ATV tracks. Perimeter count.	n. Terns utilizing all sides, courting,
57		
		MS side
OBSERVERS:	Fowlkes, Grubaugh, Haglund, Jones,	Milburn, Rumancik
RIVER GAGE READING:	Helena	= 8.1 R
	(Gage Location)	(Elevation)

				FLY	′ □ BOA	T.
SPECIES:	Interior Least Terr	(Sterna antillarum	athalassos)			
DATE:	7/4/2006	TIME OF DAY:	9:57	RIVER MILE: _	647.0	
LOCALITY:	Phillips	AR	SITE NAME:	Kangard	oo Point Dikes	Š
	County/Pa	arish State		NUMBERS SIG	HTED:	
WHERE SI	TED: Latitud	e: 34.3661		Adults:	25	
WITEINE OF		ude: 90.7297		Juveniles:	<u> </u>	
	Longia	due. 90.7297		Eggs:		
Approxima	ate Distance to W	ater:	Feet	Nests:	0	
				Chicks:	No	
IN FLIGH	T Over Sandbar [Nest Area	SUBSTRATE:		
K2 2	Over Water	☐	esting Area	Sand:	✓	
	Calm Water		47.II	Gravel:		
	Land Side 🗆	<u>~</u>		Debris:	✓	
	Center	# MID-CHANNE		VEGETATION:		
		MID-CHANNE	[•] →	Type:		
MID-CHAN	NEL SANDBAR	apid Currents River Side	<u> </u>	Distance:	Feet	
ے ا	SIDE CHA	NEL SANDBAR Center		FIELD CONDIT	ION:	
Riv	ver Side ☐	Land Side {			ire: 80 °	F
[77	777	777		Rain: No		
		// /~	7-7-7	Wind: S	5 mph	
<u> </u>				% Cloud:	100	
OTHER NO	TES:					
		sand bar (9ft.). Perime	eter count for all bird	Is resting at wate	rline.	
g ====	72%	NA9 89		;02-)		
S					ARs	ide
OBSERVER	RS:	Fowlkes, Grubau	gh, Haglund, Jones,	Milburn, Ruman		
RIVER GAG	SE READING:	He	elena	111 22 (No.	8.1 R	
		2200	Location)	- East	(Elevation)	

			FLY	BOAT	V
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)			
DATE: 7/4/2006 T	IME OF DAY:	10:12	RIVER MILE: _	643.4	
LOCALITY: Coahoma	MS	SITE NAME:	Old T	Town Bend	
County/Paris	h State		NUMBERS SIG	HTED:	
WHERE SITED: Latitude:	34 3485		Adults:	26	
	90.7658		Juveniles:	<u> </u>	
	der storateration to state 1		Eggs:		
Approximate Distance to Water	rc _«	Feet	Nests:	0	
_			Chicks:	No	
IN FLIGHT Over Sandbar		Nest Area	SUBSTRATE:		
Over Water · 🗸	/	esting Area 🔽	Sand:	✓	
Calm Water		4/ .	Gravel:		
Land Side 🗆			Debris:		
Center .			VEGETATION:		
Channel Side 🗆	MID-CHANNE	⊾ □ → Ⅱ	Type:		
MID-CHANNEL SANDBAR Rapid	Currents 🔽	*			
1 1	River Side		Distance:	Feet	
SIDE CHANNE	L SANDBAR Center Land Side		FIELD CONDIT	ION:	
River Side 🗸	Calm Water		Temperatu	re: 81 ⁰ F	
77777	7+7-		Rain: No		
	1174	المسترحين	Wind: S	5 mph	
27			% Cloud:	100	
OTHER NOTES:					
Left Bank. Attached, convolute Coyote scat.	ed bar (12 ft.) of san	d, mud and gravel.	All birds at waterl	ine perimeter c	ount.
					
a	-		NAME OF THE OWNER OWNER OF THE OWNER OWNE	MS	
OBSERVERS:	Fowlkes, Grubau	gh, Haglund, Jones,	Milburn, Ruman	cik	
RIVER GAGE READING:	300	elena		8.1 R	
	(Gage	Location)		(Elevation)	

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 10:26 RIVER MILE: 640.0 7/4/2006 ___AR SITE NAME: Island #62 Dikes Upper LOCALITY: Phillips County/Parish State NUMBERS SIGHTED: _____27 Adults: WHERE SITED: Latitude: 34.3064 Juveniles: _____ Longitude: 90.7400 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: ___81 OF River Side Calm Water Rain: No Wind: S 5 mph % Cloud: 90 OTHER NOTES: Right Bank. High (12 ft.), gently sloping, attached sand bar. Twenty-six Terns resting at waterline, 1 fishing. ATV tracks AR side OBSERVERS: _____ Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Helena 8.1 R (Gage Location) (Elevation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/4/2006 TIME OF DAY: 10:45 RIVER MILE: 637.0 ___AR SITE NAME: Island #62 Dikes Lower LOCALITY: Phillips County/Parish State NUMBERS SIGHTED: 20 ____ Adults: WHERE SITED: Latitude: 34.2764 Juveniles: Longitude: 90.7669 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Willows Rapid Currents MID-CHANNEL SANDBAR Distance: 500 Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · Temperature: 81 F River Side V Calm Water Rain: No Wind: S 5 mph % Cloud: 90 OTHER NOTES: Right Bank. Attached, river side bar bordering chute behind Island #63 Bar Revetment. AR side Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik OBSERVERS: _____ RIVER GAGE READING: Helena 8.1R (Gage Location) (Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/4/2006	TIME OF DAY:	10:49	RIVER MILE: _	633.0
LOCALITY:Coahoma	MS MS	SITE NAME:	Robso	on Towhead
County/Pari	ish State		NUMBERS SIG	HTED:
WHERE SITED: Latitude:	3/1 26166		Adults:	15
	le: 90.83301		Juveniles:	<u> </u>
~	de Constatence e de contra de	_	Eggs:	
Approximate Distance to Wat	er:	<u>Feet</u>	Nests:	0
			Chicks:	No
IN FLIGHT Over Sandbar	W	Nest Area	SUBSTRATE:	
Over Water : 🗸	/ / On Re	esting Area	Sand:	✓
Calm Water		4/.	Gravel:	
Land Side	5		Debris:	
			VEGETATION:	
Channel Side	MID-CHANNE	⊾☑ → ∥	Type:	
MID-CHANNEL SANDBAR Rap	id Currents	· ·		
1	River Side	<u> </u>	Distance:	Feet
SIDE CHANN	IEL SANDBAR Center [Land Side [FIELD CONDIT	ION:
/ River Side ☑	Calm Water		Temperatu	re: 81 ⁰ F
77777	7+74		Rain: No	
10 10 10 10	1174	7-7-7	Wind: S	5 mph
			% Cloud:	90
OTHER NOTES:				
Left Bank. Low (3 ft.), attache	ed riverside har All h	irds resting except o	ne flying 1 mile d	lownstream
zon Bank. Zow (o h.); attaons	sa misisias pai. 7 m p	mas resuming except s	no nying 1 mile d	owner carri.
.5				
55 55		inch subsequence pour la reference assets	Ex Shealer second of the Control of	MS side
OBSERVERS:	Fowlkes, Grubau	gh, Haglund, Jones,	Milburn, Ruman	cik
RIVER GAGE READING:		elena		8.1 R
	(Gage	Location)		(Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 11:10 RIVER MILE: 629.0 7/4/2006 LOCALITY: Phillips AR SITE NAME: Island #64 Dikes County/Parish State NUMBERS SIGHTED: 27 Adults: WHERE SITED: Latitude: 34.2203 Juveniles: _____ Longitude: 90.8483 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: On Resting Area Over Water · 🗸 Sand: Calm Water Gravel: Debris: Land Side Center VEGETATION: MID-CHANNEL V Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · Temperature: 82 °F River Side V Calm Water Rain: No Wind: S 5 mph % Cloud: 90 OTHER NOTES: Right Bank. Large, attached, riverside sandbar. All resting at waterline except for 2 fishing in mid-channel. Canada Geese with 4 young at waterline also. AR side OBSERVERS: _____ Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Helena 8.1 R (Gage Location) (Elevation)

					FL)	/ 🗆	BOAT	~
SPECIES: In	nterior Least Te	ern (Sterna antilla	arum atha	lassos)				
DATE:	7/4/2006	TIME OF DAY:	11	:32	RIVER MILE:		625.0	
LOCALITY:		ips /		SITE NAME:	Sunfle	ower Cu	ut-Off	
	County/	Parish S	tate		NUMBERS SIG	HTED:	u Š	
WHERE SIT	ED: Latit	ude: 34.1685	8		Adults:	5 2	388	
		jitude: 90.8993			Juveniles:	9 V		
A	2		13	1	Eggs:	5 2	6(3)	
Approxima	te Distance to	Nater:50	ree	<u> </u>	Nests:	7 <u>5</u>	110	
					Chicks:	52	Yes	
IN FLIGHT		ON ONOONE		2 7-31 0	SUBSTRATE:			
K1 1	Over Water	_///	On Resting	Area 🗌	Sand:	✓		
c	alm Water 🗸			/ .	Gravel:			
	and Side		``	\sim	Debris:			
6	Center .		20100 0234		VEGETATION:			
Cha	annel Side '✓	A MID-CH	HANNEL	->	Type:			
MID-CHANN	NEL SANDBAR	Rapid Currents						
1	$\overline{}_{c}$	River	Side 🔲		Distance:	? <u>S</u>	Feet	
ہ ا	SIDE CH	ANNEL SANDBAR Cer	nter 🖵 .)	FIELD CONDIT	ION.		
/ Rive	er Side 🔲		Side □ Water □	~.J	Temperati		83 °F	
77	- / - / -	7+7+7		٠	Rain: No			
		/ / /	7	 	Wind: S	3 mph	9	
					% Cloud:	90		
OTHER NO.								
OTHER NOT		4/0 : : 500 ! - !	W:1-\ 0 &	A DESCRIPTION OF THE SECOND				
		1/2 mile x 500 yds. Desoto Lake. GPS						No
signs of pre	edation but day	-campers on chute vaterline. Courting	side water	line. Mobbing i	ntense with 18 n	ewly ha	tched chi	cks
Bass finger		vaterine. Courting	and lishing	both sides. Tr	iree abandoned	eggs, i	MS side	20 min 20 min
OBSERVER	S:	Fowlkes, G	rubaugh, H	laglund, Jones,	Milburn, Rumar	ncik		
RIVER GAG	E READING:	1110 R	Helena		4.00	8.1	1 R	
		(0	Gage Loca	tion)	- -	(Elev	ation)	

			FLY	□ BOAT ✓
SPECIES: Interior Least Terr	n (Sterna antillarum	athalassos)		
DATE: 7/4/2006	TIME OF DAY:	12:20	RIVER MILE:	623.0
LOCALITY:Phillip	s AR	SITE NAME:	Below Lu	dlow Dikes
County/Pa	arish State		NUMBERS SIGH	TED:
WHERE SITED: Latitud	le: 34.1583		Adults:	5
Longit	ude: 90.9303		Juveniles: _	
Approximate Distance to W	ater:	Feet	Eggs:	
Approximate distance to W	ater.	reet		0
			Chicks:	No
IN FLIGHT Over Sandbar		n Nest Area	SUBSTRATE:	
Over Water	⊻ / / On R	esting Area	Sand:]
Calm Water		∠/ .	Gravel:]
	~~	\sim	Debris:]
Land Side		٦	VECETATION	
Channel Side	MID-CHANNE	≛ □ <u>-~</u>	VEGETATION:	
MID-CHANNEL SANDBAR	apid Currents . ☑	´	Type:	
MID-CITATINGE SANDBAK	River Side	<u> </u>	Distance: _	Feet
SIDE CHAI	NNEL SANDBAR Center	□ `.` <u>`</u>	FIELD CONDITIO	M.
/ River Side 🔲	Land Side			: 83 °F
├ ─ / ───	Calm Water	_ ~		. 00 1
/ / / / /	'/ 'T'		Rain: No	
	// /~	~~~	Wind: S3	mph
			% Cloud: 9	0
OTHER NOTES.			ing magainer (7 5.
OTHER NOTES:				
Right Bank. Five Terns in t	ansil.			
5				
5				AR side
OBSERVERS:	Fowlkes, Grubau	ugh, Haglund, Jones,	Milburn, Rumancil	(
RIVER GAGE READING:	Н	elena		8.1 R
	(Gage	Location)		(Elevation)

FLY □ BOAT ☑

SPECIES: Interior Least 1	Tern (Sterna antillarun	n athalassos)		
DATE: 7/4/2006	TIME OF DAY:	12:30	RIVER MILE:	620.0
LOCALITY: Coal	homa MS //Parish State		Island #67	⁷ Dikes
No.			NUMBERS SIGHTE	D:
WHERE SITED: Lat	itude: 34.1150		Adults:	41
Lor	ngitude: 90.9490		Juveniles:	
Approximate Distance to	Water: 200	Foot	Eggs:	
Approximate Distance to	water	<u>reel</u>	Nests:	7
			Chicks:	No
IN FLIGHT Over Sandba	<u>on oncomb</u>	27-37	SUBSTRATE:	
Over Wate	r. ☑ / On I	Resting Area	Sand:	
Calm Water		\checkmark / $.$	Gravel:	
ســـــــــــــــــــــــــــــــــــــ	\supset		Debris:	
Land Side		7	99/220	
Channel Side	MID-CHANN		VEGETATION:	
	Rapid Currents 🗸	7	Type: Willows/	Cottonwoods
MID-CHANNEL SANDBAR	River Side		Distance: 80	0 Feet
SIDE C	HANNEL SANDBAR Center Land Side		FIELD CONDITION:	
/ River Side □	Calm Wate		Temperature:	84 °F
7777	7[†]7[†]7[†],		Rain: No	
	//~		Wind: S5 m	oh
			% Cloud: 90	
OTHER NOTES:				
Left Bank. Long, large, l Dog tracks and 3 ATVs		pled sand bar with ne	sts along length of ba	r's high center.
5-				MS side
OBSERVERS:	Fowlkes, Gruba	augh, Haglund, Jones,	Milburn, Rumancik	
RIVER GAGE READING:	F	Helena		8.1 R
	(Gag	e Location)	EI (EI	evation)

				FL		BOAT	~
SPECIES: Interior Lea	ast Tern <i>(Sterna</i>)	antillarum ath	nalassos)				
DATE: 7/4/2006	TIME OF I	DAY:	1:16	RIVER MILE:	(316.0	
LOCALITY:	Desha	AR	SITE NAME:	Below Know	wlton Dik	es Uppe	r
Co	ounty/Parish	State		NUMBERS SIG			
WHERE SITED:	Latitude: 34	1.0811		Adults:	26		
	Longitude: 90	0.9081		Juveniles:	2 <u>1</u>		
Approximate Distance	e to Water	300 F	eet	Eggs:	1 2	45504	
Approximate Distant				Nests:		3	
100 100 100 100 100 100 100 100 100 100	200600000 or -			Chicks:	9	No	
111 1111	302 ×31		st Area 🗸	SUBSTRATE:			
Over	Water - ▽ / /	On Restin	ng Area	Sand:	~		
Calm Water			./ .	Gravel:	V		
1				Debris:			
Land Side Center .			٦	VEGETATION			
Channel Side		MID-CHANNEL [□	VEGETATION:			
MID CHANNEL CANDD	Rapid Currents		7	Type:			
MID-CHANNEL SANDB	₩/┼-┼		.	Distance:		Feet	
ہے۔ Si جبرے	L I I I DE CHANNEL SANDBA	River Side 🗸		EIEI D COMPI	TION		
/ River Side □.:		Land Side	·	FIELD CONDIT		04 0-	
		Calm Water	×~~	Temperatu	ıre:	84 F	
/ / 77	<u> </u>	7		Rain: No	(
	/ /		, , , , , , , , , , , , , , , , , , , 	Wind: S	5 mph		
		~		% Cloud:	90		
OTHER NOTES							
OTHER NOTES:		- (C #) h - l	Section Devices	4	0	le weets	
Right Bank. Small, to One Cormorant.	unattached sand ba	r (6 π.) pelow	rirst dike. Perime	ter count yields	3 possib	ie nests.	
9							
:5						AR side	
OBSERVERS:	Fowlk	es, Grubaugh,	Haglund, Jones,	Milburn, Rumar	ncik		
RIVER GAGE READIN	NG:	Heler	na		8.1	R	
		(Gage Loc	cation)	178 8	(Eleva	tion)	

			FLY	BOAT	~
SPECIES: Interior Least	Tern (Sterna antillarum	athalassos)			
DATE: 7/4/2006	TIME OF DAY:	13:24	RIVER MILE: _	613.6	
LOCALITY:De	esha AR	SITE NAME:	Below Kr	nowlton Dikes	
Count	ty/Parish State		NUMBERS SIGN	HTED:	
WHERE SITED: La	titude: 34 04383		Adults:	72	
	ngitude: 90.89169	<u>.</u>	Juveniles:		
		- 0	Eggs:	1(3)	
Approximate Distance to	o Water: 200	Feet	Nests:	1	
			Chicks:	No	
IN FLIGHT Over Sandba		n Nest Area	SUBSTRATE:		
Over Water	er. ☑ / On R ☑ / / /	esting Area	Sand:	✓	
Calm Water	 -	∠ / .∥	Gravel:		
Land Side	\triangleright		Debris:		
Center . 🖵	1]	VEGETATION:		
Channel Side	A MID-CHANNE	≛ □ - <u>~</u>			
MID-CHANNEL SANDBAR	Rapid Currents	´	Type:		
MID-CHANNEL SANDBAR	River Side	:an	Distance:	Feet	
SIDE (CHANNEL SANDBAR Center		FIELD CONDITI	IONI	
/ River Side □:	Land Side	L. ```		re: <u>84 ⁰ F</u>	
├ ─ / ──, <u></u> ≣	Calm Water	_ ~ <u> </u>	Temperatur	ie. <u>04 F</u>	
/ / / 7	/ / / / / / / / / / / / / / / / / / / /		Rain: No		
	1177	77-7-	Wind: S	3-5 mph	
			% Cloud:	90	
OTHER NOTES:					
	(4 ft.), undulating sand bar	unner and with high	er sand har down	etream (8 ft)	Eight
	est with 3 eggs. Old canine		iei sailu bai uowi	istream (o it.).	Ligit
5					
5				AR side	•
OBSERVERS:	Fowlkes, Grubau	ugh, Haglund, Jones,	Milburn, Rumano	cik	
RIVER GAGE READING:	. <u>H</u>	elena		8.1 R	
	(Gage	Location)		(Elevation)	

					FL'	Υ	BOAT	~
SPECIES:	Interior Least T	ern <i>(Sterna anti</i>	illarum	athalassos)				
DATE:	7/4/2006	TIME OF DAY	′:	13:48	RIVER MILE:		611.0	
LOCALITY:				_ SITE NAME:	Below Kno	wlton Di	ikes Lowe	er
	County	/Parish	State		NUMBERS SIG	SHTED:		
WHERE SIT	TED: Latit	ude:			Adults:		11	
WIILKE SI		gitude:			Juveniles:	15 150 <u>1</u>		
	,	5 40 54			Eggs:	58		
Approxima	ate Distance to	Water: 6	80	<u>Feet</u>	Nests:	7 <u>7</u> -	1	
					Chicks:	5 e	No	
IN FLIGH		ON OROOI		Nest Area ✓	SUBSTRATE:			
K2 2	Over Water	<u>'</u> ///	On Re	sting Area	Sand:	~		
	Calm Water	- 	 -	4/ . -	Gravel:			
	Land Side	\triangleright			Debris:			
6	Center . 🖵				VEGETATION			
Ch	nannel Side 🔲	A MID-	CHANNEL	- →	Type: Wi			
MID-CHAN	NEL SANDBAR	Rapid Currents			Market 17	A. Common	(<u>4</u>)	
1	10	Riv	er Side	₹	Distance:	500	Feet	
l -	SIDE CI	HANNEL SANDBAR C	enter [nd Side {	₹	FIELD CONDIT	TION:		
/ Ŕiv	ver Side □		n Water		Temperat	ure:	84 °F	
7	- / - / -	/ 	(Rain: No)		
		/ /	77	7-7-7	Wind: S	3-5 mp	oh	
Do to					% Cloud:	90		
OTHER NO	TEC:							
		oar below last dike	attach	ed (6 ft. elevation).	No tracks or dis	turhance	۵	
Trigit Dani	K. Offian Sand	oai below last dike	, attach	ed (o it. cievation).	140 tracks or dis	tarbario	· ·	
0								
S S S S S S S S S S S S S S S S S S S	30		01		NAME OF THE OWNER OWNER OF THE OWNER	See and	AR side	•
OBSERVER	RS:	Fowlkes,	Grubau	gh, Haglund, Jones	, Milburn, Rumai	ncik		
RIVER GAG	GE READING:	8		lena		8.1	1 R	
			(Gage I	Location)		(Eleva	ation)	

FLY □ BOAT 🗸

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 14:04 RIVER MILE: 608.0 7/4/2006 MS SITE NAME: Island #70 Dikes LOCALITY: Bolivar County/Parish State NUMBERS SIGHTED: 44 Adults: Latitude: 34.0233 WHERE SITED: Juveniles: _____ Longitude: 90.9667 Eggs: Approximate Distance to Water: 600 Feet 3 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · V On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center . VEGETATION: MID-CHANNEL V Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side V Temperature: 84 °F River Side Calm Water V Rain: No Wind: S 5 mph % Cloud: 80 OTHER NOTES: Left Bank. Long, high (10 ft.) sand and gravel bar with most birds at waterline, but 3 sitting inland on scrapes. Most likely attached with ATV and canine tracks. Fifteen Miss. Kites in flight above bar. MS side OBSERVERS: _____ Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Helena 8.1 R (Gage Location) (Elevation)

			FLY [BOAT ✓
SPECIES: Interior Least Te	rn (Sterna antillarum	athalassos)		
DATE: 7/4/2006	TIME OF DAY:	14:31	RIVER MILE:	603.0
LOCALITY: Boliv	ar MS	SITE NAME:	Henric	o Dikes
County/F	Parish State		NUMBERS SIGHT	ED:
WHERE SITED: Latitu	ide: 33.9898		Adults:	
Longi	itude: 91.0500	to:		2/20
Approximate Distance to V	Vater: 200	Feet	Eggs:	TALETAGA.
	: 		Nests: Chicks:	1
IN FLIGHT Over Sandbar	Z ON CROUND			INO
Over Water	45.75	n Nest Area ✓ esting Area ☐	SUBSTRATE:	
M-2-2-4	-4-4-1	/ /	Sand:	
Calm Water	_	\sim / \parallel	Gravel:	
Land Side	حدز	\sim	Debris:	
Channel Side	MID-CHANNE		VEGETATION:	
\		- →	Type:	
MID-CHANNEL SANDBAR	Rapid Currents		Distance:	Feet
SIDE CH	River Side ANNEL SANDBAR Center	日,~		
River Side 🔽	Land Side		FIELD CONDITIO	1111
Kiver Side V	Calm Water	_ `~~ !	Temperature:	85 F
1/777	444		Rain: No	
	1179	~~~	Wind: S5r	mph
			% Cloud: 90)
OTHER NOTES:			AND STANFORM OF THE STANFORM O	
Right Bank. Small, low, fla	at attached river-side sa	nd har with some de	hrie ATV and cani	ne tracks
right bank. Omail, low, no	ii, attaoned mor side sa	na bai warsome ac	ons. At varia sam	io tracks.
.5				
57 43			The Report Constitution of the Constitution of	AR side
OBSERVERS:	Fowlkes, Grubau	igh, Haglund, Jones,	Milburn, Rumancik	
RIVER GAGE READING:	Н	elena		8.1 R
	(Gage	Location)	(1	Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 14:52 RIVER MILE: 599.5 7/4/2006 ___ MS SITE NAME: Smith Point Dikes LOCALITY: Bolivar County/Parish State NUMBERS SIGHTED: ____7 Adults: WHERE SITED: Latitude: 33.9571 Juveniles: _____ Longitude: 91.0798 Eggs: Approximate Distance to Water: 300 Feet 2 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 85 °F River Side V Calm Water Rain: No Wind: S 5 mph % Cloud: 90 OTHER NOTES: Left Bank. Large, attached point bar with undulating and dissected mud and sand. ATVs and day campers at waterline. MS side OBSERVERS: _____ Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Arkansas City 5.7 R (Gage Location) (Elevation)

				FLY	/ 🗆	BOAT	~
SPECIES: I	nterior Least Te	rn (Sterna antillarum	athalassos)				
DATE:	7/4/2006	TIME OF DAY:	15:07	RIVER MILE:	5	95.0	
LOCALITY:	Desh	na AR	SITE NAME:	Victori	a Bend D	ikes	
	County/F	Parish State		NUMBERS SIG	HTED:		
WHERE SIT	ED: Latitu	de:33.9295		Adults:) .	30	
	Longi	tude: 91.0186		Juveniles:	<u> </u>		
Approxima	te Distance to V	Vater: 250	Feet	Eggs: Nests:	7 2	14	
				Chicks:			
IN FLIGHT	Over Sandbar	10-10 No. 10-10-10-10-10-10-10-10-10-10-10-10-10-1	Nest Area	SUBSTRATE:			
444	Over Water -	On Re	esting Area	Sand:	✓		
C	Calm Water 🗌		\leq /	Gravel:	✓		
1	Land Side	<u> </u>	\sim	Debris:			
Ch Ch	Center	A MID-CHANNE		VEGETATION:			
`	 I	Rapid Currents	→	Type:			
MID-CHANN	' <u>NEL SANDBAR</u> سبسر ا	River Side		Distance:	25	Feet	
ہ ا	SIDE CH/	ANNEL SANDBAR Center	☑ :	FIELD CONDIT	TION:		
Rive	er Side 🔲	Land Side Calm Water	· · ·	Temperatu		35 °F	
17	- / - / - /	+>+>		Rain: No			
		, / , , , ,	-	Wind: S	5 mph		
				% Cloud:	90		
OTHER NO	TES:						
ft.). One n	est with 1 chick	rounded, attached sand only (no eggs) in human count = 29. Day camp	footprint for scrape.	Two other chic	ks 1 wee	k of age	
Sandpiper			- and the second			AR side	
OBSERVER	RS:	Fowlkes, Grubau	ıgh, Haglund, Jones,	Milburn, Rumar	ncik	AIT SILLE	•
RIVER GAG	E READING:	Arkar	nsas City	<u> </u>	5.7F	3	
		(Gage	Location)	foxé	(Elevat	tion)	

			FLY [BOAT ✓
SPECIES: Interior Least T	ern (Sterna antillarum	athalassos)		
DATE: 7/4/2006	TIME OF DAY:	15:44	RIVER MILE:	589.0
LOCALITY: Bol	ivar MS	SITE NAME:	Terrene	e Dikes
County	/Parish State		NUMBERS SIGHT	ED:
WHERE SITED: Lati	hudo: 22 0415		Adults:	18
WHERE SITED: Lati		_		
Lon	gitude: 91.0632	-	- WWW.	
Approximate Distance to	Water: 200	Feet		7
			Chicks:	No
IN FLIGHT Over Sandbar	<u>ON ONCOMB</u> 0	n Nest Area 🔽	SUBSTRATE:	
Over Water	On F	Resting Area	Sand:	
Calm Water		∠ / .ll	Gravel:	
Land Side	\geq		Debris:	
Channel Side	A MID-CHANNI		VEGETATION:	
	· · · · · · · · · · · · · · · · · · ·	- →	Туре:	
MID-CHANNEL SANDBAR	Rapid Currents River Side		Distance:	Feet
SiDE CI	HANNEL SANDBAR Center Land Side		FIELD CONDITION	N:
River Side 🖳	Calm Water		Temperature:	83 °F
7777	7+7+7		Rain: No	
	1 / 74		Wind: S5n	nph
			% Cloud: 10	0
OTHER NOTES:				
Left Bank. Long, attache not confirmed. People w			g inland on 7 suspec	cted nests, though
5				
o o				MS side
OBSERVERS:	Fowlkes, Gruba	ugh, Haglund, Jones,	Milburn, Rumancik	
RIVER GAGE READING:	Arka	nsas City		5.7 R
	(Gage	Location)	(E	Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 16:02 RIVER MILE: 583.5 7/4/2006 __ AR SITE NAME: Malone Field Dikes LOCALITY: Desha County/Parish State NUMBERS SIGHTED: Adults: 113 WHERE SITED: Latitude: 33.7860 Juveniles: _____ Longitude: 91.0517 Eggs: Approximate Distance to Water: 1000 Feet 18 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: Channel Side MID-CHANNEL Type: Willows Rapid Currents < MID-CHANNEL SANDBAR Distance: 800 Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · Temperature: 89 F River Side V Calm Water Rain: No Wind: S 5 mph % Cloud: 80 OTHER NOTES: Right Bank. Broad, wide, high (6 ft.), attached, flat-topped, bar of sand and gravel and wrack lines on higher ground. Nests dispersed for 1 mile along wrack line. Due to swift currents and shallow water perimeter count yielded 18 nests with Terns sitting inland. Four separate day camping parties. AR side OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Arkansas City 5.7 R (Gage Location) (Elevation)

				FLY	BOAT	✓
SPECIES: Interior	Least Tern (Stern	a antillarum a	thalassos)			
DATE: 7/4/20	006 TIME O	F DAY:	16:24	RIVER MILE: _	578.0	
LOCALITY:	Bolivar	MS	SITE NAME:	Below Pr	rentiss Dikes	
	County/Parish	State		NUMBERS SIGH	HTED:	
WHERE SITED:	Latitude:	33 7502		Adults:	28	
WILKE SITED.	Longitude:			Juveniles:		
				Eggs:		
Approximate Dist	tance to Water:	600	Feet	Nests:	7	
				Chicks:	Yes	
IN FLIGHT Ove			Nest Area ✓	SUBSTRATE:		
K / /°	over Water → 🗸 	On Res	sting Area	Sand:	✓	
Calm Wa	ater		47.II	Gravel:		
Land Sid	de 🗆			Debris:		
Cent	ter .📮	POSS 2012 6 F 20 BL 10 BAY		VEGETATION:		
Channel Si	ide "□ 🥖	MID-CHANNEL	- □ ->	Type:		
MID-CHANNEL SAI	NDBAR Rapid Current	s 🔽	12			
A		River Side	流 	Distance:	Feet	
- سمہ	SIDE CHANNEL SAND	BAR Center		FIELD CONDITI	ON.	
River Side		Land Side Calm Water			re: 89 ° F	
777	$\frac{1}{2}$	1 m m m		Rain: No		
	/	1 74	7-7-7	Wind: S	5 mph	
				% Cloud:	80	
OTHER NOTES:						
	, flat, unattached san	d har with into	nce represtional as	tivity Dorimotor o	ount violde 20	
	ts and 6 chicks 1-2 w					
5					MS side	
OBSERVERS:	Fov	/lkes, Grubaug	h, Haglund, Jones,	Milburn, Rumano	184001	
RIVER GAGE REA	ADING:	Arkans	as City		5.7 R	
	1-1	(Gage L	ocation)	-	(Elevation)	

				FLY	□ BO	AT	~
SPECIES: Interior	Least Tern (Stern	a antillarum a	thalassos)				
DATE: 7/4/20	006 TIME O	F DAY:	16:40	RIVER MILE: _	573.5	5	
LOCALITY:	Desha	AR	SITE NAME:	Caulk I	Neck Cut-Off	f	
	County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED:	Latitude:	33 7087		Adults:	67		
	Longitude:			Juveniles:	W		
				Eggs:	2		
Approximate Dist	ance to Water:	300	Feet	Nests:	9		
				Chicks:	No	<u>k</u>	
IN FLIGHT Over	22 St.		est Area	SUBSTRATE:			
K	ver Water · 🔽	On Rest	ing Area	Sand:	✓		
Calm Wa	ter 🗌		$\langle / $	Gravel:	✓		
Land Sid	le 🗆			Debris:			
Center Channel Sie	A	MID-CHANNEL		VEGETATION:			
Charmers	de ⁴□ 🥖	WIID-CHANNEL	['] →	Type:			
MID-CHANNEL SAN	NDBAR Rapid Current	s ∨ 		Distance:	Fee	≥t	
1	7411	River Side		Distance.	100		
<i>f</i>	SIDE CHANNEL SAND	BAR Center L Land Side		FIELD CONDIT	ION:		
River Side		_ Calm Water □		Temperatu	re: 85	°F_	
777	7777			Rain: No			
	1	17	7-7-7	Wind: S	5 mph		
				% Cloud:	100		
OTHER NOTES:							_
Right Bank. Atta	ched, medium size p ATV and dog tracks v		rns fishing in back	chute Perimeter	count yields	9 on	
5 7							
5	<u> </u>			Arm 5	Liferal	side	
OBSERVERS:	Fow	vikes, Grubaugi	h, Haglund, Jones,	Milburn, Ruman	CIK		
RIVER GAGE REA	DING:	Arkans			5.7 R		
		(Gage Lo	ocation)		(Elevation)	ĺ	

			FLY [□ BOAT ✓
SPECIES: Interior Lea	ast Tern <i>(Sterna antillaru</i>	m athalassos)		
DATE: 7/4/2006	TIME OF DAY:	17:06	RIVER MILE:	568.6
LOCALITY:	Bolivar MS	SITE NAME:	Catfish P	oint Dikes
Co	ounty/Parish State	е	NUMBERS SIGHT	ΓED:
WHERE SITED:	Latituda: 22 6701		Adults:	
WHERE SITED.	Latitude: 33.6781 Longitude: 91.2242			
			Eggs:	
Approximate Distance	e to Water: 200	Feet	Nests:	5
			Chicks:	No
IN FLIGHT Over Sar	22 SZ	On Nest Area	SUBSTRATE:	
Over\	Water · ☑ / Or	Resting Area	Sand: 🗸	
Calm Water	_ ~~	~ /</td <td>Gravel:</td> <td></td>	Gravel:	
Land Side			Debris:	ļ
		INEL 🗸	VEGETATION:	
\	/	_ →	Туре:	
MID-CHANNEL SANDB	Rapid Currents River Sic	 te ☑ ૺૺૺૺૺૺૺૺૺૺ૾	Distance:	Feet
<u>SI</u>	DE CHANNEL SANDBAR Center		FIELD CONDITIO	N:
/ River Side ☐	Calm Wat		Temperature	: 85 °F
7777			Rain: No	
	7 (/	المكملور	Wind: S5	mph
			% Cloud: 10	00
OTHER NOTES:				
Left Bank. Wide, att	ached, sand and gravel bar g indicated nests. ATV tra	(10 ft. max. ht.). Most	Least Terns were	counted along
55				
<i>a</i>				MS side
OBSERVERS:	Fowlkes, Grub	augh, Haglund, Jones,	Milburn, Rumancik	(
RIVER GAGE READIN	CALL MILITAN AND AND AND AND AND AND AND AND AND A	ansas City		5.7 R
	(Ga	ge Location)	(Elevation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 17:30 RIVER MILE: 560.0 7/4/2006 LOCALITY: _____ Desha ____ AR ___ SITE NAME: ____ Choctaw Bar Island County/Parish State NUMBERS SIGHTED: 7 Adults: WHERE SITED: Latitude: Juveniles: _____ Longitude: _____ Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side Center VEGETATION: MID-CHANNEL V Channel Side Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · River Side Temperature: 85 °F Calm Water Rain: Yes Wind: Calm % Cloud: 100 OTHER NOTES: Right Bank. Attached bar in back chute of Choctaw Bar Island. Did not count site due to poor visibility from rain. Seven terns counted flying mid-channel. AR side OBSERVERS: _____ Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Arkansas City 5.7 R (Gage Location) (Elevation)

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 17:47 RIVER MILE: 554.0 7/4/2006 LOCALITY: Bolivar MS SITE NAME: Huntington Point County/Parish State NUMBERS SIGHTED: 30 Adults: WHERE SITED: Latitude: Juveniles: Longitude: _____ Eggs: Approximate Distance to Water: 100 Feet 5 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · River Side V Temperature: 83 °F Calm Water Rain: Yes Wind: Calm % Cloud: 90 OTHER NOTES: Left Bank. Low (4 ft.), attached, riverside bar of sand, gravel and mud on lower end. Most birds resting waterline with some flying inland. Five sitting on scrapes. ATV tracks and mobbing of Great Blue Heron. MS side OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Arkansas City 5.7 R (Gage Location) (Elevation)

			FLY [BOAT 🗹
SPECIES: Interior Least Terr	(Sterna antillarum	athalassos)		
DATE: 7/4/2006	TIME OF DAY:	17:58	RIVER MILE:	550.0
LOCALITY: Washing	ton MS	SITE NAME:	Ashbrook Cu	utoff Dikes
County/Pa	arish State		NUMBERS SIGHTE	ED:
WHERE SITED: Lotitud	22 54060		Adults:	
WHERE SITED: Latitud	ude: 91.19605		Juveniles:	
			Eggs:	
Approximate Distance to W	ater: 300	Feet	Nests:	20
		1	Chicks:	Yes
IN FLIGHT Over Sandbar	<u>on oncorre</u>	Nest Area ✓	SUBSTRATE:	
Over Water	✓ / On Re	esting Area	Sand: ✓	
Calm Water ✓		4/ .	Gravel:	
Land Side 🗹	<u>~</u>		Debris:	
Channel Side	MID-CHANNE		VEGETATION:	
\	/	* →	Туре:	
MID-CHANNEL SANDBAR	apid Currents River Side		Distance:	Feet
SIDE CHA	NNEL SANDBAR Center		FIELD CONDITION	
River Side	Land Side (Temperature:	721
77777	1717		Rain: Yes	
	1174	-	Wind: Calm	
			% Cloud: 90	
OTHER NOTES:				
Left Bank. Small, (10 ft. hig above dike field. Six chicks				100 ft. wide)
8				
	<u></u>		A. C	MS side
OBSERVERS:	Fowlkes, Grubau	gh, Haglund, Jones,	Milburn, Rumancik	
RIVER GAGE READING:	***************************************	sas City	= =	5.7 R
	(Gage	Location)	(El	levation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 18:13 RIVER MILE: 544.5 7/4/2006 AR SITE NAME: Island #82 Miller Bend Dikes LOCALITY: Chicot County/Parish State NUMBERS SIGHTED: Adults: 23 WHERE SITED: Latitude: 33.45265 Juveniles: _____ Longitude: 91.12111 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: ___80 °F River Side V Calm Water Rain: No Wind: Calm % Cloud: 90 OTHER NOTES: Right Bank. Low (5 ft.), attached, mostly gravel-bar, some sand. Eight Terns mobbing Great Blue Heron indicateds probable colony though no nests observed. No tracks or other disturbing factors. AR side OBSERVERS: _____ Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik RIVER GAGE READING: Greenville 15.9 R (Gage Location)

(Elevation)

				BOAT ✓		
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)				
DATE: 7/4/2006	TIME OF DAY:	18:18	RIVER MILE:	541.5		
	Washington MS SITE NAME		Tarpley Cutoff Dikes			
County/Pari	sh State		NUMBERS SIGHTED:			
WHERE SITED: Latitude	. 22 42764		Adults:			
WHERE SITED: Latitude:	le: 91.11880		Juveniles:			
			Eggs:	1(2)		
Approximate Distance to Water: 75 Feet		Feet	Nests:	1		
			Chicks:	Yes		
<u>IN FLIGHT</u> Over Sandbar ✓	SUBSTRATE:					
Over Water · 🗸	Sand:					
Calm Water	Gravel:					
Land Side	3		Debris:			
. Center .]	VEGETATION:			
Channel Side MID-CHANNEL .			Туре:			
MID-CHANNEL SANDBAR Rapi	.s.					
1		Distance:	Feet			
SIDE CHANN		FIELD CONDITION:				
River Side Calm Water			Temperature: 80 F			
	7 7 1		Rain: No			
		Wind: Calm	l			
			% Cloud: 80			
OTHER NOTES.						
OTHER NOTES:	mile v EOO ff wide)	solid sondbox unotte	school flat 6.0 ft als	vection Floren		
Right Bank. Medium size (1/2 chicks up to 1 week old. No to			iched, nat, 6-9 ft. ele	evation. Eleven		
5						
9				AR side		
OBSERVERS:	Fowlkes, Grubau	gh, Haglund, Jones,	Milburn, Rumancik			
RIVER GAGE READING:	Gre	Greenville		=15.9 R		
	(Gage	Location)	(Elevation)			

			FLY BOA			~	
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)					
DATE: 7/4/2006 T	IME OF DAY:	18:50	RIVER MILE: _		540.0		
LOCALITY: Washington	MS	MS SITE NAME:		Leland Neck Dikes			
County/Paris	h State		NUMBERS SIGHTED:				
WHERE SITED: Latitude	22 40525		Adults:				
WHERE SITED: Latitude:	91.10829		Juveniles:	<u></u>	Yes		
~~	W SANGARINA SANGARAN L		Eggs:	-			
Approximate Distance to Water: 150 Feet			Nests:	<u> </u>	0		
		1	Chicks:	ī ā	Yes		
<u>IN FLIGHT</u> Over Sandbar ✓		Nest Area ✓	SUBSTRATE:				
Over Water · 🔽 On Resting Area 🗌			Sand:	✓			
Calm Water			Gravel:				
Land Side			Debris:	v			
Center . D	MID-CHANNE	_ 1	VEGETATION:				
Channel Side	Туре:						
MID-CHANNEL SANDBAR Rapid	Currents 🔽						
	River Side	<u> </u>	Distance:	\$ <u>6</u>	reet		
SIDE CHANNE	FIELD CONDITION:						
River Side ☐	Temperature: 83 °F						
77777	Rain: No						
	1174	7-7-7	Wind: C	alm			
			% Cloud:	80			
OTHER NOTES:						_	
Left Bank. Medium size, unatta harbor. Over 150 chicks obser possibly obscured by recent rai	ved up to 1 1/2 weel					ville	
possibly spoodied by recent fai							
OBSEDI/EDS:	Fowlkes Grubau	ah Haalund Jones	Milhurn Ruman	cik	MS side)	
OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik							
RIVER GAGE READING:	2000000	Greenville (Gage Location)		= 15.9 R			
(Gage Location)		(Elevation)					

			FLY		BOAT	~
SPECIES: Interior Least Tern	(Sterna antillarum a	athalassos)				
DATE: 7/5/2006 TI	ME OF DAY:	8:45	RIVER MILE: _		533.0	
LOCALITY: Washignton	MS	_ SITE NAME:	Island #8	34 Dikes	Upper	
County/Parisl	n State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude:	22 21610		Adults:			
WHERE SITED: Latitude:	91.17846		Juveniles:			
~	Prince Section Reliable Section 23		Eggs:	1(3	i) 1(2) 8(1)
Approximate Distance to Water	:50	Feet	Nests:	8 <u>4-</u>	40	
_			Chicks:	5 8	Yes	
IN FLIGHT Over Sandbar ✓		Nest Area ✓	SUBSTRATE:			
Over Water · 🗸	/	sting Area	Sand:	V		
Calm Water ✓		4/ /	Gravel:			
Land Side 🗹			Debris:			
Center . ✓		_ 1	VEGETATION:			
Channel Side 🗹	MID-CHANNEL	- →	Type: Gra		s	
MID-CHANNEL SANDBAR Rapid	Currents 🗹		Market 17	The second	Market or	
	River Side [Distance:	50	reet	
SIDE CHANNE	L SANDBAR Center L		FIELD CONDIT	ION:		
River Side 🖂	Calm Water		Temperatu	ıre:	79 °F	
77777	7474		Rain: No			
	1174	7-7-7	Wind: C	alm		
			% Cloud:	100		
OTHER NOTES:						_
Left Bank. Large size (1 mile x	800 ft wide) flat-ton	oped 15 foot high sa	and bar with no to	racks bu	ıt recent	
camping signs. Bar has increase Chicks hatching and up to 2 we	sed in size (see 200	5 data). Perimeter	count = 140, flus	h count	= 600.	
59					MS side	,
OBSERVERS:	Campen, Carpente	r, Fowlkes, Grubau	gh, Jones, Ruma	ncik		
RIVER GAGE READING:	Gree	enville	= = =	16.6	∂ R	
	(Gage I	_ocation)		(Eleva	ation)	

			FLY	BOAT ✓
SPECIES: Interior Least Tern (Sterna antillarum a	athalassos)		
DATE: 7/5/2006 TII	ME OF DAY:	9:20	RIVER MILE: _	532.2
LOCALITY: Washignton	MS	SITE NAME:	Island #8	4 Dikes Lower
County/Parish	State		NUMBERS SIG	HTFD:
WILLEDE CITED	22 20000			49
WHERE SITED: Latitude:				
-	91.16606			2(1) 1(2)
Approximate Distance to Water:	10	Feet	Nests:	23
			Chicks:	No
<u>IN FLIGHT</u> Over Sandbar ✓	ON GROUND On	Nest Area ✓	SUBSTRATE:	
Over Water · 🗸	On Re	sting Area	Sand:	✓
Calm Water		47.1	Gravel:	
Land Side 🗆			Debris:	
Center .□		٦	VEGETATION:	
Channel Side	MID-CHANNEL	. □ →	Type:	
MID-CHANNEL SANDBAR Rapid (Currents 🔽	*		
1 1	River Side		Distance:	Feet
SIDE CHANNEL	SANDBAR Center Land Side		FIELD CONDIT	ION:
/ River Side ☐	Calm Water		Temperatu	re: 80 °F
77777	+74		Rain: No	
	1174	7-7-	Wind: Ca	alm
			% Cloud:	100
OTHER NOTES:				
Left Bank. Medium size (7 ft. el close to bank. Human tracks ar zone will soon be inundated. Or	nd predator scat in o	olony. Ten - 15 Ba		
5				MS side
OBSERVERS:	Campen, Carpente	r, Fowlkes, Grubau	gh, Jones, Ruma	3)
RIVER GAGE READING:	Gree	enville	6-2-7-	16.6 R
The second secon	(Gage I	ocation)		(Elevation)

FLY □ BOAT ☑

SPECIES: Interior Least Tern	(Sterna antillarum a	athalassos)		
DATE: 7/5/2006	TIME OF DAY:	9:44	RIVER MILE:	528.3
LOCALITY: Washington County/Paris		_ SITE NAME:	Refu	ge Dikes
County/i and	on State		NUMBERS SIGH	HTED:
WHERE SITED: Latitude:	33.2664		200	30
Longitude	e: 91.1222			
Approximate Distance to Water	er: 150	Feet		
	<u> </u>		_	2 Yes
IN FLIGHT Over Sandbar ✓	ON GROUND On	Nest Area ✓	SUBSTRATE:	165
Over Water .		sting Area	324 11402	>
Calm Water		Z /		<u>~</u>
	Li	\sim	D-1	
Land Side Center		7		
	MID-CHANNEL	. 🗆 🚤 📗	VEGETATION:	
MID-CHANNEL SANDBAR Rapid	d Currents		Type: Willo	women was
1	River Side	<u>}</u>	Distance:	100 Feet
SIDE CHANNI	EL SANDBAR Center Land Side		FIELD CONDITI	ON:
/ River Side □	Calm Water	· · ·	Temperatur	re: 80 °F
7777	7+74		Rain: No	
			Wind: Ca	lm
	~	/ /		
		-1	% Cloud:	100
OTHER NOTES:				
Left Bank. Small, high, clean, with upper end of mud flats. No Great Blues being mobbed.	unattached sand bar lests in wrack lines o	below 1st dike. Ap n back side. Nine c	proximately 1/4 m hicks 1-2 weeks o	ile long and wide, old. Egrets and
±				MS side
OBSERVERS:	Campen, Carpente	r, Fowlkes, Grubau	gh, Jones, Rumar	
RIVER GAGE READING:	Gree	enville	=	16.6 R
	(Gage I	_ocation)	5.89	(Elevation)

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 10:24 RIVER MILE: 523.0 7/5/2006 AR SITE NAME: Seven Oaks Dikes LOCALITY: Chico County/Parish State NUMBERS SIGHTED: Adults: 18 WHERE SITED: Latitude: 33.1814 Juveniles: _____ Longitude: 91.0904 Eggs: Approximate Distance to Water: Feet 0 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · Temperature: 80 F River Side V Calm Water Rain: No Wind: Calm % Cloud: 100 OTHER NOTES: Right Bank. Small, attached sand bar to large wooded island. Eight Terns resting at waterline, the rest flying over swift water end of dikes. One Cormorant, Great Egrets, unknown Buteo. AR side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: Greenville 16.6 R (Gage Location) (Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 10:35 RIVER MILE: 521.0 7/5/2006 AR SITE NAME: Island #86 Dikes Upper LOCALITY: Chicot County/Parish State NUMBERS SIGHTED: Adults: 16 Latitude: 33.15335 WHERE SITED: Juveniles: _____ Longitude: 91.08585 Eggs: Approximate Distance to Water: 50 Feet 4 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 80 F River Side V Calm Water V Rain: No Wind: Calm % Cloud: 100 OTHER NOTES: Right Bank. Small, low, flat, sand bar (5 ft. elevation) attached to larger wooded island just upstream. All but 4 Terns resting at waterline, these are sitting inland, presumably on scrapes. No tracks. AR side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: Greenville 16.6 R (Gage Location) (Elevation)

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 10:45 RIVER MILE: 519.5 7/5/2006 AR SITE NAME: Island #86 Dikes Lower LOCALITY: Chico County/Parish State NUMBERS SIGHTED: Adults: 16 Latitude: 33.13931 WHERE SITED: Juveniles: _____ Longitude: 91.09040 Eggs: Approximate Distance to Water: 200 Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 80 F River Side V Calm Water Rain: No Wind: Calm % Cloud: 100 OTHER NOTES: Right Bank. Small, attached sand bar attached to same wooded island as previous colony. Four fresh scrapes but no eggs or chicks indicate young colony. ATV tracks and White Ibis. AR side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: Greenville 16.6 R (Gage Location) (Elevation)

			FLY 🗆	BOAT 🗸
SPECIES: Interior Least Terr	n (Sterna antillarum	athalassos)		
DATE: 7/5/2006	TIME OF DAY:	11:00	RIVER MILE:	518.1
LOCALITY: Washing		SITE NAME:	Kentucky Ben	d Bar Upper
County/Pa	arish State		NUMBERS SIGHTE	ED:
WHERE SITED: Latitud	le: 33.1403		Adults:	35
	ude: 91.0899	-8	Juveniles:	
Approximate Distance to W	ater 500	Feet	Eggs:	525
Approximate Biotainee to TT			and the second s	7 N-
IN FLIGHT Over Sandbar	ON CROUND O		Chicks:	NO
Over Water	-2. W-	n Nest Area 🗸	SUBSTRATE:	
Calm Water	-4-4-4	, , ,	Sand:	
Calli Water	·~	\ //	Gravel: ☐ Debris: ☐	
Land Side	- 11 8		Debris:	
Channel Side	MID-CHANNI		VEGETATION:	
R:	apid Currents 🗸	7	Туре:	
MID-CHANNEL SANDBAR	River Side		Distance:	Feet
SIDE CHAP	NNEL SANDBAR Center	☑ ∵ <u>`</u>	FIELD CONDITION	
/ River Side □	Land Side Calm Water		Temperature:	11
├ / 	Caim Water	* 1	Rain: No	A
l''''	1/7		1200000000000000	
		4	Wind: <u>Calm</u>	
			% Cloud: 100	
OTHER NOTES:				
Right Bank. Unattached, m or disturbance.	edium size, gently rolli	ng sand bar. Seven	sitting inland on scra	pes. No tracks
or disturbance.				
				AR side
OBSERVERS:	Campen, Carpent	er, Fowlkes, Grubau	gh, Jones, Rumancik	
RIVER GAGE READING:	Gre	eenville		16.6 R
	(Gage	Location)	(E	levation)

			FLY	□ BOAT
SPECIES: Interior Least Ter	n (Sterna antillarum	athalassos)		
DATE: 7/5/2006	TIME OF DAY:	11:07	RIVER MILE:	517.5
LOCALITY: Washing	gton MS	SITE NAME:	Kentucky B	end Bar Lower
County/P	arish State		NUMBERS SIGH	ITED:
WHERE SITED: Latitud	de: 33 1214		Adults:	6
	ude: 91.1011		Juveniles: _	
			Eggs:	
Approximate Distance to W	ater: 200	<u>Feet</u>	Nests:	1
			Chicks:	No
IN FLIGHT Over Sandbar		n Nest Area	SUBSTRATE:	
Over Water	<u>✓</u> / / On R	esting Area	Sand:	
Calm Water		∠ / .∥	Gravel:	
Land Side 🗆	<u>~</u>		Debris:	
Center .			VEGETATION:	
Channel Side	MID-CHANNI	╧╵╶⇒║	Type:	
MID-CHANNEL SANDBAR	apid Currents	*		
1 /	River Side	<u>`</u>	Distance: _	Feet
SIDE CHA	NNEL SANDBAR Center	☑ ∵ .	FIELD CONDITION	ON:
River Side	Land Side Calm Water			e: 80 °F
77777	+>+>		Rain: No	
	1179	~~~	Wind: Cal	lm
		<u> </u>	% Cloud:	100
OTHER NOTES:				
	law wasan aalaaw katu	aan Oud and Oud dilea	o Ombi 4 maat ab	samuad Na
Right Bank, just 3/4 mile be disturbance noted.	low upper colony betw	een Znd and 3rd dike	s. Only I nest ob	servea. No
<u> </u>				100
ODCED\/EDC	Campon Carpon	er, Fowlkes, Grubau	nh lones Duman	AR side
OBSERVERS:			gii, oones, i\uiiidli	
RIVER GAGE READING:		eenville	- E	16.6 R
	(Gage	Location)		(Elevation)

FLY □ BOAT ☑

SPECIES: Interior	Least Tern (Sterna	antillarum ath	nalassos)		
DATE: 7/5/20	006 TIME OF	DAY:	11:19	RIVER MILE:	514.0
LOCALITY:	Washington	MS	SITE NAME:	Leot	a Dikes
	County/Parish	State		NUMBERS SIGH	ITED:
					27
WHERE SITED:	Latitude: 3				
	Longitude: 9			Eggs:	
Approximate Dist	tance to Water:	200 F	eet	Nests:	1
				Chicks:	No
111 1111 1111		ROUND On Ne	st Area 🗸	SUBSTRATE:	
411_1°	ver Water . 🗸	On Restin	ng Area 🔲	Sand:	
Calm Wa	iter		./ .	Gravel:	
Lond Sir	de 🗆			Debris:	•
Cent	er . 🖵 🖊		1	VEGETATION:	
Channel Si	ide 🔲 🧳 🚶	MID-CHANNEL [□ →	Type:	
MID-CHANNEL SAI	NDBAR Rapid Currents	River Side		111111111111111111111111111111111111111	Feet
River Side	SIDE CHANNEL SANDB	N		FIELD CONDITIO	
- A Niver Side		Calm Water	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Temperature	e: 81 ⁰ F
1//7	777	7		Rain: No	
	/			Wind: Cal	m
				% Cloud: 8	35
OTHER NOTES:					
Left Bank. Long, activity on riversi	, attached sand bar (12 de, fishing, courting, ca racks. Mississippi Kite	arrying fish. He			
					MS side
OBSERVERS:	Campe	en, Carpenter, I	Fowlkes, Grubau	gh, Jones, Ruman	
RIVER GAGE REA	ADING:	Green	ville		16.6 R
	(*************************************	(Gage Loc		= =	(Elevation)

				FLY	/ □ BOAT	V
SPECIES: Interi	or Least Tern (Steri	na antillarum at	halassos)			
DATE: 7/5/	2006 TIME C	OF DAY:	11:35	RIVER MILE:	509.5	
LOCALITY:	Chicot	AR	SITE NAME:	Cracrat	ft Lower Dikes	
	County/Parish	State		NUMBERS SIG	HTED:	
WHERE SITED.	Latitude:	22 02074			58	
WHERE SHED.	Longitude:			Juveniles:	50 <u>7</u>	
	1800 V	to the first the first term of		Eggs:	F 	
Approximate D	istance to Water:	100 F	eet	Nests:	3	
			1	Chicks:	No	
IN FLIGHT O	4992	GROUND On Ne	est Area 🗸	SUBSTRATE:		
K1 1-4	Over Water · 🗸	On Resti	ng Area 🔲	Sand:	✓	
Calm \	Water 🗌		./ .	Gravel:		
land	Side 🗆			Debris:		
(enter . 🖵 🖊		٦	VEGETATION:		
Channel	Side 🗀 🧳	MID-CHANNEL	□ →	Type:		
MID-CHANNEL S	SANDBAR Rapid Curren	nts 🔲		1000		
1		River Side 🗸		Distance:	Feet	
	SIDE CHANNEL SAN	DBAR Center Land Side .		FIELD CONDIT	TION:	
River Sid	e 🖳	Calm Water		Temperatu	ure: 82 ° F	
	╱┋ ╌┋┼╱┋			Rain: Ye		
' ' '	''''	174		Wind: C	alm	
		~ 3-	/ / _		33.11.11.	
				% Cloud:	100	
OTHER NOTES:	:					
	ong, attached sand ba obbing of Anhingha in ons.					
5					AR sid	le .
OBSERVERS:	Cam	npen, Carpenter.	Fowlkes, Grubau	gh, Jones, Ruma		
RIVER GAGE RI	A CONTRACTOR AND A STATE OF THE	Green			16.6 R	
	organi Addi Antiki) — K	(Gage Lo		= §**	(Elevation)	

			FL	Y 🗆	BOAT	~
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)				
DATE: 7/5/2006	TIME OF DAY:	12:17	RIVER MILE:		504.0	
LOCALITY: Issaquen	a MS	SITE NAME:	Corre	egidor D	ikes	
County/Par	rish State		NUMBERS SIG	HTFD:		
WHERE OITER	22.05720		Adults:			
WHERE SITED: Latitude			Juveniles:	28		
	de: <u>91.14347</u>		Eggs:	72		
Approximate Distance to Wat	ter: 100	Feet	Nests:	<u> </u>	5	
			Chicks:	58	No	
<u>IN FLIGHT</u> Over Sandbar ✓		Nest Area	SUBSTRATE:			
Over Water - V] / / On Ri	esting Area	Sand:	✓		
Calm Water	<u></u>	4/.	Gravel:			
Land Side	5		Debris:	✓		
Center . Channel Side	A MID-CHANNE		VEGETATION:	į.		
		-	Type:			
MID-CHANNEL SANDBAR	oid Currents River Side		Distance:	9 <u>0</u>	Feet	
SIDE CHAN	NEL SANDBAR Center		FIELD CONDIT	TION:		
River Side ☐	Calm Water		Temperati	ure:	82 °F	
7777	7+7-		Rain: No	Ĺ		
	1179		Wind: C	alm		
27			% Cloud:	80		
OTHER NOTES:						
Left Bank. Long (3/4 mile), n Sarah Cut-Off. Perimeter co						nd of
5					MS side	
OBSERVERS:	Campen Carpente	er, Fowlkes, Grubau	ah. Jones Ruma	ancik	MS side	
RIVER GAGE READING:	The state of the s	enville	,	16.6	â R	•
THE CASE READING.		Location)			ation)	

(Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 13:20 RIVER MILE: 499.5 7/5/2006 LA SITE NAME: Wilson Point Dikes LOCALITY: East Carroll County/Parish State NUMBERS SIGHTED: 30 Adults: WHERE SITED: Latitude: 32.9435 Juveniles: _____ Longitude: 91.0833 Eggs: Approximate Distance to Water: 300 Feet 2 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL V Channel Side Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · River Side Temperature: 85 °F Calm Water Rain: No Wind: Calm % Cloud: 80 OTHER NOTES: Right Bank. Attached, sand bar above last visible dike. Elevation = 8 ft., Most Terns observed resting at waterline or fishing during perimeter count, but 2 sitting inland on scrapes. Human and Coyote tracks, 3 Great Blue Herons, 1 Egret, 3 Caspian Terns. LA side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: Greenville 16.6 R (Gage Location) (Elevation)

			FLY		BOAT	~
SPECIES: Interior Least Tern (Ste	erna antillarum a	athalassos)				
DATE: 7/5/2006 TIME	OF DAY:	13:44	RIVER MILE: _		491.5	
LOCALITY: Issaquena		SITE NAME:	Baleshed	d Landir	ng Dikes	
County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude:	32 8417		Adults:	5.	169	
	91.1278		Juveniles:	<u>.</u> W <u> </u>		
		Foot	Eggs:	j a	111	
Approximate Distance to Water:	400	reet	Nests:	<u> </u>	30	
			Chicks:	7 3	No	
IN FLIGHT Over Sandbar ✓ Over Water ✓		Nest Area	SUBSTRATE:			
	/ On Re	sting Area	Sand:	~		
Calm Water		$\langle \langle \rangle \rangle \parallel =$	Gravel:	✓		
Land Side		\sim	Debris:			
Center . Center . Channel Side	MID-CHANNEL		VEGETATION:			
· /		` →	Type: Sm	all Willo	ows	
MID-CHANNEL SANDBAR Rapid Cun	rents <u>✓</u> -		Distance:	150	Feet	
	River Side					
SIDE CHANNEL SA	Land Side		FIELD CONDIT		0	
River Side 📋	Calm Water	∞ ``~``	Temperatu	ıre:	84 °F	
/ / //// /	7		Rain: No			
3	/ / 7%	7-7-	Wind: L	& V		
			% Cloud:	75		
OTHER NOTES.			70 C.C.C.			
OTHER NOTES:	dod cand bar /0 f	t alevation) with se	mo graval unatra	am frai	m Stack	
Left Bank. Very long, clean, exten Island. Most of colony site is unatt water flowing through breached dil	tached from islan	d because of new c	ut across bar into	back (chute with	
tracks present.						
OBSEDVEDS: Co	amnen Carnento	r, Fowlkes, Grubau	ah lones Ruma	ncik	MS side	•
OBSERVERS: Ca	anipon, valpente	I. I OWINGS. CIUDAU	un. uunica. I\uille	ar IIVIII		
RIVER GAGE READING:		enville			6 R	

			FLY	′ □ B	OAT	~
SPECIES: Interior Least Ten	n (Sterna antillarum	athalassos)				
DATE: 7/5/2006	TIME OF DAY:	14:04	RIVER MILE: _	487	.5	
LOCALITY: Issaque		SITE NAME:	Ben Lo	mmond Dik	es	
County/Pa	arish State		NUMBERS SIG	HTED:		
WHERE SITED: Latitud	de: 32.80114		Adults:	7	'3	
	ude: 91.14859		Juveniles:	<u> </u>		
Approximate Distance to W	ater: 20	Feet	Eggs:	S o	,	
· ·	25		Nests: Chicks:			
IN FLIGHT Over Sandbar	ON GROUND On	Nest Area ✓	SUBSTRATE:	J e		
Over Water	☑ / / On Re	esting Area	Sand:	✓		
Calm Water		47.1	Gravel:			
Land Side	<u>~</u>		Debris:			
Center . Channel Side	MID-CHANNE		VEGETATION:			
·	~	•	Type:			
MID-CHANNEL SANDBAR	apid Currents 🗸	<u></u>	Distance:	Fe	eet	
SIDE CHA	NNEL SANDBAR Center Land Side	∑ ∴ ∑	FIELD CONDIT	ION:		
River Side	Calm Water		Temperatu	ıre: <u>85</u>	°F	
77777	+7+7-		Rain: No			
	1174		Wind: L	& V		
			% Cloud:	50		
OTHER NOTES:						
Left Bank. Low, very small colony site just above this lo						
a a					0	
OBSERVERS:	Campen Carpents	er, Fowlkes, Grubau	nh Jones Ruma		S side	<u>E</u>
RIVER GAGE READING:		sburg	gii, oones, ruille	8.1 R		
THE CASE READING.		Location)	<u> </u>	(Elevation	n)	

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/5/2006 TIME OF DAY: 14:29 RIVER MILE: 484.0 MS SITE NAME: Ajax Bar Dikes Upper LOCALITY: Issaquena County/Parish State NUMBERS SIGHTED: Adults: 10 Latitude: 32.74734 WHERE SITED: Juveniles: _____ Longitude: 91.14461 Eggs: Approximate Distance to Water: 500 Feet ____1 Nests: Chicks: Yes Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · V On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents 🗸 MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side V Temperature: 85 F River Side Calm Water Rain: No Wind: Calm % Cloud: 50 OTHER NOTES: Left Bank. Broad, high, undulating, attached bar of sand and mud. One newly hatched chick observed in scrape, and one chick mortality (cause ?). ATV tracks and 100s of migrating Cliff Swallows. MS side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: 8.1 R Vicksburg (Gage Location) (Elevation)

FLY □ BOAT 🗸 SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 14:46 RIVER MILE: 481.6 7/5/2006 MS SITE NAME: Ajax Bar Dikes Lower LOCALITY: Issaquena County/Parish State NUMBERS SIGHTED: Adults: 25 Latitude: 32.7375 WHERE SITED: Juveniles: _____ Longitude: 91.1192 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side . River Side Temperature: 85 °F Calm Water V Rain: No Wind: Calm % Cloud: 70 OTHER NOTES: Left Bank. Small (1/4 acre), unattached, but barely emergent (1/2 ft. elevation) sand bar with no nests or scrapes. Fishing in back chute. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: Vicksburg 8.1R (Gage Location) (Elevation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/5/2006 TIME OF DAY: 15:00 RIVER MILE: 476.6 LA SITE NAME: Point Lookout Dike LOCALITY: East Carroll County/Parish State NUMBERS SIGHTED: Adults: 152 Latitude: 32.70994 WHERE SITED: Juveniles: _____ Longitude: 91.05667 Eggs: Approximate Distance to Water: 300 Feet 16 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: 86 F River Side Calm Water V Rain: No Wind: Calm % Cloud: 70 OTHER NOTES: Right Bank. Large, attached, convoluted sand bar. Perimeter count yields 16 likely nests, mostly along a wrack line varying 200-500 ft from the waterline. ATV tracks found within colony. LA side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: Vicksburg 8.1 R (Gage Location) (Elevation)

			FLY	BOAT	~
SPECIES: Interior Least Ter	n (Sterna antillarum	athalassos)			
DATE: 7/5/2006	TIME OF DAY:	15:33	RIVER MILE: _	468.0	
LOCALITY:East Ca	rroll LA	SITE NAME:	Cotto	nwood Bar	
County/P	arish State		NUMBERS SIG	HTED:	
WHERE SITED: Latitud	de: 32.63442		Adults:	16	
	ude: 91.15839		Juveniles:	<u> </u>	
Approximate Distance to W	ater:50	Feet	Eggs:	1	
				No	
IN FLIGHT Over Sandbar	ON GROUND On	Nest Area ✓	SUBSTRATE:		
Over Water	☑ / / On Re	esting Area	221 1152	✓	
Calm Water ✓		4/ .	Gravel:		
Land Side ☑	<u>~~</u>		Debris:		
Center . Center . Channel Side	# MID-CHANNE		VEGETATION:		
\ \	<i>/</i> ·		Type:		
MID-CHANNEL SANDBAR	apid Currents 🗹	<u> </u>	Distance:	Feet	
SIDE CHA	River Side NNEL SANDBAR Center	₫ · `	FIELD CONDIT	ION:	
/ River Side □	Land Side (re: 85 ° F	
	+>+>		Rain: No		
		-	Wind: Ca	alm	
		, , ,	% Cloud:		
OTHER NOTES:					
Right Bank. Mid-channel, u			and bar at downs	tream end of	
9	111 1001				
State State of State	1 Na. 1017 - 1020 - 1020 - 1041 - 1041		400 - 1	LA side	
OBSERVERS:	Campen, Carpente	er, Fowlkes, Grubau	gh, Jones, Ruma		
RIVER GAGE READING:		sburg Location)	=======================================	8.1 R	
	(Gage	Location)		(Elevation)	

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/5/2006 TIME OF DAY: 15:43 RIVER MILE: 467.0 MS SITE NAME: Arcadia Point Dikes LOCALITY: Issaquena County/Parish State NUMBERS SIGHTED: Adults: 90 Latitude: 32.6250 WHERE SITED: Juveniles: Longitude: 91.1375 Eggs: Approximate Distance to Water: 200 Feet 22 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · V On Resting Area Sand: Calm Water Gravel: Debris: П Land Side .Center . VEGETATION: MID-CHANNEL Channel Side Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side Temperature: 86 °F Calm Water V Rain: No Wind: Calm % Cloud: 60 OTHER NOTES: Left Bank. Large, sand bar attached to downstream end of large wooded island. Colony 1 1/2 mile in length with varying width. Perimeter count yields nests riverside and middle of bar. Terns fishing over 1 mile downstream on dikes, and breasting, fishing riverside. No tracks or disturbance. Twelve Canada Geese. MS side OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik RIVER GAGE READING: Vicksburg 8.1 R (Gage Location) (Elevation)

			FLY	′ 🗆	BOAT	V
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)				
DATE: 7/5/2006	TIME OF DAY:	16:10	RIVER MILE: _		460.4	
LOCALITY: East Carro		_ SITE NAME:	Willow	Cutoff	Dikes	
County/Par	ish State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude	32.5361		Adults:	280		
Longitud	de: <u>91.1006</u>		Juveniles:	<u> </u>		
Approximate Distance to Wat	er: 100	Feet	Eggs: Nests:	5 5	2	
			Chicks:	-		
<u>IN FLIGHT</u> Over Sandbar ✓		Nest Area ✓	SUBSTRATE:			
Over Water - V	On Re	esting Area 🔲	Sand:	✓		
Calm Water		$\langle \langle \rangle \rangle$	Gravel:	✓		
Land Side	a		Debris:			
Channel Side	MID-CHANNE	<u> </u>	VEGETATION:			
MID-CHANNEL SANDBAR Rap	id Currents	7	Type:			
	River Side		Distance:	72.	Feet	
	NEL SANDBAR Center Land Side		FIELD CONDIT	ION:	1 1 2 2 1	
River Side ☐	Calm Water		Temperatu	ıre:	86 °F	
/ / / / / / 	77		Rain: No			
	1174	-4-4	Wind: C	alm		
			% Cloud:	60		
OTHER NOTES:						
Right Bank. Large, long, low, disturbance.	, flat, sand and gravel	bar. Perimeter coul	nt yields 2 on nes	sts. No	tracks or	
S					I A =:=!-	S 1
OBSERVERS:	Campen, Carpente	er, Fowlkes, Grubau	gh, Jones, Ruma	ıncik	LA side	
RIVER GAGE READING:		sburg			I R	
	(Gage	Location)	=	(Elev	ation)	

FLY □ BOAT ☑

SPECIES: Interior L	east Tern (Sterna	antillarum	athalassos)		
DATE: 7/5/200	6 TIME OF	DAY:	16:25	RIVER MILE: _	456.0
LOCALITY:	Warren	MS	_ SITE NAME:	Millik	ken Bend
9	County/Parish	State		NUMBERS SIGN	HTED:
WHERE CITED.	l atituda.	2 4742			68
WHERE SITED.	Latitude: 3 Longitude: 9			Juveniles:	
_				Eggs:	
Approximate Dista	nce to Water:	200	Feet	Nests:	32
	_			Chicks:	Yes
111 1111 1111			Nest Area ✓	SUBSTRATE:	
<u> </u>	er Water - 🔽	On Re	esting Area	Sand:	✓
Calm Wate	er 🗌		/i	Gravel:	✓
Land Side				Debris:	✓
Center Channel Side	·P'	MID CHANNE		VEGETATION:	
Charmer Side	7.	MID-CHANNE	- →	Type: Willo	ows
MID-CHANNEL SANI	DBAR Rapid Currents	River Side	∑ _	Distance:	500 Feet
بسياسم	SIDE CHANNEL SANDB	AR Center Land Side		FIELD CONDITI	ON:
River Side		Calm Water	~~. · ·	Temperatur	re: 86 ⁰ F
777	} 	7		Rain: No	
	ž	' / 7	7-7-7	Wind: Ca	ılm
				% Cloud:	70
OTHER NOTES:					
Left Bank. Unatta	ched point bar of gra chicks observed 1-2			along wrack lines.	No tracks or
					M0 -: 2-
OBSERVERS:	Campe	en, Carpente	er, Fowlkes, Grubau	gh, Jones, Rumar	MS side
RIVER GAGE REAL	Company of the Company	111	sburg		8.1R
	15 15 15 15 15 15 15 15 15 15 15 15 15 1	10000000	Location)	= =	(Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least T	ern (Sterna antillarum	athalassos)		
DATE: 7/5/2006	TIME OF DAY:	16:45	RIVER MILE:	446.5
LOCALITY: Mad	lison LA	SITE NAME:	Marshall (Cutoff Dikes
County	//Parish State		NUMBERS SIGH	TED:
WILEDE CITED: 1 -4	tuda. 22.40670		Adults:	
WHERE SITED: Lati	gitude: 90.99530		72	
			Eggs:	
Approximate Distance to	Water: 400	Feet	Nests:	70
			Chicks: _	No
IN FLIGHT Over Sandbar	ON GROUND OR	Nest Area	SUBSTRATE:	
Over Water	r. ☑ / On Ri	esting Area	Sand:	2
Calm Water		۷/ .II	Gravel:	
Land Side 🗆	\geq		Debris:	•
. Center . □	,	٦	VEGETATION:	
Channel Side	A MID-CHANNE	<u> </u>	Type:	
MID-CHANNEL SANDBAR	Rapid Currents	.		
1 10	River Side		Distance: _	Feet
SIDE C	HANNEL SANDBAR Center Land Side		FIELD CONDITIO	ON:
River Side 🗔	Calm Water		Temperature	e: 80 °F
7777	///// /		Rain: No	
	·		Wind: SW	10 mph
	N.		% Cloud: 5	and the second s
Nemarko e e e e e e e e e e e e e e e e e e e			70 Cloud. <u>5</u>	
OTHER NOTES:				
	, long, low sand bar (3 ft. en Instream. No tracks, but t			
5				LA side
OBSERVERS:	Campen, Carpent	er, Fowlkes, Grubau	gh, Jones, Ruman	cik
RIVER GAGE READING:	Vic	ksburg		8.1 R
	(Gage	Location)	-	(Elevation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/6/2006 TIME OF DAY: 10:14 RIVER MILE: 440.0 LA SITE NAME: False Point Dikes LOCALITY: Madison County/Parish State NUMBERS SIGHTED: 8 Adults: Latitude: 32.33000 WHERE SITED: Juveniles: _____ Longitude: 90.94648 Eggs: Approximate Distance to Water: 100 Feet Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents < MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side . Temperature: 79 °F River Side Calm Water Rain: No Wind: Calm % Cloud: 100 OTHER NOTES: Right Bank. Low gravel bar below last dike with 4 on nests, 4 more mobbing egrets at waterline. No tracks LA side OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren RIVER GAGE READING: Vicksburg 8.8 R (Gage Location) (Elevation)

		FLY BOAT
SPECIES: Interior Least Tern (S	Sterna antillarum athalassos)	
DATE: 7/6/2006 TIM	IE OF DAY:10:40	RIVER MILE: 432.5
	LA SITE NAME:	Racetrack Towhead Dikes
WHERE SITED: Latitude: Longitude: Approximate Distance to Water: IN FLIGHT Over Sandbar Over Water Calm Water Land Side Center Channel Side	90.94882 300 Feet ON GROUND On Nest Area On Resting Area MID-CHANNEL urrents	NUMBERS SIGHTED: Adults:
River Side	River Side SANDBAR Center Land Side Calm Water	FIELD CONDITION: Temperature: 79 ° F Rain: No Wind: Calm % Cloud: 100
		veen 1st and 2nd dikes. Attached with campers at waterline just downstream.
OBSERVERS:	Fowlkes, Haglund, Jones, Milburn, I	5
RIVER GAGE READING:	Vicksburg	= 8.8 R
	(Gage Location)	(Elevation)

FLY □ BOAT ☑

SPECIES: Interior L	east Tern (Sterna	antillarum atha	alassos)		
DATE: 7/6/200	6 TIME OF I	DAY:1	0:54	RIVER MILE:	429.5
	Warren County/Parish	MS State	SITE NAME:	Below Ra	cetrack Dikes
	Manager 1 (Marie)			NUMBERS SIGH	ITED:
WHERE SITED:	Latitude: 32	2.2389		Adults:	24
	Longitude: 90).9694		Juveniles:	
D: .	250 de	48 - C 10 C		Eggs:	
Approximate Dista	nce to Water:	300 Fe	<u>et</u>	Nests:	8
				Chicks:	No
111 1111 1111		ROUND On Nest	27-30	SUBSTRATE:	
<u> </u>	er Water · 🔽	On Resting	Area	Sand:	
Calm Wate	r 🗌		/ .	Gravel:	Z
Land Side			\sim	Debris:	Z
Center	.⊉′	No consideration that the second	. 1	VEGETATION:	
Channel Side	· · · / / /	MID-CHANNEL ✓	· ->-		onwoods/grass
MID-CHANNEL SAND	BAR Rapid Currents	✓ River Side ✓			200 Feet
إسباسم	SIDE CHANNEL SANDBA	R Center 🗹		FIELD CONDITION	ON:
/ River Side		Calm Water	~~~	Temperatur	e: 79 °F
777	+			Rain: No	
	/ /	كبكر	 	Wind: <u>Ca</u>	lm
L				% Cloud:	100
OTHER NOTES: Left Bank. Low se	ries of flat, unattache	d, incised sand	bars (max. elev	. 8 ft.). Perimeter	count conducted on
dispersed colony 3	3 miles long by 500 ft No tracks or disturb	wide. Terns ob			
					MS side
OBSERVERS:	Fowl	kes, Haglund, J	ones, Milburn, F	Rumancik, Warrer	i .
RIVER GAGE READ	DING:	Vicksbu	rg	=	8.8 R
		(Gage Loca	ation)	=	(Elevation)

			FLY	BOAT 🗹
SPECIES: Interior Least 1	ern (Sterna antillaru	m athalassos)		
DATE: 7/6/2006	TIME OF DAY:	11:10	RIVER MILE:	425.0
LOCALITY: Wa	rren MS	SITE NAME:	Oak Be	end
County	//Parish State		NUMBERS SIGHTE	D:
WHERE SITED: Lati	itude:		Adults:	12
	ngitude:		Juveniles:	
LOI	igitude.		Eggs:	
Approximate Distance to	Water:	Feet	Nests:	0
		1	Chicks:	No
IN FLIGHT Over Sandbar	- CN CROOND	On Nest Area	SUBSTRATE:	
Over Wate	r. ☑ / On	Resting Area	Sand:	
Calm Water		~< / .	Gravel:	
	\geq		Debris:	
Land Side			1011B - S. S. BANGARAS AV	
Channel Side	MID-CHAN	NEL 🗆 🔐	VEGETATION:	
	Rapid Currents	7	Type:	
MID-CHANNEL SANDBAR	/ 		Distance:	Feet
SIDE C	HANNEL SANDBAR Center			
/ River Side □	Land Sid		FIELD CONDITION:	1221
	Calm Wat	er ☑ È~ù	Temperature: _	79 F
1777	71717		Rain: No	
	117	7-7-7-	Wind: Calm	
			% Cloud: 100	
20			77 FIGURE 1	
OTHER NOTES:				
Right Bank. Twelve Terr	ns flying over back chute	e of Oak Bend.		
9				
ODOED//EDG	Faudras U	dund Jones Milhum I	Pumanaik Marrar	LA side
OBSERVERS:	Fowikes, Hag	glund, Jones, Milburn, F	and the state of t	
RIVER GAGE READING:		/icksburg		3.8 R
	(Gag	ge Location)	(Ele	evation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 11:15 RIVER MILE: 422.5 7/6/2006 MS LOCALITY: Warren SITE NAME: Diamond Point Cutoff Dikes County/Parish State NUMBERS SIGHTED: Adults: 17 WHERE SITED: Latitude: 32.1503 Juveniles: _____ Longitude: 91.0085 Eggs: Approximate Distance to Water: 300 Feet 1 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side V Temperature: 79 °F River Side Calm Water V Rain: No Wind: Calm % Cloud: 100 OTHER NOTES: Left Bank. Medium-size (3 ft. elevation), unattached sand bar with terns flying on chute side. No tracks or signs of disturbance. MS side OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren RIVER GAGE READING: Vicksburg 8.8 R (Gage Location) (Elevation)

			FLY		BOAT	~
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)				
DATE: 7/6/2006	TIME OF DAY:	11:18	RIVER MILE: _		419.0	
LOCALITY: Madison	LA	SITE NAME:	Newto	n Bend	Dikes	
County/Par	ish State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude	32.1367		Adults:	5 6	11	
	le: 91.0100		Juveniles:	5 <u>7</u>		
Approximate Distance to Wat	er: <u>300</u>	Feet	Eggs: Nests:) (0	
			Chicks:			
IN FLIGHT Over Sandbar	ON GROUND On	Nest Area	SUBSTRATE:			
Over Water · 🗸	/_/_ On Re	sting Area	Sand:	~		
Calm Water		4/ /II - I	Gravel:			
Land Side	3	\sim	Debris:			
Channel Side	MID-CHANNE		VEGETATION:			
MID-CHANNEL SANDBAR Rap	id Currents . ✓	7	Type:			
7 L	River Side [<u> </u>	Distance:	70	Feet	
	IEL SANDBAR Center Land Side		FIELD CONDIT	ION:		
River Side 🔲	Calm Water		Temperatu	ıre:	79 °F	
1777	7+7+		Rain: Yes	5		
	1174	7-7-	Wind: C	alm		
			% Cloud:	100		
OTHER NOTES:						
Right Bank. Medium-sized, a on opposite bank revetment.	ttached sand bar (6 ft	. elev.). Terns in flig	tht at waterline.	Гwo Bla	ck Vulture	es
5					I A =:=!-	
OBSERVERS:	Fowlkes, Haglur	nd, Jones, Milburn, F	Rumancik, Warre	en	LA side	
RIVER GAGE READING:	1	sburg		8.8	R	
	187978	Location)		(Eleva		

			FLY 🗌	BOAT 🗸
SPECIES: Interior Least 1	ern (Sterna antillarum	athalassos)		
DATE: 7/6/2006	TIME OF DAY:	11:30	RIVER MILE:	414.0
LOCALITY: Ter	nsas LA	SITE NAME:	Togo Islan	nd Dikes
County	//Parish State		NUMBERS SIGHTE	ED:
WHERE SITED: Lati	itudo: 22 1072		Adults:	90
	ngitude: 91.0997		Juveniles:	
		-B	Eggs:	
Approximate Distance to	Water: 300	Feet	Nests:	39
			Chicks:	No
IN FLIGHT Over Sandba	- SEE	n Nest Area	SUBSTRATE:	
Over Wate	r. ☑ / On R	esting Area	Sand:	
Calm Water		∠ / .ll	Gravel:	
Land Side 🖂	<u> </u>		Debris:	
. Center . □		_ 1	VEGETATION:	
Channel Side	MID-CHANNE	<u> </u>	Type:	
MID-CHANNEL SANDBAR	Rapid Currents 🔽			
1 0	River Side		Distance:	Feet
SIDE C	HANNEL SANDBAR Center	☑ : `	FIELD CONDITION	
River Side 🖳	Land Side Calm Water		Temperature:	1 221
7777	7+7-7-		Rain: Yes	
10 1850 18	1 / 75		Wind: Calm	
			% Cloud: 100	Í
OTHER NOTES:			A-10-1-10-10-10-10-10-10-10-10-10-10-10-1	
	s), broad, mostly attached	d sand and gravel ha	r (6 ft elev) with cold	ony dispersed
	activity in back chute, co			
5				MS side
OBSERVERS:	Fowlkes, Haglu	ınd, Jones, Milburn, F	Rumancik, Warren	*
RIVER GAGE READING:	Vic	ksburg		8.8 R
	(Gage	Location)	_ (E	levation)

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/6/2006 TIME OF DAY: 11:42 RIVER MILE: 409.5 MS LOCALITY: Claiborne SITE NAME: Yucatan Dikes County/Parish State NUMBERS SIGHTED: Adults: 10 WHERE SITED: Latitude: 32.0589 Juveniles: Longitude: 91.0628 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Willows Rapid Currents < MID-CHANNEL SANDBAR Distance: 500 Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -Temperature: ___80 °F River Side Calm Water Rain: Yes Wind: Calm % Cloud: 100 OTHER NOTES: Right Bank. Upstream attached point of Middle Ground Island. Six flying along waterline, 4 resting. LA side OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren RIVER GAGE READING: Vicksburg 8.8R (Gage Location) (Elevation)

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum atha	alassos)		
DATE: 7/6/2006	ΓΙΜΕ OF DAY:1	2:10	RIVER MILE:	402.0
LOCALITY:Tensas	LA	SITE NAME:	Coffee F	Point Dikes
WHERE SITED: Latitude: Longitud Approximate Distance to Wate IN FLIGHT Over Sandbar Over Water Calm Water Land Side Center Channel Side MID-CHANNEL SANDBAR Rapi SIDE CHANN River Side SIDE CHANN	31.98511 e: 91.13611 er: 200 Fer	et Area ☑ Area □	NUMBERS SIGHT Adults: Juveniles: Eggs: Nests: Chicks: SUBSTRATE: Sand: Gravel: Debris: VEGETATION: Type: Distance: FIELD CONDITION	7
OTHER NOTES: Right Bank. Series of gravel a waterline, with 2 nesting inland			s. Most birds coun	nted resting at
				LA side
OBSERVERS:	Fowlkes, Haglund, J	lones, Milburn, F	Rumancik, Warren	_ · · · · · · · · · · · · · · ·
RIVER GAGE READING:	Vicksbu		=	8.8 R
	(Gage Loca	ation)		(Elevation)

			FL)	/ 	BOAT	~
SPECIES: Interior Least Tern (S	iterna antillarum a	thalassos)				
DATE: 7/6/2006 TIM	E OF DAY:	12:38	RIVER MILE:		398.0	
LOCALITY: Claiborne	MS	SITE NAME:	Below G	rand Gu	ulf Dikes	
County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude:	31.96746		Adults:	58	106	
	91.18238		Juveniles:	19 VV		
Approximate Distance to Water:	500	Feet	Eggs:	58	16	
	3		Nests: Chicks:		16 No	
IN FLIGHT Over Sandbar ✓	ON GROUND On N	Nest Area ✓	SUBSTRATE:	52		
Over Water · 🗸	/ On Res	sting Area	Sand:	~		
Calm Water		⟨/ .	Gravel:			
Land Side			Debris:			
Center .	MID-CHANNEL		VEGETATION:	ć		
		□ →	Type:			
MID-CHANNEL SANDBAR	urrents ✓ ↓	<u>. </u>	Distance:	70-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	Feet	
II	River Side SANDBAR Center		FIELD CONDIT	TION:		
River Side	Land Side C	النسينا	Temperati		80 °F	
77777			Rain: No			
	1174	·	Wind: _C	alm		
	1.0	, , ,	% Cloud:			
OTHER NOTES:				- V		
Left Bank. Medium-size (5 ft. ele but 16 on nests. Canine, Coyote						e,
OBSERVERS:	Fowlkes Hadium	d, Jones, Milburn, F	Rumancik Warr	-n	MS side)
RIVER GAGE READING:	111	sburg	tanianom, want		3 R	3
THE CHOLINE TENDING.		ocation)	= = =	100 100	ation)	

			FLY	□ BOAT ✓
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)		
DATE: 7/6/2006	TIME OF DAY:	12:55	RIVER MILE:	393.5
LOCALITY: Tensas		SITE NAME:	Bondurant 1	Towhead Dikes
County/Par	ish State		NUMBERS SIGH	ITED:
WHERE SITED: Latitude	31 80064		Adults:	68
	de: 91.20785		Juveniles:	
	991 Servicio 4708 e nello 450 de como 10	9	Eggs: _	
Approximate Distance to Wat	er: 200	<u>Feet</u>	Nests:	2
			Chicks:	No
<u>IN FLIGHT</u> Over Sandbar ✓	<u>OR OROGNE</u>	Nest Area	SUBSTRATE:	
Over Water - 🔽	/ / On Re	esting Area	Sand:	
Calm Water		4/ 』	Gravel:	
Land Side 🗆	5		Debris:	
Center . D		٦	VEGETATION:	
Channel Side	MID-CHANNE	<u> </u>	Type:	
MID-CHANNEL SANDBAR Rap	id Currents	.		
1 1	River Side		Distance: _	Feet
SIDE CHANN	VEL SANDBAR Center		FIELD CONDITIO	ON:
/ River Side ☐	Calm Water		Temperature	e: 81 °F
77777	7+74		Rain: No	
	1177	·7-7-	Wind: Cal	m
			% Cloud: 1	100
OTHER NOTES:				
Right Bank. Low, flat, gently	sloping (1 1/2 ft elev	ation) gravel bar wit	h Terns breasting	and fishing channel
side. No tracks observed. To	wo Black Terns.	anony grano, san		
<i>5</i>				
OBSERVERS:	Fowlkes Haglu	nd, Jones, Milburn, F	Rumancik Warren	LA side
OBSERVERS:	1.1	11. 10. 11.11	tamanon, wanti	
RIVER GAGE READING:	5.36 data	tchez Location)	= -	15.5 R
	(Gage	Location)		(Elevation)

			FLY L	BOAT 🗸
SPECIES: Interior Least Tern	(Sterna antillarum atl	nalassos)		
DATE: 7/6/2006 T	IME OF DAY:	13:20	RIVER MILE:	384.2
LOCALITY:Jefferson	MS	SITE NAME:	Spithead Towl	nead Dikes
County/Paris	h State		NUMBERS SIGHTE	D:
WHERE SITED: Latitude:	31.84327		Adults:	
Longitude	91.34509			
Approximate Distance to Wate	r: <u>200</u> F	eet	G.57.5	10
			Chicks:	Yes
IN FLIGHT Over Sandbar ✓	ON GROUND On Ne	22-32	SUBSTRATE:	
Over Water . 🗸	On Restir	ng Area	Sand: ☑	
Calm Water		$\langle \rangle \parallel$	Gravel:	
Land Side		\sim	Debris:	
Channel Side	MID-CHANNEL [VEGETATION:	
Rapid	Currents 🗸	→	Type: Willows/	grasses
MID-CHANNEL SANDBAR	River Side 🗹		Distance: 60	Feet
SIDE CHANNE	Land Side		FIELD CONDITION:	
River Side ☐	Calm Water		Temperature: _	81 °F
7777	7+74-		Rain: No	
			Wind: Calm	
			% Cloud: <u>50</u>	
OTHER NOTES:				
Left Bank. Huge, long, high (6 Colony dispersed along centra			with patches of mud a	nd gravel.
57 57				MC eld-
OBSERVERS:	Fowlkes, Haglund,	Jones, Milburn, F	Rumancik, Warren	MS side
RIVER GAGE READING:	Natch	1	100 100	5.5 R
and the control of th	(Gage Lo	cation)		evation)

			FL	Υ	BOAT	~
SPECIES: Interior Least Tern	(Sterna antillarum	athalassos)				
DATE: 7/6/2006	TIME OF DAY:	14:20	RIVER MILE:		378.0	
LOCALITY: Tensas	LA	SITE NAME:	Wate	rproof [Dikes	
County/Pari	ish State		NUMBERS SIG	SHTED:		
WHERE SITED: Latitude	21 7604		Adults:			
WHERE SITED: Latitude			Juveniles:			
	le: 91.3708		Eggs:	F2		
Approximate Distance to Wat	er: 400	Feet	Nests:	<u> </u>	4	
			Chicks:	ī .	No	
IN FLIGHT Over Sandbar ✓		Nest Area ✓	SUBSTRATE:			
Over Water - V	/ / On Re	esting Area	Sand:	V		
Calm Water		47.1	Gravel:			
Land Side	5		Debris:	✓		
Channel Side	MID-CHANNE	L II	VEGETATION			
\ /		-	Туре:			
MID-CHANNEL SANDBAR	id Currents 🗸		Distance:	<u>~</u>	Feet	
SIDE CHANN	IEL SANDBAR Center Land Side		FIELD CONDIT	TION:		
River Side	Calm Water		Temperat	ure:	81 °F	
7777	777		Rain: No	ļ.		
	1 1 7		Wind: C	Calm		
			% Cloud:	50		
OTHER NOTES:						
Right Bank. Attached sand b wrack lines. Coyote in colony			water line, 4 sitti	ng inlan	id along w	eak_
S						
15 55	(A)	112 VII 110 VI	27 S.	X-111	LA side	
OBSERVERS:	Fowlkes, Haglu	nd, Jones, Milburn, F	Rumancik, Warr	en		
RIVER GAGE READING:	S. School	tchez		15.	5 R	
	(Gage	Location)		(Elev	ation)	

FLY □ BOAT ✓ SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/6/2006 TIME OF DAY: 14:33 RIVER MILE: 372.5 LOCALITY: _____ Adams ____ MS ___ SITE NAME: ____ Farichilds Bend County/Parish State NUMBERS SIGHTED: ____18 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: Debris: Land Side Center . VEGETATION: MID-CHANNEL Channel Side 'V Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side -River Side V Temperature: 81 °F Calm Water Rain: No Wind: Calm % Cloud: 50 OTHER NOTES: Left Bank. Unattached, mid-channel sand bar. No reproductive activity noted. All birds resting at waterline. MS side Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren OBSERVERS: _____ RIVER GAGE READING: Natchez 15.5 R (Gage Location) (Elevation)

			FLY [BOAT	~
SPECIES: Interior Least 1	Tern (Sterna antillarum	athalassos)			
DATE: 7/7/2006	TIME OF DAY:	9:06	RIVER MILE:	357.0	
LOCALITY: Ad	ams MS	SITE NAME:	Carthage	Point Dikes	
County	//Parish State		NUMBERS SIGHT	TED:	
WHERE SITED: Lati	itude: 31 5197		Adults:	69	
	ngitude: 91.4103		Juveniles: _		
			Eggs:		
Approximate Distance to	Water:30	Feet	Nests:	17	
			Chicks:	No	
IN FLIGHT Over Sandba	- 52-26 W - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n Nest Area ✓	SUBSTRATE:		
V / / Over Wate	r. ☑ / On R 4 / / /	esting Area	Sand:]	
Calm Water		۷/.II	Gravel:]	
Land Side			Debris:]	
Channel Side	A MID-CHANNE		VEGETATION:		
\	×	→	Туре:		
MID-CHANNEL SANDBAR	Rapid Currents River Side		Distance:	Feet	
SIDE C	HANNEL SANDBAR Center		FIELD CONDITIO	N:	
River Side ☑	Land Side	· · ·		: 79 °F	
7777	7 7 7 7 7		Rain: No		
	/ / / 7	<u> </u>	Wind: S5	- 10 mph	
			% Cloud: 7	5	
OTHER NOTES:					
	dium size sand bar (4 ft. e	lov) Mobbing of oar	ote camping sign	and ATV/ tracks	
abundant. Perimeter co		lev.) Mobbing of egr	ets, camping sign,	and ATV tracks	
5				MS side	
OBSERVERS:	Carpenter, Fowlkes, Gruba	augh, Haglund, Jones	s, Milburn, Rumano	Property and the second state of the second st	
RIVER GAGE READING:	Na	atchez	<u> </u>	16.1R	
	(Gage	Location)		(Elevation)	

				FLY	BOAT	~
SPECIES: II	nterior Least Te	ern (Sterna antillarui	n athalassos)			
DATE:	7/7/2006	TIME OF DAY:	9:40	RIVER MILE: _	349.0	
LOCALITY:	Ada	ms MS	SITE NAME:	Opposite Warn	nicott Landing D	ikes
	County/	Parish State		NUMBERS SIGN	HTED:	
WHERE SIT	ED: Latitu	ude: 31.4208		Adults:	13	
WILLIAM OIL		itude: 91.4950	 }∜	Juveniles:		
				Eggs:		
Approxima	te Distance to \	Vater:	Feet	Nests:	0	
				Chicks:	No	
IN FLIGHT	100000000000000000000000000000000000000	<u>ON ONOOND</u>	On Nest Area	SUBSTRATE:		
K4_4	Over Water	- / _ / On	Resting Area	Sand:	✓	
С	alm Water 🗌	<u></u> -	≺ ./ .	Gravel:		
1	Land Side	\geq		Debris:		
Chi	Center	A MID-CHANN	NEL 🗸	VEGETATION:		
\ \-		×	→	Type:		
MID-CHANN	NEL SANDBAR	Rapid Currents River Side	<u> </u>	Distance:	Feet	
ہر	SIDE CH	ANNEL SANDBAR Center Land Side		FIELD CONDITI	ON:	
Rive	er Side □	Calm Wate		Temperatur	re: 82 ° F	
	777	7777		Rain: No		
		, , ,		Wind: S	5 mph	
<u> </u>				% Cloud:	10	
OTHER NOT	TES:					
Left Bank.	Large, attache	d bar of sand and mud d resting bar only. One	at head of Island with Bald Eagle also obse	back chute. Largerved.	ge colony previo	ous
8					52 SECTION 1	
	Mary Character Control	SEPON STIRES NO. 1		ALL POSTER AND	MS sid	e
OBSERVER	S: Ca	arpenter, Fowlkes, Grul	oaugh, Haglund, Jone	s, <mark>Milburn, Ruma</mark> r	ncik, Warren	
RIVER GAG	E READING:	N	latchez		16.1 R	
		(Gag	e Location)		(Elevation)	

			FLY	′ 🗆	BOAT	~
SPECIES: Interior Least Tern (Sterna antillarum a	athalassos)				
DATE: 7/7/2006 TII	ME OF DAY:	9:50	RIVER MILE: _	3	47.5	
LOCALITY:Concordia	LA	SITE NAME:	Espe	rance Po	oint	
County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED: Latitude:	31.3580		Adults:) .	73	
	91.4848		Juveniles:	<u> </u>		
Approximate Distance to Water:		Feet	Eggs:	7 2	2000	
Approximate distance to Water.	100	1 000		V <u>:</u>		
www.com Over Condition			Chicks:	5 8	No	
<u>IN FLIGHT</u> Over Sandbar ✓ Over Water ✓		Nest Area ✓ sting Area ☐	SUBSTRATE:			
		sung Area		✓		
Calm Water		$\langle \langle \rangle \rangle$	1000 TO 100	✓		
Land Side 🗆		\sim	Debris:			
Channel Side	MID-CHANNEL		VEGETATION:			
		`	Type:			
MID-CHANNEL SANDBAR	Currents ☑ ¬↓↓		Distance:		Feet	
SIDE CHANNEL	River Side SANDBAR Center					
River Side	Land Side		FIELD CONDIT		- 0-	
	Calm Water	□ `∀ં⊍	Temperatu	ire:8	32 °F	
1 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7		Rain: No			
	1174	7-7-	Wind: S	5 mph		
			% Cloud:	10		
OTHER NOTES:						
Right Bank. Unattached series	of small gravel and	sand bars, extreme	ly undulating and	dissecte	ed Muc	:h
courting behavior. Twelve Turk						
						
ST THE SERVICE WARREN SALTS	and Loren of Control of the Control		NOT BE THE SPECIAL SECTION OF		LA side	
OBSERVERS: Carpent	er, Fowlkes, Grubau	igh, Haglund, Jones	s, Milburn, Ruma	ncik, Wa	rren	
RIVER GAGE READING:		chez		16.1	R	
	(Gage L	ocation)		(Elevat	ion)	

					FL)	Y BOAT
SPECIES: I	nterior Least Te	ern <i>(Sterna anti</i>	llarum a	athalassos)		
DATE:	7/7/2006	TIME OF DAY	`	10:02	RIVER MILE:	341.3
LOCALITY:	Ada	ms	MS	SITE NAME:	Was	hout Bayou
	County/	Parish	State		NUMBERS SIG	SHTED:
WHERE CIT	TD: Latit	da.				3
WHERE SII		ude: gitude:			Juveniles:	
					Eggs:	-
Approxima	te Distance to	Water:		Feet	Nests:	0
					Chicks:	No
IN FLIGHT		- ON OROOI	<u>ND</u> On	Nest Area	SUBSTRATE:	
K2 2	Over Water	· 2 ///	On Re	sting Area	Sand:	
	Calm Water	- 	-	4/ .	Gravel:	
7	Land Side	<u>~</u>			Debris:	
6	.Center . 🖵			_ 1	VEGETATION:	
Ch.	annel Side	A MID-C	CHANNEL	. →	Type:	
MID-CHANN	NEL SANDBAR	Rapid Currents	_		1000	
1	10	Riv	er Side		Distance:	Feet
J 7	SIDE CH	IANNEL SANDBAR C	enter ∟ nd Side √		FIELD CONDIT	ΓΙΟΝ:
/ Rive	er Side 🔲	~ (~)	n Water [Temperate	ure: 81 ^O F
7		///// /	(<u></u>	Rain: No	ı
\$, , ,	1/7	7 -		Wind: S	5 5 mph
			8	/ / _		
2				4,	% Cloud:	10
OTHER NO	TES:					
Left Bank.	Entrance to W	ashout Bayou. Th	ree Ter	ns in transit.		
0						
<u></u>						MS side
OBSERVER	:S:C	arpenter, Fowlkes,	Grubau	ugh, Haglund, Jones	s, Milburn, Ruma	ancik, Warren
RIVER GAG	E READING:	(8	Nat	chez	-	16.1 R
			(Gage L	ocation)	u	(Elevation)

				FL	<i>(</i> \Box	BOAT	~
SPECIES: Interior L	east Tern (Sterna	antillarum ath	alassos)				
DATE: 7/7/200	6 TIME OF	DAY:	10:07	RIVER MILE:		336.5	
LOCALITY:	Concordia	LA	SITE NAME:	Fritz	Island D	ikes	
(County/Parish	State		NUMBERS SIG	HTED:		
WHERE SITED:	Latitude: 3	1 26087		Adults:	2	165	
	Longitude: 9			Juveniles:) V <u>r</u>		
	2000 per 500	1.8	1100	Eggs:	5 2		
Approximate Dista	nce to Water:	100 Fe	<u>eet</u>	Nests:	7 <u>1</u>	36	
				Chicks:	7 8	No	
IN FLIGHT Over S			st Area 🔽	SUBSTRATE:			
/_/ /_/ Ove	er Water · 🔽	On Restin	g Area	Sand:	✓		
Calm Wate	er 🗆 ————		./ .	Gravel:			
Land Side				Debris:			
Center Channel Side		MID-CHANNEL	,	VEGETATION:			
			¯ →	Type:			
MID-CHANNEL SAND	DBAR Rapid Currents	River Side		Distance:	ene.	Feet	
بسبسم	SIDE CHANNEL SANDE	BAR Center 🗸		FIELD CONDIT	ION:		
/ River Side		Land Side □_ Calm Water ☑		Temperato		80 °F	
777	/- / + / + /		<u> </u>	Rain: No	9		
				Wind: S	5 mph		
				% Cloud:	10		
OTHER NOTES:							
Right Bank. Attacl	hed, medium high (8 er point (1 mile dow						nd
5 5						- المنام ا	
ODCEDVEDO:	Carpenter Fo	ulkee Grubauah	n, Haglund, Jones	Milhurn Duma	noik M	LA side	9
OBSERVERS:				s, minibulti, Mullia			
RIVER GAGE READ	DING:	Natch		=	16.1	E41 1 40	
		(Gage Loc	cation)		(Eleva	ition)	

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/7/2006 TIME OF DAY: 10:53 RIVER MILE: 329.0 __MS SITE NAME: Jackson Point LOCALITY: Adams County/Parish State NUMBERS SIGHTED: 26 Adults: Latitude: 31.2411 WHERE SITED: Juveniles: Longitude: 91.6475 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: IN FLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side .Center . VEGETATION: MID-CHANNEL Channel Side 'V Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side · Temperature: ___82 OF River Side Calm Water Rain: No Wind: S 5 mph % Cloud: 10 OTHER NOTES: Left Bank. Mid-channel, isolated point bar, attached, resting only. No reproductive activity or disturbance MS side OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren RIVER GAGE READING: Natchez 16.1 R (Gage Location) (Elevation)

			FLY	BOAT	~
SPECIES: Interior Least Tern (St	erna antillarum a	athalassos)			
DATE: 7/7/2006 TIME	E OF DAY:	11:10	RIVER MILE: _	322.0	
LOCALITY: Concordia	LA	SITE NAME:	Homod	chito Cuttoff	
County/Parish	State		NUMBERS SIG	HTED:	
WHERE CITED: Letitude:	24 4742		Adults:	16	
WHERE SITED: Latitude:			Juveniles:	<u> </u>	
Longitude	91.5947		Eggs:	2(3) 1(2)	
Approximate Distance to Water:	50	Feet	Nests:	3	
			Chicks:	Yes	
27.32		Nest Area ✓	SUBSTRATE:		
Over Water · 🗸	On Res	sting Area	Sand:	✓	
Calm Water		47.1	Gravel:	✓	
Land Side			Debris:		
Channel Side	MID-CHANNEL		VEGETATION:		
		` " →	Type:		
MID-CHANNEL SANDBAR Rapid Cur	rents	<u>``</u>	Distance:	Feet	
SIDE CHANNEL S.	ANDBAR Center		FIELD CONDITI	ION:	
River Side ☑	Land Side Calm Water			re: 82 ° F	
77777	7		Rain: No		
	/ / /-	7-7-7	Wind: S	5 mph	
			% Cloud:	20	
OTHER NOTES:					
Right Bank. Riverside sand bar (5 of age and nests with eggs. No traflight.					
23				LA side	
OBSERVERS: Carpenter,	Fowlkes Gruba	igh, Haglund, Jones	Milhurn Ruma	The state of the s	3
	- 111	III.	, missin, Numai		
RIVER GAGE READING:	5.02.00000	chez .ocation)	=	16.1 R (Elevation)	

			FLY	BOAT	~
SPECIES: Interior Least Tern (Ste	erna antillarum athalassos)				
DATE: 7/15/2006 TIME	OF DAY: 9:35	RI\	/ER MILE:	305.0	
LOCALITY: West Feliciana	LA SITE	NAME:	Shreves	Bar	
County/Parish	State	NU	MBERS SIGHTE	D:	
WHERE SITED: Latitude:	30.9960		Adults:	32	
	91.6441		Juveniles:		
***	040 504, FB 65104 30		Eggs:		
Approximate Distance to Water:	200 Feet		Nests:	2	
			Chicks:	No	
111 1111 1111	ON GROUND On Nest Area	SU	BSTRATE:		
Over Water · 🗸	On Resting Area		Sand: ✓		
Calm Water			Gravel:		
Land Side 🗆	\sim		Debris:		
Center .	MID OUANINE	VE	GETATION:		
Channel Side ✓	MID-CHANNEL ☐ →	1877	Type:		
MID-CHANNEL SANDBAR Rapid Curre	ents 🗌		1000		
	River Side 🗌		Distance:	reet	
SIDE CHANNEL SA	NDBAR Center L	FIE	LD CONDITION:		
River Side	Calm Water		Temperature: _	85 °F	
77777			Rain: No		
 	7777		Wind: Calm		
			% Cloud: 50		
OTHER NOTES:					
Left Bank. Attached, upstream poi	nt of large island. Medium hi	gh bar with	most birds resting	at waterlin	e. 2
sitting inland on scrapes. No tracks				3	
OBSERVERS:	Jones, T	alley			*
RIVER GAGE READING:	Natchez		1	4.8 F	
	(Gage Location)		(Ele	evation)	_

			FL'	Y 🗆	BOAT	~
SPECIES: Interior Least Tern (Sterna	antillarum at	halassos)				
DATE: 7/15/2006 TIME OF	DAY:	10:34	RIVER MILE:		300.5	
LOCALITY: West Feliciana	LA	SITE NAME:	Hog	Point D	ikes	
County/Parish	State		NUMBERS SIG	HTED:		
			Adults:			
WHERE SITED: Latitude:			Juveniles:) (0		
Longitude:	91.6450		Eggs:	S47 <u>S</u>		
Approximate Distance to Water:	150 F	eet	Nests:) (13	
			Chicks:		Yes	
<u>IN FLIGHT</u> Over Sandbar ✓ <u>ON C</u>	GROUND On N	est Area	SUBSTRATE:			
∠ / / Over Water · ☑ /	On Rest	ing Area 🔲	Sand:	~		
Calm Water		(/	Gravel:			
Land Side 🗆		\sim	Debris:			
. Center .			VEGETATION:			
Channel Side 🗆	MID-CHANNEL	╵→║	Type: Wil			
MID-CHANNEL SANDBAR Rapid Currents	. ✓	*			F	
	River Side 🗸	\	Distance:	200	reet	
SIDE CHANNEL SANDE	BAR Center 💆		FIELD CONDIT	TION:		
River Side	Calm Water	~~. · ·	Temperate	ure:	85 °F	
777777			Rain: No	<u></u>		
/	174	7-7-7	Wind: C	alm		
			% Cloud:	50		
OTHER NOTES:						
	f woodod islan	d with large open	haak ahuta. Na	ete all a	oroce bor	
Left Bank. Attached, upstream point of chicks abundant 1-2 weeks old, utilizing				SIS all a	ICIOSS Dai	1
-						8
OBSERVERS:		Jones, Talley				
RIVER GAGE READING:	Natc	hez		14.	8 F	
	(Gage Lo	ocation)		(Eleva	ation)	