

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

2011

By

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Contract No. W912EQ-08-C-0020  
Task Order No. 3001

July, August 2011



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On and between July 24 and August 7, 2011, a survey crew, lead by Kenneth H. Jones, Associate Professor of Biology at Dyersburg State Community College, under contract with Choctaw Transportation Company, conducted a survey of interior Least Tern (*Sternula 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 27th consecutive annual count since the surveys were initiated in 1985 by the Army Corps of Engineers. The survey area extends 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 Kenneth Jones, Associate Professor of Biology, Dyersburg State Community College. Observers and crew members of this year's survey included John Rumancik, retired biologist with the Memphis District Corps of Engineers, Jimmy and Leila Boyd, Mark Campen, Dennis and Regina Davin, Zack Fowlkes and Kenneth and Wanda Jones.

This year's survey yielded a total count of 12,247 Least Terns and 45 nesting colonies, more colonies than last year's survey, which was 22, but less in total numbers. However, due to the very late survey dates in 2010, much of that count included juveniles hatched earlier in the season. This year very few juveniles were observed and most of the total count were adults. Twenty-nine colonies were identified based on the presence of eggs and/or chicks (Tables 1 and 2). Sixteen 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 at Nebraska Point Dikes (RM 807.7) with 888 adult terns counted. Other large colonies included

St. Frances Bend (RM 672.0) with 874 birds, Oldtown Dikes (RM 646.0) with 728, and Island 84 Dikes (RM 533.0) and Ajax Bar Dikes Lower (RM 481.0), both with 650 Least Terns. The smallest colonies were at Ajax Bar Dikes Upper (RM 482.0), and Seven Oaks Dikes (RM 523.5), with just 8 and 12 birds.

The timing of this year's survey was similar to last year's survey due to the late, higher than normal, summer river stages. In previous years, the survey was begun within 2 weeks of the river stage at Memphis, Tn falling to 14 feet or less. Last year, the river stage at Memphis did not fall below 14 feet until August 12, 2010. This year the Memphis gage fell to 14 feet on July 26, 2011. The survey was initiated July 24 in anticipation of the falling stages.

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 sitting inland during waterline drift counts. Foraged fingerling fish dropped within the colony were identified and/or collected. Colony locations were marked on 2007 Flood Control and Navigation Maps of the Mississippi River, 62nd edition, USACE. Data sheets and colony locations are found in Appendix A.

The average number of adult terns per colony was 237, with colony sizes ranging from as little as 8 adults to as many as 888. 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 24, 2011, with the river stage at Memphis, Tennessee at 14.8 and falling (Table 3). For the entire duration of the survey, the river stages were falling, with daily changes of eight-tenths of a foot or less, or stable. The survey proceeded downstream during daylight hours from Cairo, Ill., to above Baton Rouge, La., (RM 300) at an average pace of 82 miles per day.

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 “drift 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. All individual counts were recorded privately so as not to influence other crew members’ observations, then compared and counts discussed. All individual observer counts were recorded on data sheets. In most cases all observers were within 10% or less of the recorded high count.

The presence of eggs, or chicks was considered confirmation of nesting activity. Intense mobbing, wetting of breast feathers, the presence of fresh scrapes or fledged juveniles were also considered to indicate an active nest colony at the 16 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. 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.

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. Twelve thousand two hundred forty-seven (12,247) Least Terns were recorded at 71 locations (Table 1, Figure 1). Of these, 45 sites were identified as nesting colonies with 10,680 adults, 26 sites as resting bars only with 1,567 adults, and 53 observations of 312 birds that could not be associated with colonies, either flying over feeding areas or in transit along the river. These random observations were not associated with colonies or considered in the total count.

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. Also it was noted that many former colony sites were not occupied, possibly because of the extremely high record flood stages in spring and early summer, and the modification of sand bars in both height, surface area and location. 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 2007 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 20 to 1000 feet and averaged ~222 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 14 colony sites, but 21 did have sparse stands of sapling Cottonwoods (*Populus deltoids*), Black Willows (*Salix nigra*), and various forbs and grasses within 300 feet of active nests. 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.

No evidence of predation on tern eggs was observed, but at 3 colony sites, coyote or dog tracks were present. Another colony had Bobcat tracks and another spent shotgun shell casings, but no tern mortality could be confirmed. One chick mortality was noted at one site, but no evidence as to the cause. Of 45 colonies, 7 had evidence of recent intrusion by humans on foot, by boats or ATVs, and 5 had abandoned eggs.

Besides Coyotes (*Canis latrans*) or dogs, other potential predators, or their sign, seen near colonies during this year's survey included American Crows (*Corvus brachyrhynchos*), Bald Eagles (*Haliaeetus leucocephalus*), Bobcats (*Lynx rufus*), Egrets (*Casmerodius*, *Egretta*, *Bubulcus*), Great Blue and Great White Herons (*Ardea herodias*), Mississippi Kites (*Ictinia mississippiensis*), Turkey Vultures (*Cathartes aura*), Black Vultures (*Coragyps atratus*), and Wood Storks (*Mycteria americana*).

Other noteworthy bird species observed on the sand bars or in close proximity to Least Tern colonies included American Avocets (*Recurvirostra americana*), Anhingas (*Anhinga anhinga*), Bank Swallows (*Riparia riparia*), Barn Swallows (*Hirundo rustica*), Black Terns (*Chlidonias niger*), Canada Geese (*Branta canadensis*), Caspian Terns (*Sterna caspia*), Cattle Egrets (*Bubulcus ibis*), Cliff Swallows (*Petrochelidon pyrrhonota*), Double-Crested Cormorants (*Phalacrocorax auritus*), Crows (*Corvus brachyrhynchos*), Forster's Terns (*Sterna forsteri*), Grackles (*Quiscalus quiscula*), Great Egrets (*Casmerodius albus*), Golden Plovers (*Pluvialis dominica*), Killdeers (*Charadrius vociferous*), Mallards (*Anas platyrhynchos*), Mourning Doves (*Zenaida macroura*), Purple Martins (*Progne subis*), Ring-billed Gulls (*Larus delawarensis*), Rough-winged Swallows (*Stelgidopteryx serripennis*), Sandpipers (*Calidris sp.*), Snowy Egrets (*Egretta thula*), Spotted Sandpipers (*Actitis macularia*), White Ibises (*Eudocimus albus*), and White Pelicans (*Pelecanus erythrorhynchos*).

Fingerling-size carps (*Cyprinidae*), Bighead Carp (*Hypophthalmichthys nobilis*), Silver Carp (*Hypophthalmichthys molitrix*), Silverside (*Notropis sp.*), shad (*Dorosoma*), Gizzard Shad (*Dorosoma cepedianum*), and Smallmouth Buffalo (*Ictiobus bubalus*) were found in colonies and are presumed to have been dropped by foraging adults. This year's survey yielded a total count (12,247) that was down from the 2010 count (18,343) by roughly 33%, however many of last year's 2010 count included fledged juveniles whose numbers could not be separated from the total count.

Table 1: Least Tern Survey - July 24 - August 7, 2011 - Mississippi River  
Cape Girardeau, Missouri, to Baton Rouge, Louisiana

River Mile	Mississippi River Location	State	Lat. N	Long. W	Least Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
931.0	Wolf Island Bar	KY	36.69510	89.14880	420	C*	22
920.0	Hickman Bend	MO	36.56570	89.24970	27		0
908.0	Kelly Landing	KY	36.53900	89.40200	11		0
884.5	Kentucky Point Dikes	KY	36.50740	89.54300	555	C*	38
871.0	Stewart Towhead Dikes	MO	36.35330	89.51860	49	*	0
864.0	Below Cherokee Dikes	TN	36.32014	89.61528	22	*	0
857.0	Chute of Island #14	MO	36.24570	89.57510	79	*	3
836.0	Island #18 Towhead Dikes	TN	36.09477	89.66309	37	*	5
830.5	Island #20 Dikes	TN	36.03683	89.69475	479	C*	6
819.0	Wrights Point Dikes	AR	35.90839	89.64544	105	*	2
811.5	Below Tamm Bend Dikes Upper	TN	35.90275	89.73821	78		0
810.3	Below Tamm Bend Dikes Lower	TN	35.89716	89.75655	142	C*	16
807.7	Nebraska Point Dikes	TN	35.86050	89.76152	888	C*	34
794.0	Ashport Gold Dust Dikes	AR	35.74636	89.83160	253	C*	24
760.0	Cedar Point	TN	35.43250	90.00320	216		0
754.5	Densford Bar	TN	35.39008	90.07095	333	C*	49
740.5	Sycamore Chute Dikes	AR	35.20724	90.07300	140	C*	3
733.0	Engineers Bar Dikes	AR	35.12364	90.10428	5		0
725.0	Dismal Point Dikes	AR	35.06129	90.18650	34		0
717.0	Cow Island Bend	MS	35.01484	90.28867	160	*	2
703.0	Pickett Dikes	AR	34.87304	90.31460	93		0
699.5	Porter Lake Dikes	AR	34.85130	90.36330	23		0
698.0	Basket Bar Dikes	AR	34.83763	90.38379	47	*	2
693.0	Rabbit Island	MS	34.78973	90.47115	20		0
687.0	Mhoon Bend	AR	34.73639	90.46000	161	*	0
680.0	Bordeaux Point Dikes	MS	34.72918	90.56499	19		0
676.0	Below Walnut Bend Dikes	MS	34.67177	90.57229	35		0
672.0	St. Francis Bend	MS	34.61908	90.58378	874	C*	34
668.0	Prairie Point Dikes	AR	34.56344	90.55674	152	C*	1
655.0	Montezuma Towhead Dikes	AR	34.41165	90.59265	37	C*	5
646.0	Oldtown Dikes	AR	34.36646	90.71329	728	C*	78
639.5	Island #62 Dikes	AR	34.29681	90.73580	250	C*	12
637.5	Island #63 Bar Revetment	AR	34.27481	90.76977	25		0
629.0	Island #64 Dikes	AR	34.20207	90.85513	70		0

**SUBTOTAL**

**6,567 21**



Table 1 continued: Least Tern Survey - July 24 - August 7, 2011 - Mississippi River  
Cape Girardeau, MO, to Baton Rouge, LA

River Mile	Mississippi River Location	State	Lat. N	Long. W	Least Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
623.0	Below Ludlow Dikes	AR	34.16052	90.92971	87		0
619.0	Island #67 Dikes	MS	34.10961	90.94240	138	C*	3
612.0	Below Knowlton Dikes	AR	34.02732	90.90117	250	C*	20
607.7	Island #70 Dikes	MS	34.02795	90.99574	17		0
602.4	Henrico Dikes	MS	33.99450	91.05200	32		0
599.0	Smith Point Dikes	MS	33.95537	91.07221	101		0
588.0	Terrene Dikes	MS	33.85165	91.06668	320	C*	6
584.0	Malone Field Dikes	AR	33.78896	91.05220	215	C*	1
576.5	Below Prentiss Dikes	MS	33.74941	91.13547	508	C*	131
568.5	Catfish Point Dikes	MS	33.67080	91.22267	271		0
563.5	Chicot Landing Dikes	AR	33.62930	91.14924	33		0
560.0	Choctaw Island #78	AR	33.58340	91.16842	85	*	18
543.0	Tarpley Island Revetment	MS	33.41480	91.11806	63	*	3
540.5	Leland Neck Dikes	MS	33.39937	91.10759	173		0
533.0	Island 84 Dikes	MS	33.30830	91.17690	650	C*	18
528.6	Refuge Dikes	MS	33.26000	91.11900	13		0
523.5	Seven Oaks Dikes	AR	33.14054	91.09554	12	C*	1
521.0	Island #86 Dikes	AR	33.12322	91.11026	322	C*	4
513.5	Leota dikes	MS	33.08655	91.16576	58	C*	4
509.3	Cracraft Lower Dikes	AR	33.03265	91.15712	71	C*	6
503.5	Corregidor Dikes	MS	32.95770	91.15310	40		0
498.5	Wilson Point Dikes	LA	32.93400	91.07640	63	*	5
491.0	Baleshed Landing Dikes	MS	32.84250	91.12540	52		0
482.0	Ajax Bar Dikes Upper	MS	32.73980	91.13109	8	C*	1
481.0	Ajax Bar Dikes Lower	MS	32.73840	91.11960	650	C*	69
460.0	Willow Cutoff Dikes	LA	35.52820	91.10414	400	C*	3
452.5	Forest Home Towhead Dikes	MS	32.44560	91.06320	100	*	10
448.0	Marshall Cutoff Dikes	LA	32.40490	91.00100	13		0
428.0	Below Racetrack Dikes	MS	32.23830	90.98035	3		0
419.0	Newton Bend Dikes	LA	32.12583	91.04964	36	*	7

**SUBTOTAL**

**4,784 18**

Table 1 continued: Least Tern Survey - July 24 - August 7, 2011 - Mississippi River  
Cape Girardeau, MO, to Baton Rouge, LA

River Mile	Mississippi River Location	State	Lat. N	Long. W	Least Terns		Nests
RIVER MILE:	SITE NAME:	State	Latitude:	Longitude:	Adults:		Nests:
410.0	Yucatan Dikes	MS	32.06819	91.07472	81	*	0
393.0	Bondurant Towhead Dikes	LA	31.89568	91.21446	96	c*	14
383.5	Spithead Towhead Dikes	MS	31.83015	91.34753	76		0
377.6	Waterproof Dikes	LA	31.76160	91.36942	140	c*	6
351.0	Opp. Warnicott Landing Dikes	MS	31.41948	91.49187	399	c*	7
304.0	Shreves Bar	LA	30.99080	91.65119	36	*	3
300.0	Hog Point Dikes	LA	30.93309	91.64365	68	*	8
<b>SUBTOTAL</b>					<b>896</b>	<b>6</b>	
<b>TOTAL INDIVIDUALS</b>					<b>12,247</b>		
<b>TOTAL SITES</b>					<b>71</b>		
<b>TOTAL COLONIES</b>					<b>45</b>		

c Confirmed chicks or eggs

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

Table 2: Summary of 2011 Least Tern Survey on the Lower Mississippi River

River Reach	Number of Terns (July 24- August 7, 2011)
Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954	0
Cairo, IL, to Osceola, AR RM 954 – RM 790	3,145
Osceola, AR, to Helena, AR RM 790 – RM 670	2,160
Helena, AR, to Greenville, MS RM 670 – RM 530	4,205
Greenville, MS, to Vicksburg, MS RM 530 – RM 430	1,802
Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230	935
TOTAL	12,247

River Reach	Number of Colonies
Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954	0
Cairo, IL, to Osceola, AR RM 954 – RM 790	11
Osceola, AR, to Helena, AR RM 790 – RM 670	6
Helena, AR, to Greenville, MS RM 670 – RM 530	12
Greenville, MS, to Vicksburg, MS RM 530 – RM 430	9
Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230	7
TOTAL	45

Table 3: Gage Readings – Lower Mississippi River

Least Tern Surveys – July, August, 2011  
Shaded numbers indicate local stages at time of survey.

Date	Cairo	New Madrid	Caruthersville	Memphis	Helena	Arkansas City	Greenville	Vicksburg	Natchez
July									
7	38.0	27.4	28.1	23.7	32.9	29.2	40.9	37.1	44.2
8	37.2	26.9	27.8	23.1	32.4	28.9	40.6	37.0	44.2
9	37.0	26.3	27.2	22.7	31.8	28.6	40.4	36.8	44.2
10	37.1	26.2	27.0	22.2	31.3	28.1	40.0	36.7	44.1
11	36.6	26.1	26.9	21.8	30.8	27.7	39.5	36.4	44.0
12	35.6	25.5	26.5	21.6	30.4	27.3	39.0	36.0	43.8
13	34.8	24.7	25.8	21.1	30.0	27.0	38.6	35.6	43.6
14	35.0	24.4	25.3	20.4	29.4	26.6	38.3	35.3	43.4
15	34.7	24.3	25.2	20.0	28.7	26.2	37.8	34.9	43.1
16	33.6	23.7	24.9	19.7	28.2	25.6	37.3	34.5	42.8
17	33.0	22.9	24.2	19.2	27.7	25.1	36.7	34.1	42.4
18	31.7	22.1	23.7	18.6	27.1	24.5	36.2	33.5	42.0
19	31.1	21.1	22.7	17.8	26.4	24.0	35.7	32.9	41.5
20	31.1	20.8	22.3	16.9	25.5	23.4	35.1	32.2	41.0
21	30.6	20.5	22.1	16.3	24.5	22.7	34.5	31.5	40.3
22	29.9	20.0	21.7	16.0	23.9	22.0	33.7	30.7	39.6
23	29.0	19.3	21.0	15.4	23.3	21.2	32.9	29.8	38.9
24	28.2	18.4	20.4	14.8	22.7	20.7	32.3	29.0	38.0
25	28.0	17.9	19.9	14.1	22.0	20.2	31.7	28.2	37.1
26	28.2	17.9	MSG`	13.4	21.2	19.8	31.3	27.5	36.3
27	27.9	17.9	19.8	13.2	20.6	19.1	30.5	26.9	35.8
28	27.7	17.6	19.5	13.1	20.3	18.6	29.9	26.2	35.3
29	28.5	17.8	19.5	12.9	20.0	18.4	29.8	25.6	34.6
30	29.0	18.5	20.0	12.9	19.8	18.1	29.6	25.1	33.9
31	28.2	18.4	20.2	13.3	20.0	17.8	29.7	24.6	33.2
August									
1	28.3	18.0	19.8	13.5	20.4	17.8	29.5	24.3	32.6
2	28.3	18.3	19.9	13.3	20.4	17.9	29.7	24.1	32.1
3	27.9	17.9	19.8	13.3	20.3	18.2	29.8	23.9	31.8
4	27.8	17.7	19.6	13.2	20.3	18.1	30.0	24.0	31.7
5	27.7	17.6	19.5	12.9	20.0	18.0	29.8	23.9	31.7
6	28.2	17.8	19.4	12.9	19.9	17.8	29.7	23.8	31.7
7	28.4	18.2	19.8	12.8	19.8	17.7	29.5	23.6	31.5
8	27.8	18.0	19.9	13.1	19.8	17.6	29.5	23.4	31.3
9	28.2	17.8	19.6	13.2	20.1	17.6	29.4	23.4	31.1

Table 4: Summary of Least Tern Surveys – 1985 – 2011  
Lower Mississippi River

<b>Year</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
<b>Aerial</b>											
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
<b>Towboat</b>											
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
<b>Small Boat</b>											
Individuals	0	2,188	2,206	2,356	2,005	5,038	4,297	3,653	0	6,776	6,971
Sites	0	41	50	72	64	38	66	81	0	78	70
Colonies	0	28	46	60	42	32	57	74	0	69	62
<b>Year</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Aerial</b>											
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
<b>Small Boat</b>											
Individuals	3,067	3,428	5,538	6,159	5,920	6,361	5,802	8,082	11,239	10,960	8,171
Sites	47	79	91	134	124	141	100	115	114	118	144
Colonies	31	57	39	38	64	54	68	68	69	88	107
<b>Year</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>						
<b>Small Boat</b>											
Individuals	9,814	12,183	9,516	18,352	12,247						
Sites	121	116	110	67	71						
Colonies	96	62	78	22	45						

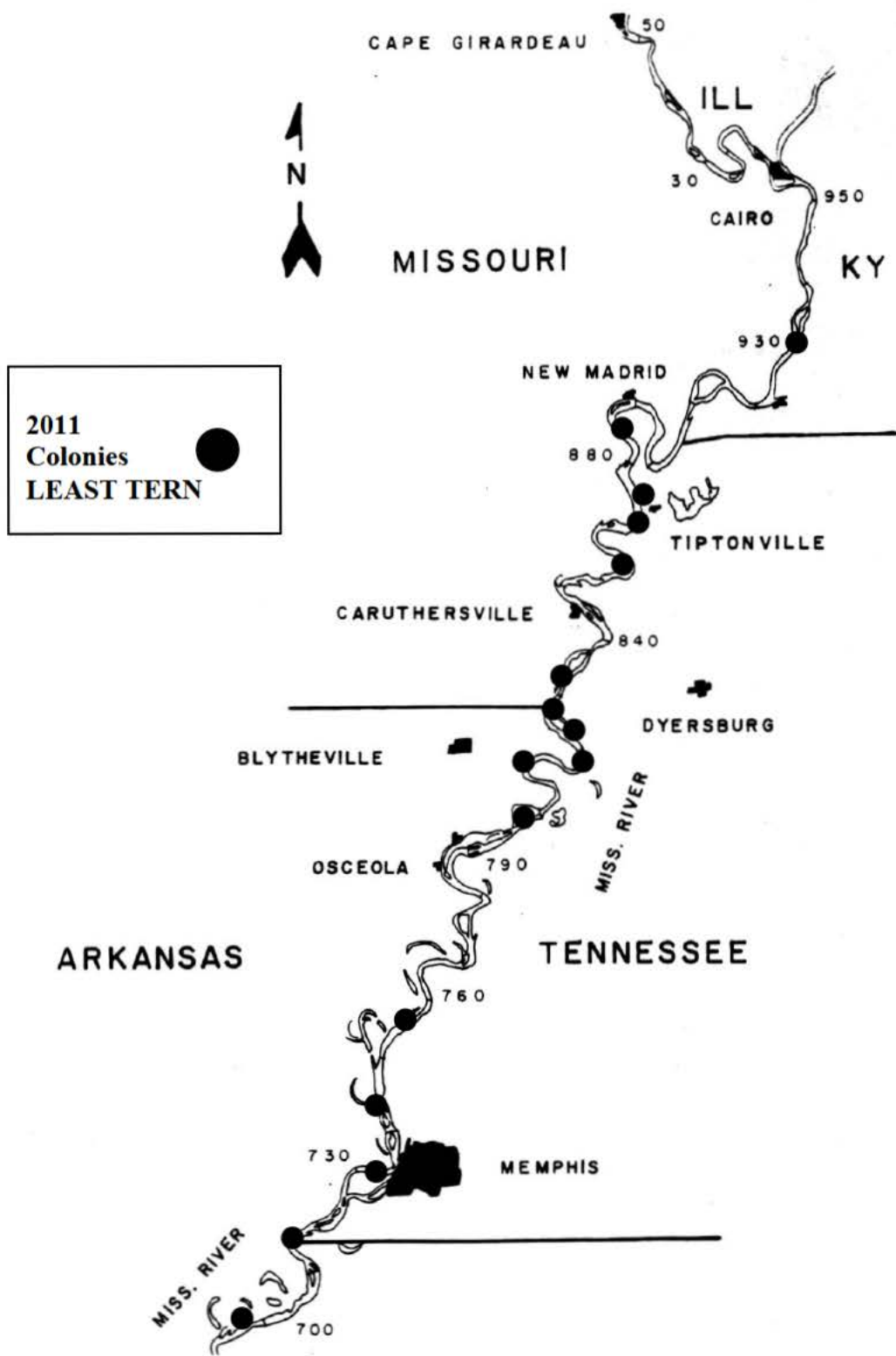


Figure 1: Least Tern Survey – 2011 – Area Map of Nest Colonies on Mississippi River – Cape Girardeau, MO to Baton Rouge, LA

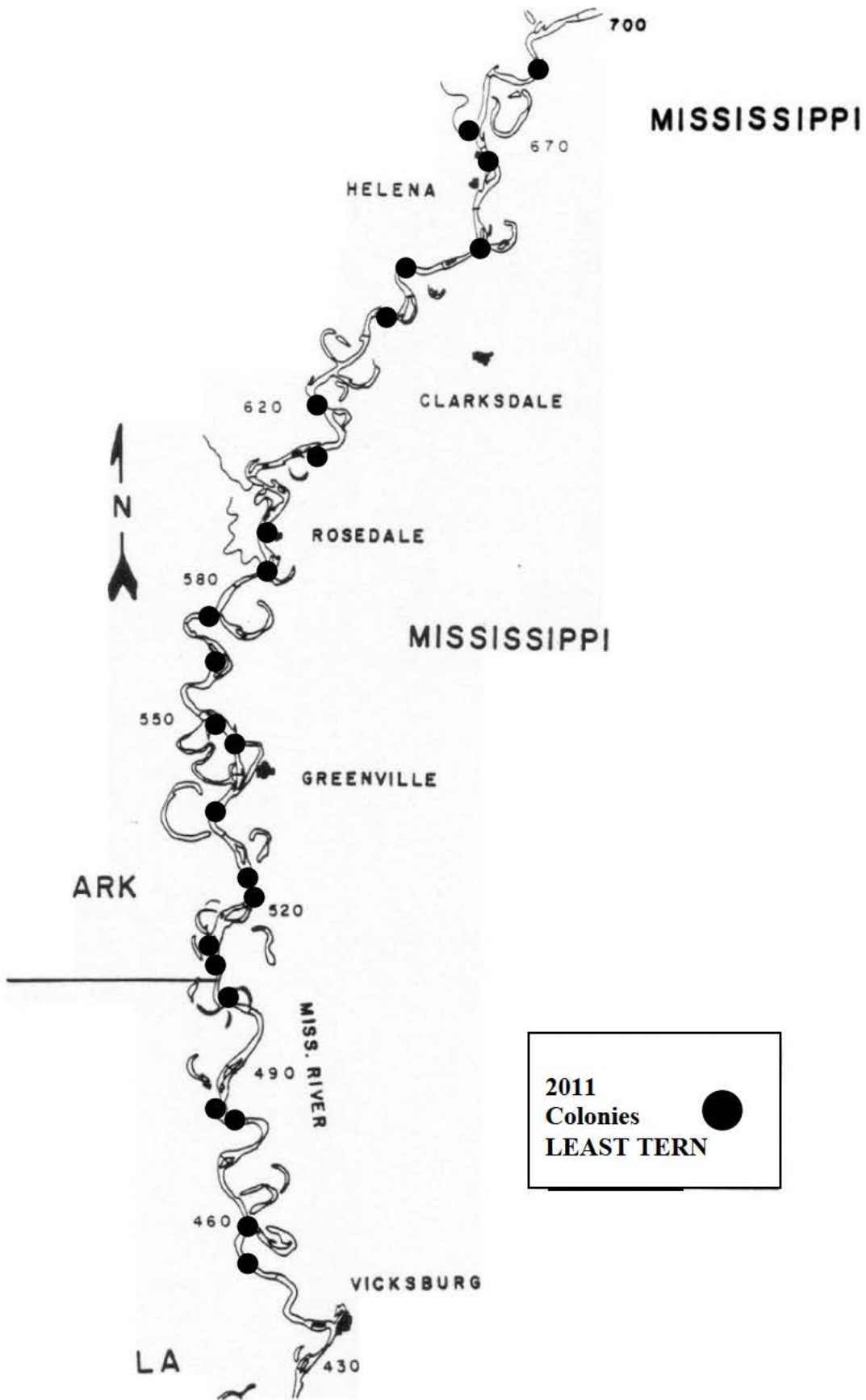


Figure 1 Continued: Area Map of Nest Colonies

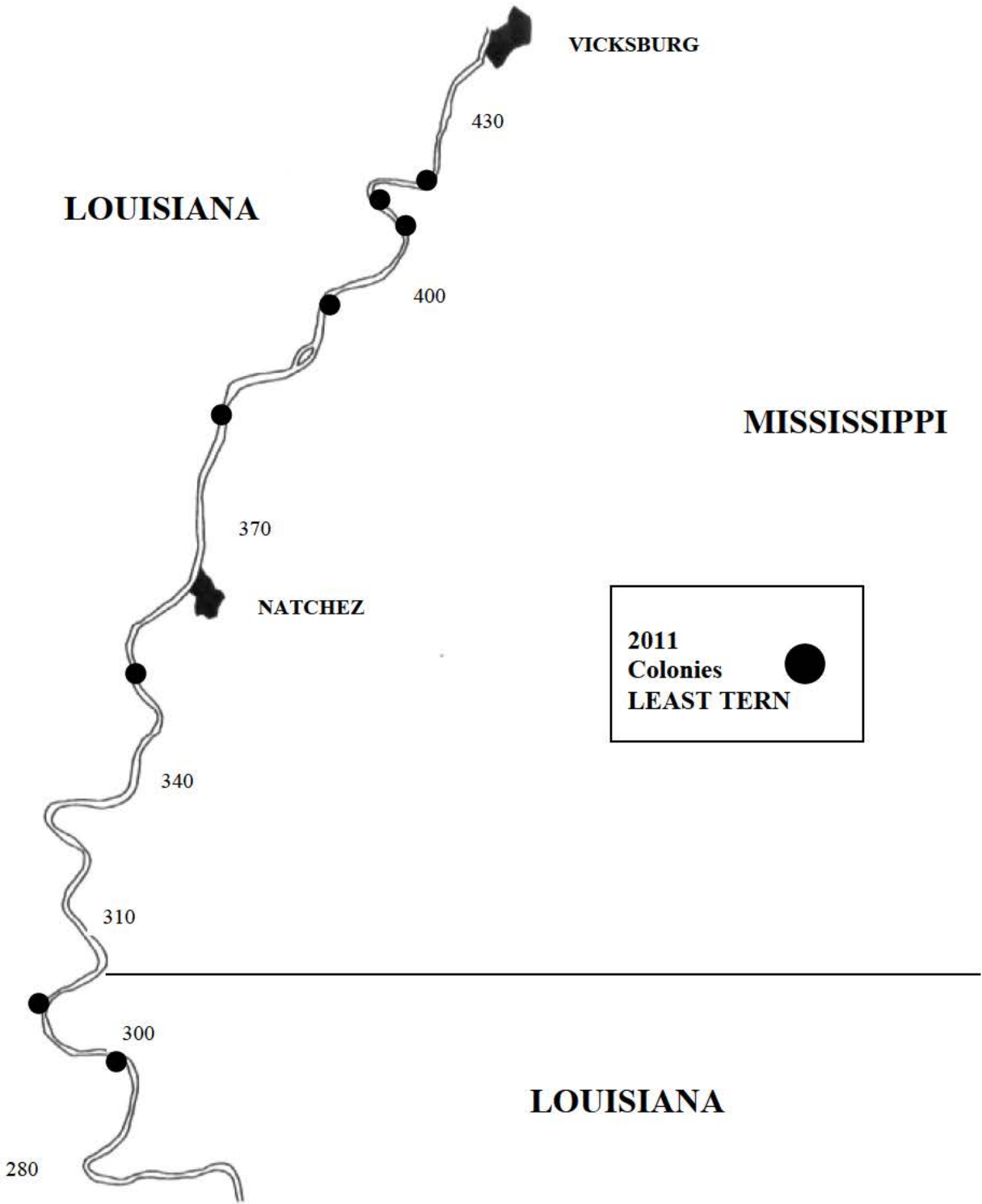
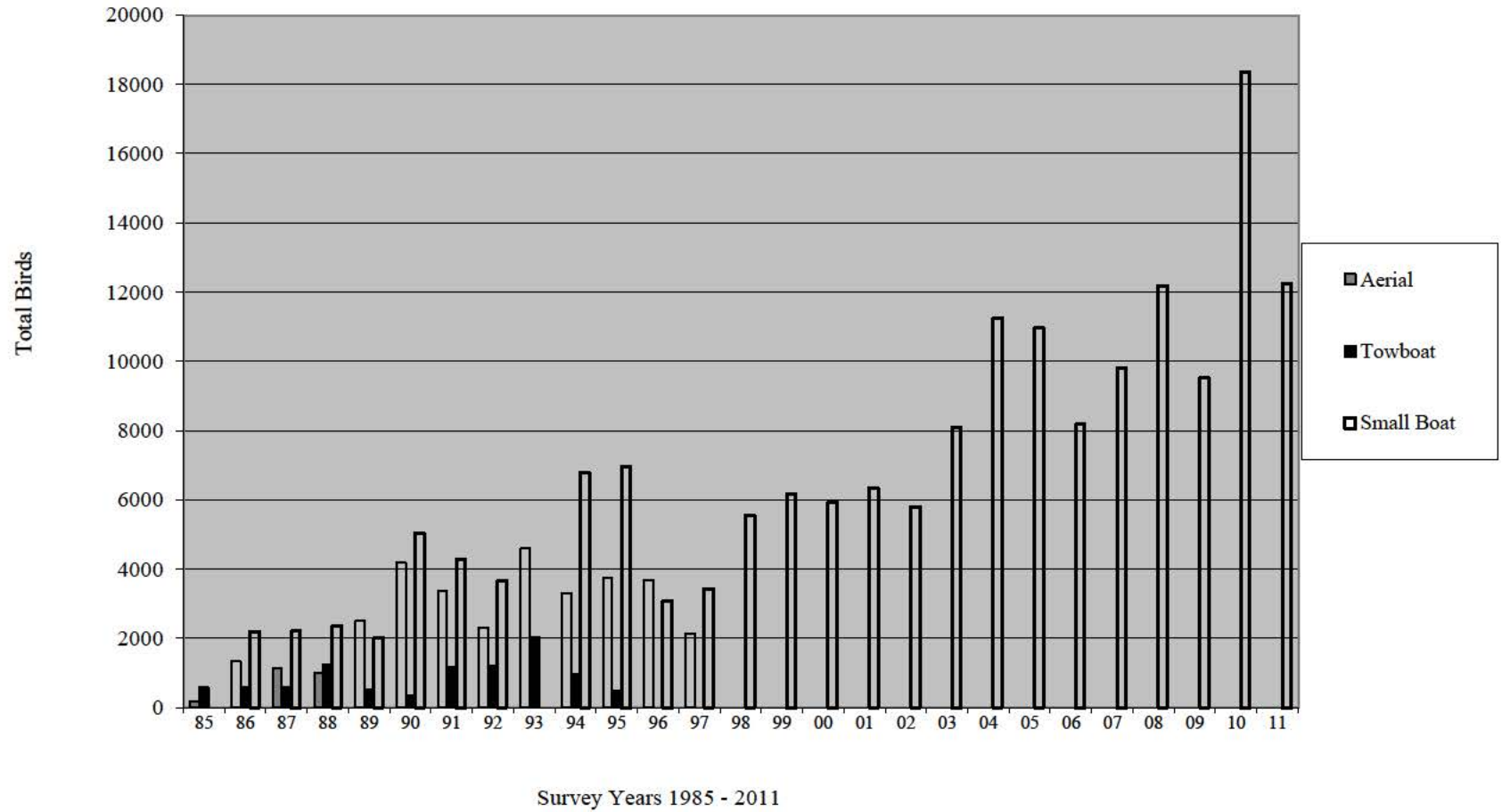


Figure 1 Continued: Area Map of Nest Colonies



Least Tern Surveys  
Lower Mississippi River





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

**2011**

**APPENDIX A**



**APPENDIX A – I**

**LEAST TERN SURVEY - 2011**

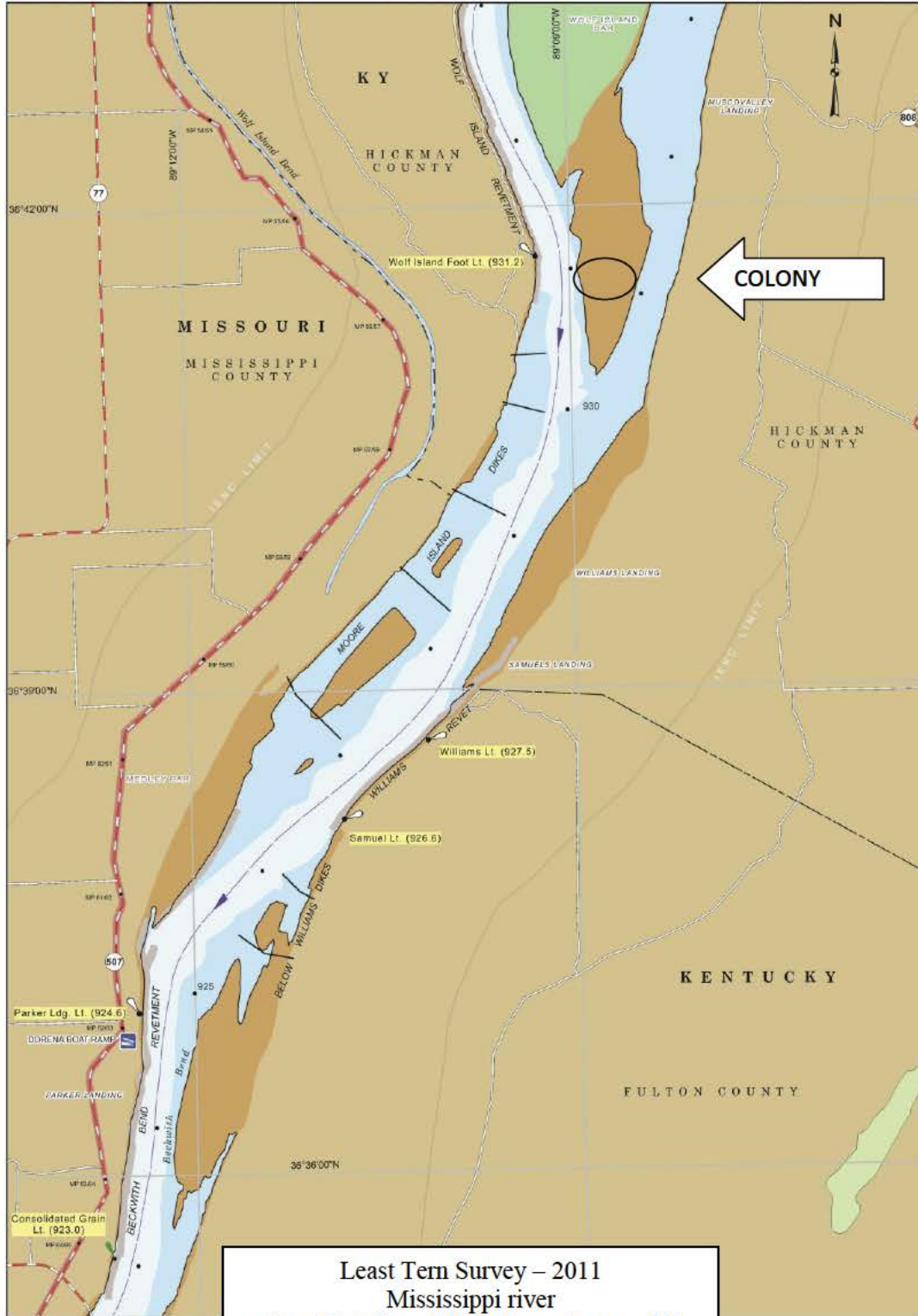
**Mississippi River  
Cape Girardeau, MO to Baton Rouge, LA**

**NEST COLONY LOCATIONS**

**Memphis District, Corps of Engineers**

**Maps**





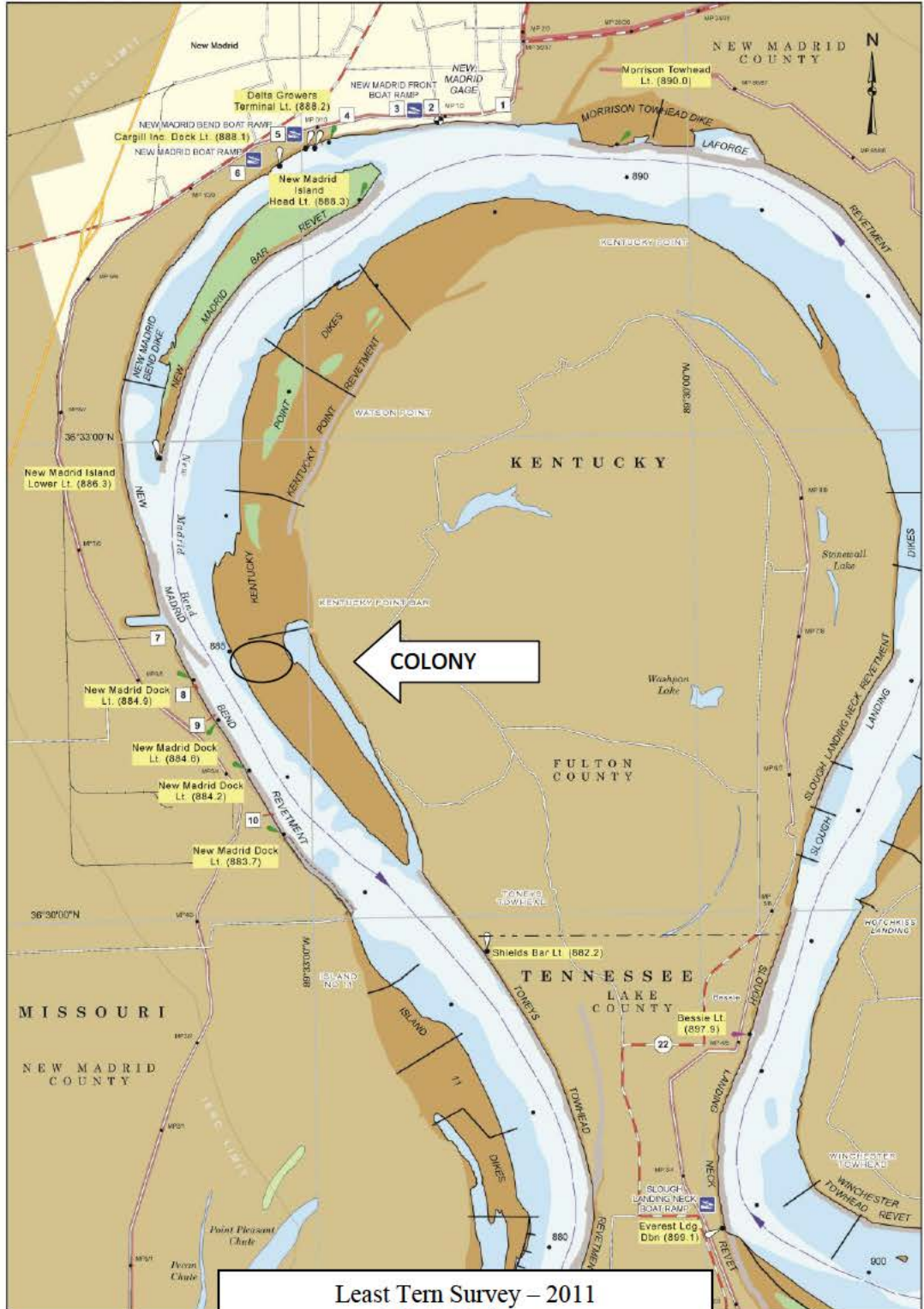
2007

SCALE = 1:40,000

Map No. 3

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-1



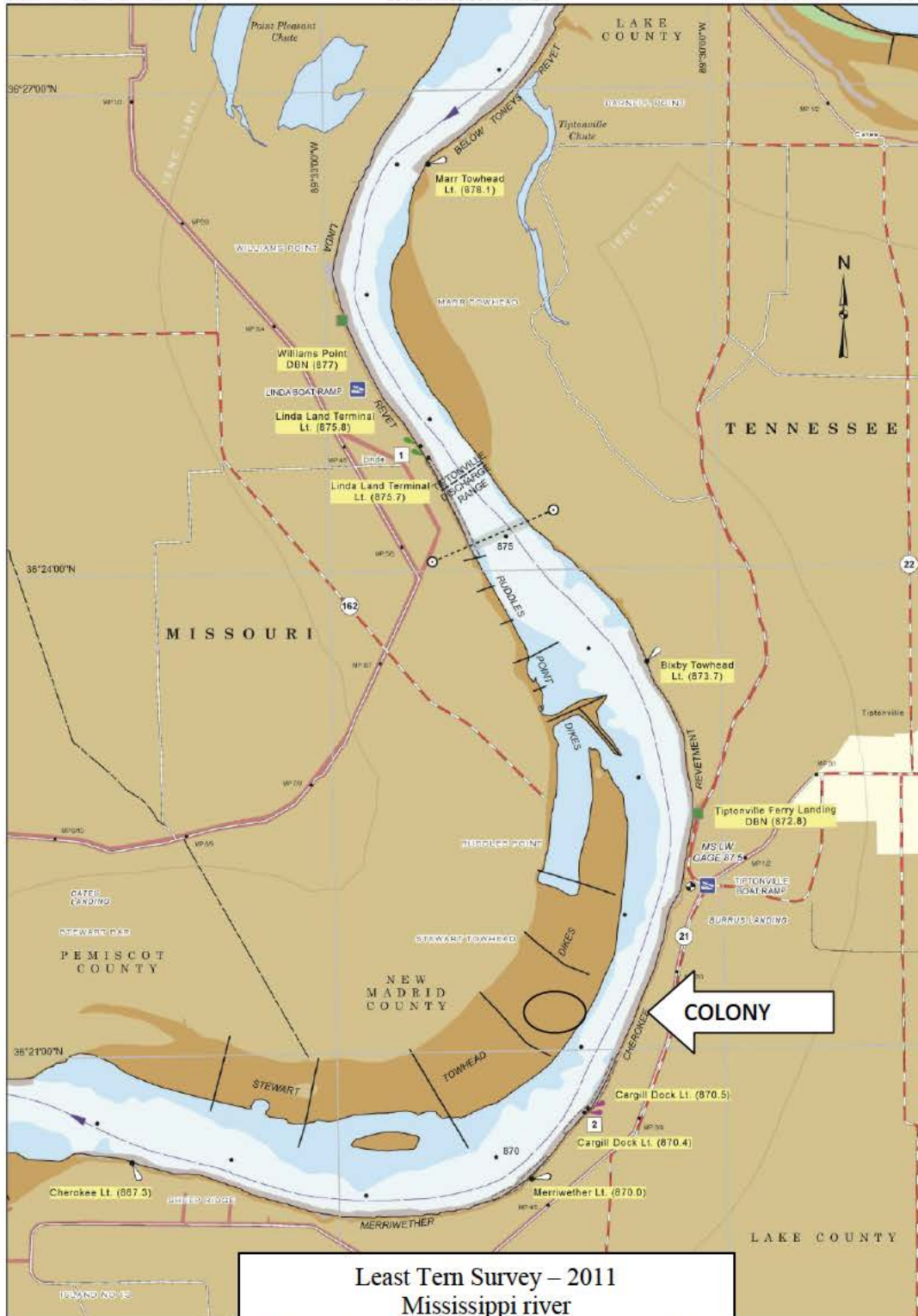
2007 SCALE = 1:40,000

Map No. 7

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-2



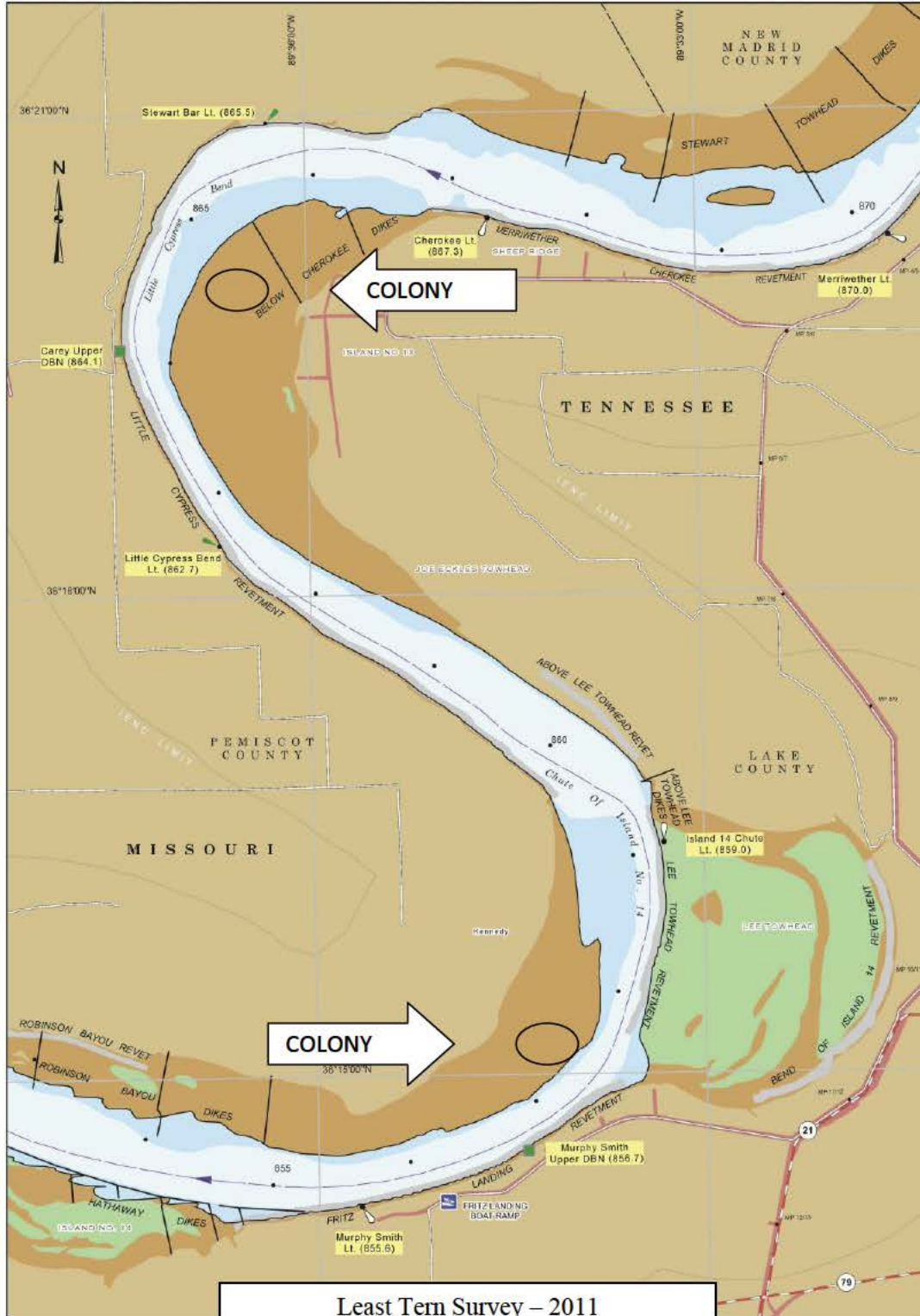


2007 SCALE = 1:40,000

Map No. 8

**Least Tern Survey – 2011**  
**Mississippi river**  
**Cape Girardeau, MO to Baton Rouge, LA**  
**Nest Colony Locations**  
**Memphis District Corps of Engineers**

A-I-3

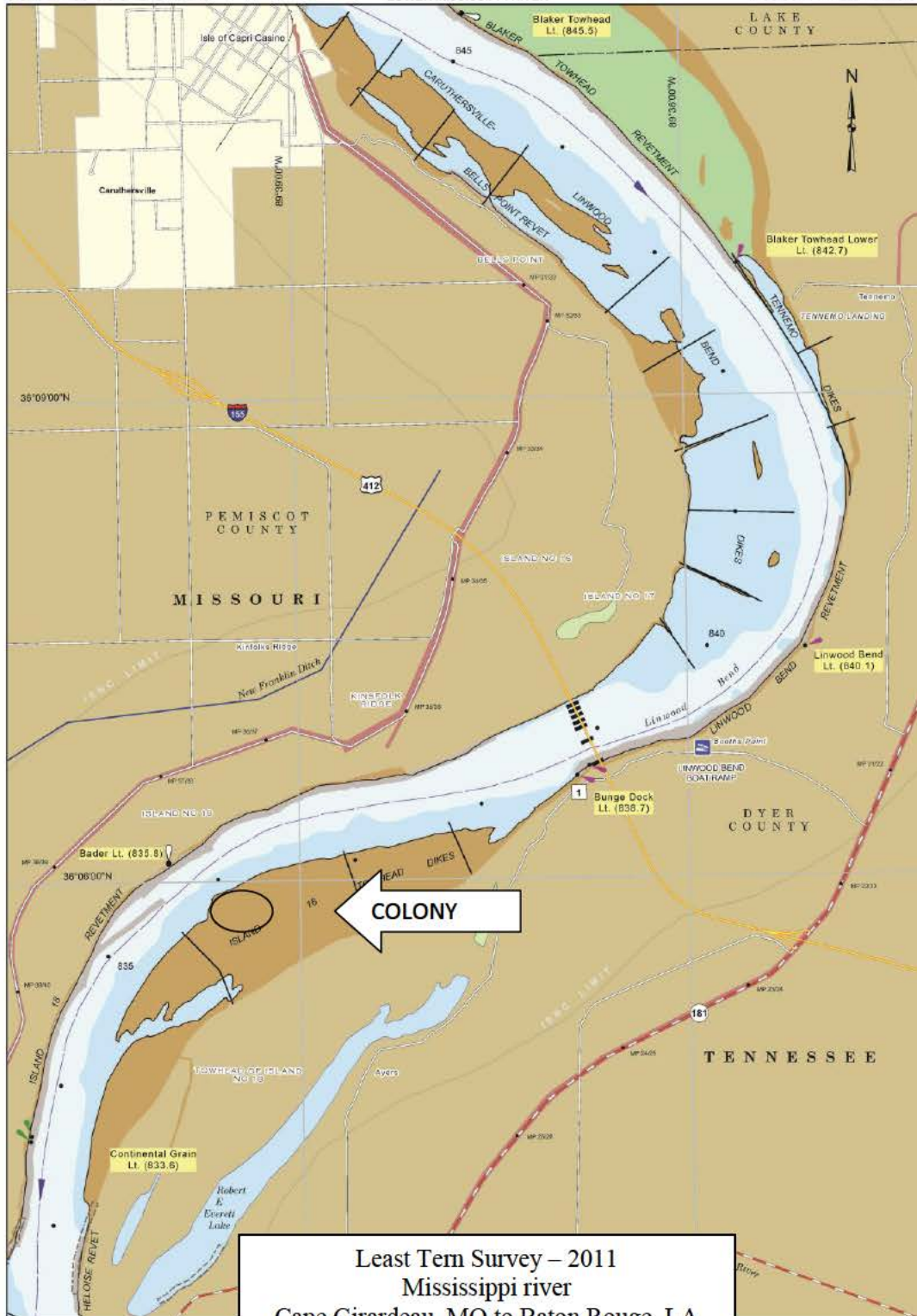


2007 SCALE = 1:40,000

Map No. 9

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-4

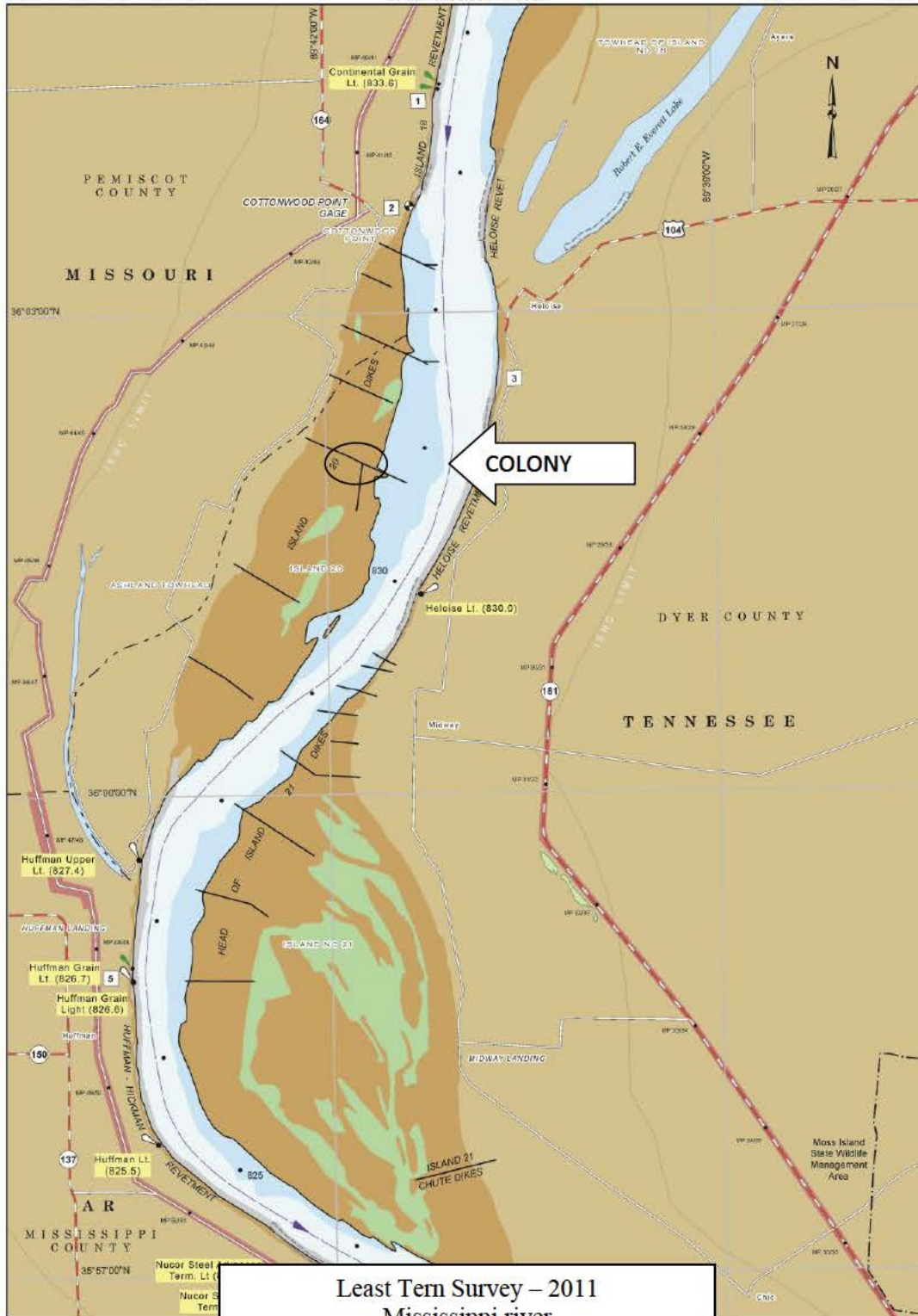


2007 SCALE = 1:40,000

Map No. 11

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-5

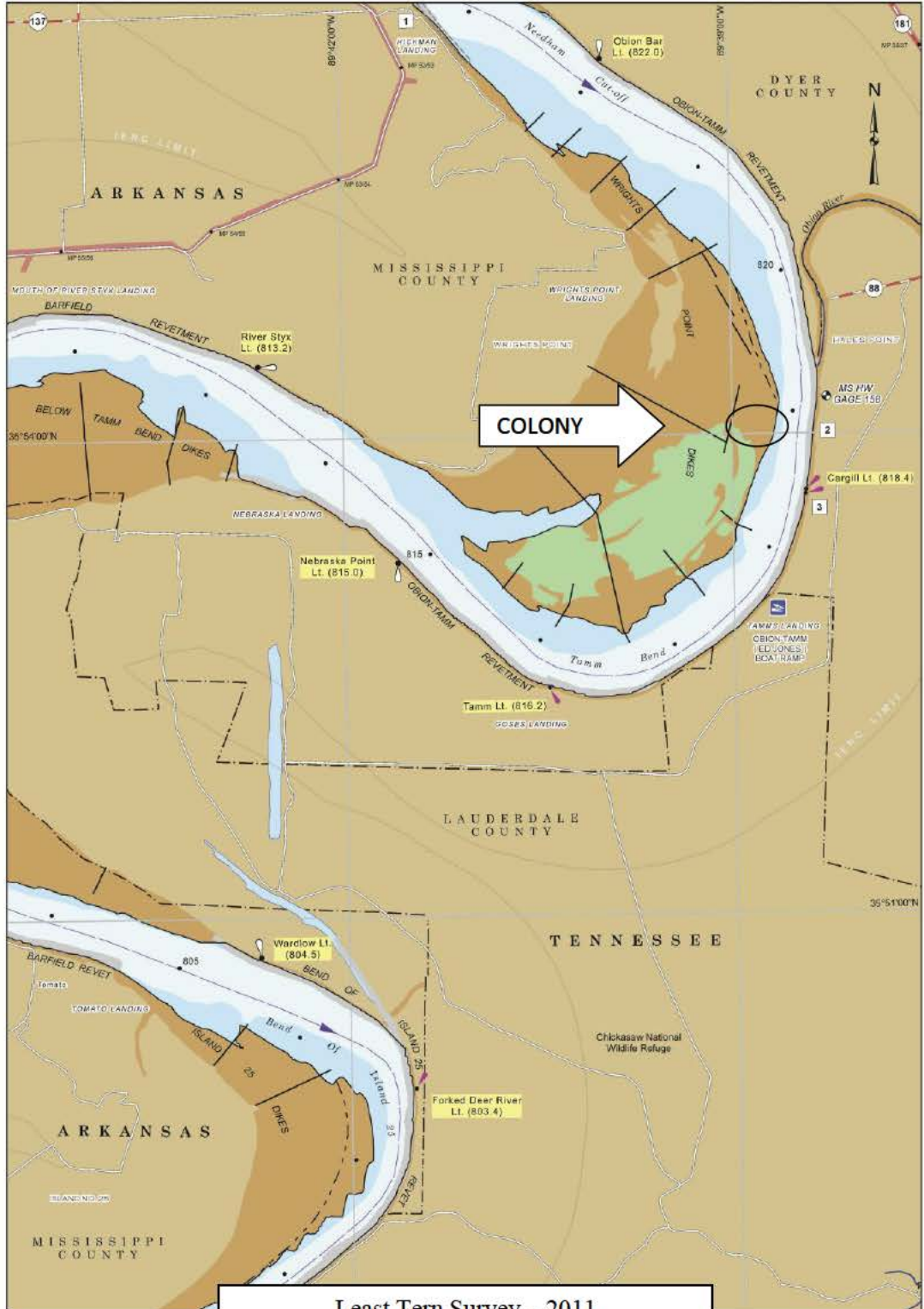


2007 SCALE = 1:40,000

Map No. 12

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-6

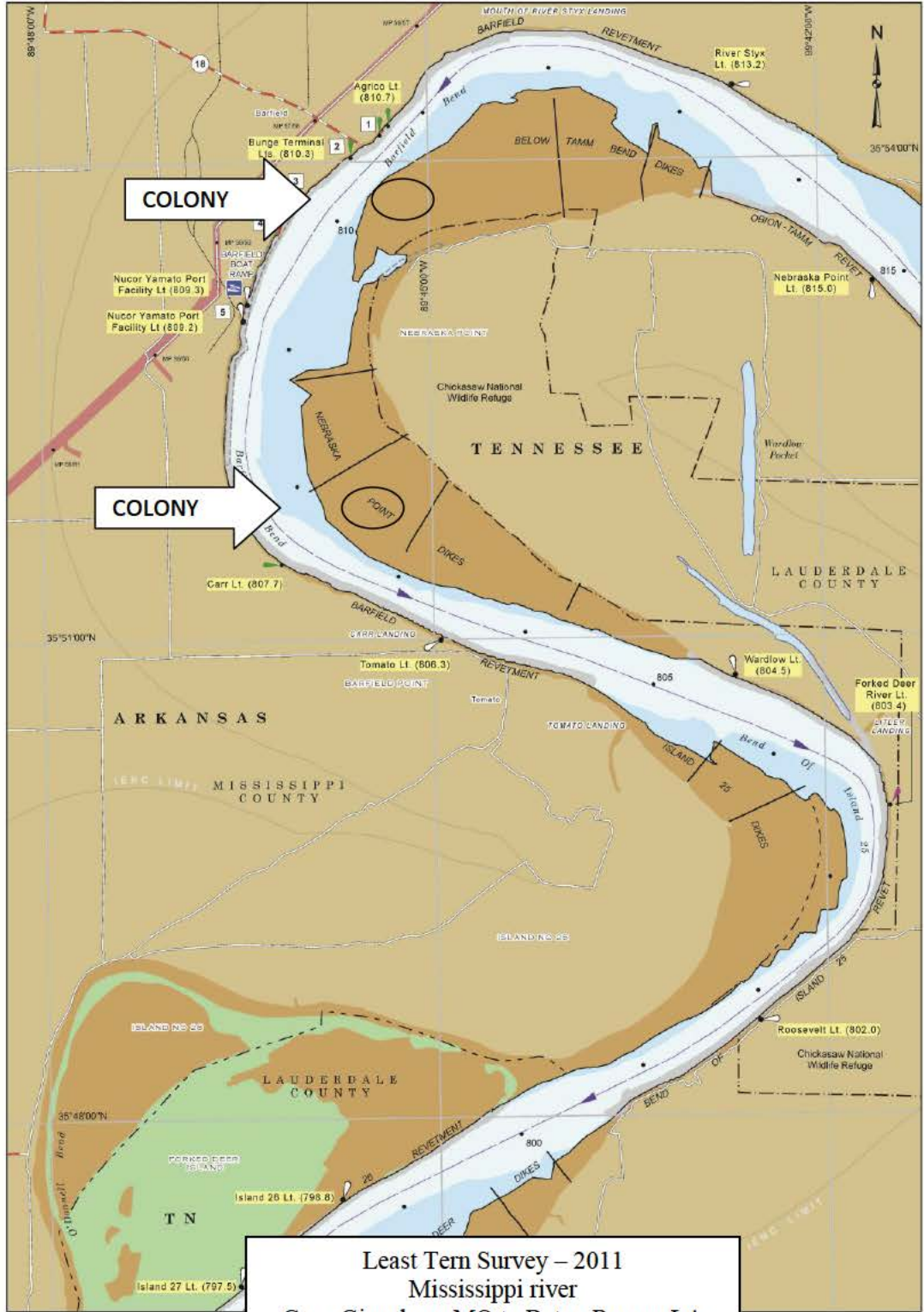


2007 SCALE = 1:40,000

Map No. 13

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

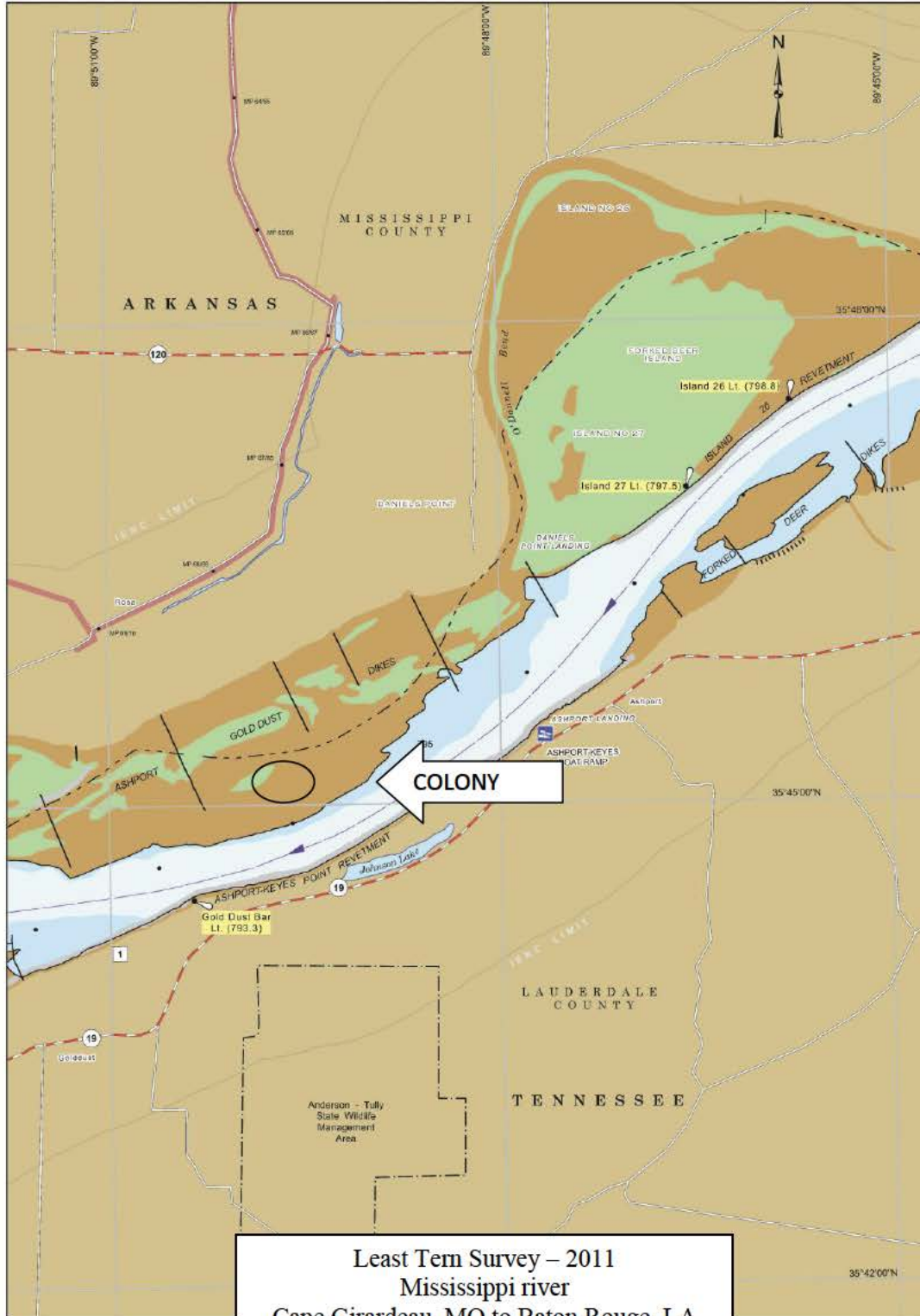
A-I-7



2007 SCALE = 1:40,000

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

Map No. 14

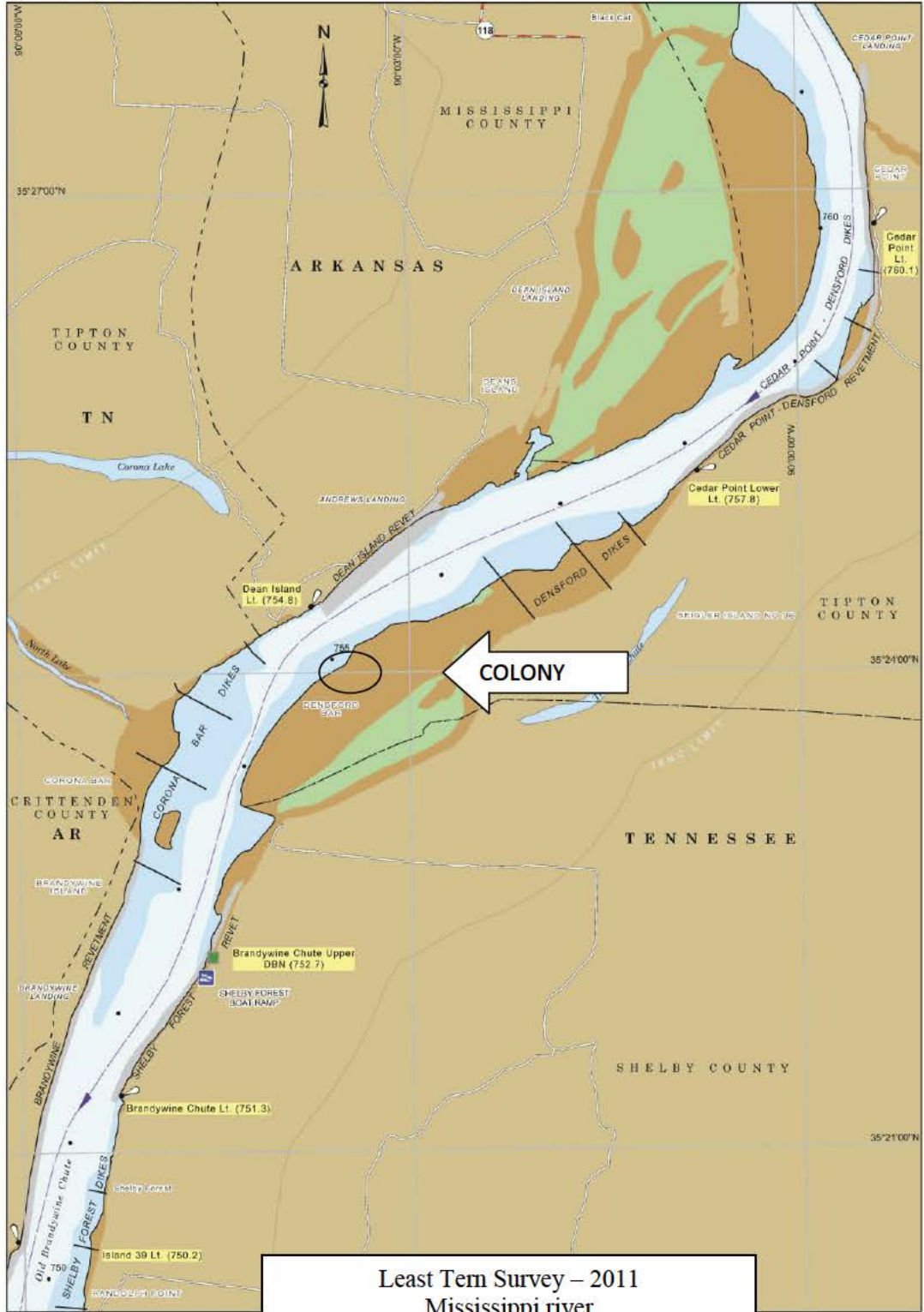


2007 SCALE = 1:40,000

Map No. 15

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-9



2007 SCALE = 1:40,000

Map No. 19

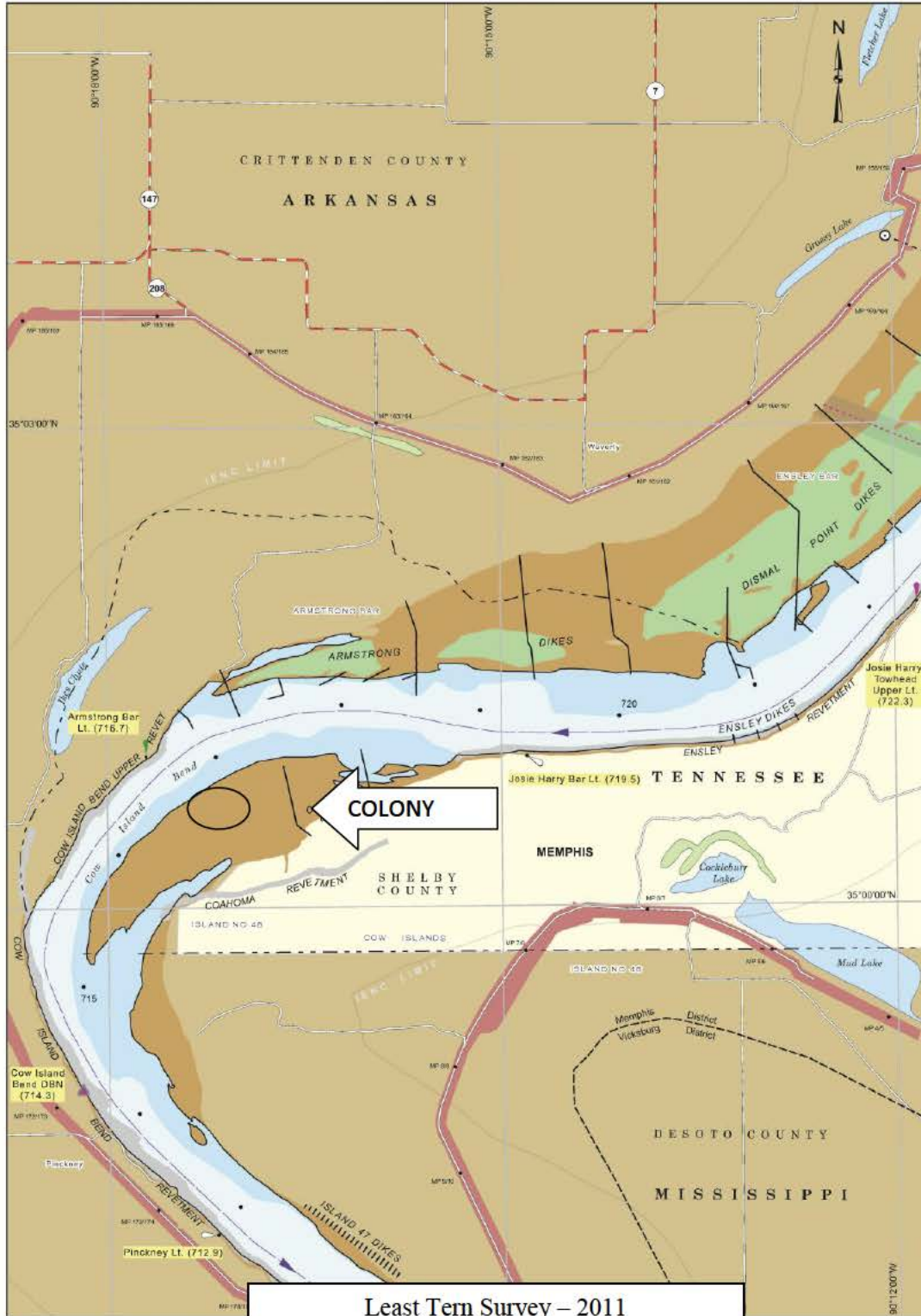
Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-10





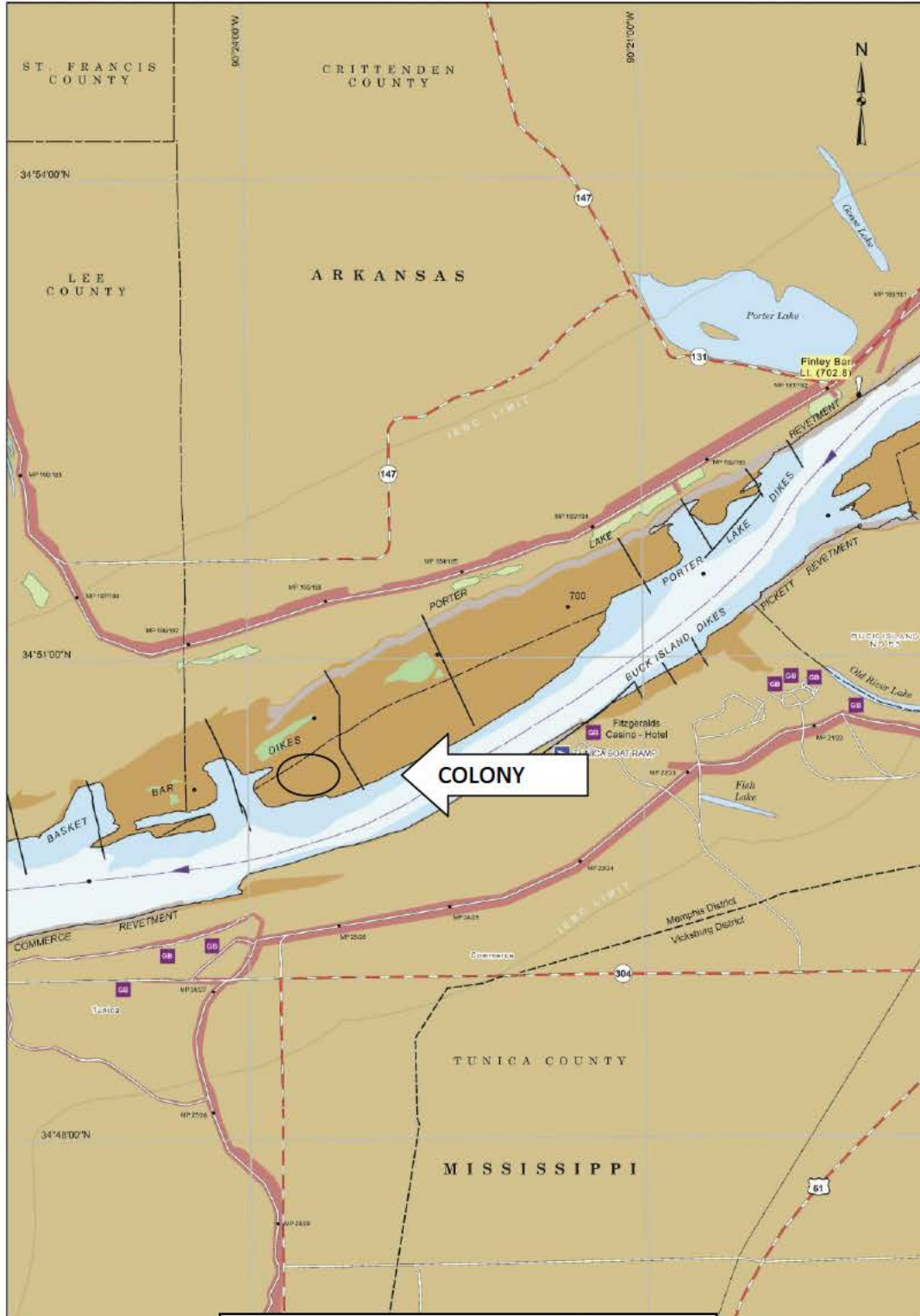
Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers  
 A-I-11



2007 SCALE = 1:40,000

Map No. 23

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers



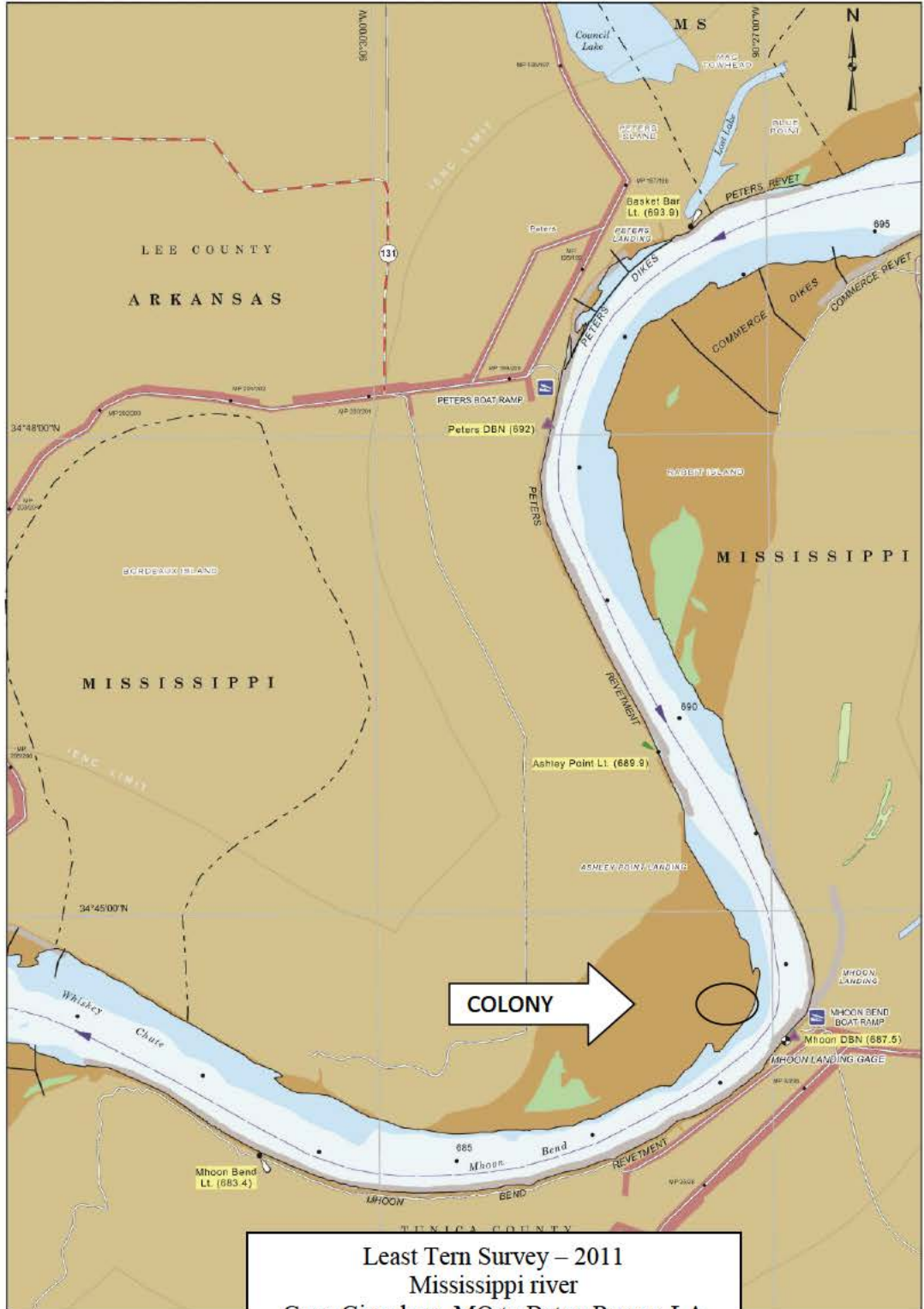
2007

SCALE = 1:40,000

Map No. 25

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-13

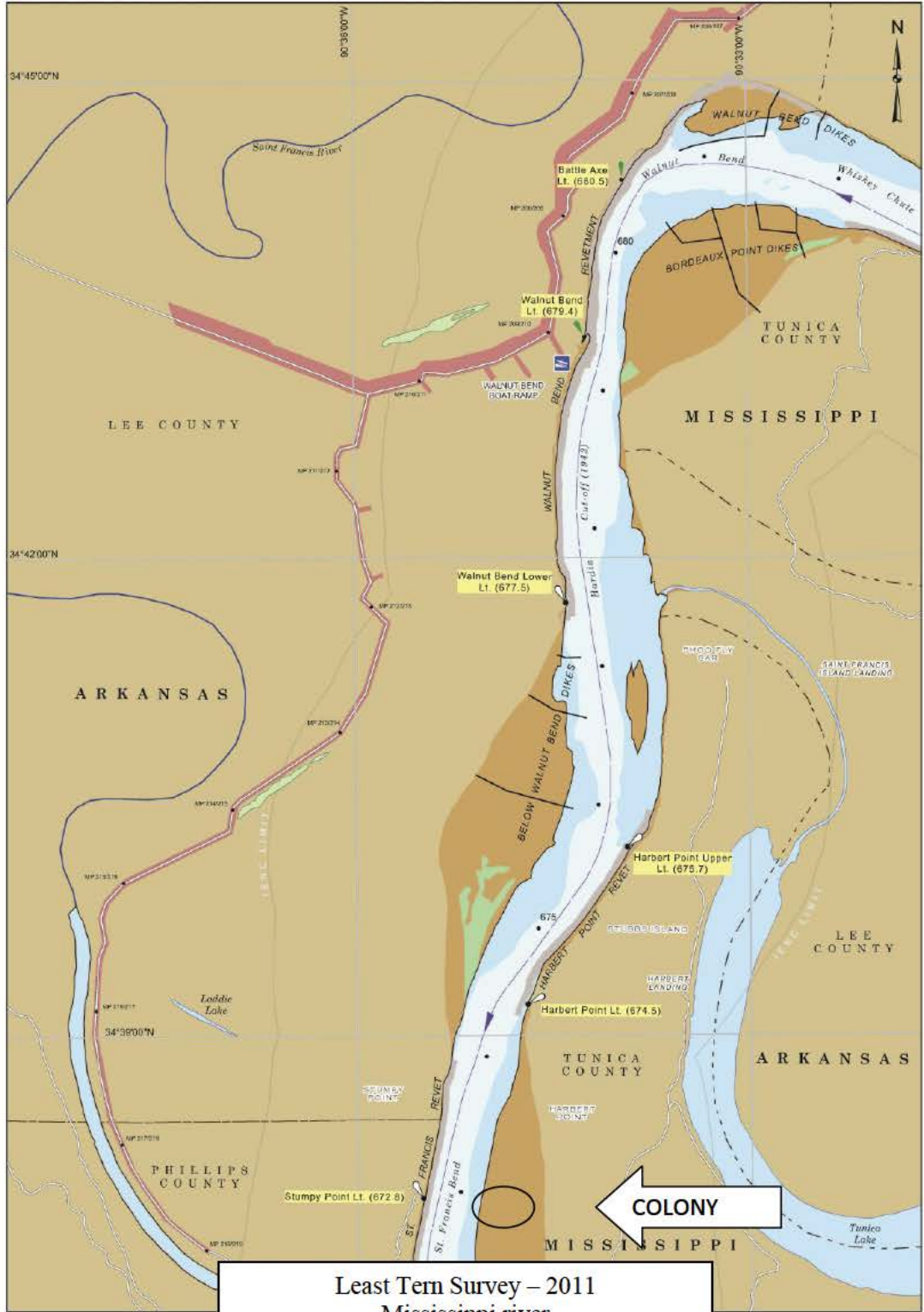


2007 SCALE = 1:40,000

Map No. 26

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

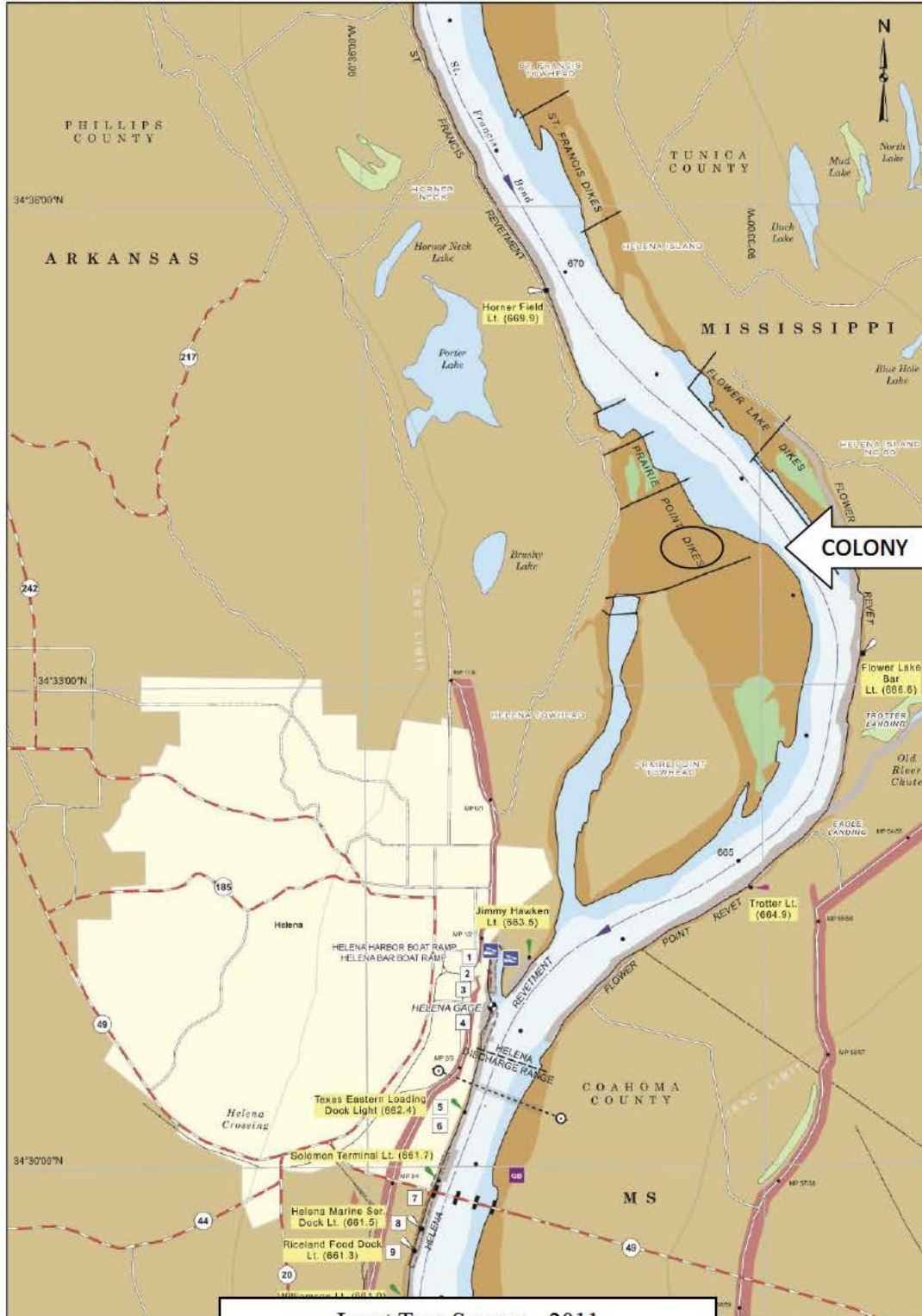
A-I-14



2007 SCALE = 1:40,000

Map No. 27

Least Tern Survey – 2011  
Mississippi river  
Cape Girardeau, MO to Baton Rouge, LA  
Nest Colony Locations  
Memphis District Corps of Engineers  
A-I-15

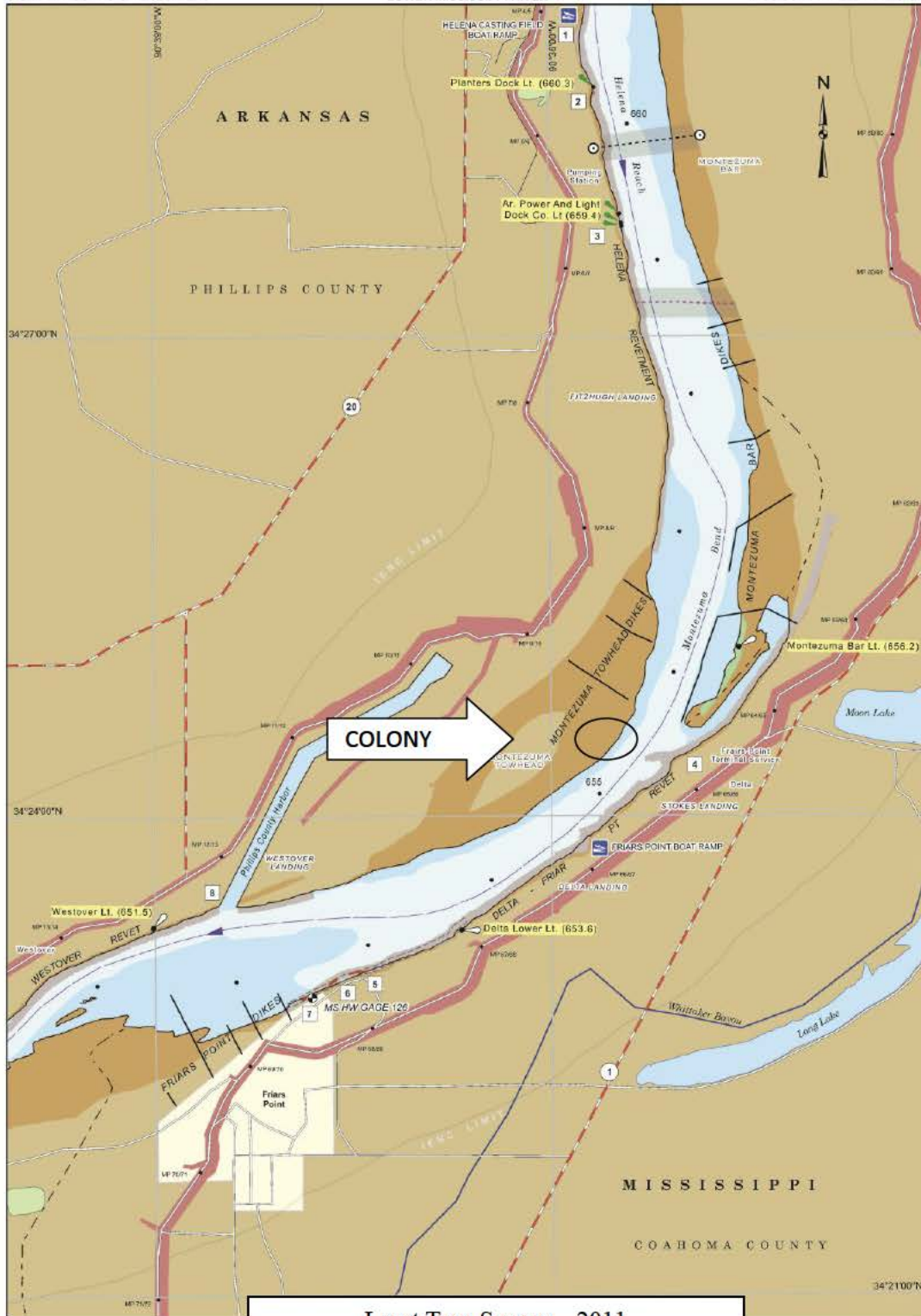


2007 SCALE = 1:40,000

Map No. 28

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-16

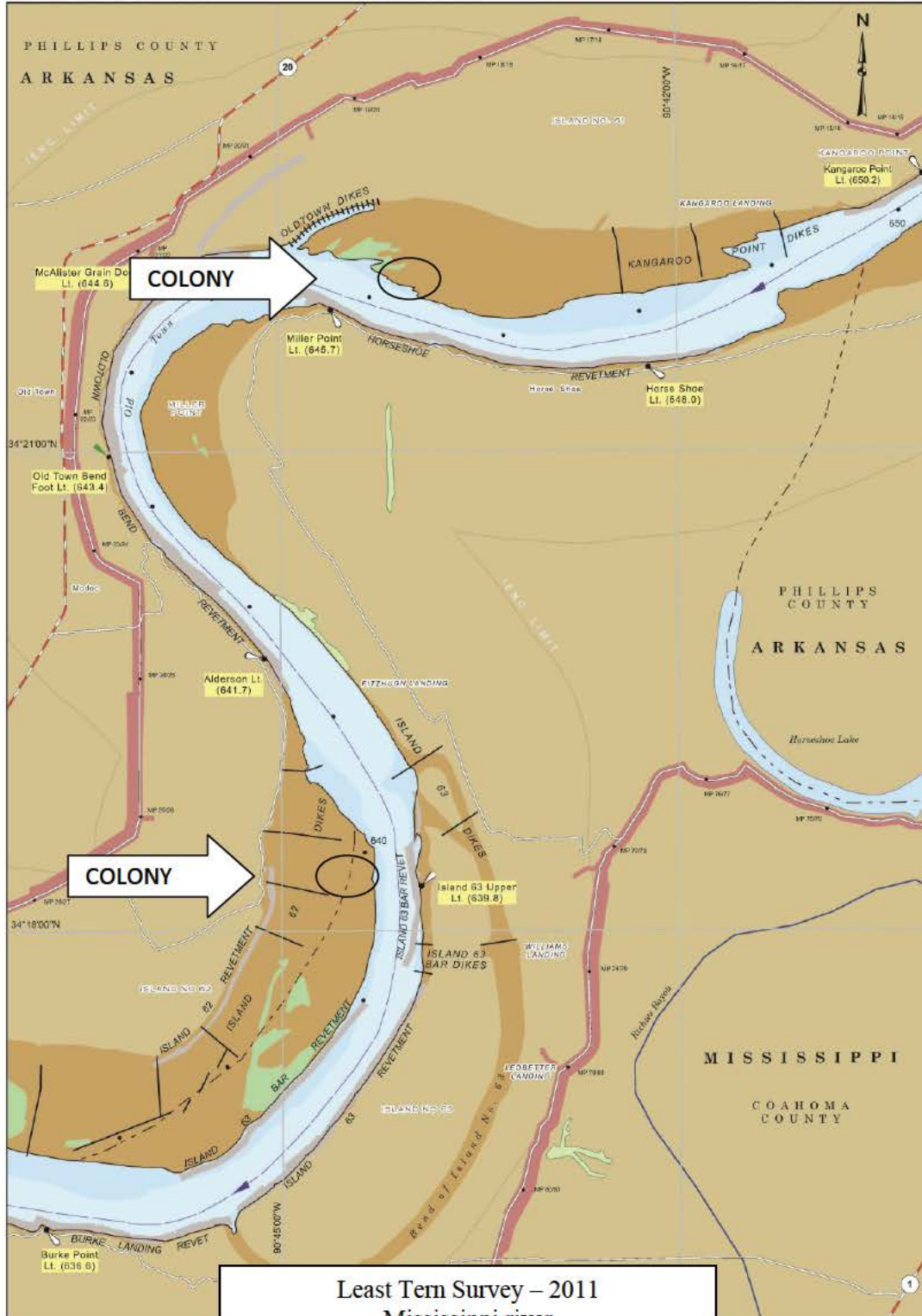


2007 SCALE = 1:40,000

Map No. 29

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-17



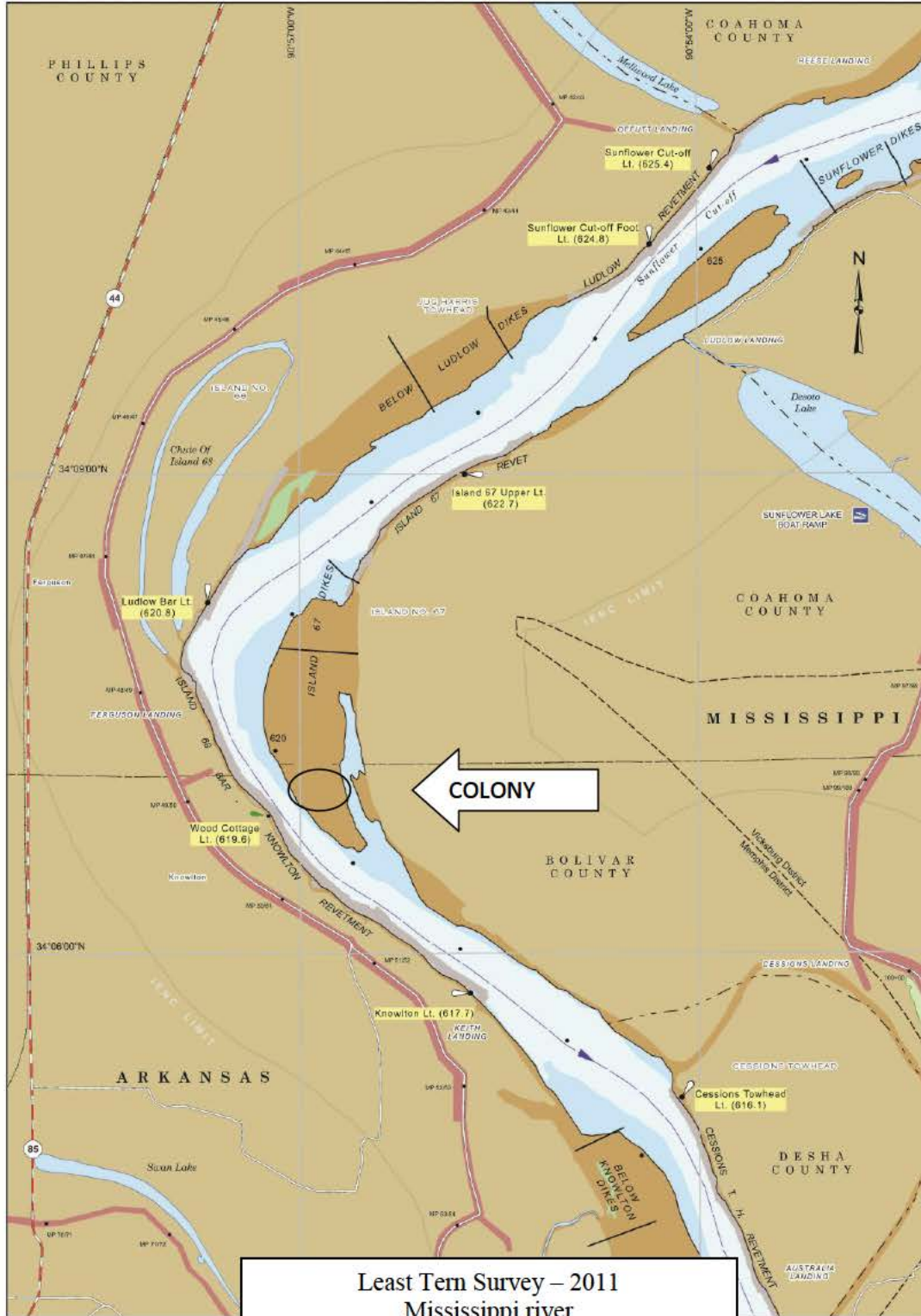
2007

SCALE = 1:40,000

Map No. 30

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers



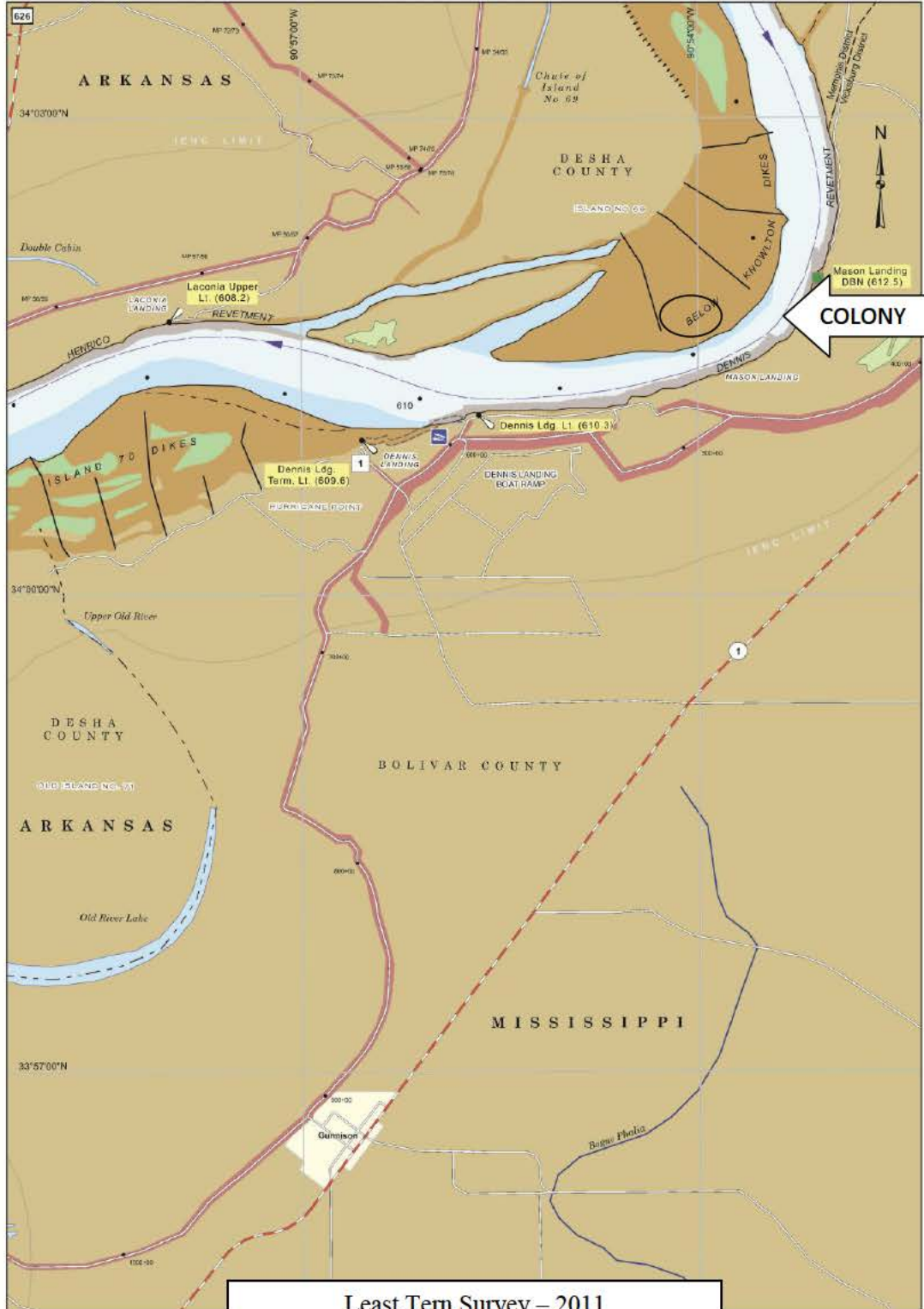


2007

SCALE = 1:40,000

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

Map No. 32

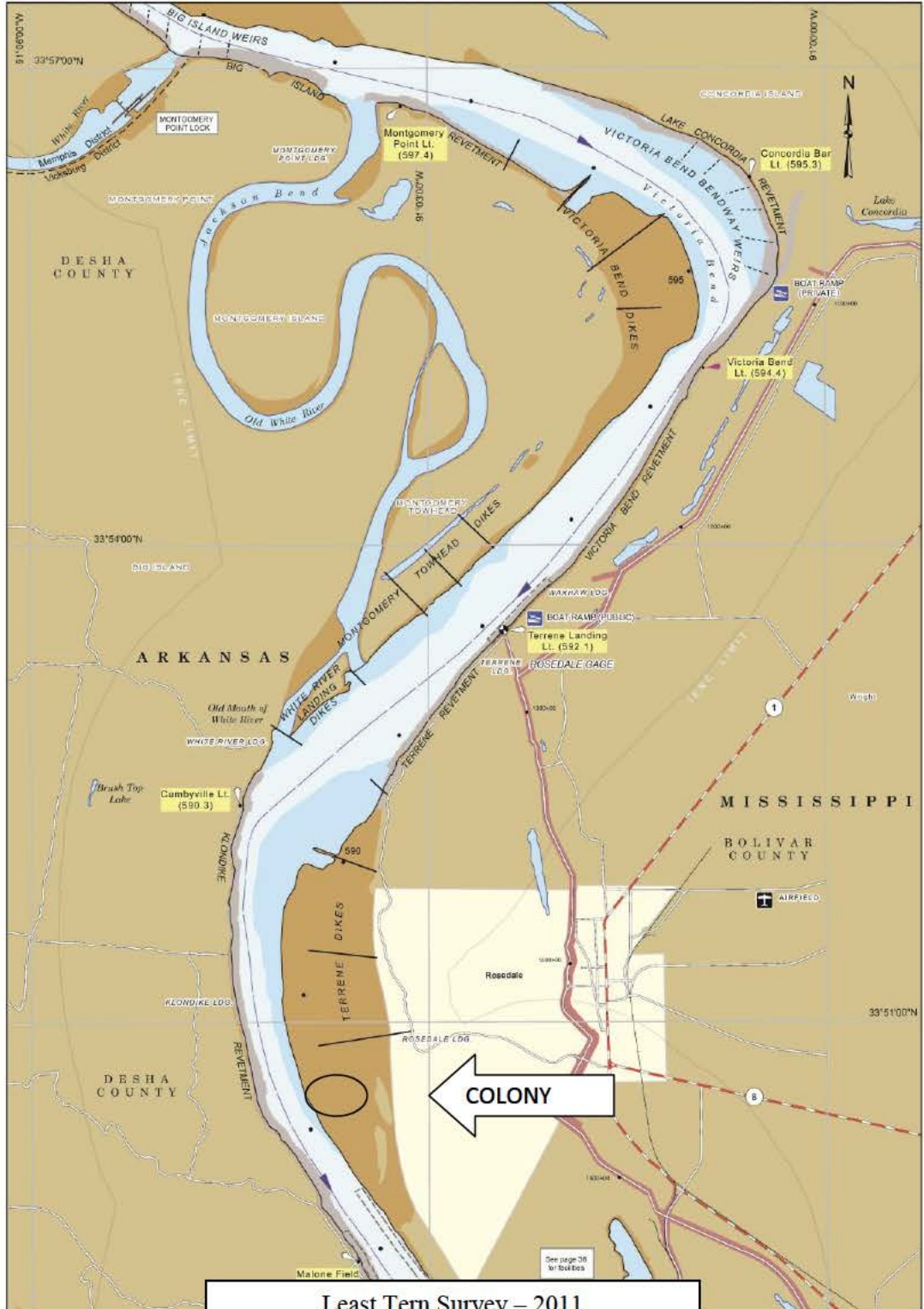


2007 SCALE = 1:40,000

Map No. 33

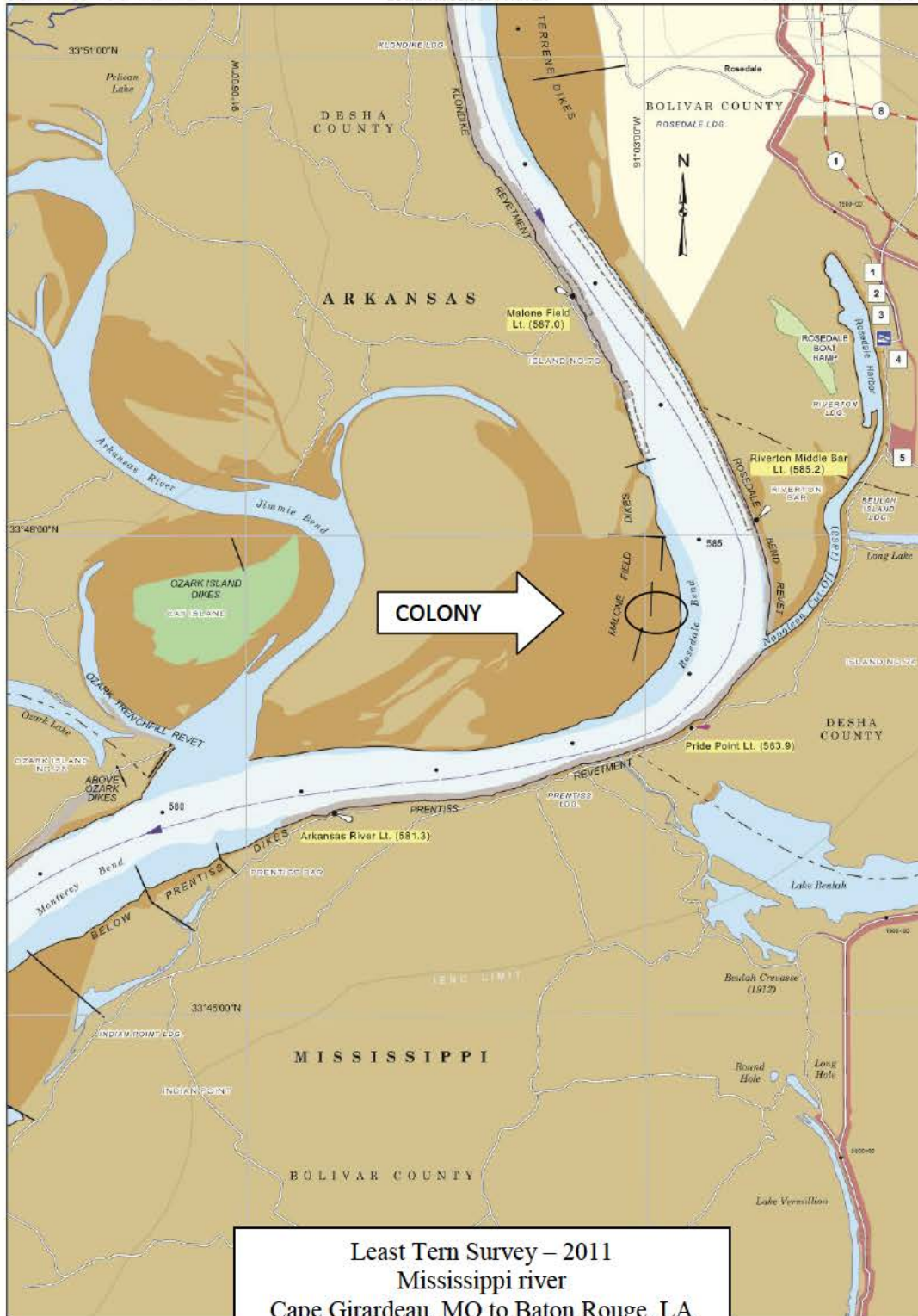
Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-20



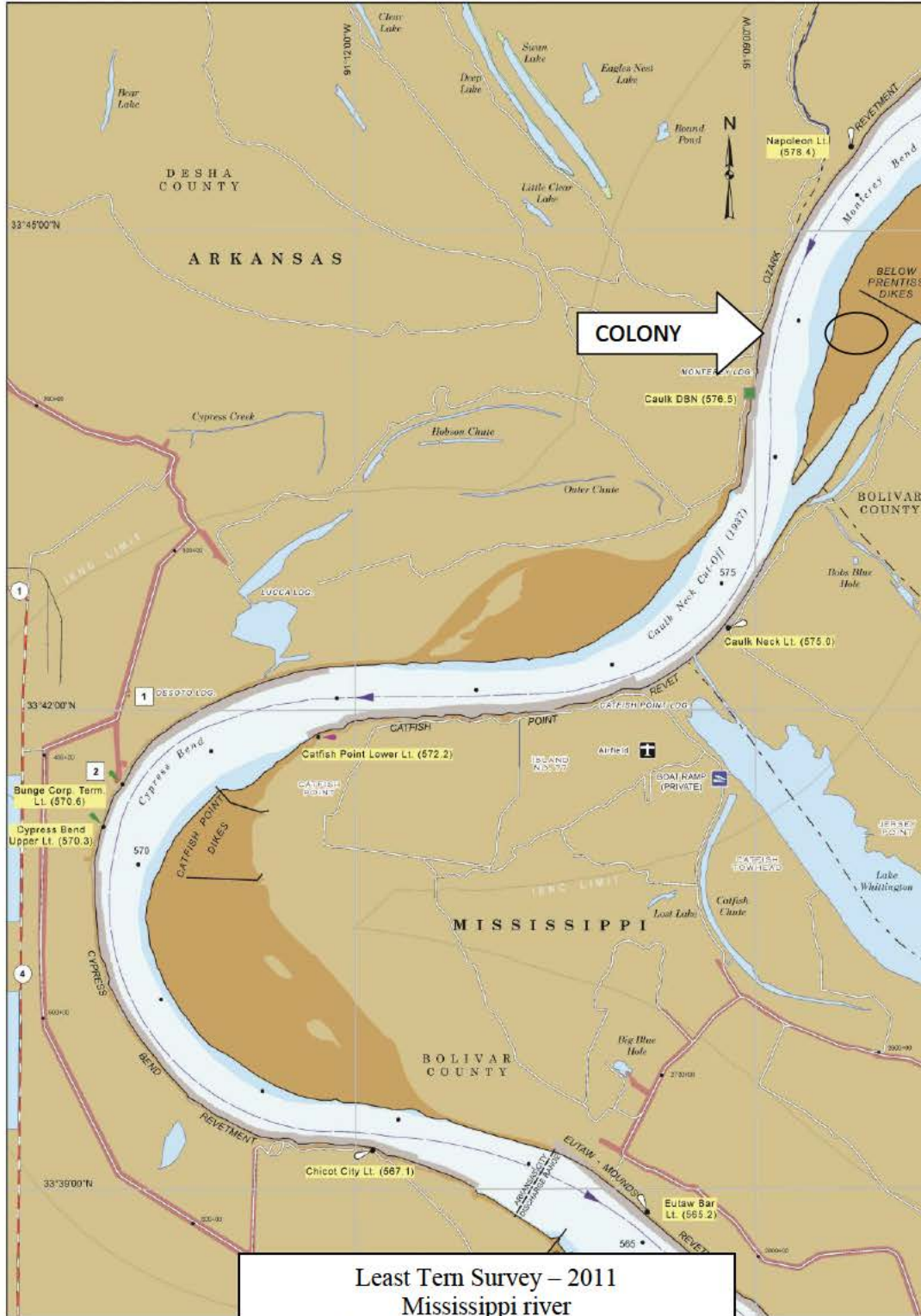
Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-21



Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-22

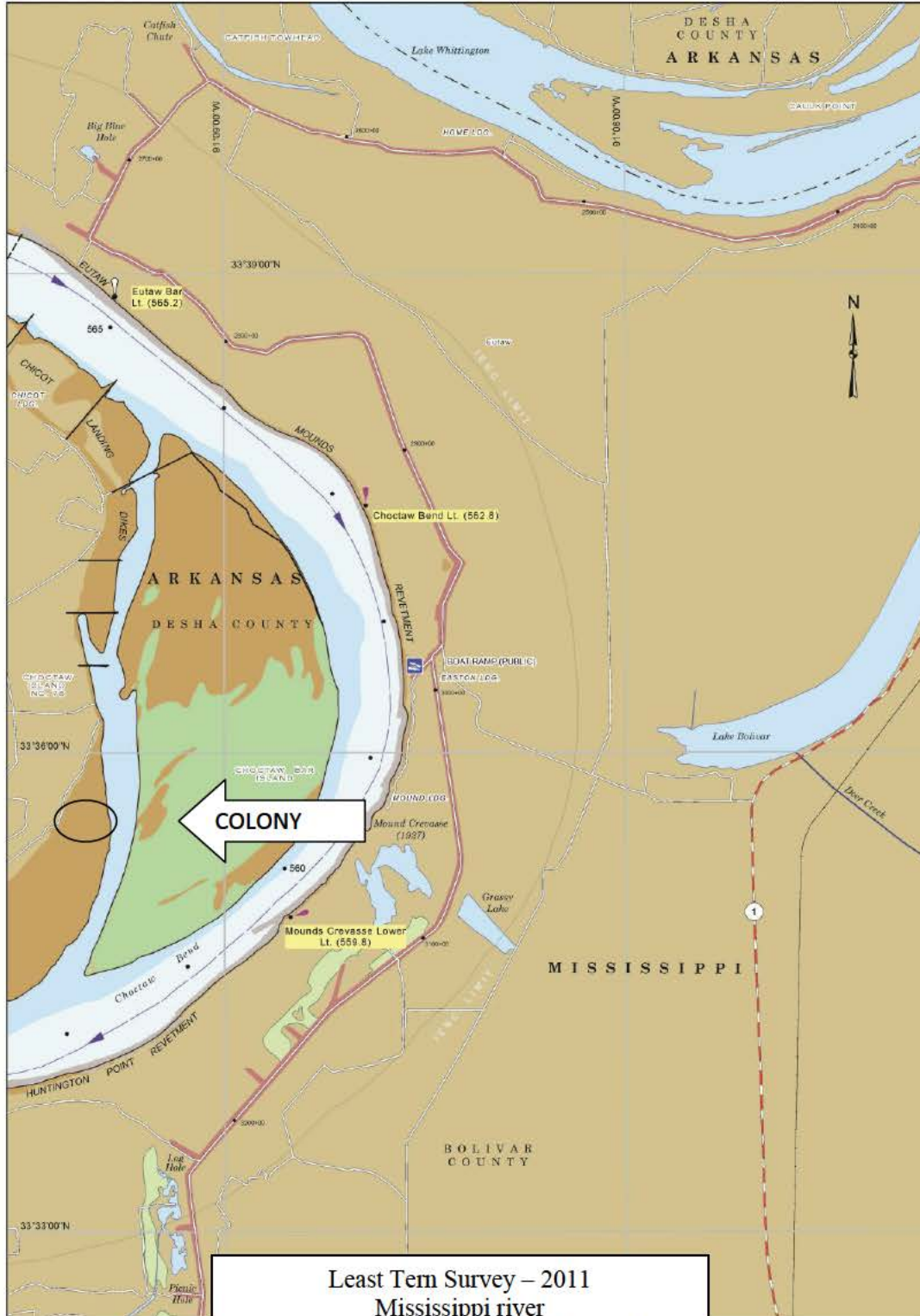


2007 SCALE = 1:40,000

Map No. 37

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-23



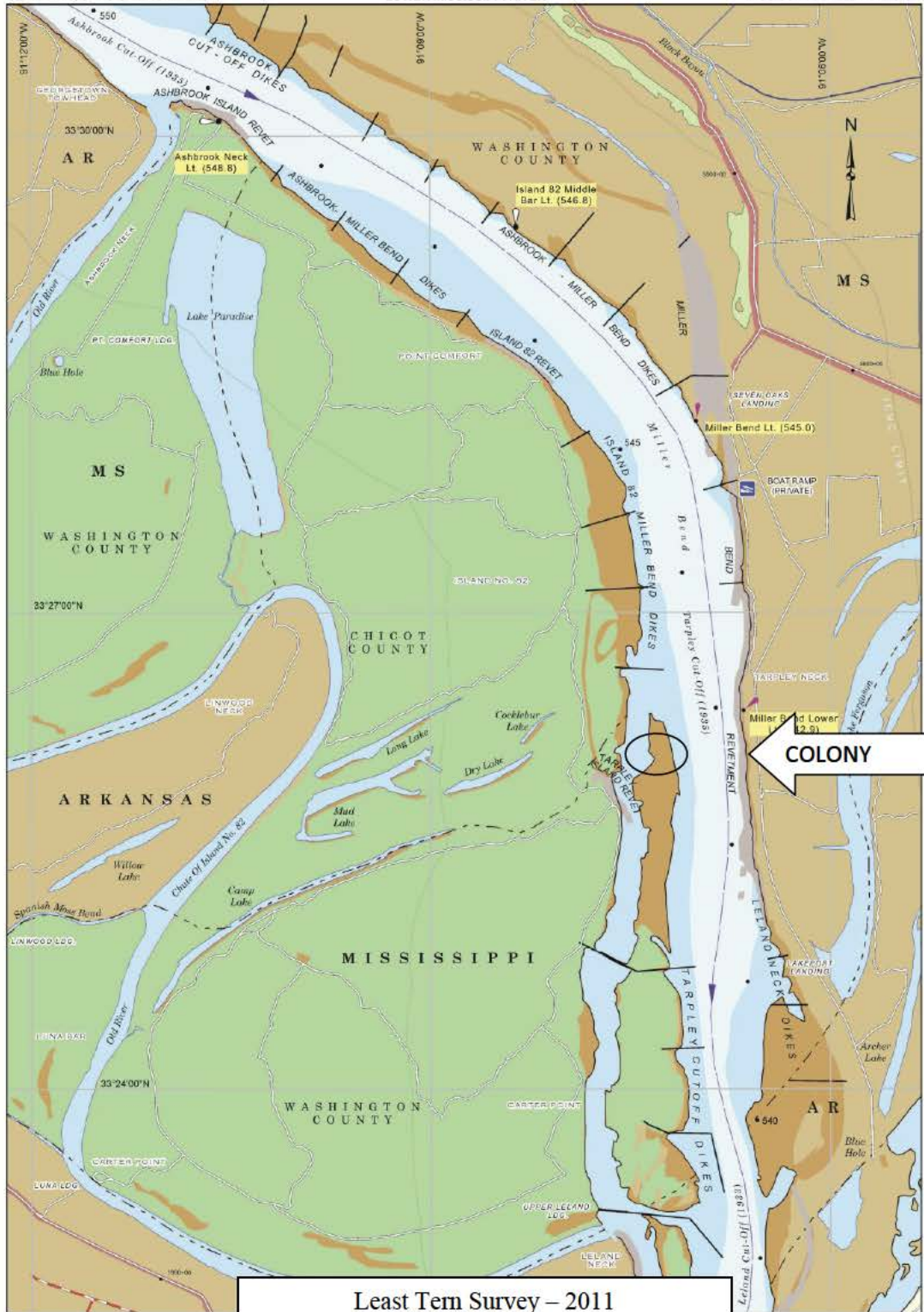
2007

SCALE = 1:40,000

Map No. 38

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

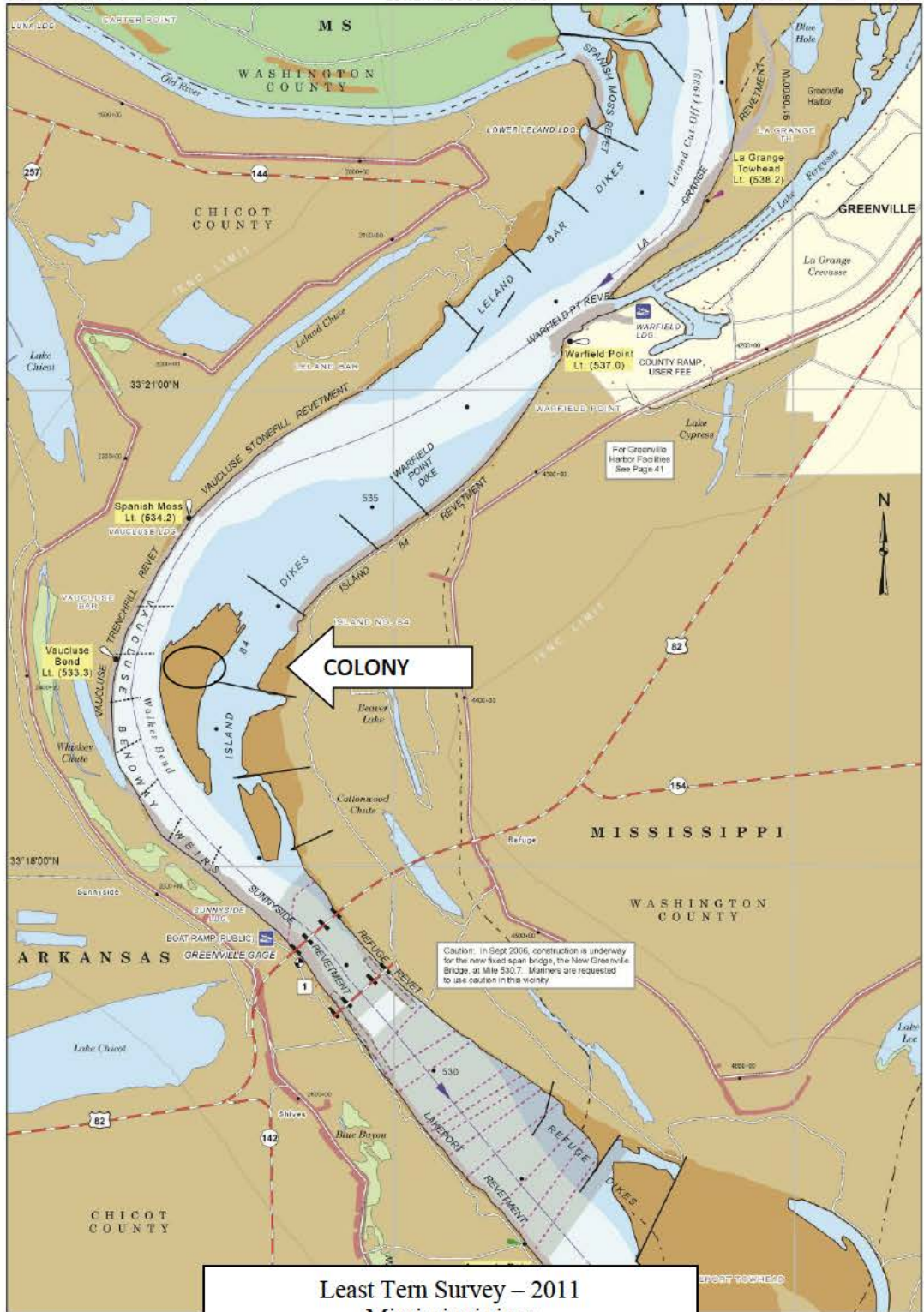
A-I-24



2007 SCALE = 1:40,000

Map No. 40

Least Tern Survey – 2011  
Mississippi river  
Cape Girardeau, MO to Baton Rouge, LA  
Nest Colony Locations  
Memphis District Corps of Engineers  
A-I-25



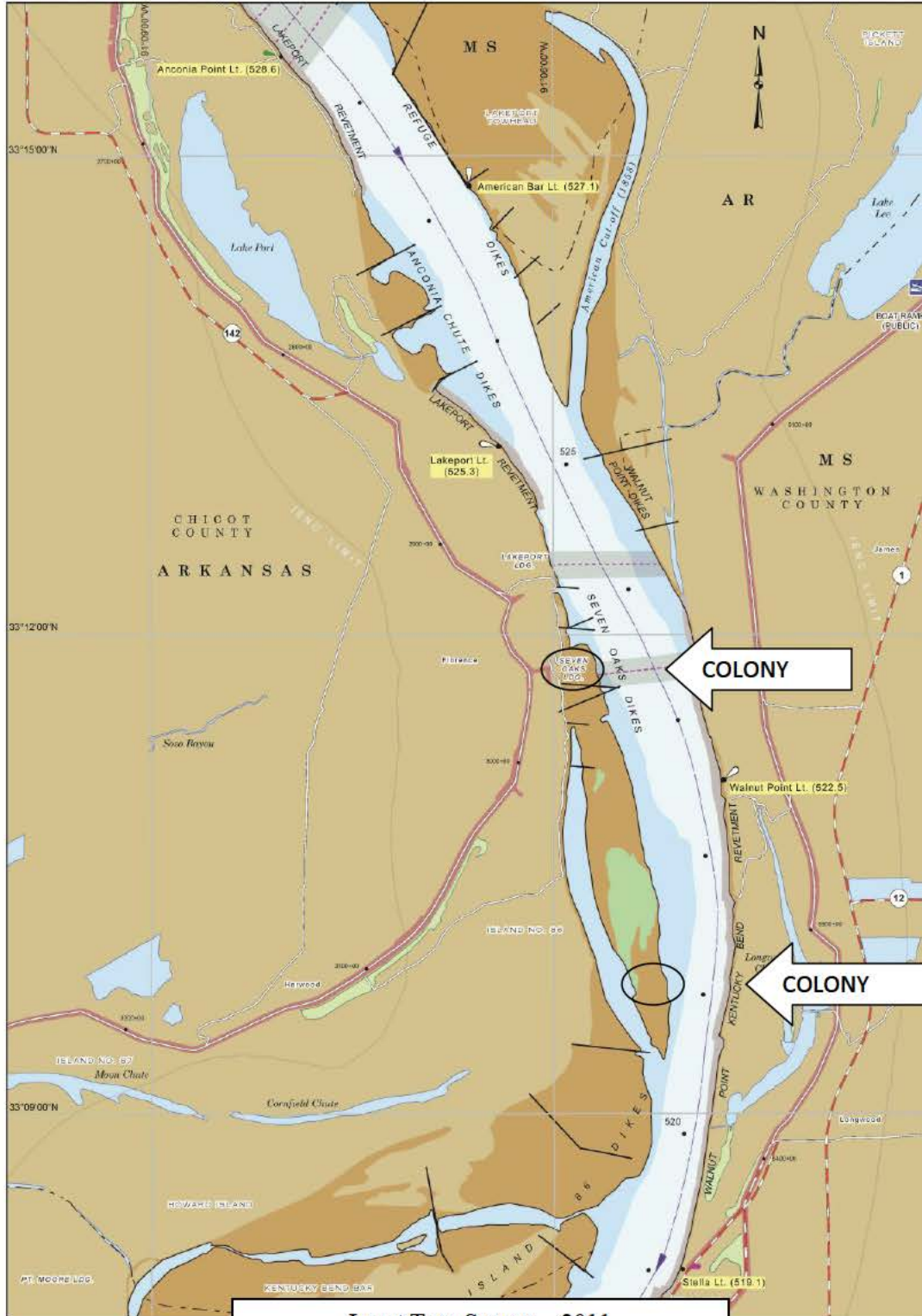
2007 SCALE = 1:40,000

Map No. 42

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-26



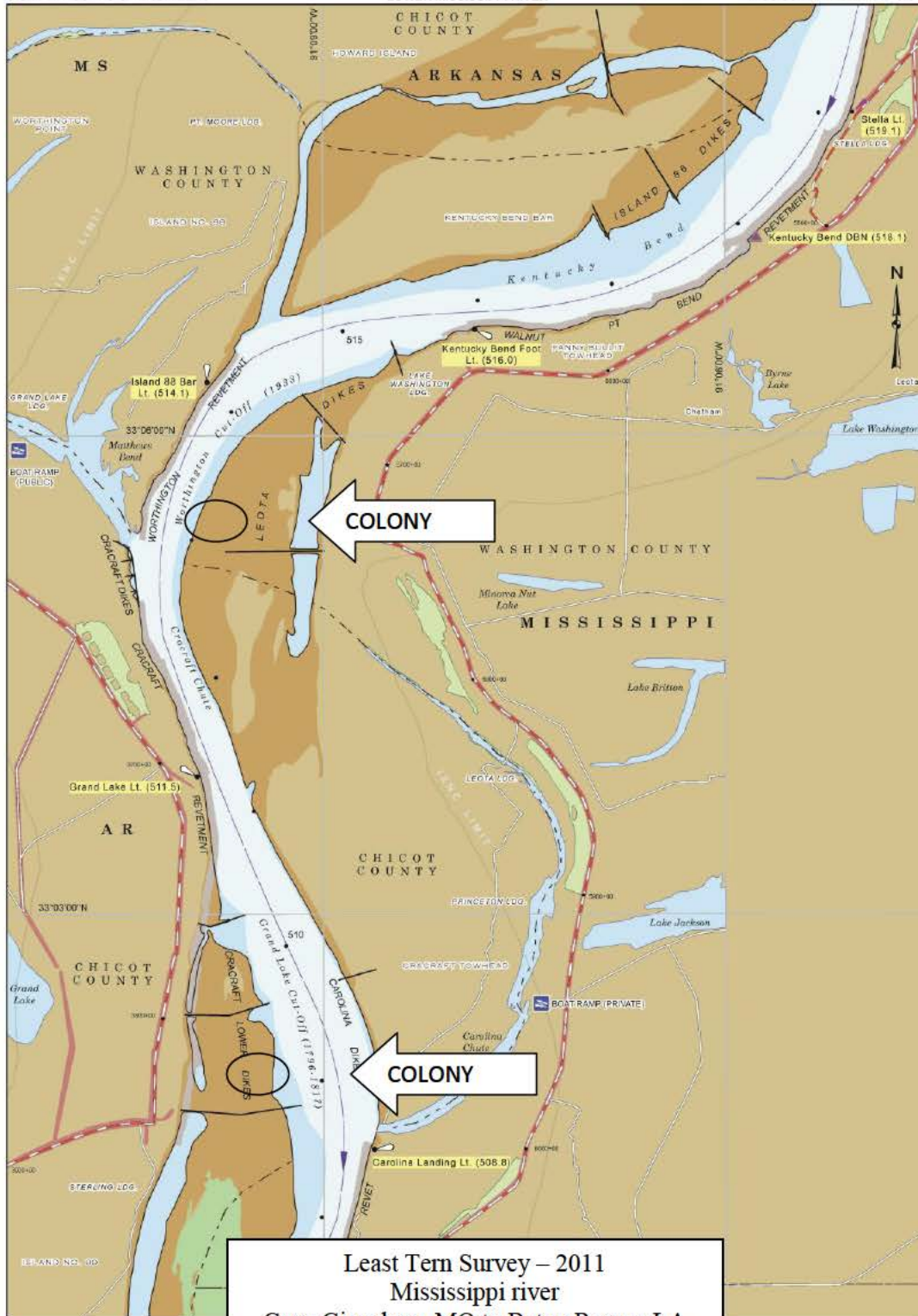


SCALE = 1:40,000

Map No. 43

Least Tern Survey – 2011  
Mississippi river  
Cape Girardeau, MO to Baton Rouge, LA  
Nest Colony Locations  
Memphis District Corps of Engineers

A-I-27

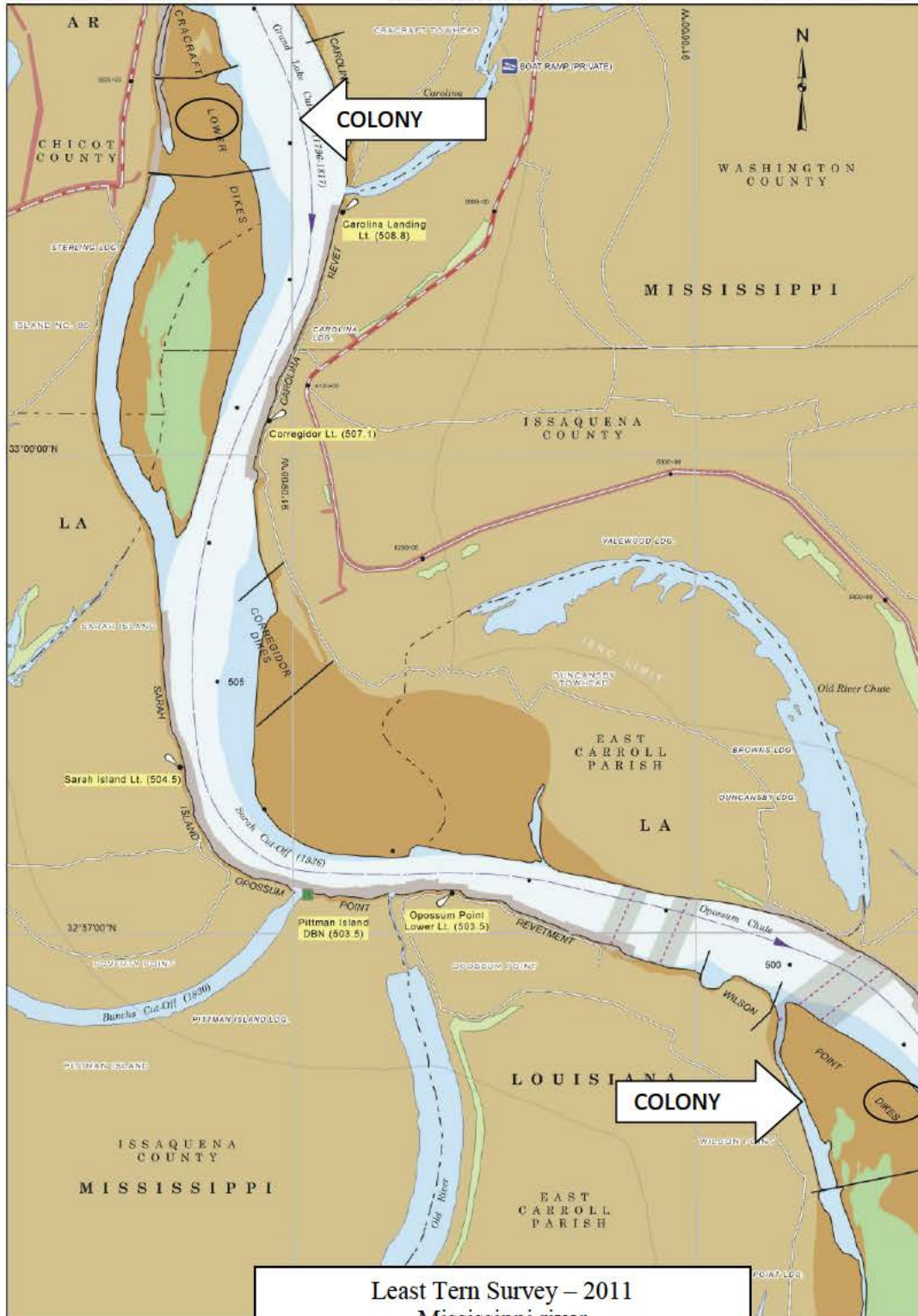


SCALE = 1:40,000

Map No. 44

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-28

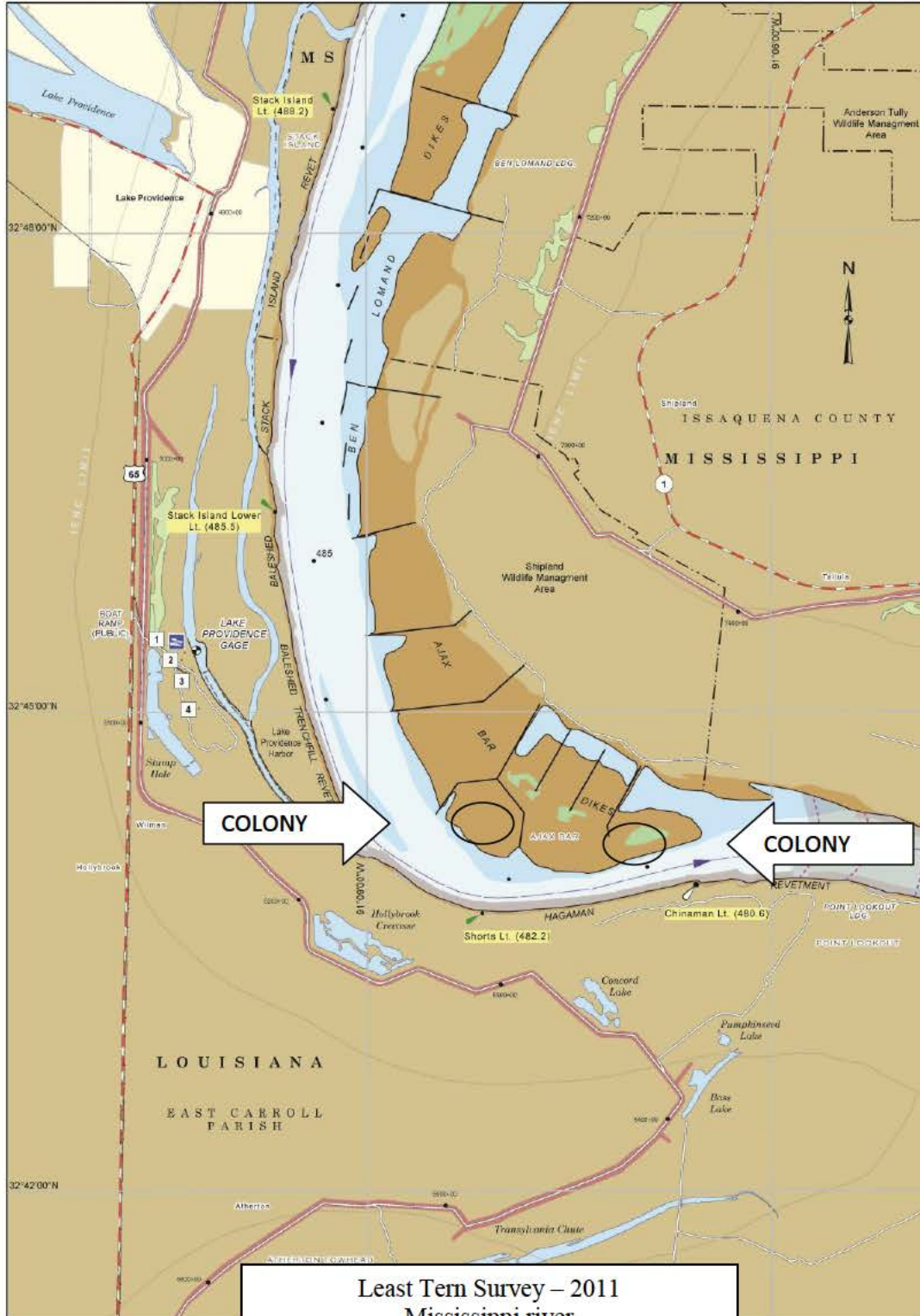


2007 SCALE = 1:40,000

Map No. 45

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-29



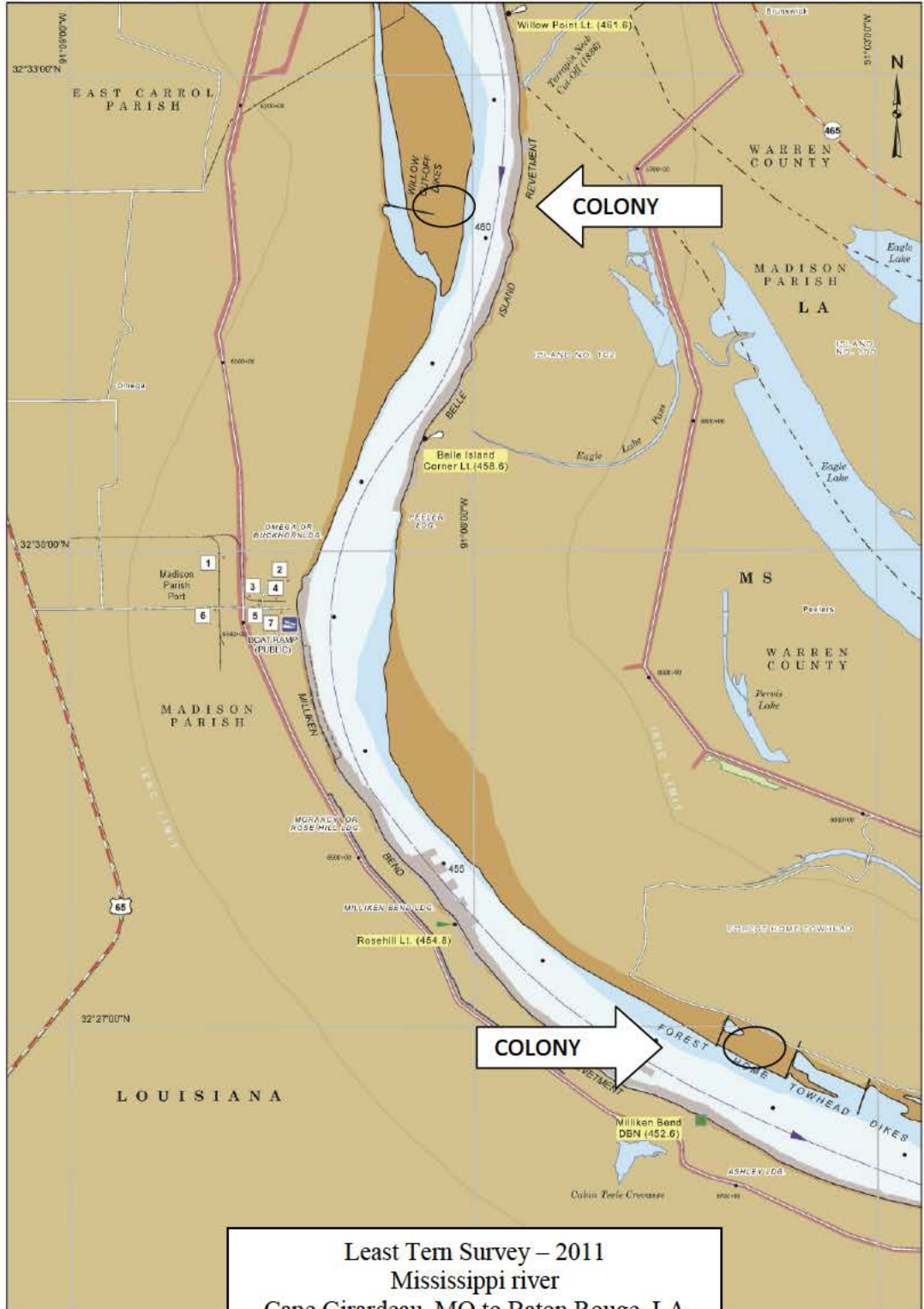
2007

SCALE = 1:40,000

Map No. 47

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

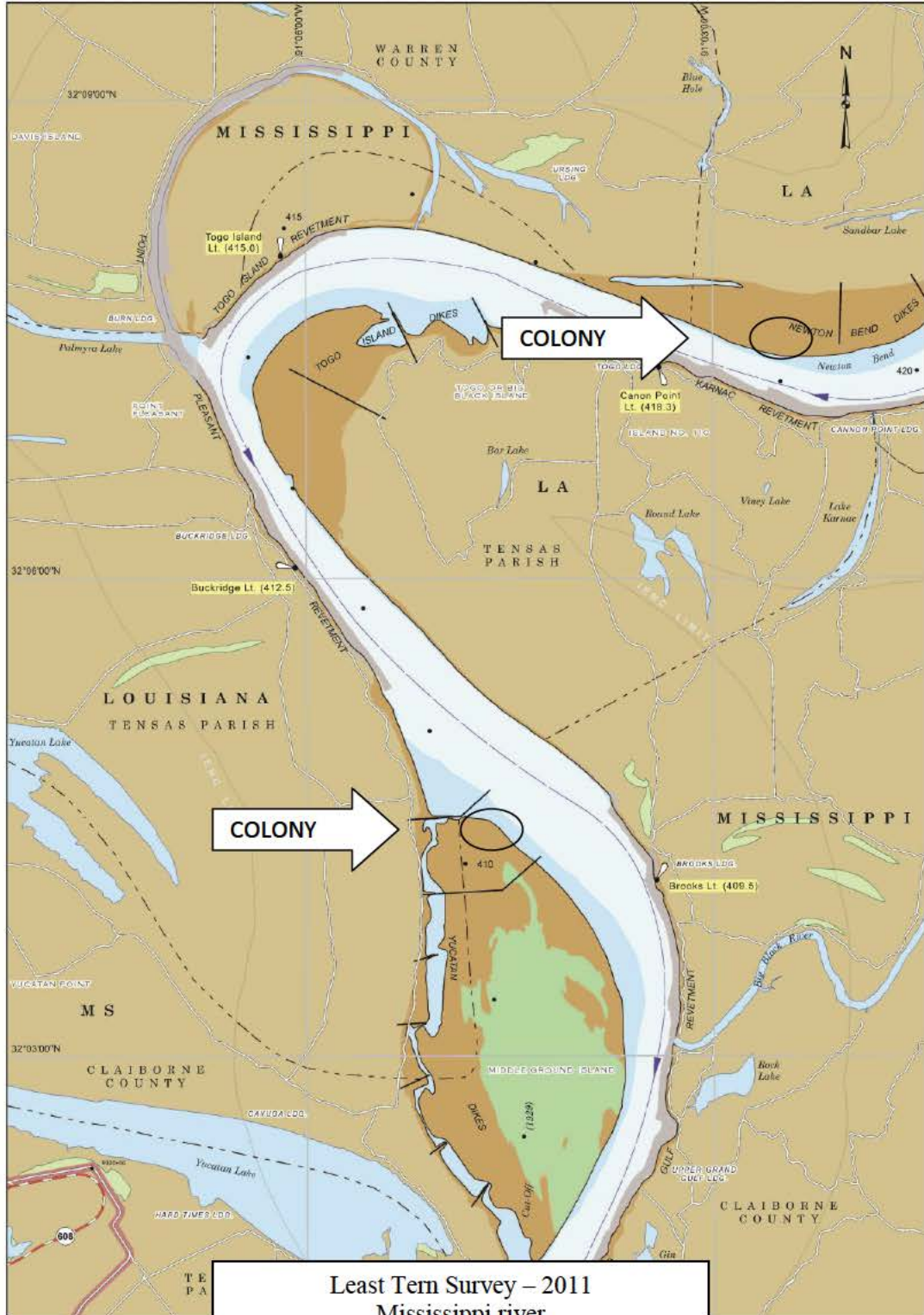
A-I-30



Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

2007 SCALE = 1:40,000

Map No. 50

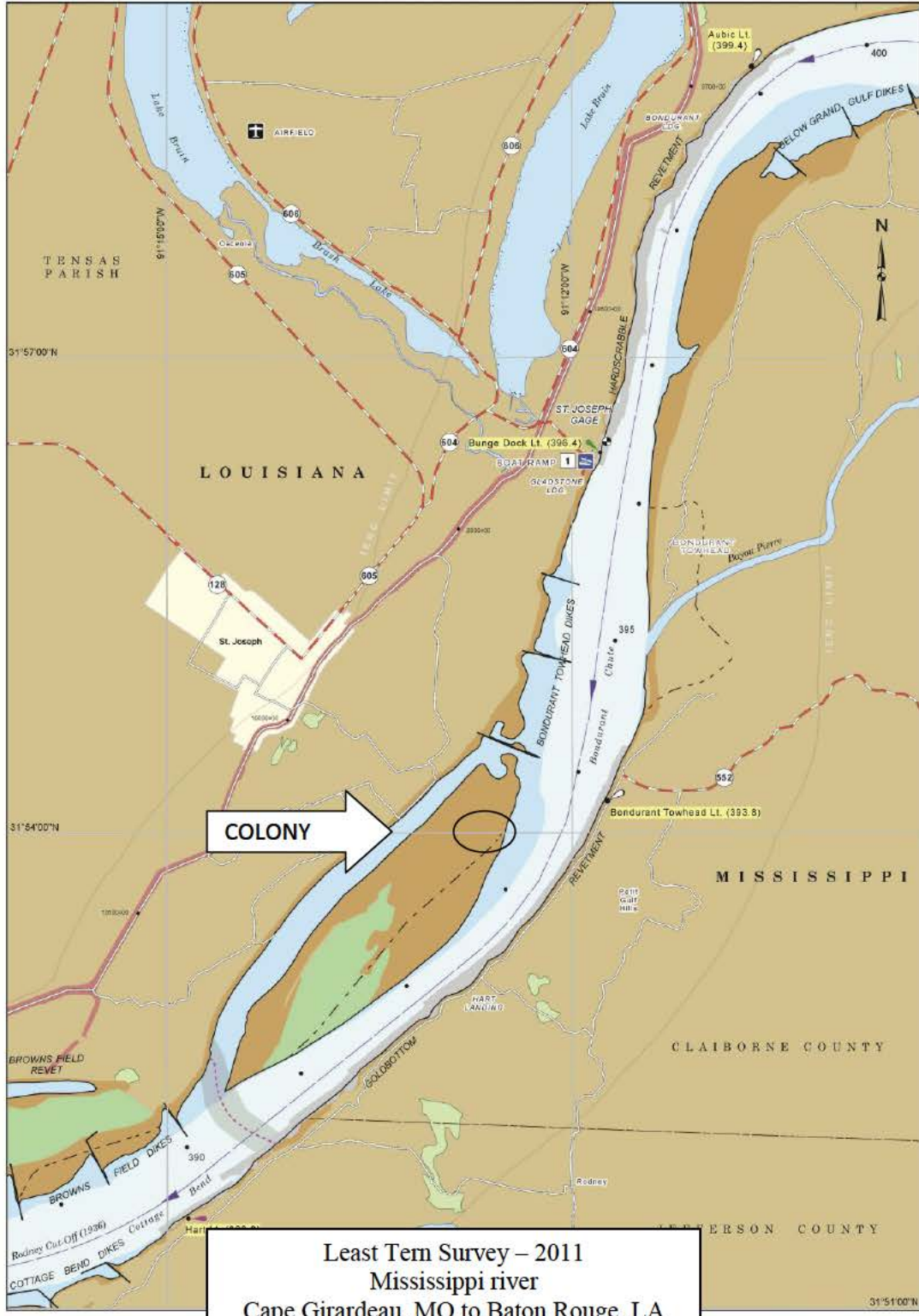


2007 SCALE = 1:40,000

Map No. 55

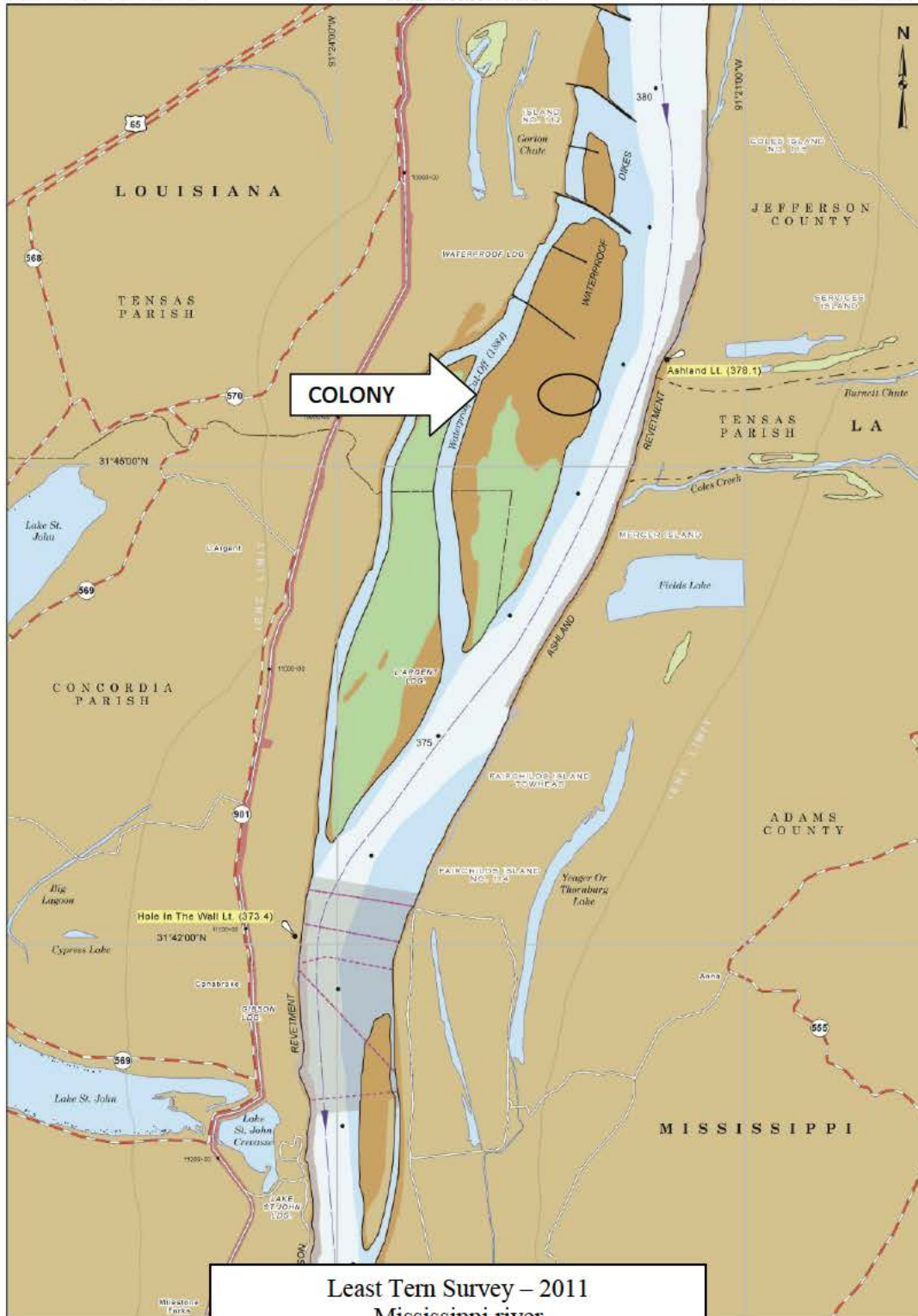
Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-32



Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-33



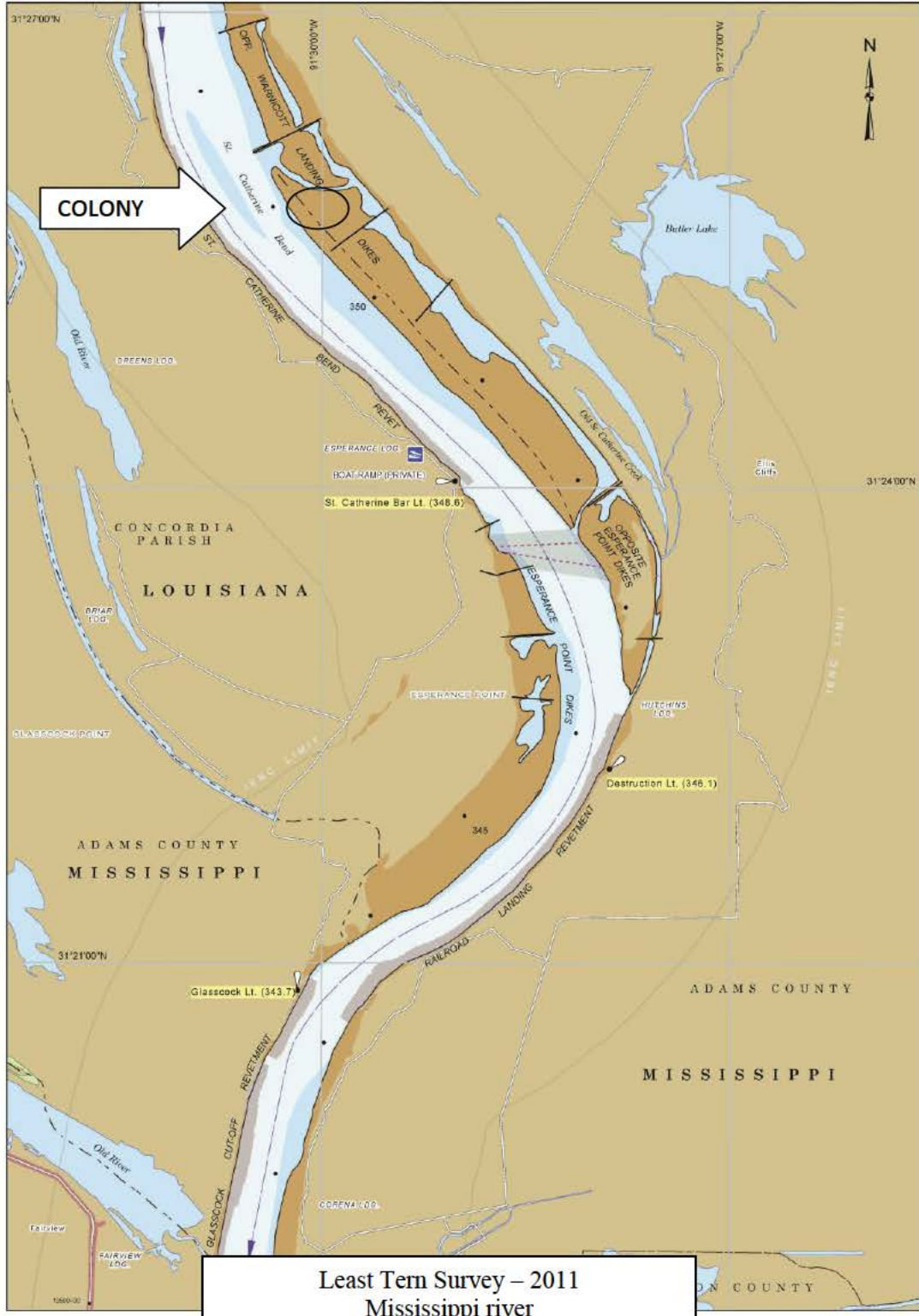
2007 SCALE = 1:40,000

Map No. 59

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers

A-I-34

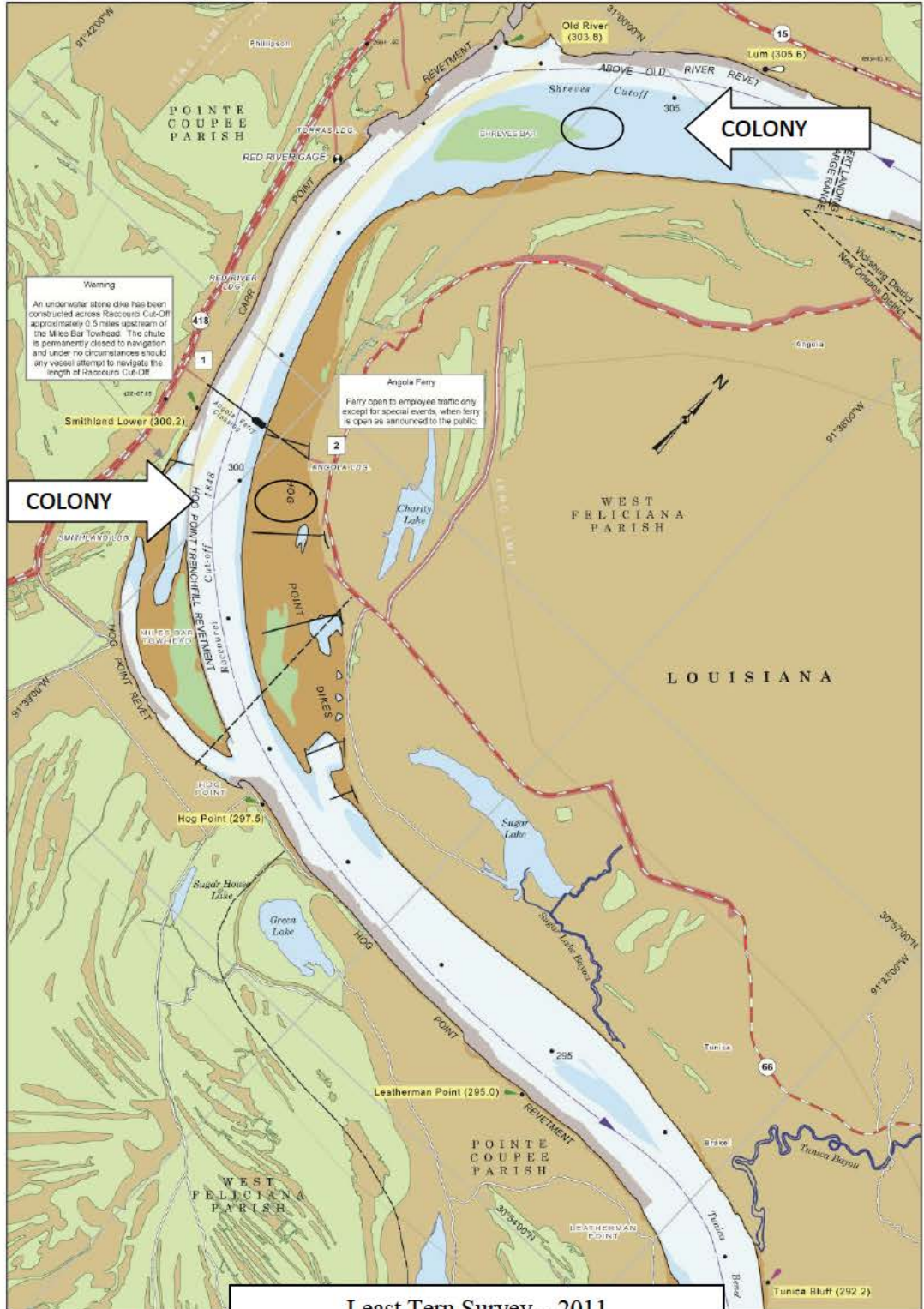




2007 SCALE = 1:40,000

Map No. 62

Least Tern Survey – 2011  
Mississippi river  
Cape Girardeau, MO to Baton Rouge, LA  
Nest Colony Locations  
Memphis District Corps of Engineers  
A-I-35



**Warning**  
 An underwater stone dike has been constructed across Racoon's Cut-Off approximately 0.5 miles upstream of the Miles Bar Towhead. The chute is permanently closed to navigation and under no circumstances should any vessel attempt to navigate the length of Racoon's Cut-Off.

**Angola Ferry**  
 Ferry open to employee traffic only except for special events, when ferry is open as announced to the public.

**COLONY**

**COLONY**

2007 SCALE = 1:40,000

Map No. 68

Least Tern Survey – 2011  
 Mississippi river  
 Cape Girardeau, MO to Baton Rouge, LA  
 Nest Colony Locations  
 Memphis District Corps of Engineers  
 A-I-36

**Appendix A – II**

**LEAST TERN SURVEY - 2011**

**Mississippi River  
Cape Girardeau, MO to Baton Rouge, LA**

**SMALL BOAT SURVEY July 24 – August 7, 2011**

**Memphis District, Corps of Engineers**

**Data Sheets**

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

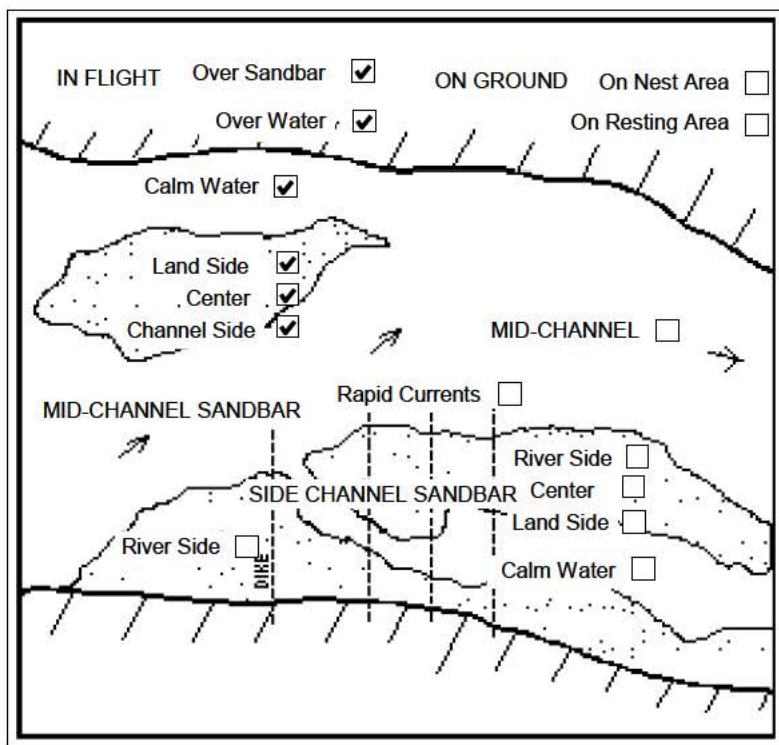
DATE: 8/7/2011 TIME OF DAY: 12:39 RIVER MILE: 931

LOCALITY: Hickman KY SITE NAME: Wolf Island Bar  
County/Parish State

WHERE SITED: Latitude: 36.6957  
Longitude: 89.1488

Approximate Distance to Water: 600 Feet

NUMBERS SIGHTED:  
Adults: 420  
Juveniles: \_\_\_\_\_  
Eggs: 3(1) 15(2) 4(3)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: W 5mph  
% Cloud: 90

OTHER NOTES:

Left Bank. Large, high, unattached, sand bar downstream of wooded, wolf island bar (1200 x 700 ft.). Nests in all stages of laying and chicks hatching from 1-3 days old. Human tracks present but no recent signs of serious disturbance. Golden Plovers, 2 Avocets, 1 Black Tern near colony and Bald Eagles observed nearby MM 932 and 951. Smallmouth Buffalo and Gizzard Shad fingerlings dropped in colony.

KY side

OBSERVERS: J. & L. Boyd, D. & R. Davin, Jones, Rumancik

RIVER GAGE READING: Cairo = 28.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

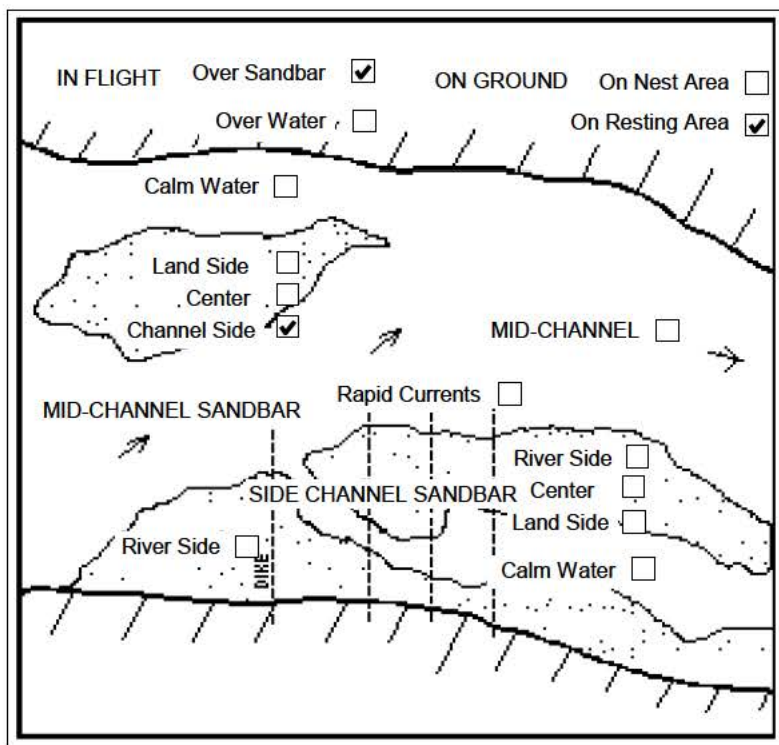
DATE: 8/7/2011 TIME OF DAY: 11:28 RIVER MILE: 920

LOCALITY: Mississippi MO SITE NAME: Hickman Bend  
County/Parish State

WHERE SITED: Latitude: 36.5657  
Longitude: 89.2497

Approximate Distance to Water: 0 Feet

NUMBERS SIGHTED:  
Adults: 27  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: 0 Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: SW 5mph  
% Cloud: 80

OTHER NOTES:

Right Bank. Low, flat, small, barely emergent sand bar with lots of debris. All birds resting at waterline, drift count with no signs of reproduction.

MO side

OBSERVERS: J. & L. Boyd, D. & R. Davin, Jones, Rumancik

RIVER GAGE READING: Cairo = 28.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

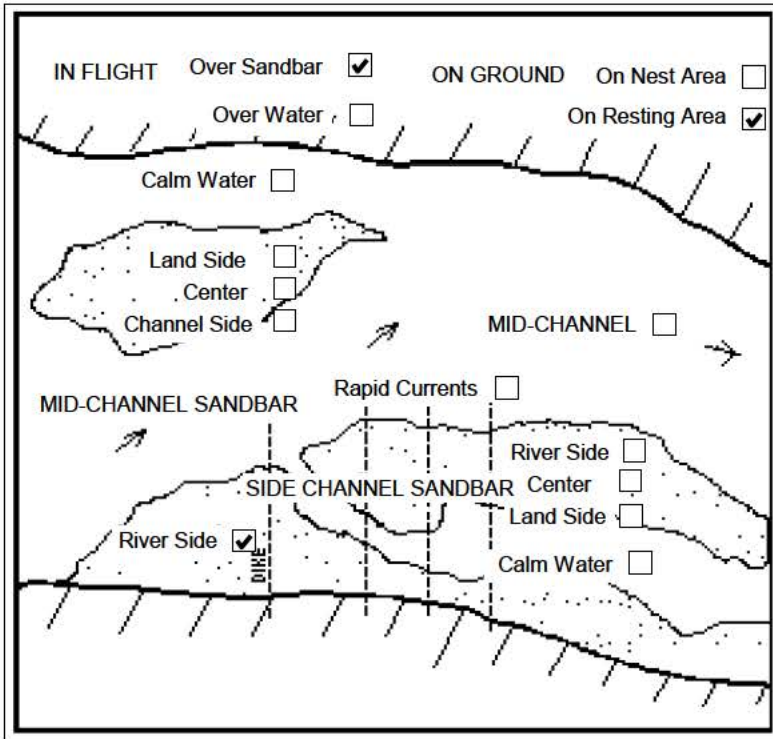
DATE: 8/7/2011 TIME OF DAY: 11:04 RIVER MILE: 908

LOCALITY: Fulton KY SITE NAME: Kelly Landing  
County/Parish State

WHERE SITED: Latitude: 36.5390  
Longitude: 89.4020

Approximate Distance to Water: 0 Feet

NUMBERS SIGHTED:  
Adults: 11  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 400 Feet

FIELD CONDITION:  
Temperature: 86 °F  
Rain: No  
Wind: SW 10 mph  
% Cloud: 80

OTHER NOTES:

Right Bank. Small, attached, river-side sand bar with all terns resting at waterline. One immature Bald Eagle and 5 Mourning Doves present also.

KY side

OBSERVERS: J. & L. Boyd, D. & R. Davin, Jones, Rumancik

RIVER GAGE READING: New Madrid = 18.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

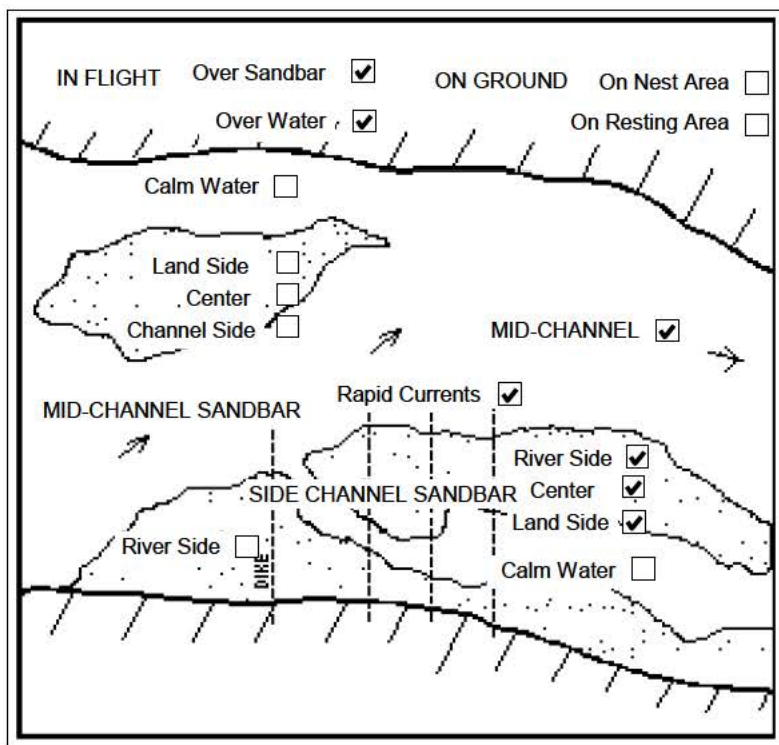
DATE: 8/7/2011 TIME OF DAY: 9:55 RIVER MILE: 884.5

LOCALITY: Fulton KY SITE NAME: Kentucky Point Dikes  
County/Parish State

WHERE SITED: Latitude: 36.5074  
Longitude: 89.5430

Approximate Distance to Water: 20 Feet

NUMBERS SIGHTED:  
Adults: 555  
Juveniles: \_\_\_\_\_  
Eggs: 11(1) 14(2) 11(3)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: SW 3-5mph  
% Cloud: 40

OTHER NOTES:

Left Bank. Unattached sand bar, medium to high elevation (800 x 2 miles). Kentucky game & Fish "Keep Out" signs posted along perimeter. Chicks abundant, hatching and up to 1 week old. Terns carrying fish and mobbing Great Blue Heron. Five abandoned eggs and 2 dead chicks, cause unknown. Cliff Swallows abundant and 1 immature Ring-billed Gull also present. Fishermen in boat 2 miles upstream and Bald Eagle 4 miles above colony. No other disturbance noted.  
KY side

OBSERVERS: J. & L. Boyd, D. & R. Davin, Jones, Rumancik

RIVER GAGE READING: New Madrid = 18.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

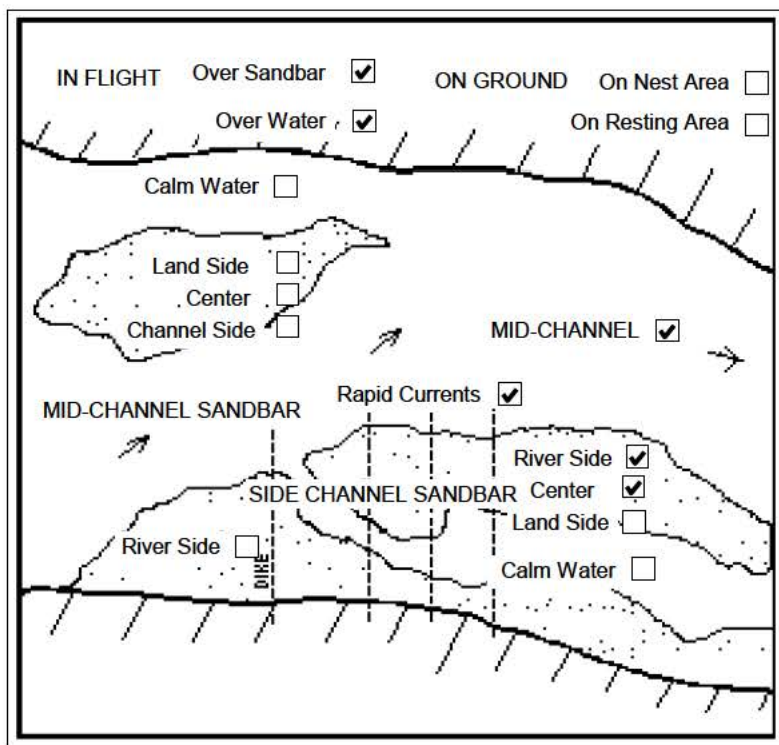
DATE: 8/7/2011 TIME OF DAY: 9:27 RIVER MILE: 871

LOCALITY: New Madrid MO SITE NAME: Stewart Towhead Dikes  
County/Parish State

WHERE SITED: Latitude: 36.3533  
Longitude: 89.5186

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 49  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 60

OTHER NOTES:

Right Bank. Low, flat sand bar with terns courting with scrapes but no eggs observed or mobbing behavior.  
One Caspian Tern present but no other disturbance noted.

MO side

OBSERVERS: J. & L. Boyd, D. & R. Davin, Jones, Rumancik

RIVER GAGE READING: New Madrid = 18.2 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

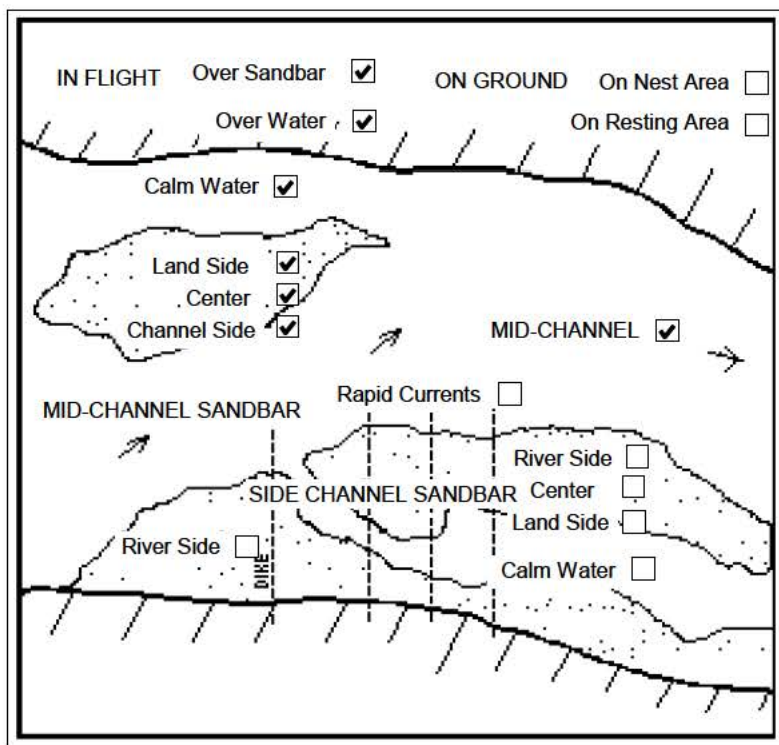
DATE: 8/7/2011 TIME OF DAY: 8:50 RIVER MILE: 864

LOCALITY: Lake TN SITE NAME: Below Cherokee Dikes  
County/Parish State

WHERE SITED: Latitude: 36.32014  
Longitude: 89.61528

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 22  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 82 °F  
Rain: No  
Wind: SW 3-5mph  
% Cloud: 85

OTHER NOTES:

Left Bank. Low, flat, broad, long, unattached, mid-channel sand bar 1.5 mile in length. Terns carrying fish. Drift count with no disturbance noted.

TN side

OBSERVERS: J. & L. Boyd, D. & R. Davin, Jones, Rumancik

RIVER GAGE READING: Caruthersville = 19.8 R  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

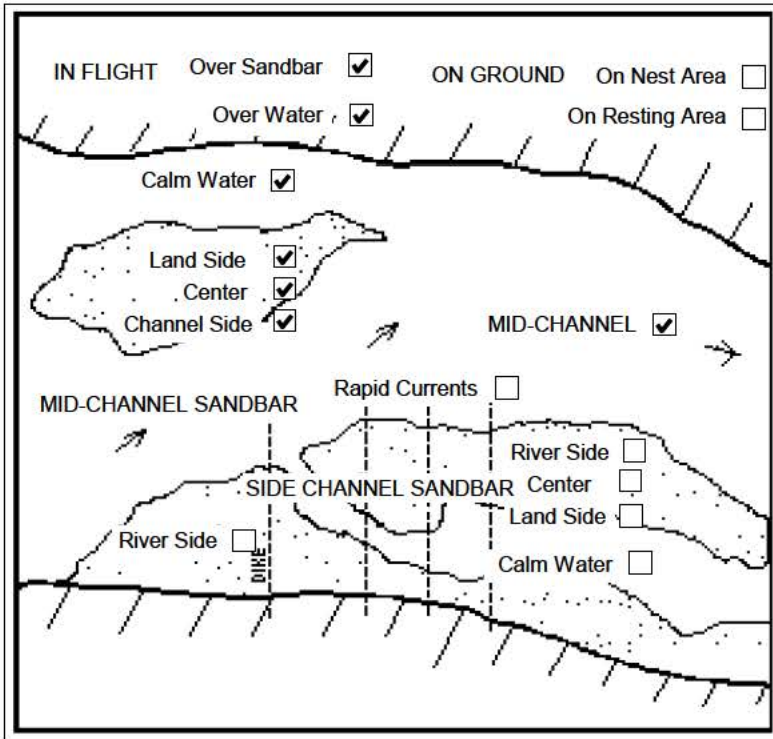
DATE: 8/7/2011 TIME OF DAY: 8:25 RIVER MILE: 857

LOCALITY: Pemiscott MO SITE NAME: Chute of Island #14  
County/Parish State

WHERE SITED: Latitude: 36.2457  
Longitude: 89.5751

Approximate Distance to Water: 800 Feet

NUMBERS SIGHTED:  
Adults: 79  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 83 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 90

OTHER NOTES:

Right Bank. Low, flat, large mid-channel bar. Drift count yields 3 terns sitting inland on probable nests.  
Sandpipers and White Pelicans present but no mobbing observed.

MO side

OBSERVERS: J. & L. Boyd, D. & R. Davin, Jones, Rumancik

RIVER GAGE READING: Caruthersville = 19.8 R  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

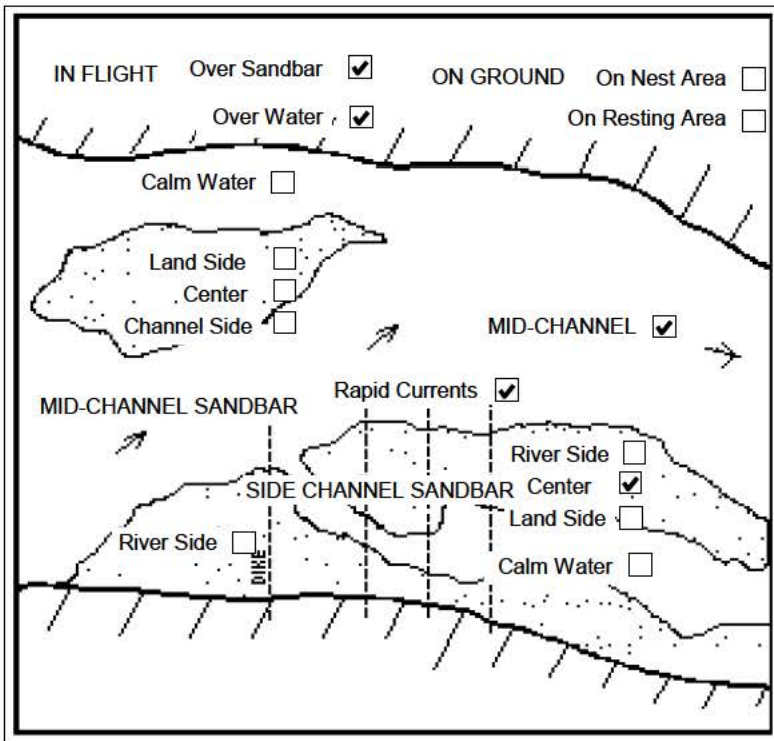
DATE: 7/24/2011 TIME OF DAY: 8:12 RIVER MILE: 836

LOCALITY: Dyer TN SITE NAME: Island #18 Towhead Dikes  
County/Parish State

WHERE SITED: Latitude: 36.09477  
Longitude: 89.66309

Approximate Distance to Water: 800 Feet

NUMBERS SIGHTED:  
Adults: 37  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: SW 5mph  
% Cloud: 20

OTHER NOTES:

Left Bank. Low, flat clean, unattached, dike bar of sand and mud (900 x 1.25 mi.). Unattached with terns courting and 5 sitting inland, some fishing in back chute. No disturbance signs noted. Comorants, Rough-winged Swallows, Great Egrets and Great Blue Herons present. Bald Eagle at MM 850.

TN side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Caruthersville = 20.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

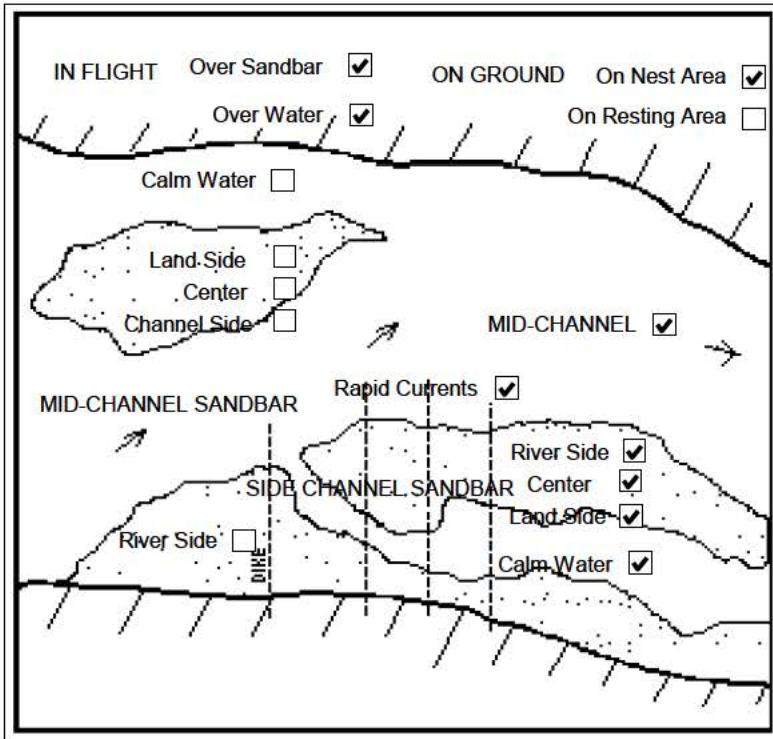
DATE: 7/24/2011 TIME OF DAY: 8:49 RIVER MILE: 830.5

LOCALITY: Pemiscott MO SITE NAME: Island #20 Dikes  
County/Parish State

WHERE SITED: Latitude: 36.03683  
Longitude: 89.69475

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:  
Adults: 479  
Juveniles: \_\_\_\_\_  
Eggs: 6(2)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 400 Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: SW 5mph  
% Cloud: 10 hazy

OTHER NOTES:

Right Bank. Unattached, flat, high, sand and gravel bar (700 x 1000 ft.) with nests along wrack lines.  
Chicks up to 1 week old and nests with eggs. Many scrapes with terns carrying fish and courting. Turtle tracks but no other disturbance signs. Great Egrets, Great Blue Herons, 1 Bald Eagle, Kildeers and Comorants in proximity.

MO side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Caruthersville = 20.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

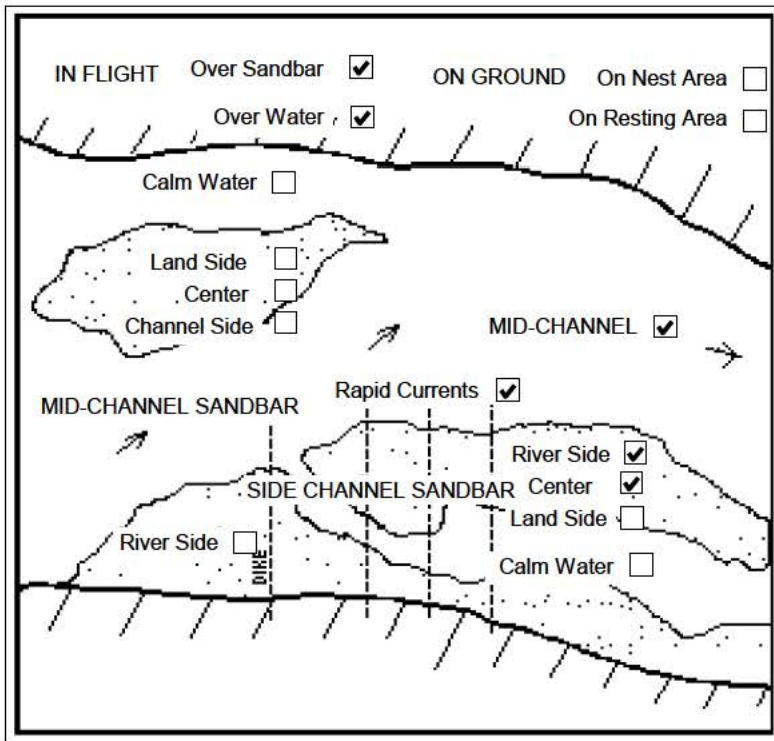
DATE: 7/24/2011 TIME OF DAY: 9:20 RIVER MILE: 819

LOCALITY: Mississippi AR SITE NAME: Wrights Point Dikes  
County/Parish State

WHERE SITED: Latitude: 35.90839  
Longitude: 89.64544

Approximate Distance to Water: 80 Feet

NUMBERS SIGHTED:  
Adults: 105  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: SW 5mph  
% Cloud: 10 hazy

OTHER NOTES:

Right Bank. Attached, upstream pt. bar 1/4 mile long. Drift count yields most birds at waterline but 2 sitting inland. Migrating sandpipers over water and terns fishing opposite bank. No disturbance noted.

AR side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Caruthersville = 20.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

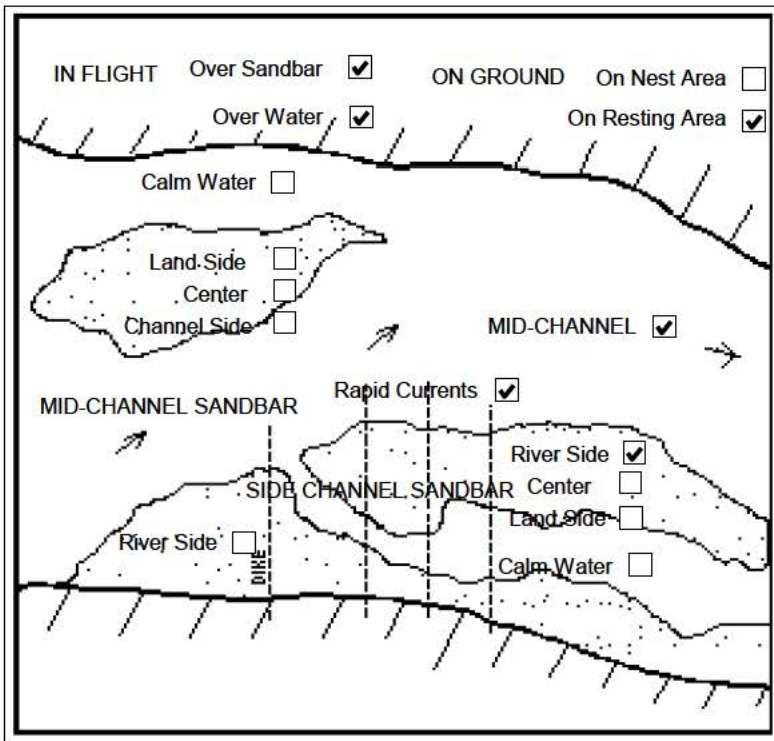
DATE: 7/24/2011 TIME OF DAY: 9:40 RIVER MILE: 811.5

LOCALITY: Lauderdale TN SITE NAME: Below Tamm Bend Dikes Upper  
County/Parish State

WHERE SITED: Latitude: 35.90275  
Longitude: 89.73821

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 78  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/Cottonwoods  
Distance: 500 Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 10 hazy

OTHER NOTES:

Left Bank. Attached sand bar with birds resting at waterline or fishing mid channel. Drift count but no reproductive activity.

TN side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Caruthersville = 20.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

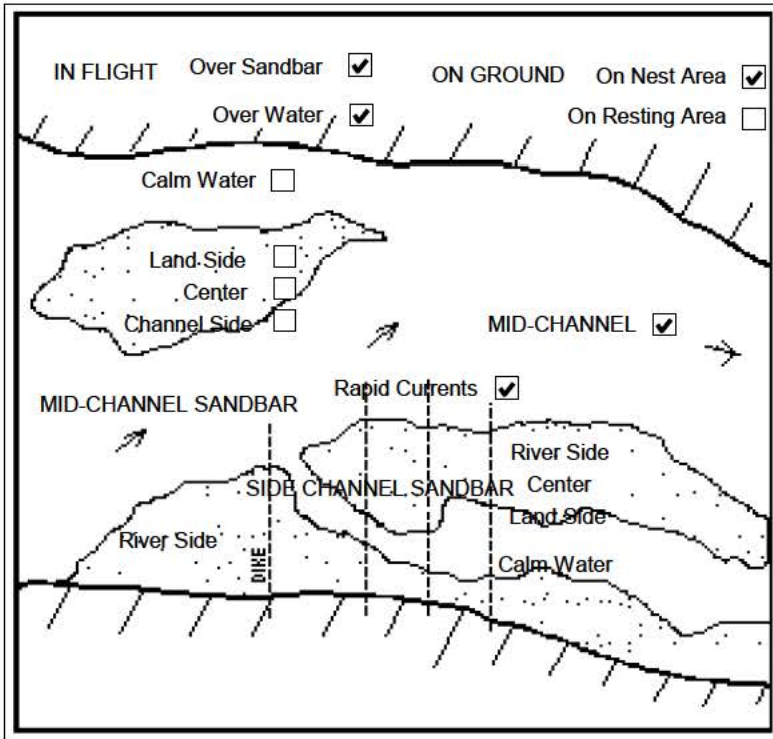
DATE: 7/24/2011 TIME OF DAY: 9:53 RIVER MILE: 810.3

LOCALITY: Lauderdale TN SITE NAME: Below Tamm Bend Dikes Lower  
County/Parish State

WHERE SITED: Latitude: 35.89716  
Longitude: 89.75655

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:  
Adults: 142  
Juveniles: \_\_\_\_\_  
Eggs: 8(2) 4(3)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/Cottonwoods  
Distance: 300 Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: SW 5-8 mph  
% Cloud: 10 hazy

OTHER NOTES:

Left Bank. Unattached, flat sand bar with pea gravel and light debris (1.5 x 0.5 miles). Chicks hatching and many abandoned eggs. Terns fishing opposite bank and breasting. Dropped fish include Silver Carp. No signs of disturbance. Many Great Blue Herons (26) nearby at waterline.

TN side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Caruthersville = 20.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

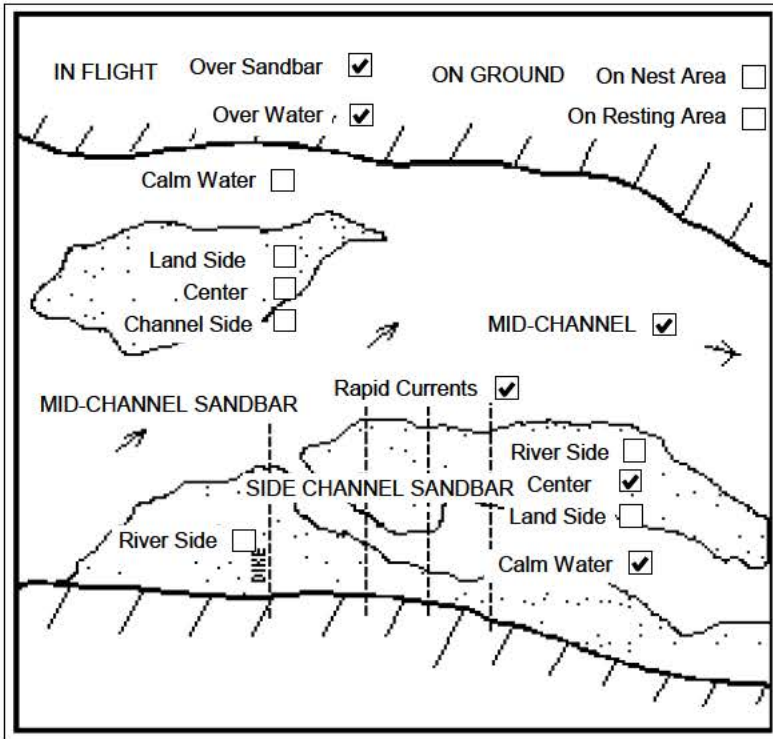
DATE: 7/24/2011 TIME OF DAY: 10:23 RIVER MILE: 807.7

LOCALITY: Lauderdale TN SITE NAME: Nebraska Point Dikes  
County/Parish State

WHERE SITED: Latitude: 35.8605  
Longitude: 89.76152

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:  
Adults: 888  
Juveniles: \_\_\_\_\_  
Eggs: 1(1) 20(2) 12(3) 1(4)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 92 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 20

OTHER NOTES:

Left Bank. Unattached, high, flat sand bar (800' x 1.5 mile long). Nests closely space and some abandoned eggs with goose tracks the only sign of disturbance. One Silverside dropped in colony

TN side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Caruthersville = 20.4 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

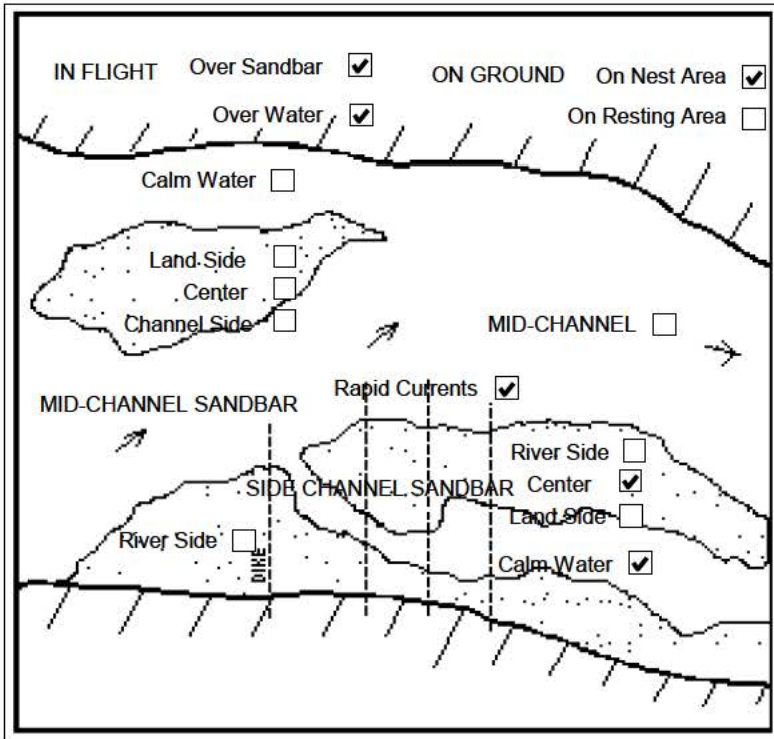
DATE: 7/24/2011 TIME OF DAY: 11:22 RIVER MILE: 794

LOCALITY: Lauderdale TN SITE NAME: Ashport Gold Dust Dikes  
County/Parish State

WHERE SITED: Latitude: 35.74636  
Longitude: 89.83160

Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:  
Adults: 253  
Juveniles: \_\_\_\_\_  
Eggs: 4(2) 3(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 300 Feet

FIELD CONDITION:  
Temperature: 92 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 10 hazy

OTHER NOTES:

Right Bank. Unattached, medium size sand bar with nests on high center. Camping debris and human tracks at waterline. Drift count yields 24 sitting inland on nests. One Killdeer and 1 Sandpiper at waterline with dropped Gizzard Shad, Buffalo, and Bighead Carp.

TN side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Caruthersville = 20.4 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

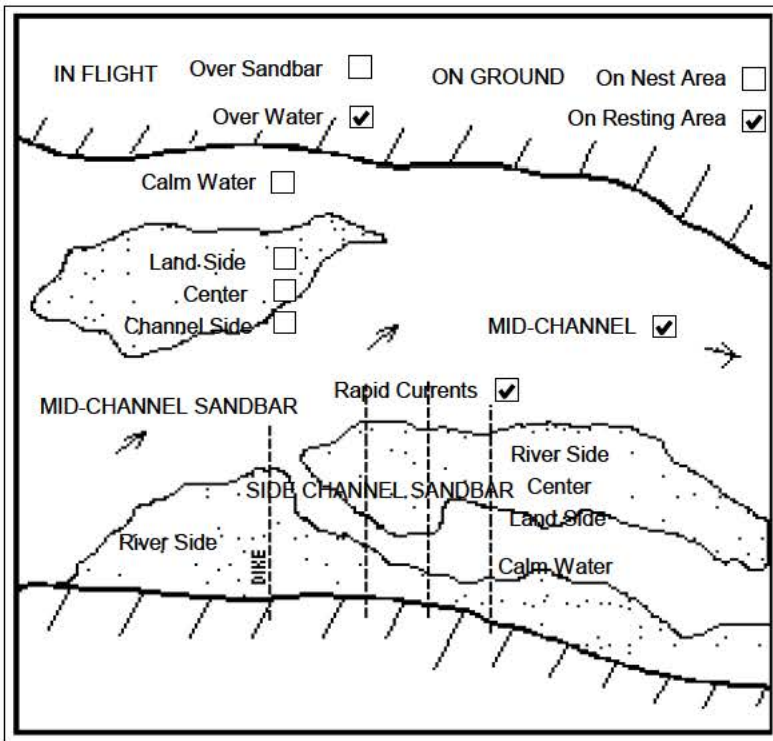
DATE: 7/24/2011 TIME OF DAY: 13:20 RIVER MILE: 760

LOCALITY: Mississippi TN SITE NAME: Cedar Point  
County/Parish State

WHERE SITED: Latitude: 35.43250  
Longitude: 90.00320

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 216  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/Cottonwoods  
Distance: 400 Feet

FIELD CONDITION:  
Temperature: 94 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 10

OTHER NOTES:

Right Bank. Riverside, attached sand and gravel bar with lignite debris. All terns resting at waterline in pairs with some fishing over channel. Drift count indicates no activity inland.

AR side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Memphis = 14.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

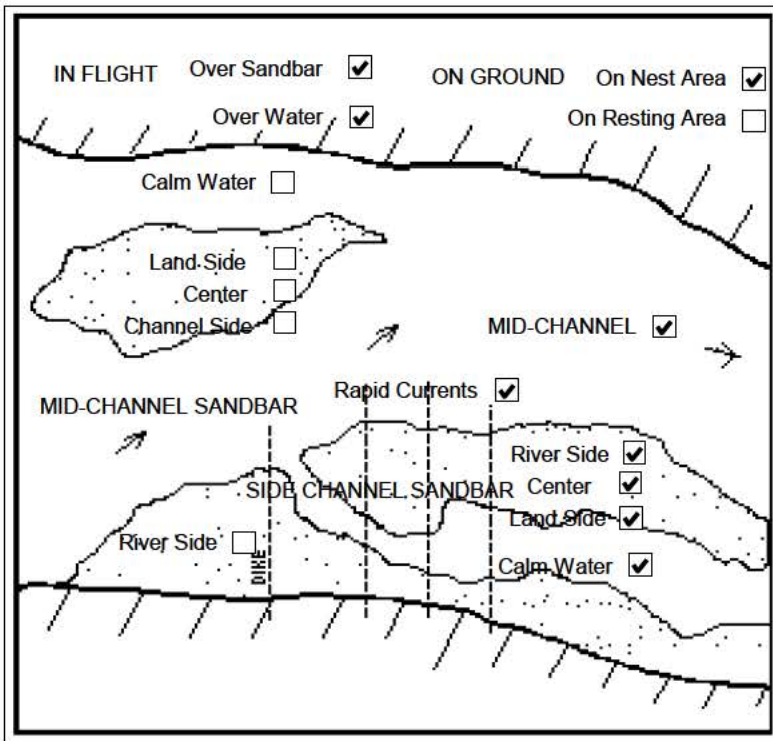
DATE: 7/24/2011 TIME OF DAY: 13:38 RIVER MILE: 754.5

LOCALITY: Tipton TN SITE NAME: Densford Bar  
County/Parish State

WHERE SITED: Latitude: 35.39008  
Longitude: 90.07095

Approximate Distance to Water: 60 Feet

NUMBERS SIGHTED:  
Adults: 333  
Juveniles: \_\_\_\_\_  
Eggs: 6(1) 30(2) 13(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/Cottonwoods  
Distance: 200 Feet

FIELD CONDITION:  
Temperature: 94 °F  
Rain: No  
Wind: S 5-8mph  
% Cloud: 15

OTHER NOTES:

Left Bank. Large, unattached sand bar with nests concentrated at high center (1200' x 1.5 miles). Terns  
breasting and tending nests closely spaced, some with abandoned eggs. Four humans and 3 dogs at  
waterline but not bothering nesting terns. Camping debris and turtle tracks with Silver Carp and Shad  
fingerlings.

TN side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Memphis = 14.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

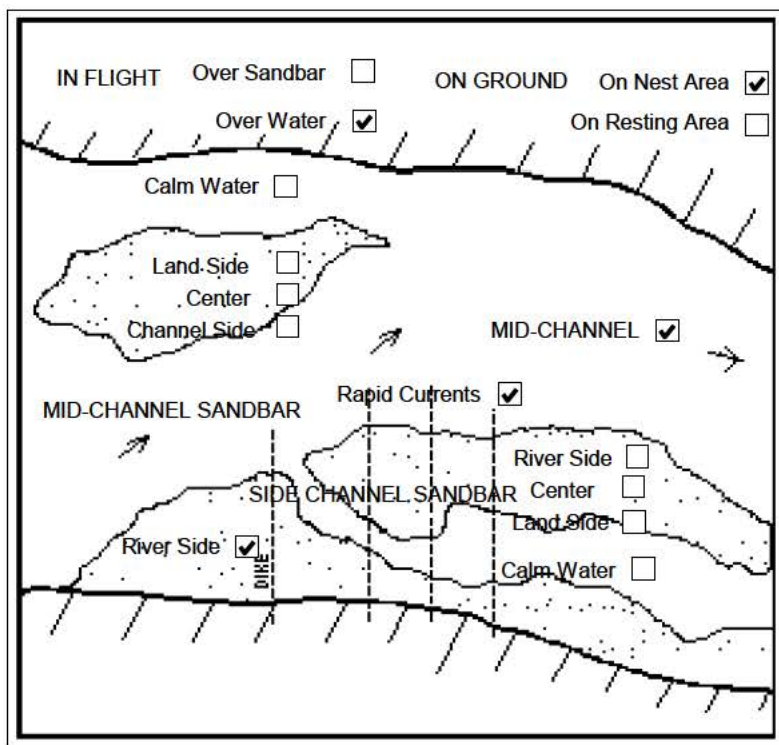
DATE: 7/24/2011 TIME OF DAY: 14:34 RIVER MILE: 740.5

LOCALITY: Crittenden AR SITE NAME: Sycamore Chute Dikes  
County/Parish State

WHERE SITED: Latitude: 35.20724  
Longitude: 90.07300

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:  
Adults: 140  
Juveniles: \_\_\_\_\_  
Eggs: 2(1) 1(2)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/Cottonwoods  
Distance: 300 Feet

FIELD CONDITION:  
Temperature: 97 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 10

OTHER NOTES:

Right Bank. Attached, riverside sand and gravel bar (600 x 700') with abandoned scrapes and eggs.  
Coyote and goose tracks indicate disturbance with possible predation. Roughwing Swallows downstream.  
Eight terns fishing in Memphis Harbor.

AR side

OBSERVERS: Fowlkes, W. & K. Jones, Rumancik

RIVER GAGE READING: Memphis = 14.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

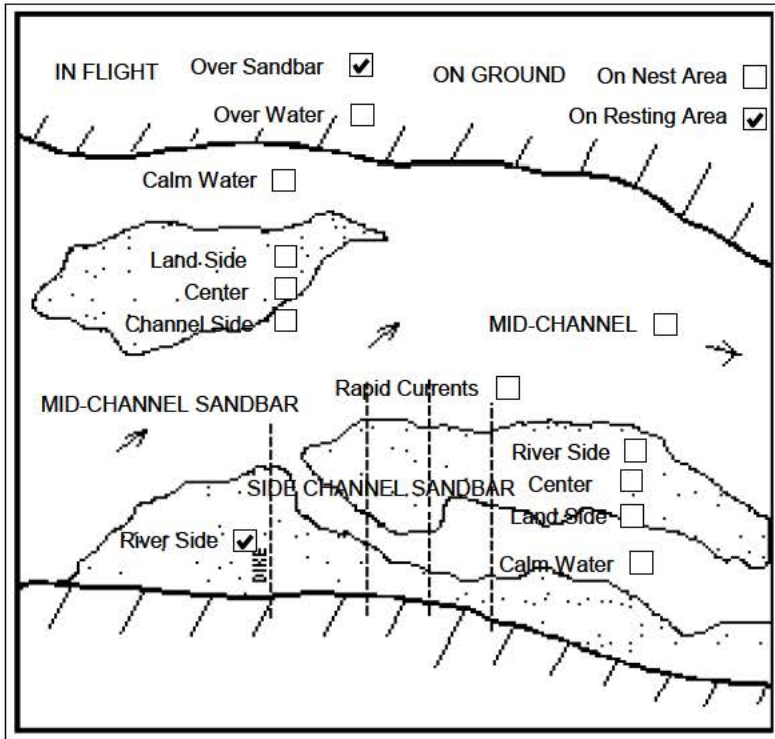
DATE: 7/25/2011 TIME OF DAY: 10:07 RIVER MILE: 733.0

LOCALITY: Crittenden AR SITE NAME: Engineer Bar Dikes  
County/Parish State

WHERE SITED: Latitude: 35.12364  
Longitude: 90.10428

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 5  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 93 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 60

OTHER NOTES:

Right Bank. Attached, riverside sand bar (700' x 300') with birds resting at waterline. No signs of disturbance.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis = 14.1 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

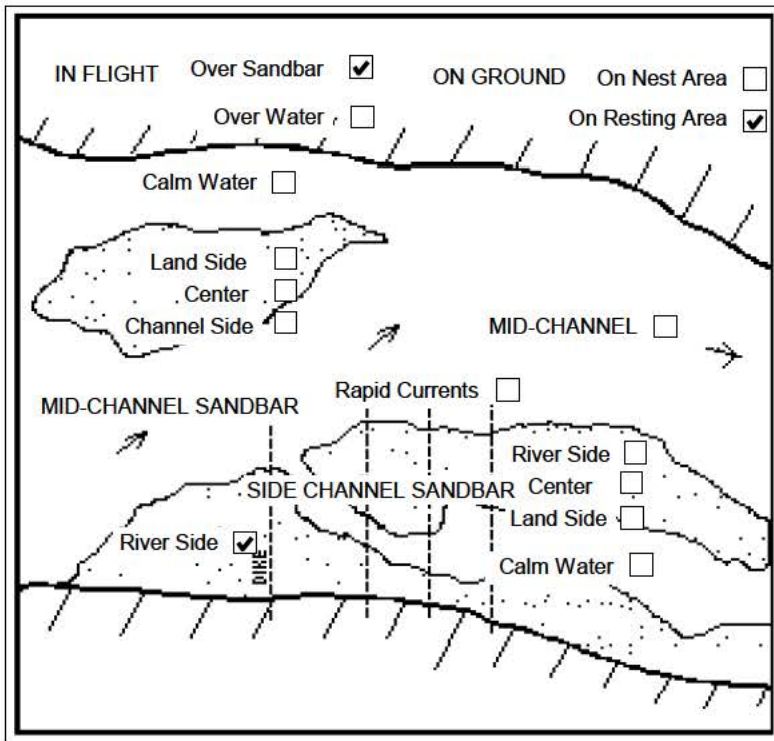
DATE: 7/25/2011 TIME OF DAY: 10:40 RIVER MILE: 725

LOCALITY: Crittenden AR SITE NAME: Dismal Point Dikes  
County/Parish State

WHERE SITED: Latitude: 35.06129  
Longitude: 90.18650

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 34  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 300 Feet

FIELD CONDITION:  
Temperature: 88 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 50

OTHER NOTES:

Right Bank. Attached, riverside sand and gravel bar with large drift logs. All terns at waterline and no signs of disturbance or nesting.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis = 14.1 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

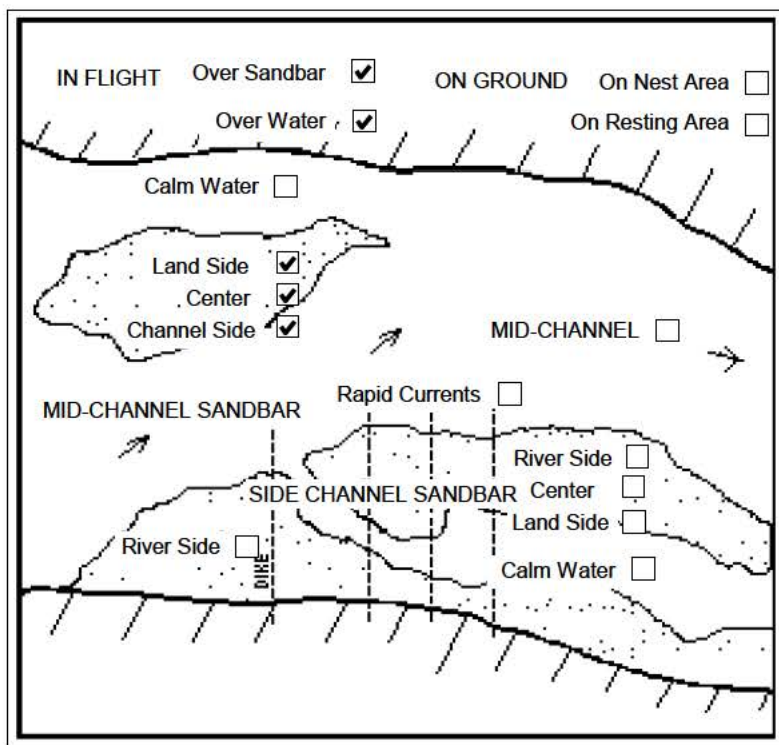
DATE: 7/25/2011 TIME OF DAY: 11:06 RIVER MILE: 717

LOCALITY: Desoto MS SITE NAME: Cow Island Bend  
County/Parish State

WHERE SITED: Latitude: 35.01484  
Longitude: 90.28867

Approximate Distance to Water: 60 Feet

NUMBERS SIGHTED:  
Adults: 160  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 88 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 60

OTHER NOTES:

Left Bank. Drift count along low, flat, bar with most terns at waterline but 2 sitting on nests. Terns courting and paired up at waterline. No disturbance noted.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis = 14.1 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

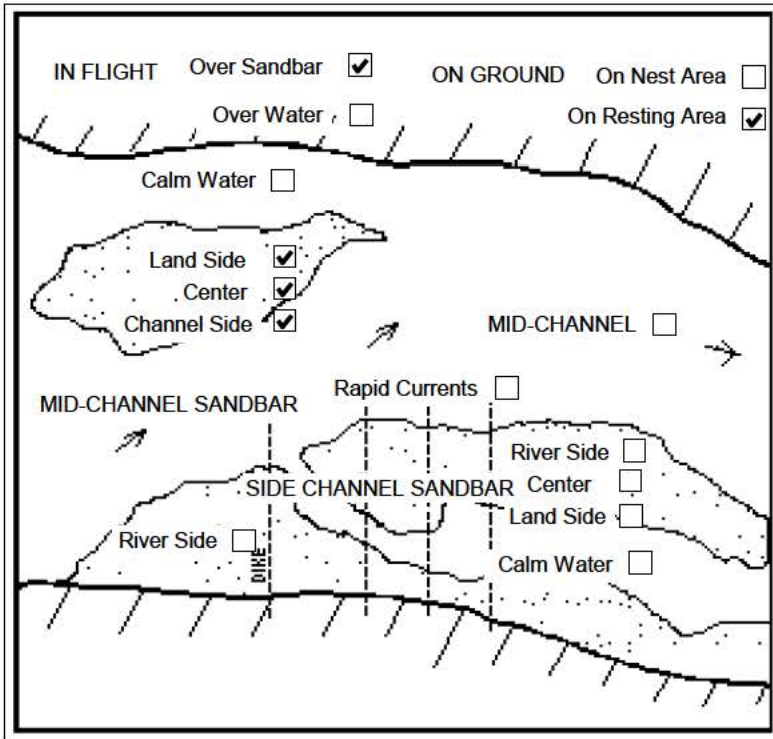
DATE: 7/25/2011 TIME OF DAY: 11:34 RIVER MILE: 703

LOCALITY: Crittenden AR SITE NAME: Pickett Dikes  
County/Parish State

WHERE SITED: Latitude: 34.87304  
Longitude: 90.31460

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 93  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 88 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 70

OTHER NOTES:

Right Bank. Drift count on low, flat, unattached bar of clean sand (300 x 80'). No reproductive behavior, bar appears to be recently exposed. Three Great Blue Herons and 15 Kildeer present, but no mobbing.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis = 14.1 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

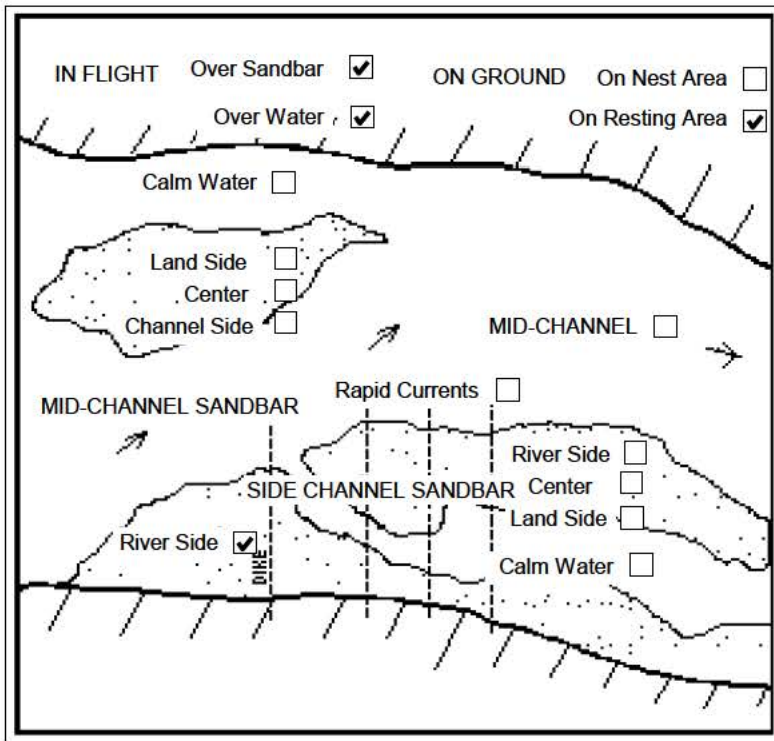
DATE: 7/25/2011 TIME OF DAY: 11:47 RIVER MILE: 699.5

LOCALITY: Crittenden AR SITE NAME: Porter Lake Dikes  
County/Parish State

WHERE SITED: Latitude: 34.8513  
Longitude: 90.3633

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 23  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 88 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 65

OTHER NOTES:

Left Bank. Drift count on very low, attached sand bar. All terns resting or flying along waterline, no disturbance noted.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis = 14.1 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

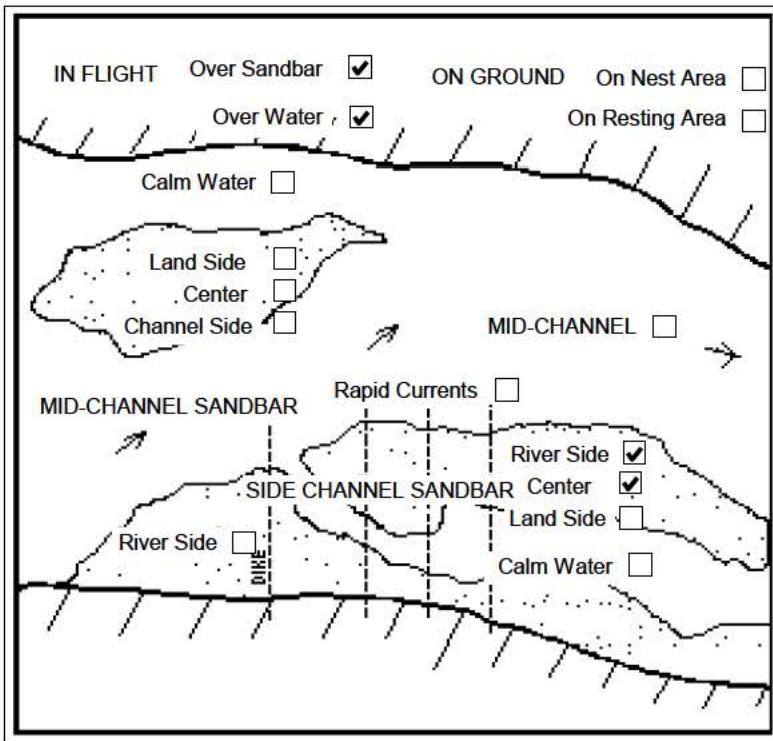
DATE: 7/25/2011 TIME OF DAY: 11:59 RIVER MILE: 698

LOCALITY: Crittenden AR SITE NAME: Basket Bar diikes  
County/Parish State

WHERE SITED: Latitude: 34.83163  
Longitude: 90.38379

Approximate Distance to Water: 250 Feet

NUMBERS SIGHTED:  
Adults: 47  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 90

OTHER NOTES:

Right Bank. Drift count on low, medium sized sand and gravel bar with terns along waterline and courting carrying fish, two sitting on nests toward high center. No disturbance noted.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis = 14.1 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

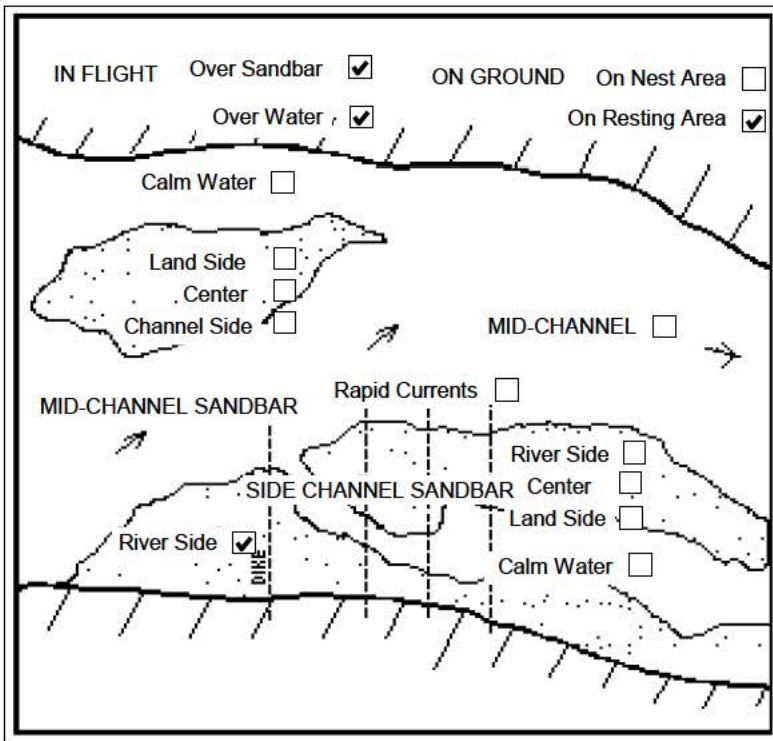
DATE: 7/25/2011 TIME OF DAY: 13:06 RIVER MILE: 693

LOCALITY: Tunica MS SITE NAME: Rabbit Island  
County/Parish State

WHERE SITED: Latitude: 34.78973  
Longitude: 90.47115

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 20  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 800 Feet

FIELD CONDITION:  
Temperature: 93 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 80

OTHER NOTES:

Left Bank. Drift count. Long, high, wide, river side sand bar ( 1000' x 2 miles) with terns resting at waterline but showing no reproductive behavior. No disturbance noted.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 22.0 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

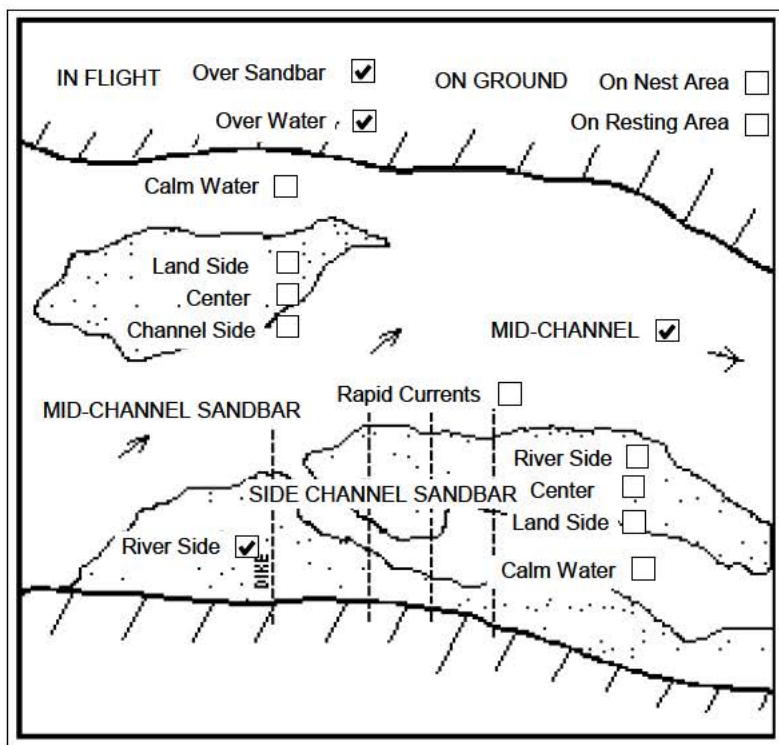
DATE: 7/25/2011 TIME OF DAY: 13:40 RIVER MILE: 687

LOCALITY: Lee AR SITE NAME: Mhoon Bend  
County/Parish State

WHERE SITED: Latitude: 34.73639  
Longitude: 90.46000

Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:  
Adults: 161  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 94 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 75

OTHER NOTES:

Right Bank. Very large, high, flat, attached bar of mostly sand and gravel (2 x .75 miles). Most birds resting at waterline with much courting, carrying of fish, but no mobbing. Future colony site with no signs of disturbance. One Forster's Tern nearby.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 22.0 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

DATE: 7/25/2011 TIME OF DAY: 14:02 RIVER MILE: 680

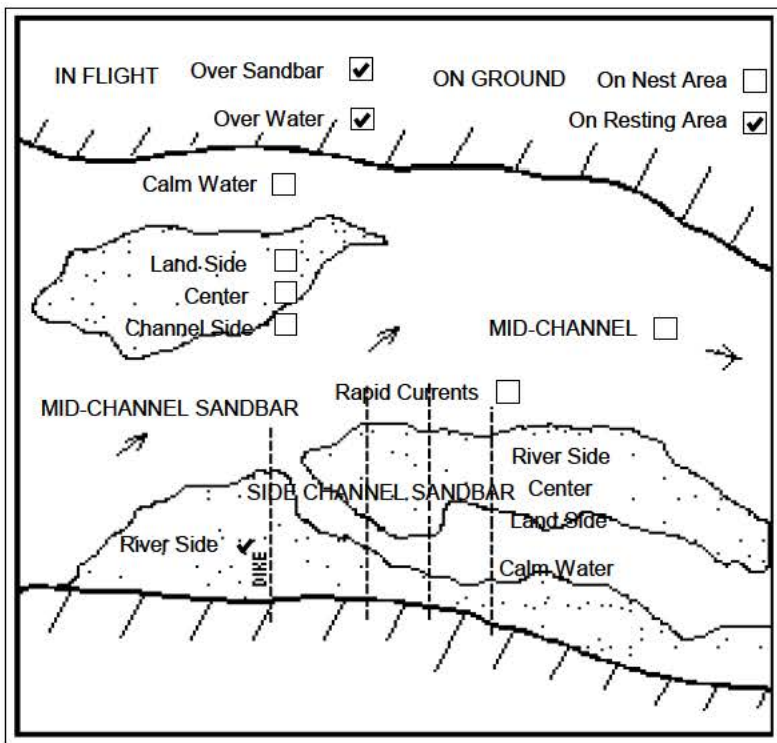
LOCALITY: Tunica MS SITE NAME: Bordeaux Point Dikes  
County/Parish State

WHERE SITED: Latitude: 34.72918  
Longitude: 90.56459

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:

Adults: 19  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:

Sand:   
Gravel:   
Debris:

VEGETATION:

Type: Willows/Cottonwoods  
Distance: 1000 Feet

FIELD CONDITION:

Temperature: 92 °F  
Rain: No  
Wind: calm  
% Cloud: 75

OTHER NOTES:

Left Bank. Drift count along large, long bar ( 1.5 mile x 900') with all birds resting at waterline. No disturbance noted with one Great White Heron nearby.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 22.0 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

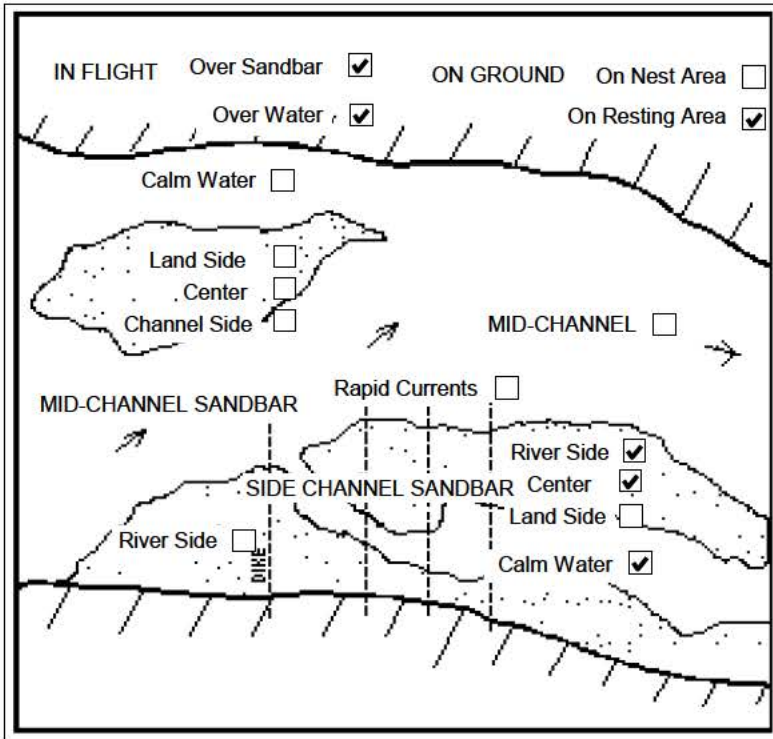
DATE: 7/25/2011 TIME OF DAY: 14:20 RIVER MILE: 676

LOCALITY: Lee AR SITE NAME: Below Walnut Bend Dikes  
County/Parish State

WHERE SITED: Latitude: 34.67177  
Longitude: 90.57229

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 35  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 92 °F  
Rain: No  
Wind: calm  
% Cloud: 60

OTHER NOTES:

Right Bank. Drift count along low, flat, sand and gravel bar (600 x 1000') with most birds at waterline showing no reproductive behavior or sitting on nests. Thirty-three geese nearby but no disturbance noted.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 22.0 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

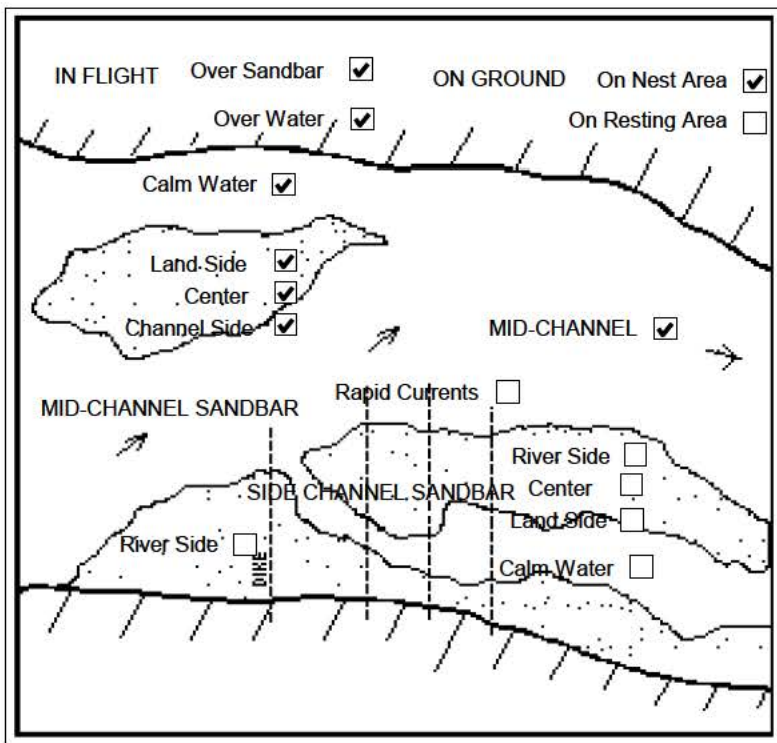
DATE: 7/25/2011 TIME OF DAY: 14:55 RIVER MILE: 672

LOCALITY: Tunica MS SITE NAME: St. Francis Bend  
County/Parish State

WHERE SITED: Latitude: 34.61908  
Longitude: 90.58387

Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:  
Adults: 874  
Juveniles: \_\_\_\_\_  
Eggs: 7(1) 22(2) 5(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Small Cottonwoods  
Distance: 50 Feet

FIELD CONDITION:  
Temperature: 92 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 60

OTHER NOTES:

Left Bank. Drift and flush count on large (1000' x 2 miles) unattached sand bar. Birds at waterline, breasting, courting, carrying fish and sitting on nests. Many scrapes and eggs at all stages of laying with some eggs abandoned. Goose and turtle tracks with recent picnic debris at waterline. Many small carp dropped within colony.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 22.0 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

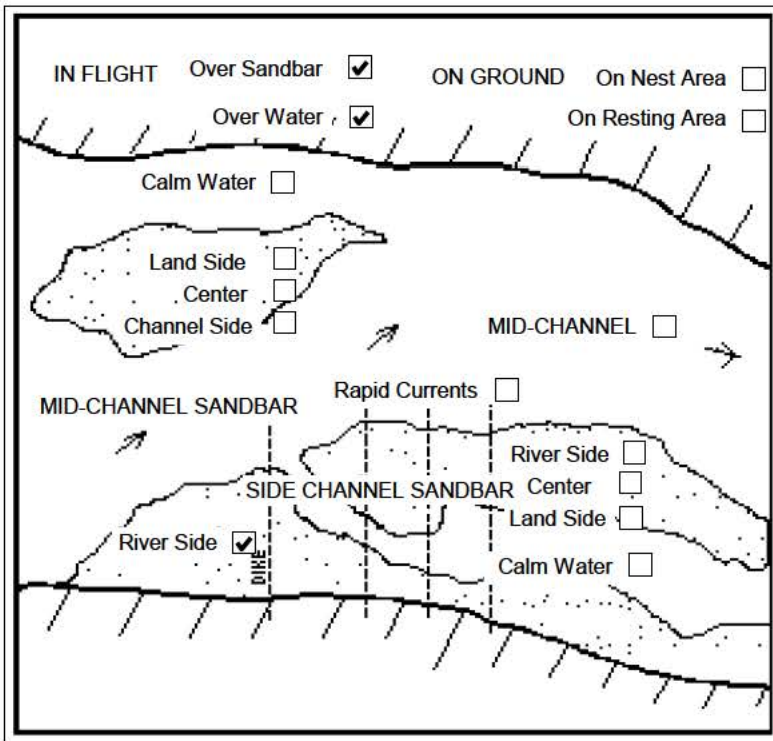
DATE: 7/25/2011 TIME OF DAY: 15:30 RIVER MILE: 668

LOCALITY: Phillips AR SITE NAME: Prairie Point Dikes  
County/Parish State

WHERE SITED: Latitude: 34.56344  
Longitude: 90.55674

Approximate Distance to Water: 800 Feet

NUMBERS SIGHTED:  
Adults: 152  
Juveniles: \_\_\_\_\_  
Eggs: 1(1)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 2000 Feet

FIELD CONDITION:  
Temperature: 95 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 45

OTHER NOTES:

Right Bank. Drift count along low, flat, attached sand and gravel bar. Many terns resting at waterline with many sandpipers. Canine tracks present, but no signs of predation.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 22.0 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

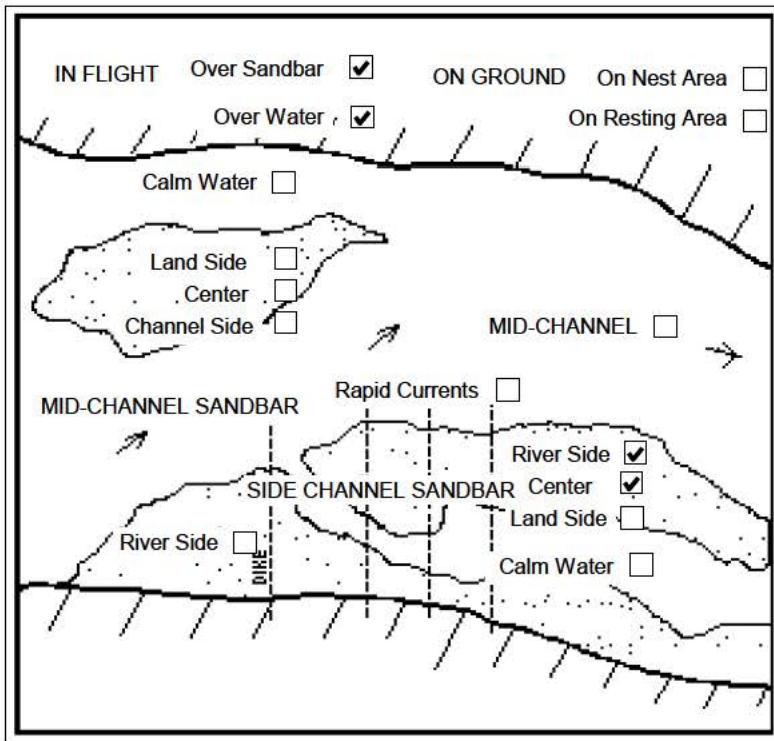
DATE: 7/26/2011 TIME OF DAY: 8:00 RIVER MILE: 655

LOCALITY: Phillips AR SITE NAME: Montezuma Towhead Dikes  
County/Parish State

WHERE SITED: Latitude: 34.41165  
Longitude: 90.59265

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:  
Adults: 37  
Juveniles: Yes  
Eggs: 3(1) 2(2)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 83 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 95 fog

OTHER NOTES:

Right Bank. Small, low gravel and sand bar (700 x 200'). Terns courting, sitting on nests and resting at waterline. First fledged juveniles observed (3) along with 1 Spotted Sandpiper and Cattle Egrets, White Herons and 3 Great Egrets observed nearby. No disturbance noted.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

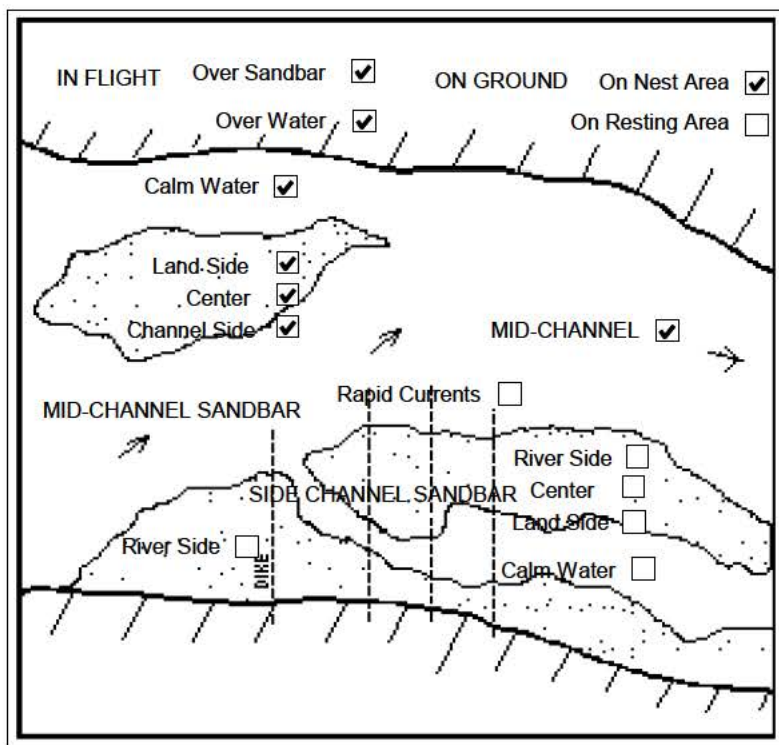
DATE: 7/26/2011 TIME OF DAY: 9:04 RIVER MILE: 646

LOCALITY: Phillips AR SITE NAME: Oldtown Dikes  
County/Parish State

WHERE SITED: Latitude: 34.36646  
Longitude: 90.71329

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:  
Adults: 728  
Juveniles: \_\_\_\_\_  
Eggs: 28(1) 50(2)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 84 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 80 hazy

OTHER NOTES:

Right Bank. High, flat, sand bar (1.5 mile long x 1000' wide). Colony all across bar and among wrack lines about .5 miles in length with many nests, scrapes, abandoned eggs, and chicks hatching up to 4 days old, a few chick mortalities, cause ? Thousands of Cliff Swallows, 25 Canada Geese, 10 Mallards also present, but no signs of disturbance.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

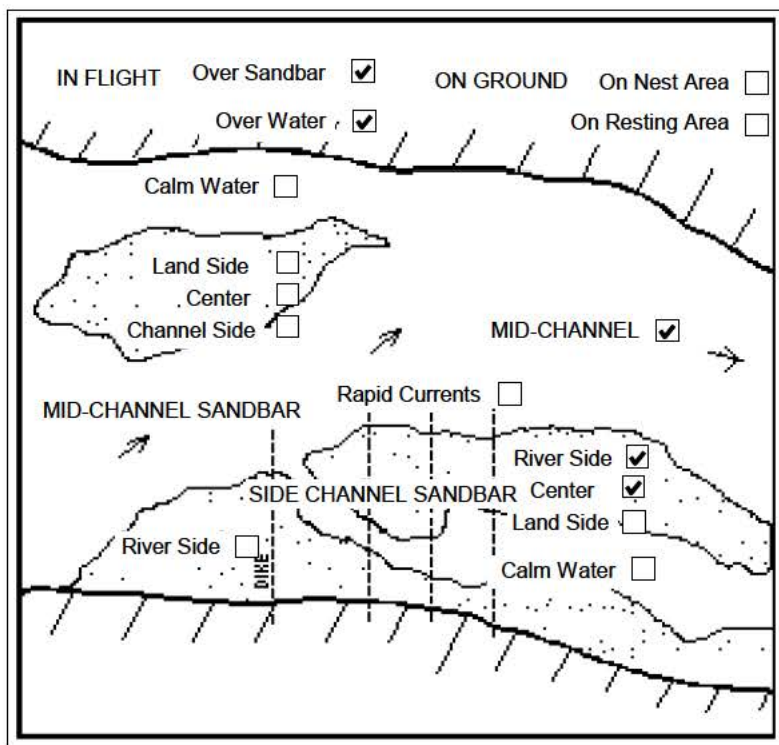
DATE: 7/26/2011 TIME OF DAY: 10:20 RIVER MILE: 639.5

LOCALITY: Phillips AR SITE NAME: Island #62 Dikes  
County/Parish State

WHERE SITED: Latitude: 34.29681  
Longitude: 90.73580

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:  
Adults: 250  
Juveniles: \_\_\_\_\_  
Eggs: 12(2)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 89 °F  
Rain: No  
Wind: S 5-8mph  
% Cloud: 85

OTHER NOTES:

Right Bank. High, flat, sand and gravel bar (1000 x1000') with colony widely dispersed but mainly on higher sections of bar. No signs of disturbance.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

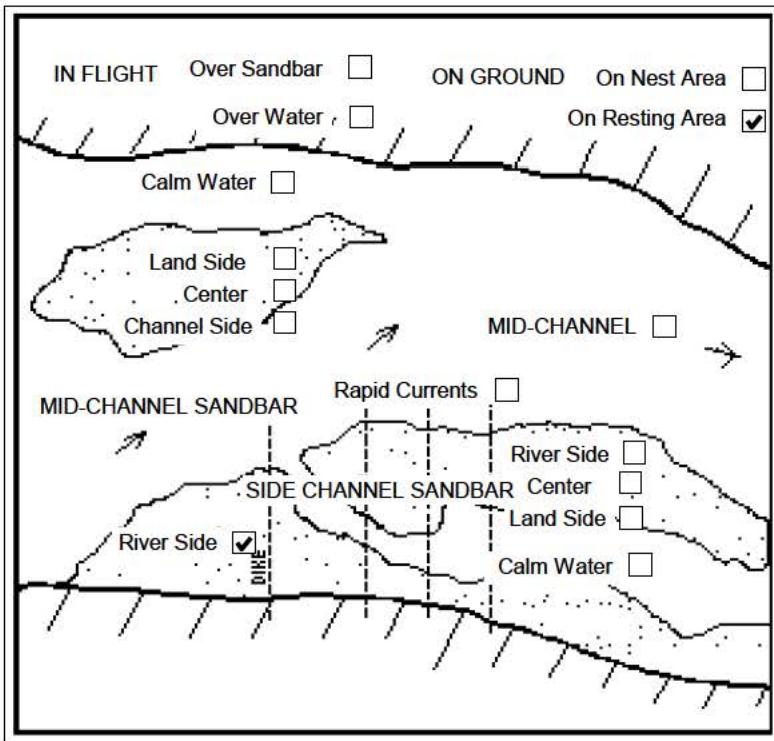
DATE: 7/26/2011 TIME OF DAY: 10:33 RIVER MILE: 637.5

LOCALITY: Phillips AR SITE NAME: Island #63 Bar Revetment  
County/Parish State

WHERE SITED: Latitude: 34.27481  
Longitude: 90.76977

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 25  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 89 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 87

OTHER NOTES:

Right Bank. Low, attached, river side sand bar. All terns resting at waterline with no reproductive behavior exhibited.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

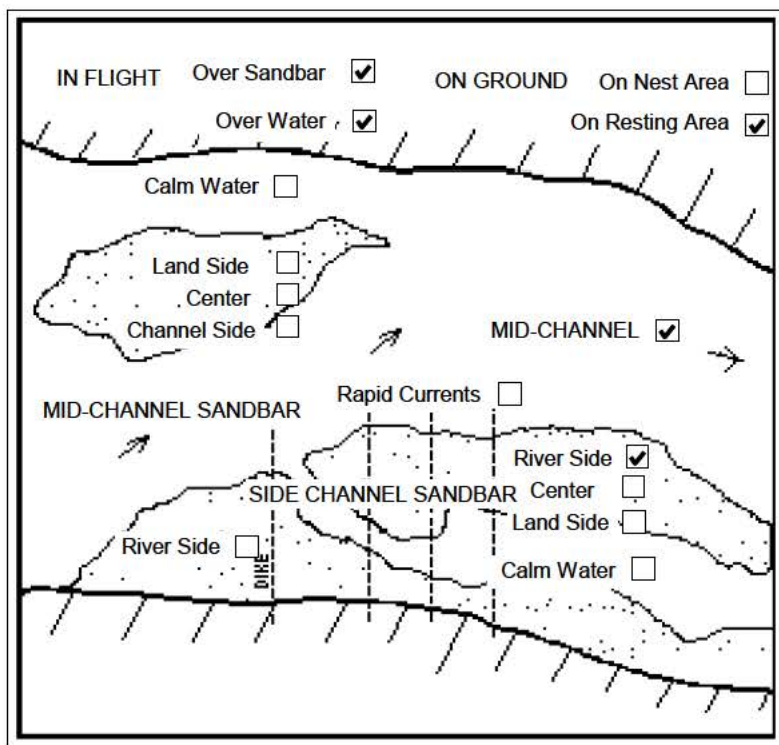
DATE: 7/26/2011 TIME OF DAY: 10:53 RIVER MILE: 629

LOCALITY: Phillips AR SITE NAME: Island #64 Dikes  
County/Parish State

WHERE SITED: Latitude: 34.20207  
Longitude: 90.85513

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 70  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 20

OTHER NOTES:

Right Bank. Drift count along sand bar yields 70 terns resting at waterline or feeding mid-channel. Volley ball net on bar from prior human recreation. No nesting activity with eight Snowy Egrets, 6 Great Blue Herons and 3 Mississippi Kites in area.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

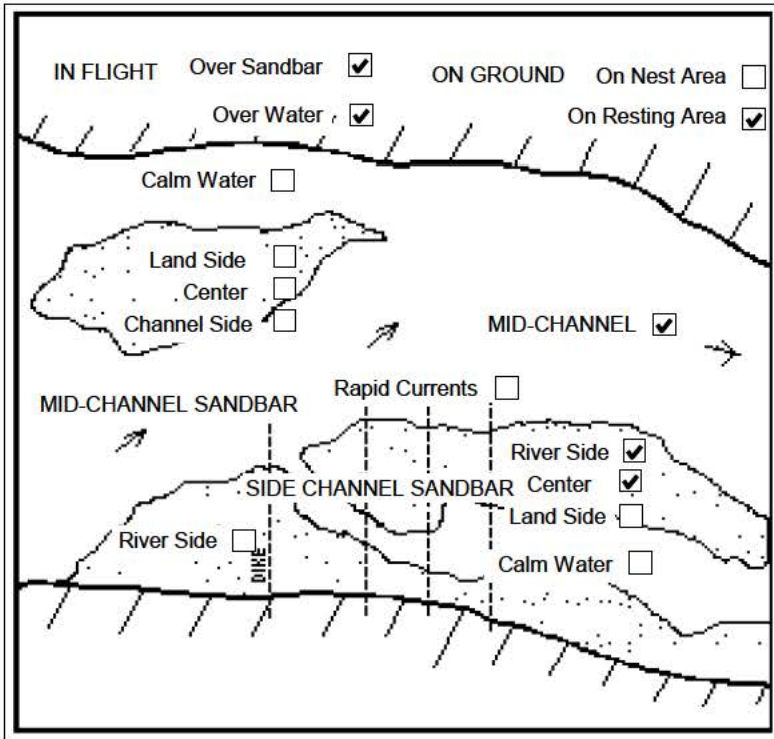
DATE: 7/26/2011 TIME OF DAY: 11:07 RIVER MILE: 623

LOCALITY: Phillips AR SITE NAME: Below Ludlow Dikes  
County/Parish State

WHERE SITED: Latitude: 34.16052  
Longitude: 90.92971

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 87  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 86 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 15

OTHER NOTES:

Right Bank. Attached sand and gravel bar with most terns resting at waterline. No reproduction or disturbance noted. Sixty Kildeer on upper point of bar.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

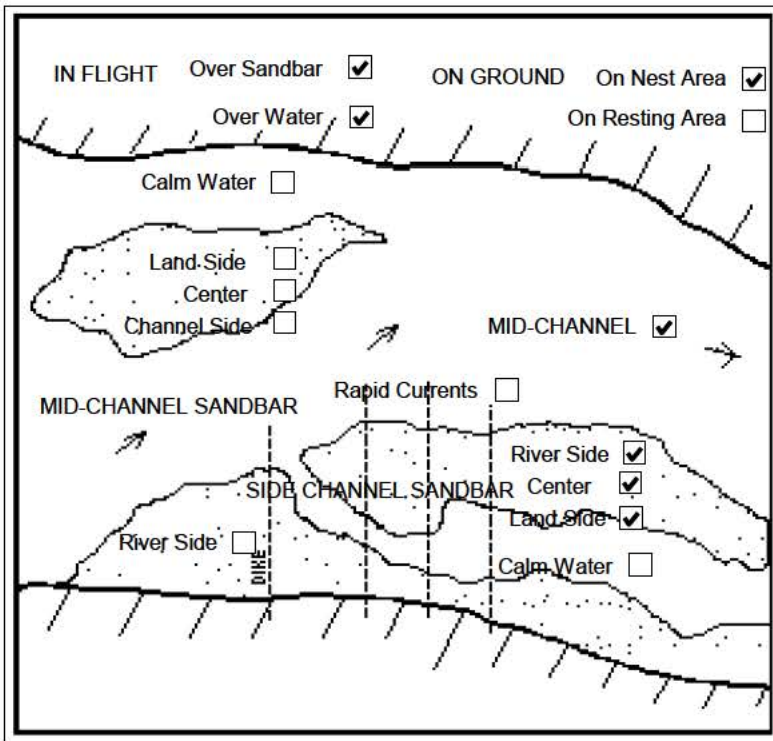
DATE: 7/26/2011 TIME OF DAY: 11:40 RIVER MILE: 619

LOCALITY: Bolivar MS SITE NAME: Island #67 Dikes  
County/Parish State

WHERE SITED: Latitude: 34.10961  
Longitude: 90.94240

Approximate Distance to Water: 40 Feet

NUMBERS SIGHTED:  
Adults: 138  
Juveniles: \_\_\_\_\_  
Eggs: 1(2) 2(4)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Cottonwoods  
Distance: 100 Feet

FIELD CONDITION:  
Temperature: 88 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 10

OTHER NOTES:

Left Bank. Drift and flush count on high downstream point of wooded bar (150 x 400') with wrack lines and many nests in hatching. Six newly hatched chicks, fingerling carp dropped in colony. No disturbance noted.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

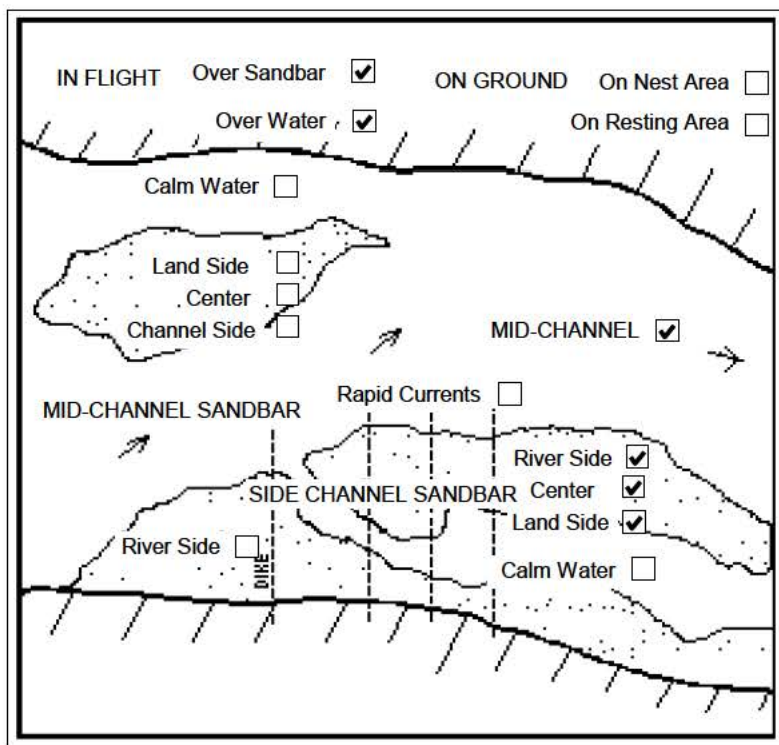
DATE: 7/26/2011 TIME OF DAY: 12:13 RIVER MILE: 612

LOCALITY: Desha AR SITE NAME: Below Knowlton Dikes  
County/Parish State

WHERE SITED: Latitude: 34.02732  
Longitude: 90.9117

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 250  
Juveniles: \_\_\_\_\_  
Eggs: 20(2)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 89 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 20

OTHER NOTES:

Right Bank. High, flat, sand bar with small, scattered debris on high center (900' x 1.5 miles). Many nests in sand and chicks hatching, adults breasting along waterline and fishing mid-channel. Three geese being mobbed by terns, but no other disturbance evidence.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

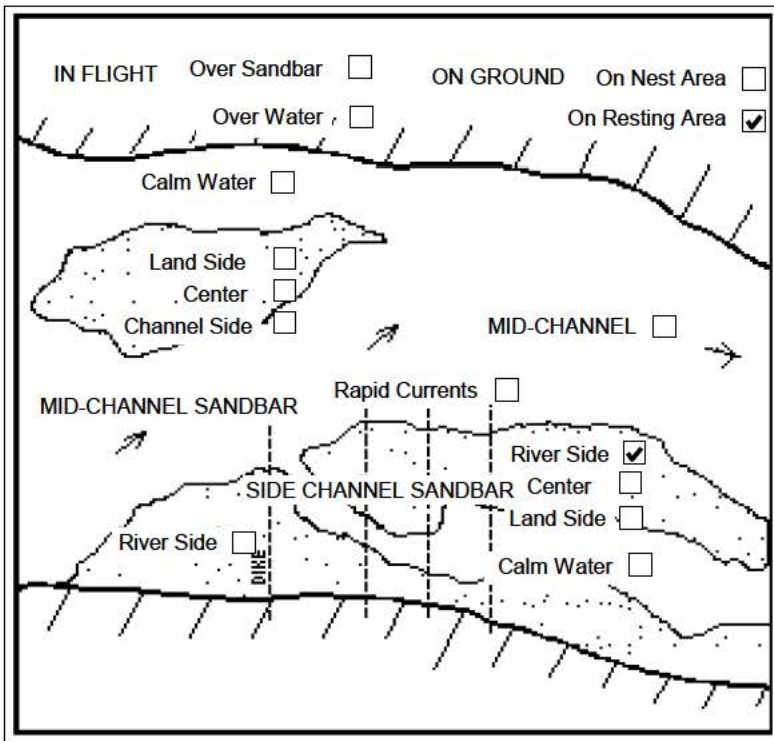
DATE: 7/26/2011 TIME OF DAY: 12:13 RIVER MILE: 607.7

LOCALITY: Bolivar MS SITE NAME: Island #70 Dikes  
County/Parish State

WHERE SITED: Latitude: 34.02735  
Longitude: 90.99574

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 17  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: 0 Feet

FIELD CONDITION:  
Temperature: 92 °F  
Rain: No  
Wind: calm  
% Cloud: 15

OTHER NOTES:

Left Bank. Low, barely exposed (2' elevation) sand bar (200 x60') with all terns resting at waterline. No disturbance noted.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

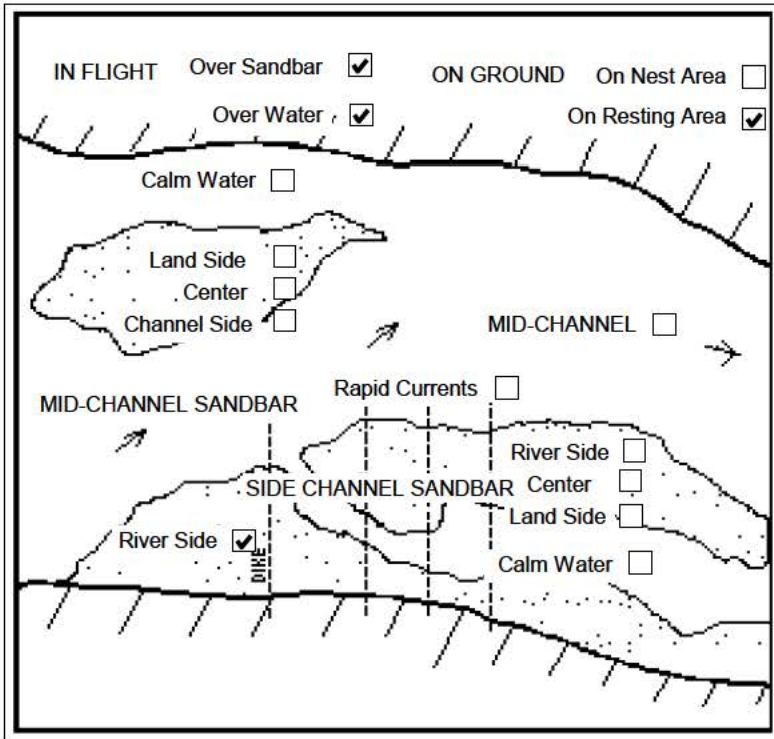
DATE: 7/26/2011 TIME OF DAY: 13:00 RIVER MILE: 603

LOCALITY: Bolivar MS SITE NAME: Henrico Dikes  
County/Parish State

WHERE SITED: Latitude: 33.99  
Longitude: 91.052

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 32  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 500 Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 30

OTHER NOTES:

Right Bank. Attached sand and gravel bar (500' x 1 mile) with terns resting at waterline or flying over bar. No nesting activity or disturbance factors noted.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena = 21.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

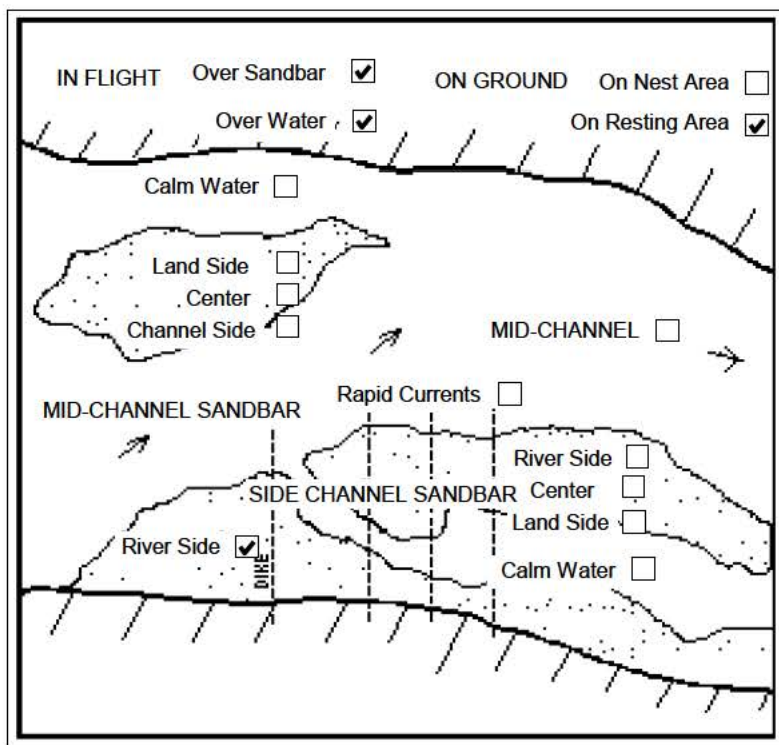
DATE: 7/26/2011 TIME OF DAY: 13:18 RIVER MILE: 599

LOCALITY: Bolivar MS SITE NAME: Smith Point Dikes  
County/Parish State

WHERE SITED: Latitude: 33.95537  
Longitude: 91.07221

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 101  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 30

OTHER NOTES:

Left Bank. Attached, huge, riverside sand bar. All terns flying at or resting along waterline, but showing no reproductive behavior. Drift count along (1 x2 miles) bar shows picnic debris and pontoon boat with crew at shoreline.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

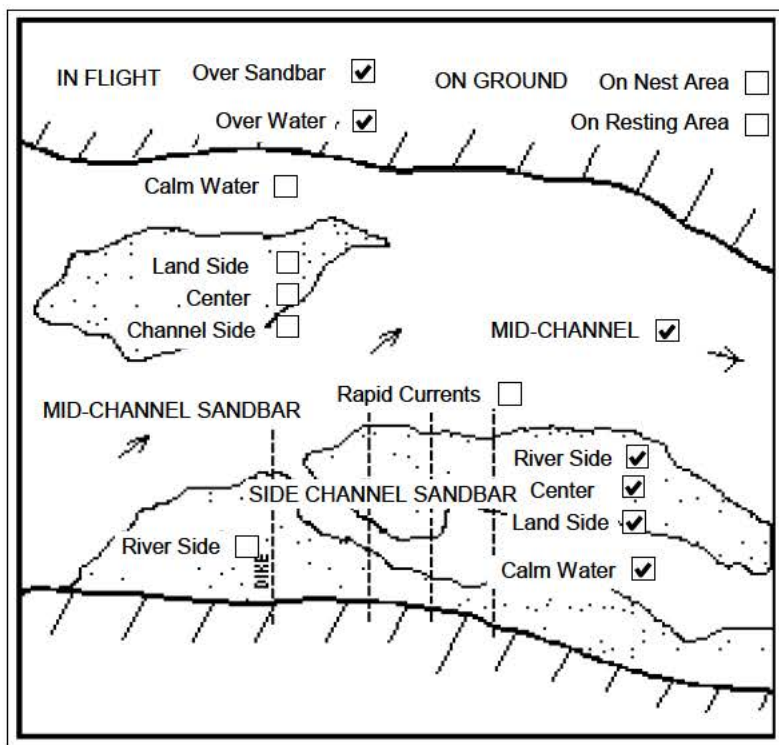
DATE: 7/26/2011 TIME OF DAY: 13:51 RIVER MILE: 588

LOCALITY: Bolivar MS SITE NAME: Terrene Dikes  
County/Parish State

WHERE SITED: Latitude: 33.85165  
Longitude: 91.06668

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:  
Adults: 320  
Juveniles: \_\_\_\_\_  
Eggs: 3(1) 4(2) 1(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 91 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 45

OTHER NOTES:

Left Bank. Drift and flush count on high, terraced, flat sand bar with colony concentrated on back chute side. Many nests at all stages of laying but no chicks observed. Bar 700' x 1 mile long. Fingerling carp dropped in colony and no signs of disturbance.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

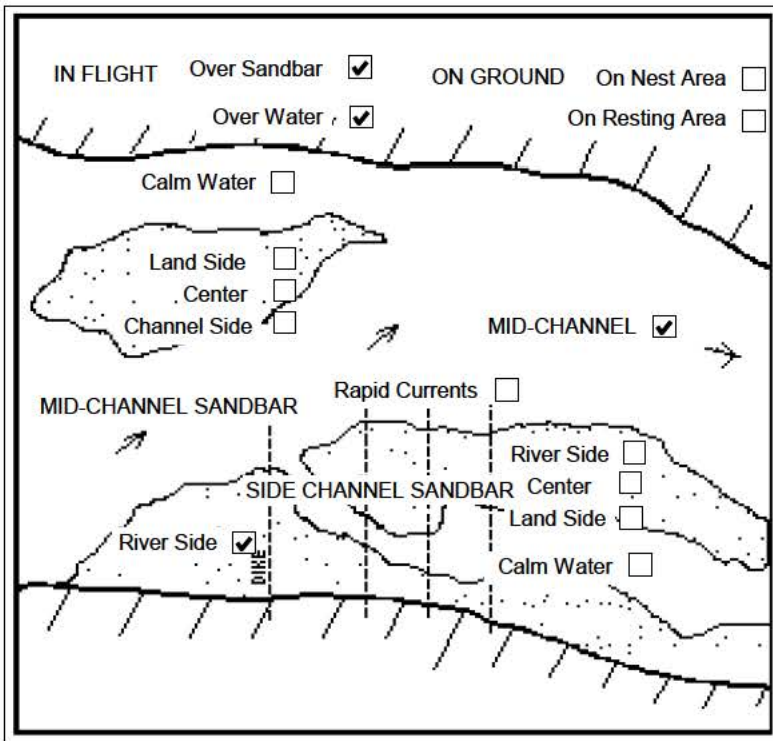
DATE: 7/26/2011 TIME OF DAY: 14:20 RIVER MILE: 584

LOCALITY: Desha AR SITE NAME: Malone Field Dikes  
County/Parish State

WHERE SITED: Latitude: 33.78896  
Longitude: 91.05220

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:  
Adults: 215  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 93 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 50

OTHER NOTES:

Right Bank. Drift count along high, wide, attached sand bar (0.5 x 2 miles). One nest observed and 3 chicks around 2 weeks of age. Mississippi Kites flying over trees, 3 Black Terns and several Sandpipers along waterline, but no mobbing or signs of disturbance.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

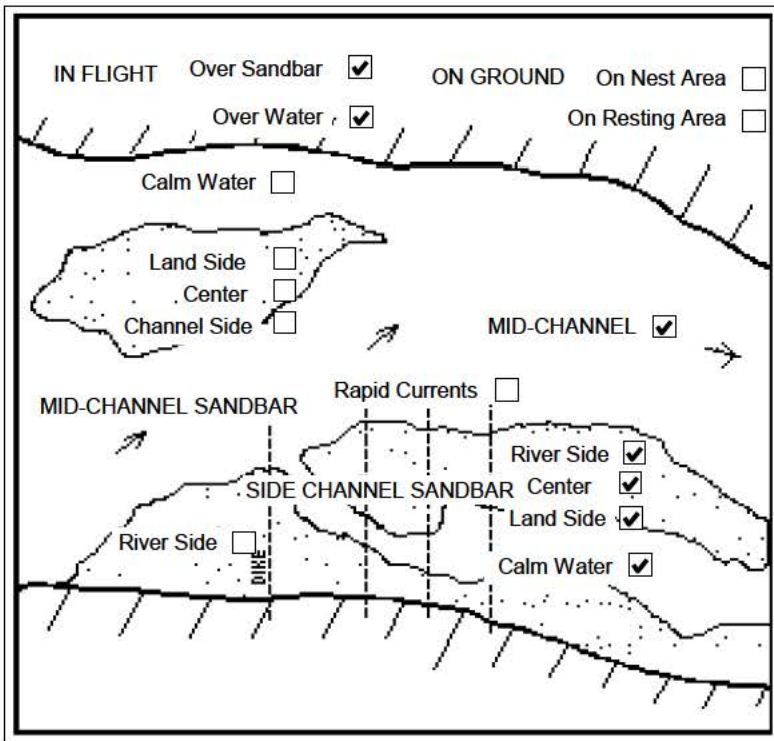
DATE: 7/26/2011 TIME OF DAY: 15:02 RIVER MILE: 576.5

LOCALITY: Bolivar MS SITE NAME: Below Prentiss Dikes  
County/Parish State

WHERE SITED: Latitude: 33.74941  
Longitude: 91.13547

Approximate Distance to Water: 30 Feet

NUMBERS SIGHTED:  
Adults: 508  
Juveniles: \_\_\_\_\_  
Eggs: 4(1) 2(2) 3(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 94 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 55

OTHER NOTES:

Left Bank. Drift and flush count along huge, high, flat, terraced sand bar with colony concentrated on chute side (1.75 x .75 miles). Terns sitting on 131 nests, breasting, fishing and resting along waterline. Silver carp dropped in colony with no signs of disturbance.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

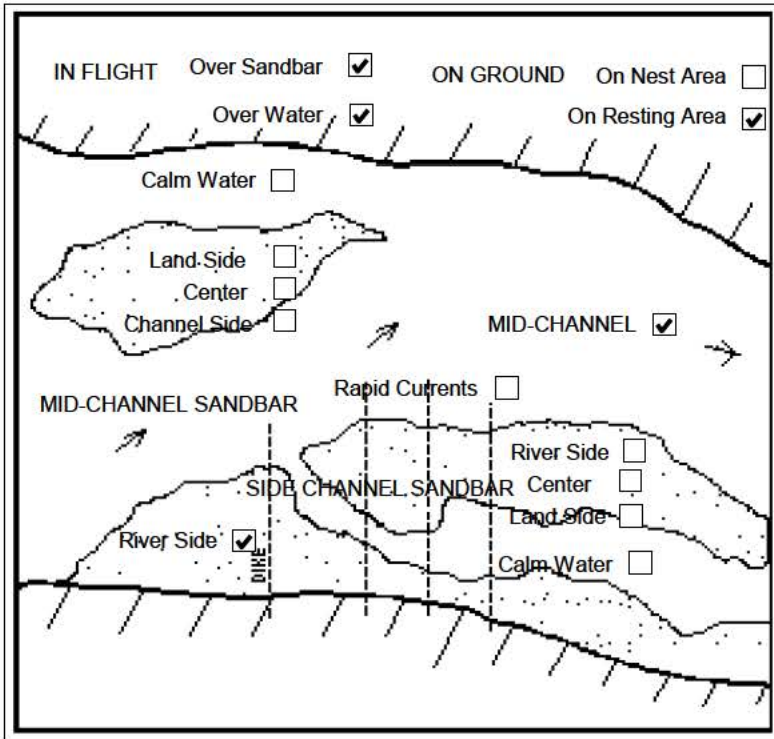
DATE: 7/26/2011 TIME OF DAY: 15:26 RIVER MILE: 568

LOCALITY: Bolivar MS SITE NAME: Catfish Point Dikes  
County/Parish State

WHERE SITED: Latitude: 33.67080  
Longitude: 91.22267

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 271  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 500 Feet

FIELD CONDITION:  
Temperature: 93 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 60

OTHER NOTES:

Left Bank. High, huge (2.5 miles long) sand and gravel bar. Drift count yields no reproductive activity or terns sitting inland. Six Black Terns and several Sandpipers along waterline with 150 White Pelicans and 3 Great Blue Herons upstream.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

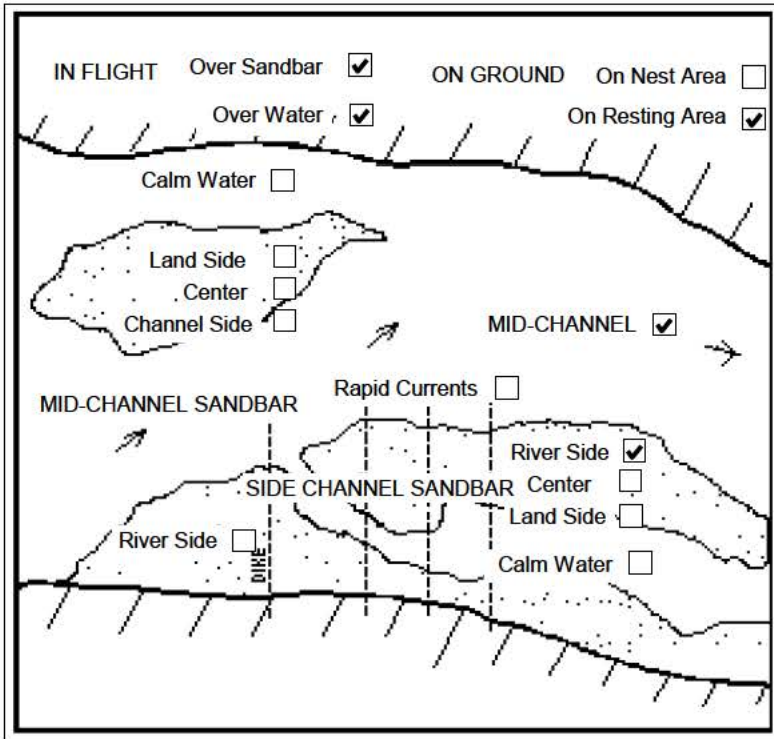
DATE: 7/26/2011 TIME OF DAY: 15:40 RIVER MILE: 563.5

LOCALITY: Desha AR SITE NAME: Chicot Landing Dikes  
County/Parish State

WHERE SITED: Latitude: 33.62930  
Longitude: 91.14924

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 33  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 93 °F  
Rain: No  
Wind: S 5mph  
% Cloud: 70

OTHER NOTES:

Right Bank. Drift count only due to long trail dike along bar. No reproductive activity observed with most at waterline or fishing in channel.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

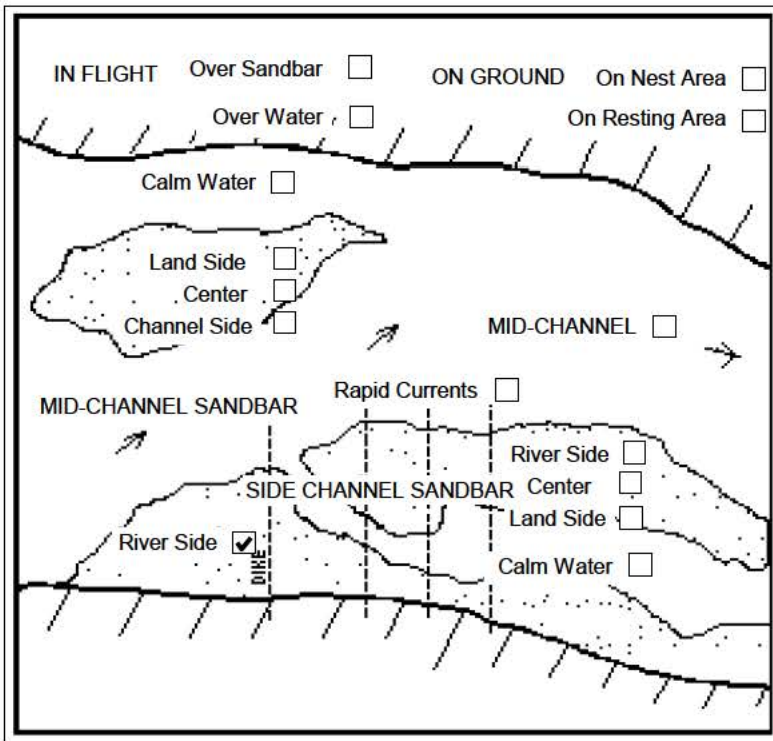
DATE: 7/26/2011 TIME OF DAY: 16:04 RIVER MILE: 560

LOCALITY: Desha AR SITE NAME: Choctaw Island #78  
County/Parish State

WHERE SITED: Latitude: 33.58340  
Longitude: 91.16842

Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:  
Adults: 85  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 800 Feet

FIELD CONDITION:  
Temperature: 94 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 15

OTHER NOTES:

Right Bank. Drift count along bar in back chute behind Choctaw Bar Island. Terns observed sitting on nests and resting at waterline. Two grackles present but no signs of disturbance.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

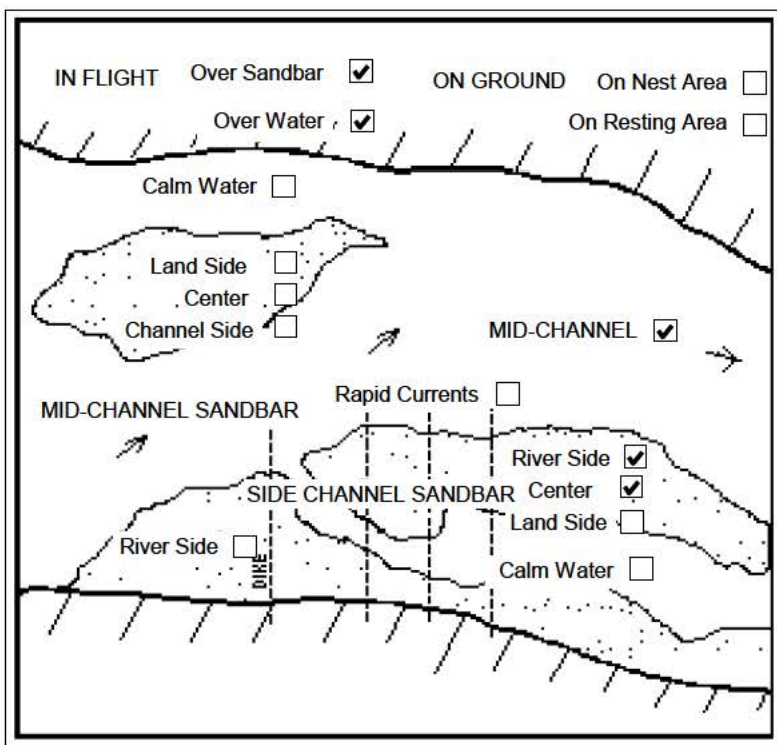
DATE: 7/26/2011 TIME OF DAY: 16:38 RIVER MILE: 543

LOCALITY: Washington MS SITE NAME: Tarpley Island Revetment  
County/Parish State

WHERE SITED: Latitude: 33.41480  
Longitude: 91.11806

Approximate Distance to Water: 30 Feet

NUMBERS SIGHTED:  
Adults: 63  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 97 °F  
Rain: No  
Wind: calm  
% Cloud: 80

OTHER NOTES:

Right Bank. Drift count along small (100 x 400'), unattached sand bar with three terns sitting on nests, others at the waterline or fishing mid-channel. No disturbance noted.

AR side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

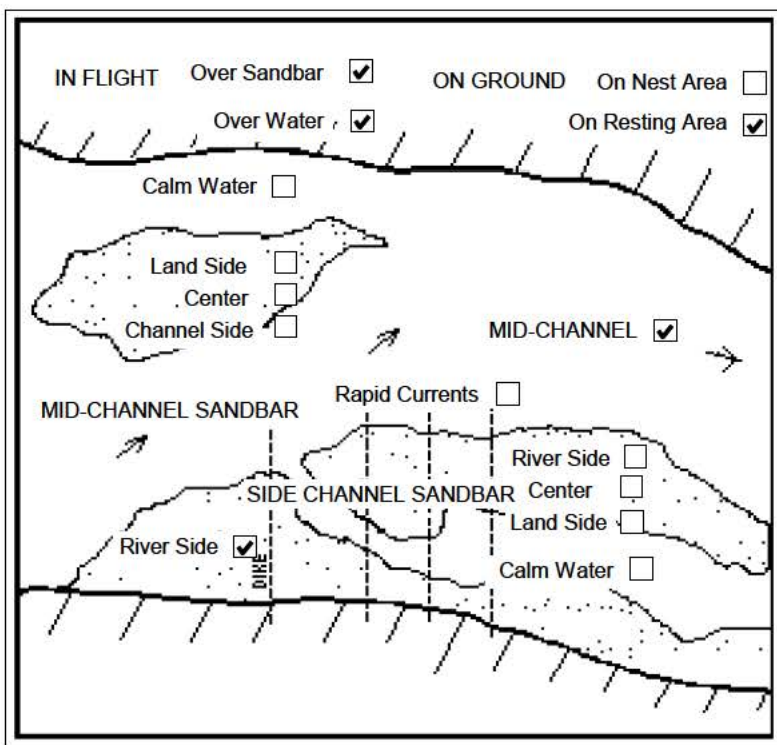
DATE: 7/26/2011 TIME OF DAY: 16:44 RIVER MILE: 540.5

LOCALITY: Washington MS SITE NAME: Leland Neck Dikes  
County/Parish State

WHERE SITED: Latitude: 33.39937  
Longitude: 91.10759

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 173  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 96 °F  
Rain: No  
Wind: calm  
% Cloud: 40

OTHER NOTES:

Left Bank. Low, attached sand bar (200 x 700') with terns resting along waterline, fishing near shore and mid-channel and opposite bank. No reproductive behavior or disturbance factors noted.

MS side

OBSERVERS: Campen, D. & R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City = 19.8 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

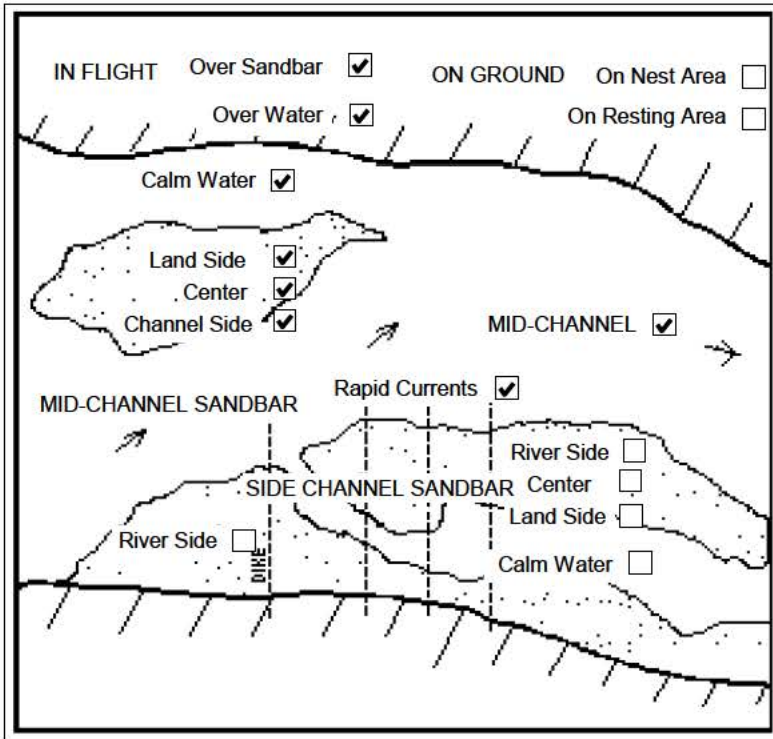
DATE: 7/27/2011 TIME OF DAY: 8:12 RIVER MILE: 533

LOCALITY: Washington MS SITE NAME: Island #84 Dikes  
County/Parish State

WHERE SITED: Latitude: 33.3083  
Longitude: 91.1769

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:  
Adults: 650  
Juveniles: \_\_\_\_\_  
Eggs: 6(1) 8(2) 4(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 0

OTHER NOTES:

Left Bank. Low, clean, flat, historically popular nest colony above Greenville bridge (300 x 900'). Many new scrapes and nests with eggs at all stages of laying, with a few abandoned eggs. One Black Tern and turtle tracks observed.

MS side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

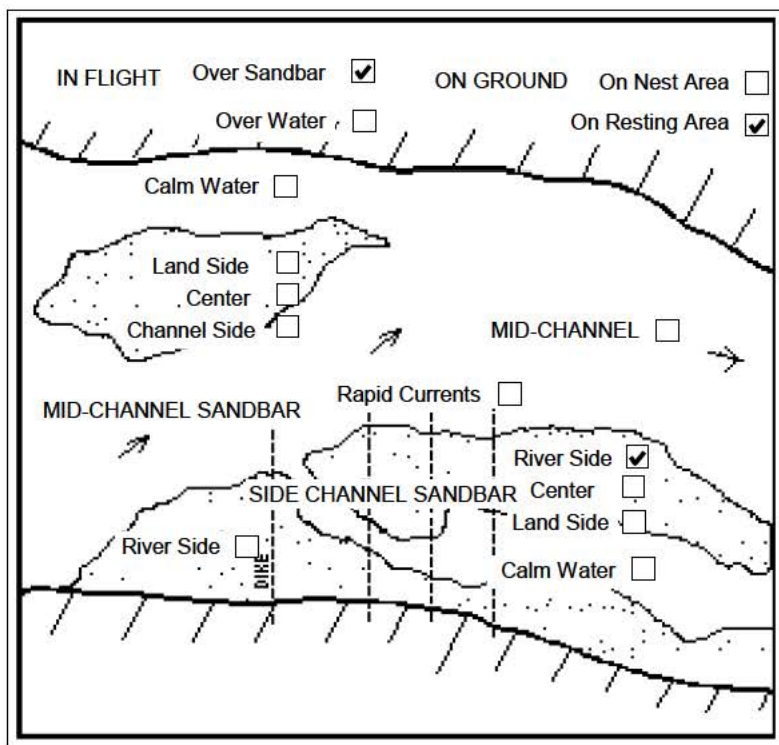
DATE: 7/27/2011 TIME OF DAY: 8:35 RIVER MILE: 528.6

LOCALITY: Washington MS SITE NAME: Refuge Dikes  
County/Parish State

WHERE SITED: Latitude: 33.280  
Longitude: 91.119

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 13  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 300 Feet

FIELD CONDITION:  
Temperature: 85 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 0

OTHER NOTES:

Left Bank. Attached sand bar between dikes. All terns at waterline. Rough-winged Swallows and 2  
Cormorants nearby. Turtle tracks only disturbance noted.

MS side

OBSERVERS: Campan, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

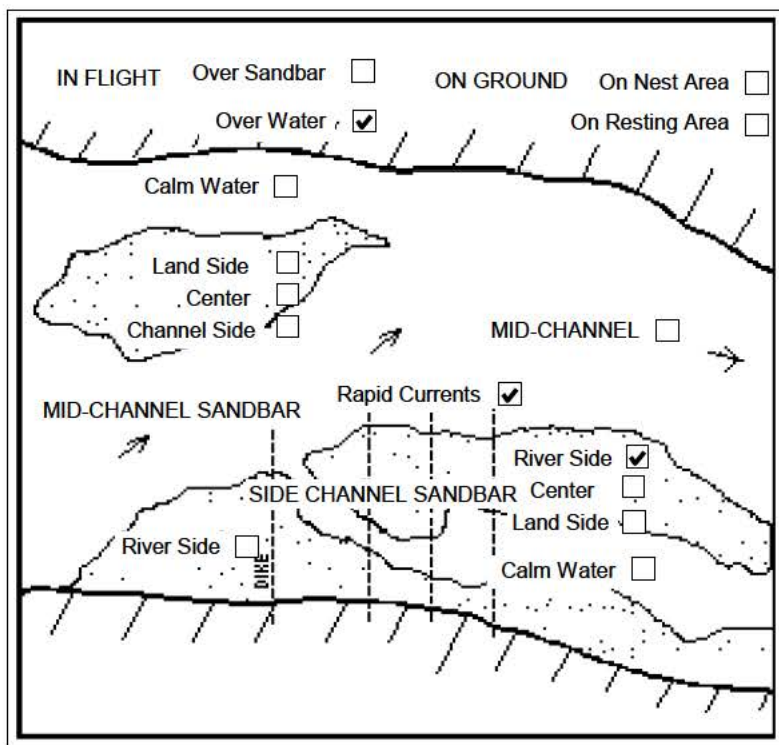
DATE: 7/27/2011 TIME OF DAY: 9:00 RIVER MILE: 523.5

LOCALITY: Chicot AR SITE NAME: Seven Oaks Dikes  
County/Parish State

WHERE SITED: Latitude: 33.14054  
Longitude: 91.09554

Approximate Distance to Water: 120 Feet

NUMBERS SIGHTED:  
Adults: 12  
Juveniles: \_\_\_\_\_  
Eggs: 1(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 600 Feet

FIELD CONDITION:  
Temperature: 88 °F  
Rain: No  
Wind: calm  
% Cloud: 0

OTHER NOTES:

Right Bank. Large, clean sand bar between dikes. One nest with eggs and 1 empty scrape. No disturbance noted with 1 Anhinga in flight opposite bank

AR side

OBSERVERS: Campan, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

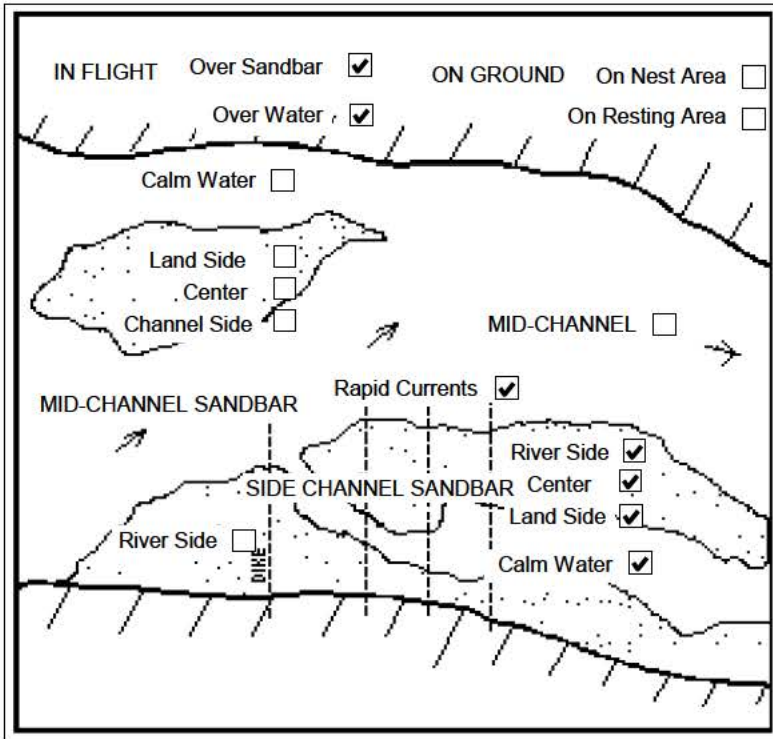
DATE: 7/27/2011 TIME OF DAY: 9:10 RIVER MILE: 521

LOCALITY: Chicot AR SITE NAME: Island #86 Dikes  
County/Parish State

WHERE SITED: Latitude: 33.12322  
Longitude: 91.11026

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:  
Adults: 322  
Juveniles: \_\_\_\_\_  
Eggs: 2(2) 2(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 93 °F  
Rain: No  
Wind: calm  
% Cloud: 0

OTHER NOTES:

Right Bank. Unattached, med.- size bar (600 x 900') with undulating ripples. A few terns sitting on nests widely dispersed with turtle and coyote tracks within colony, but no predation signs. Whitetail Deer buck on opposite bank.

AR side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

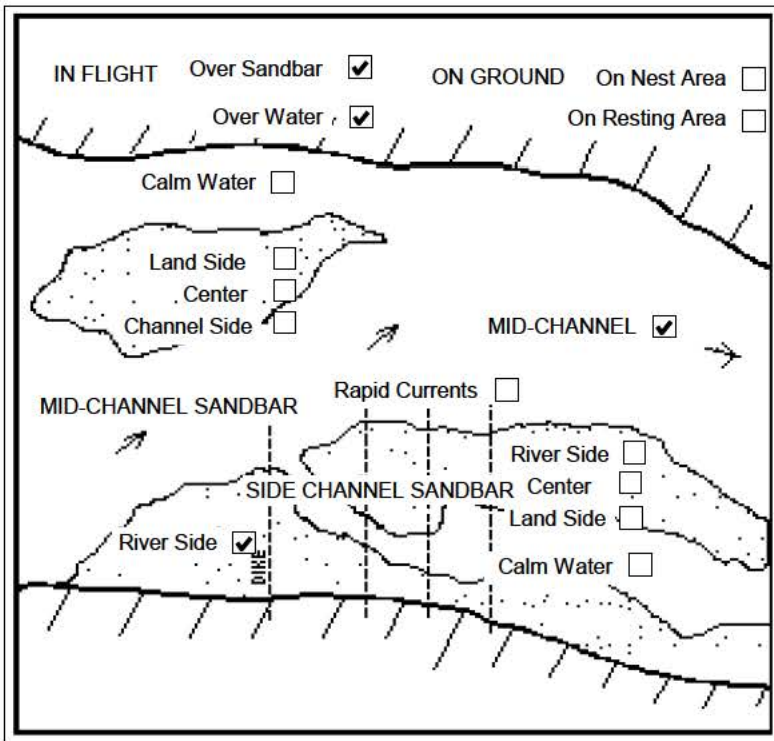
DATE: 7/27/2011 TIME OF DAY: 9:37 RIVER MILE: 513.5

LOCALITY: Washington MS SITE NAME: Leota Dikes  
County/Parish State

WHERE SITED: Latitude: 33.08655  
Longitude: 91.16576

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:  
Adults: 58  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 200 Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: calm  
% Cloud: 0

OTHER NOTES:

Left Bank. Attached, narrow, riverside bar with 4 nests and 1-week old chicks at waterline. No disturbance noted but several hundred Rough-winged Swallows on bar's center and 30 White Pelicans 1.5 mile downstream.

MS side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

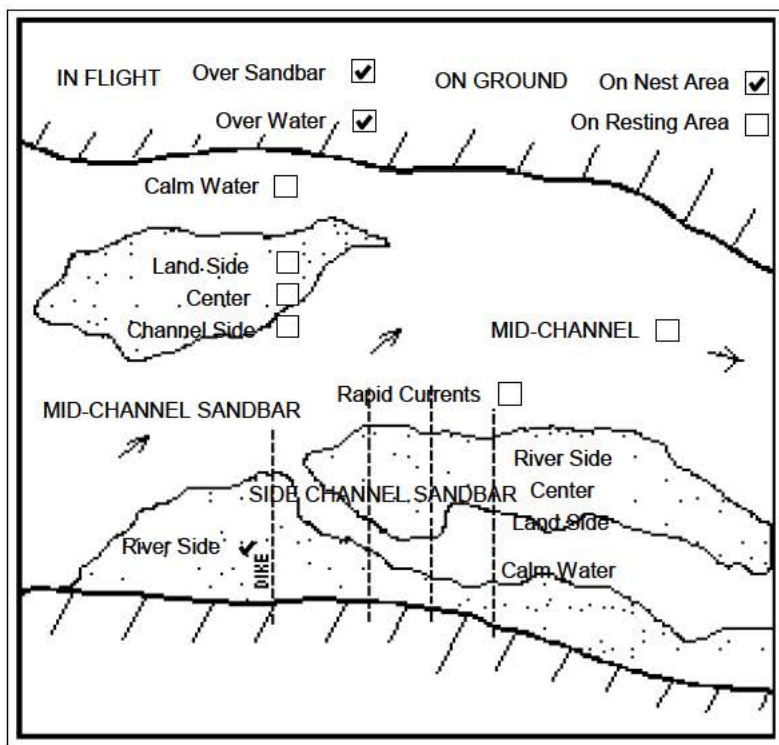
DATE: 7/27/2011 TIME OF DAY: 9:53 RIVER MILE: 509.3

LOCALITY: Chicot AR SITE NAME: Cracraft Lower Dikes  
County/Parish State

WHERE SITED: Latitude: 33.03265  
Longitude: 91.15712

Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:  
Adults: 71  
Juveniles: \_\_\_\_\_  
Eggs: 1(1) 7(2) 8(3)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/Cottonwoods  
Distance: 50 Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: calm  
% Cloud: 0

OTHER NOTES:

Right Bank. Attached, small, point sand bar (120 x 320') with terns resting, breasting and fishing at waterline. Nests in wrack lines middle of bar, with no signs of disturbance.

AR side

OBSERVERS: Campan, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

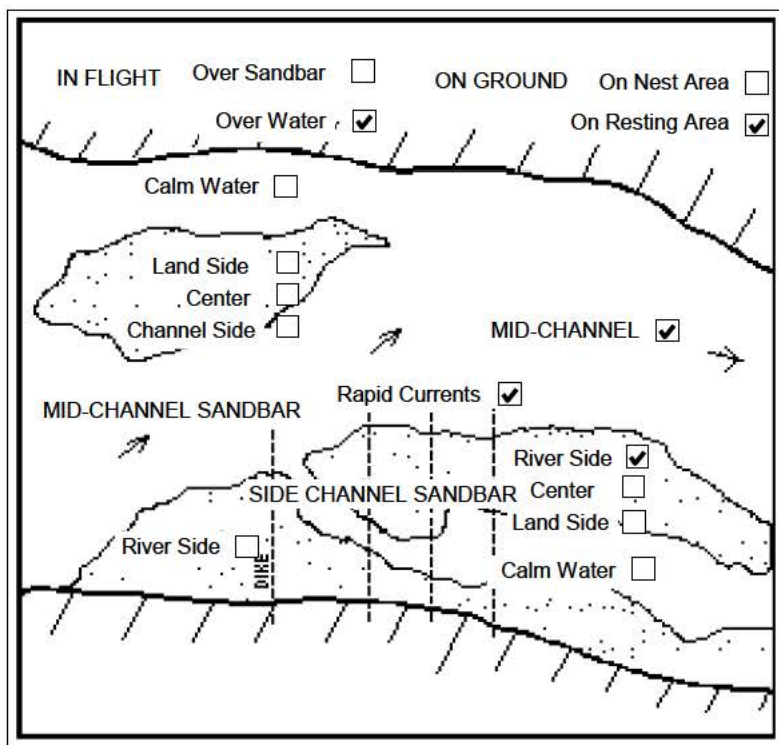
DATE: 7/27/2011 TIME OF DAY: 10:20 RIVER MILE: 503.5

LOCALITY: Issaquena MS SITE NAME: Corregidor Dikes  
County/Parish State

WHERE SITED: Latitude: 32.9577  
Longitude: 91.1531

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 40  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 90 °F  
Rain: No  
Wind: calm  
% Cloud: 0

OTHER NOTES:

Left Bank. Low, flat, unattached sand bar (2 miles long) with terns resting at waterline. No nesting activity observed or disturbance. One sandpiper and 6 Black Terns also on bar with turtle tracks.

MS side

OBSERVERS: Campan, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

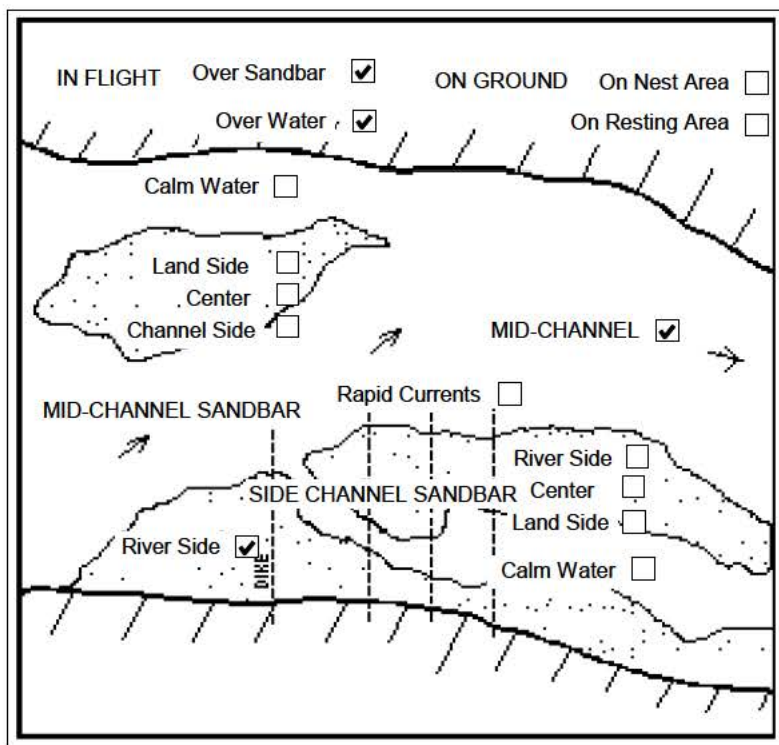
DATE: 7/27/2011 TIME OF DAY: 10:30 RIVER MILE: 498.5

LOCALITY: East Carroll LS SITE NAME: Wisou Point Dikes  
County/Parish State

WHERE SITED: Latitude: 32.934  
Longitude: 91.0760

Approximate Distance to Water: 80 Feet

NUMBERS SIGHTED:  
Adults: 63  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 8 Feet

FIELD CONDITION:  
Temperature: 89 °F  
Rain: No  
Wind: calm  
% Cloud: 20

OTHER NOTES:

Right Bank. Small, narrow attached sand bar with most terns at waterline but 5 observed sitting on nests close to trees. Drift count also observes one Great Blue Heron, 1 Great White Heron and 1 Snowy Egret.

LA side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

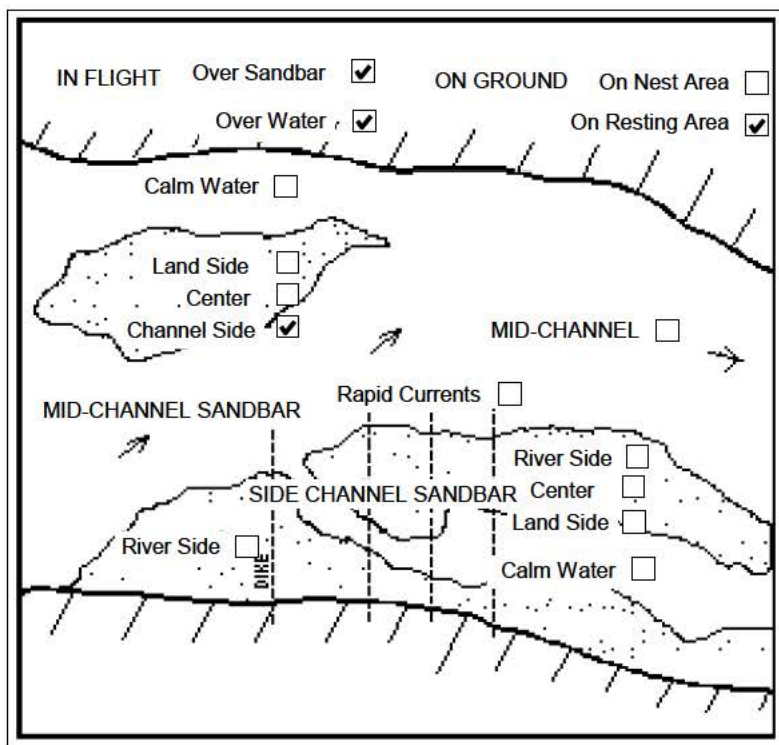
DATE: 7/27/2011 TIME OF DAY: 10:47 RIVER MILE: 491

LOCALITY: Issaquena MS SITE NAME: Baleshed Landing Dikes  
County/Parish State

WHERE SITED: Latitude: 32.8425  
Longitude: 91.1254

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 52  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 82 °F  
Rain: No  
Wind: calm  
% Cloud: 20

OTHER NOTES:

Left Bank. Drift count along low, barely emergent, unattached bar with most terns resting at waterline. No nesting activity or signs of disturbance. Three Black Terns also present.

MS side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Greenville = 30.5 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

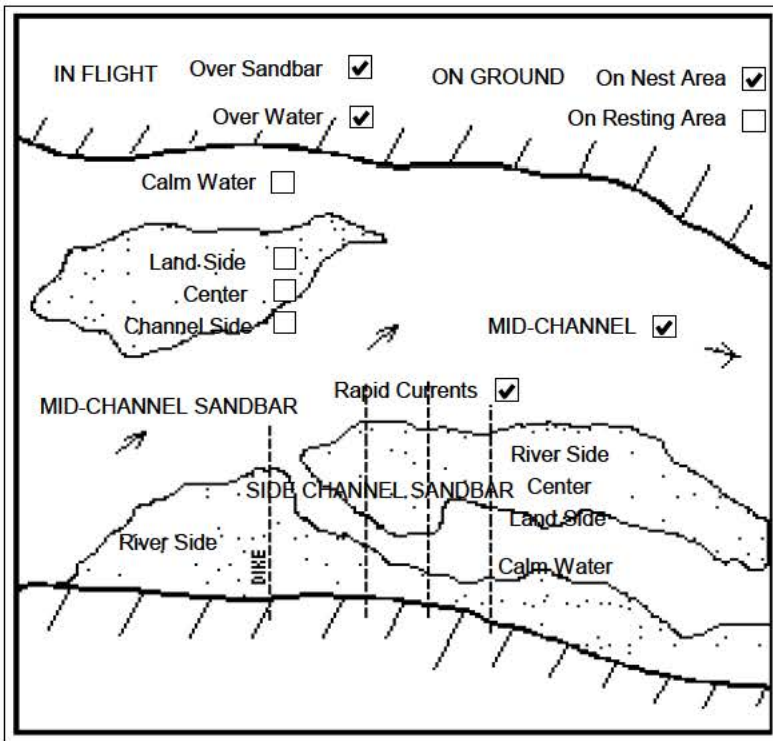
DATE: 7/27/2011 TIME OF DAY: 11:13 RIVER MILE: 482

LOCALITY: East Carroll LA SITE NAME: Ajax Bar Dikes Upper  
County/Parish State

WHERE SITED: Latitude: 32.7398  
Longitude: 91.13109

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:  
Adults: 8  
Juveniles: \_\_\_\_\_  
Eggs: 1(2)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/Cottonwoods  
Distance: 300 Feet

FIELD CONDITION:  
Temperature: 88 °F  
Rain: No  
Wind: E 3-5mph  
% Cloud: 10

OTHER NOTES:

Left Bank. Small, sand bar between "Y" dikes, with recent camping debris abandoned at waterline. No other disturbance noted.

MS side

OBSERVERS: Campan, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.9 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

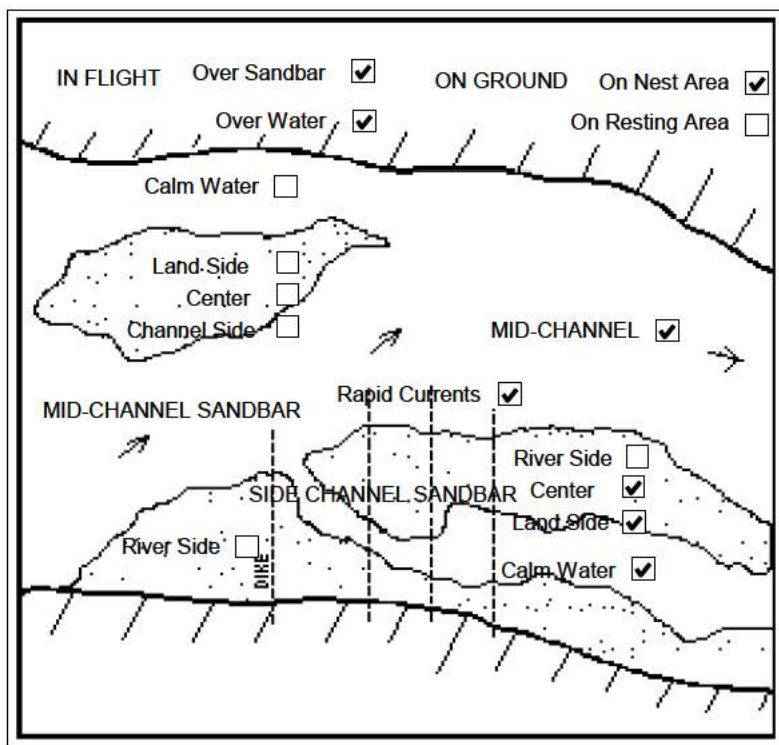
DATE: 7/27/2011 TIME OF DAY: 11:34 RIVER MILE: 481

LOCALITY: East Carroll LA SITE NAME: Ajax Bar Dikes Lower  
County/Parish State

WHERE SITED: Latitude: 32.7384  
Longitude: 91.1196

Approximate Distance to Water: 40 Feet

NUMBERS SIGHTED:  
Adults: 650  
Juveniles: \_\_\_\_\_  
Eggs: 4(1) 32(2) 33(3)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 100 Feet

FIELD CONDITION:  
Temperature: 91 °F  
Rain: No  
Wind: SE 3-5mph  
% Cloud: 10

OTHER NOTES:

Left Bank. High, flat sand bar (400 x.5 mile) below dikes with prominent wrack lines and nests on high center. Many nests at all stages of laying and chicks up to 1.5 weeks of age. Human signs along with abandoned eggs. Twenty Black Terns nearby and 2 Turkey Vultures

MS side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.9 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

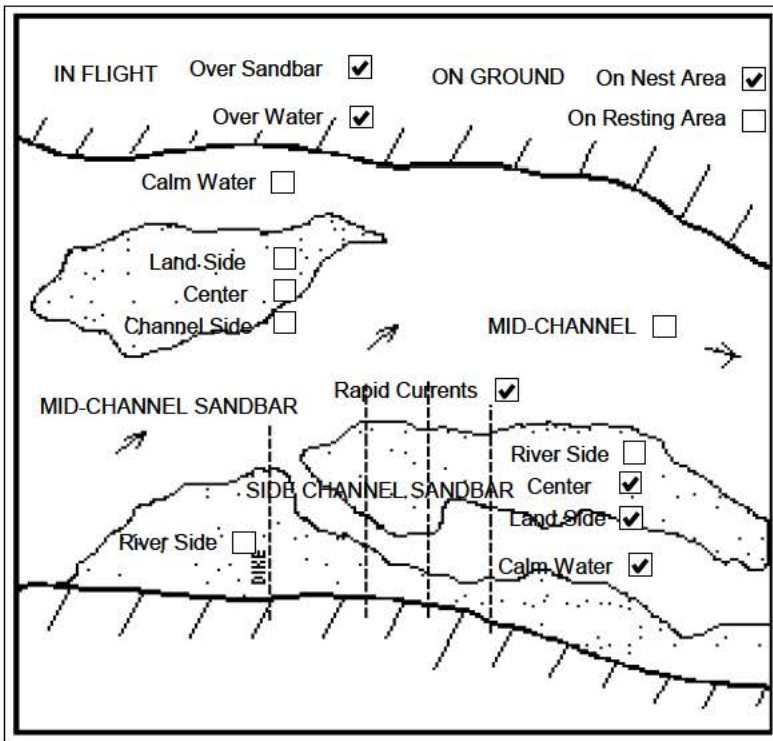
DATE: 7/27/2011 TIME OF DAY: 13:40 RIVER MILE: 460

LOCALITY: East Carroll LA SITE NAME: Willow Cutoff Dikes  
County/Parish State

WHERE SITED: Latitude: 32.5282  
Longitude: 91.10414

Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:  
Adults: 400  
Juveniles: yes  
Eggs: 1(1) 1(2) 1(3)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/grass  
Distance: 80 Feet

FIELD CONDITION:  
Temperature: 91 °F  
Rain: No  
Wind: S 3mph  
% Cloud: 30

OTHER NOTES:

Right Bank. Unattached, high, small sand bar (400 x 700') with colony concentrated and nests 2-3 ft. apart.  
Spent shotgun shells but no mortality observed. Great Blue Heron being mobbed and Turkey and Black  
Vultures feeding on carcass at waterline. Fifty Woodstorks flying 15 miles upstream along channel.

LA side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.9 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

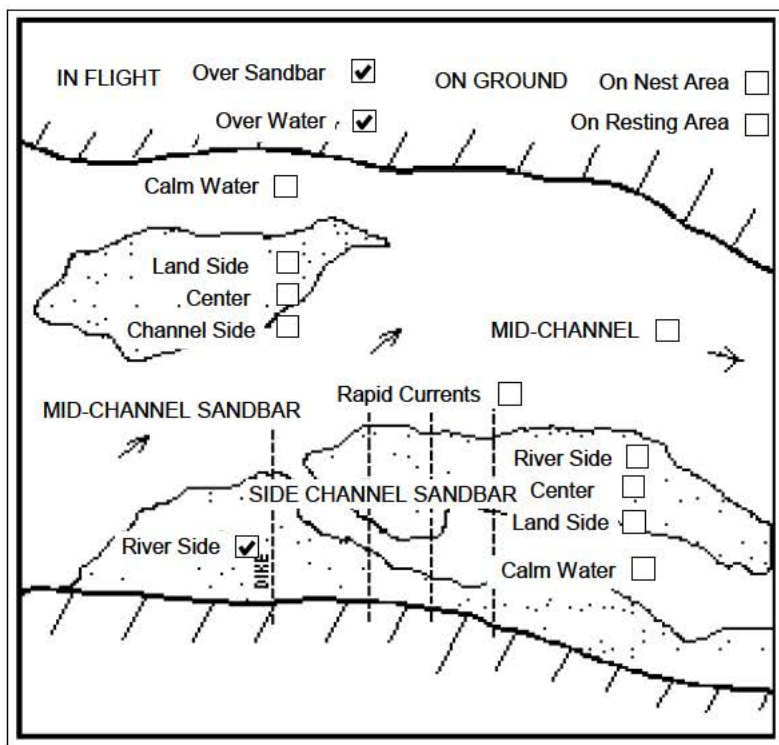
DATE: 7/27/2011 TIME OF DAY: 14:11 RIVER MILE: 452.5

LOCALITY: Warren MS SITE NAME: Forest Home Towehead Dikes  
County/Parish State

WHERE SITED: Latitude: 32.4456  
Longitude: 91.0632

Approximate Distance to Water: 60 Feet

NUMBERS SIGHTED:  
Adults: 100  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 91 °F  
Rain: No  
Wind: S 3-5mph  
% Cloud: 65

OTHER NOTES:

Left Bank. Drift count. Long (600 x 1 mile), narrow, attached sand bar with most terns at waterline, but 10 sitting inland on nests. No disturbance noted.

MS side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.9 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

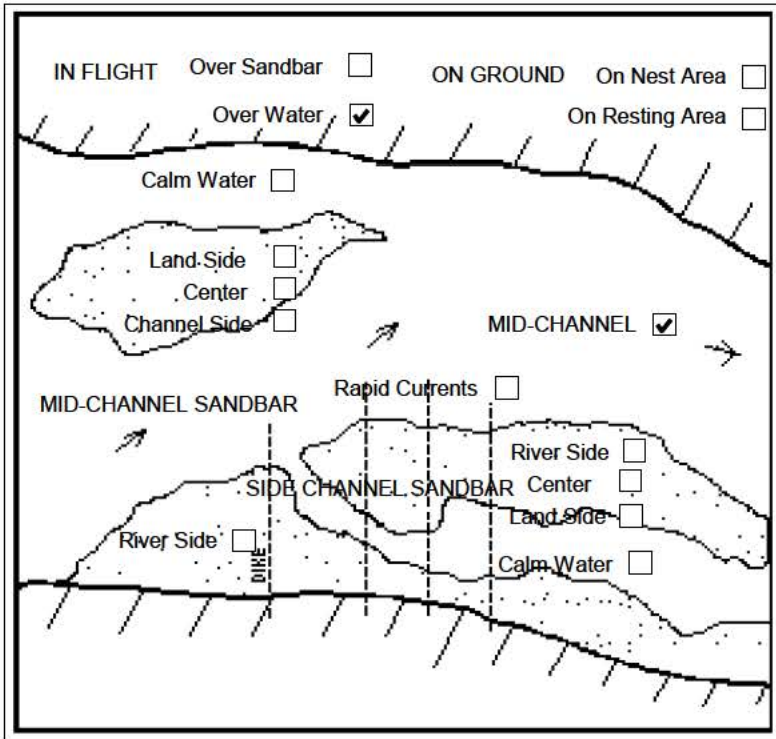
DATE: 7/27/2011 TIME OF DAY: 14:46 RIVER MILE: 448

LOCALITY: Madison LA SITE NAME: Marshall Cutoff Dikes  
County/Parish State

WHERE SITED: Latitude: 32.4049  
Longitude: 91.001

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 13  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 91 °F  
Rain: No  
Wind: S 3mph  
% Cloud: 60

OTHER NOTES:

Terns flying mid-channel in transit. Twenty Woodstorks circling downstream over left bank.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
LA side

OBSERVERS: Campen, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.9 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

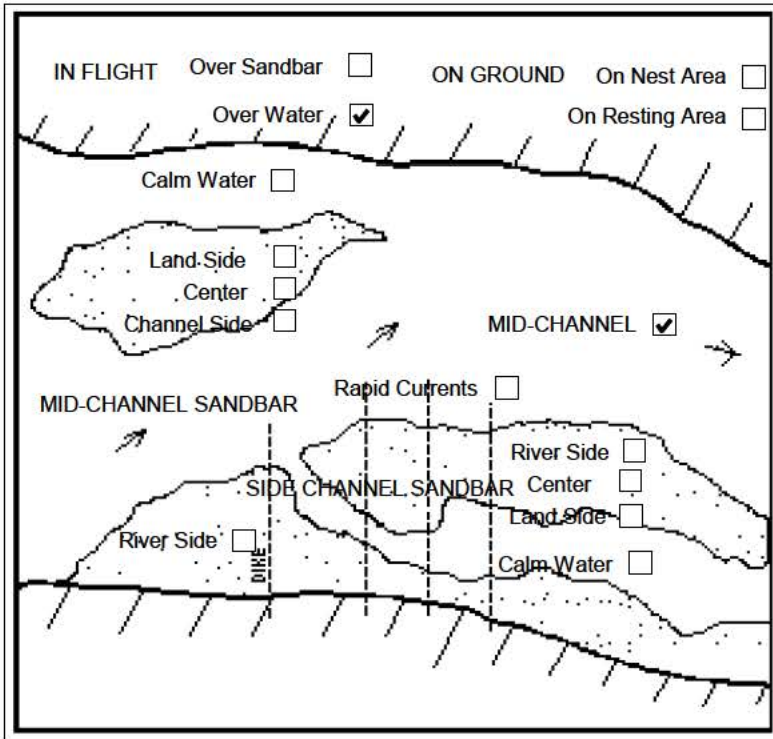
DATE: 7/28/2011 TIME OF DAY: 8:07 RIVER MILE: 428

LOCALITY: Warren MS SITE NAME: Below Racetrack Dikes  
County/Parish State

WHERE SITED: Latitude: 32.2383  
Longitude: 90.98035

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 3  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: \_\_\_\_\_  
Distance: \_\_\_\_\_ Feet

FIELD CONDITION:  
Temperature: 80 °F  
Rain: No  
Wind: SE 3-5mph  
% Cloud: 100 hazy

OTHER NOTES:  
Terns flying mid-channel in transit.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ MS side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

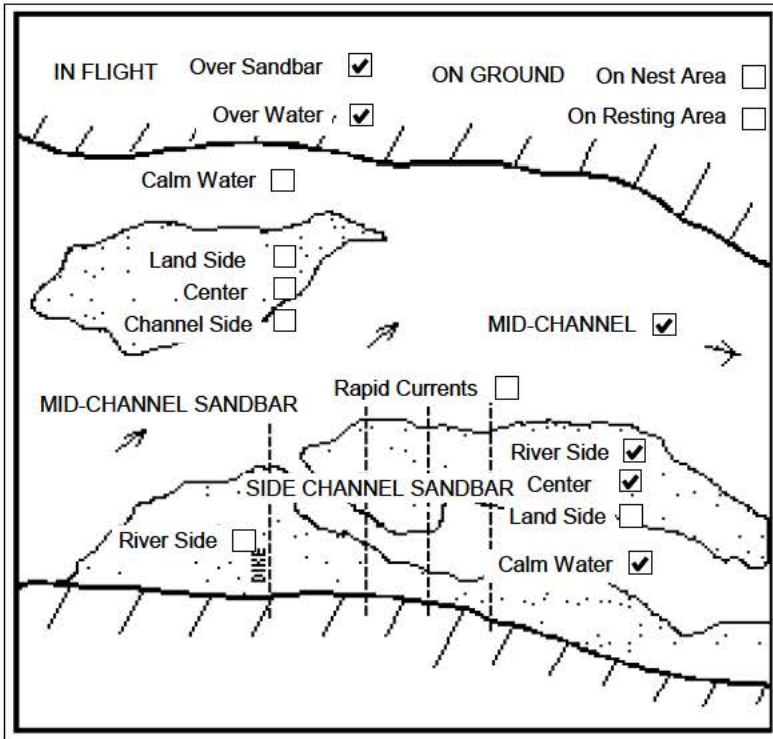
DATE: 7/28/2011 TIME OF DAY: 8:32 RIVER MILE: 419

LOCALITY: Tensas LA SITE NAME: Newton Bend Dikes  
County/Parish State

WHERE SITED: Latitude: 32.12583  
Longitude: 91.04964

Approximate Distance to Water: 30 Feet

NUMBERS SIGHTED:  
Adults: 36  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 100 Feet

FIELD CONDITION:  
Temperature: 80 °F  
Rain: No  
Wind: SE 3-5mph  
% Cloud: 100 hazy

OTHER NOTES:

Right Bank. Small, upstream point of island (60 x 700'). Seven terns sitting on nests. No disturbance factors noted.

LA side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

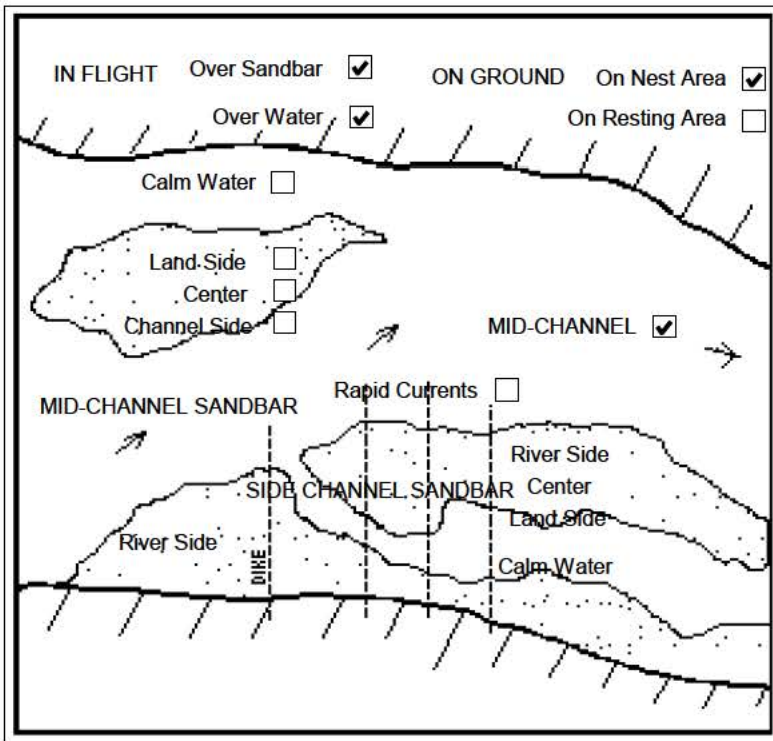
DATE: 7/28/2011 TIME OF DAY: 8:50 RIVER MILE: 410

LOCALITY: Claiborne MS SITE NAME: Yucatan Dikes  
County/Parish State

WHERE SITED: Latitude: 32.06819  
Longitude: 91.07472

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:  
Adults: 81  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows/grass  
Distance: 800 Feet

FIELD CONDITION:  
Temperature: 80 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 100

OTHER NOTES:

Right Bank. Large upstream point with low upper end of sand, mud and gravel (800 x 1000'). Heavy mobbing, courtship flights and carrying fish indicate early colony site. One shad dropped in colony and Bobcat tracks observed.

LA side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Vicksburg = 26.2 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

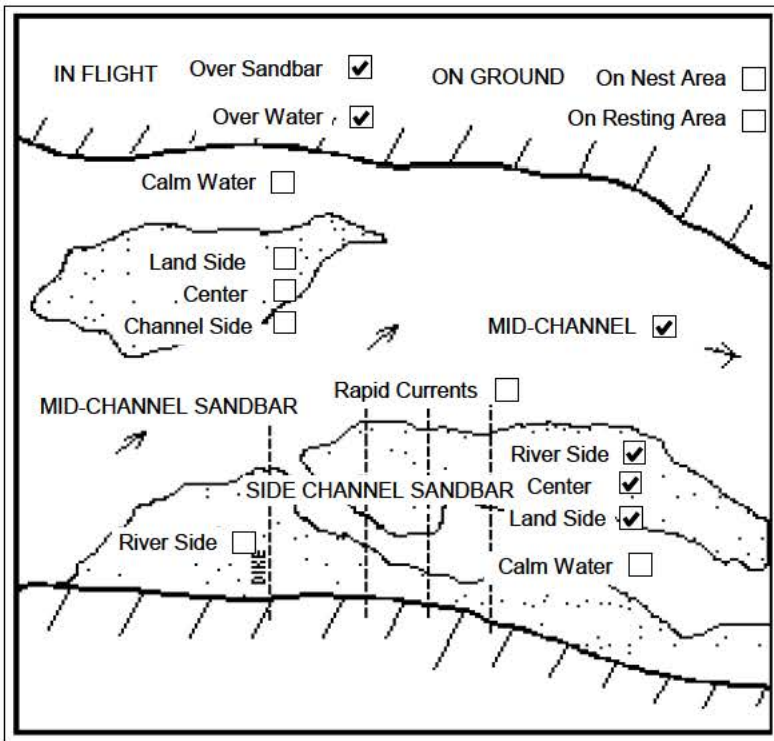
DATE: 7/28/2011 TIME OF DAY: 9:50 RIVER MILE: 393

LOCALITY: Tensas LA SITE NAME: Bondurant Towhead Dikes  
County/Parish State

WHERE SITED: Latitude: 31.89568  
Longitude: 91.21446

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:  
Adults: 96  
Juveniles: \_\_\_\_\_  
Eggs: 8(1)  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 400 Feet

FIELD CONDITION:  
Temperature: 84 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 80

OTHER NOTES:

Right Bank. Large upstream point of flat sand with gravel patches (1000 x .5 miles). Much courting with nests widely scattered, some by debris. Canine tracks in colony but no predation evidence.

LA side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Natchez = 35.3 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

DATE: 7/28/2011 TIME OF DAY: 10:30 RIVER MILE: 384

LOCALITY: Jefferson MS COUNTY/PARISH STATE  
County/Parish State

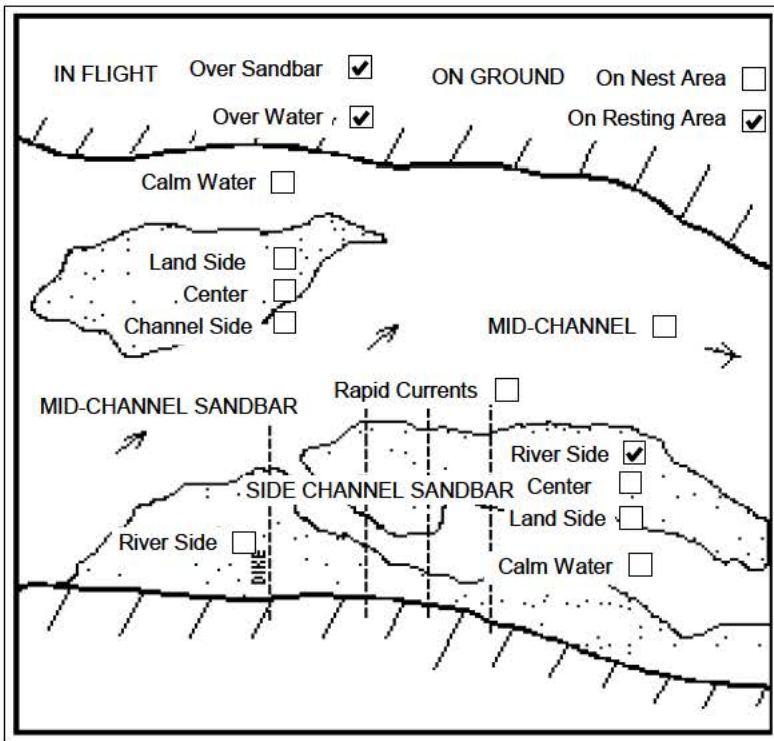
SITE NAME: Below Spithead Towhead Dikes

WHERE SITED: Latitude: 31.83015  
Longitude: 91.34753

Approximate Distance to Water: \_\_\_\_\_ Feet

NUMBERS SIGHTED:

Adults: 76  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:

Sand:   
Gravel:   
Debris:

VEGETATION:

Type: Willows  
Distance: 200 Feet

FIELD CONDITION:

Temperature: 85 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 75

OTHER NOTES:

Left Bank. Long (1 mile x 200') sand and gravel bar with most terns at waterline and only 2 observed inland.  
No breasting or other reproductive behavior observed. Great Blue Herons, Great Egrets, and Turkey  
Vultures present, but no mobbing.

MS side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Natchez = 35.3 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

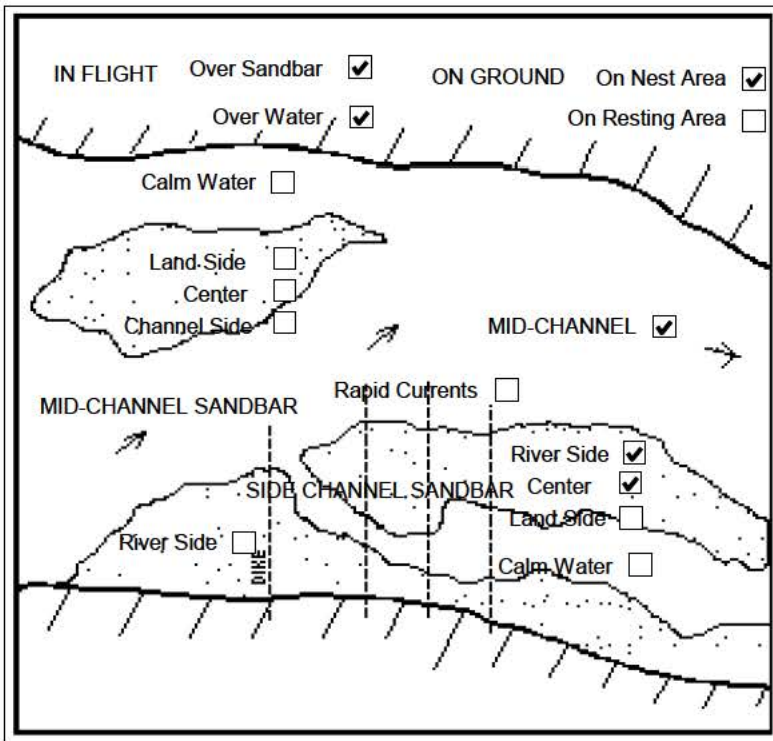
DATE: 7/28/2011 TIME OF DAY: 11:00 RIVER MILE: 377.6

LOCALITY: Tensas LA SITE NAME: Water Proof Dikes  
County/Parish State

WHERE SITED: Latitude: 31.76160  
Longitude: 91.36942

Approximate Distance to Water: 1000 Feet

NUMBERS SIGHTED:  
Adults: 140  
Juveniles: \_\_\_\_\_  
Eggs: 4(1) 2(2)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 800 Feet

FIELD CONDITION:  
Temperature: 87 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 75

OTHER NOTES:

Right Bank. High sand bar below dikes with birds resting at waterline, fishing, courting and carrying fish.  
Nests on higher center of bar with eggs, some abandoned, and chicks up to 2 weeks of age, and deer tracks in colony. Cattle Egrets flying upstream.

LA side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Natchez = 35.3 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

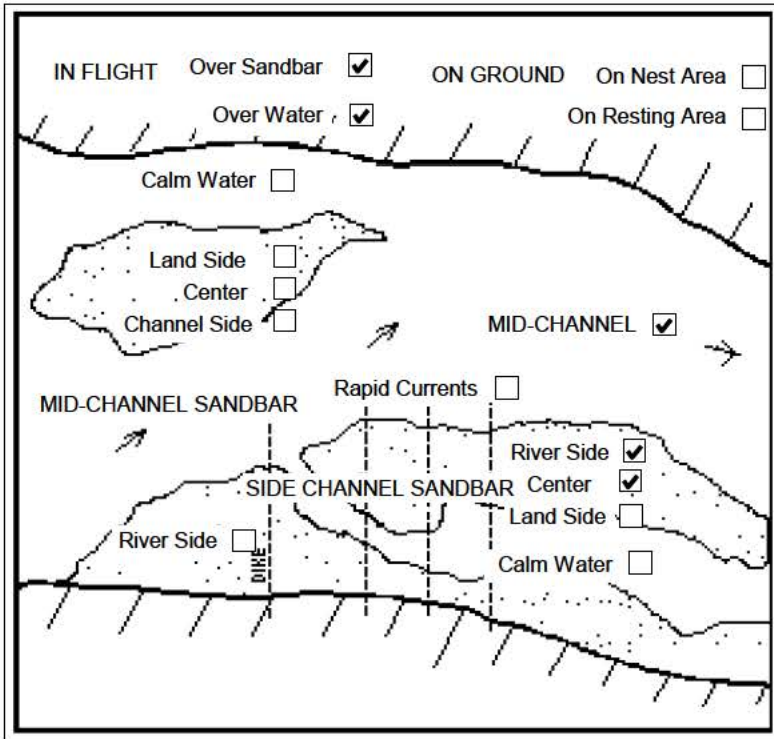
DATE: 7/28/2011 TIME OF DAY: 12:05 RIVER MILE: 351

LOCALITY: Concordia LA SITE NAME: Opp. Warnicott Landing Dikes  
County/Parish State

WHERE SITED: Latitude: 31.41948  
Longitude: 91.49187

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:  
Adults: 399  
Juveniles: yes  
Eggs: 11(2)  
Chicks: Yes



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 200 Feet

FIELD CONDITION:  
Temperature: 86 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 50

OTHER NOTES:

Left Bank. Long, narrow sand bar (450 x 800') between dikes. Many nests with 2 eggs, juveniles at the waterline and chicks hatching. Deer, goose and heron tracks with Mississippi Kites flying overhead.

MS side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Natchez = 35.3 F  
(Gage Location) (Elevation)



FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

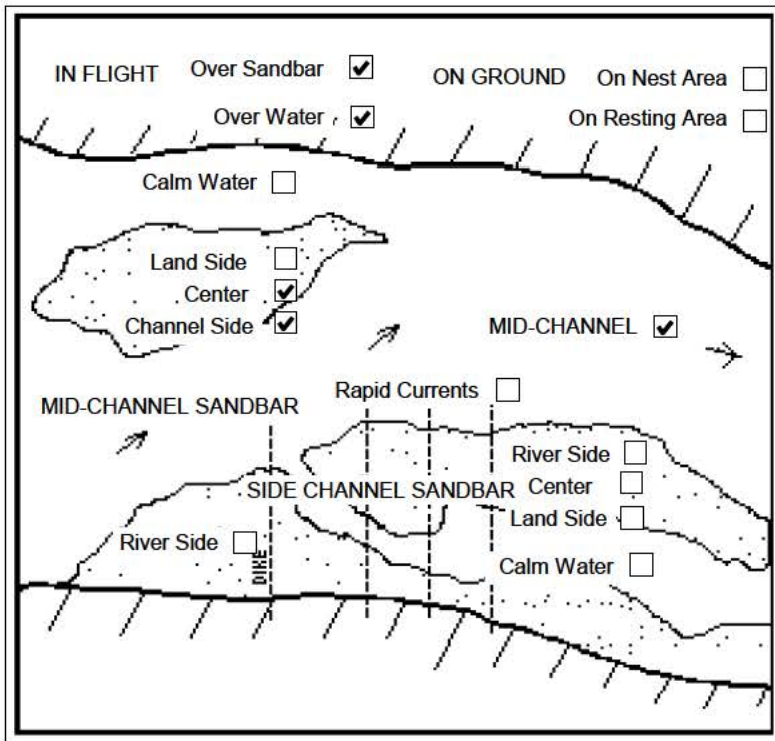
DATE: 7/28/2011 TIME OF DAY: 14:00 RIVER MILE: 304

LOCALITY: West Feliciano LA SITE NAME: Shreves Bar  
County/Parish State

WHERE SITED: Latitude: 30.99080  
Longitude: 91.65119

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:  
Adults: 36  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 300 Feet

FIELD CONDITION:  
Temperature: 83 °F  
Rain: No  
Wind: SE 5mph  
% Cloud: 60

OTHER NOTES:

Left Bank. Upstream point of island, sand bar 300 x 700', high and flat with 3 sitting on nests. Not much activity, tracks or other signs of disturbance.

MS side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Natchez = 35.3 F  
(Gage Location) (Elevation)

FIELD SIGHTING  
DATA SHEET

FLY  BOAT

SPECIES: Interior Least Tern (*Sterna antillarum athalassos*)

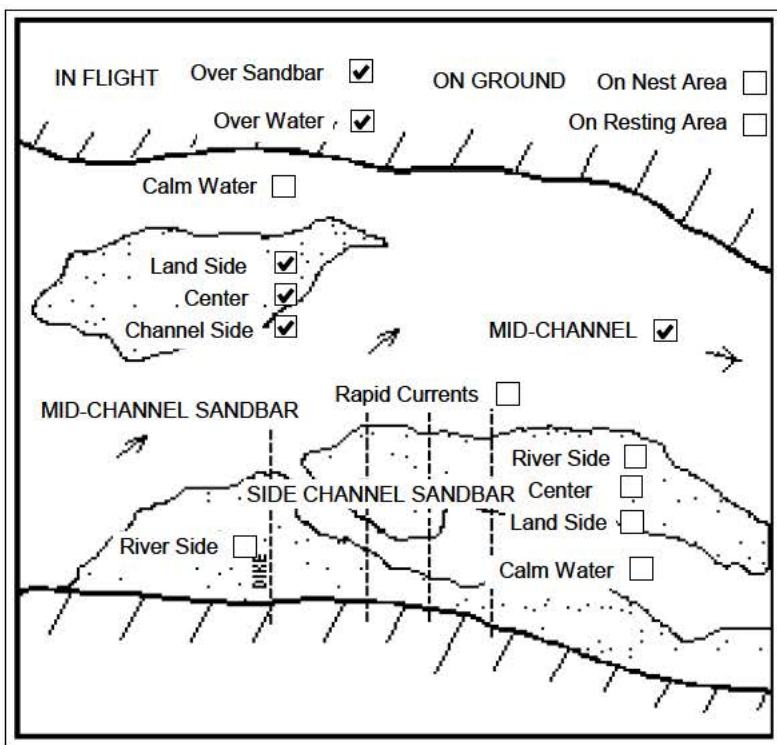
DATE: 7/28/2011 TIME OF DAY: 14:16 RIVER MILE: 300

LOCALITY: West Feliciano LA SITE NAME: Hog Point Dikes  
County/Parish State

WHERE SITED: Latitude: 30.93309  
Longitude: 91.64365

Approximate Distance to Water: 20 Feet

NUMBERS SIGHTED:  
Adults: 68  
Juveniles: \_\_\_\_\_  
Eggs: \_\_\_\_\_  
Chicks: No



SUBSTRATE:  
Sand:   
Gravel:   
Debris:

VEGETATION:  
Type: Willows  
Distance: 200 Feet

FIELD CONDITION:  
Temperature: 89 °F  
Rain: No  
Wind: S 0-5mph  
% Cloud: 55

OTHER NOTES:

Left Bank. Low, upper point of solid sand bar (300 x 600') with most birds resting at waterline, but 8 sitting inland on nests. No signs of disturbance..

MS side

OBSERVERS: Campen, R. Davin, Fowlkes, K. Jones, Rumancik

RIVER GAGE READING: Natchez = 35.3 F  
(Gage Location) (Elevation)