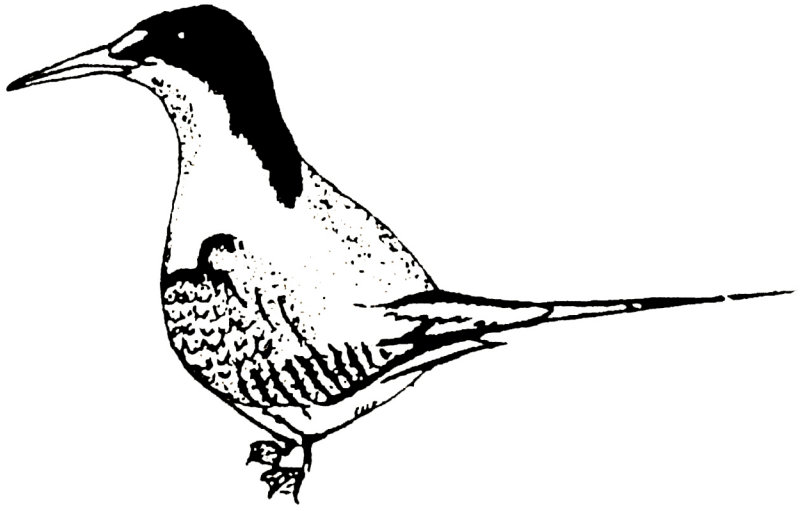
Contract No. W912EQ-08-C-0020

Task Order No. 4001

US Army Corps
of Engineers
Memphis District

INTERIOR LEAST TERN



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

2012

Prepared by

Kenneth H. Jones
Associate Professor of Biology

Dyersburg State Community College
1510 Lake Road
Dyersburg, Tennessee 38024

July 2012

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

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Kenneth H. Jones
Associate Professor of Biology

Dyersburg State Community College
1510 Lake Road
Dyersburg, Tennessee 38024

Under Contract with Choctaw Transportation Company, Inc.
P.O. Box 585
Dyersburg, Tennessee 38025-0585

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On and between July 7 and July 13, 2012, a survey crew, led by Zack Fowlkes, 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 28th 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 Zack Fowlkes, Mike Thron, biologist with the Memphis District Corps of Engineers, John Rumancik, retired biologist with the Memphis District Corps of Engineers, Dennis and Regina Davin, Kent Blackwood, and Tim Gamble.

This year's survey yielded a total count of 10,090 Least Terns and 75 nesting colonies, many more colonies than last year's survey, which was 45, but less in total numbers. However, due to the extremely low river stages and the greater available of colony sites due to more exposed sand bars, it is likely that counts were conservative (some bars were not accessible because of the extensive size of the sand bars and inability of the survey boat to access the bar due to extremely shallow water). This year very few juveniles were observed and most, if not all, of the total count were adults. Nests were widely spaced apart with relatively few nests per colony. The number of eggs per nest was also low, usually 1-2 per nest. It was rare to find 3 eggs in a nest. Even though the survey was conducted at very low river stages, which

afforded ample nesting sites beginning early in the season, nearly all chicks along the upstream reach were between 1-7 days old. Older chicks (7-21 days) were found farther south along the river. Also colony sizes appeared larger along the southern reach versus the upstream reach. Helena, AR (RM 665) appeared to be the dividing line for these observations.

Sixty-nine colonies were identified based on the presence of eggs and/or chicks or many terns sitting inland on scrapes (Tables 1 and 2). Six colonies were also 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 Corregidor Dikes (RM 503) with 1200 adult terns counted. Other large colonies included Island #84 Dikes (RM 533) with 670 birds, Sunflower Cut-Off (RM 625) with 570, and Leland Neck Dikes (RM 540) with 400 Least Terns. The smallest colonies were at and Nebraska Point Dikes Lower (RM 805.9) and Caruthersville-Linwood bend Dikes (RM 840), with just 8 and 14 birds.

The timing of this year's survey was earlier than last year's survey due to the early, lower than normal, spring and 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. This year the Memphis gage fell below 14 feet on April 2, rose briefly but fell again below 14 feet on May 19, 2012. The survey was first attempted on June 23, 2012 but aborted due to survey boat engine failure. After repairs the survey was finally initiated 2 weeks later on July 7, 2012.

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. As with previous years, no standardized nest counts were conducted at the colony locations; however, the number of nests observed during survey operations were recorded based on both 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 134, with colony sizes ranging from as little as 8 adults to as many as 1200. The numbers of eggs per nest ranged from 1 to 3, but most of the nests contained 1-2 eggs or chicks, while only a few sites had 3. Often past year's surveys found nest locations associated with wrack lines of driftwood, but this year there was no spring, high water to deposit drift and form wrack lines. Thus, the majority of nests were located in bare sand or a sand/gravel mix and widely separated from neighboring nests. 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 7, 2012, with the river stage at Memphis, Tennessee at -4.4 and falling (Table 3). For the entire duration of the survey, the river stages were nearly stable with slight daily changes of three-tenths of a foot or less. 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, and another observer counted terns along the opposite river bank. These 3 numbers were added together to figure the total colony count. 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, due to the extremely low water level, the sandbars were very high resulting in some colonies being situated over the tops of the bars beyond sight from the boat. At these sites, flying activity and behavior generally indicated a nesting colony and it was then surveyed on foot. 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 six sites where no eggs, chicks, or terns sitting on scrapes 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. Ten-thousand-ninety (10,090) Least Terns were recorded at 105 locations (Table 1, Figure 1). Of these, 75 sites were identified as nesting colonies with 8,835 adults, 30 sites as resting bars only with 1,081 adults, and 53 observations of 174 birds that could not be associated with colonies, either flying over feeding areas or in transit, and resting on bars. These random observations were not associated with colonies, but they were 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 still appeared to be the main selection criteria. Also it was noted that many former colony sites were not occupied while new sites were. This was probably due to the extremely low river stages prior to and during the survey. Many historically active colony sites were now attached and susceptible to predation from the mainland, while new bars, previously not exposed provided ideal nesting habitats. The larger colonies were 1 to 3 square miles in size, while some of the smallest were still hundreds of acres in area. The paucity of colonies was noticeable upstream of Helena, AR (RM 665). This might be attributed to northward migrating adults stopping at the more southern sites because sandbar habitat was so abundant.

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, or close to 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. At larger sand bar colonies that were several hundreds of feet from the river, those with mobile chicks generally found the chicks close to the back chute between the bar and the river bank. Chicks at these sites tended to congregate within the low patches of vegetation that grew there. Smaller chicks (3-14 days old) used these patches for cover and shade.

The colonies' proximities to the nearest water (least distance from any nest with eggs to the waterline) varied from 0 to 2500 feet and averaged ~400 feet. Though some colonies were densely populated, with scrapes occurring within a few feet of each other, most colonies were extremely dispersed with nests occurring hundreds of feet apart and the colony extending as far as a mile of more across the larger sandbars. This was attributed to the vast lack of debris or wrack since there was no high spring water to deposit these Major vegetation was absent or far removed (>300 feet) from 62 colony sites, but 1 did have sparse stands of Black Willows (Salix nigra) and 12 had 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.

Evidence of predation on adults, chicks or eggs was observed at two colony sites, but at 9 colony sites, coyote or dog tracks were present with a coyote actually observed in the vicinity. Many colonies had raptors in the immediate vicinity, including Bald Eagles (*Haliaeetus leucocephalus*) at 13 sites, Red-tailed Hawks (*Buteo jamaicensis*), Mississippi Kites (*Ictinia mississippiensis*), Turkey Vultures (*Cathartes aura*), Black Vultures (*Coragyps atratus*) and Osprey (*Pandion haliaetus*). Of 75 colonies, 21 had evidence of recent intrusion by humans on foot, by boats or ATVs, and 1 had abandoned eggs. This high incidence of humans, their ATVs and pets intruding on colony sites was most likely the result of increased accessibility to sand bars due to the extremely low river stages. Another anomaly noted this year was a green-colored tern egg observed within a scrape.

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*), Egrets (*Casmerodius, Egretta, Bubulcus*), Great Blue Herons (*Ardea herodius*), and Wood Storks (*Mycteria americana*).

Other noteworthy bird species observed on the sand bars or in close proximity to Least Tern colonies included Anhinga (*Anhinga anhinga*), Bank Swallows (*Riparia riparia*), Barn Swallows (*Hirundo rustica*), Canada Geese (*Branta canadensis*), Caspian Terns (*Sterna caspia*), Cliff Swallows (*Petrochelidon pyrrhonota*), Double-Crested Cormorants (*Phalocrorax auritus*), Crows (*Corvus brachyrhynchos*), Great Egrets (*Casmerodius albus*), Killdeers (*Charadrius vociferous*), Laughing Gulls (*Leucophaeus atricilla*), Mourning Doves (*Zenaida macroura*), Red-winged Blackbirds (*Agelaius phoeniceus*), Rough-winged Swallows (*Stelgidopteryx serripennis*), Sandpipers (*Calidris sp.*), Snowy Egrets (*Egretta thula*), Spotted Sandpipers (*Actitis macularia*), White Ibises (*Eudocimus albus*), and White Pelicans (*Pelecanus erythrorhyncos*).

Fingerling-size shad (*Dorosoma sp?*), Gizzard Shad (*Dorosoma cepedianum*), Channel Catfish (*Ictalurus punctatus*), Smallmouth Buffalo (*Ictiobus bubalus*), Silver Carp (*Hypophthalmichthys molitrix*) and White Bass (*Morone chrysops*) were found in colonies and are presumed to have been dropped by foraging adults. It should be noted that the majority of fish found on the sand bars at colony sites were Silver Carp. This species has become extremely abundant in the lower Mississippi river and could be displacing the shad as a major forage fish for Least Terns. All fish found were between 1-2.5 inches long.

This year's survey yielded a total count (10,090) that was down from the 2011 count (12,247) by roughly 18%. This year's count may have been down from 2011 because of the extremely low water stages before and during the survey. This made seeing and locating colonies which were over the tops of the sandbars, closer to the back chutes, difficult or impossible. The observers could not see terns flying to colony centers. Thus a significant number of terns could not be counted. In addition, widely spread out colonies greatly reduces

count accuracy compared to smaller colony sandbar sizes at higher river stages. The higher 2011 tern count was attributed the survey being done at the peak of incubation, prior to hatching. Thus nearly all terns were at the colonies instead of half out fishing over the river. The extremely high 2010 count was attributed to the survey being done after fledging when nearly all chicks were flying. It was impossible to separate flying young of the year from adults at the distances involved with counting. Still, the 10,090 terns recorded this year places this count within the count ranges for the past 9 years.

Table 1: Least Tern Survey - July 7-13, 2012 - 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:
UR 29.2	Bumgard Island	ILL	37.04335	89.38014	37	*	0
946.6	Island #! Dikes	KY	36.89157	89.11925	22	c*	1
940.5	Below Campbell Dikes	KY	36.80420	89.13470	35	c*	0
930.0	Below Wolf Island Bar	KY	36.68116	89.14874	17	c*	3
924.5	Beckwith Bend	KY	36.61050	89.20278	31	c*	0
905.0	Donaldson Point Dikes Upper	MO	36.50281	89.41521	78	*	3
900.0	Donaldson Point Dikes Lower	MO	36.46093	89.47283	150	c*	15
884.5	Kentucky Point Dikes	KY	36.53529	89.56244	280	c*	2+
875.8	Marr Towhead	TN	36.42008	89.53883	18	c*	1
864.0	Below Cherokee Dikes	TN	36.32958	89.61888	243	c*	0
858.5	Chute of Island #14	MO	36.24570	89.57510	94	*	3
850.5	Island #15 Dikes	TN	NA	NA	21		0
840.0	Caruthersville-Linwood Bend Dikes	MO	NA	NA	14	*	2
836.0	Island #18 Towhead Dikes	TN	36.09888	89.65940	42	c*	1
826.6	Head of Island #21 Dikes	TN	35.96823	89.71712	52	*	0
811.8	Below Tamm Bend Dikes	TN	35.90863	89.74040	38		0
807.7	Nebraska Point Dikes Upper	TN	35.86144	89.76472	155	c*	0
805.9	Nebraska Point Dikes Lower	TN	35.85251	89.73745	8	c*	1
803.0	Island #25 Dikes	AR	NA	NA	24	c*	0
797.7	Forked Deer Dikes	TN	35.78109	89.76904	41	c*	0
793.3	Ashport Gold Dust Dikes	AR	35.74575	89.83600	50	c*	7
789.7	Keyes Point Dikes	TN	35.73131	89.90031	37	c*	1
780.0	Craighead Point	AR	35.62787	89.87719	72	c*	6
772.5	Above Randolph Dikes	TN	35.53606	89.89863	50	c*	0
766.0	Below Richardson Landing Dikes	TN	NA	NA	20		0
760.0	Cedar Point	TN	35.43250	90.00320	42		0
754.0	Densford Bar	TN	35.39008	90.07095	61		0
745.8	Randolph Point Dikes	TN	35.28314	90.10377	19	c*	1
742.0	Redman Point Dikes	AR	35.20530	90.07138	75	c*	0
733.0	Engineers Bar Dikes	AR	35.12213	90.10240	25	c*	0
725.0	Dismal Point Dikes	AR	35.06430	90.18320	30		0
716.0	Cow Island Bend	MS	35.00603	90.29724	50	c*	1
705.5	Seyppel Dikes	AR	34.89537	90.26065	142	c*	15
703.0	Pickett Dikes	AR	34.87590	90.31015	47		0
	SUBTOTAL				**2,120**		27

Table 1: Least Tern Survey - July 7-13, 2012 - 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:
700.0	Porter Lake Dikes	AR	34.84790	90.36109	22		0
696.5	Basket Bar Dikes	AR	34.82813	90.41298	24	*	3
692.0	Rabbit Island	MS	34.78973	90.47115	157		0
688.0	Mhoon Bend	AR	34.74127	90.45357	34	*	
680.0	Bordeaux Point Dikes	MS	34.72830	90.56700	24		0
677.0	Shoo Fly Bar	MS	34.67810	90.56384	147	c*	7
676.0	Below Walnut Bend Dikes	MS	34.66383	90.57290	25		0
674.0	St. Francis Bend	MS	34.63635	90.58444	84	c*	10
667.0	Prairie Point Dikes	AR	34.56476	90.54980	56	c*	10
660.0	Montezuma Bar	MS	34.46921	90.58782	62	c*	2
655.0	Montezuma Towhead Dikes	AR	34.40171	90.59774	16		0
652.0	Friars Point Dikes Upper	MS	34.38645	90.63821	327	c*	7
651.0	Friars Point Dikes Lower	MS	34.37751	90.66519	24	c*	1
647.0	Kangaroo Point Dikes	AR	34.36510	90.71200	9		0
646.0	Miller Point	MS	34.36020	90.76474	14		0
633.0	Robson Towhead	Ms	34.26680	90.83288	22	c*	9
625.0	Sunflower Cut-Off	AR	34.17266	90.89996	570	c*	100
622.5	Below Ludlow Dikes	AR	34.16052	90.92971	24		0
620.0	Island #67 Dikes	MS	34.11555	90.95030	58	c*	0
614.0	Below Knowlton Dikes	AR	34.07389	90.90262	15	c*	5
609	Island #70 Dikes Upper	MS	34.02149	90.95831	43	c*	6
607	Island #70 Dikes Lower	MS	34.01799	90.98220	21	c*	7
602.8	Henrico Dikes	MS	33.98795	91.04766	25	c*	5
599.0	Smith Point Dikes	MS	33.95707	91.08165	49		0
595.0	Victoria Bend Dikes	AR	33.93171	91.01583	50	c*	8
590.0	Terrene Dikes Upper	MS	33.86926	91.06578	63	c*	10
589.0	Terrene Dikes Lower	MS	33.85560	91.07033	190	c*	50
584.0	Malone Field Dikes	AR	33.79028	91.04450	108	c*	14
577.0	Below Prentiss Dikes	MS	33.75280	91.13534	134	c*	0
574.0	Caulk Neck Cut-Off	AR	33.70770	91.16960	60	c*	3
569.0	Catfish Point Dikes	MS	33.67336	91.22387	38		0
559.0	Choctaw Bar Island	AR	33.58465	91.14682	12		0
553.4	Huntington Point	MS	33.54846	91.22702	100	c*	50
	SUBTOTAL				**2,607**	**22**	

Table 1: Least Tern Survey - July 7-13, 2012 - 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:
550.5	Ashbrook Cutt-Off Dikes	MS	33.51654	91.19226	40		0
547.0	Ashbrook-Miller Bend Dikes	AR	33.48668	91.14464	366	c*	3+
542.0	Tarpley Island Cut-Off Upper	AR	33.42555	91.11862	85	c*	4
541.0	Tarpley Island Cut-Off Lower	AR	33.42329	91.11018	25		
540.0	Leland Neck Dikes	MS	33.40900	91.11186	400	c*	48
534.5	Island #84 Dikes Upper	MS	33.33515	91.16061	170	c*	18
533.0	Island #84 Dikes Lower	MS	33.32305	91.17844	670	c*	3+
528.5	Refuge Dikes	MS	33.26257	91.12253	92	c*	1
523.5	Seven Oaks Dikes	AR	33.14054	91.09554	7		0
520.0	Island #86 Dikes Upper	AR	33.15462	91.08550	110		0
517.0	Island #86 Dikes Lower	AR	33.12421	91.10625	184	c*	1
514.0	Leota dikes	MS	33.10000	91.16108	60		0
508.5	Cracraft Lower Dikes	AR	33.01805	91.15288	36	c*	3
503.0	Corregidor Dikes	MS	32.95714	91.14533	1200	c*	3
500.0	Wilson Point Dikes	LA	32.94149	91.08423	94	c*	3+
492.0	Baleshed Landing Dikes	MS	32.85623	91.11034	146	c*	37
487.5	ben Lomand Dikes	MS	32.80114	91.14995	154	c*	24
483.0	Ajax Bar Dikes	MS	32.74394	91.14267	97	c*	3+
476.0	Point Lookout Dike	LA	32.70505	91.05998	52	c*	8
461.0	Willow Cutoff Dikes	LA	32.54301	91.09957	88	c*	3+
451.0	Forest Home Towhead Dikes	MS	32.44560	91.06320	19		0
447.0	Marshall Cutoff Dikes	LA	32.40032	90.99166	33		0
429.0	Below Racetrack Dikes	MS	32.24222	90.97891	58		0
426.0	Oak Bend Revetment	LA	32.19206	90.99689	10		0
423.5	Diamond Point Cut-Off Dikes	MS	32.15235	91.00016	22		0
419.5	Newton Bend Dikes	LA	32.12232	91.03857	10		0
410.0	Yucatan Dikes	MS	32.07296	91.07509	60	c*	3+
401.5	Coffee Point Dikes	LA	31.98672	91.13622	180	c*	3+
394.0	Bondurant Towhead Dikes	LA	31.91163	91.20435	212	c*	3+
383.0	Below Spithead Towhead Dikes	MS	31.82876	91.34684	89	c*	3+
378.0	Waterproof Dikes	LA	31.76160	91.36942	38		0
351.0	Opposite Warnicott Landing Dikes	MS	31.43189	91.50563	109	c*	3+
348.0	Opposite Esperance Point Dikes	MS	31.40552	91.47725	26	c*	3+
346.0	Esperance Point Dikes	LA	31.36784	91.47276	92	c*	9
	SUBTOTAL				**5,034**		22

Table 1: Least Tern Survey - July 7-13, 2012 - 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:
336.0	Fritz Island Dikes	LA	31.26137	91.55145	44	c*	3+
329.0	Jackson Point	MS	31.24460	91.65143	28	c*	6
325.0	Homochito Cut-Off	LA	31.20904	91.60905	48	c*	7
299.0	Hog Point Dikes	LA	30.93309	91.64365	35	c*	8
NA	Random observations	NA	NA	NA	174		
	SUBTOTAL				**329**	4	
	TOTAL INDIVIDUALS				**10,090**		
	TOTAL SITES				**105**		
	TOTAL COLONIES				**75**		

c Confirmed chicks or eggs
* Nest colony determined by bird behavior (sitting inland, breasting, carrying fish, etc.)
** Nest counts are based solely on observations during survey operations
(no standardized nest counts were conducted)

Table 2: Summary of 2012 Least Tern Survey on the Lower Mississippi River

River Reach	Number of Terns (July 7-13, 2012)
Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954	37
Cairo, IL, to Osceola, AR RM 954 – RM 790	1,413
Osceola, AR, to Helena, AR RM 790 – RM 670	1,187
Helena, AR, to Greenville, MS RM 670 – RM 530	3,846
Greenville, MS, to Vicksburg, MS RM 530 – RM 430	2,372
Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230	1,061
Random Observations (all RMs)	174
TOTAL	10,090

River Reach	Number of Colonies
Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954	1
Cairo, IL, to Osceola, AR RM 954 – RM 790	17
Osceola, AR, to Helena, AR RM 790 – RM 670	13
Helena, AR, to Greenville, MS RM 670 – RM 530	24
Greenville, MS, to Vicksburg, MS RM 530 – RM 430	9
Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230	11
TOTAL	75

Table 3: Gage Readings – Lower Mississippi River
Least Tern Surveys – July 2012

Shaded numbers indicate stages at time of survey.

Date	Cairo	New Madrid	Caruthersville	Memphis	Helena	Arkansas City	Greenville	Vicksburg	Natchez
June 20	14.2	4.2	7.4	0.4	6.9	6.7	17.2	10.7	19.1
21	14.9	2.3	6.2	-2.4	4.0	3.8	13.7	7.8	15.9
22	13.5	2.8	6.8	-2.8	3.8	3.5	13.5	7.4	15.5
23	12.6	1.6	6.1	-2.5	3.6	3.6	13.4	7.1	15.1
24	12.3	0.7	5.3	-2.8	3.7	3.3	13.2	7.1	14.9
25	12.1	0.4	4.8	-3.6	3.3	3.3	13.2	6.8	14.8
26	12.4	0.2	4.6	-4.2	2.6	3.1	13.1	6.7	14.6
27	13.0	0.5	4.7	-4.5	2.1	2.5	12.6	6.5	14.5
28	11.8	0.7	4.9	-4.6	1.8	2.0	12.0	6.1	14.2
29	11.4	0.0	4.3	-4.4	1.7	1.6	11.6	5.5	13.9
30	11.4	-0.1	3.9	-4.7	1.8	1.6	11.4	5.0	13.3
July 1	11.5	-0.1	3.7	-5.2	1.4	1.9	11.6	4.8	13.0
2	11.6	0.3	3.8	-5.5	1.1	1.5	11.5	4.9	12.8
3	12.8	0.4	3.9	-5.6	0.8	1.2	11.1	4.9	12.7
4	12.5	0.7	4.7	-5.5	0.7	1.0	10.8	4.4	12.5
5	12.6	0.7	4.8	-5.0	0.9	0.9	10.8	4.0	12.2
6	13.2	0.9	4.9	-4.6	1.3	0.9	10.7	4.0	12.0
7	13.0	1.2	5.2	-4.4	1.6	1.1	10.9	3.9	11.7
8	13.0	1.1	5.2	-4.2	1.8	1.4	11.1	4.1	11.8
9	12.0	0.9	5.1	-4.1	2.0	1.6	11.4	4.3	11.8
10	12.0	0.2	4.5	-4.6	2.2	1.8	11.6	4.6	12.1
11	12.0	0.1	4.3	-4.5	2.1	1.9	11.7	4.9	12.3
12	11.5	0.2	4.2	-4.6	2.0	1.9	11.8	4.9	12.6
13	11.9	0.0	4.0	-4.8	1.7	2.1	12.0	5.2	13.0
14	11.4	-0.4	3.9	-5.1	1.6	1.8	11.8	5.6	13.5
15	10.0	-1.3	3.5	-5.2	1.4	1.9	11.8	5.6	13.8
16	9.8	-2.0	2.7	-5.6	1.2	1.5	11.5	5.7	13.7
17	9.3	-2.3	2.6	-6.2	0.7	1.2	11.2	5.5	13.7
18	9.7	-2.9	2.5	-6.7	0.0	1.2	11.3	5.5	13.7
19	9.7	-2.6	1.7	-7.2	-0.7	0.3	10.4	5.0	13.4
20	9.6	-2.5	1.7	-7.4	-1.1	-0.3	9.8	4.2	13.2
21	18.8	8.8	11.5	2.8	8.0	6.5	16.4	8.4	15.7

Table 4: Summary of Least Tern Surveys – 1985 – 2012
Lower Mississippi River

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Aerial											
Individuals	187	1,332	1,125	1.018	2,503	4,182	3,358	2,311	4,589	3,303	3,759
Sites	12	37	49	56	58	56	67	80	66	66	63
Colonies	3	16	24	31	46	36	56	61	46	40	51
Towboat											
Individuals	577	595	575	1,235	508	357	1,154	1,216	2,031	965	489
Sites	35	39	45	71	25	31	39	47	48	39	25
Colonies	15	16	21	33	9	3	29	34	21	30	1
Small Boat											
Individuals	0	2,188	2,206	2,356	2,005	5,038	4,297	3,653	0	6,776	6,971
Sites	0	41	50	72	64	38	66	81	0	78	70
Colonies	0	28	46	60	42	32	57	74	0	69	62

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Aerial											
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
Small Boat											
Individuals	3,067	3,428	5,538	6,159	5,920	6,361	5,802	8,082	11,239	10,960	8,171
Sites	47	79	91	134	124	141	100	115	114	118	144
Colonies	31	57	39	38	64	54	68	68	69	88	107

Year	2007	2008	2009	2010	2011	2012
Small Boat						
Individuals	9,814	12,183	9,516	18,352	12,247	10,090
Sites	121	116	110	67	71	105
Colonies	96	62	78	22	45	75

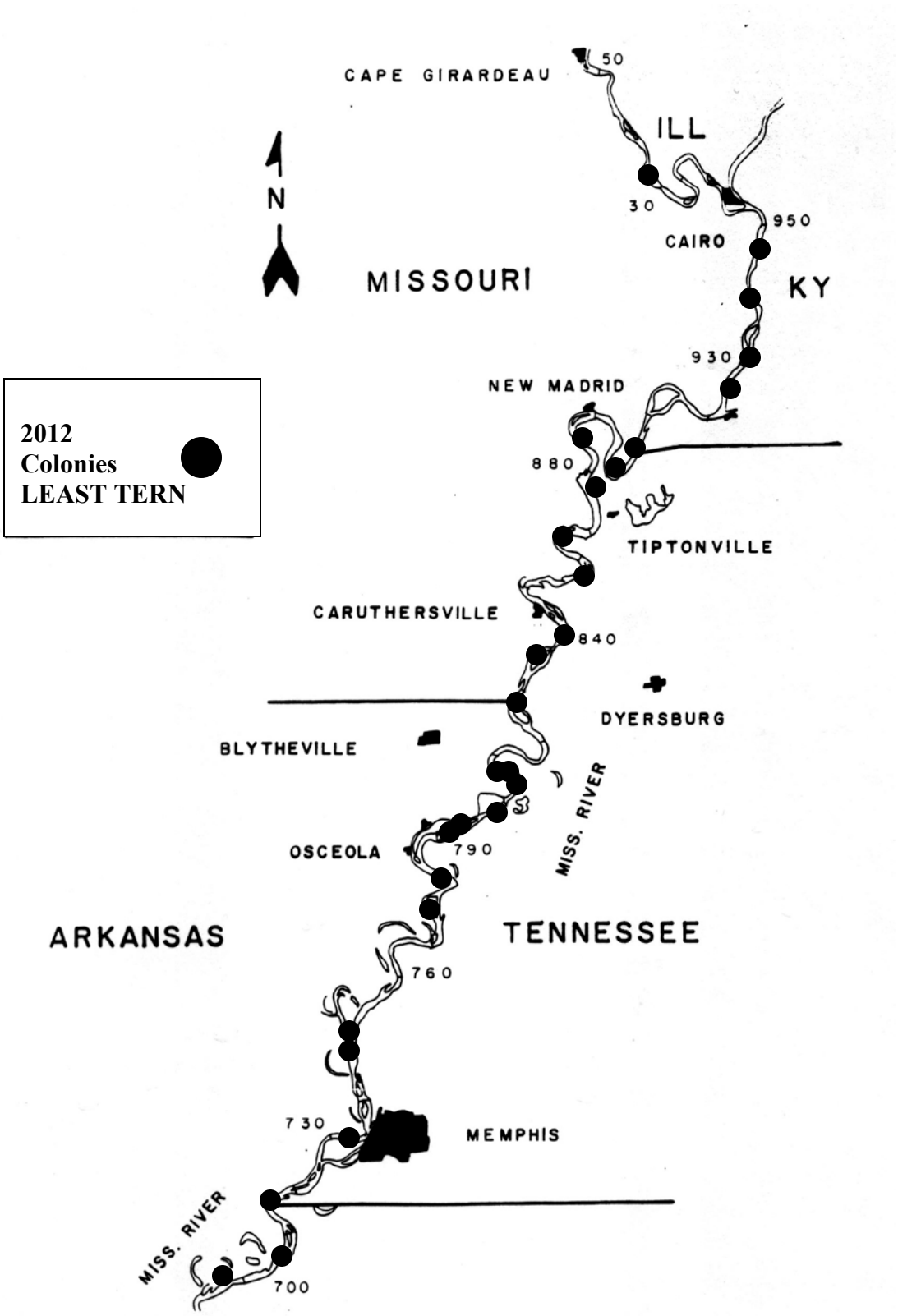


Figure 1: Least Tern Survey – 2012 – Area Map of Nest Colonies on Mississippi River – Cape Girardeau, MO to Baton Rouge, LA

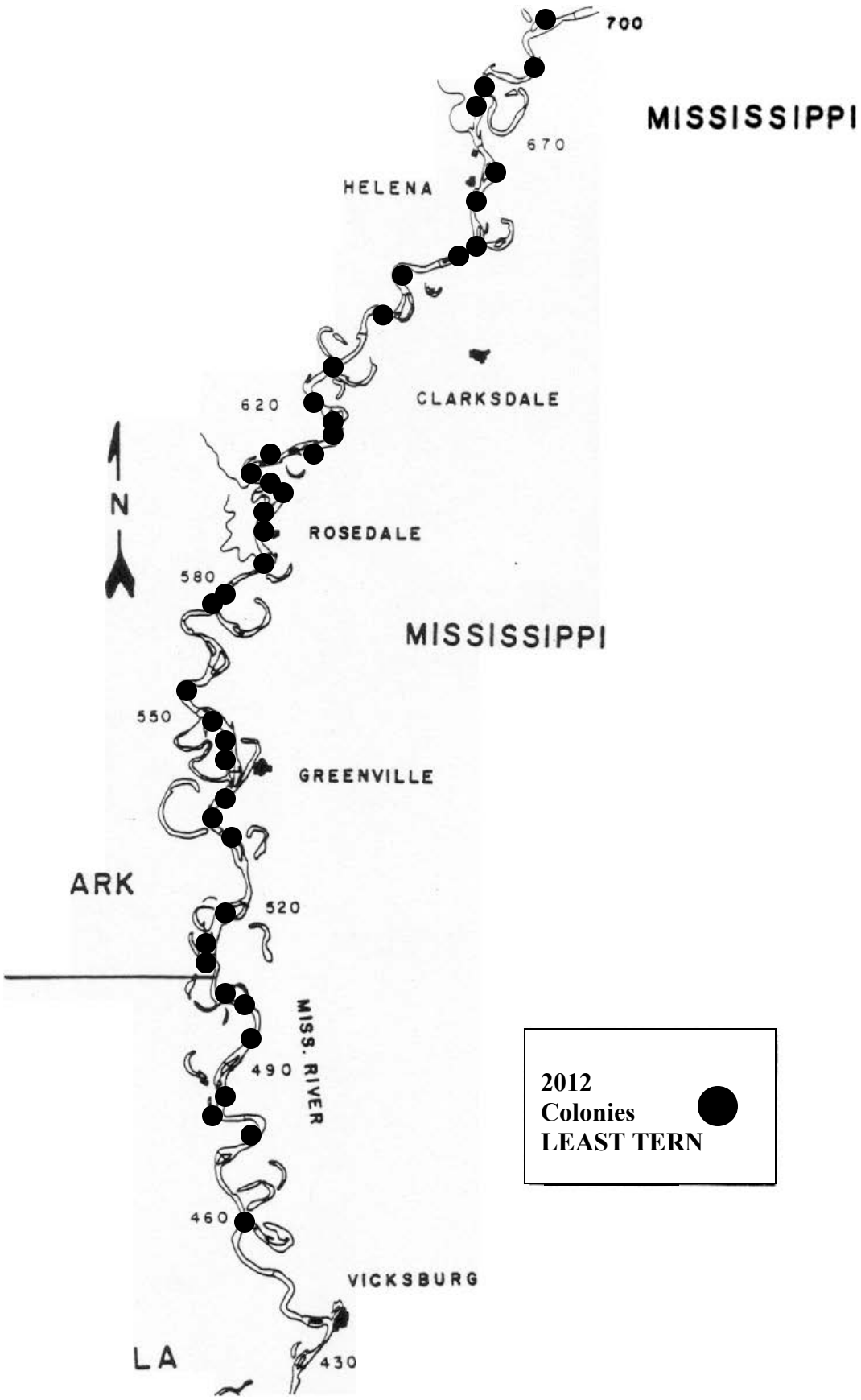


Figure 1 Continued: Area Map of Nest Colonies

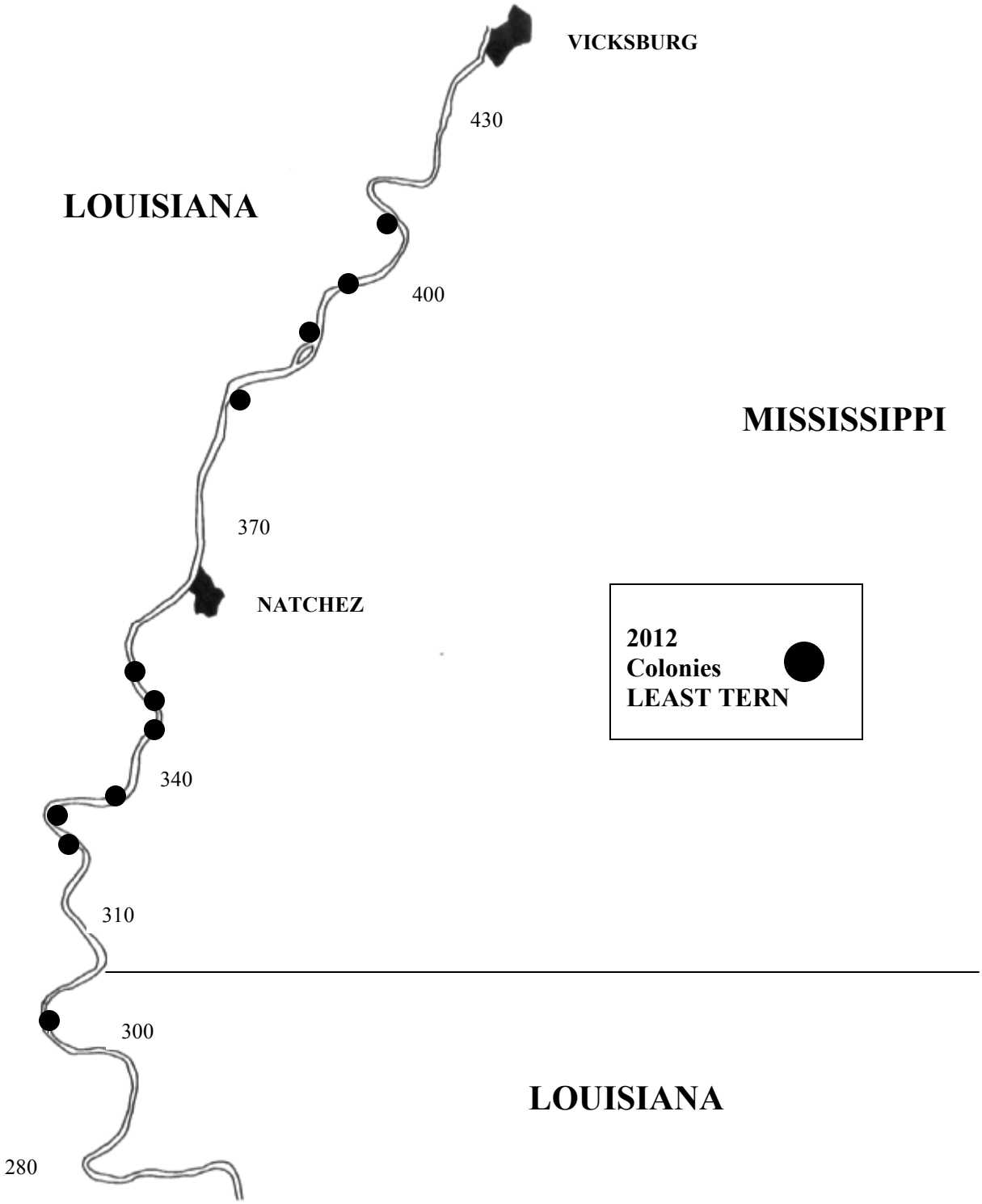
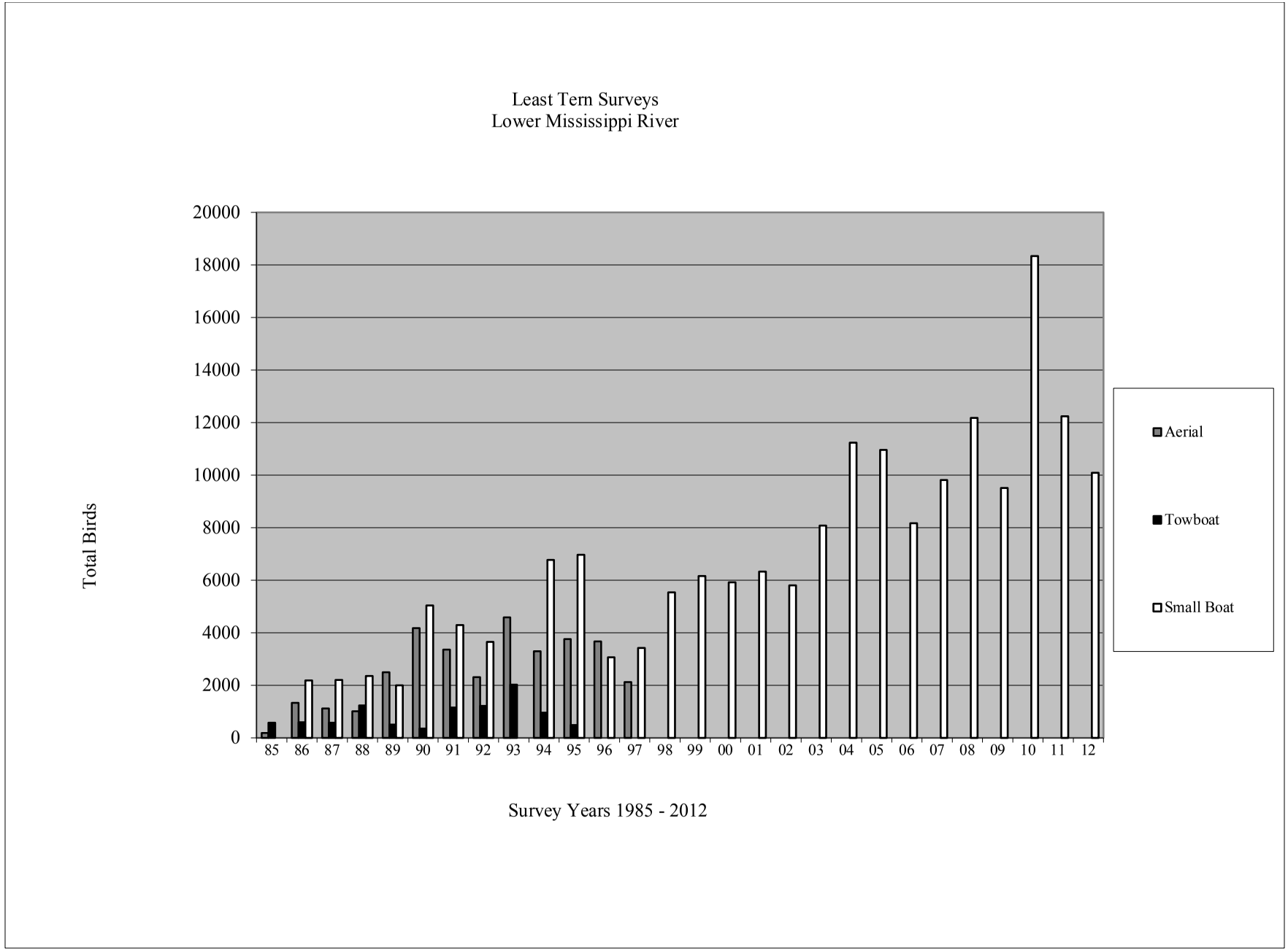


Figure 1 Continued: Area Map of Nest Colonies


Least Tern Surveys
Lower Mississippi River
Total Birds
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12
Survey Years 1985 - 2012
Aerial
Towboat
Small Boat

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

2012

APPENDIX A

APPENDIX A – I

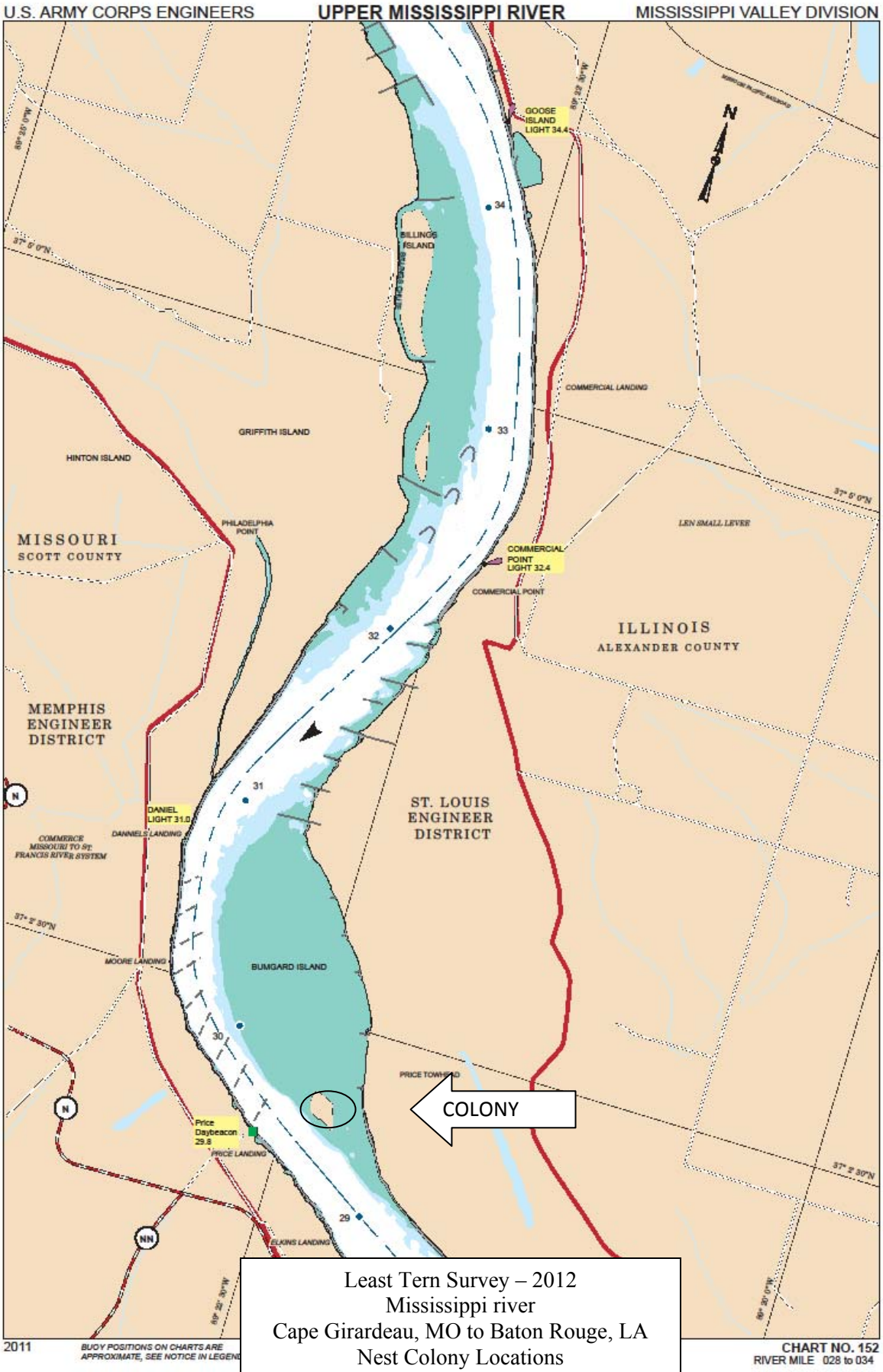
LEAST TERN SURVEY - 2012

Mississippi River
Cape Girardeau, MO to Baton Rouge, LA

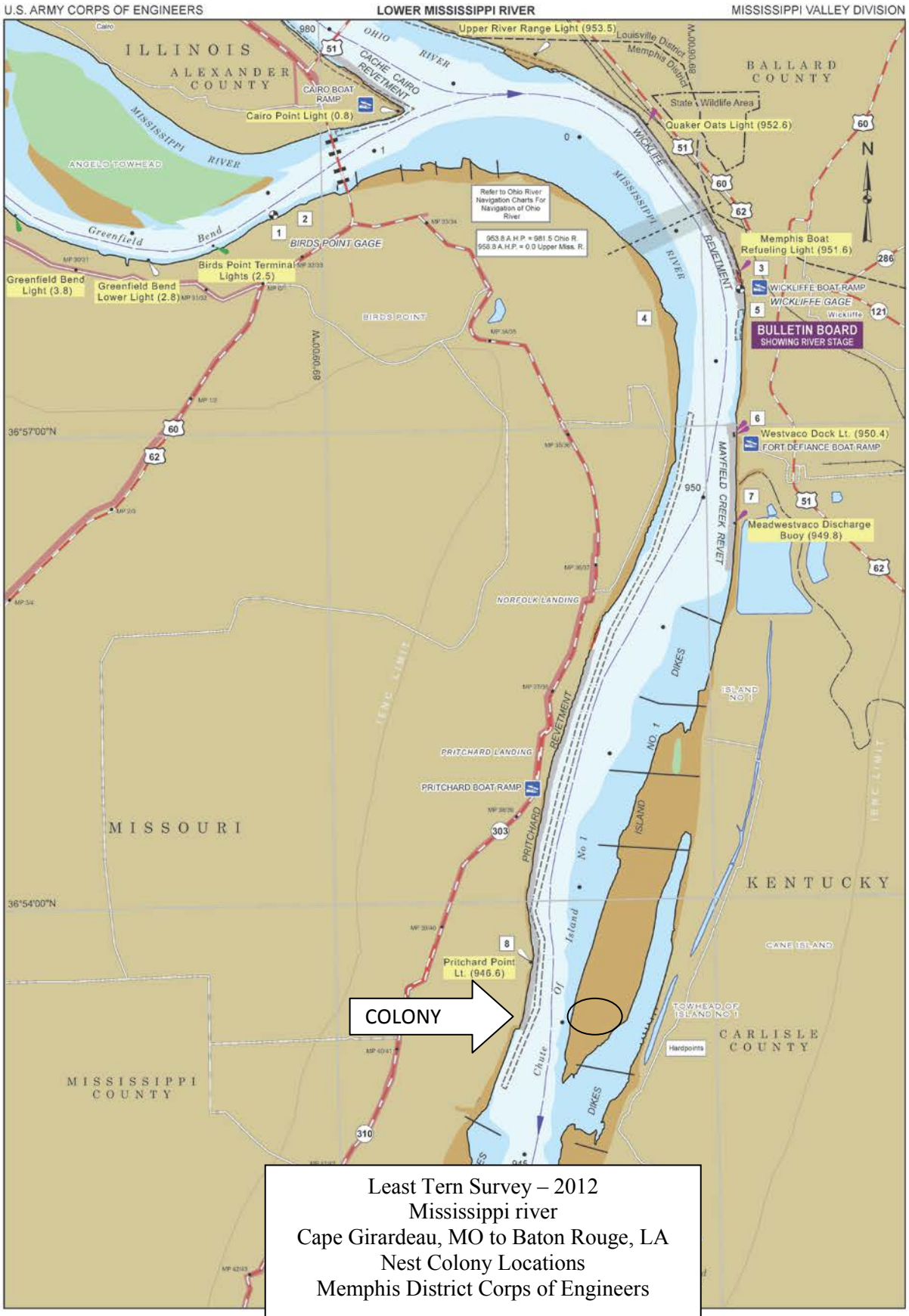
NEST COLONY LOCATIONS

Memphis District, Corps of Engineers

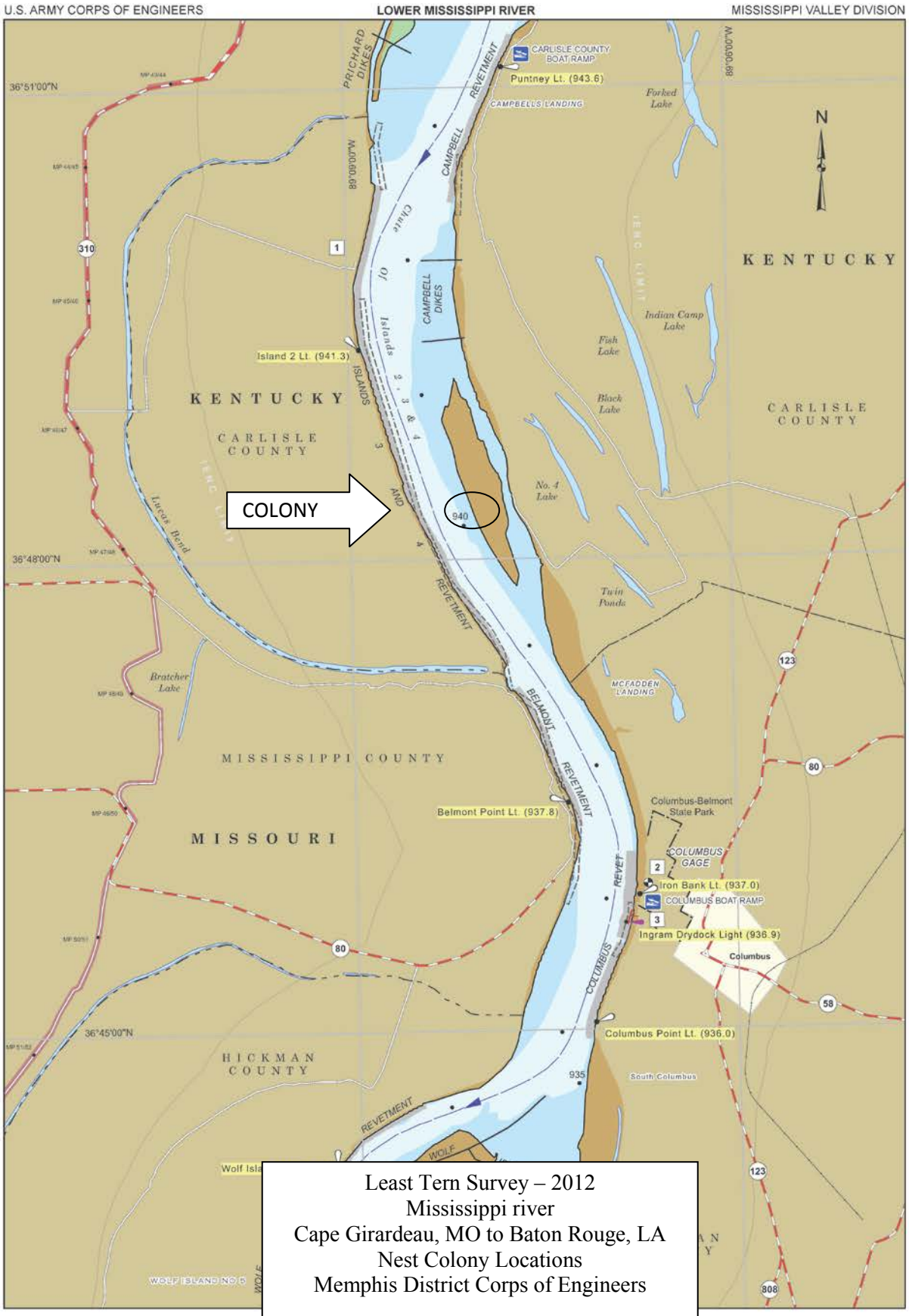
Maps



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



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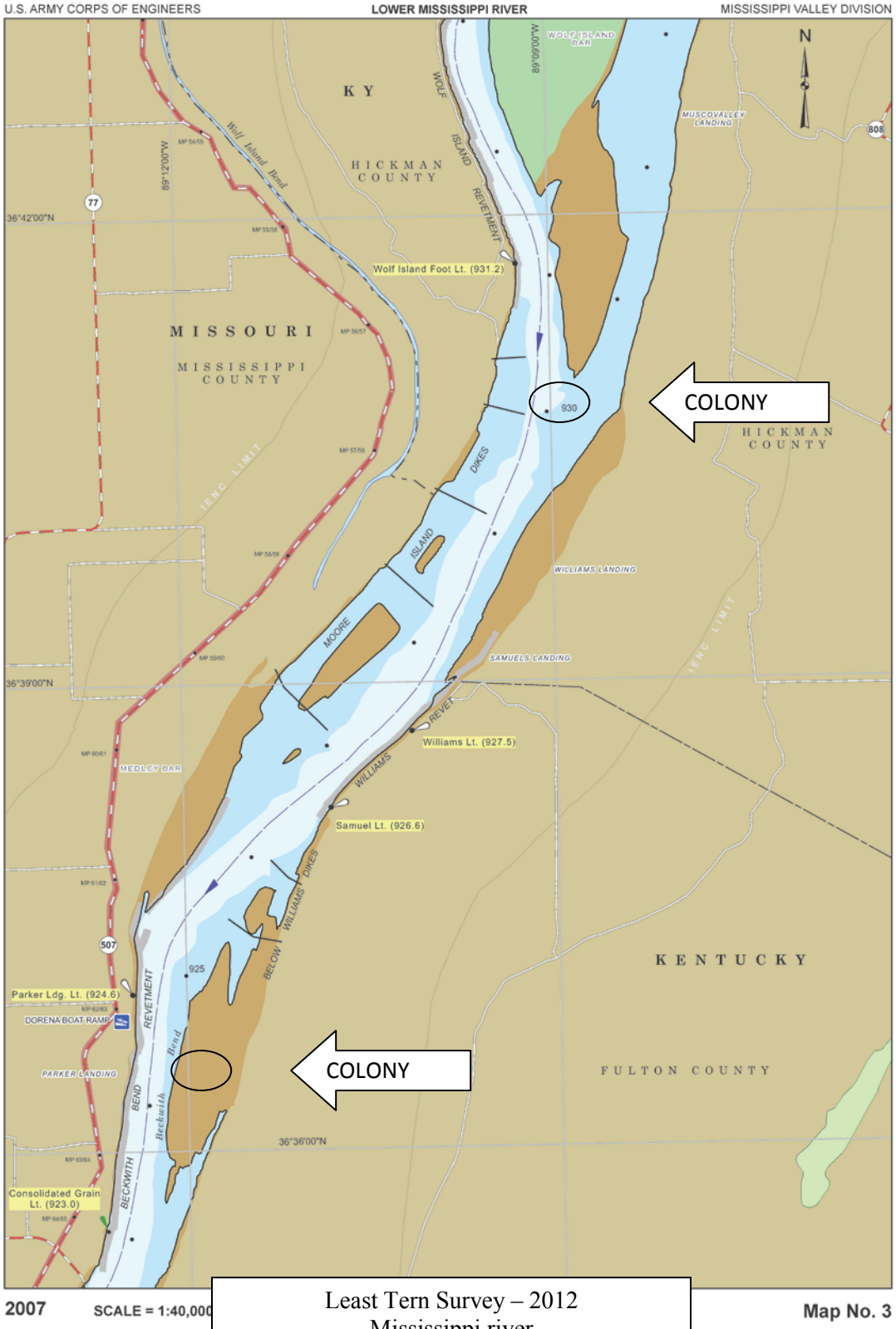
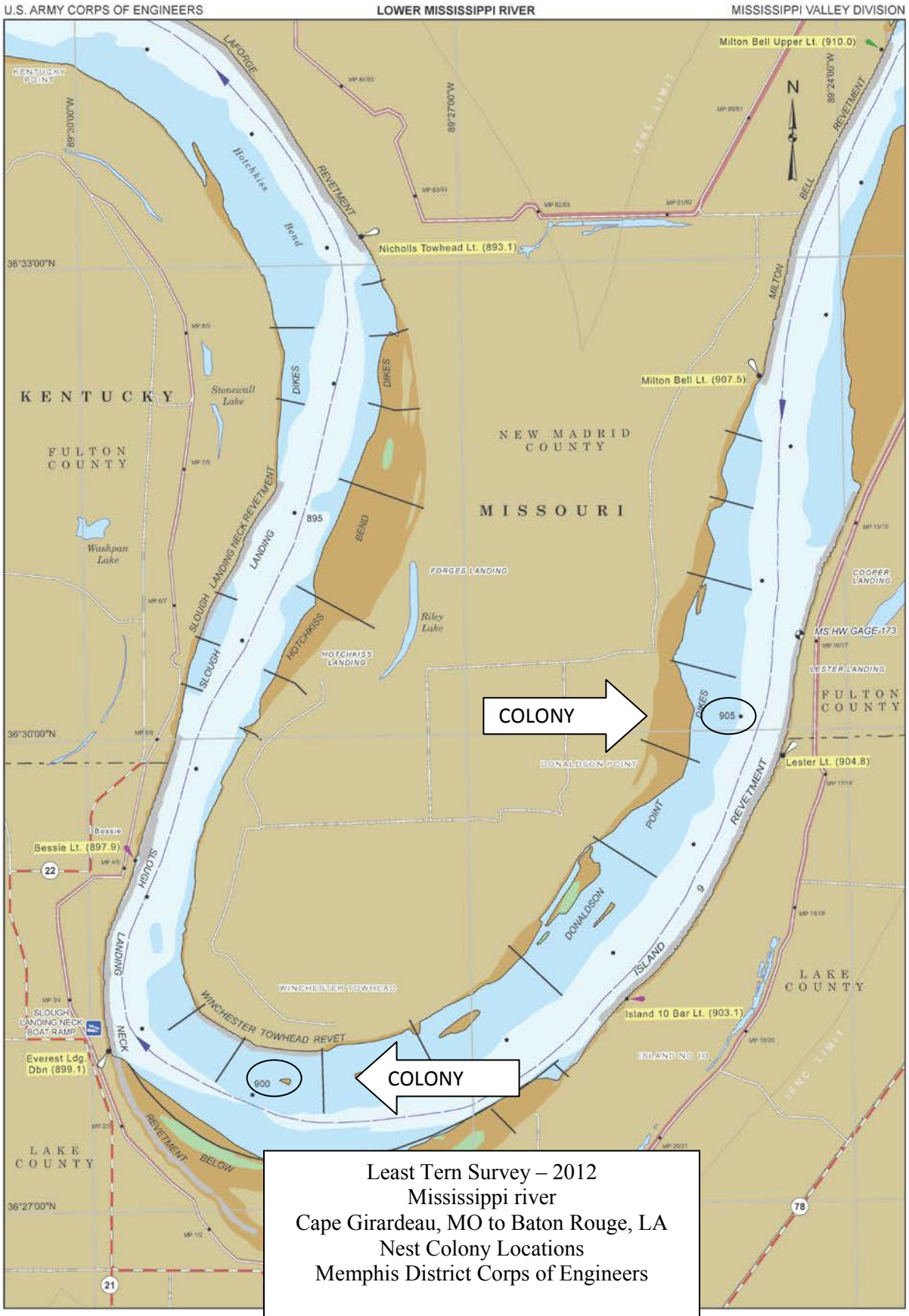
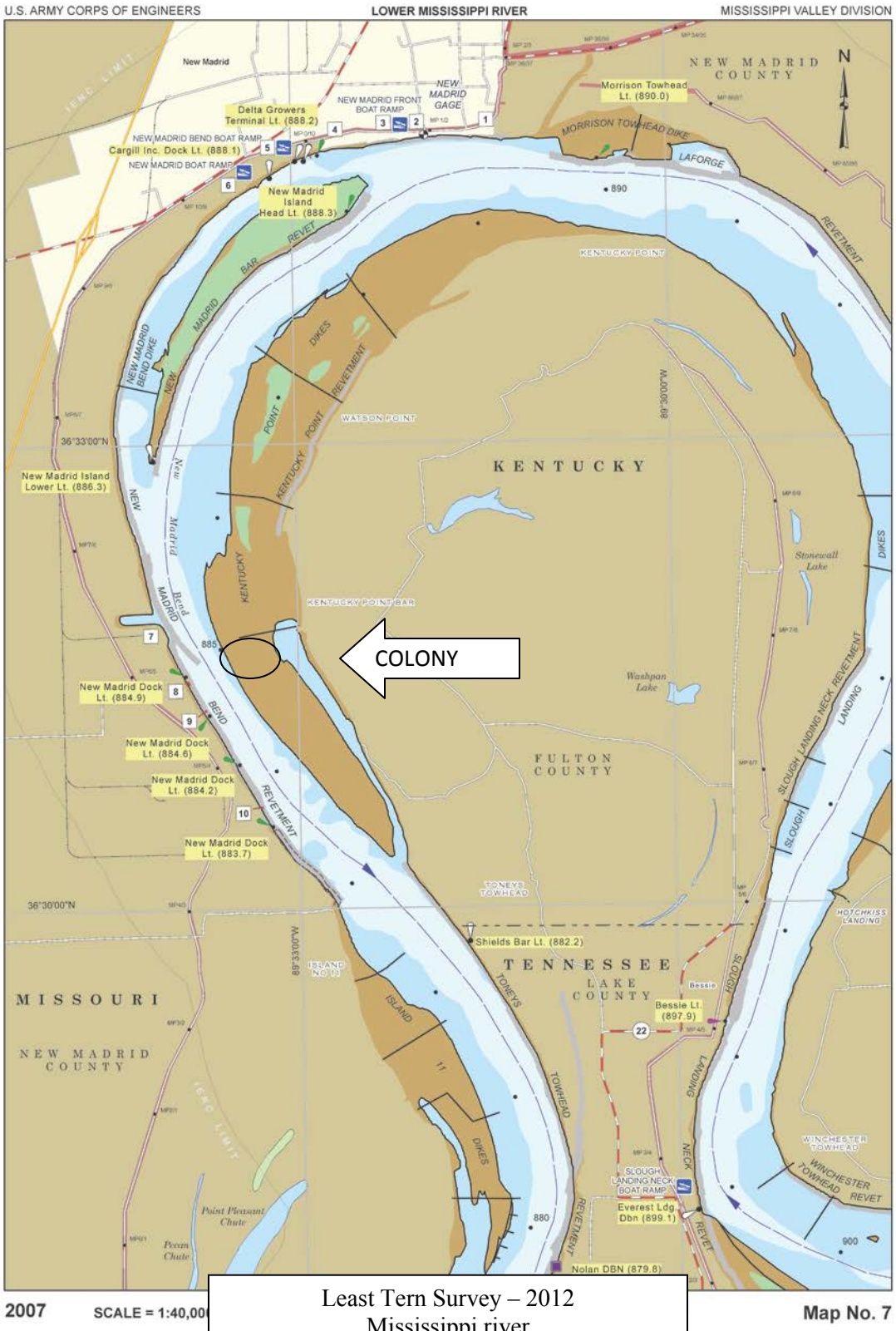
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



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Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
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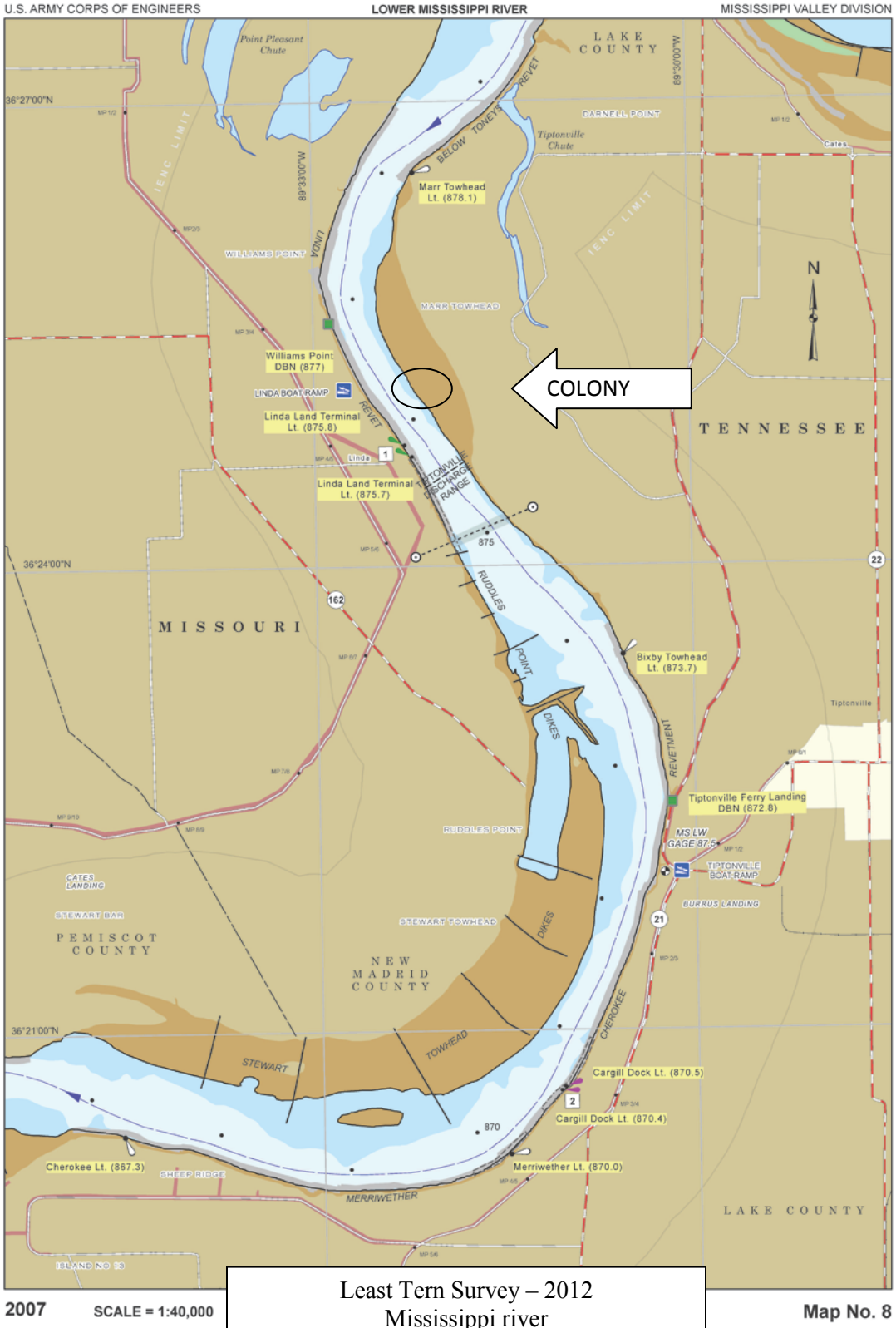
Memphis District Corps of Engineers



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Mississippi river
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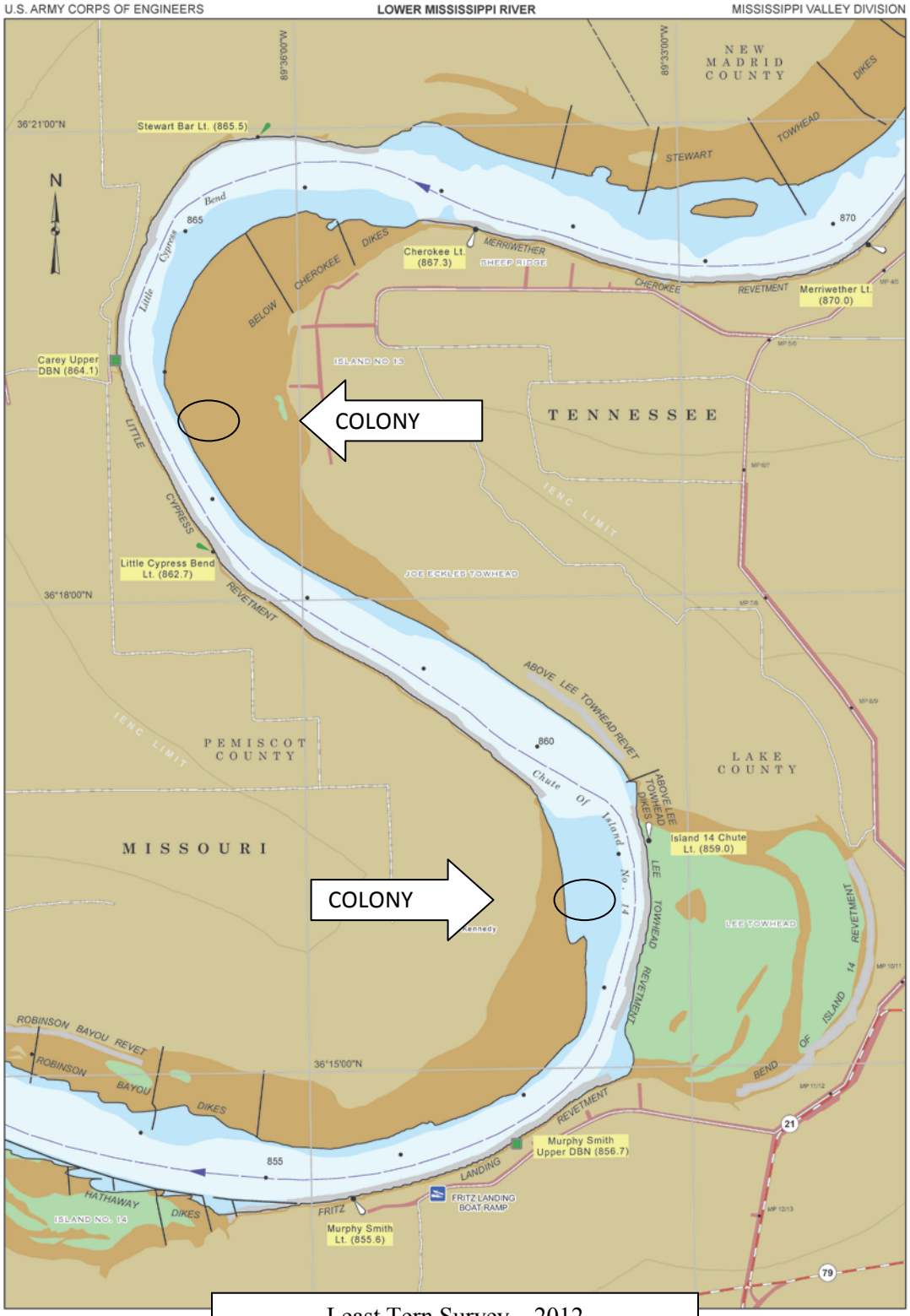

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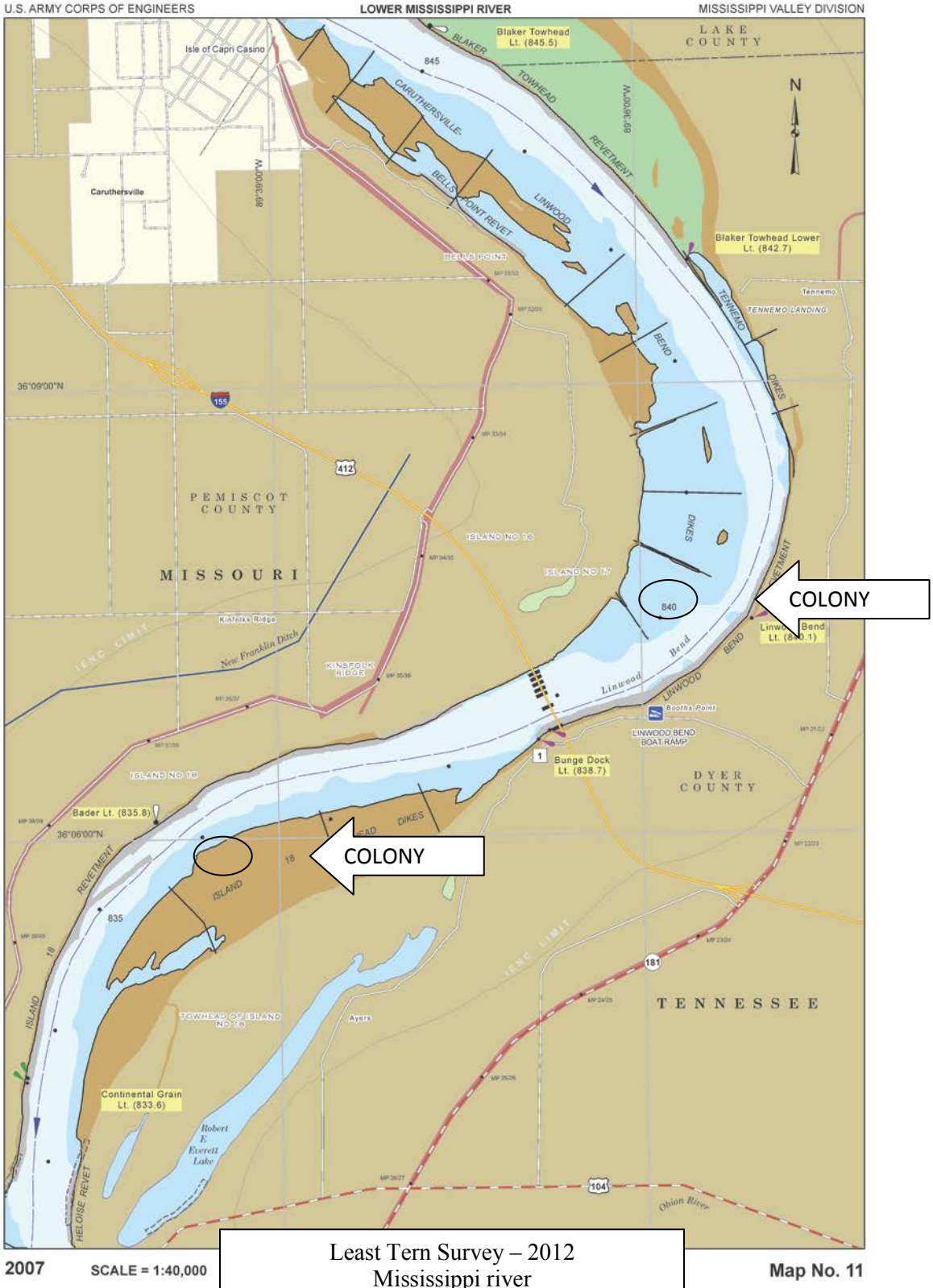

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Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
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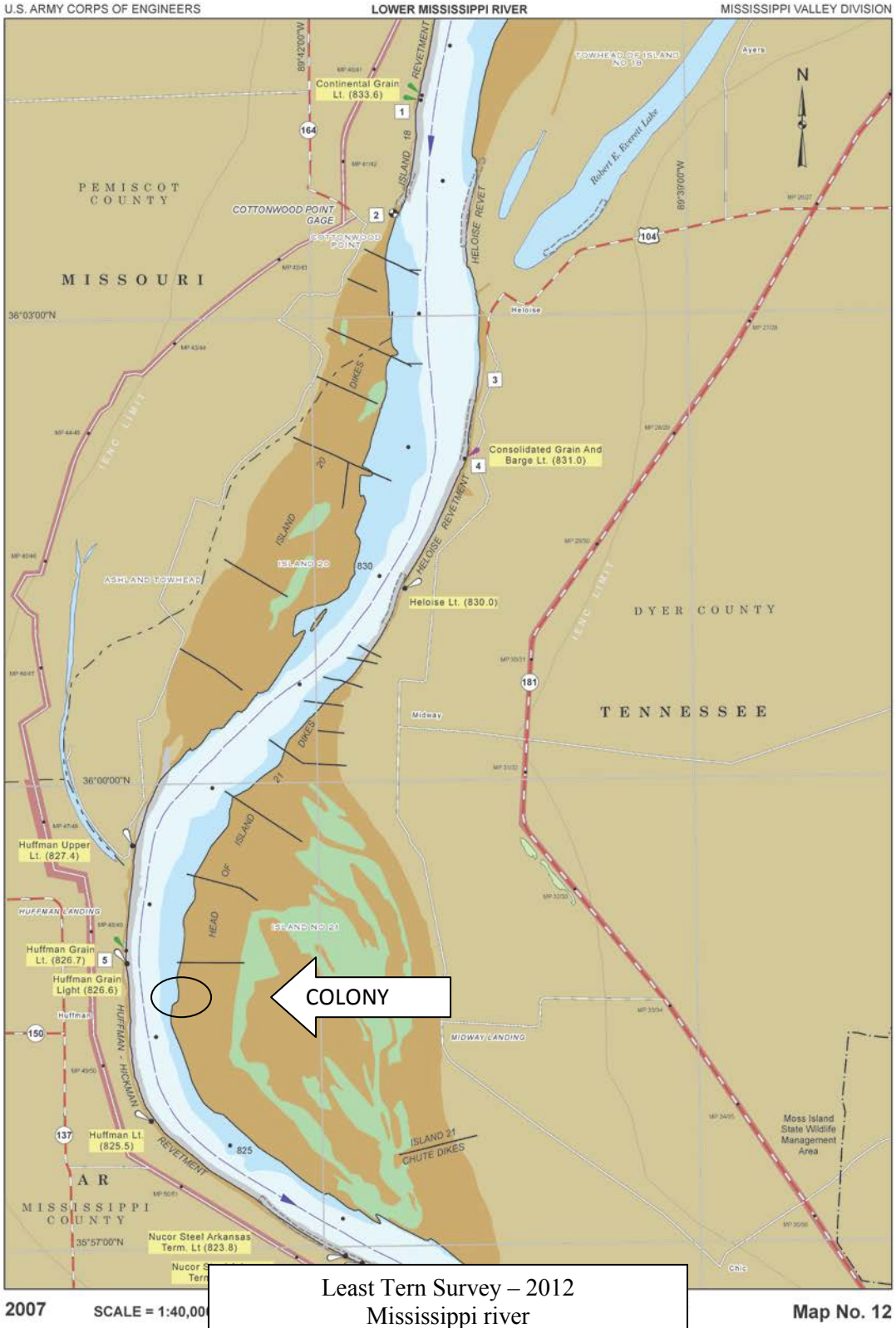

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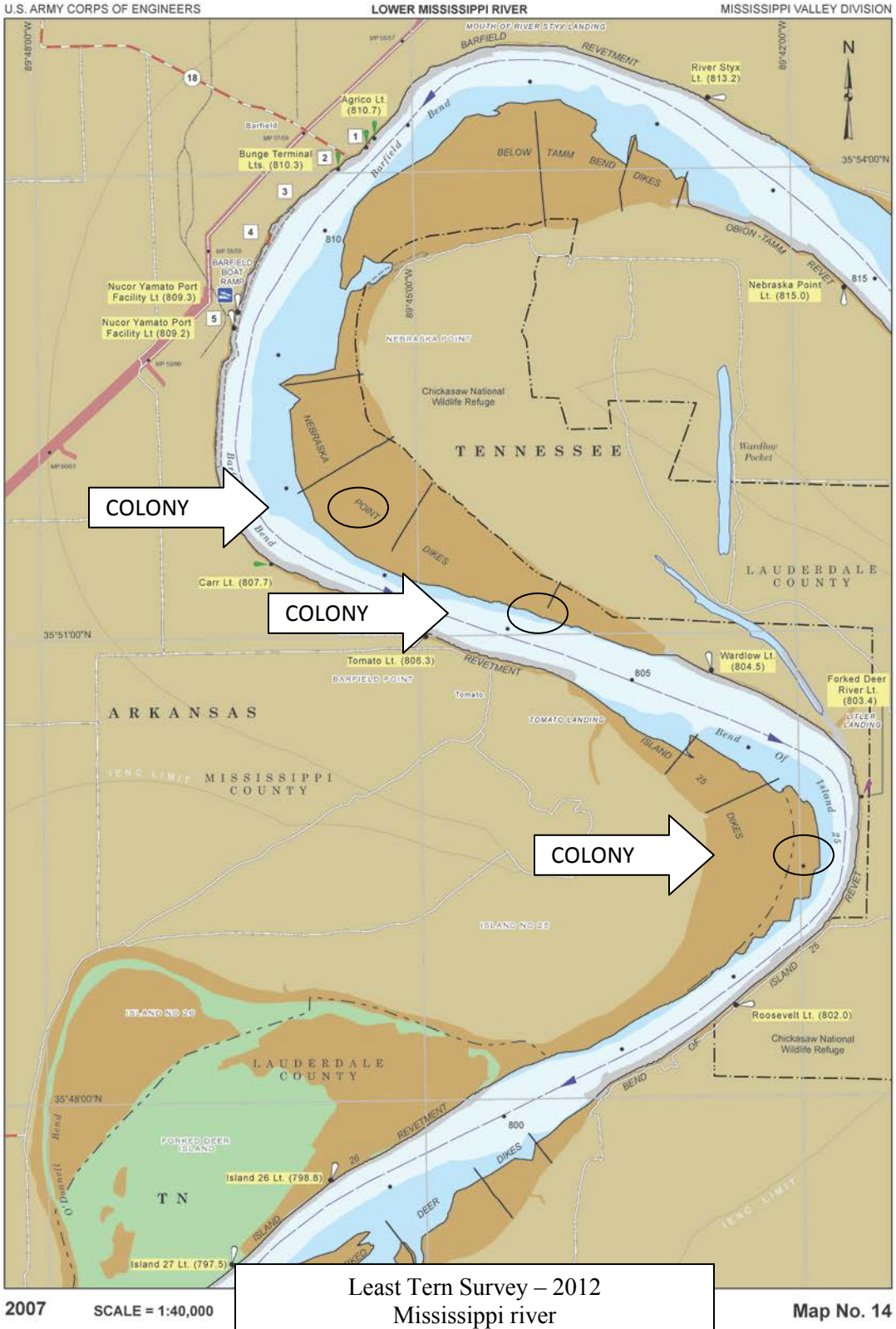

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Mississippi river
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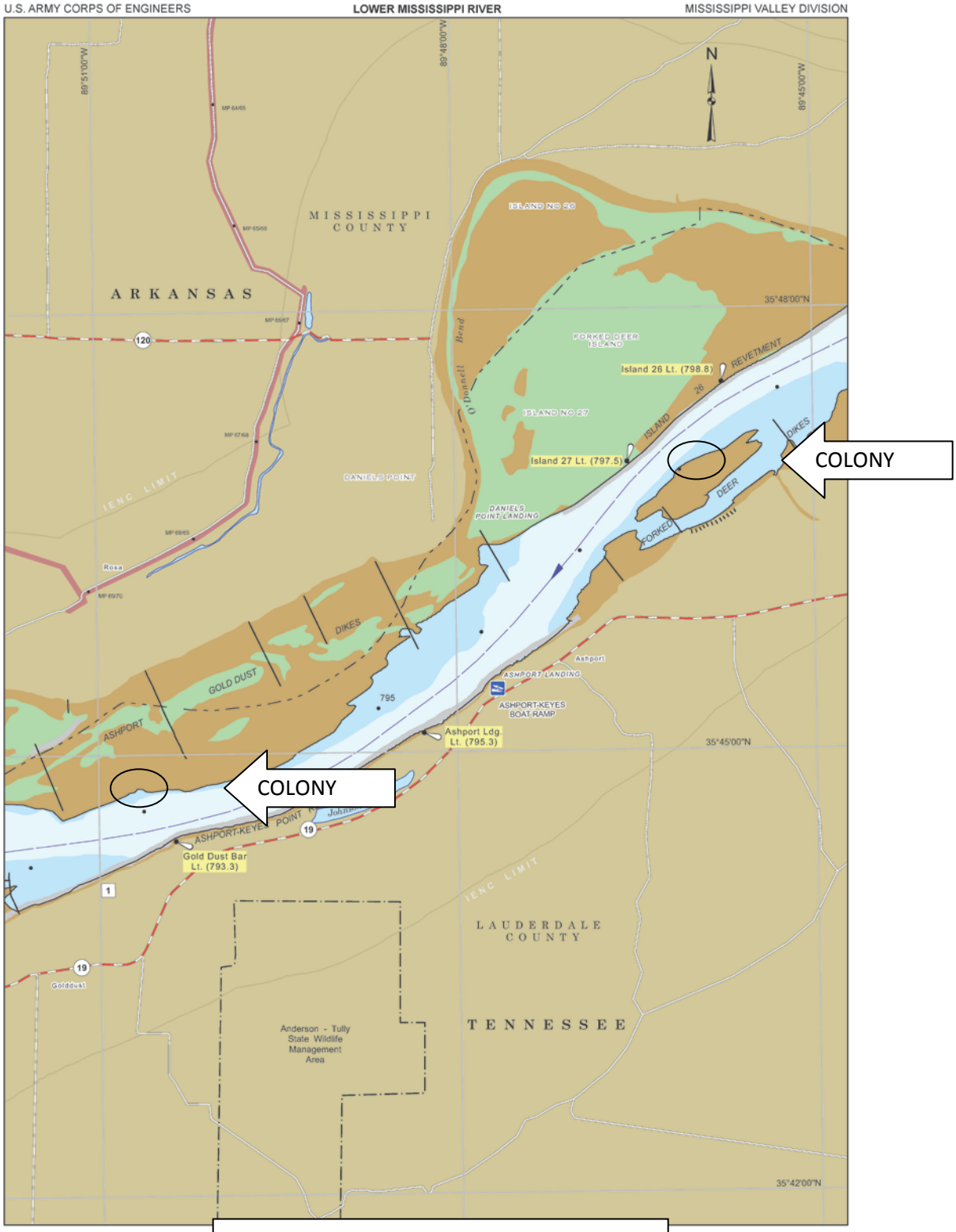
Memphis District Corps of Engineers



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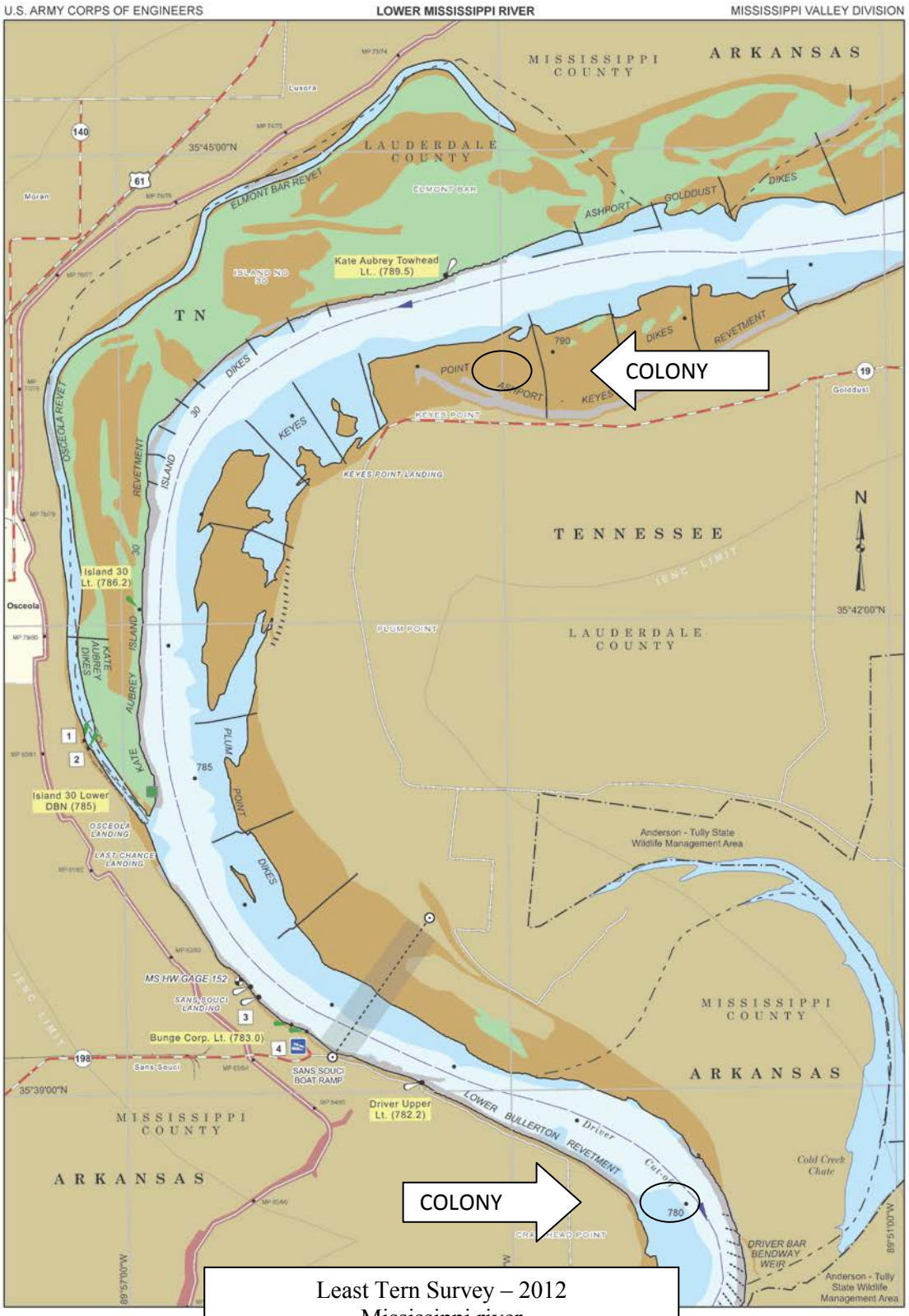

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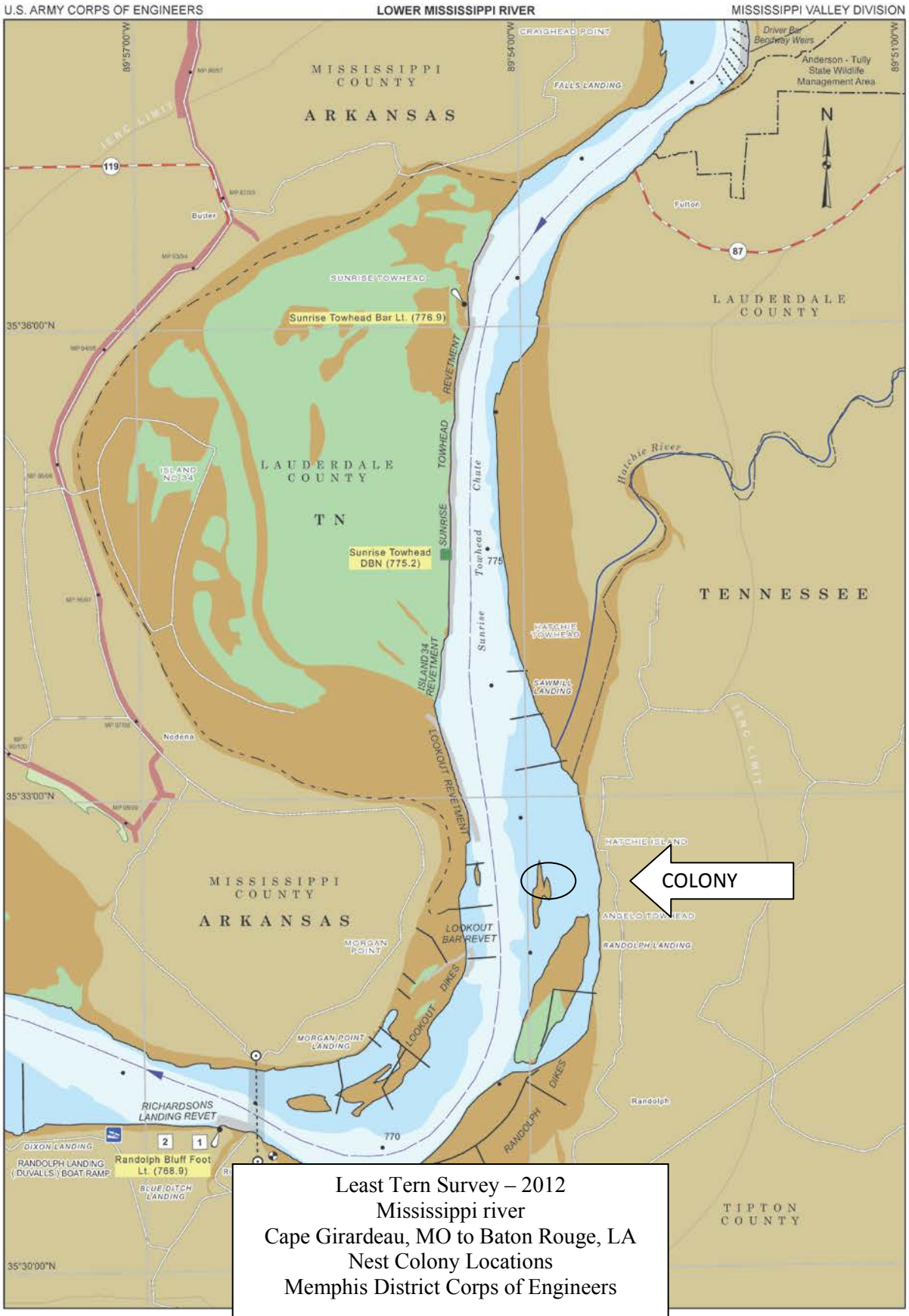

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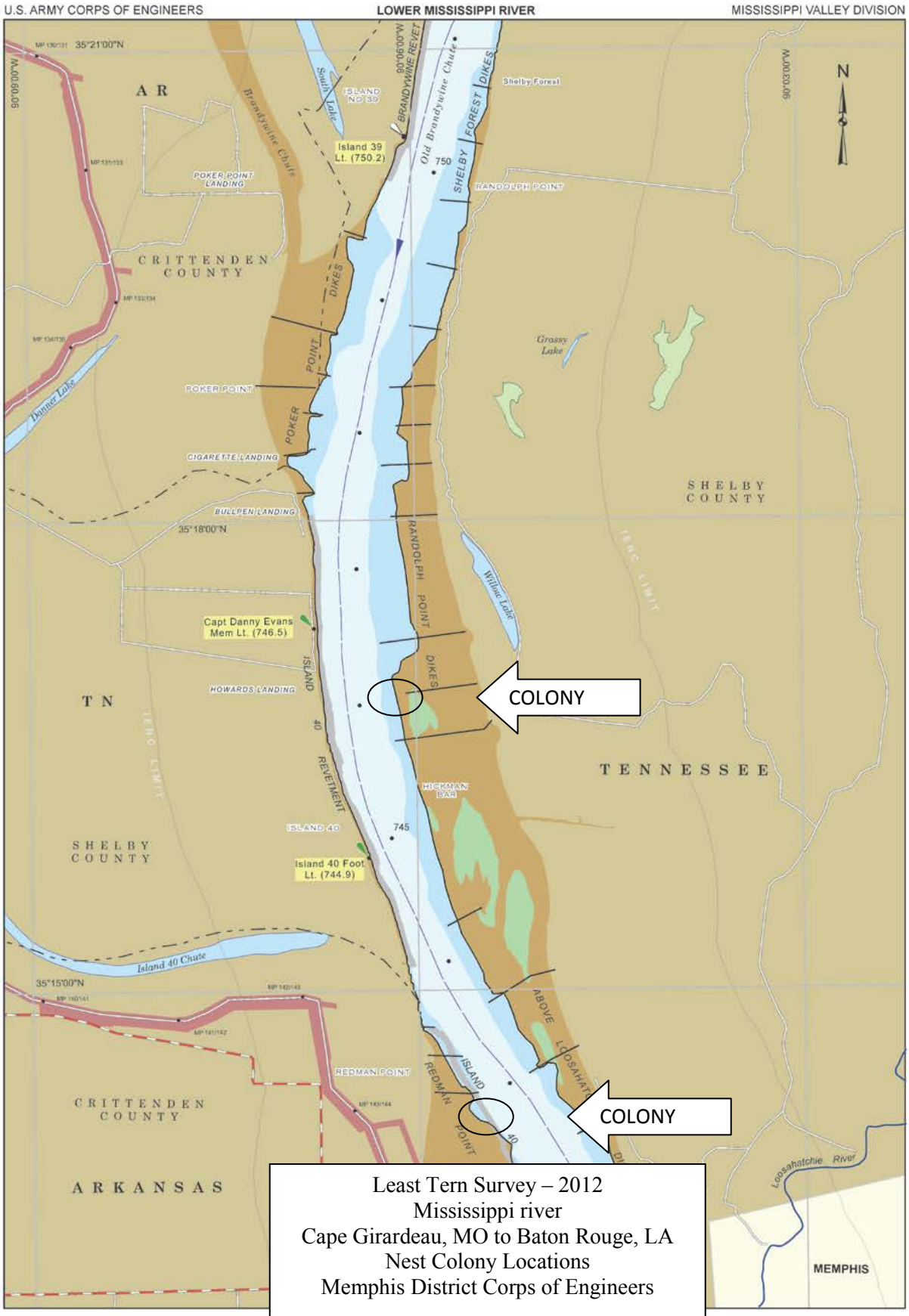

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Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers

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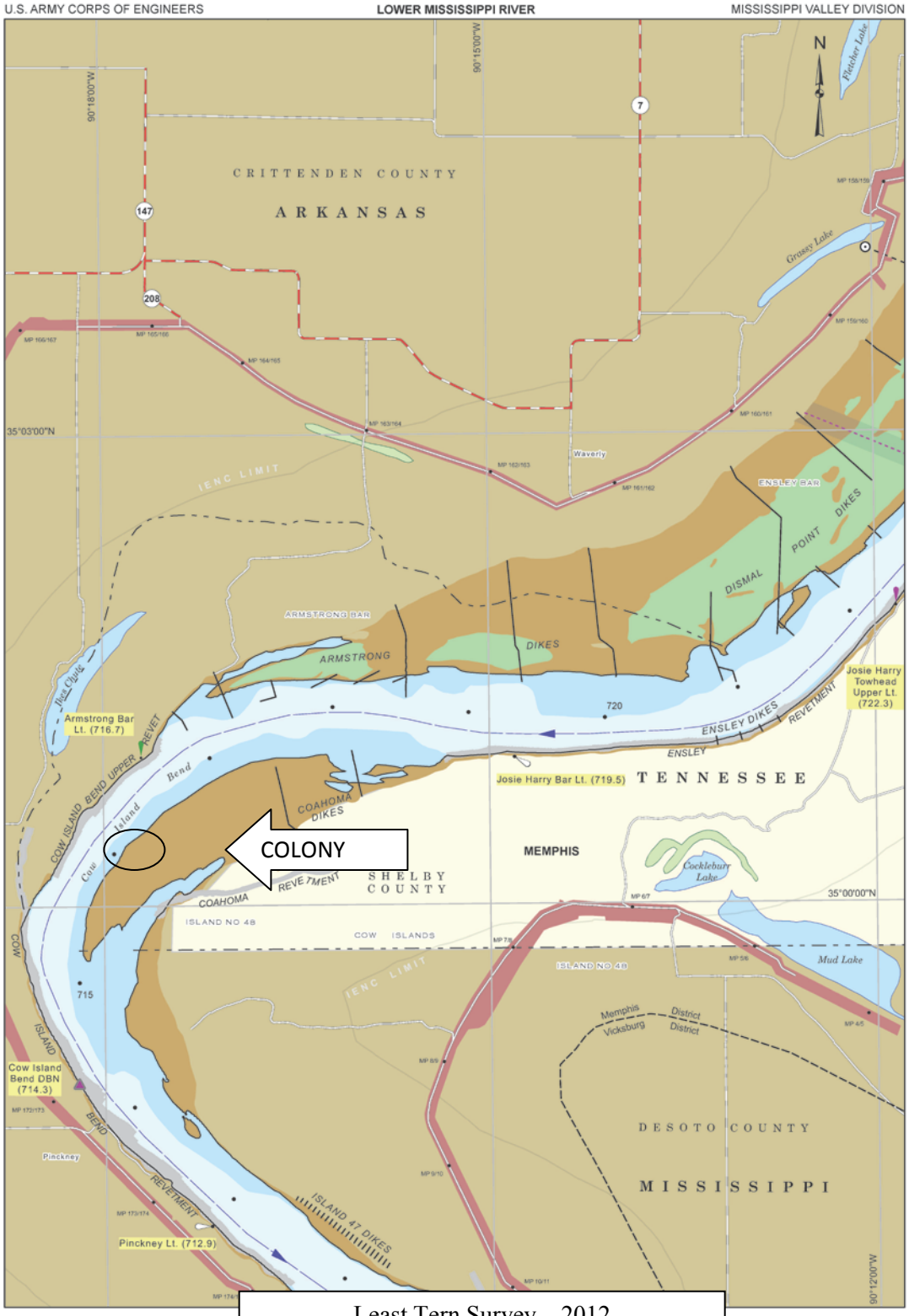

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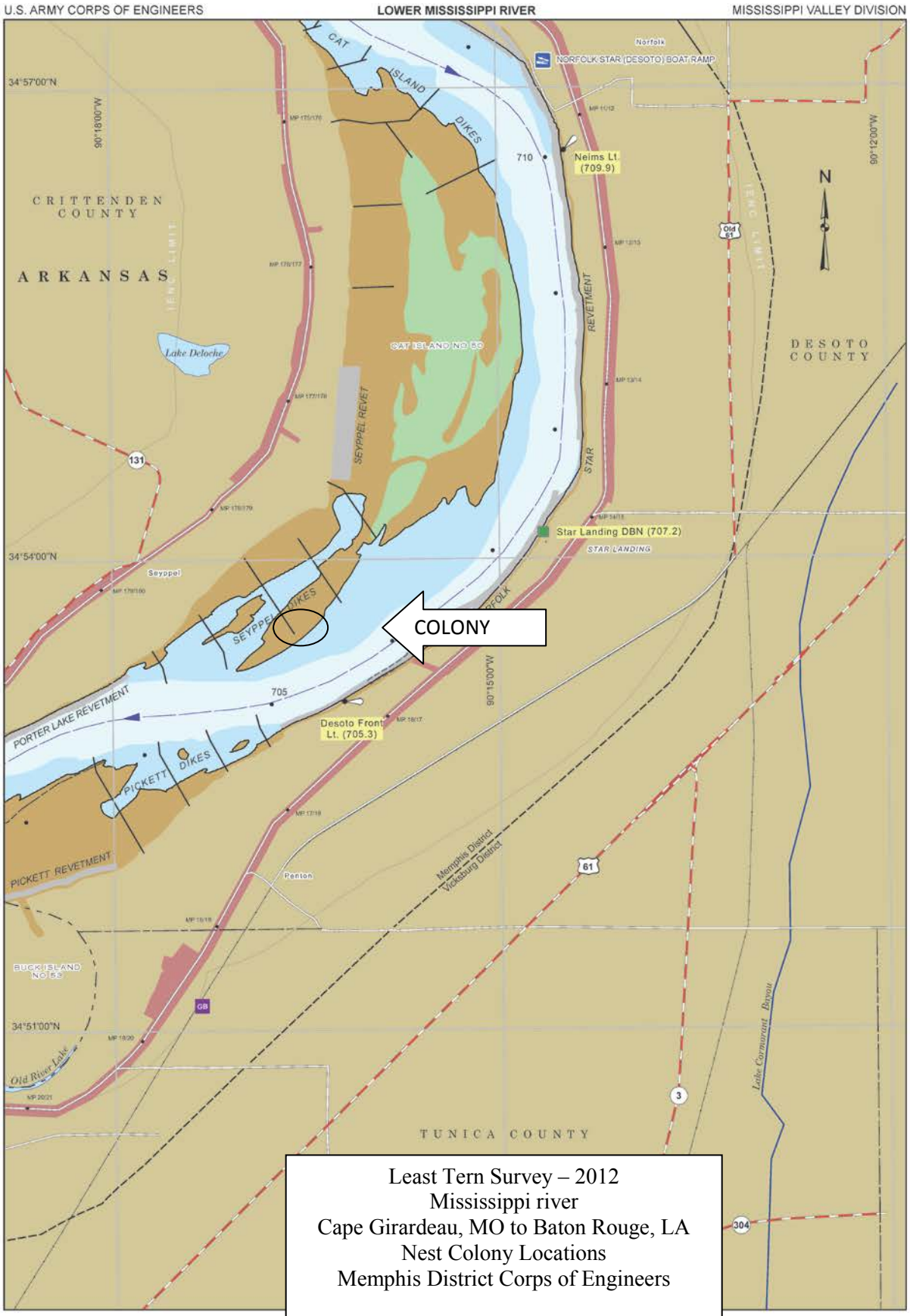

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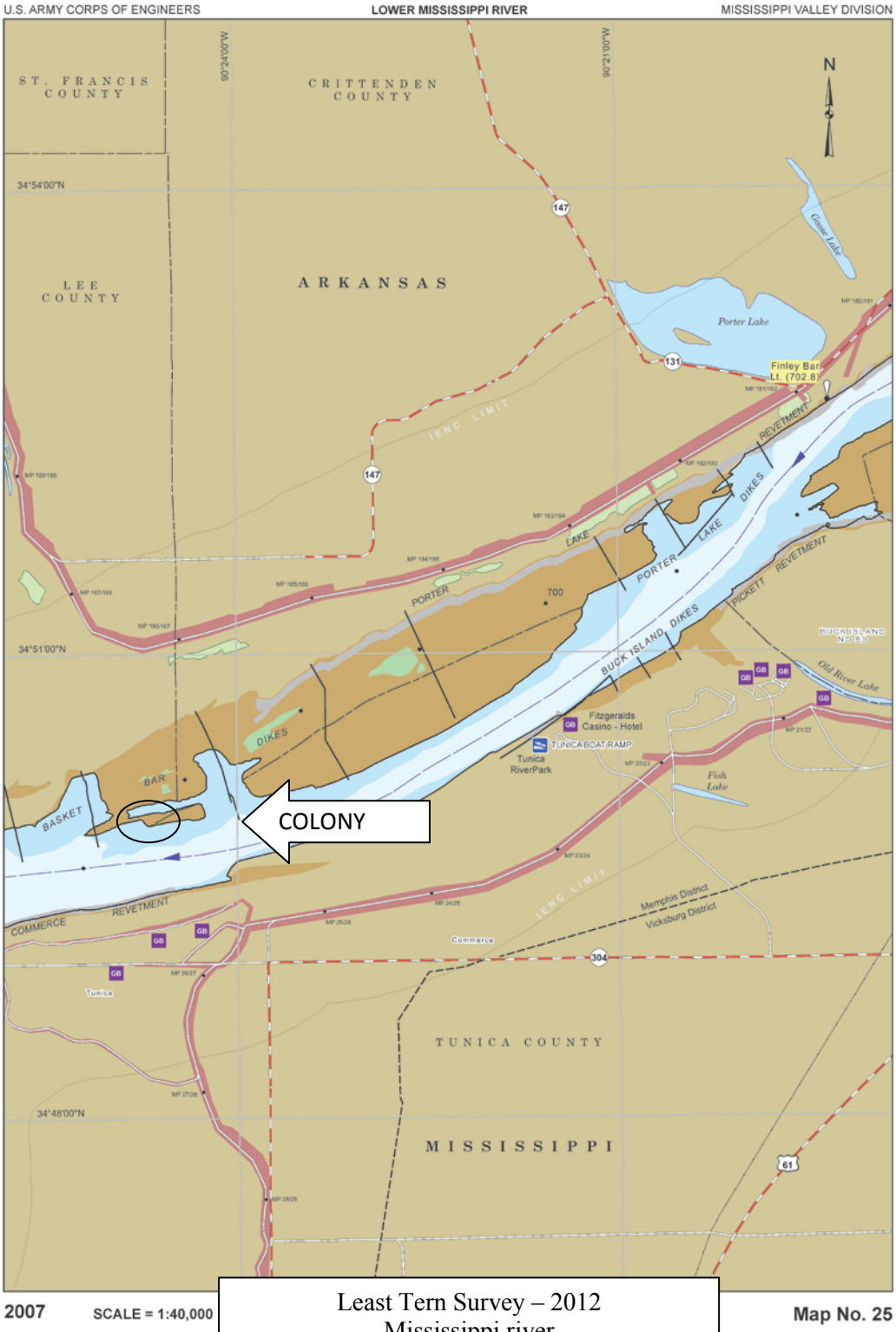

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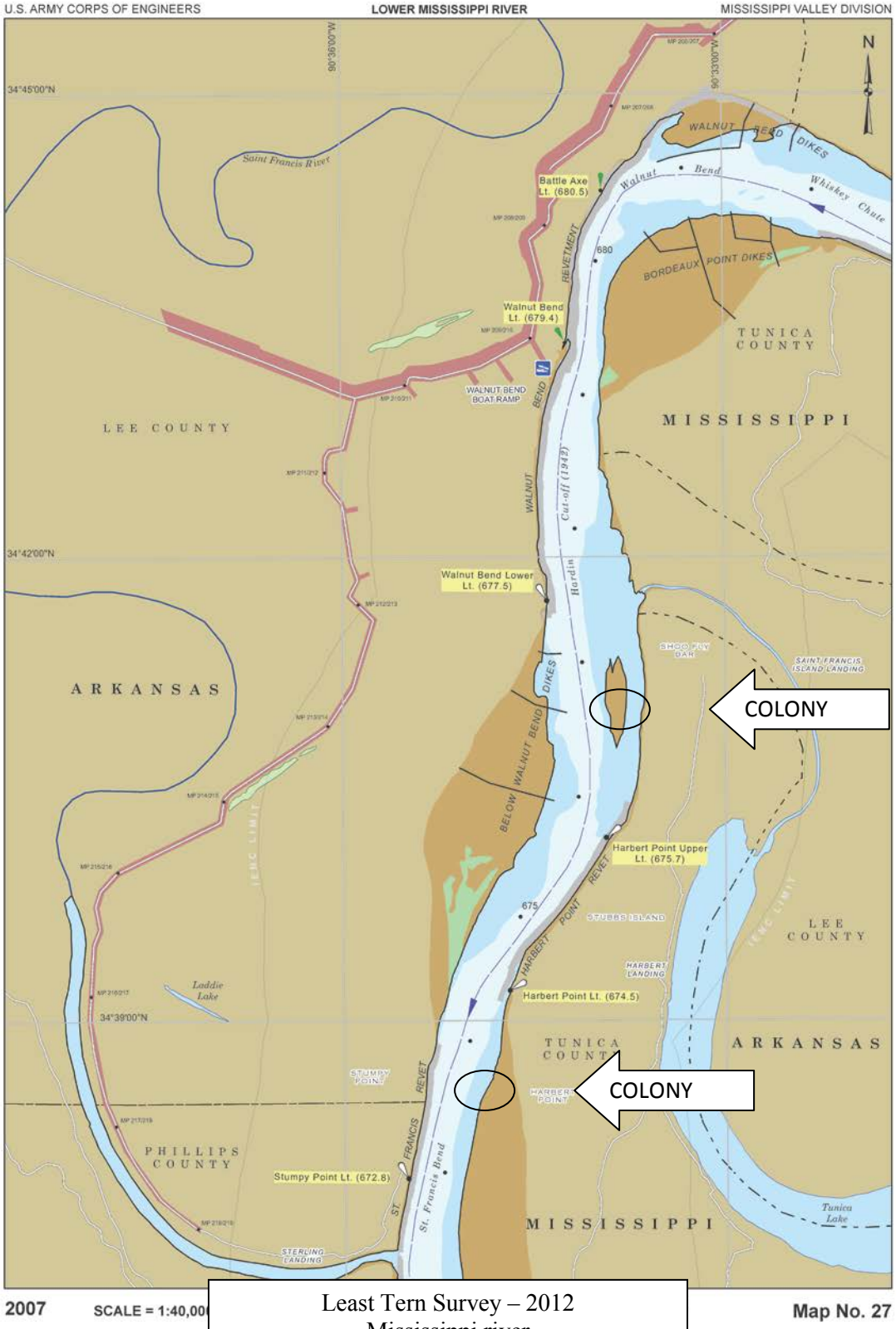

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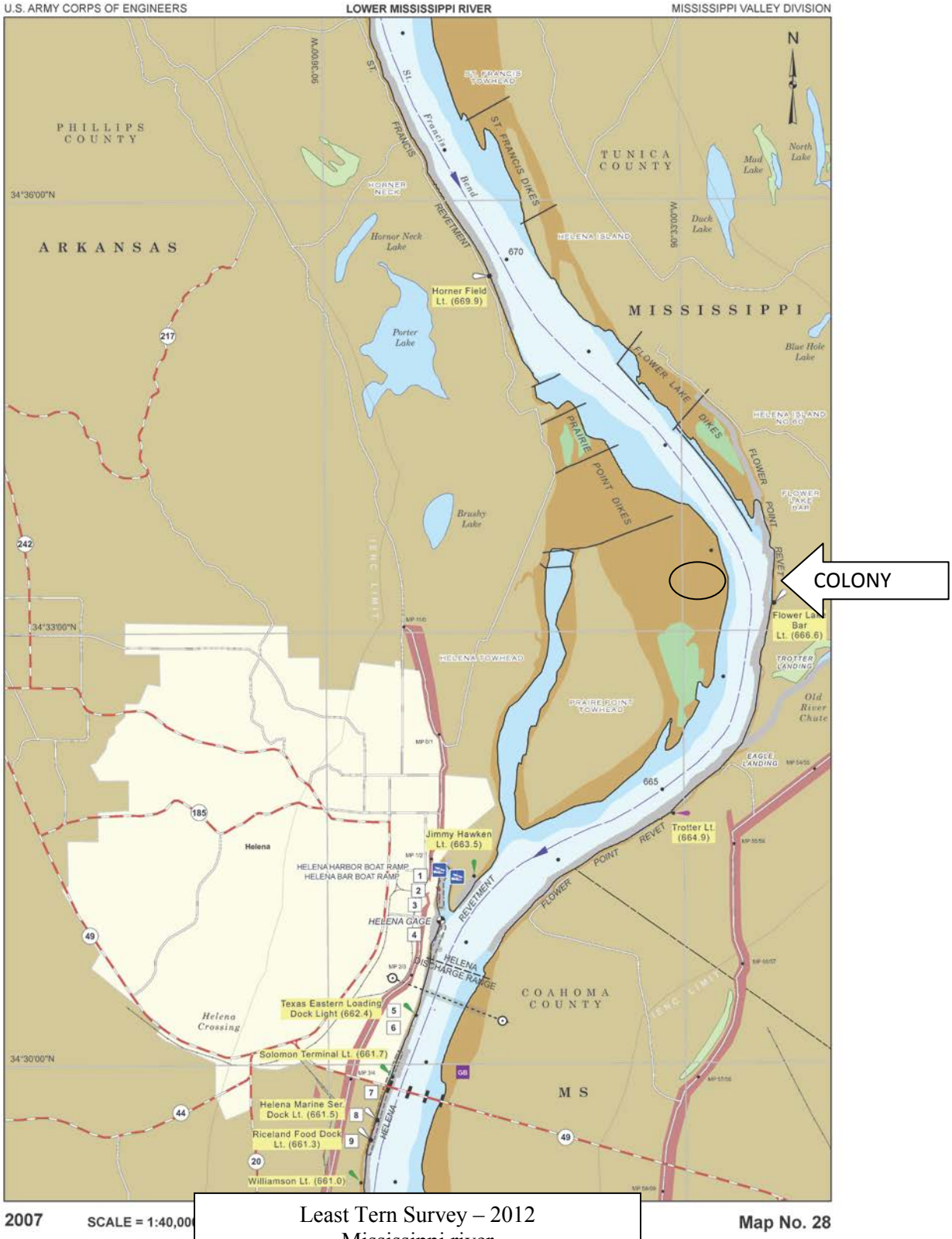

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Mississippi river
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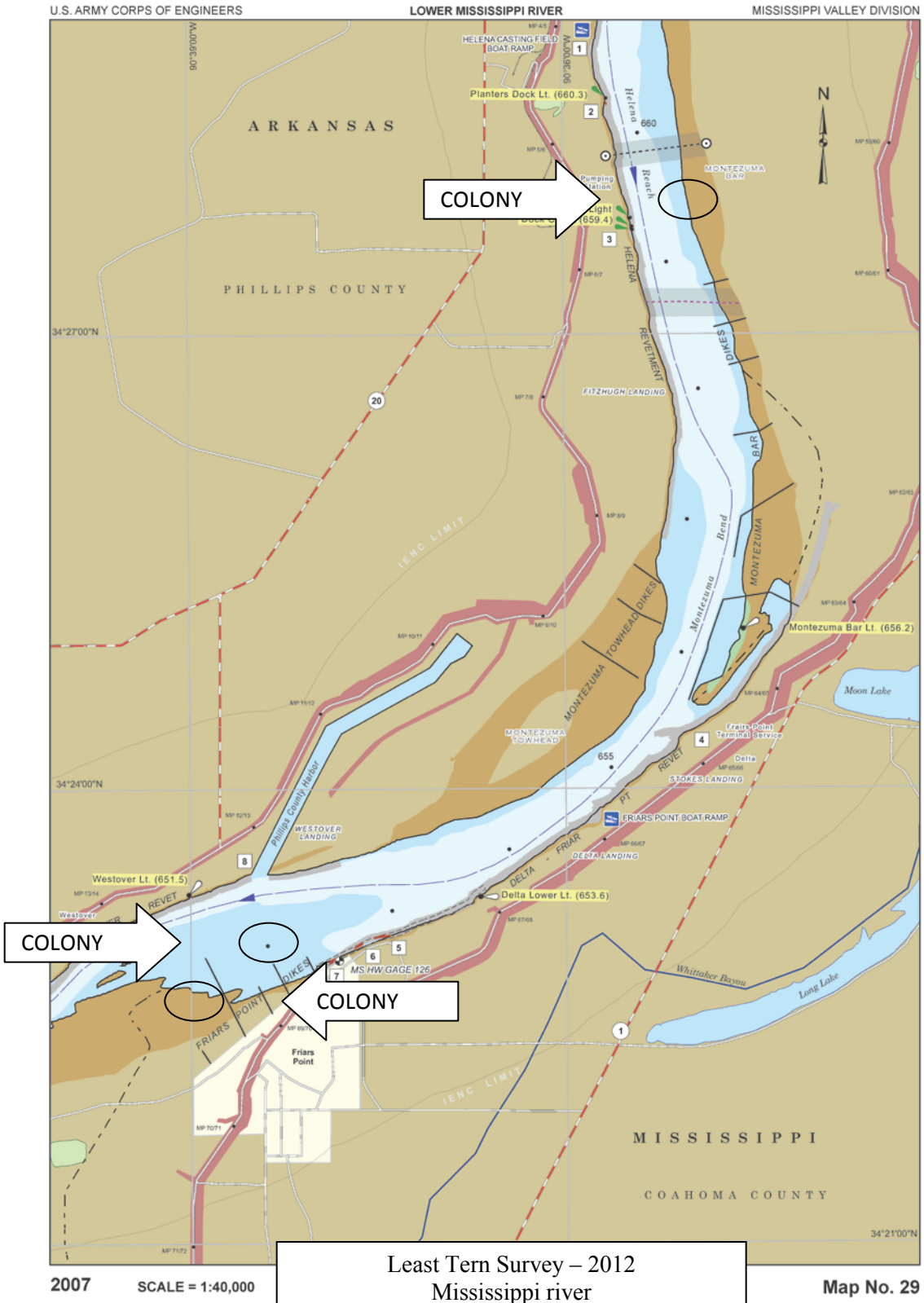

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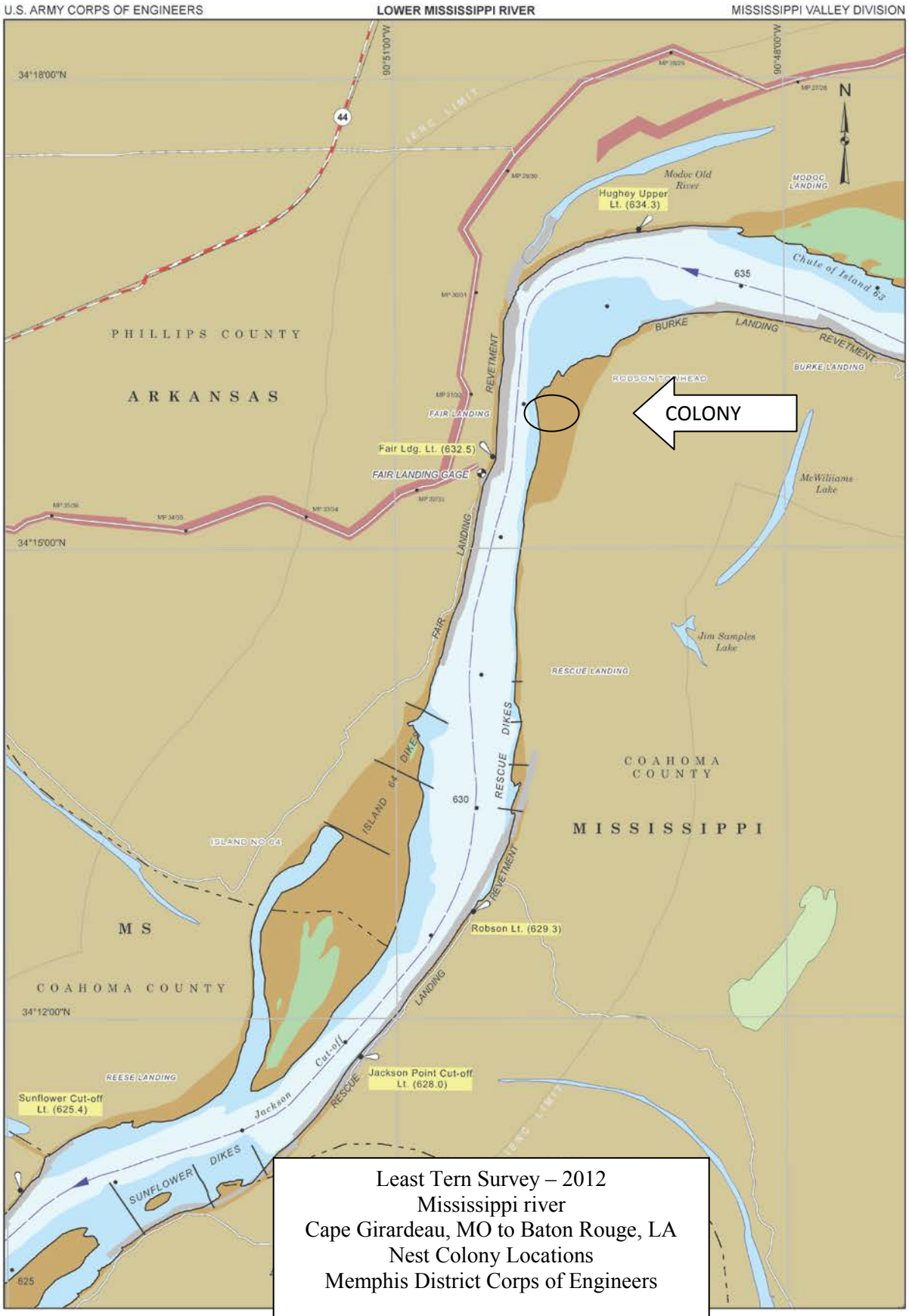

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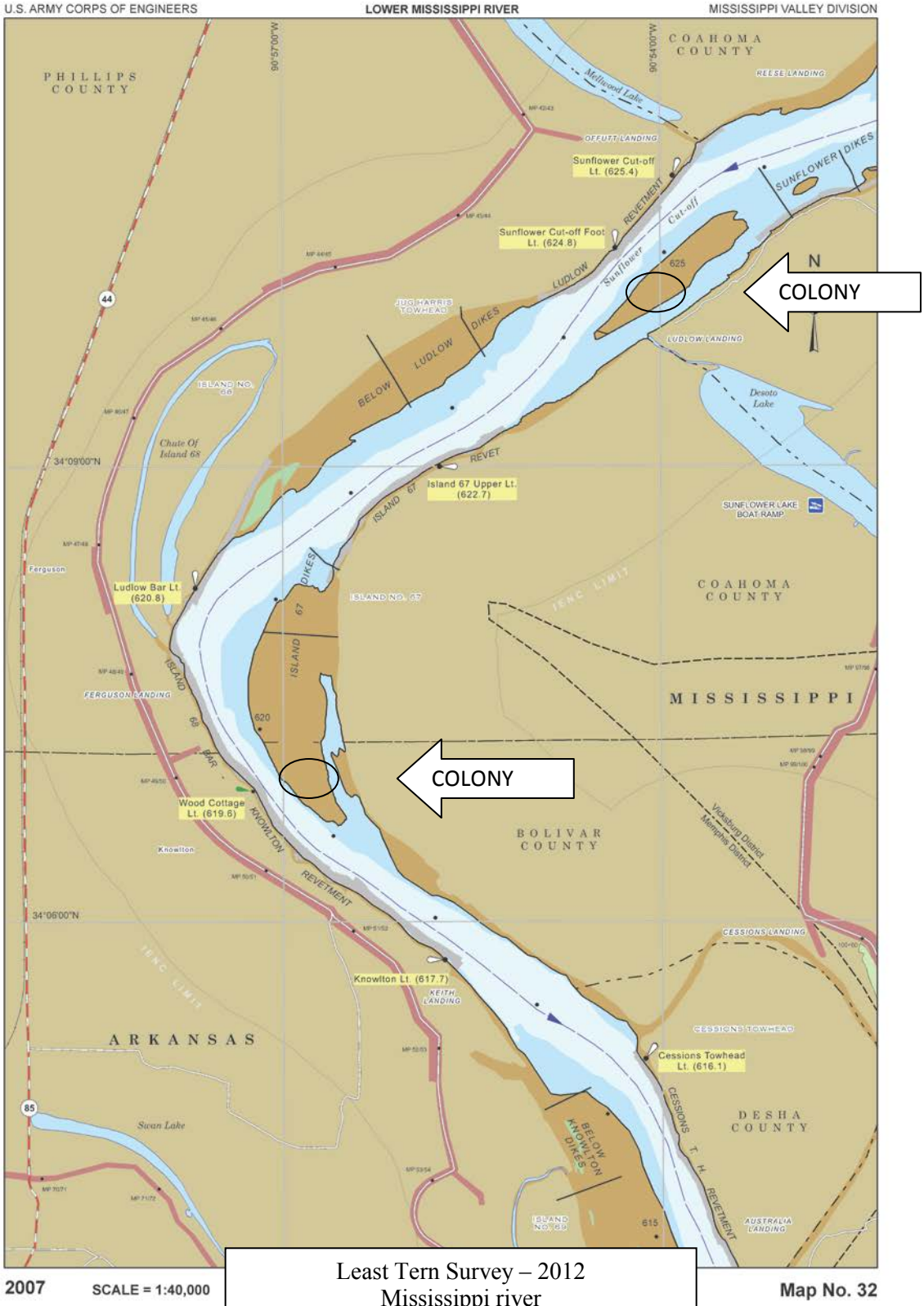
Nest Colony Locations
Memphis District Corps of Engineers



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Nest Colony Locations
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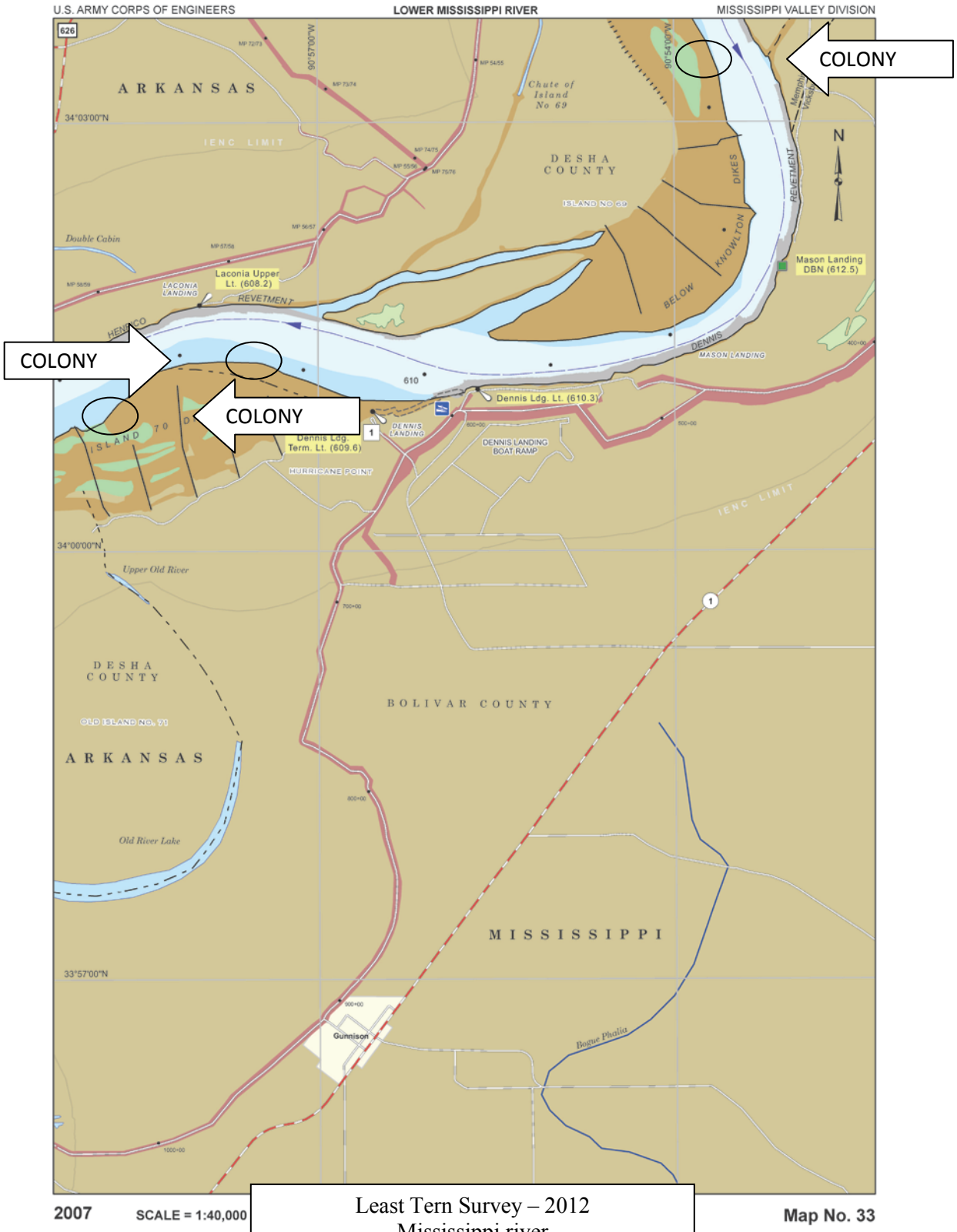
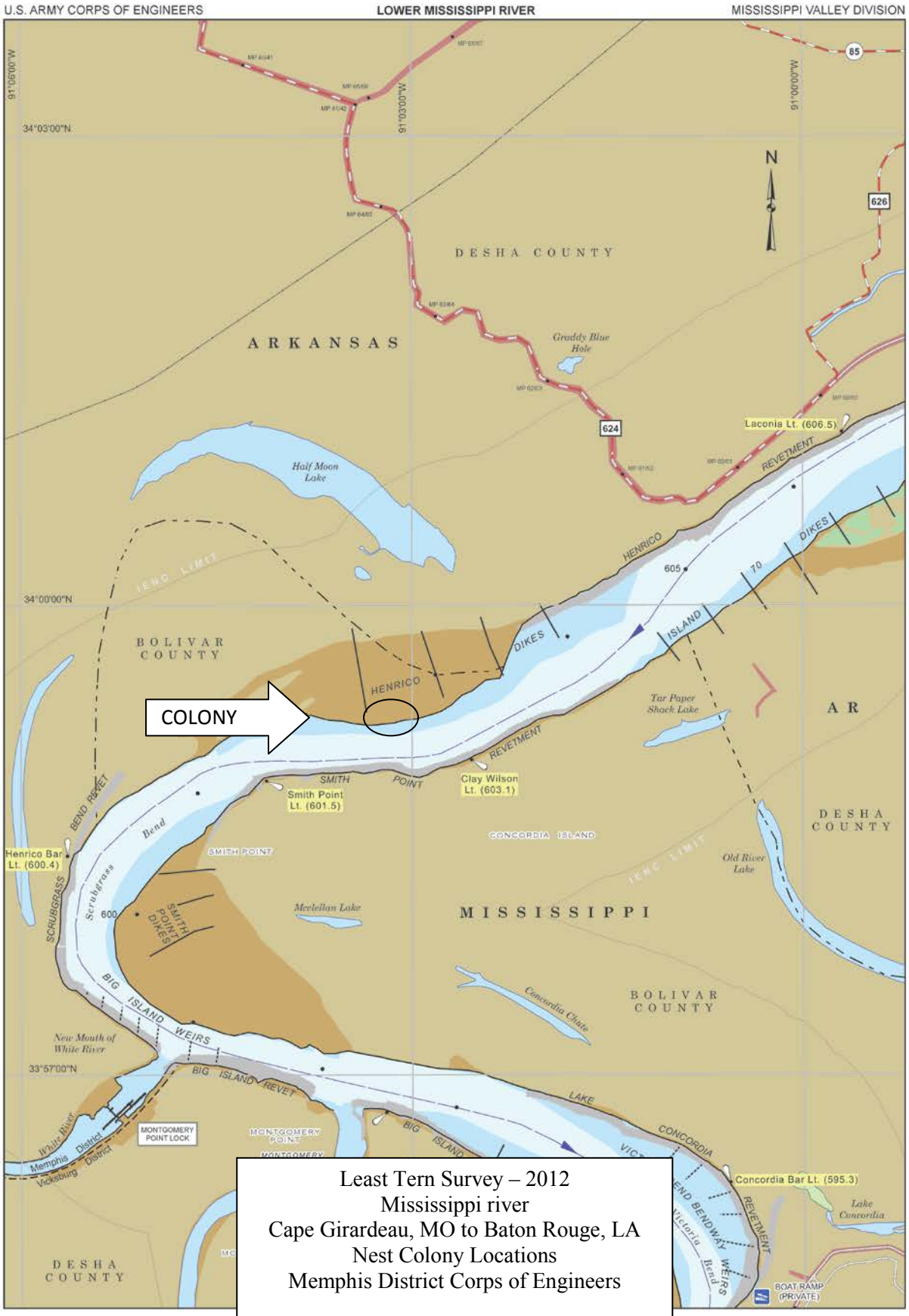
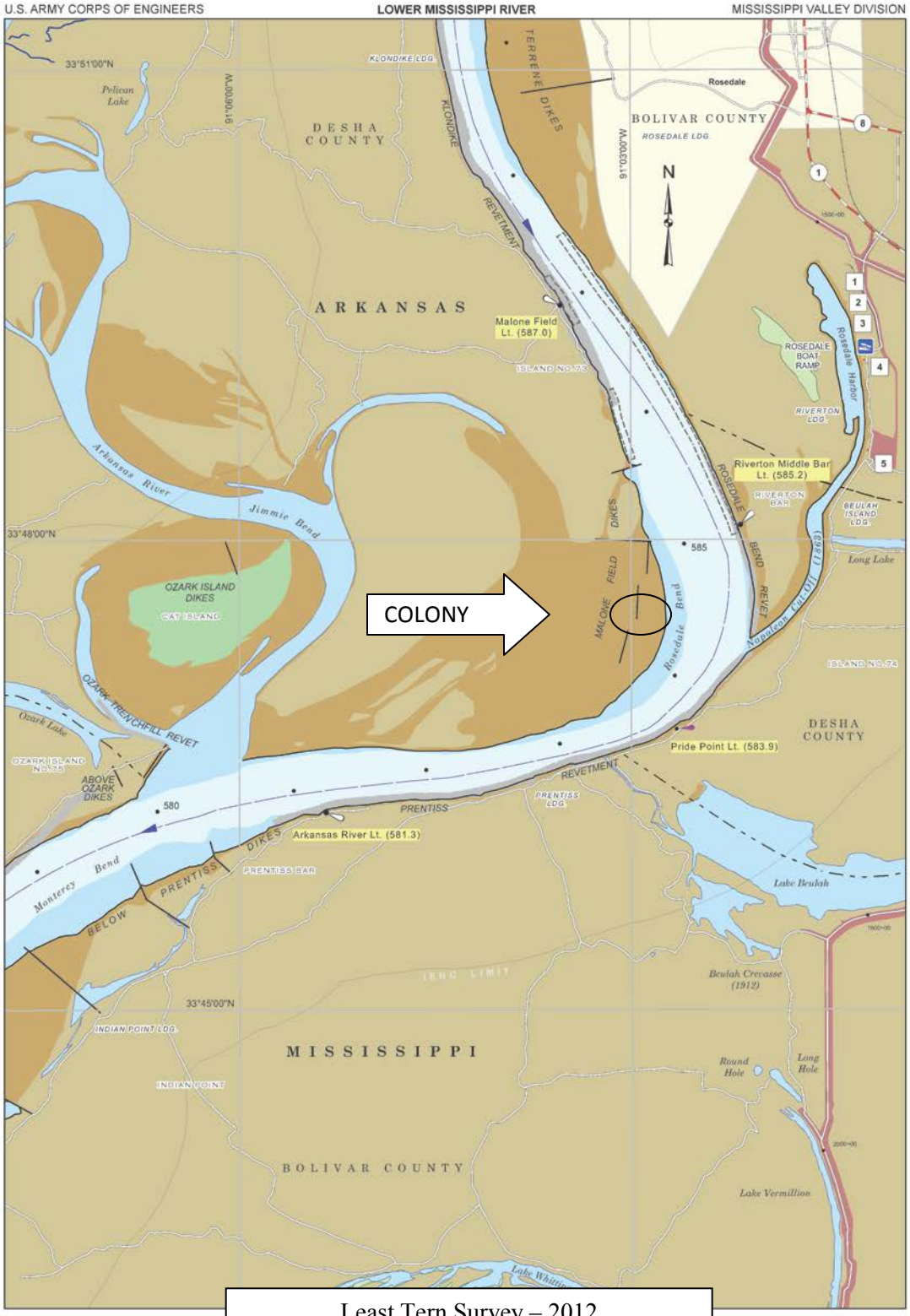


Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers

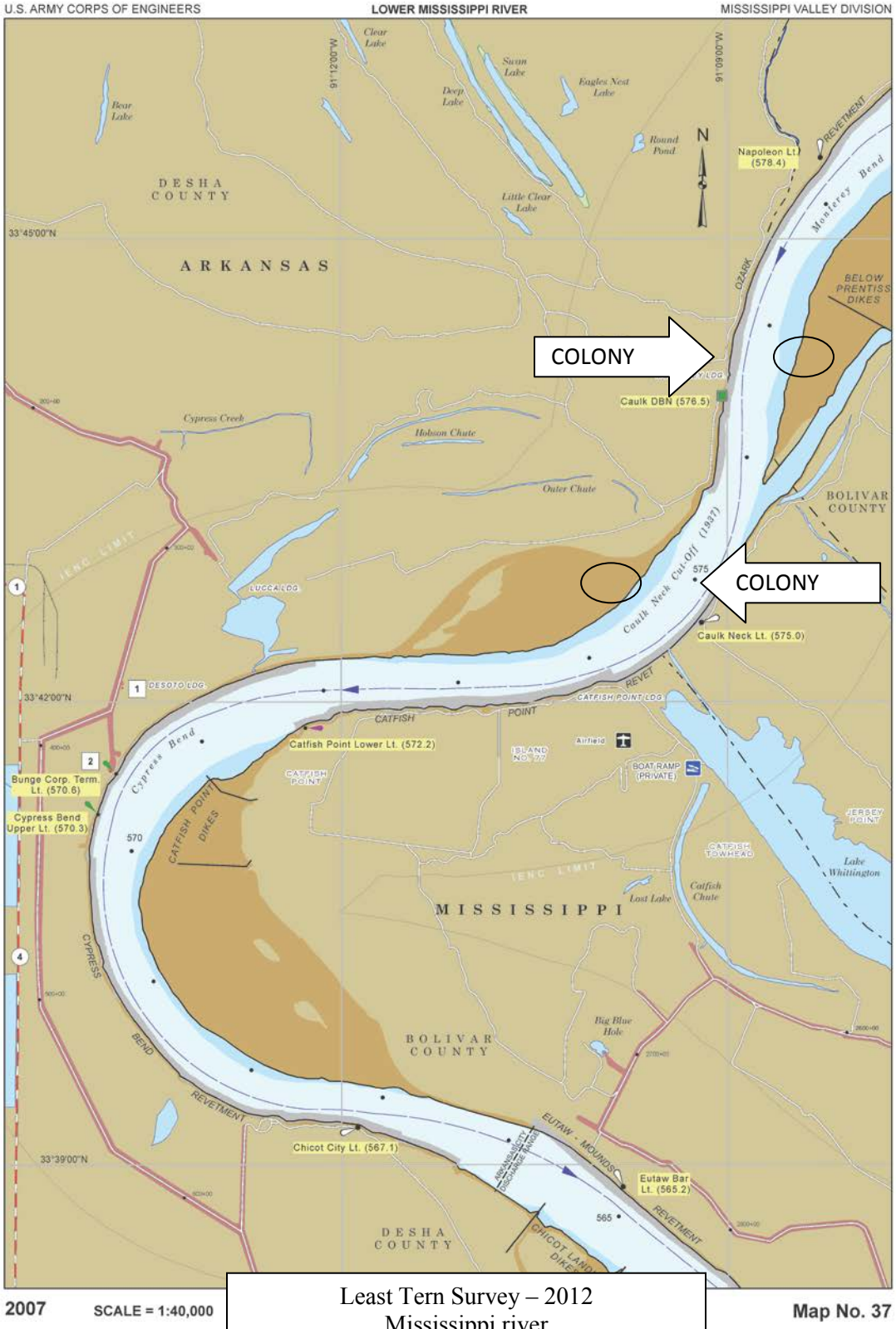


Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers

Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



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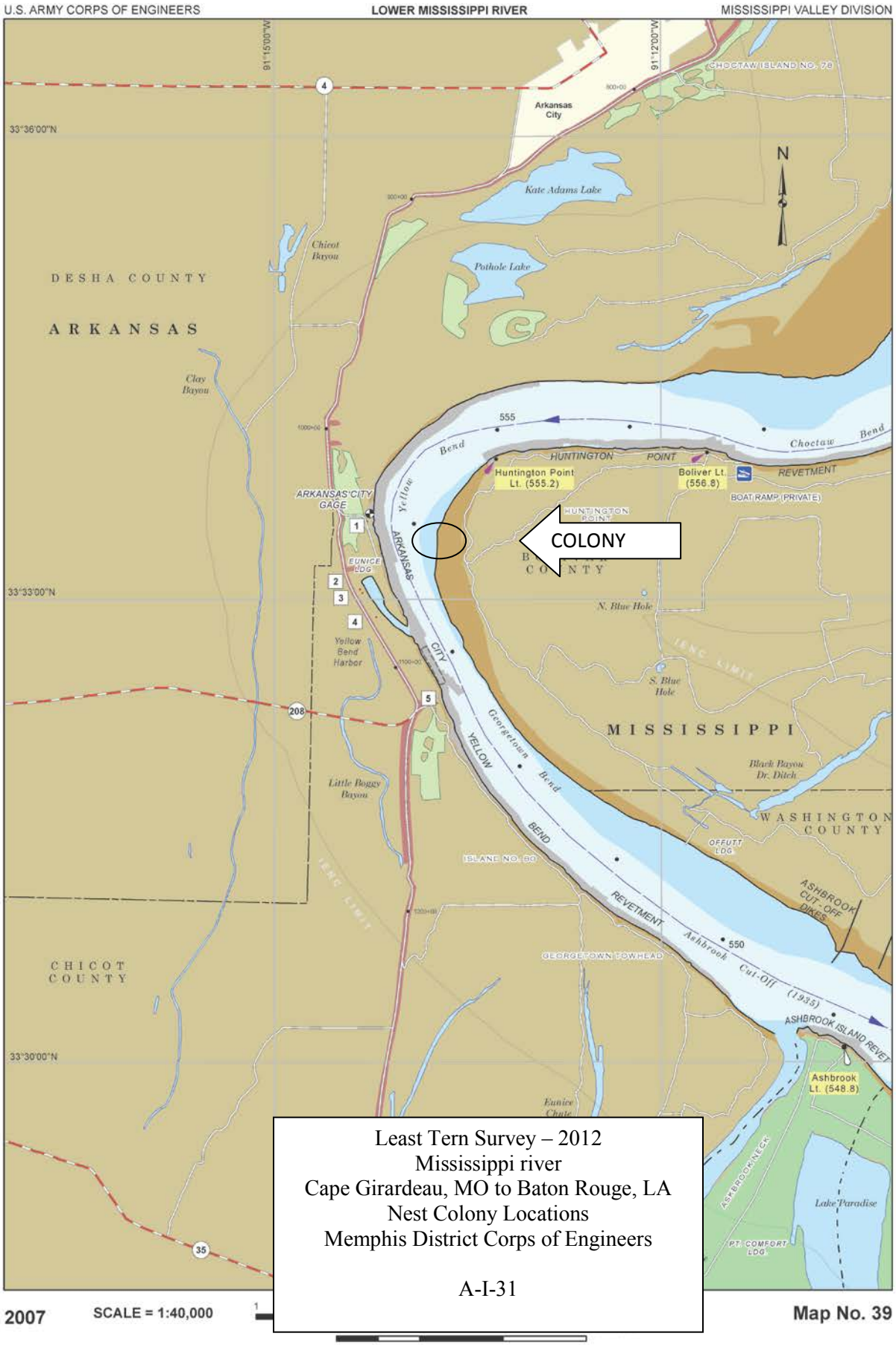
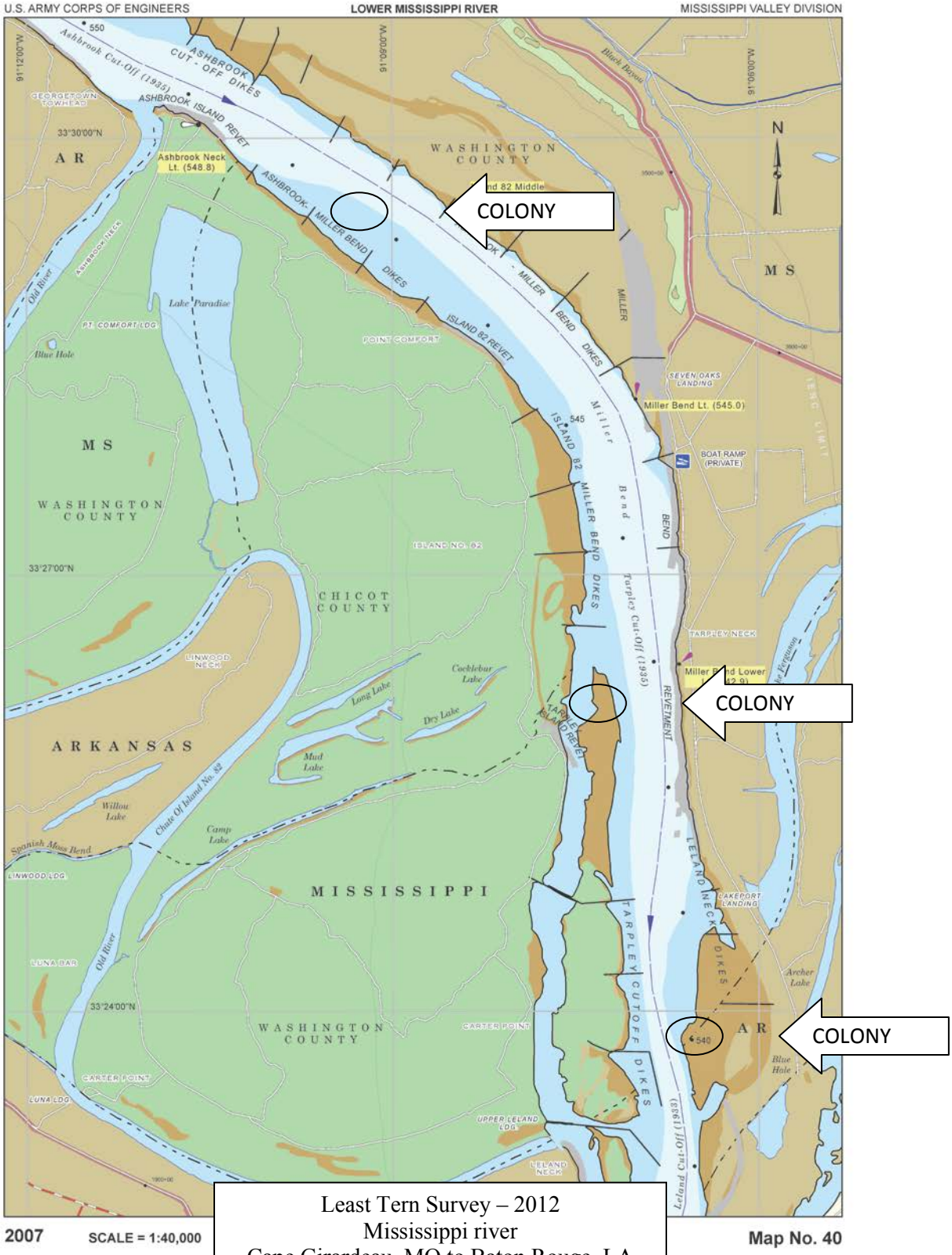
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



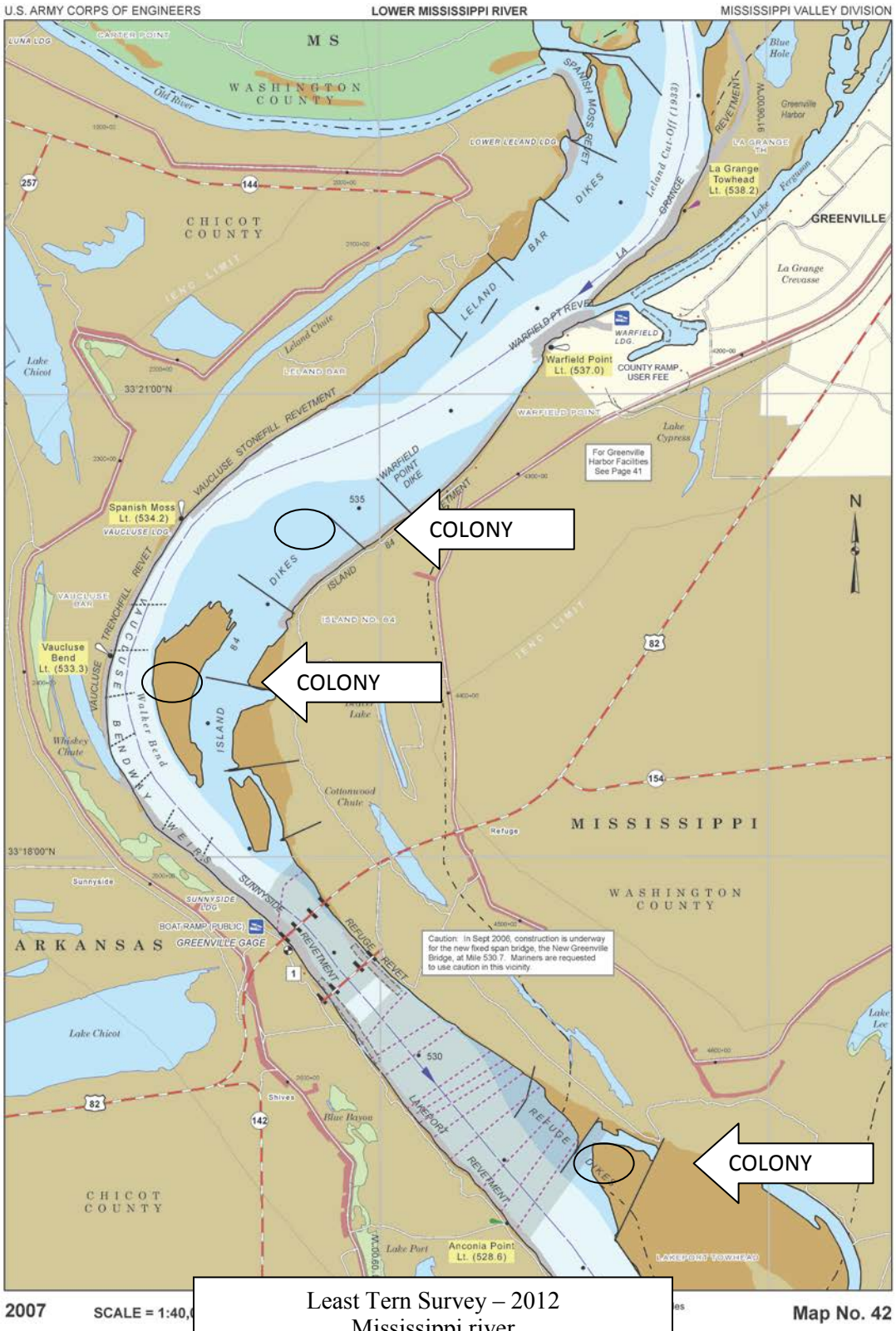
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers

A-I-31

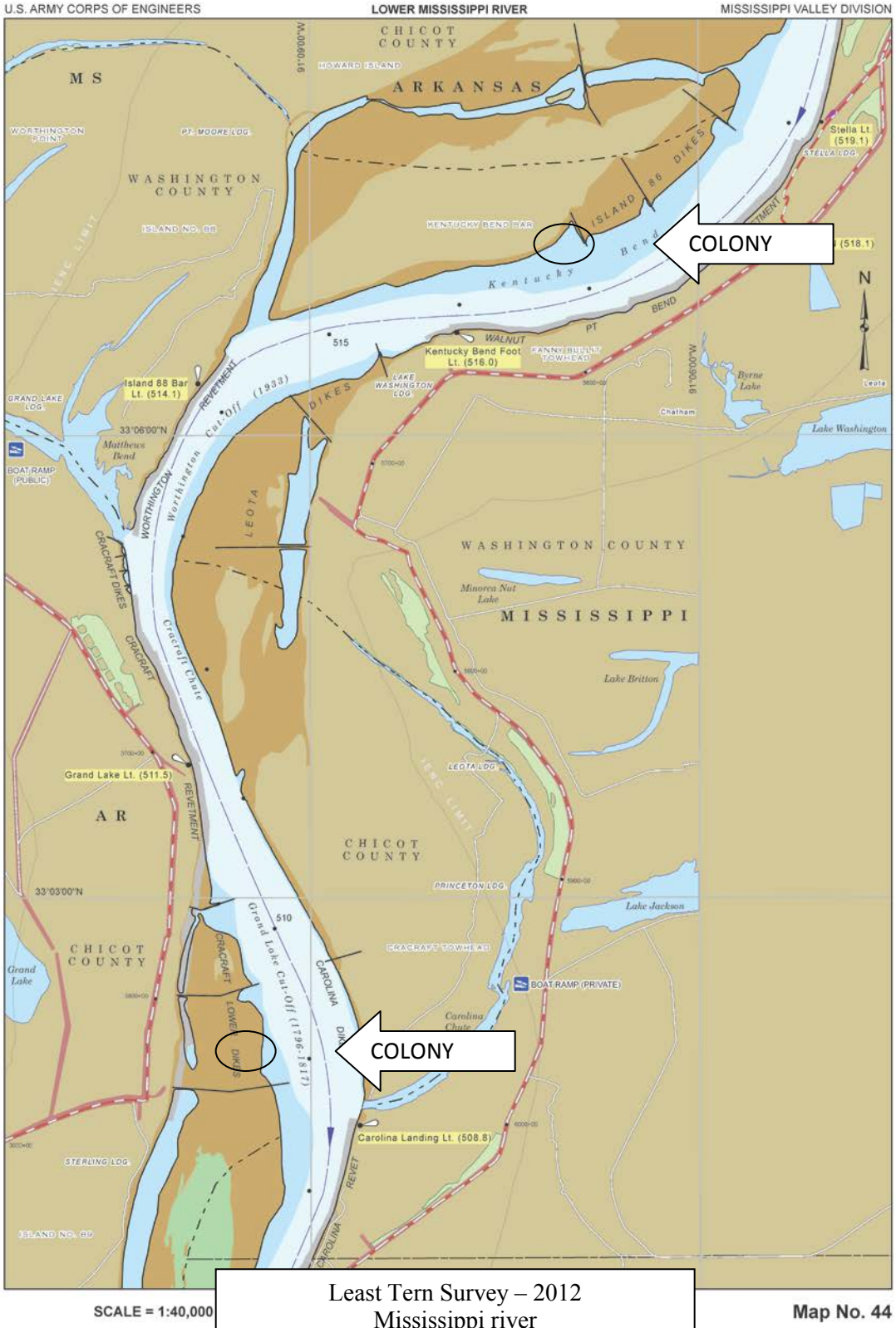


2007 SCALE = 1:40,000 Map No. 40

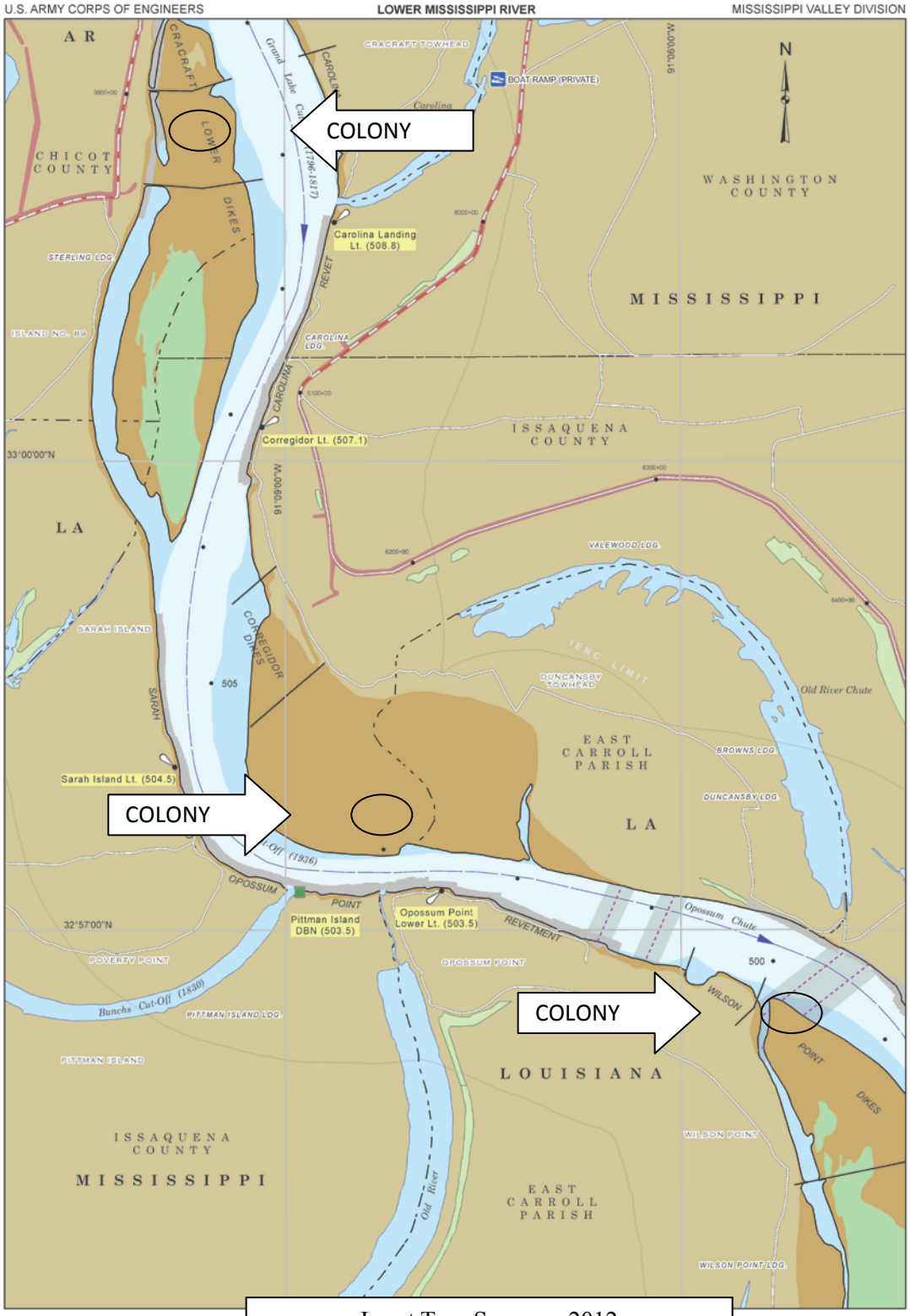
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



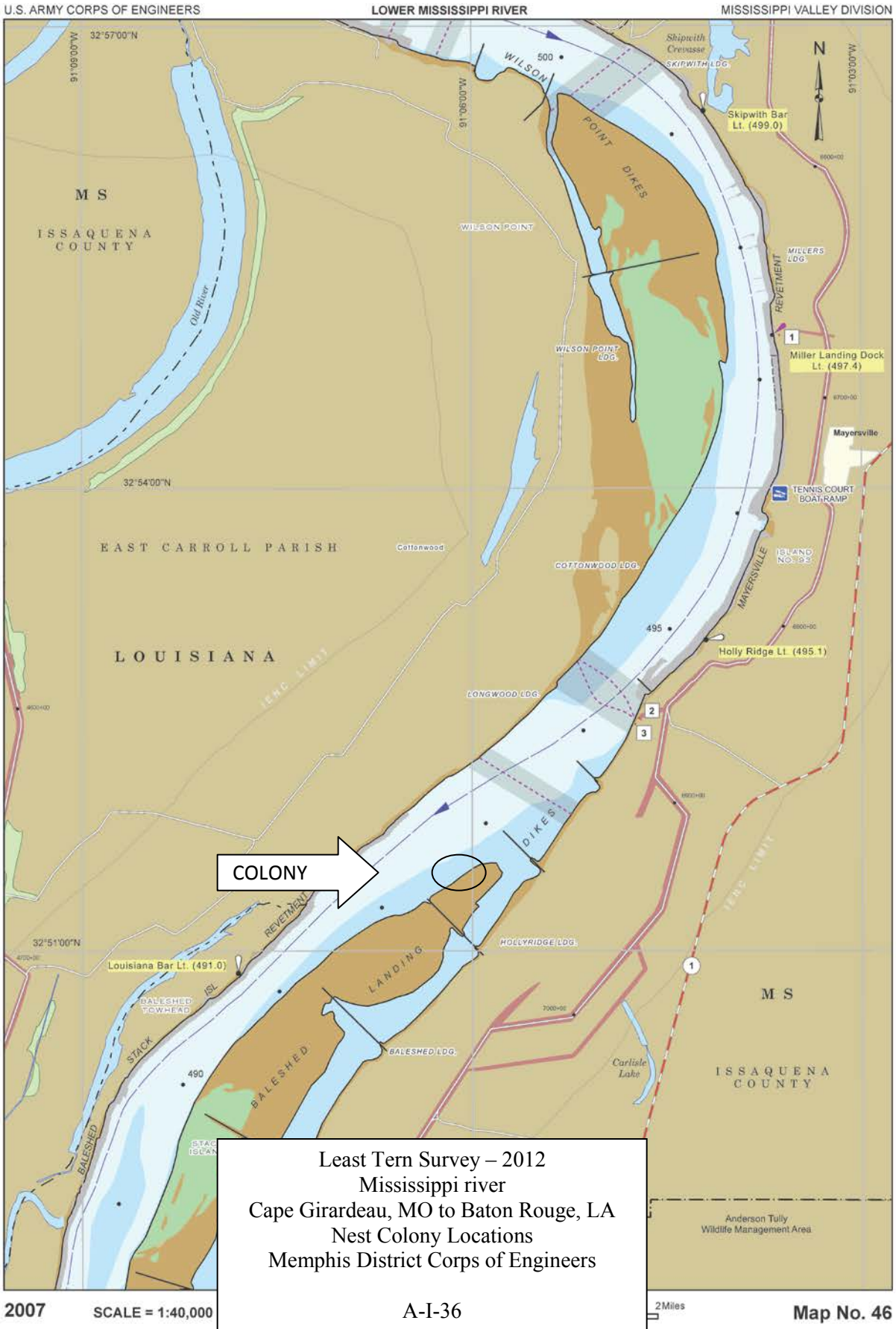
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



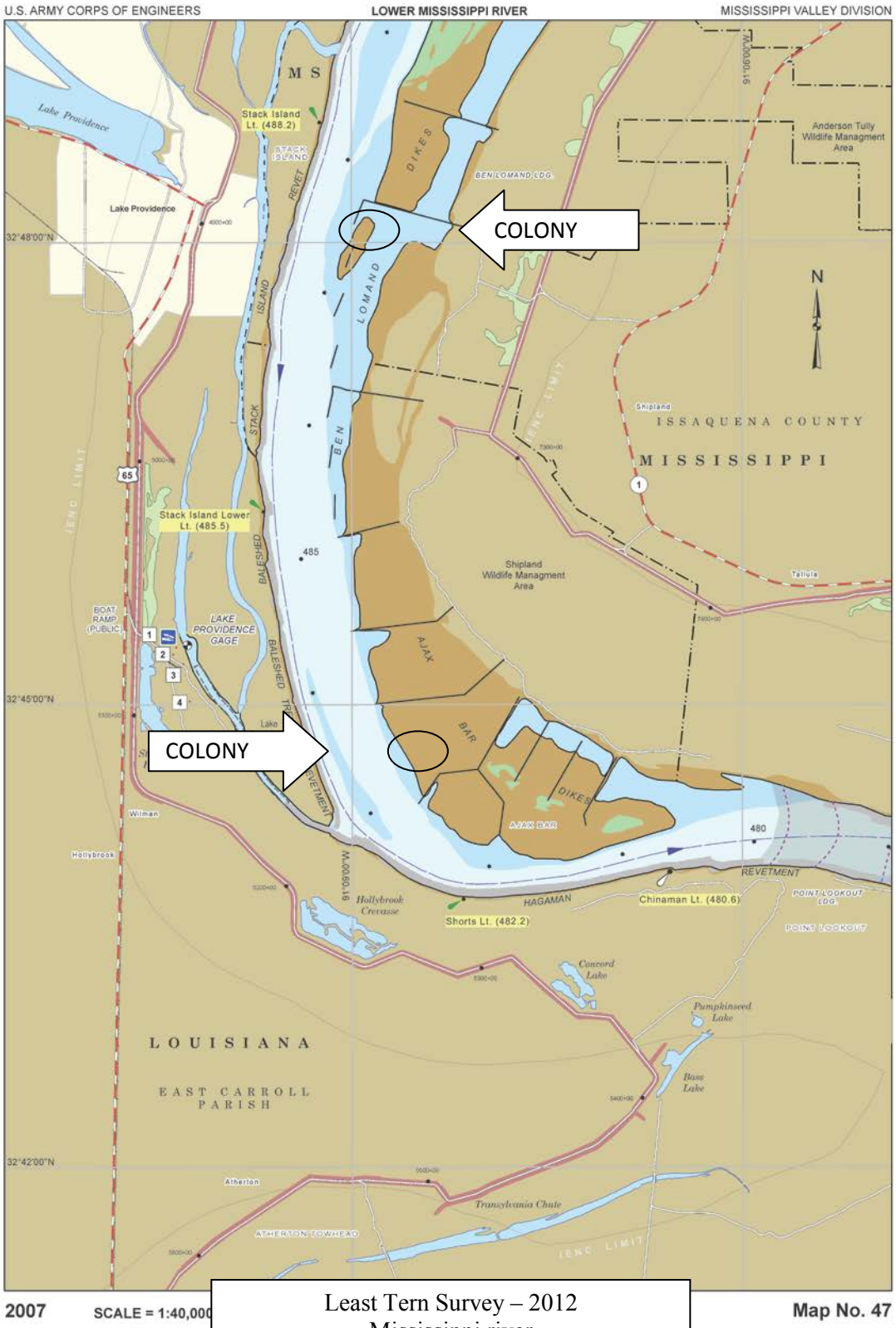
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



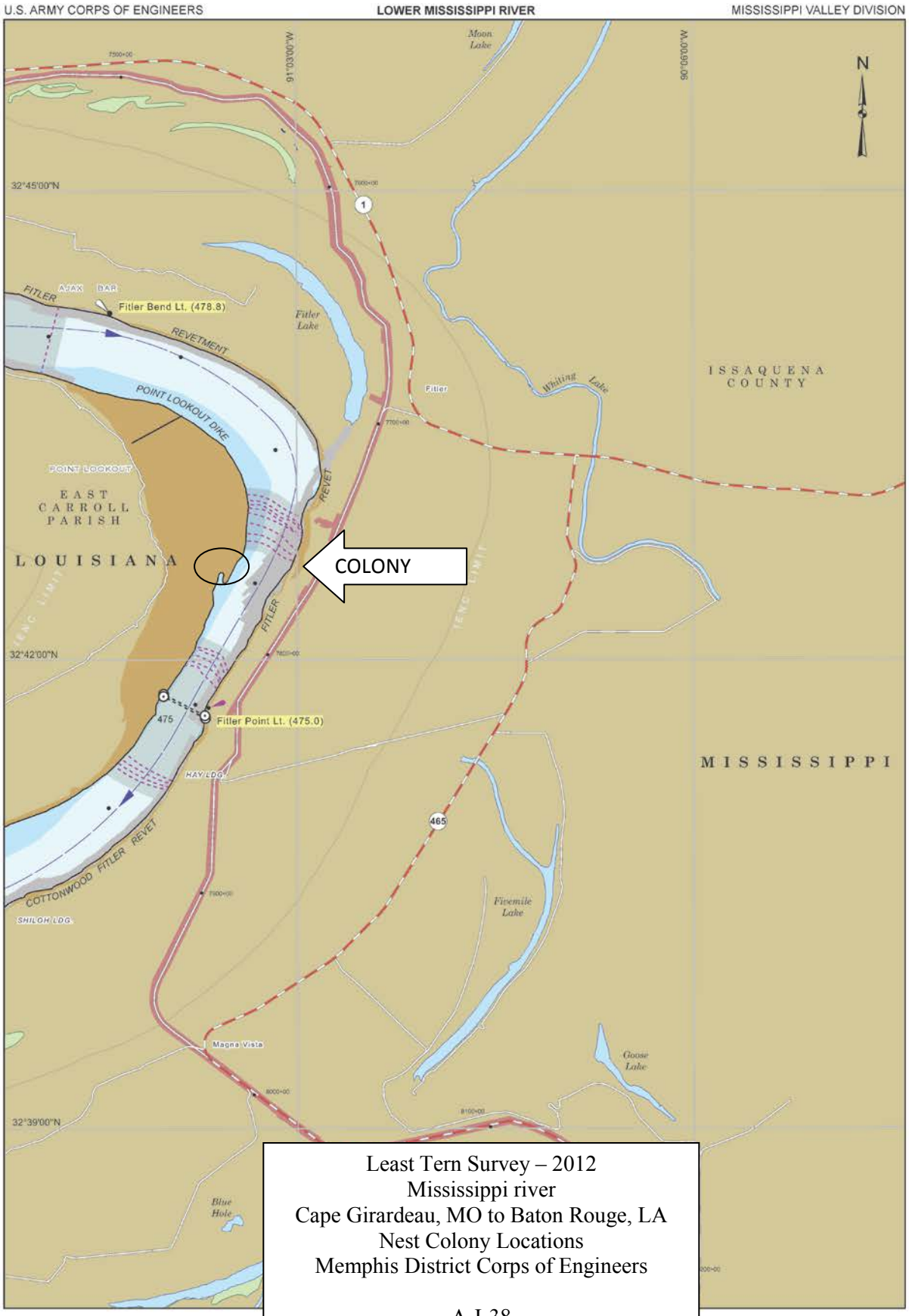
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



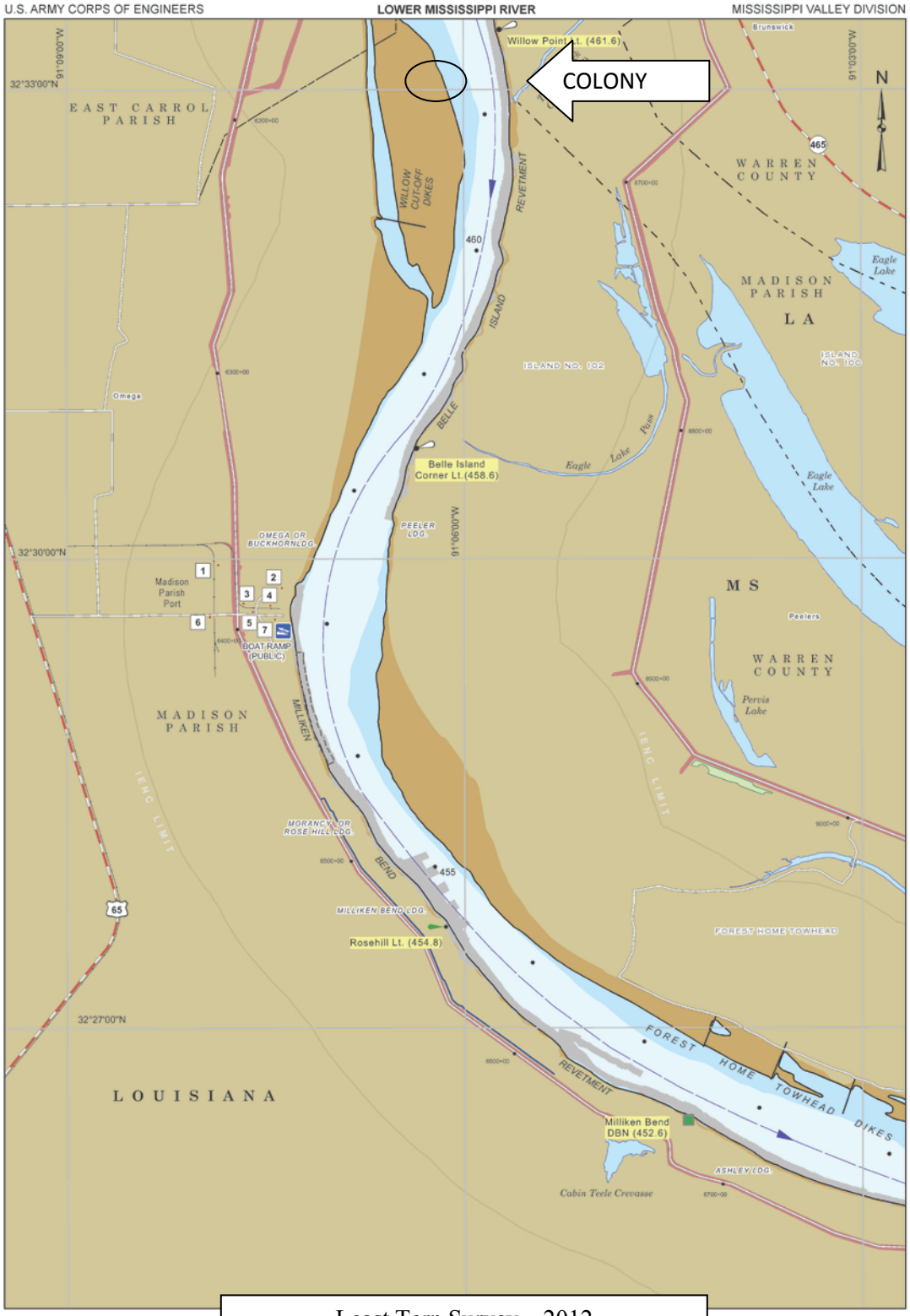
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



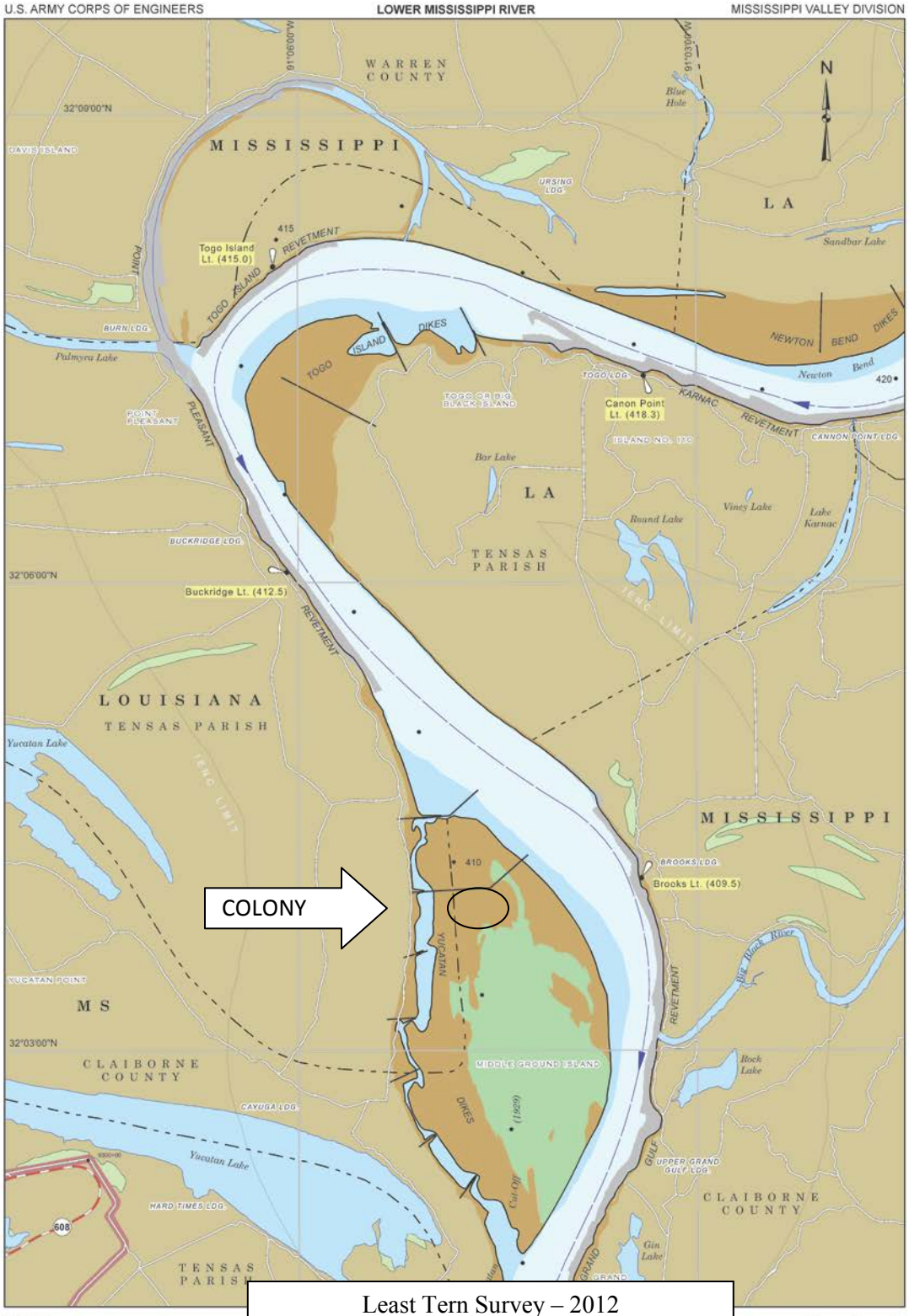
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



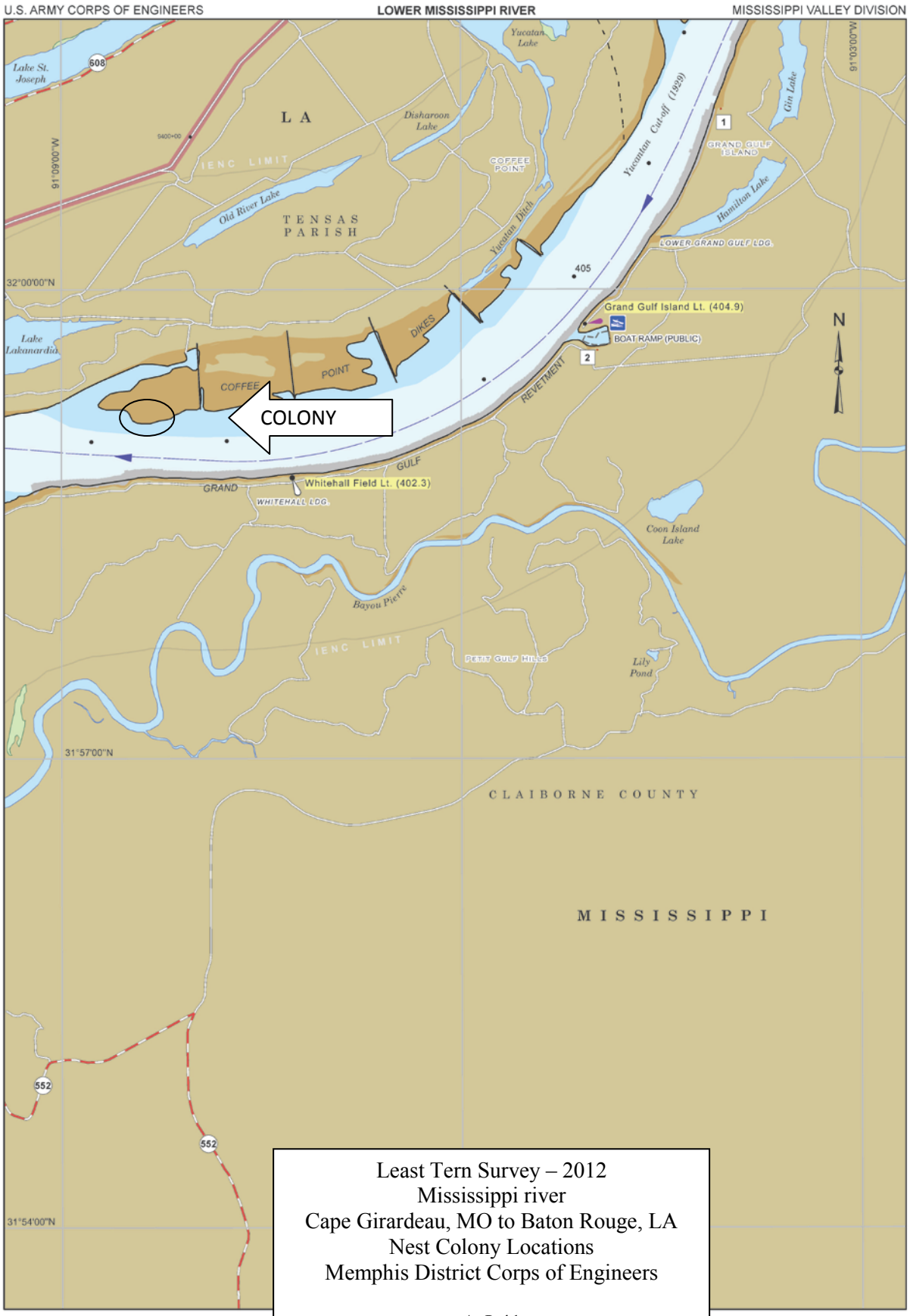
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



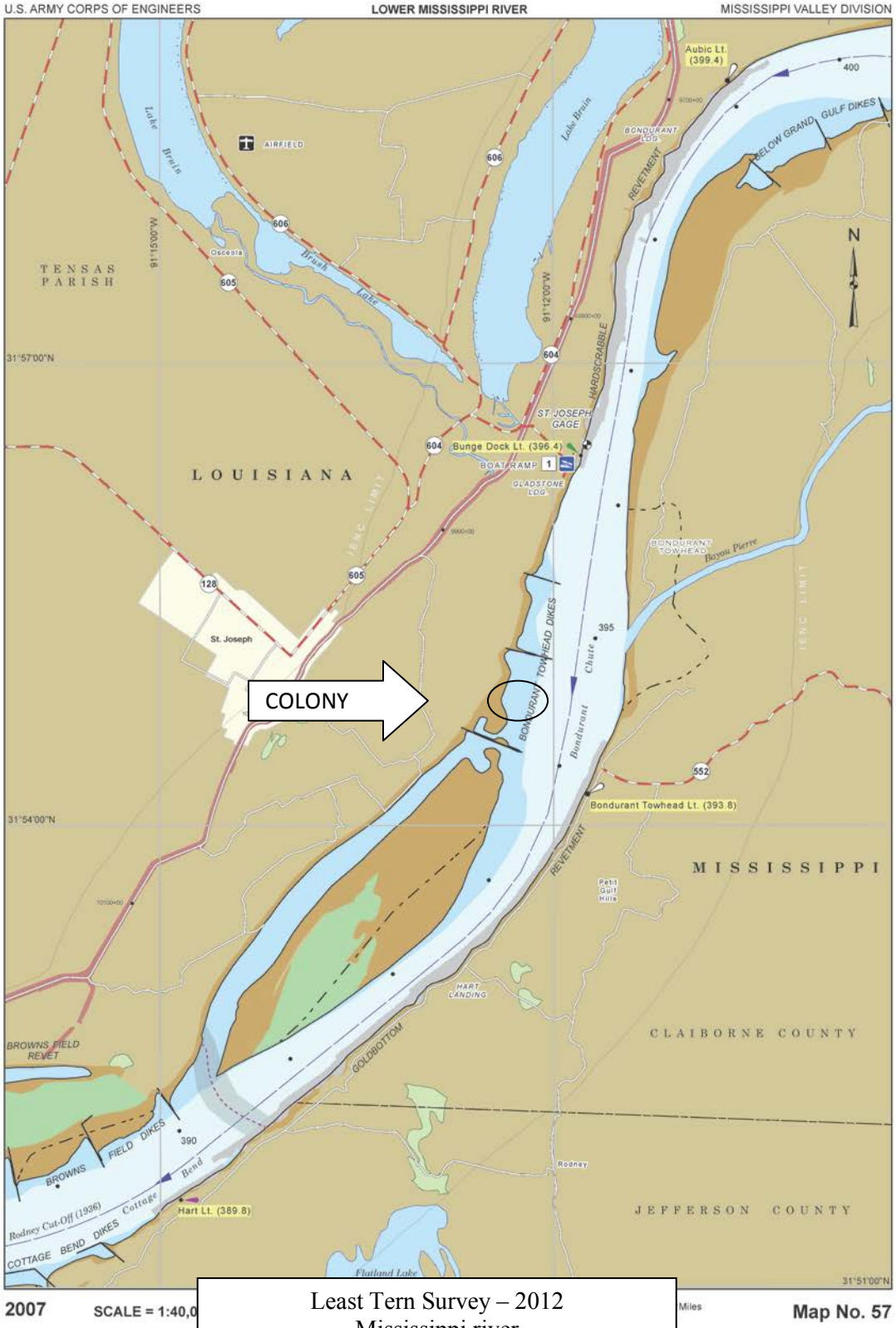
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



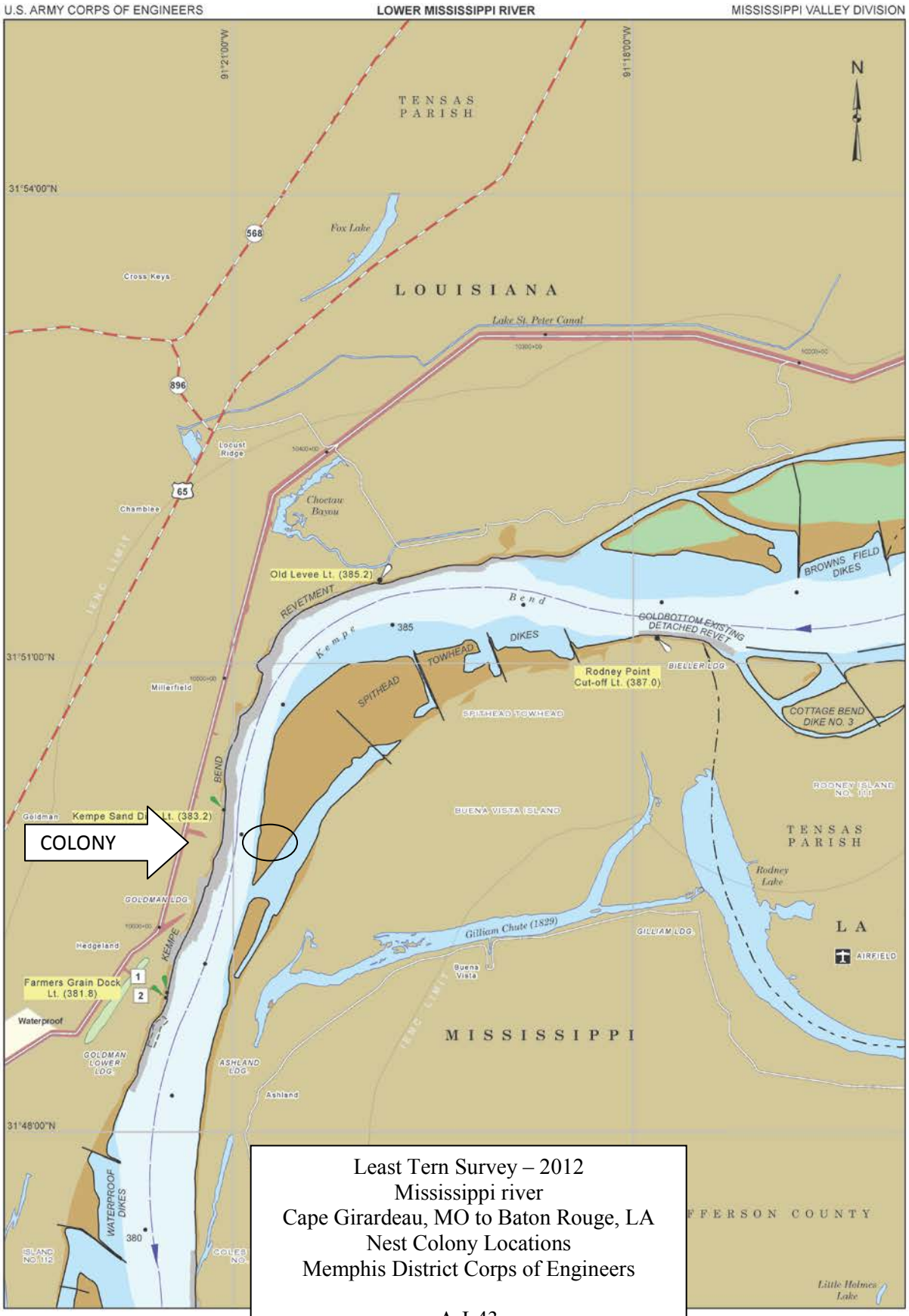
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



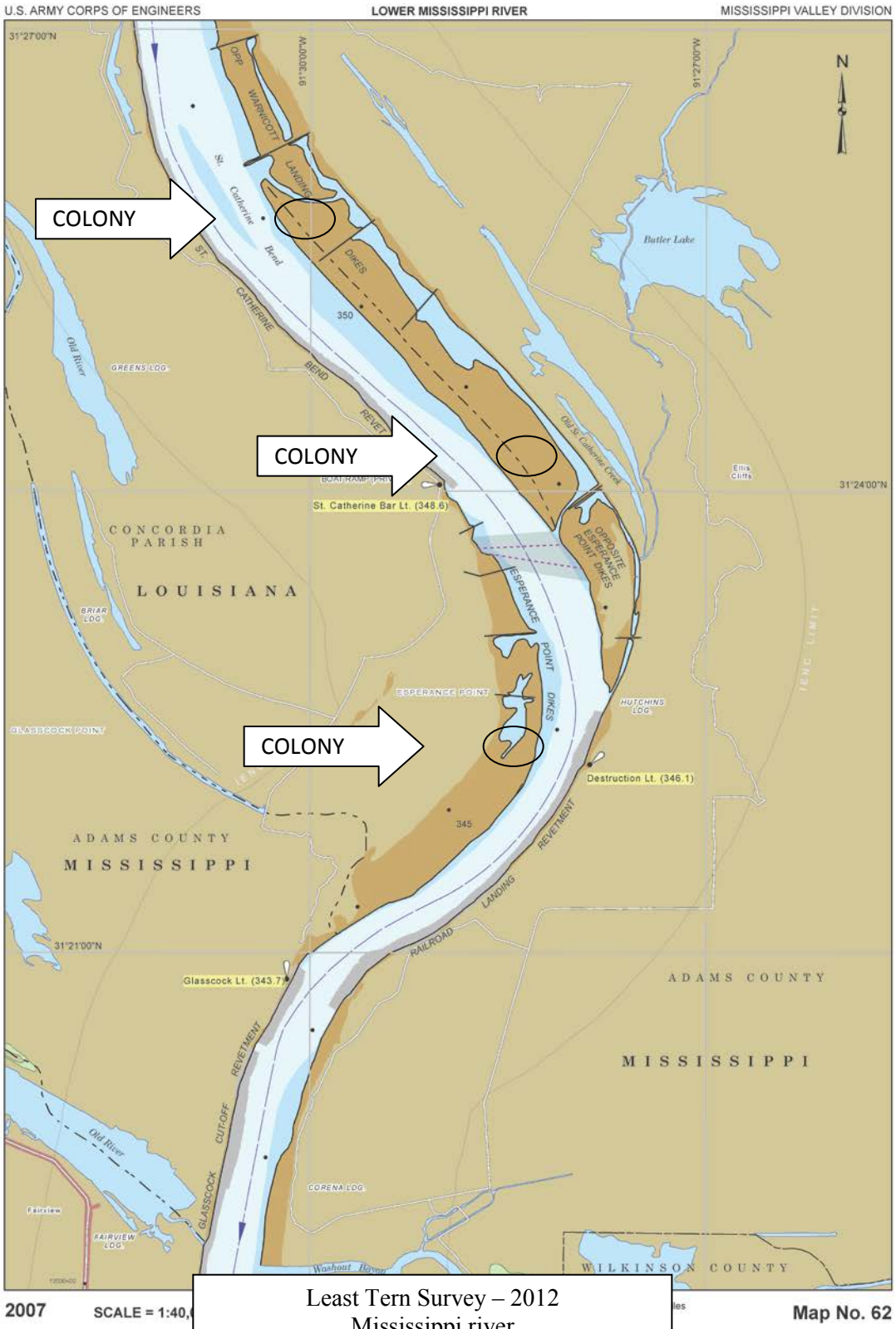
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



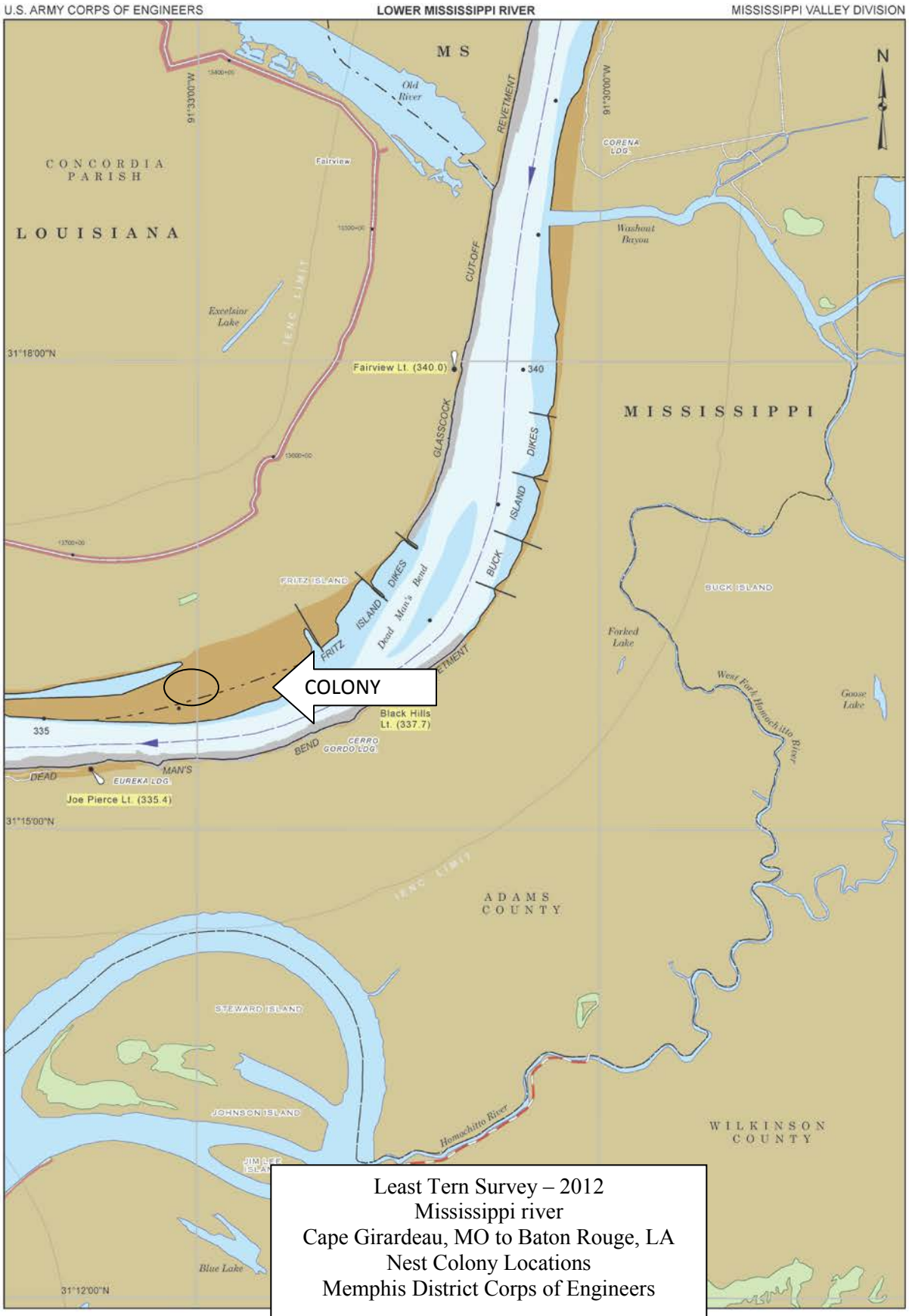
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



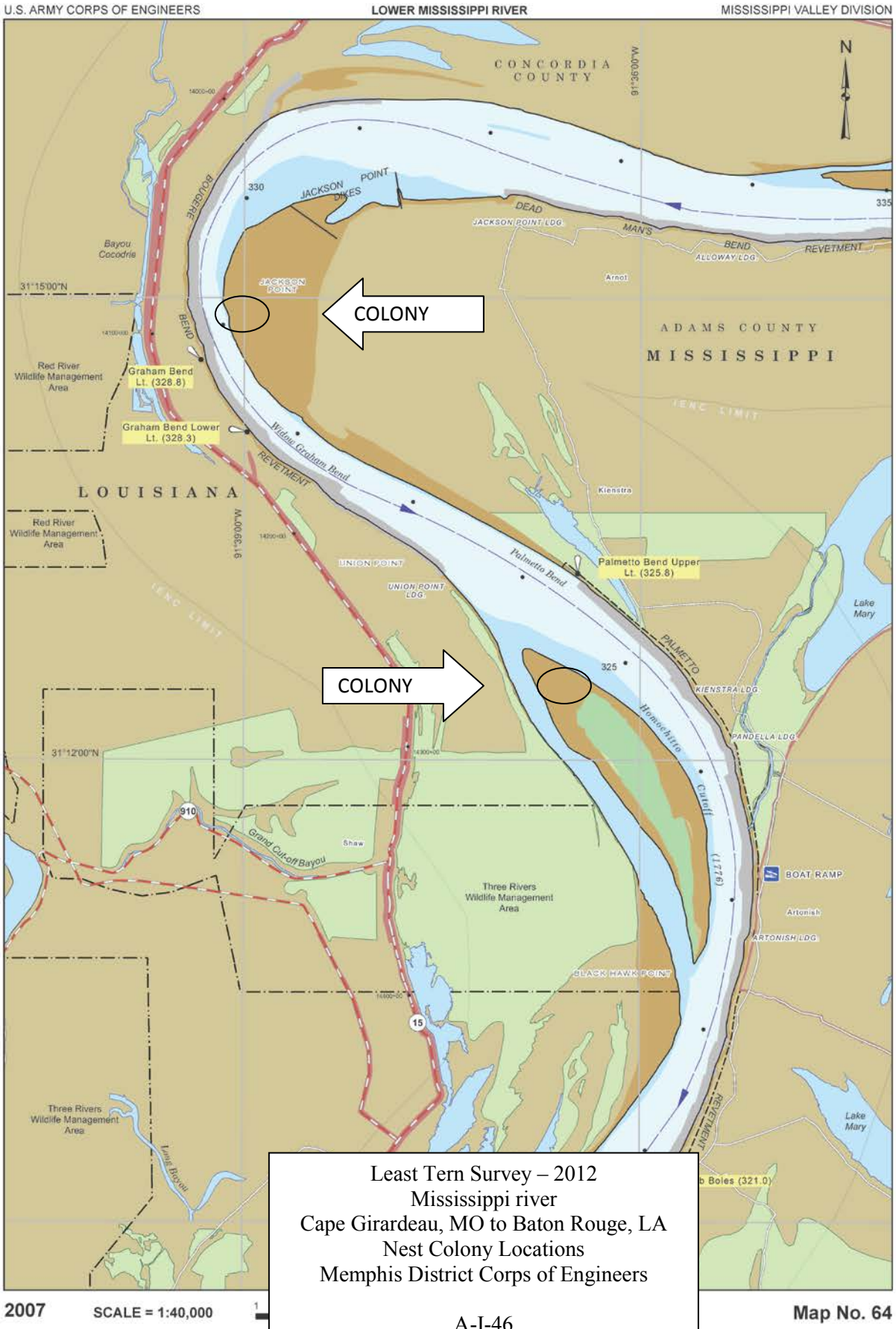
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



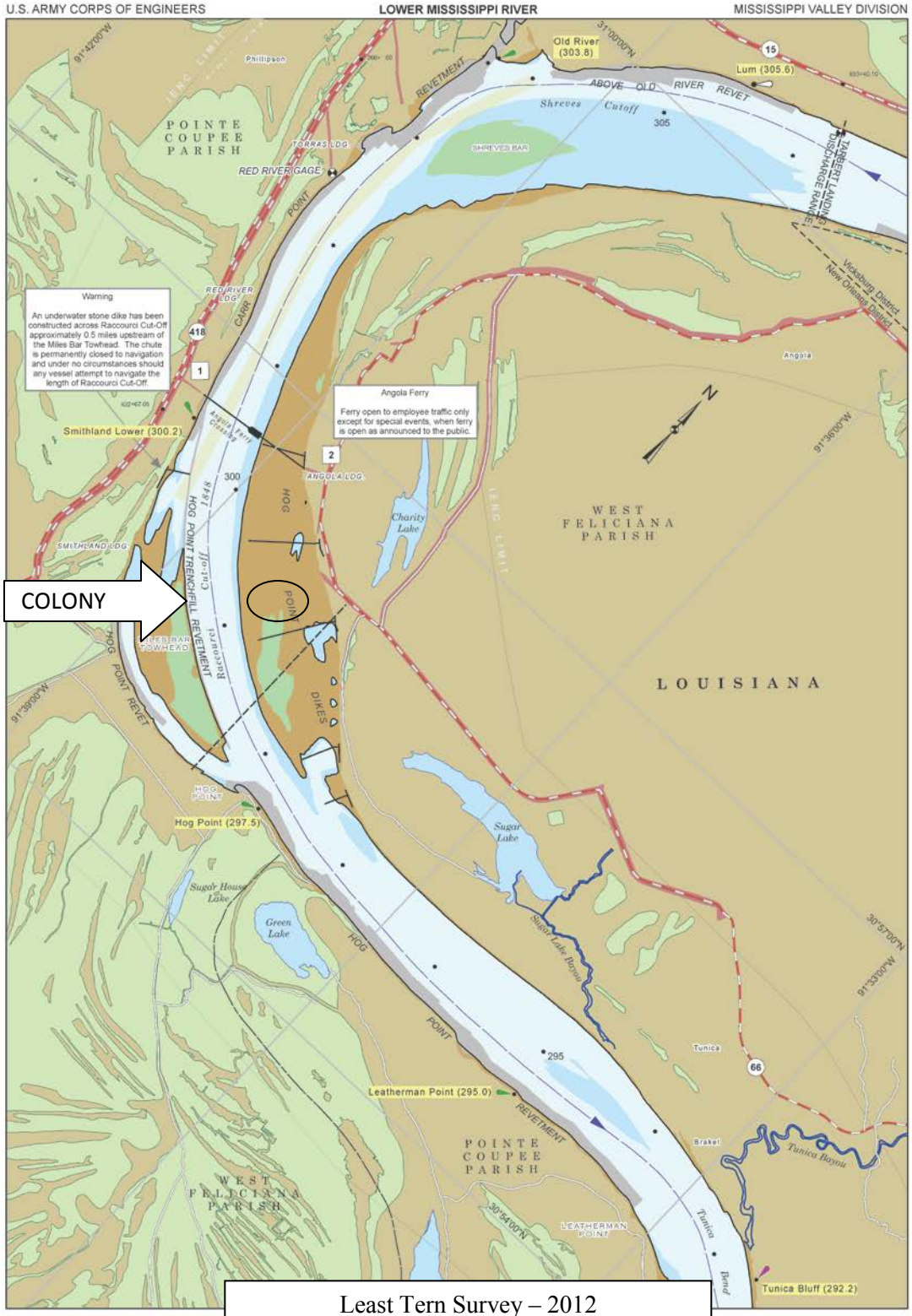
Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers



Least Tern Survey – 2012
Mississippi river
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers

Appendix A – II

LEAST TERN SURVEY - 2012

Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

SMALL BOAT SURVEY July 7-13, 2012

Memphis District, Corps of Engineers

Data Sheets

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

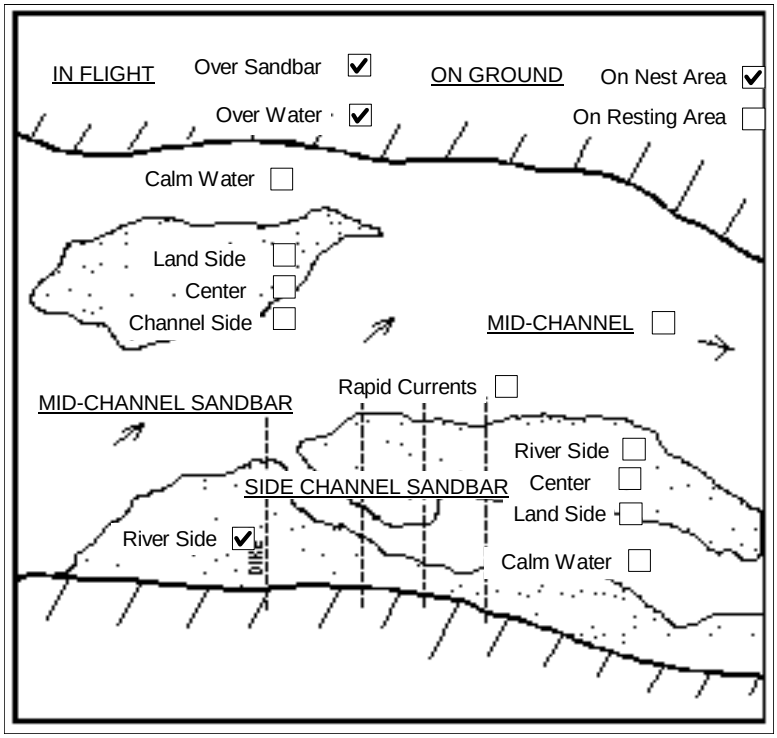
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 8:45 RIVER MILE UR 29.2

LOCALITY: Alexander (County/Parish) ILL (State) SITE NAME: Bumgard Island

WHERE SITED: Latitude: 37.04335
Longitude: 89.38014

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 37
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type: Cottonwoods
Distance: 3000 Feet

FIELD CONDITION:

Temperature: 91 °F
Rain: No
Wind: 0
% Cloud: 0

OTHER NOTES:

Left Bank. Large (1,000 ft. x 1 mile), flat, med. height, attached, sand (20%) and gravel (80%) bar with scattered, large debris and trees on downstream point. Terns carrying fish and light mobbing indicates early colony but no scrapes or eggs observed. Flush count yields 37 adults along with heron tracks, 10 Kildeer, 20 Rough-winged Swallows and 3 mussel shells (Leptodea fragilis).

ILL side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Cairo (Gage Location) = 13.0 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

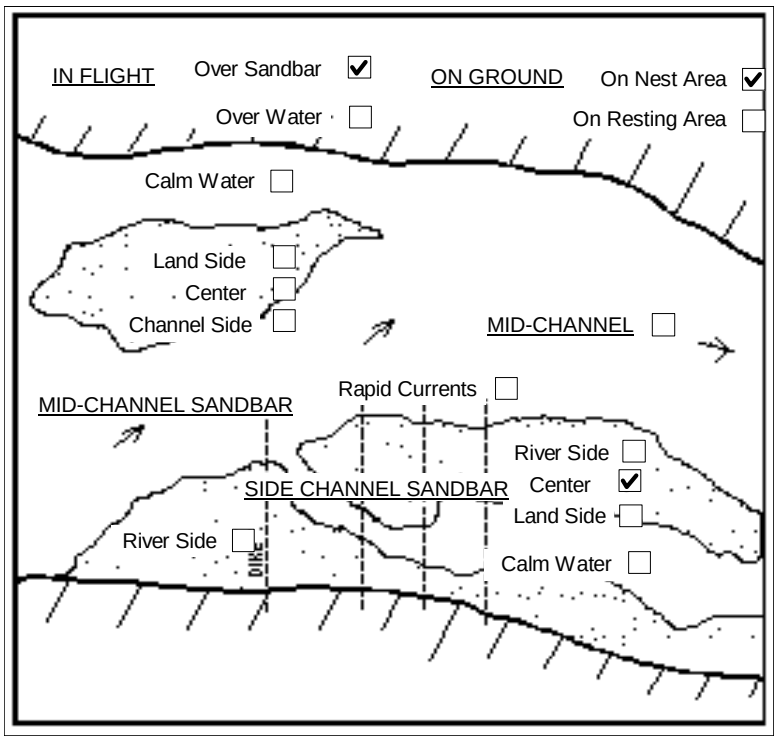
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 10:20 RIVER MILE 946.6

LOCALITY: Carlisle (County/Parish) KY (State) SITE NAME: Island #1 Dikes

WHERE SITED: Latitude: 36.89157
Longitude: 89.11925

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 22
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 91 °F
Rain: No
Wind: calm
% Cloud: 0

OTHER NOTES:

Left Bank. Flush count on solid sand bar,flat, medium elevation (3 miles long x 1500ft. Wide) with KY Wildlife & Fisheries Resources signs posted at site to limit disturbance. One tern sitting on nest and 1 chick < 1 week old. Many ATV tracks and dog tracks with 2 Bald Eagles in flight above bar.

KY side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Cairo (Gage Location) = 13.0 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

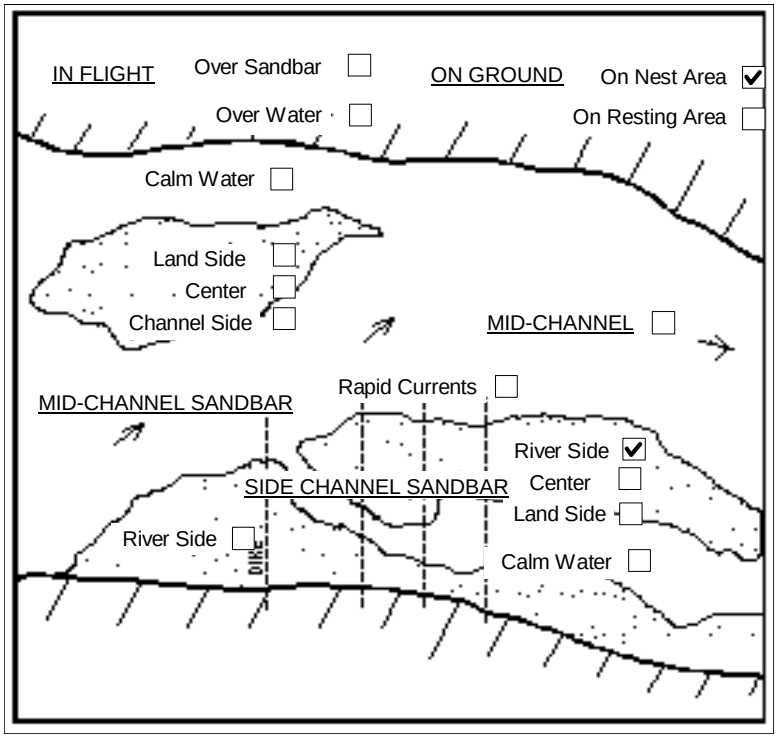
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 10:53 RIVER MILE 940.5

LOCALITY: Carlisle (County/Parish) KY (State) SITE NAME: Below Campbell Dikes

WHERE SITED: Latitude: 36.80420
Longitude: 89.13470

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 35
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 92 °F
Rain: No
Wind: calm
% Cloud: 0

OTHER NOTES:

Left Bank. Drift count along low, flat, solid sand bar with no debris or vegetation (1.5 mile wide x 1000ft. Long). Many chicks observed running up to 1.5 weeks old. Two Mississippi Kites, 1 Bald Eagle and 10 vultures (both Black & Turkey sp.).

KY side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Cairo (Gage Location) = 13.0 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

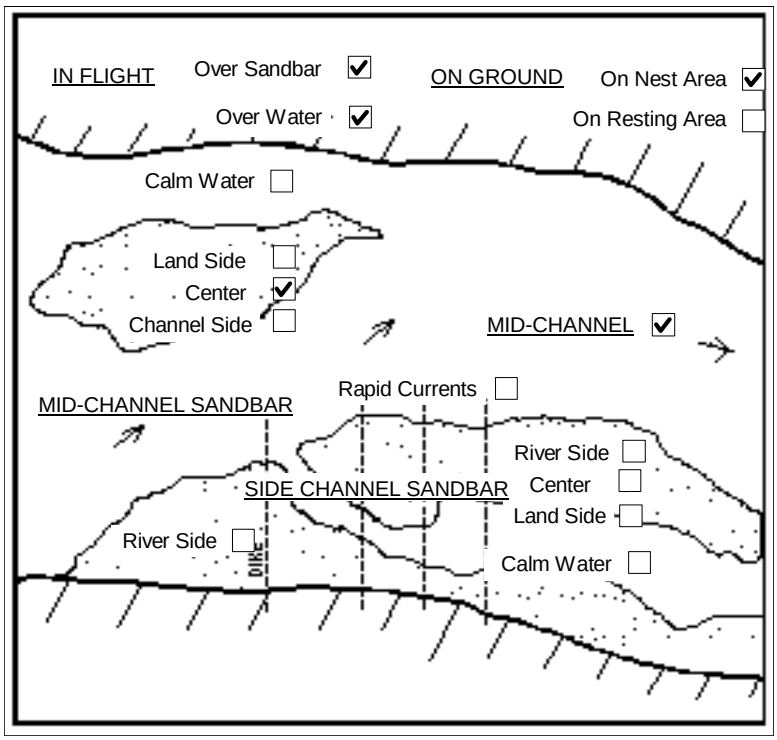
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 11:30 RIVER MILE 930.0

LOCALITY: Carlisle (County/Parish) KY (State) SITE NAME: Below Wolf Island Bar

WHERE SITED: Latitude: 36.68116
Longitude: 89.14874

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 17
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

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

OTHER NOTES:

Left Bank. Flush count on high, undulating sand (90%) and gravel (10%) bar with scattered, light debris. KY warning signs and tongue depressors marking past scrapes, but not at the time of this survey. Three unmarked empty scrapes and one chick 1.5 weeks old along with 1 Spotted Sandpiper. No signs of recent disturbance.

KY side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Cairo (Gage Location) = 13.0 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

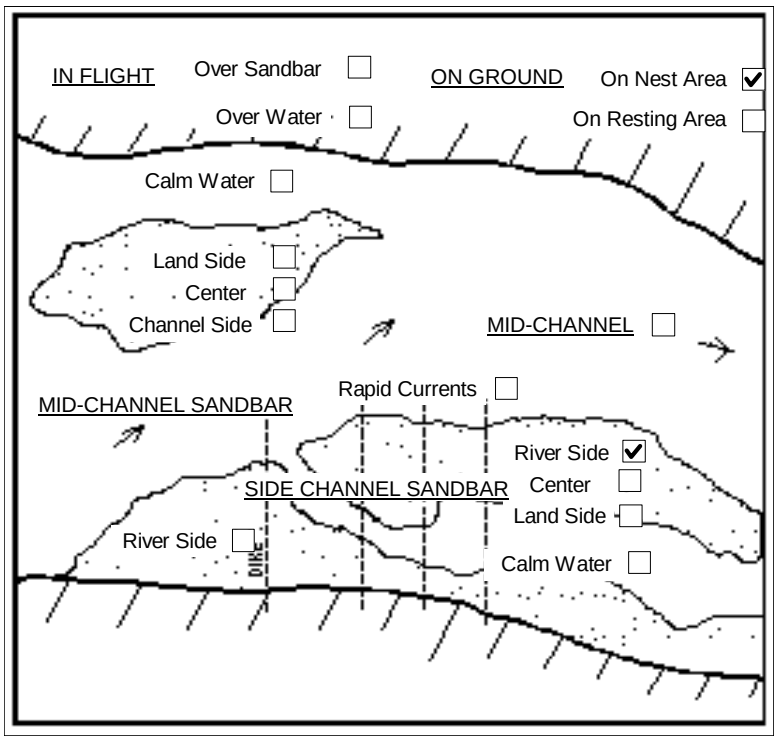
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 11:50 RIVER MILE 924.5

LOCALITY: Fulton (County/Parish) KY (State) SITE NAME: Beckwith Bend

WHERE SITED: Latitude: 36.61050
Longitude: 89.20278

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 31
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: 0 Feet

FIELD CONDITION:

Temperature: 92 °F
Rain: No
Wind: calm
% Cloud: 0

OTHER NOTES:

Left Bank. Drift count along low, flat, clean sand bar (100%sand) with 1 chick observed along with ten Kildeer and 8 Great Blue Herons.

KY side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Cairo (Gage Location) = 13.0 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

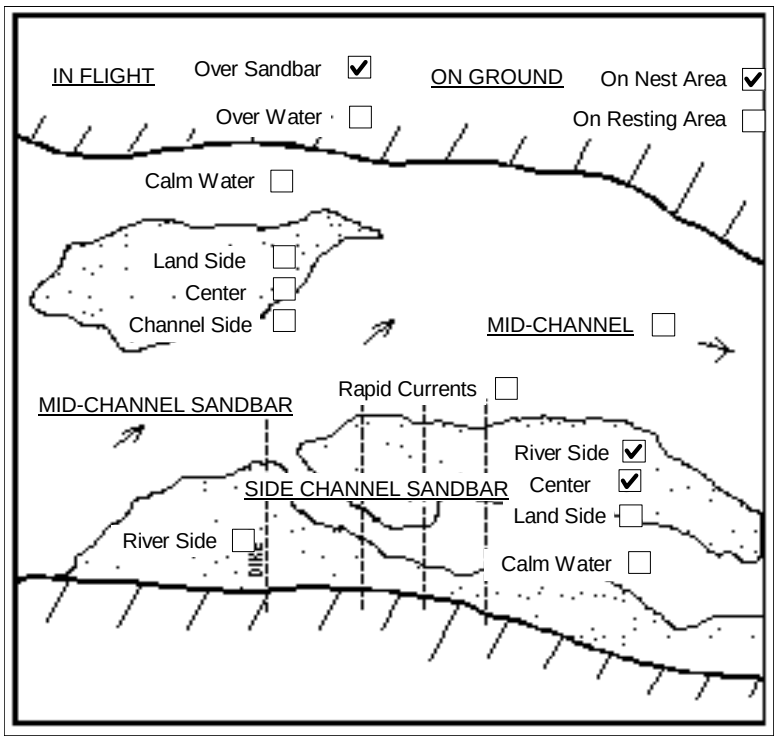
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 13:30 RIVER MILE 905.0

LOCALITY: New Madrid (County/Parish) MO (State) SITE NAME: Donaldson Point Dikes Upper

WHERE SITED: Latitude: 36.50281
Longitude: 89.41521

Approximate Distance to Water: 0 Feet



NUMBERS SIGHTED:

Adults: 78
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: 0 Feet

FIELD CONDITION:

Temperature: 97 ^{o}F
Rain: No
Wind: calm
% Cloud: 0

OTHER NOTES:

Right Bank. Flush count on sand and gravel (10%) bar 4000ft. X 1500ft. wide, low, unatttached (for most of length) with 3 scrapes observed on downstream end. Terns breasting and landing inland but no eggs observed. ATV tracks and deer tracks along with twenty-five White Pelicans, 4 Comorants and 1 tern mortality, possibly predation.

MO side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: New Madrid (Gage Location) = 1.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

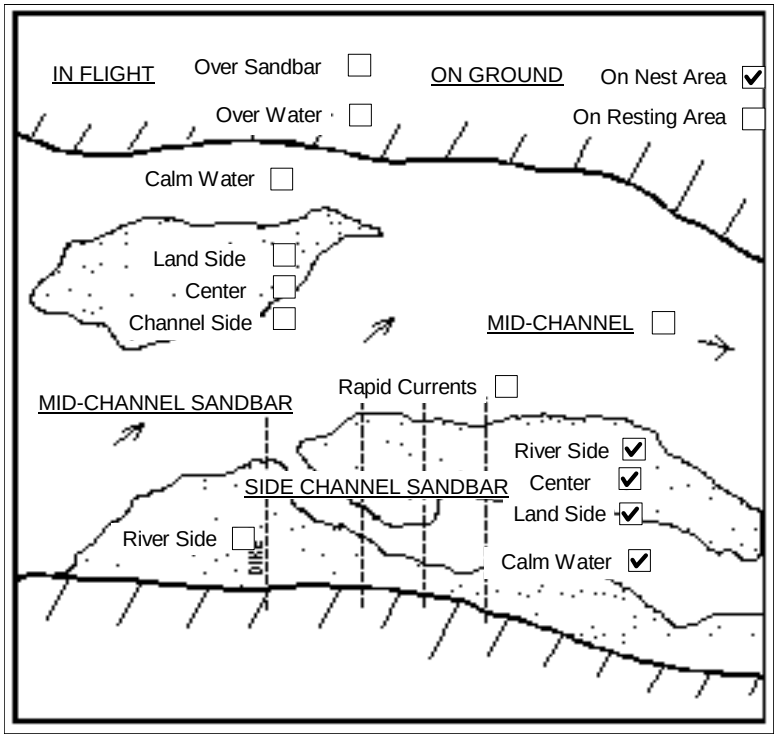
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 14:05 RIVER MILE 900.0

LOCALITY: New Madrid (County/Parish) MO (State) SITE NAME: Donaldson Point Dikes Lower

WHERE SITED: Latitude: 36.46093
Longitude: 89.47283

Approximate Distance to Water: 20 Feet



NUMBERS SIGHTED:

Adults: 150
Juveniles:
Eggs: 1(1) 4(2) 10(3)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 97 ^{o}F
Rain: No
Wind: calm
% Cloud: 0

OTHER NOTES:

Right Bank. Flush and drift count along low, medium-sized sand bar (2500 x 800ft.) unattached between dikes with many nests with eggs and 1 chick, 2 days old. Terns breasting and feeding in back chute. Turtle tracks but no other disturbance noted.

MO side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: New Madrid (Gage Location) = 1.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

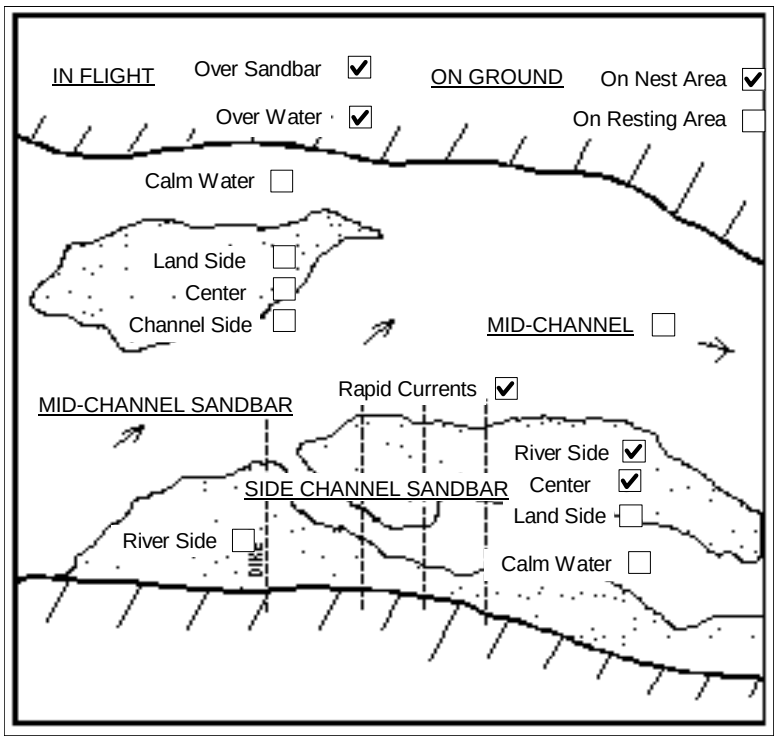
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 14:50 RIVER MILE 884.5

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

WHERE SITED: Latitude: 36.53529
Longitude: 89.56244

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 280
Juveniles:
Eggs: 2(2)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: for bs, grasses
Distance: 2 Feet

FIELD CONDITION:

Temperature: 97 ^{o}F
Rain: No
Wind: calm
% Cloud: 0

OTHER NOTES:

Left Bank. Drift count along 2 mile, attached, sand bar 4000ft. wide with downstream high point. Many terns sitting on nests with chicks abundant 1-2 weeks old. KY signs posted perimeter of colony. Two adult and chick mortalities probably from predators. Three Bald Eagles in vicinity and White Bass fingerling dropped within colony.

KY side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: New Madrid (Gage Location) = 1.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

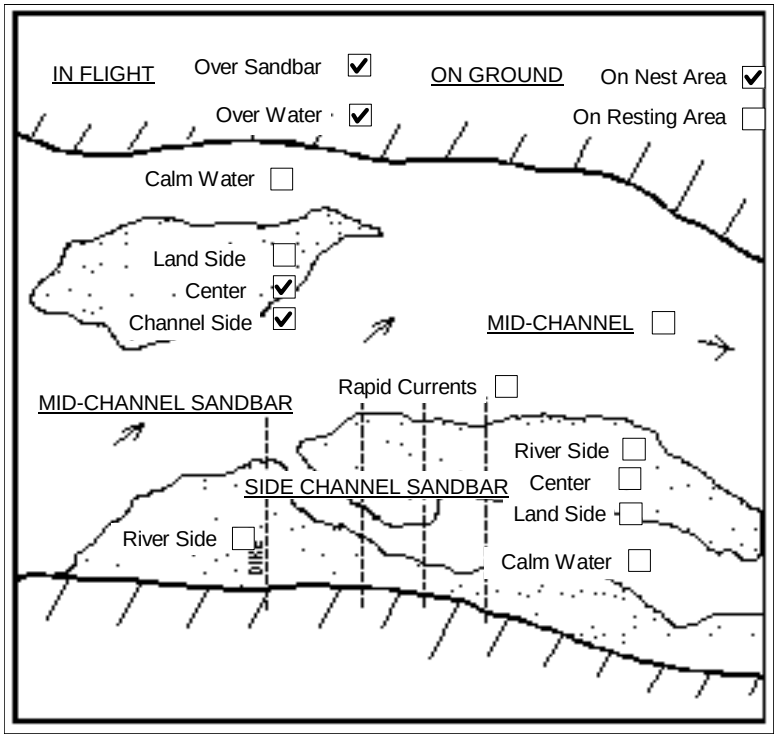
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 15:50 RIVER MILE 875.8

LOCALITY: Lake (County/Parish) TN (State) SITE NAME: Marr Towhead

WHERE SITED: Latitude: 36.42008
Longitude: 89.53883

Approximate Distance to Water: 20 Feet



NUMBERS SIGHTED:

Adults: 18
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 92 ^{o}F
Rain: No
Wind: calm
% Cloud: 5

OTHER NOTES:

Left Bank. Drift count along medium elevation sand/gravel (10%) bar (3000 x 1000ft.) with terns scattered along the waterline and fishing. One tern on nest and two Bald Eagles (1 adult, 1 juvenile) in vicinity along with 18 Great Blue Herons and 12 Great Egrets.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: New Madrid (Gage Location) = 1.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

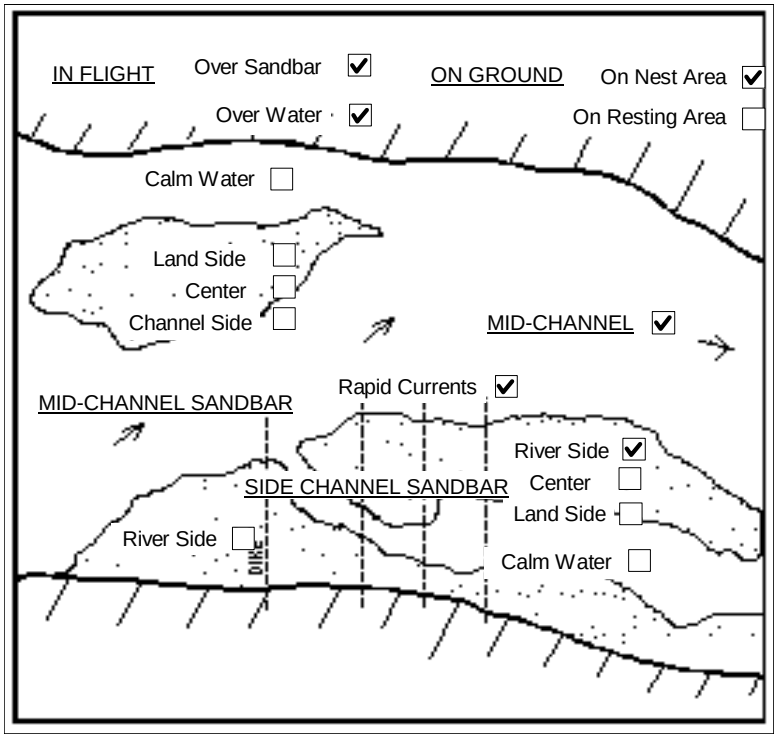
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 16:30 RIVER MILE 864

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

WHERE SITED: Latitude: 36.32958
Longitude: 89.61888

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 243
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

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

OTHER NOTES:

Left Bank. Mid-elevation, flat, broad, long, unattached, mid-channel sand bar 3 miles in length and 1 mile wide.. 118 terns fishing opposite bank along revetment and carrying fish. Drift and flush count count with chicks up to 3 weeks of age and ATV tracks. One Bald Eagle on opposite bank.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

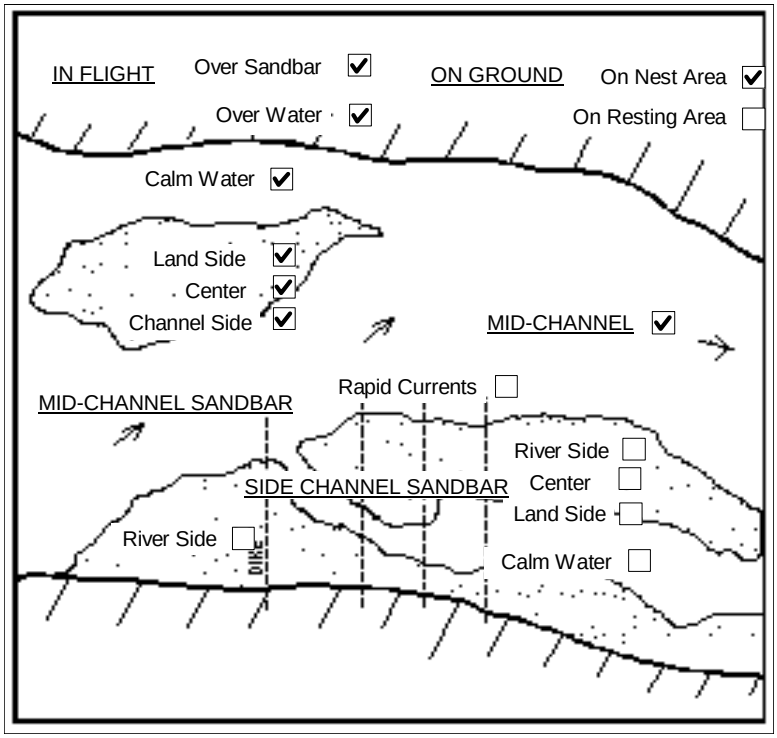
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 17:00 RIVER MILE 858.5

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

WHERE SITED: Latitude: 36.2457
Longitude: 89.5751

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 94
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

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

OTHER NOTES:

Right Bank. Low, flat, large mid-channel bar. Drift count yields terns sitting inland on probable nests.

MO side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

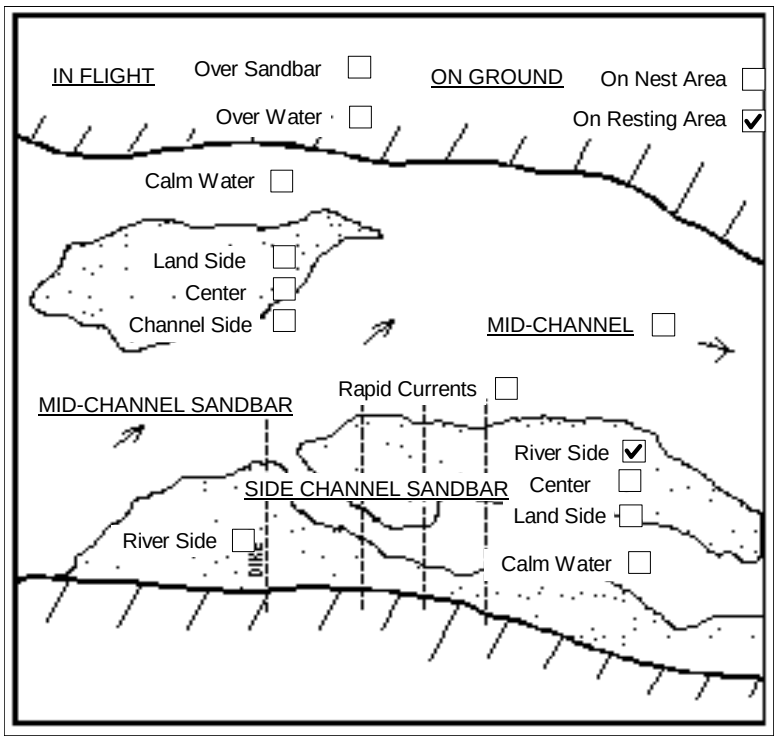
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/7/2012 TIME OF DAY: 17:20 RIVER MILE 850.5

LOCALITY: Lake (County/Parish) TN (State) SITE NAME: Island #15 Dikes

WHERE SITED: Latitude: NA
Longitude: NA

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 21
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. Drift count yields 21 terns all resting at waterline. No nesting activity observed with one Bald Eagle upstream.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

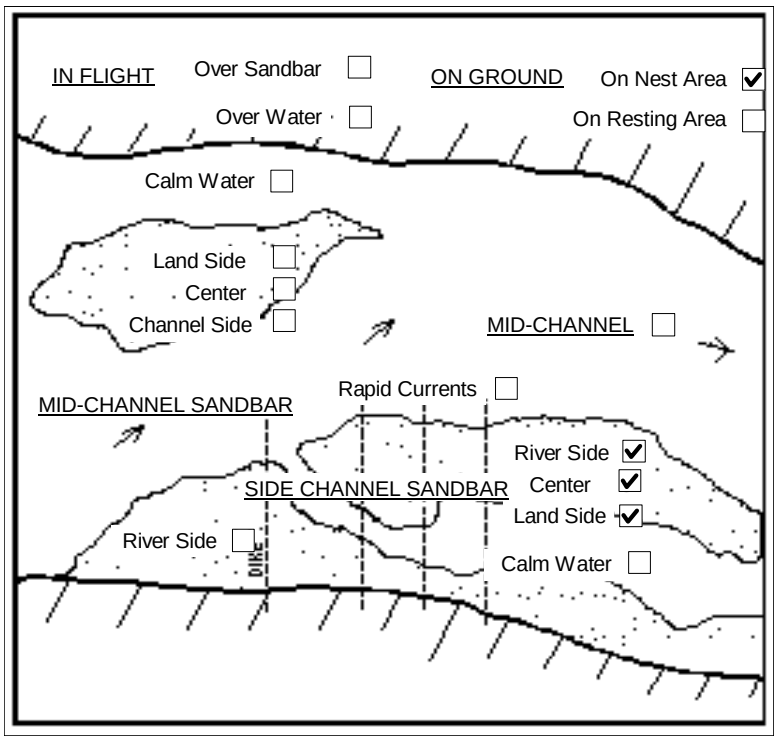
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 9:00 RIVER MILE 840

LOCALITY: Pemiscott (County/Parish) MO (State) SITE NAME: Caruthersville-Linwood Bend Dikes

WHERE SITED: Latitude: NA
Longitude: NA

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 14
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: N 15mph
% Cloud: 80

OTHER NOTES:

Right Bank. Drift count along small, isolated sand bar between lower dikes. 12 terns resting at waterline with 2 sitting inland on likely nests.

MO side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

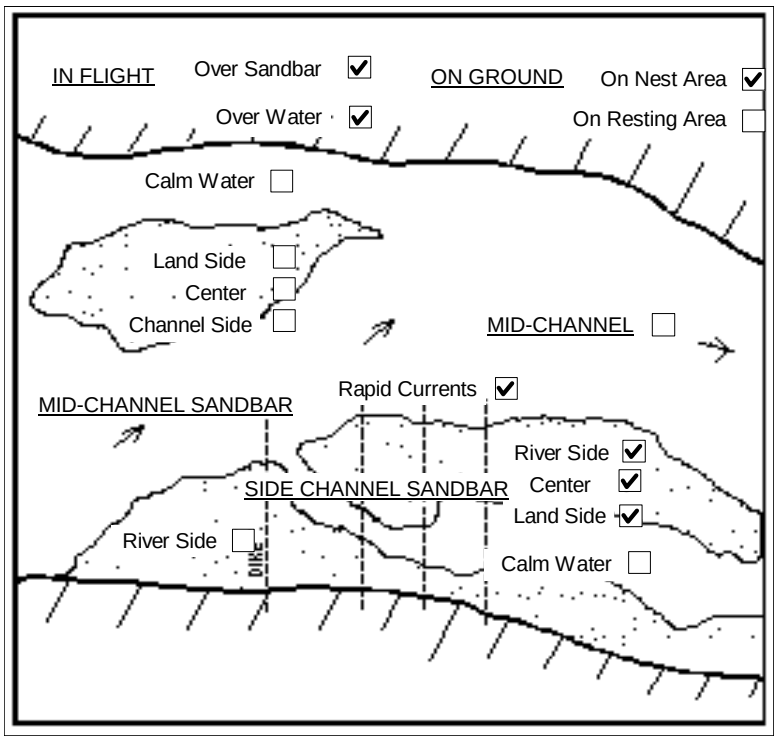
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 9:25 RIVER MILE 836

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

WHERE SITED: Latitude: 36.09888
Longitude: 89.65940

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 42
Juveniles:
Eggs: 1(3)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 85 ^{o}F
Rain: No
Wind: N 15mph
% Cloud: 80

OTHER NOTES:

Left Bank. Low to mid-height, flat clean, unattached, dike bar of sand (1.5 miles x 4000ft..). Drift and flush count with terns sitting on scrapes and carrying fish. Three chicks (2 days old) and ATV tracks present.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

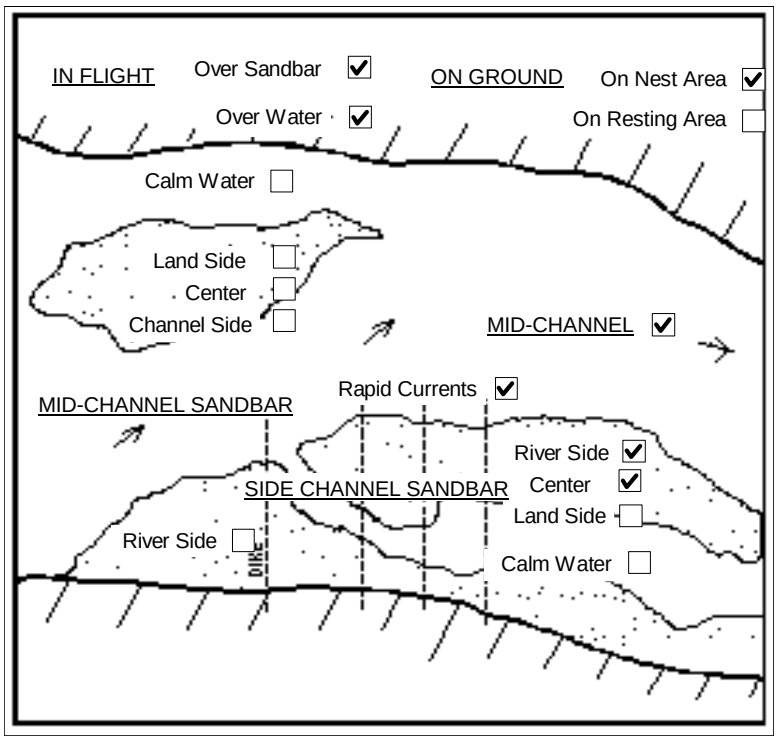
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 10:30 RIVER MILE 826.6

LOCALITY: Dyer (County/Parish) TN (State) SITE NAME: Head of Island #21 Dikes

WHERE SITED: Latitude: 35.96823` Longitude: 89.71712

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 52

Juveniles:

Eggs:

Chicks: No

SUBSTRATE:

Sand: ☑

Gravel: ☑

Debris: ☐

VEGETATION:

Type:

Distance: Feet

FIELD CONDITION:

Temperature: 85 ^{o}F

Rain: No

Wind: N 12mph

% Cloud: 80

OTHER NOTES:

Left Bank. Flush count on gently sloping, attached, mid to high elevation sand (90%) and gravel (10%) bar (1mile x 1000ft. wide). Terns carrying fish to inland scrapes in gravel patches. ATV tracks and 4 Bald Eagles (2 juveniles) in vicinity.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

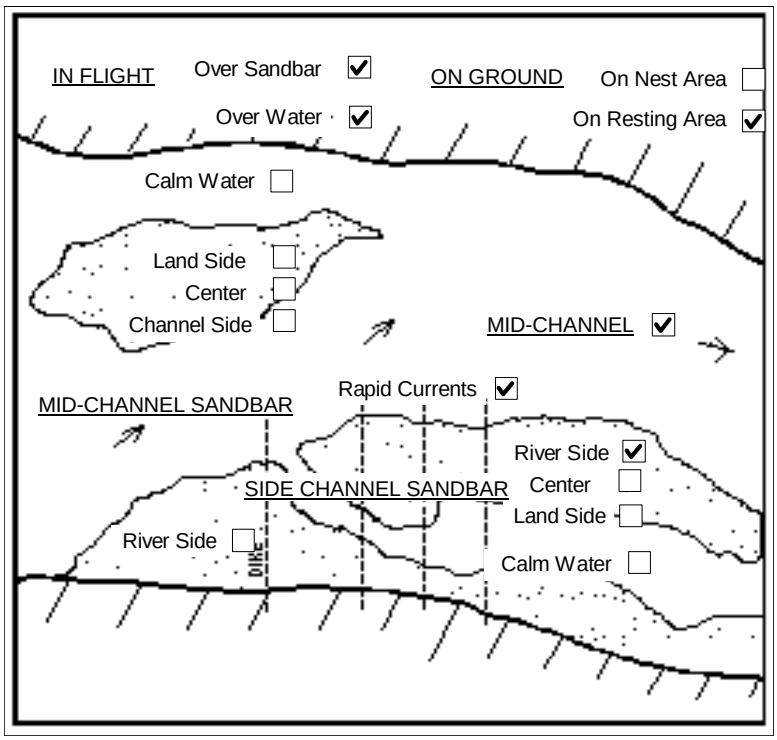
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 11:20 RIVER MILE 811.8

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

WHERE SITED: Latitude: 35.90863
Longitude: 89.74040

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 38
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: N 10mph
% Cloud: 75

OTHER NOTES:

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

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

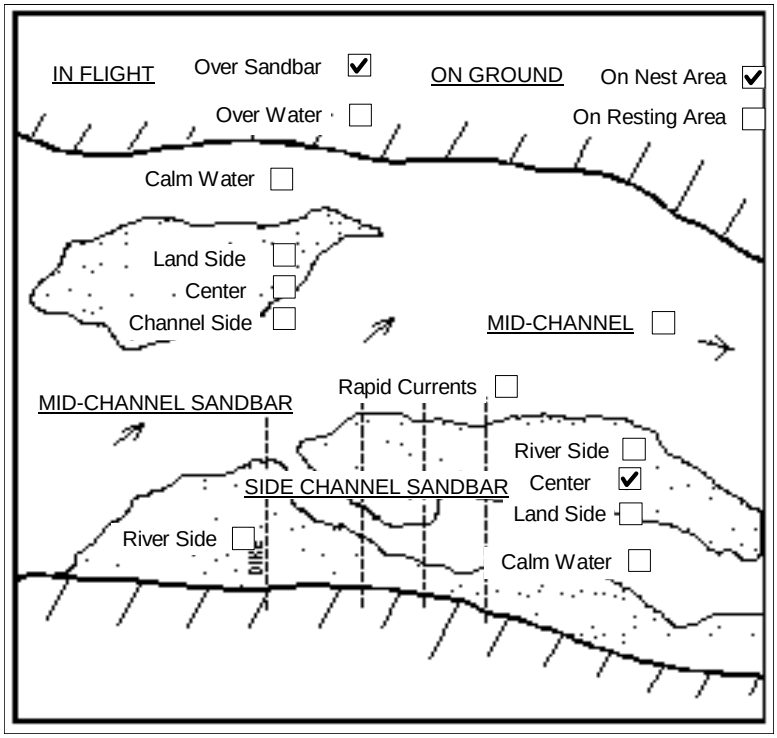
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 11:50 RIVER MILE 807.7

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

WHERE SITED: Latitude: 35.86144
Longitude: 89.76472

Approximate Distance to Water: 1000 Feet



NUMBERS SIGHTED:

Adults: 155
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type: small grasses
Distance: 0 Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: N 10mph
% Cloud: 70

OTHER NOTES:

Left Bank. Unattached, high, flat sand bar (1500ft. X 2 miles long). Chicks from 3 days to 1.5 weeks old, many hiding in grass. No disturbance noted.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

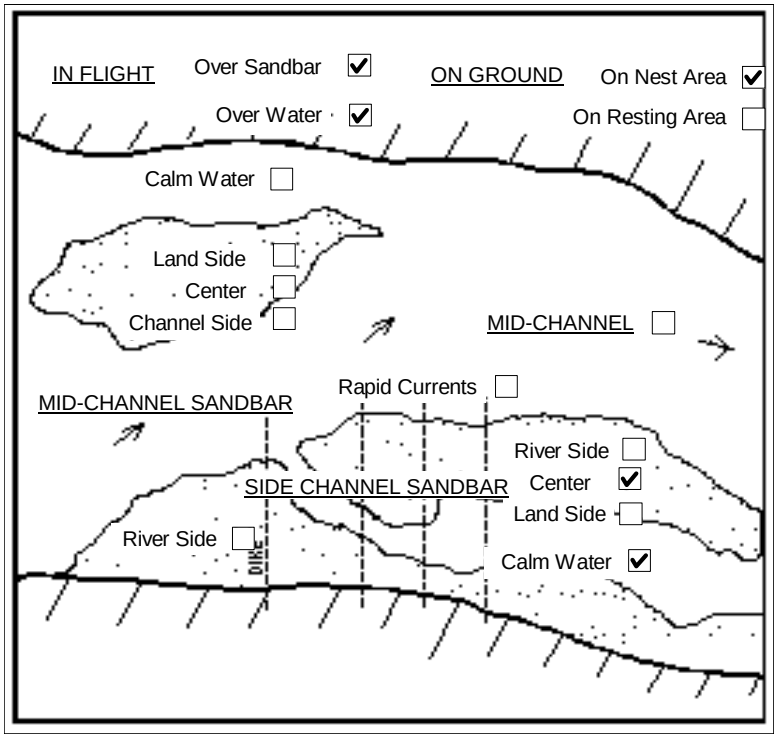
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 12:20 RIVER MILE 805.9

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

WHERE SITED: Latitude: 35.85251
Longitude: 89.73745

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 8
Juveniles:
Eggs: 1(2)
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: small grasses/forbs
Distance: 0 Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: N 10mph
% Cloud: 70

OTHER NOTES:

Left Bank. Flush count just downstream from previous colony on point of bar. Two Red-Tail Hawks on opposite bank, but no signs of disturbance

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

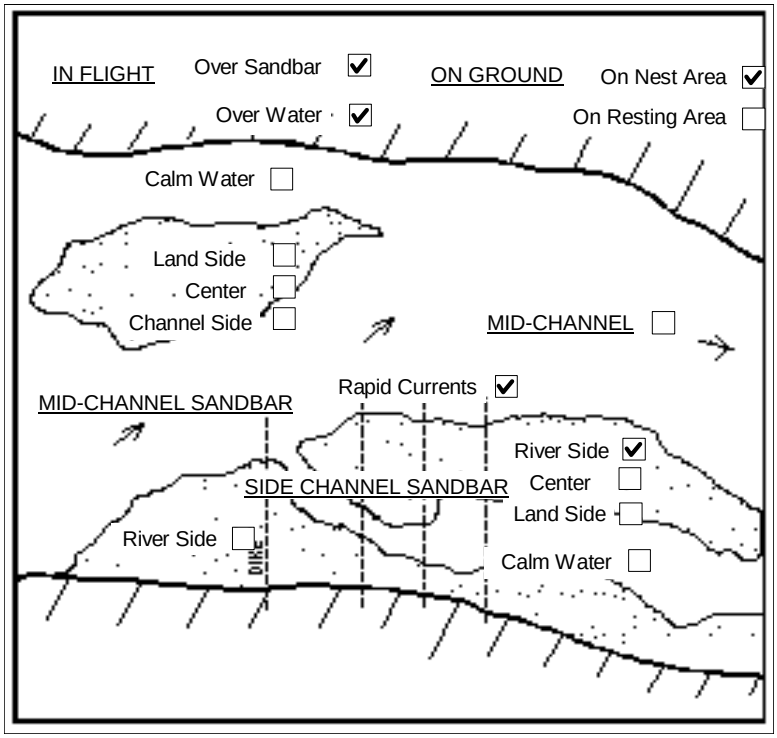
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 13:15 RIVER MILE 803.0

LOCALITY: Mississippi (County/Parish) AR (State) SITE NAME: Island #25 Dikes

WHERE SITED: Latitude: NA
Longitude: NA

Approximate Distance to Water: 30 Feet



NUMBERS SIGHTED:

Adults: 24
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 91 °F
Rain: No
Wind: N 10mph
% Cloud: 70

OTHER NOTES:

Right Bank. Drift count along low to medium elevation sand (80%) and gravel (10%) bar, gently undulating and attached with three chicks 3 weeks old and ATV tracks..

AR side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

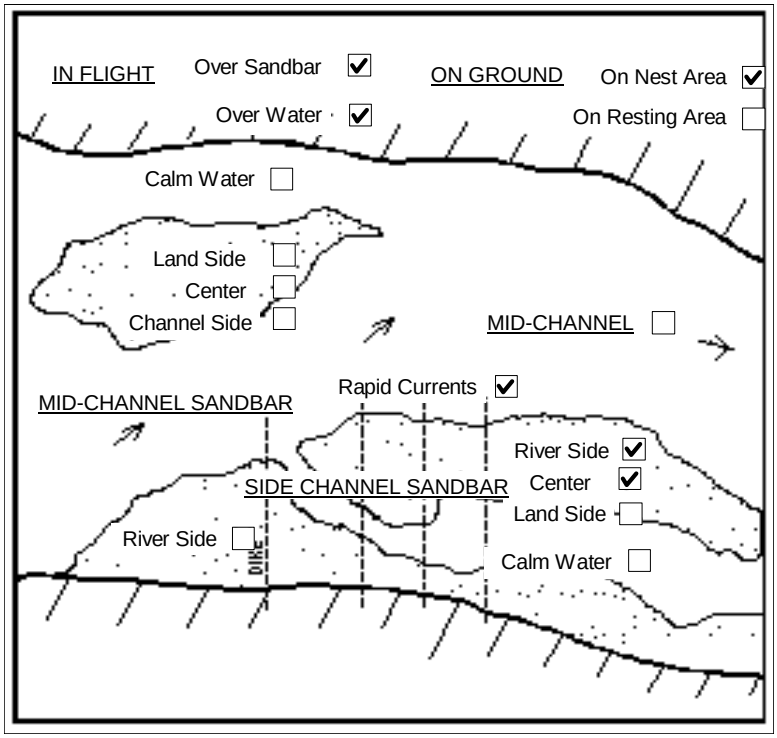
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 13:30 RIVER MILE 797.7

LOCALITY: Lauderdale (County/Parish) TN (State) SITE NAME: Forked Deer Dikes

WHERE SITED: Latitude: 35.78109
Longitude: 89.76904

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 41
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 90 ^{o}F
Rain: No
Wind: N 15mph
% Cloud: 70

OTHER NOTES:

Left Bank. Drift and flush count along low-med. elevation, gently sloping sand (90%) and gravel (10%) bar, unattached (1.5 miles x 1000ft.) with chicks present, 1-1.5 weeks old along with human recreation debris and Great Blue Heron tracks.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

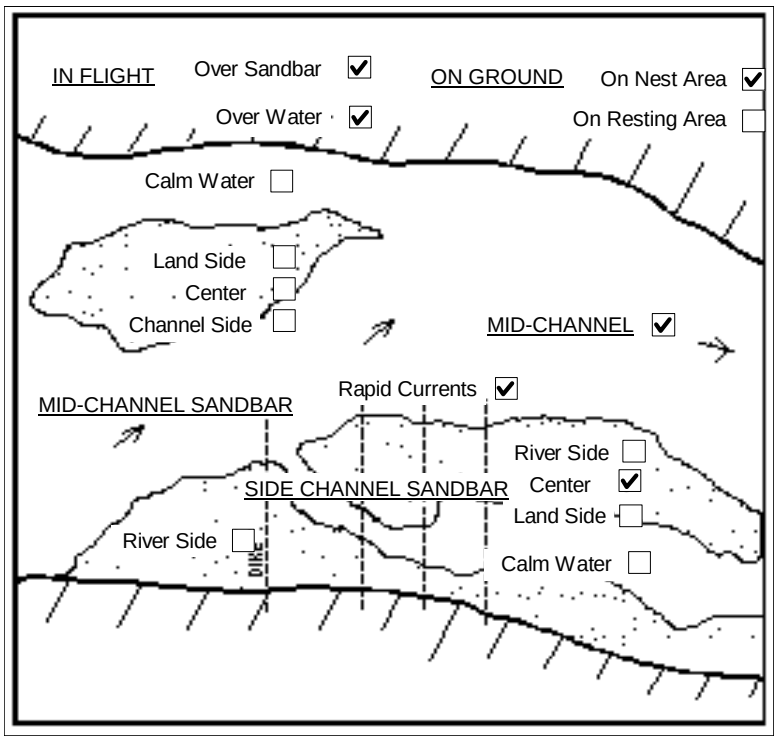
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 14:19 RIVER MILE 793.3

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

WHERE SITED: Latitude: 35.74575
Longitude: 89.83600

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 50
Juveniles:
Eggs: 4(2) 3(3)
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 95 ^{o}F
Rain: No
Wind: N 5mph
% Cloud: 30

OTHER NOTES:

Right Bank. Drift and flush count along high, sand bar (1.5 mile x 2500ft.) with several old scrapes, and terns carrying fish from mid-channel inland. Fingerling Buffalo and 1 Double Crested Cormorant present.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

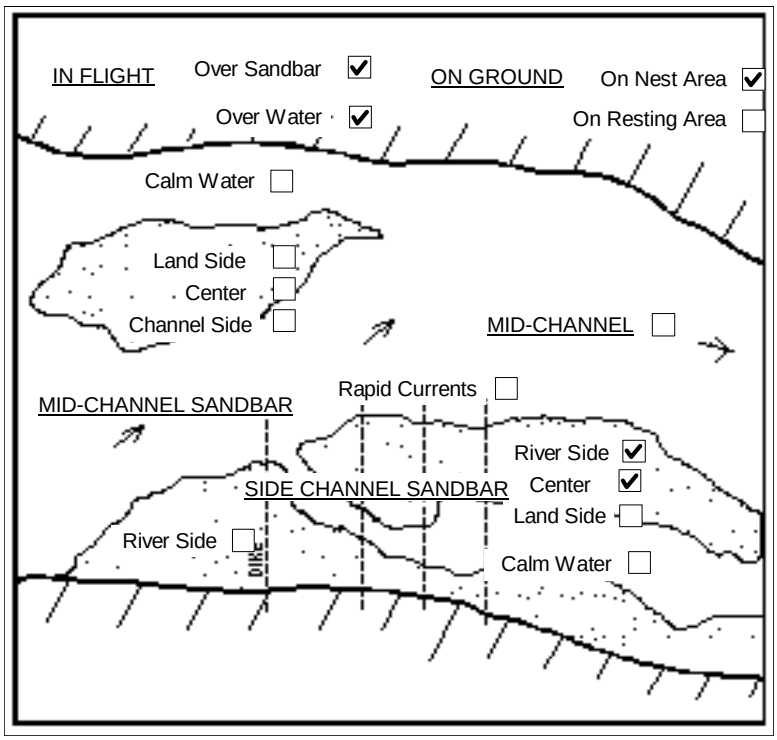
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 14:30 RIVER MILE 789.7

LOCALITY: Lauderdale (County/Parish) TN (State) SITE NAME: Keyes Point Dikes

WHERE SITED: Latitude: 35.73131
Longitude: 89.90031

Approximate Distance to Water: 1800 Feet



NUMBERS SIGHTED:

Adults: 37
Juveniles:
Eggs: 1(2)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: forbs/grasses
Distance: 20 Feet

FIELD CONDITION:

Temperature: 90 ^{o}F
Rain: No
Wind: N 15mph
% Cloud: 40

OTHER NOTES:

Left Bank. Flush count on attached, low-medium elevation sand bar (1 mile x 3000ft.) with moderate undulations. Several scrapes, terns carrying fish, and chicks 1 day-1.5 weeks old. ATV tracks, dog tracks.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

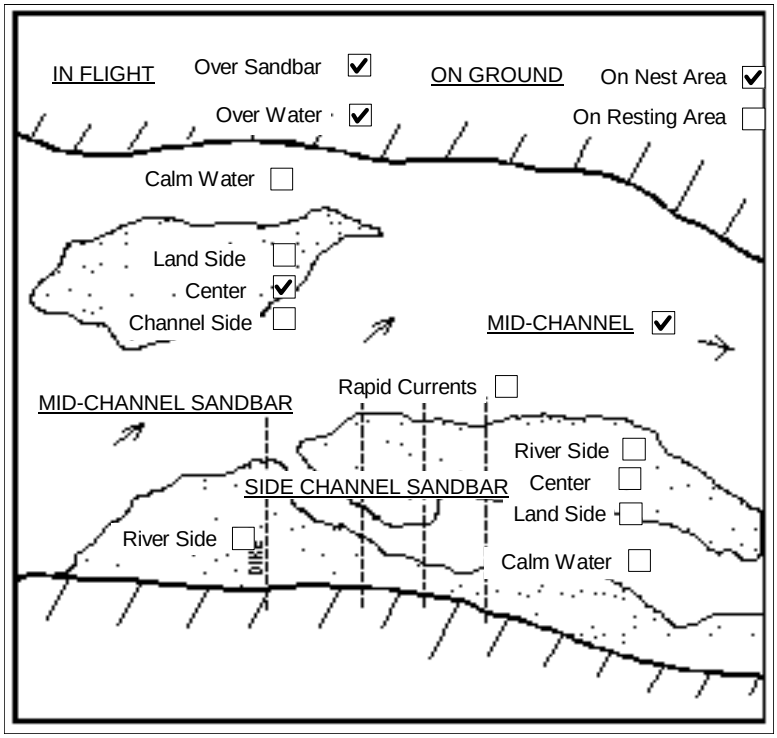
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 15:25 RIVER MILE 780

LOCALITY: Mississippi (County/Parish) AR (State) SITE NAME: Craighead Point

WHERE SITED: Latitude: 35.62787
Longitude: 89.87719

Approximate Distance to Water: 75 Feet



NUMBERS SIGHTED:

Adults: 72
Juveniles:
Eggs: 5(2) 1(3)
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: N 15mph
% Cloud: 20

OTHER NOTES:

Right Bank. Drift count on low, unattached sand bar (4000ft. X 500ft.) with several scrapes and nests with eggs. Canine tracks and 1 Bald Eagle nearby.

AR side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Caruthersville (Gage Location) = 5.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

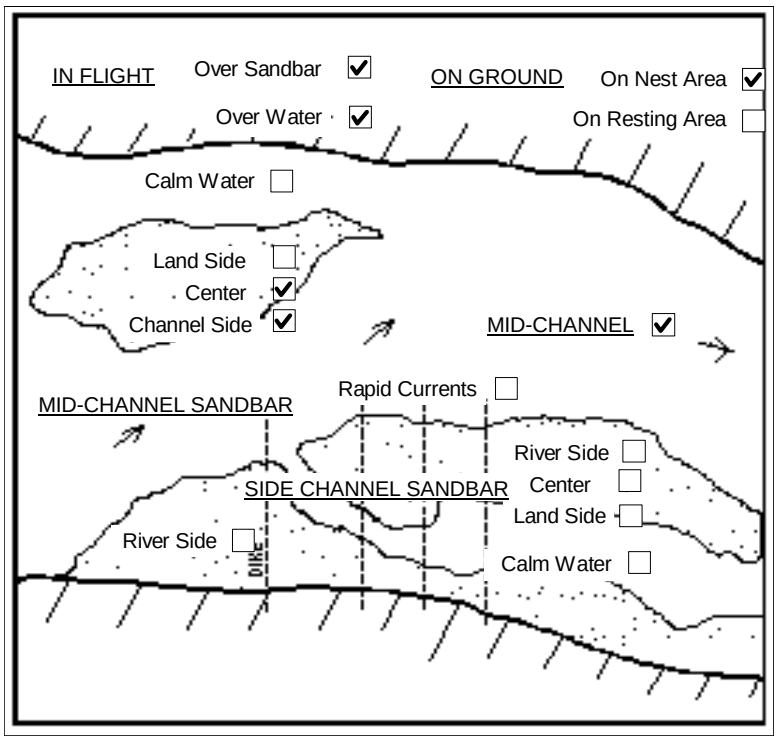
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 15:45 RIVER MILE 772.5

LOCALITY: Tipton (County/Parish) TN (State) SITE NAME: Above Randolph Dikes

WHERE SITED: Latitude: 35.53606
Longitude: 89.89863

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 50
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 90 °F
Rain: No
Wind: N 10mph
% Cloud: 10

OTHER NOTES:

Left Bank. Drift count along low, flat, clean sand bar, unattached. Ten terns sitting on nests with many chicks up to 2weeks of age at the waterline.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Memphis (Gage Location) = -4.2 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

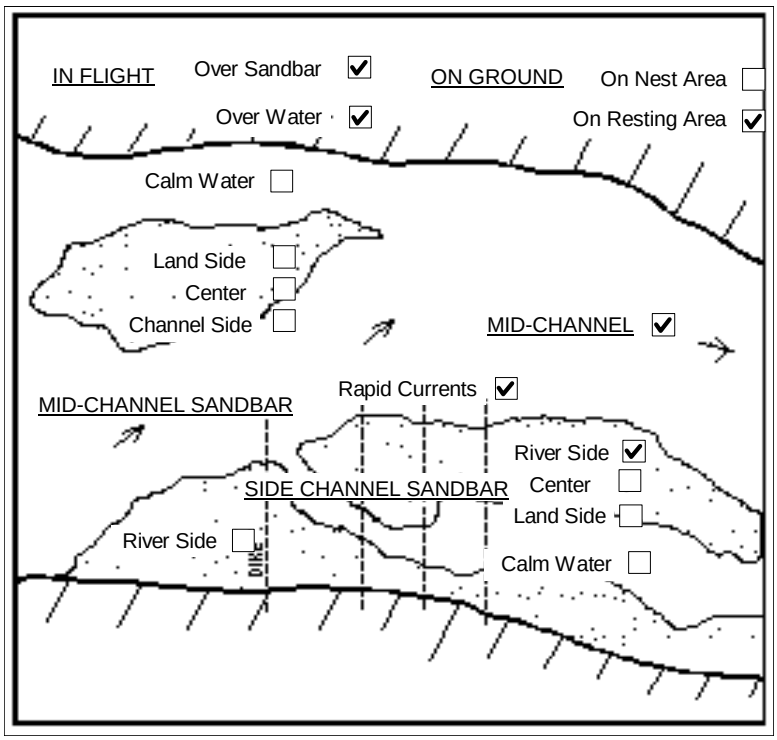
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 16:10 RIVER MILE 766

LOCALITY: Tipton (County/Parish) TN (State) SITE NAME: Below Richardson Landing Dikes

WHERE SITED: Latitude: NA
Longitude: NA

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 20
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 90 °F
Rain: No
Wind: N 10mph
% Cloud: 10

OTHER NOTES:

Left Bank. Drift count over 3 miles below dike field yields 20 terns flying or resting at waterline. No nesting behavior exhibited.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Memphis (Gage Location) = -4.2 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

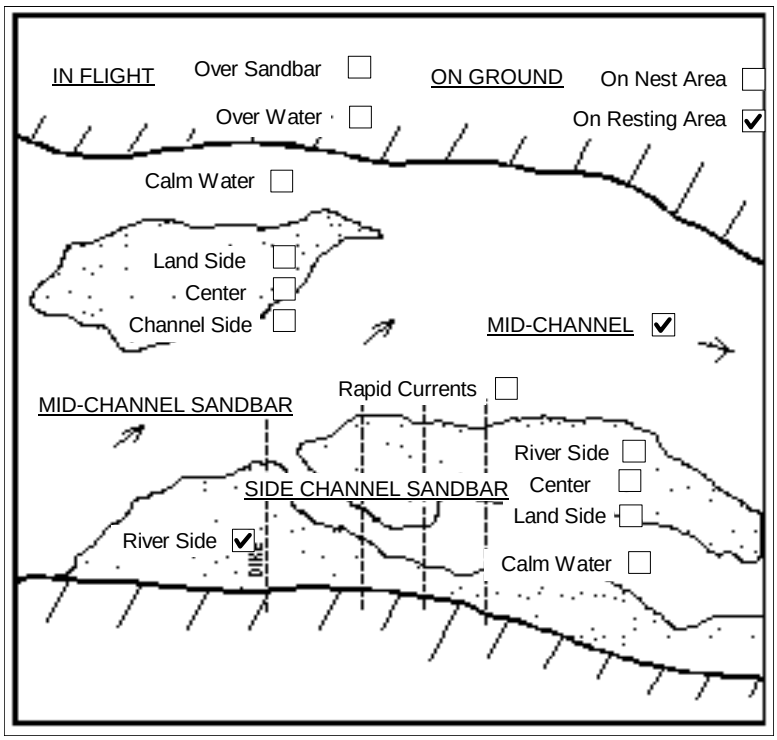
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 16:45 RIVER MILE 760

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

WHERE SITED: Latitude: 35.43250
Longitude: 90.00320

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 42
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type: Willows/Cottonwoods
Distance: Feet

FIELD CONDITION:

Temperature: 90 ^{o}F
Rain: No
Wind: N 10mph
% 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: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Memphis (Gage Location) = -4.2 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

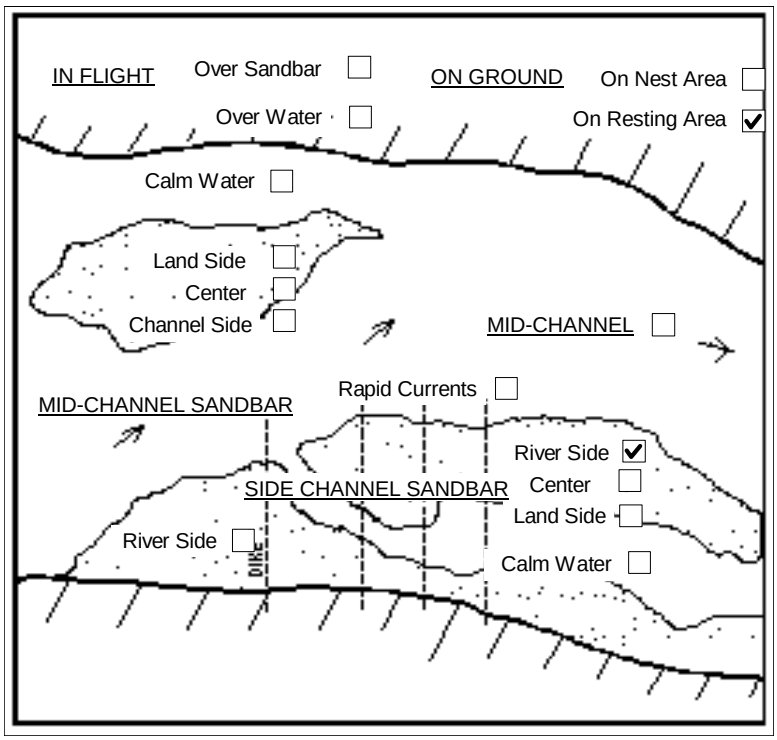
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 17:20 RIVER MILE 755

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

WHERE SITED: Latitude: 35.39008
Longitude: 90.07095

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 61
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: Willows/Cottonwoods
Distance: Feet

FIELD CONDITION:

Temperature: 90 ^{o}F
Rain: No
Wind: N 10mph
% Cloud: 10

OTHER NOTES:

Left Bank. Drift count along large, unattached sand bar with all terns resting at waterline and no sign of nesting activity. One Black Crested Cormorant downstream.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Memphis (Gage Location) = -4.2 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

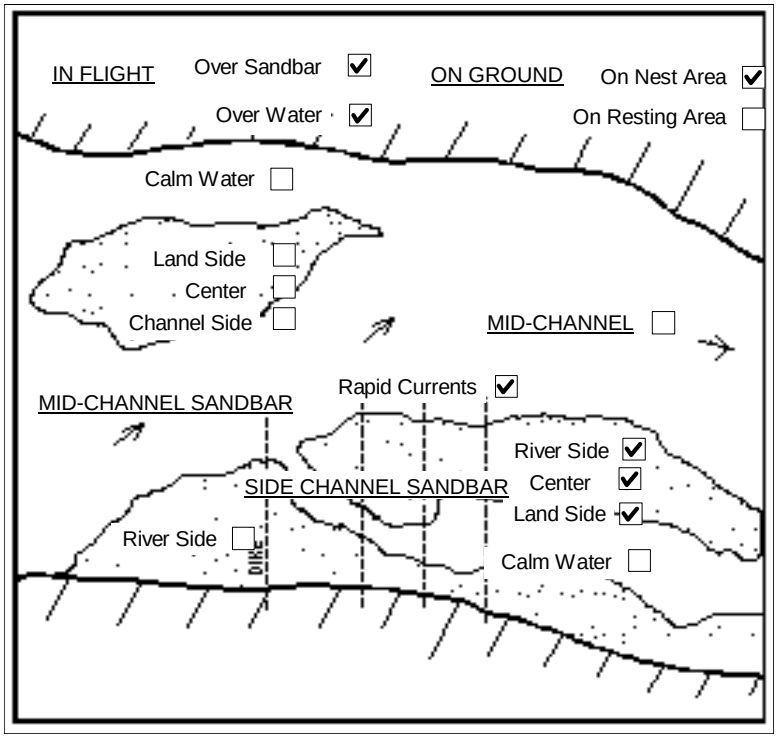
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/8/2012 TIME OF DAY: 17:30 RIVER MILE 745.8

LOCALITY: Shelby (County/Parish) TN (State) SITE NAME: Randolph Point Dikes

WHERE SITED: Latitude: 35.28314
Longitude: 90.10377

Approximate Distance to Water: 150 Feet



NUMBERS SIGHTED:

Adults: 19
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: N 10mph
% Cloud: 5

OTHER NOTES:

Left Bank. Flush count on low, attached, small, sand bar between dikes with chicks hatching and up to 1 week old.

TN side

OBSERVERS: D. & R. Davin, Fowlkes, Gamble, Rumancik, Thron

RIVER GAGE READING: Memphis (Gage Location) = -4.2 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

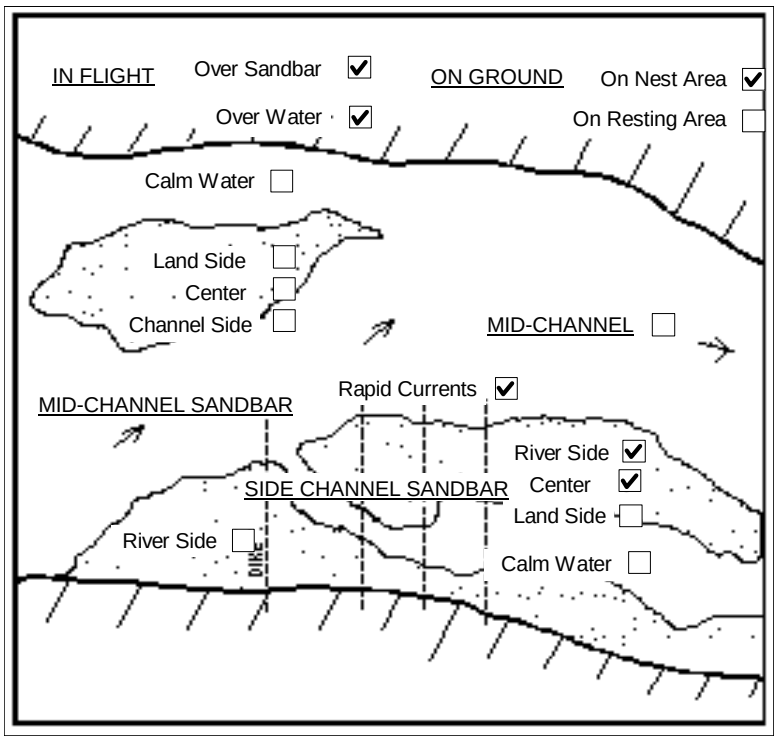
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 8:37 RIVER MILE: 742

LOCALITY: Crittenden (County/Parish) AR (State) SITE NAME: Redman Point Dikes

WHERE SITED: Latitude: 35.2053
Longitude: 90.07138

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 75
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: Yes
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count on high, flat, sand and gravel bar with strong wrack lines on top. Several scrapes but not eggs and 1 chick 4 days old. Terns breasting at waterline and picnic debris and dog tracks.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

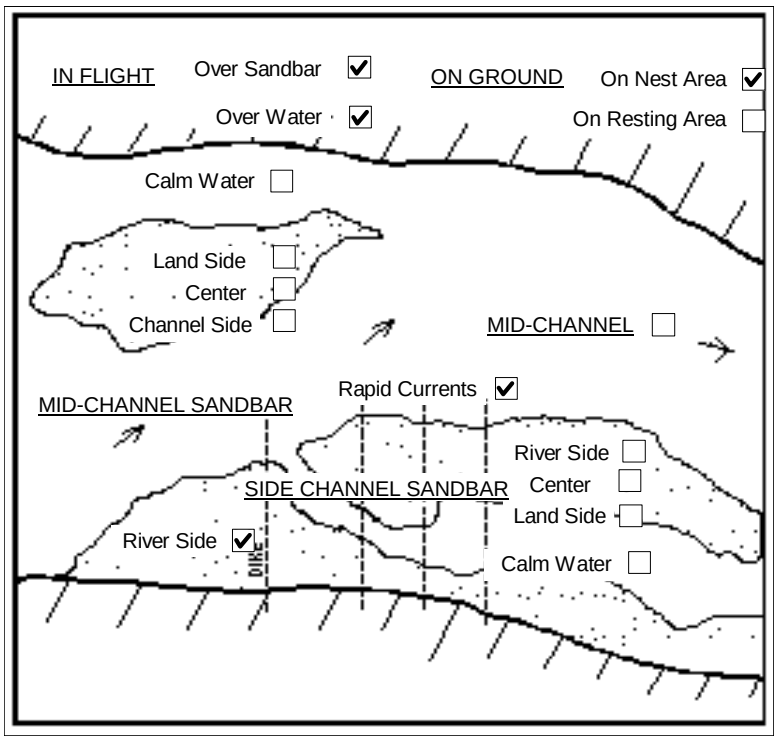
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 8:54 RIVER MILE 733.0

LOCALITY: Crittenden (County/Parish) AR (State) SITE NAME: Engineers Bar Dikes

WHERE SITED: Latitude: 35.12213
Longitude: 90.1024

Approximate Distance to Water: 700 Feet



NUMBERS SIGHTED:

Adults: 25
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: S 5mph
% Cloud: 95

OTHER NOTES:

Right Bank. Flush count on high, flat sand and gravel bar with many scrapes along wrack lines and 3 week old chicks all across bar. No signs of recent disturbance.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

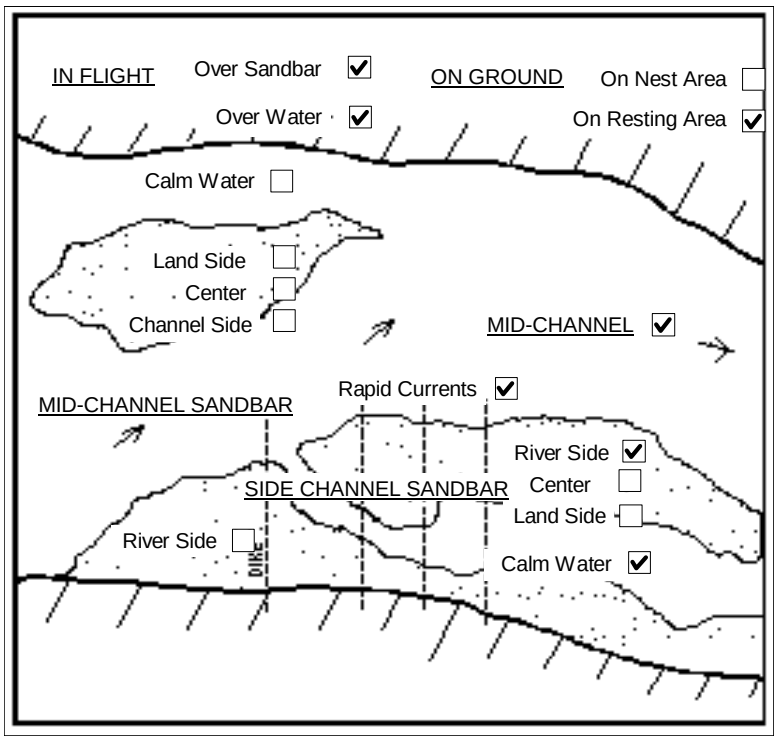
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 9:40 RIVER MILE: 725

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

WHERE SITED: Latitude: 35.06430
Longitude: 90.18320

Approximate Distance to Water: 10 Feet



NUMBERS SIGHTED:

Adults: 30
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: Yes
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Drift count on high, sand and gravel bar. No signs of nesting with most terns resting at waterline or fishing in back chute. Some human signs, with one Bald Eagle in vicinity along with Rough-winged Swallows and Great Blue Herons.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

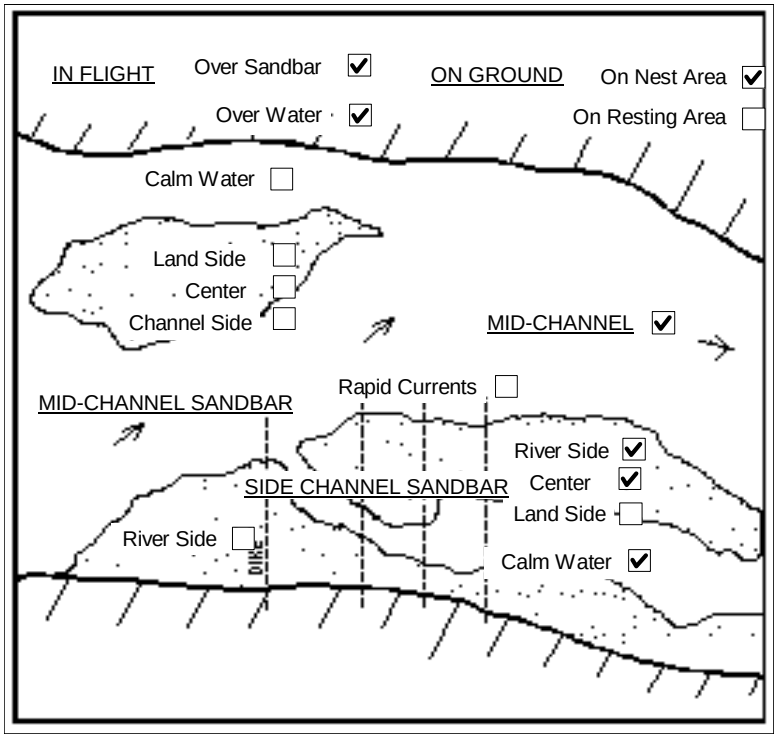
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 10:03 RIVER MILE 716

LOCALITY: Shelby (County/Parish) TN (State) SITE NAME: Cow Island Bend

WHERE SITED: Latitude: 35.00603
Longitude: 90.29724

Approximate Distance to Water: 1000 Feet



NUMBERS SIGHTED:

Adults: 50
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type: grasses
Distance: 400 Feet

FIELD CONDITION:

Temperature: 82 ^{o}F
Rain: Yes
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on high, flat, sand bar. Unattached with intense mobbing but only one scrape observed. Terns fishing opposite bank and in back chute and mid-channel. No signs of disturbance. Rough-winged Swallows and Great Blue Herons also on bar.

TN side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

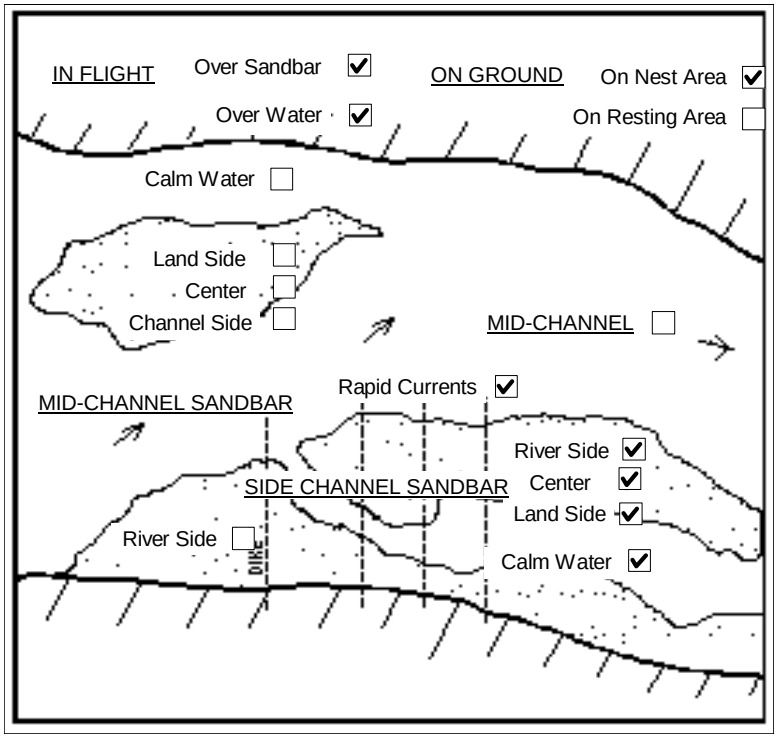
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 10:46 RIVER MILE 705.5

LOCALITY: Crittenden (County/Parish) AR (State) SITE NAME: Seyppel Dikes

WHERE SITED: Latitude: 34.89537
Longitude: 90.26065

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 142
Juveniles: `
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: grass/forbs
Distance: 100 Feet

FIELD CONDITION:

Temperature: 85 ^{o}F
Rain: No
Wind: S 0-5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush and drift count along low, flat, long sand bar with terns scattered all over bar and at waterline. Fifteen terns on nests with no signs of disturbance. One Turkey Vulture, 5 Sandpipers, 1 Great Egret and many Cliff Swallows on bar.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

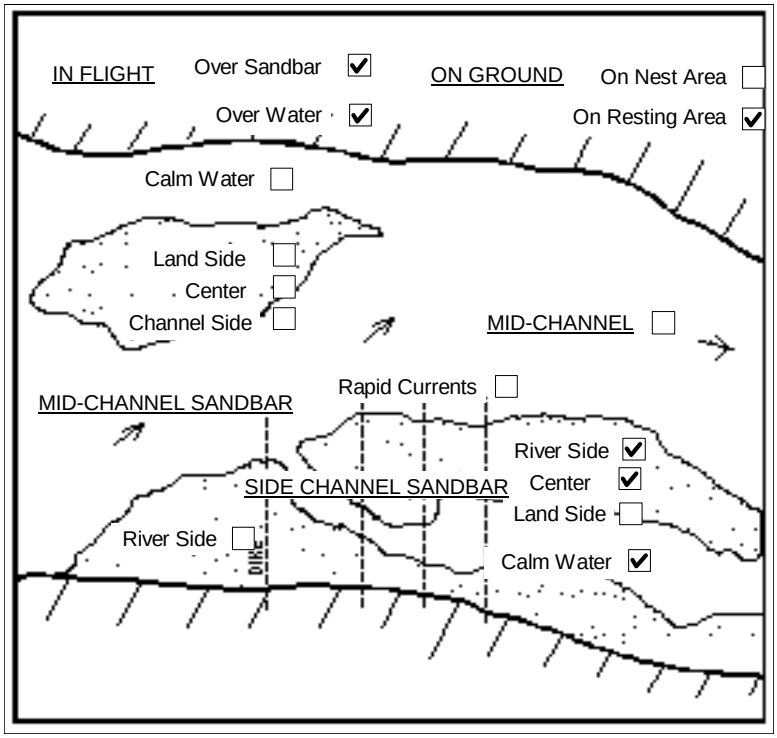
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 11:20 RIVER MILE 703

LOCALITY: Desoto (County/Parish) MS (State) SITE NAME: Pickett Dikes

WHERE SITED: Latitude: 34.8759
Longitude: 90.31015

Approximate Distance to Water: 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 0-5mph
% Cloud: 80

OTHER NOTES:

Left Bank. Drift count on low, flat, unattached bar of sand and gravel. Possible courting behavior but not signs of nesting. Terns carrying fish and fishing in back chute. No signs of disturbance.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

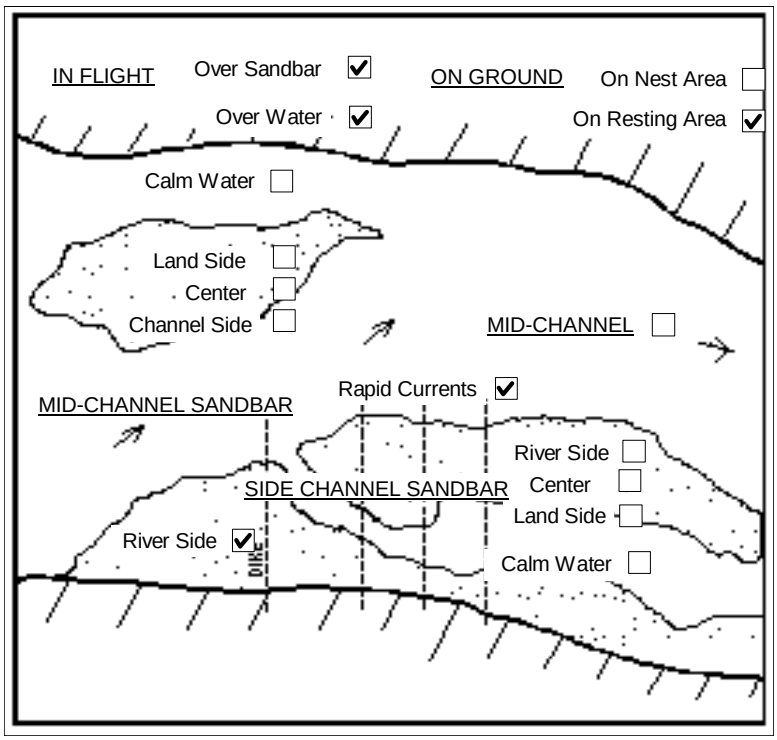
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 11:44 RIVER MILE 700

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

WHERE SITED: Latitude: 34.84790
Longitude: 90.36109

Approximate Distance to Water: 2500 Feet



NUMBERS SIGHTED:

Adults: 22
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 89 °F
Rain: No
Wind: S 0-5mph
% Cloud: 70

OTHER NOTES:

Right Bank. Flush count on riverside bar yields 22 terns resting high up on bar away from waterline but no reproductive behavior exhibited. Many Kildeer also on bar.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

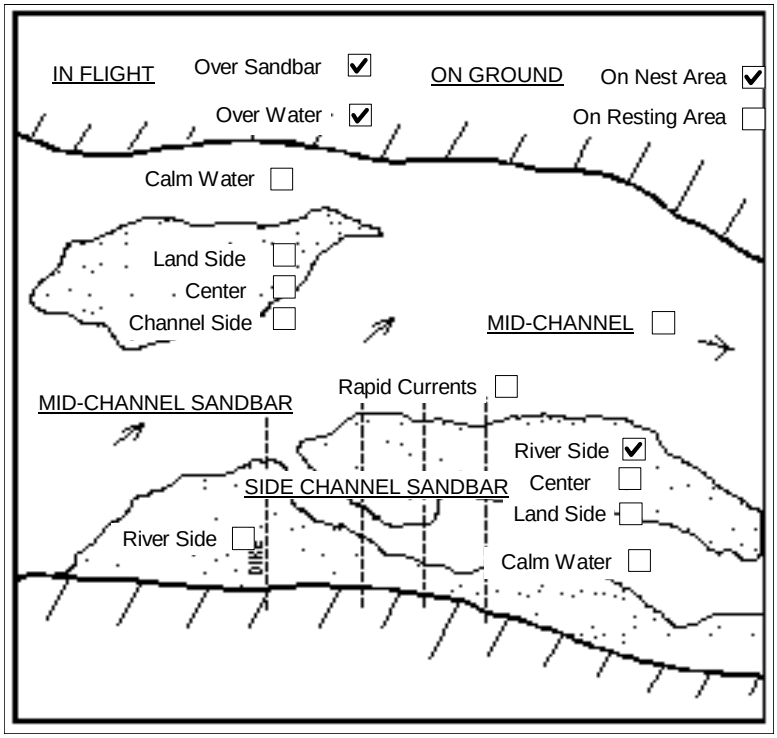
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 12:49 RIVER MILE 696.5

LOCALITY: Lee (County/Parish) AR (State) SITE NAME: Basket Bar Diikes

WHERE SITED: Latitude: 34.82813
Longitude: 90.41298

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 24
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 97 °F
Rain: No
Wind: S 5mph
% Cloud: 70

OTHER NOTES:

Right Bank. Drift count on long, low, flat sand bar with terns along waterline and carrying fish inland, three sitting on nests. One Great Egret on upstream end of bar.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Memphis (Gage Location) = -4.1 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

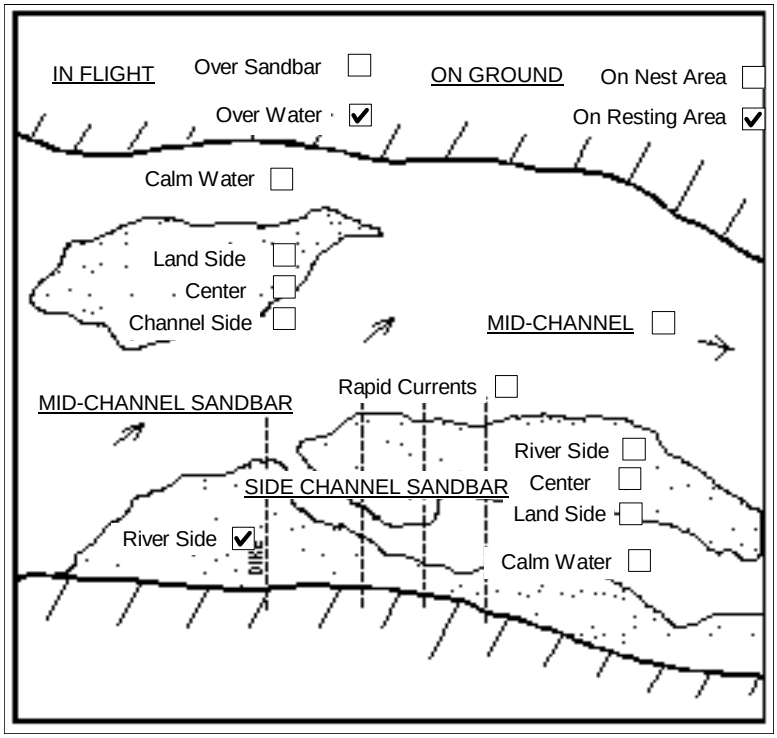
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 13:18 RIVER MILE 692

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

WHERE SITED: Latitude: 34.78973
Longitude: 90.47115

Approximate Distance to Water: 3 Feet



NUMBERS SIGHTED:

Adults: 157
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 95 ^{o}F
Rain: No
Wind: S 0-5mph
% Cloud: 60

OTHER NOTES:

Left Bank. Drift count. Long, high, wide, high, river side sand bar (1000' x 2 miles) with terns resting at waterline but showing no reproductive behavior. One Great Egret and 57 geese also on bar

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

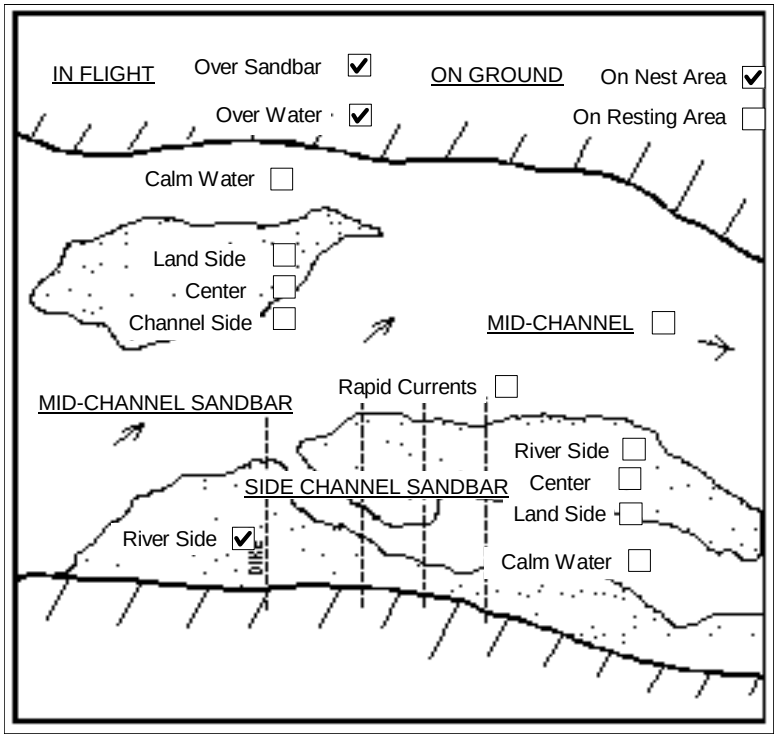
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 13:32 RIVER MILE 688

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

WHERE SITED: Latitude: 34.74127
Longitude: 90.45357

Approximate Distance to Water: 1000 Feet



NUMBERS SIGHTED:

Adults: 34
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 95 °F
Rain: No
Wind: S 0-5mph
% Cloud: 70

OTHER NOTES:

Right Bank. Drift count along very large (3 miles long), high, flat, attached bar of mostly sand and gravel. Many birds resting at waterline or sitting inland. Too shallow to land. Two Great Egrets and 8 Great Blue Herons nearby.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

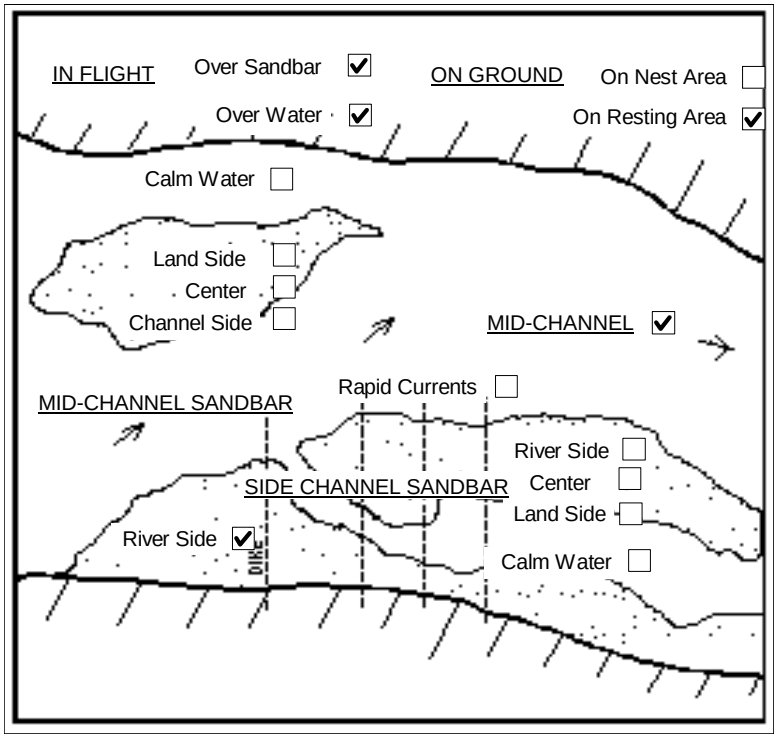
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 14:04 RIVER MILE 680

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

WHERE SITED: Latitude: 34.72830
Longitude: 90.56700

Approximate Distance to Water: 2 Feet



NUMBERS SIGHTED:

Adults: 24
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type: forbs
Distance: 300 Feet

FIELD CONDITION:

Temperature: 95 ^{o}F
Rain: No
Wind: S 0-5mph
% Cloud: 70

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 Egret, 25 geese and 2 Mississippi Kites nearby.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

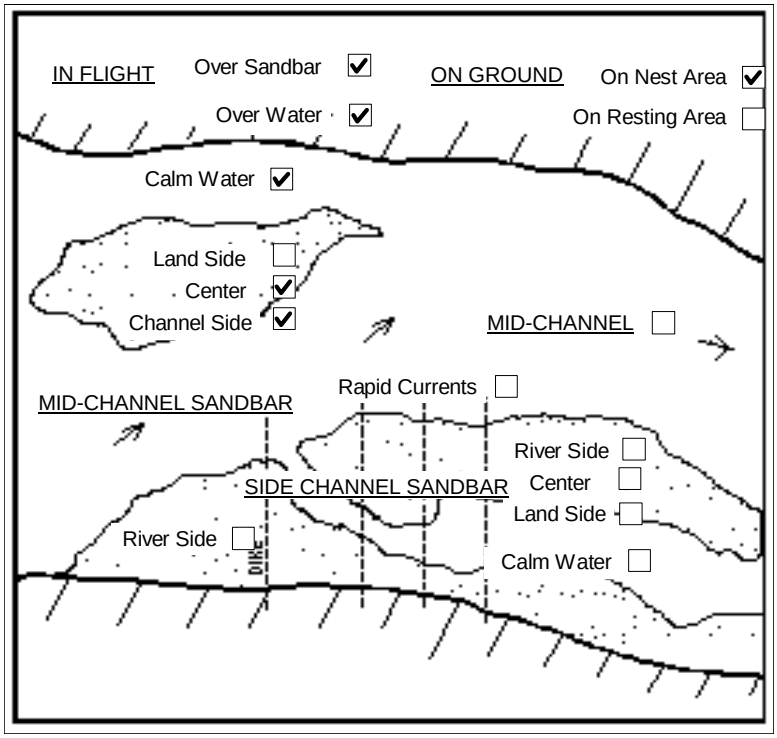
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 14:20 RIVER MILE 677

LOCALITY: Tunica (County/Parish) MS (State) SITE NAME: Shoo Fly Bar

WHERE SITED: Latitude: 34.67810
Longitude: 90.56384

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 147
Juveniles:
Eggs: 1(1) 3(2) 3(3)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☑

VEGETATION:

Type: grasses
Distance: 2 Feet

FIELD CONDITION:

Temperature: 94 °F
Rain: No
Wind: S 0-5mph
% Cloud: 80

OTHER NOTES:

Left Bank. Drift and Flush count along low, long, narrow, flat sand bar with high elevation downstream point with grass and chicks (3 days to 2.5 weeks of age) all across bar. Human tracks and debris also present.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

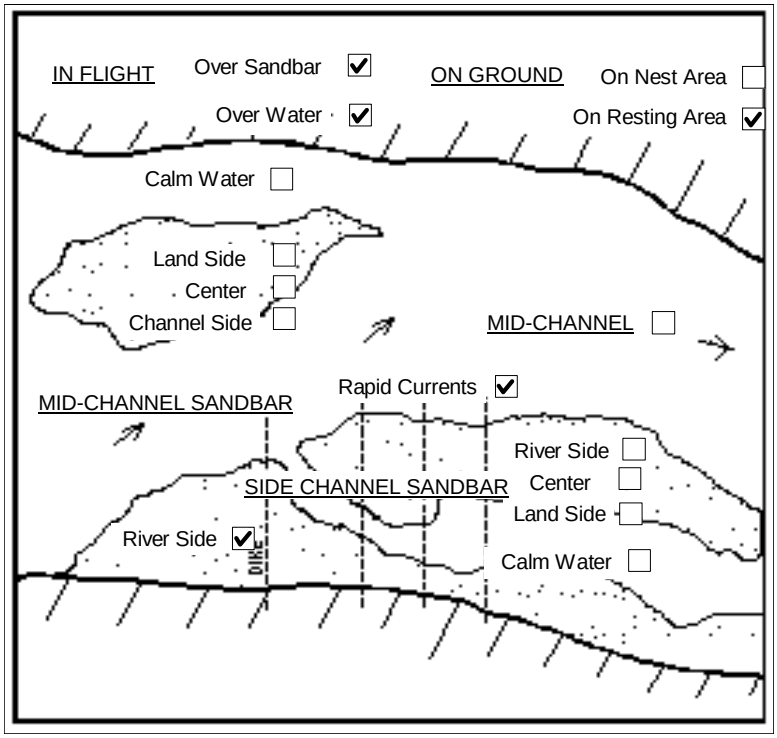
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 14:40 RIVER MILE 676

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

WHERE SITED: Latitude: 34.66383
Longitude: 90.57290

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 25
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 92 ^{o}F
Rain: Yes
Wind: S 0-5mph
% Cloud: 80

OTHER NOTES:

Right Bank. Drift count along low, flat, sand and gravel bar with most birds at waterline and some in flight over bar, showing no reproductive behavior or sitting on nests. Several Great Blue Herons on bar.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

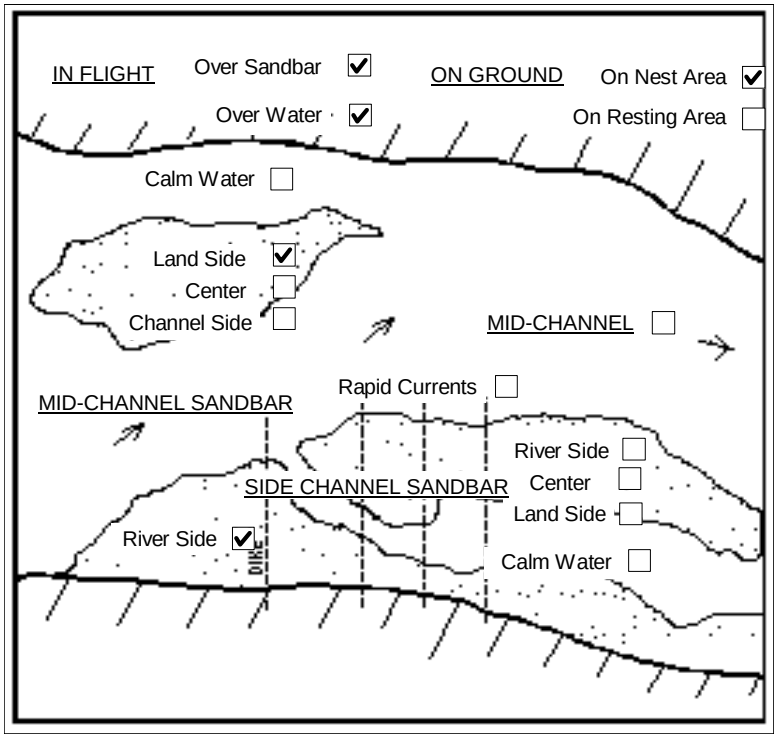
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 14:49 RIVER MILE 674

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

WHERE SITED: Latitude: 34.63635
Longitude: 90.58444

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 84
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 90 °F
Rain: Yes
Wind: calm
% Cloud: 70

OTHER NOTES:

Left Bank. Drift count on large (1000' x 2 miles) attached, river-side sand bar. Most Terns at waterline but 10 observed midway up bar sitting on nests widely dispersed across bar. Eight Great Egrets and 13 Great Blue Herons in vicinity. No visible signs of disturbance.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

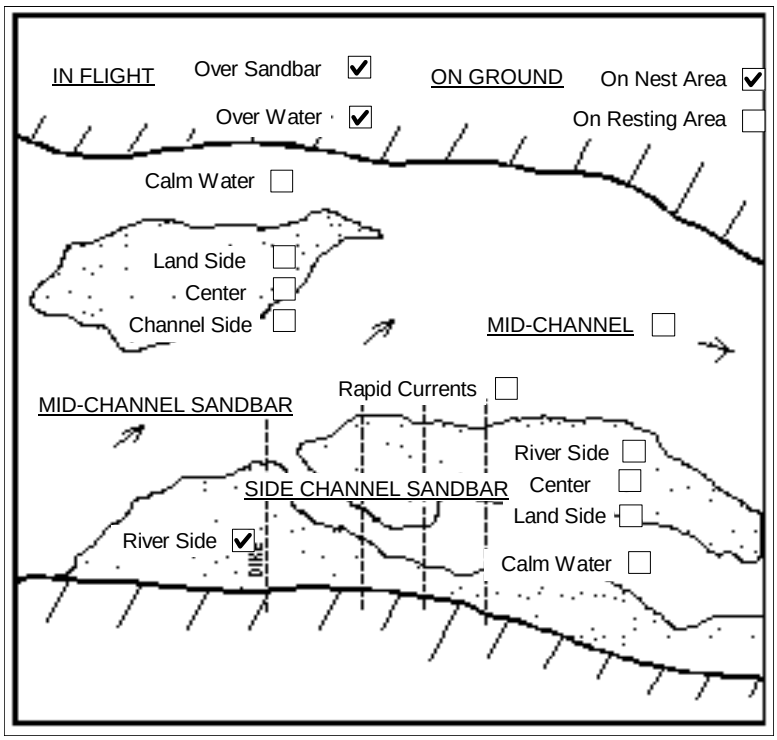
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/9/2012 TIME OF DAY: 15:11 RIVER MILE 667

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

WHERE SITED: Latitude: 34.56476
Longitude: 90.54980

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 56
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 90 ^{o}F
Rain: No
Wind: S 0-5mph
% Cloud: 80

OTHER NOTES:

Right Bank. Drift count along low, wide, flat, attached sand and gravel bar with scattered debris. Ten Terns sitting on nests, flying over mid-bar or resting at waterline.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

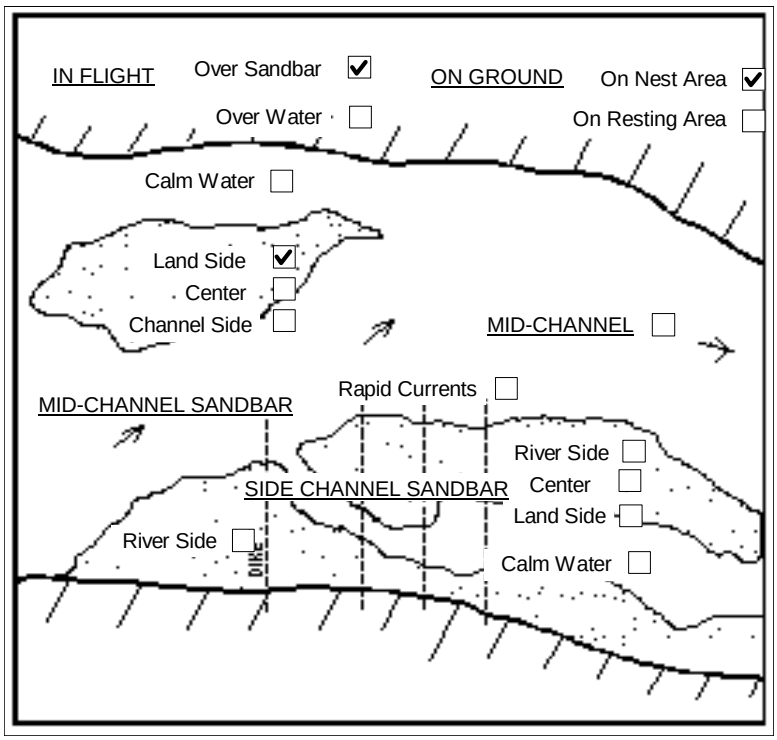
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 7:33 RIVER MILE 660

LOCALITY: Coahoma (County/Parish) MS (State) SITE NAME: Montezuma Bar

WHERE SITED: Latitude: 34.46921
Longitude: 90.58782

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 62
Juveniles:
Eggs: 2(1)
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: grasses
Distance: 5 Feet

FIELD CONDITION:

Temperature: 76 °F
Rain: Yes
Wind: calm
% Cloud: calm

OTHER NOTES:

Left Bank. Flush count on long, narrow, low, flat, mid-channel sand bar with back chute. All terns sitting on scapes, intense mobbing, courting flights and calls. Nests in grass with canine tracks and 1 Bald Eagle in vicinity.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

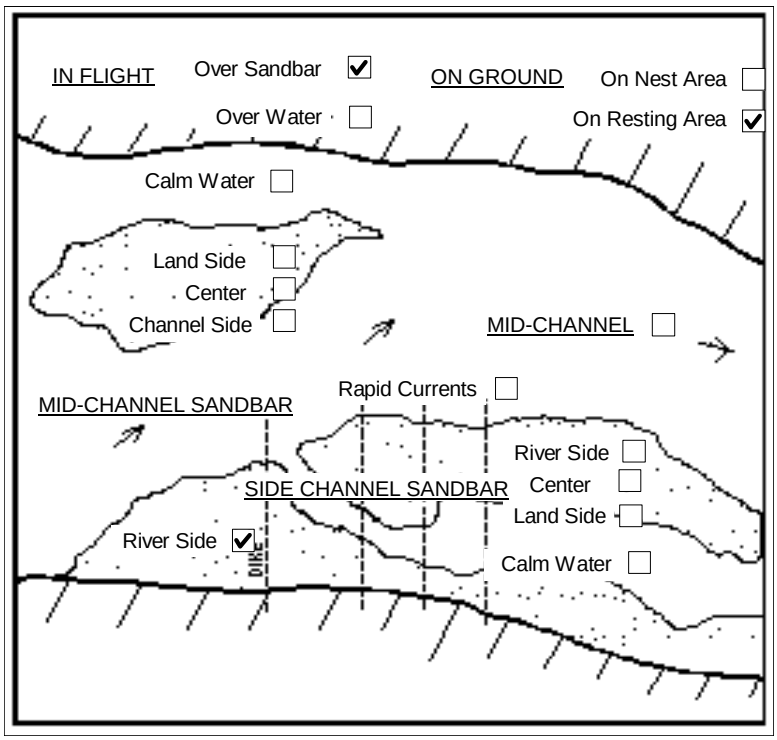
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 7:55 RIVER MILE 655

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

WHERE SITED: Latitude: 34.40171
Longitude: 90.59774

Approximate Distance to Water: 5 Feet



NUMBERS SIGHTED:

Adults: 16
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: calm
% Cloud: 80

OTHER NOTES:

Right Bank. Drift count along high, isolated sand bar but all terns resting at waterline exhibiting no signs or reproductive behavior. One Bald Eagle in nearby tree and many Cliff Swallows also on bar.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

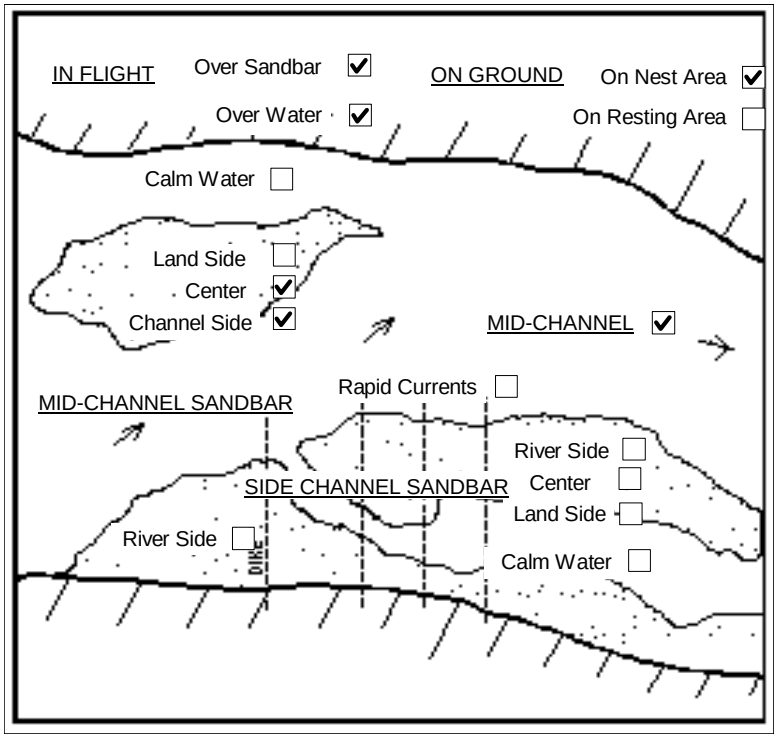
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 8:10 RIVER MILE 652

LOCALITY: Coahoma (County/Parish) MS (State) SITE NAME: Friars Point Dikes Upper

WHERE SITED: Latitude: 34.38645
Longitude: 90.63821

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 327
Juveniles:
Eggs: 3(2) 4(3)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: SE 5mph
% Cloud: 70

OTHER NOTES:

Left Bank. Flush count on wide, long, low, narrow (600ft.) sand bar. Nests with eggs and chicks up to 2 weeks of age. Mobbing and terns fishing along waterline, but not in back chute. Deer tracks but no other signs of disturbance.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

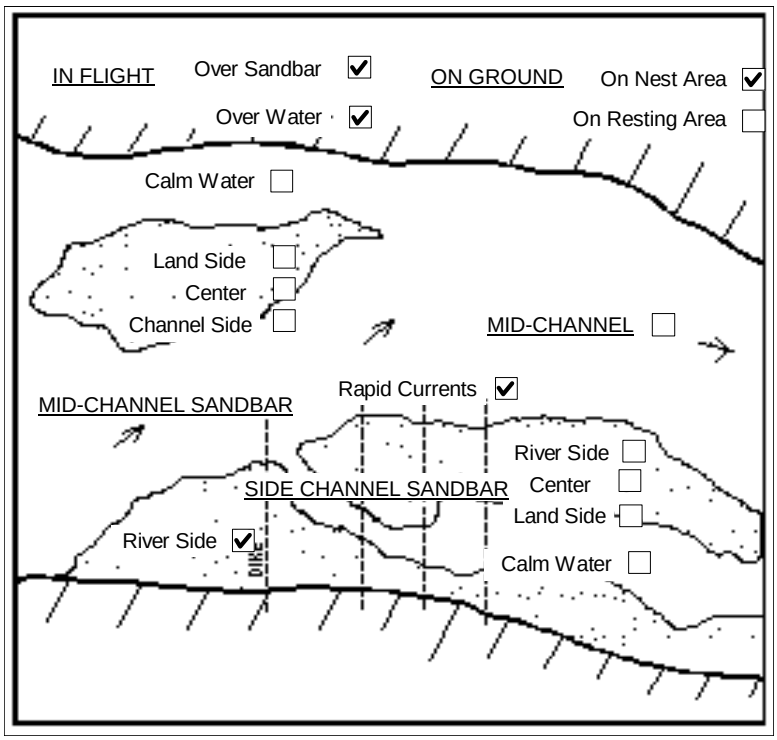
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 8:30 RIVER MILE 651

LOCALITY: Coahoma (County/Parish) MS (State) SITE NAME: Friars Point Dikes Lower

WHERE SITED: Latitude: 34.37751
Longitude: 90.66519

Approximate Distance to Water: 700 Feet



NUMBERS SIGHTED:

Adults: 24
Juveniles:
Eggs: 1(3)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 84 ^{o}F
Rain: No
Wind: SE 0-5mph
% Cloud: 90

OTHER NOTES:

Left Bank. Flush count on huge, flat, high, attached river side bar (2 miles x 1000ft.). One chick observed, 2 weeks old and 1 nest with 3 eggs. This bar counted as separate site due to water separating it from nearby upstream colony. ATV and coyote (canine) tracks at waterline. One Great Egret also on bar.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

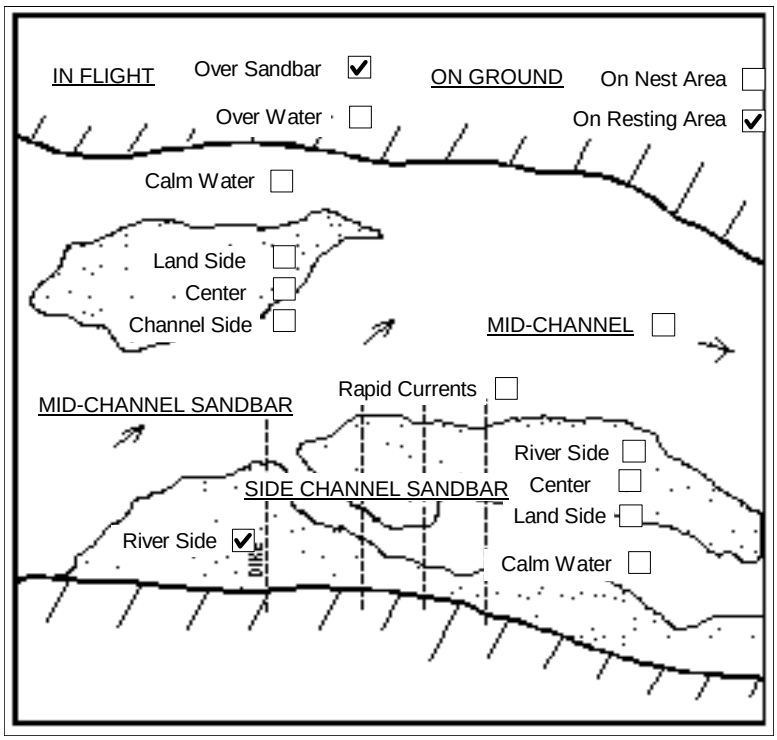
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 8:48 RIVER MILE 647

LOCALITY: Phillips (County/Parish) AR (State) SITE NAME: Kangaroo Point Dikes

WHERE SITED: Latitude: 34.36510
Longitude: 90.71200

Approximate Distance to Water: 900 Feet



NUMBERS SIGHTED:

Adults: 9
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: Yes
Wind: S 5mph
% Cloud: 95

OTHER NOTES:

Right Bank. Flush count on high, flat, solid sand bar (2.5 miles x 1000ft.) that looks like an ideal colony site, but no nesting activity observed. Some courting calls, turtle tracks and Kildeer on bar.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

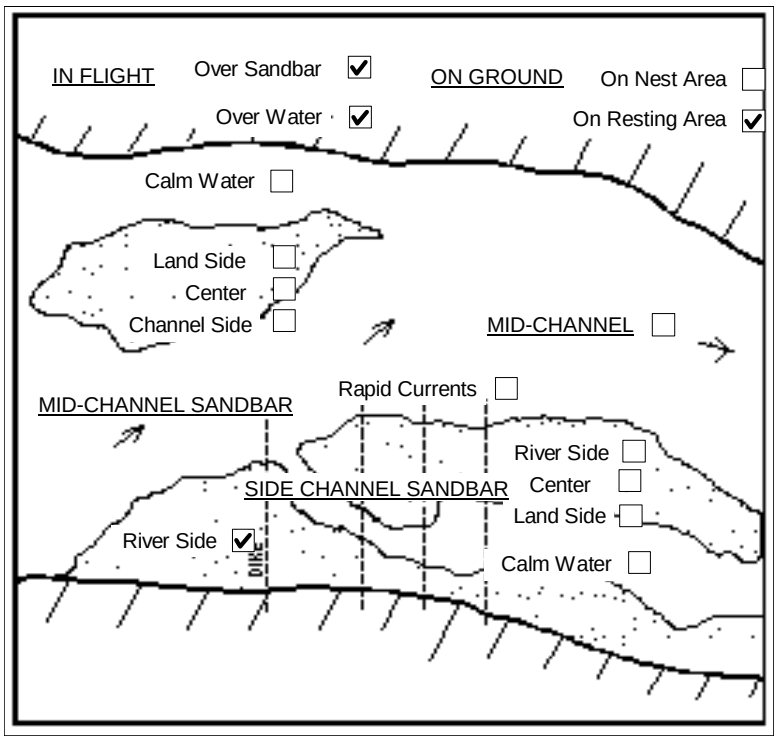
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 8:58 RIVER MILE 646

LOCALITY: Coahoma (County/Parish) MS (State) SITE NAME: Miller Point

WHERE SITED: Latitude: 34.36020
Longitude: 90.76474

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 14
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: Yes
Wind: SE 5-8mph
% Cloud: 85

OTHER NOTES:

Left Bank. Drift count along small (1000 x 800ft.) sand, gravel, and mud bar. A few terns at waterline but most higher up on bar. No breeding behavior observed.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

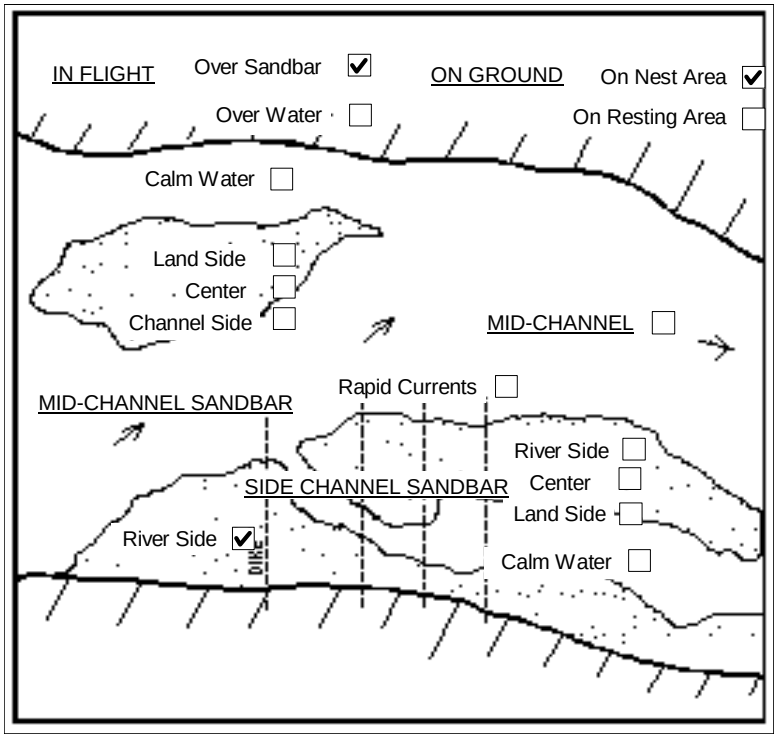
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 9:37 RIVER MILE 633

LOCALITY: Coahoma (County/Parish) MS (State) SITE NAME: Robson Towhead

WHERE SITED: Latitude: 34.26680
Longitude: 90.83288

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 22
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 83 °F
Rain: No
Wind: SE 5-10mph
% Cloud: 80

OTHER NOTES:

Left Bank. Drift count along low, flat, attached sand bar (1.5 x .25 miles) with Terns flying over bar or sitting on nests (9). Several thousand Cliff Swallows at mm 637 resting on bar.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

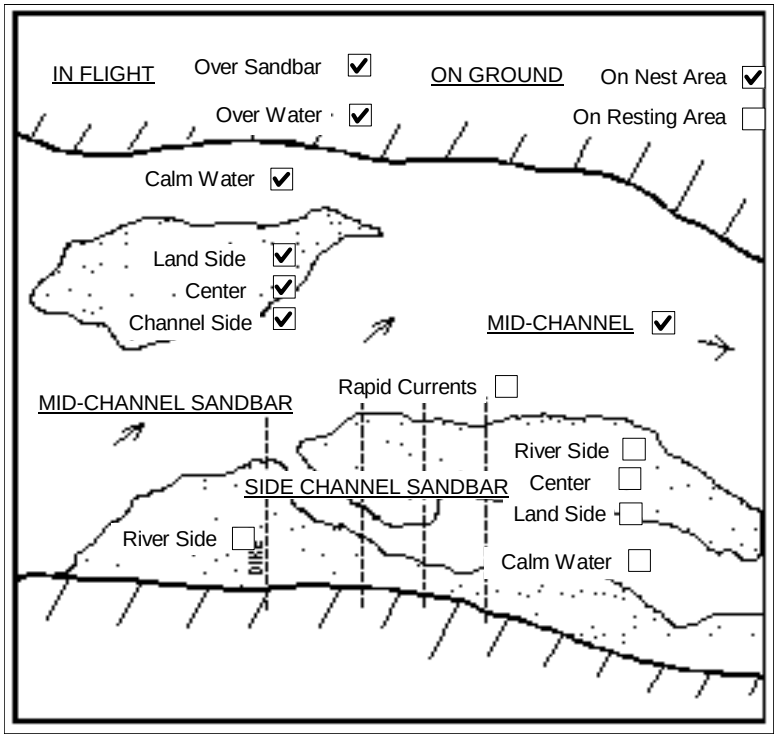
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 10:05 RIVER MILE 625

LOCALITY: Coahoma (County/Parish) MS (State) SITE NAME: Sunflower Cut-off

WHERE SITED: Latitude: 34.17266
Longitude: 90.89996

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 570
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: SE 0-5mph
% Cloud: 95

OTHER NOTES:

Left Bank. Flush count on large (2 miles x 1000ft.) mid-channel bar of sand and gravel. Over 100 Terns sitting on nests with chicks everywhere ages 1.5 to 3 weeks of age. Human and animal tracks abundant all across bar. Also 25 young and molting Canada Geese on bar with Bald Eagle upstream on opposite bank.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

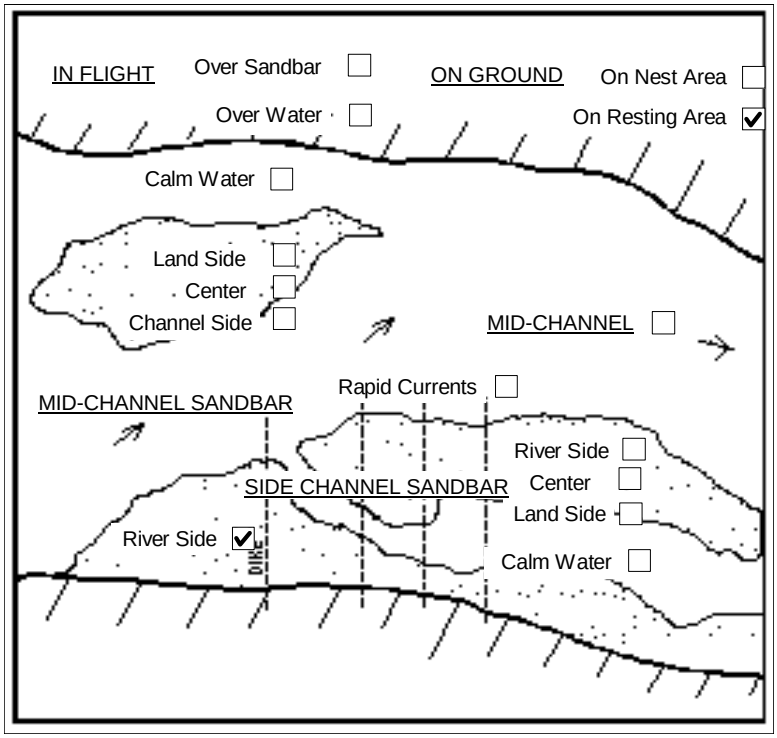
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 10:38 RIVER MILE 622.5

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

WHERE SITED: Latitude: 34.16052
Longitude: 90.92971

Approximate Distance to Water: 2 Feet



NUMBERS SIGHTED:

Adults: 24
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: S 0-5mph
% Cloud: 95

OTHER NOTES:

Right Bank. Drift count along attached sand and gravel bar with terns resting at waterline. No reproduction or disturbance noted.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

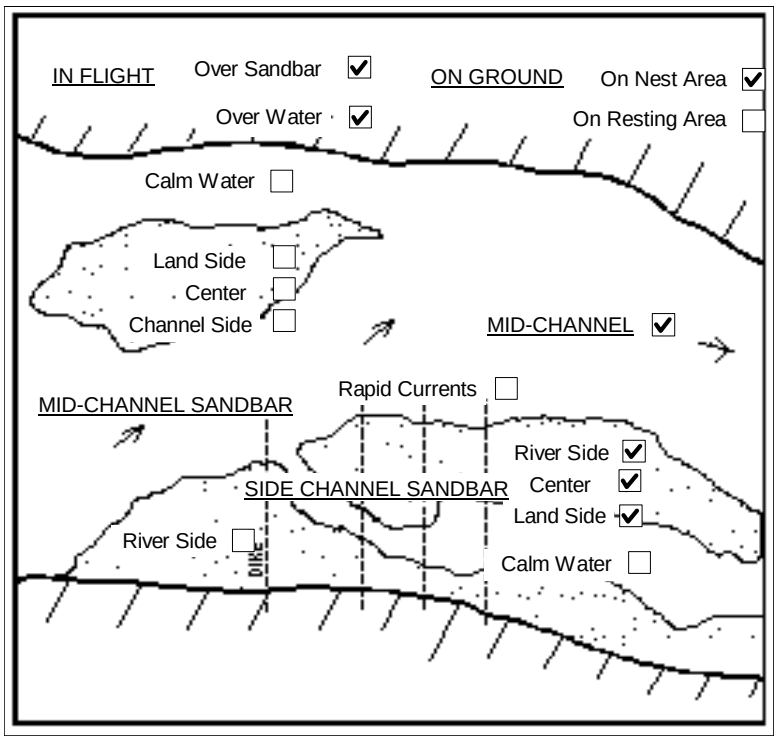
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 10:48 RIVER MILE 620

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

WHERE SITED: Latitude: 34.11555
Longitude: 90.95030

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 58
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 93 ^{o}F
Rain: No
Wind: SE 5mph
% Cloud: 55

OTHER NOTES:

Left Bank. Drift and flush count on high, flat sand and gravel bar with wrack lines. Bar is 2.5 x 0.5 miles with nests scattered all across bar, other Terns resting at waterline. Chicks from 1 to 2.5 weeks old with ATV and human tracks and several thousand Cliff Swallows present and 8 Great Blue Herons on downstream point.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

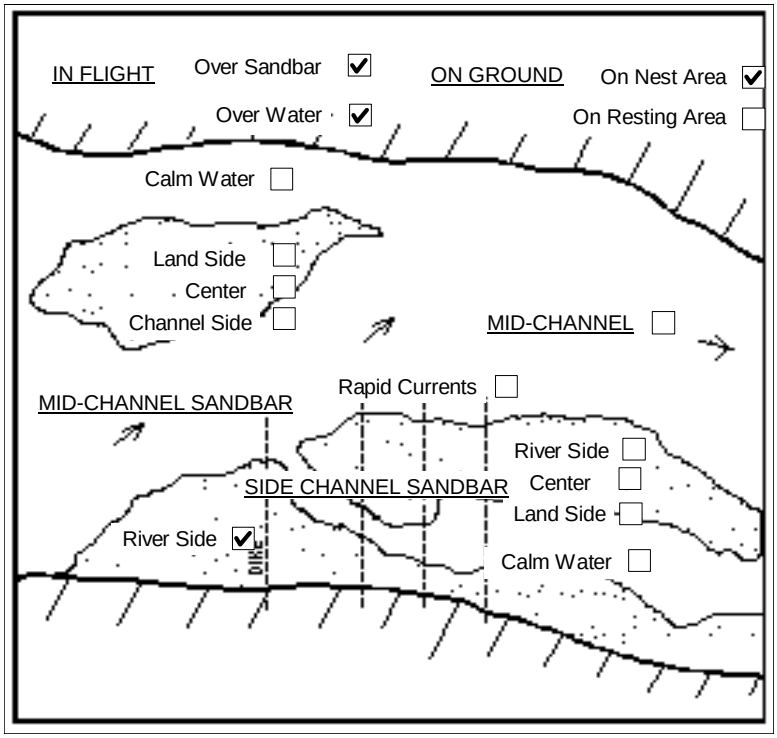
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 11:15 RIVER MILE 614

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

WHERE SITED: Latitude: 34.07389
Longitude: 90.90262

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 15
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 96 °F
Rain: No
Wind: S 5mph
% Cloud: 40

OTHER NOTES:

Right Bank. Drift count along high, long, flat, attached sand bar with small, scattered debris on high center. Most terns resting at waterline but 5 sitting inland on nests. Forty geese at waterline with young and molting and Mississippi Kites in vicinity.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

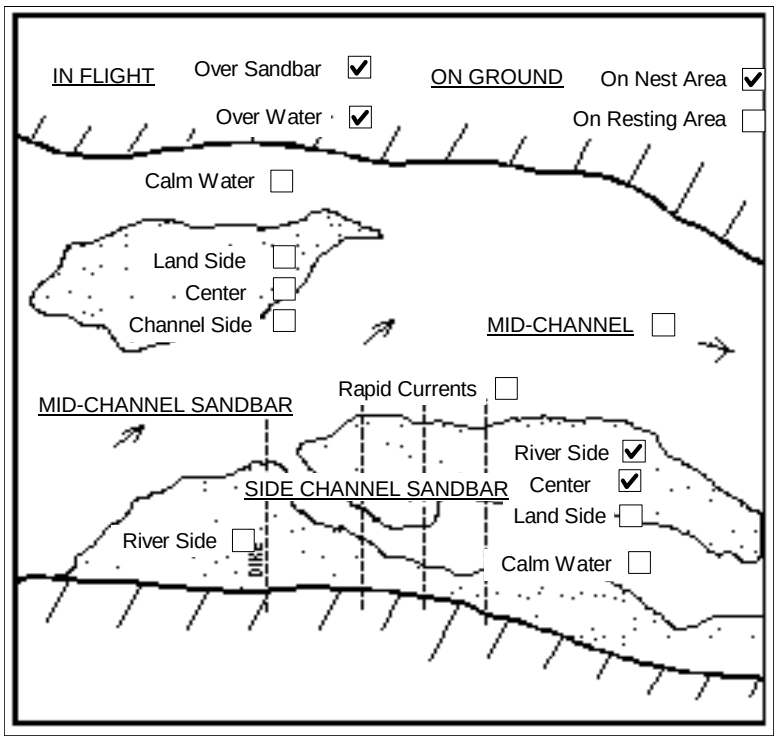
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 11:30 RIVER MILE 609

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

WHERE SITED: Latitude: 34.02149
Longitude: 90.95831

Approximate Distance to Water: 150 Feet



NUMBERS SIGHTED:

Adults: 43
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 96 °F
Rain: No
Wind: S 3mph
% Cloud: 40

OTHER NOTES:

Left Bank. Drift count along mostly gravel bar with 6 terns sitting on nests and the rest at the waterline.
Great Egrets, Great Blue Herons and Mississippi Kites in vicinity.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

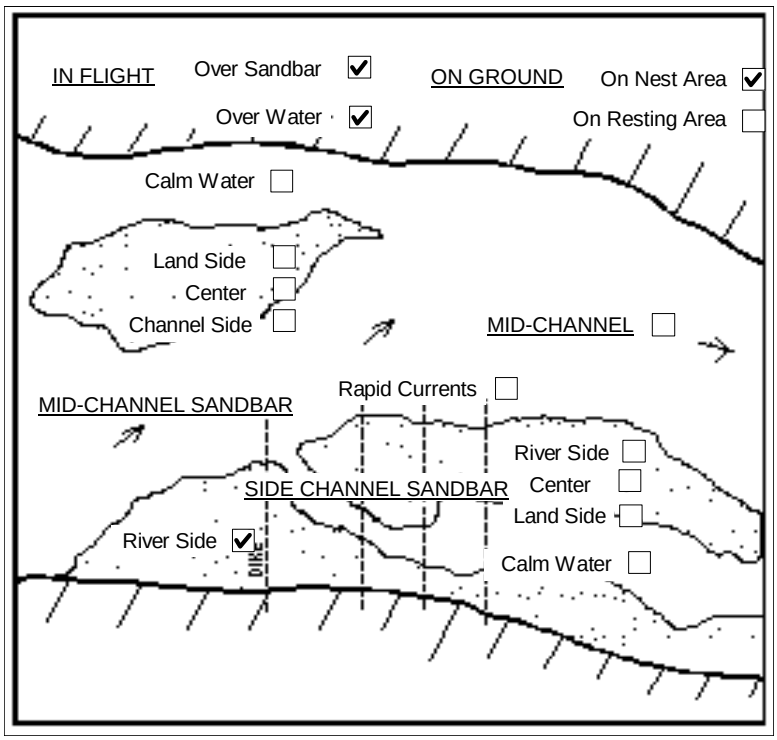
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 11:45 RIVER MILE 607

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

WHERE SITED: Latitude: 34.01799
Longitude: 90.9822

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 21
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 94 °F
Rain: No
Wind: S 5mph
% Cloud: 50

OTHER NOTES:

Left Bank. Drift count only due to shallow water along long, wide, flat, high, solid sand bar just downstream from previous colony. Seven terns on nests. No disturbance noted.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

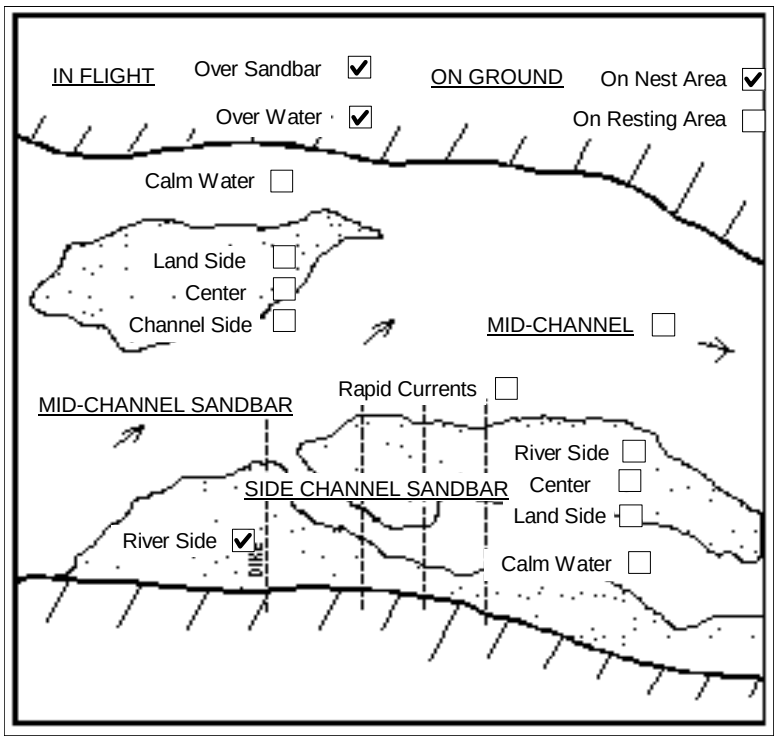
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 12:47 RIVER MILE 602.8

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

WHERE SITED: Latitude: 33.98795
Longitude: 91.04766

Approximate Distance to Water: 600 Feet



NUMBERS SIGHTED:

Adults: 25
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 95 ^{o}F
Rain: No
Wind: S 5mph
% Cloud: 75

OTHER NOTES:

Right Bank. Flush count on river side sand bar yeilds 25 Terns with 5 sitting on nests scattered along wrack line, the rest at waterline or flying over the bar. ATV and canine tracks abundant with one coyote observed 1/2 mile upstream at dike. One Gizzard Shad dropped in colony.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Helena (Gage Location) = 2.2 F (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

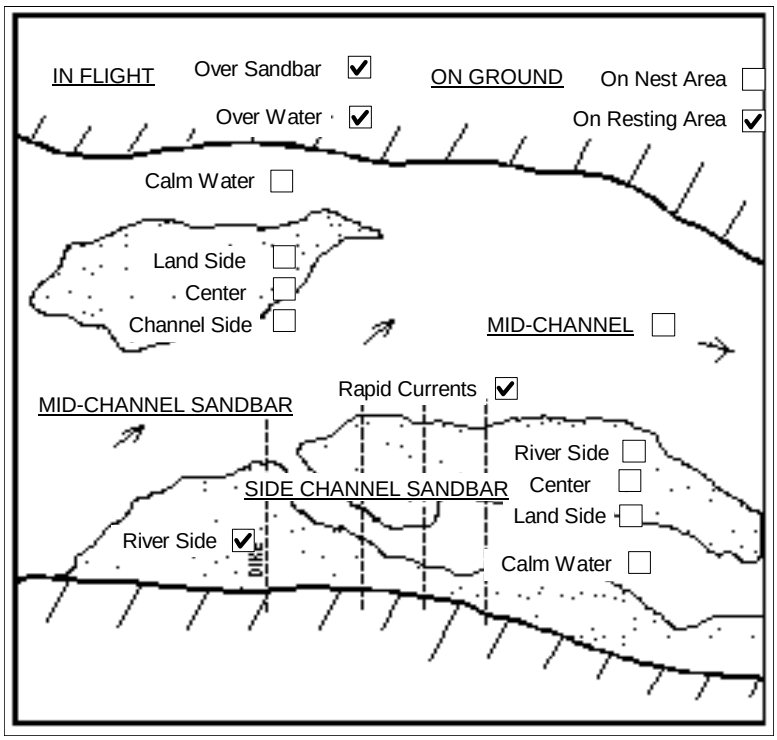
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 13:10 RIVER MILE 599

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

WHERE SITED: Latitude: 33.95707
Longitude: 91.08165

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 49
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:

Left Bank. Drift count along attached, huge, riverside sand bar. All terns flying over bar or resting along waterline, but showing no reproductive behavior. Terns mobbing Great Blue Heron and fishing opposite bank at mouth of White river. ATV tracks abundant and 1 Caspian Tern flying in vicinity along with 1 Great Egret on bar.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

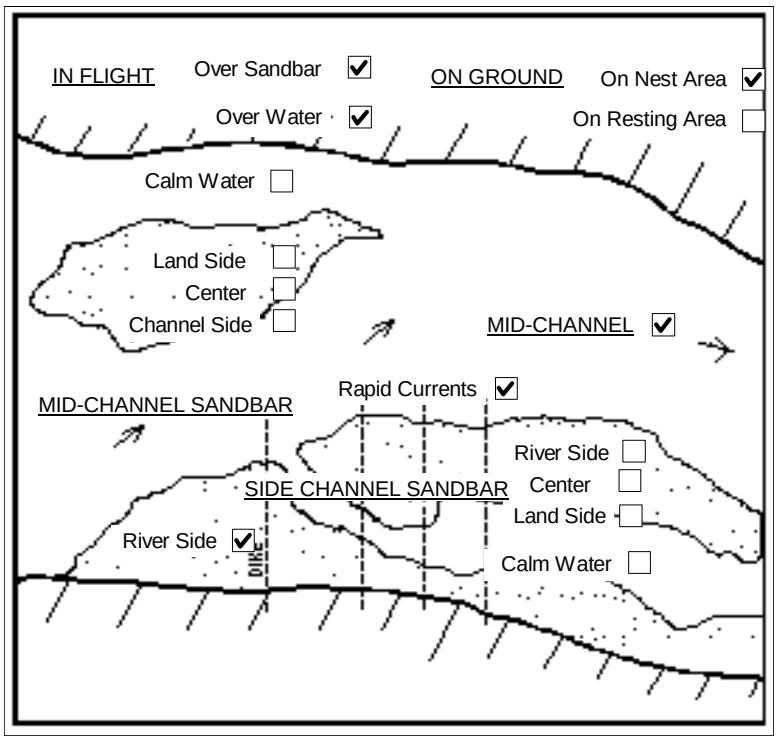
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 13:25 RIVER MILE 595

LOCALITY: Desha (County/Parish) AR (State) SITE NAME: Victoria Bend Dikes

WHERE SITED: Latitude: 33.93173
Longitude: 91.01583

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 50
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 93 °F
Rain: No
Wind: S 5mph
% Cloud: 45

OTHER NOTES:

Right Bank. Srift count along low, flat, huge sand and gravel bar (.75 x 2 miles long). Eight Terns sitting inland on scrapes, others fishing along waterline or mid-channel. ATV and coyote tracks on bar.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

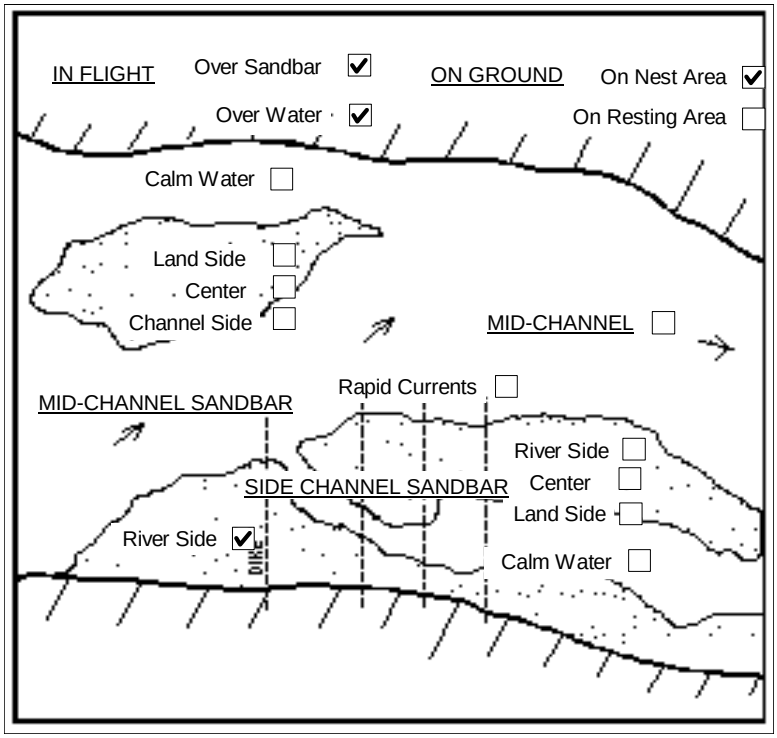
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 14:06 RIVER MILE 590

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

WHERE SITED: Latitude: 33.86926
Longitude: 91.06578

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 63
Juveniles:
Eggs: 3(1) 4(2) 1(3)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 96 ^{o}F
Rain: No
Wind: S 5-10mph
% Cloud: 40

OTHER NOTES:

Left Bank. Drift count along bar upstream of 2nd dike. Low elevation allows observers to see both sides of bar and 63 Terns, 10 on nests and 8 chicks up to 2.5 weeks of age.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

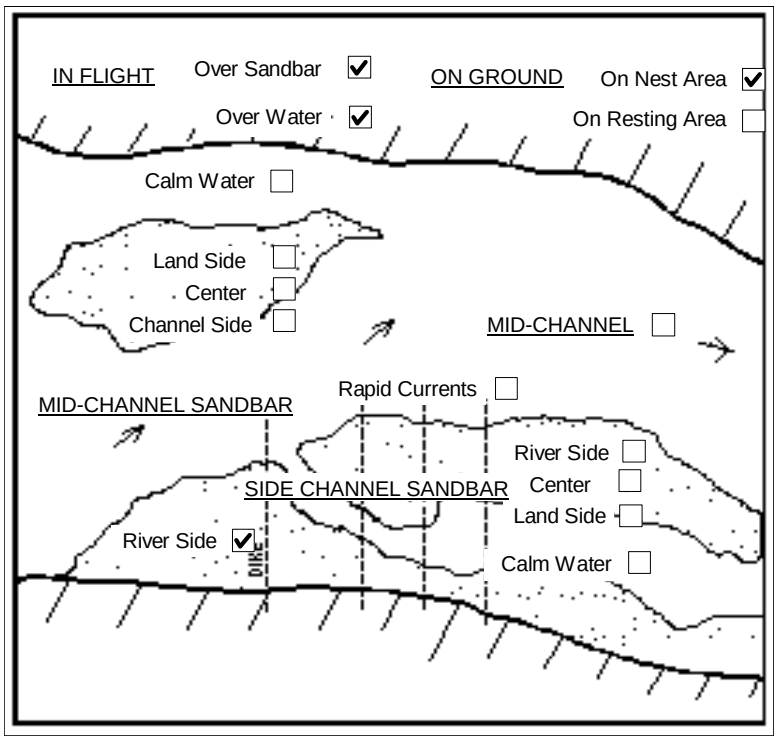
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 14:08 RIVER MILE 589

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

WHERE SITED: Latitude: 33.85560
Longitude: 91.07033

Approximate Distance to Water: 50 Feet



NUMBERS SIGHTED:

Adults: 190
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 96 °F
Rain: No
Wind: S 5-8mph
% Cloud: 45

OTHER NOTES:

Left Bank. Drift count just below previous colony on much larger sand bar with small gravel patches (1 mile x 200ft.) and 50+ Terns sitting on nests on low shelf close to waterline but no nesting on top of 15 ft. high center. No tracks or other signs of disturbance.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

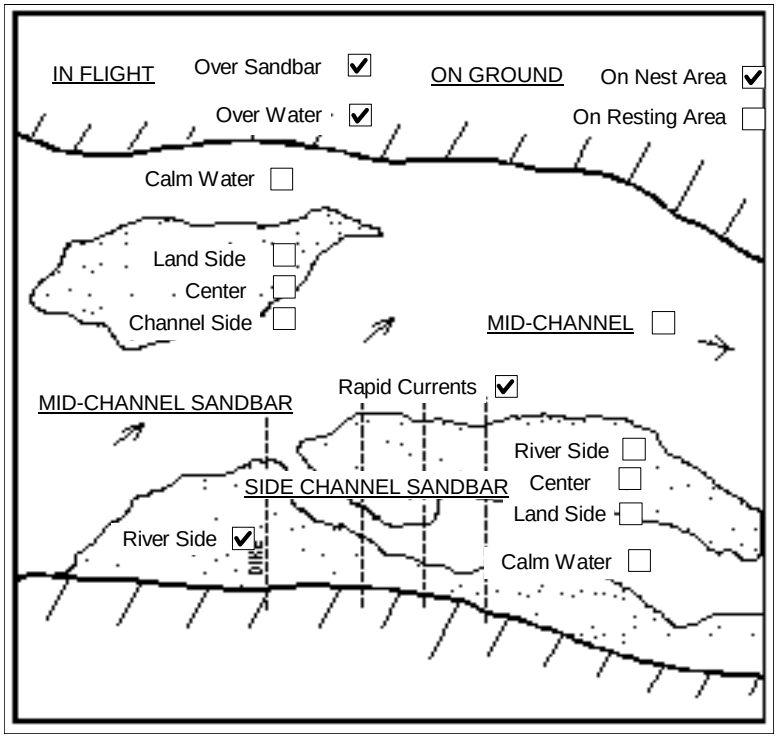
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 14:28 RIVER MILE 584

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

WHERE SITED: Latitude: 33.79028
Longitude: 91.04450

Approximate Distance to Water: 15 Feet



NUMBERS SIGHTED:

Adults: 108
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 95 °F
Rain: No
Wind: S 5-8mph
% Cloud: 40

OTHER NOTES:

Right Bank. Drift count along high (20ft.), wide, attached sand bar (0.5 x 2 miles) with large drift wood. Fourteen Terns sitting on nests with most resting or fishing at waterline. No tracks or other signs of disturbance.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

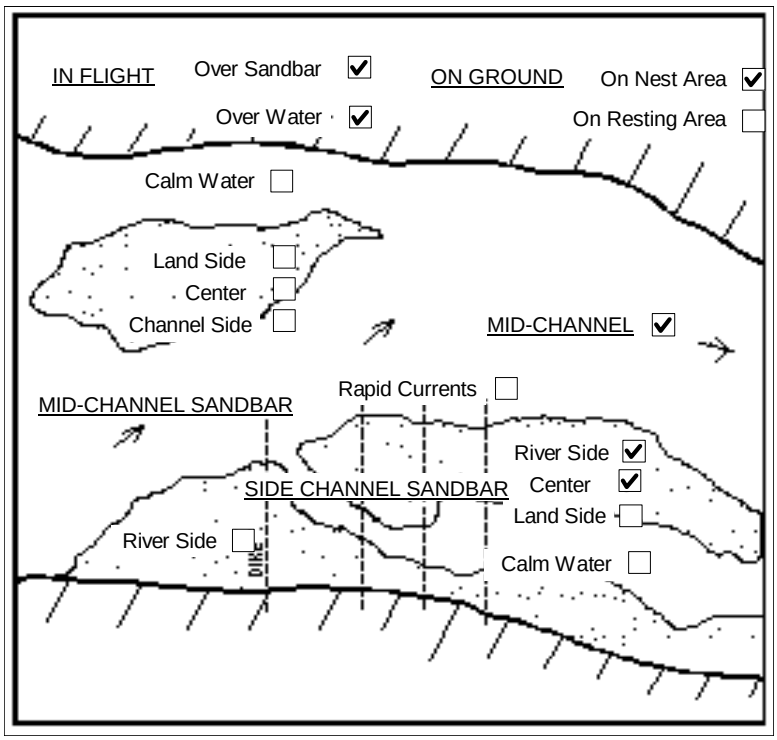
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 14:45 RIVER MILE 577

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

WHERE SITED: Latitude: 33.75280
Longitude: 91.13534

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 134
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 89 °F
Rain: No
Wind: S 5mph
% Cloud: 45

OTHER NOTES:

Left Bank. Drift count along huge, high, flat, sand bar with patches of gravel. Most Terns resting at waterline and carrying fish inland. Twelve chicks observed, 2 weeks of age 400 ft. inland. Picnick debris at waterline and 10 geese on bar.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

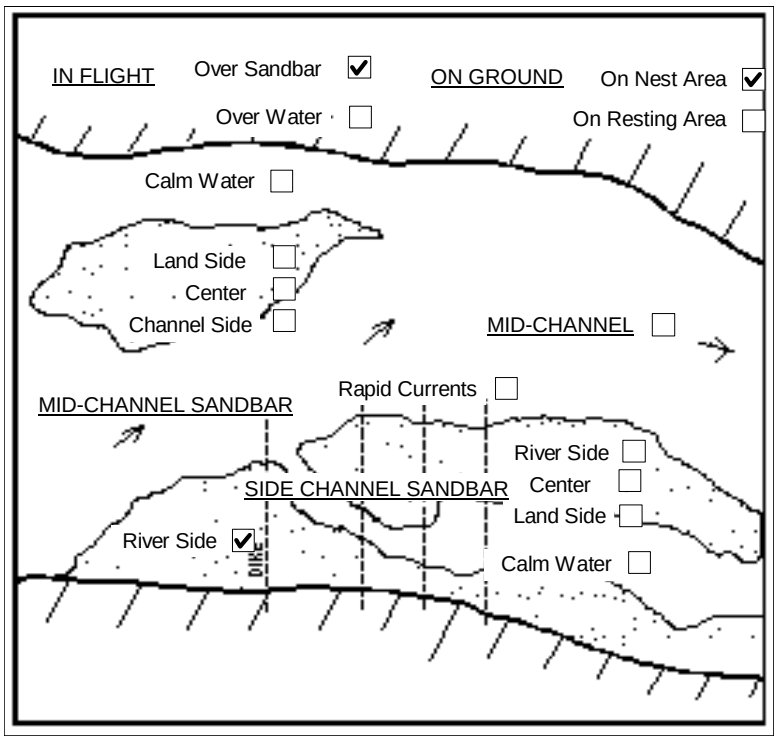
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 14:57 RIVER MILE 574

LOCALITY: Desha (County/Parish) AR (State) SITE NAME: Caulk Neck Cut-Off

WHERE SITED: Latitude: 33.70770
Longitude: 91.16960

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 60
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 97 °F
Rain: No
Wind: S 5mph
% Cloud: 50

OTHER NOTES:

Right Bank. Drift count along high, attached sand bar with gravel patches and scattered driftwood. Many Terns resting at waterline or sitting inland on nests all across 2 mile long bar. One Great Egret present but no tracks or signs of disturbance

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

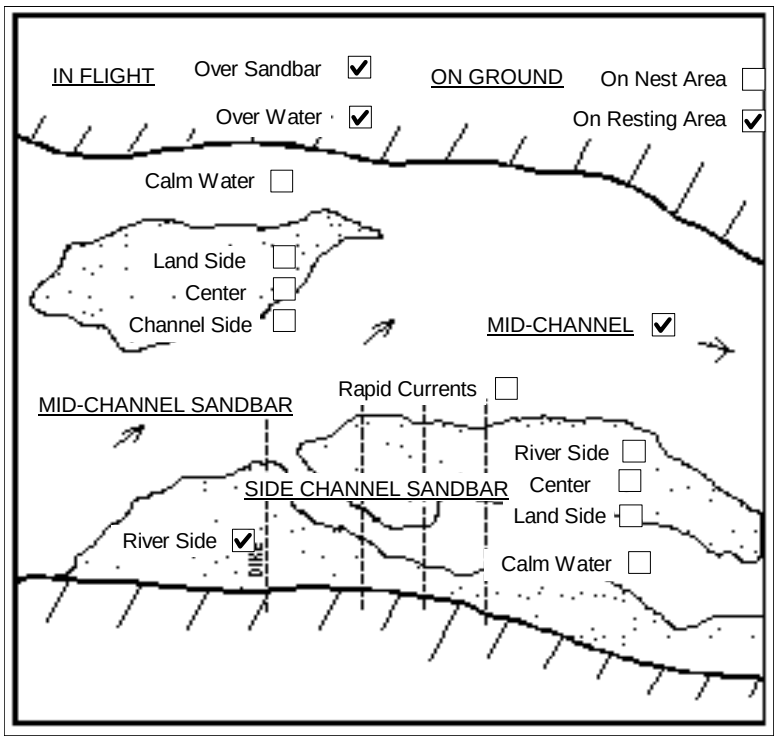
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 15:13 RIVER MILE 569

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

WHERE SITED: Latitude: 33.67336
Longitude: 91.22387

Approximate Distance to Water: 50 Feet



NUMBERS SIGHTED:

Adults: 38
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 97 °F
Rain: No
Wind: S 5mph
% Cloud: 70

OTHER NOTES:

Left Bank. Drift Count along high, huge (2.5 miles long) bar of mostly gravel and mudstones with large driftwood. Terns scattered all along waterline but no nesting activity.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

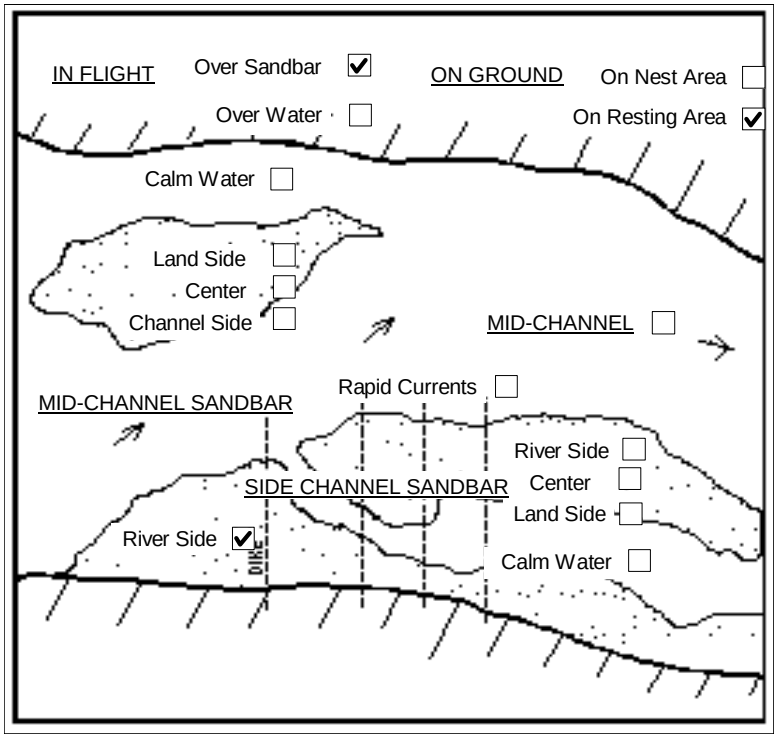
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 15:34 RIVER MILE 559

LOCALITY: Desha (County/Parish) AR (State) SITE NAME: Choctaw Bar Island

WHERE SITED: Latitude: 33.58465
Longitude: 91.14682

Approximate Distance to Water: 10 Feet



NUMBERS SIGHTED:

Adults: 12
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: Willows
Distance: 300 Feet

FIELD CONDITION:

Temperature: 93 ^{o}F
Rain: No
Wind: S 5mph
% Cloud: 40

OTHER NOTES:

Right Bank. Drift count along downstream point of Choctaw Bar Island. All terns at waterline resting.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

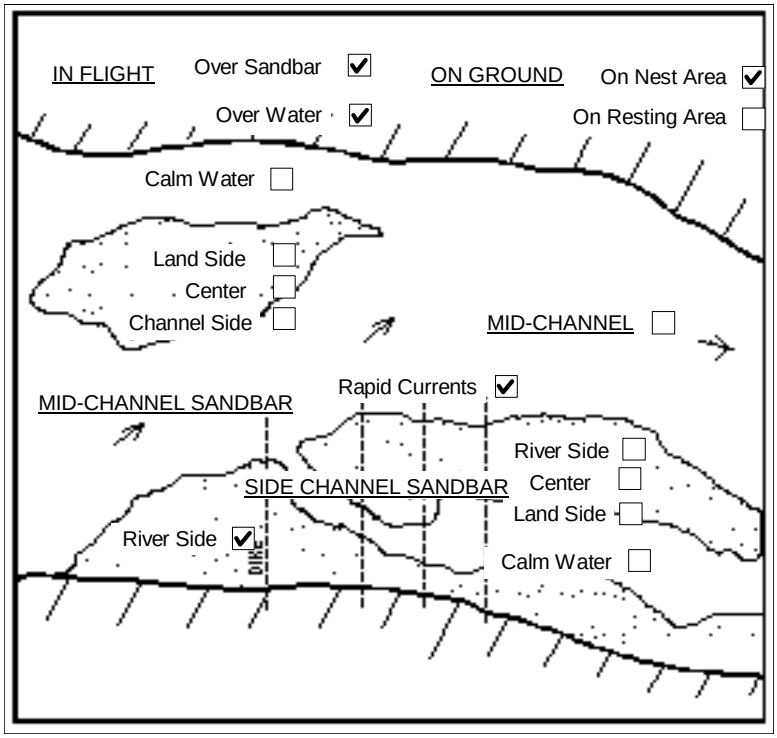
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 15:53 RIVER MILE 553.4

LOCALITY: Bolivar (County/Parish) MS (State) SITE NAME: Huntington Point

WHERE SITED: Latitude: 33.54846
Longitude: 91.22702

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 100
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 89 °F
Rain: No
Wind: S 5-8mph
% Cloud: 40

OTHER NOTES:

Left Bank. Flush count on small sand bar with large patches of gravel (2 miles x 1000ft.) One hundred Terns all tending nests with 1 juvenile Bald Eagle in vicinity.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

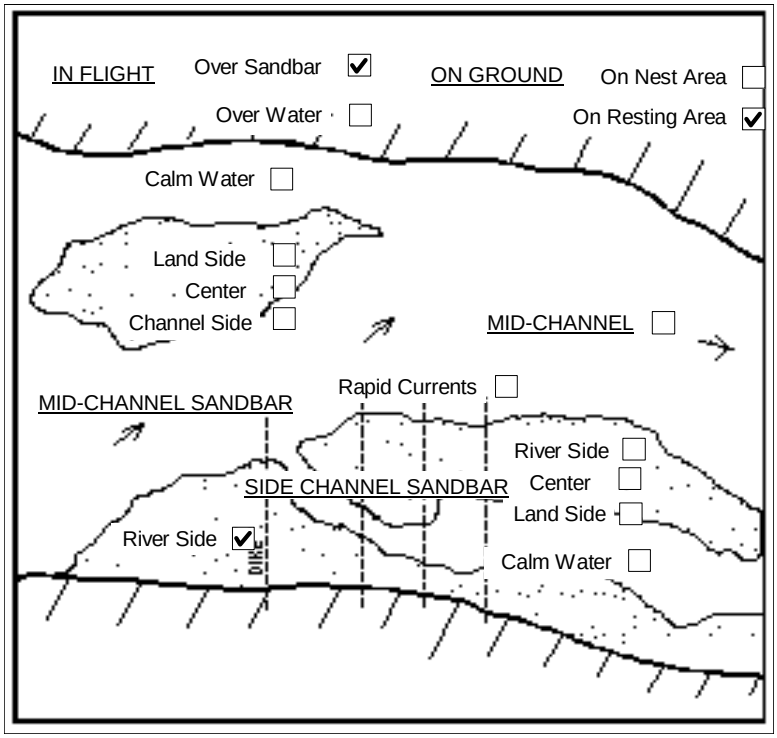
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 16:18 RIVER MILE 550.5

LOCALITY: Washington (County/Parish) MS (State) SITE NAME: Ashbrook Cut-Off Dikes

WHERE SITED: Latitude: 33.51654
Longitude: 91.19226

Approximate Distance to Water: 40 Feet



NUMBERS SIGHTED:

Adults: 40
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 5mph
% Cloud: 40

OTHER NOTES:

Left Bank. Drift count on long (1000ft.), low, flat, attached sand bar (2miles x 600ft.) shows all birds flying across bar or resting at waterline. No nesting activity noted.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Arkansas City (Gage Location) = 1.8 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

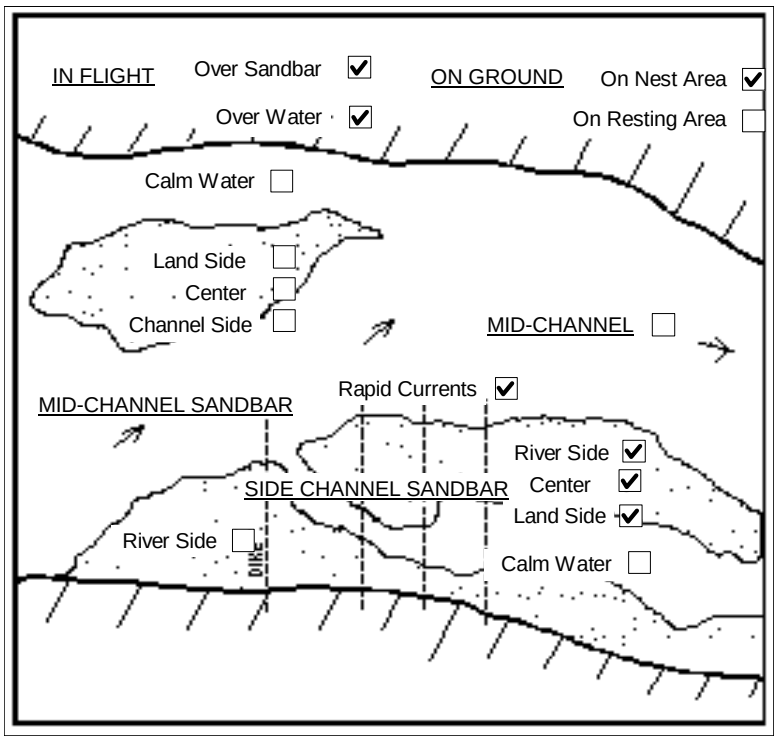
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 16:30 RIVER MILE 547

LOCALITY: Chicot (County/Parish) AR (State) SITE NAME: Ashbrook-Miller Bend Dikes

WHERE SITED: Latitude: 33.48668
Longitude: 91.14464

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 366
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 5-8mph
% Cloud: 30

OTHER NOTES:

Right Bank. Drift count along low, long, flat sand and gravel bar 4ft. In elevation. Over 60 Terns sitting on nests with others fishing at waterline. Most nests on upstream end

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

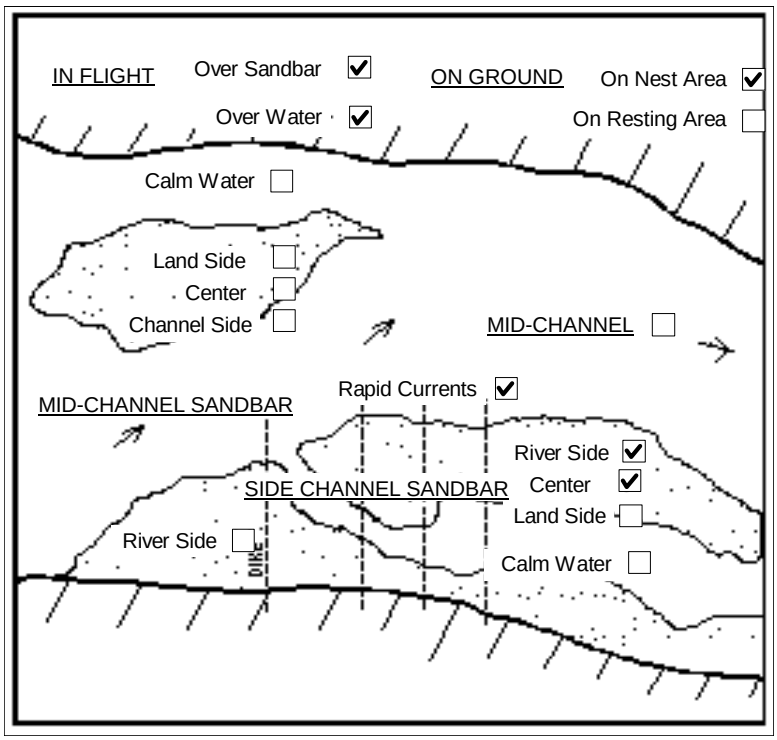
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 16:52 RIVER MILE 542

LOCALITY: Washington (County/Parish) MS (State) SITE NAME: Tarpley Cut-Off Upper

WHERE SITED: Latitude: 33.42555
Longitude: 91.11862

Approximate Distance to Water: 25 Feet



NUMBERS SIGHTED:

Adults: 85
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 89 °F
Rain: No
Wind: S 5mph
% Cloud: 30

OTHER NOTES:

Right Bank. Drift count along low, long, flat bar of sand and some gravel. Four terns sitting on nests on high center of bar. Twenty-five terns fishing at end of upstream dike. Twenty Great Egrets 2 miles upstream at waterline along right bank.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

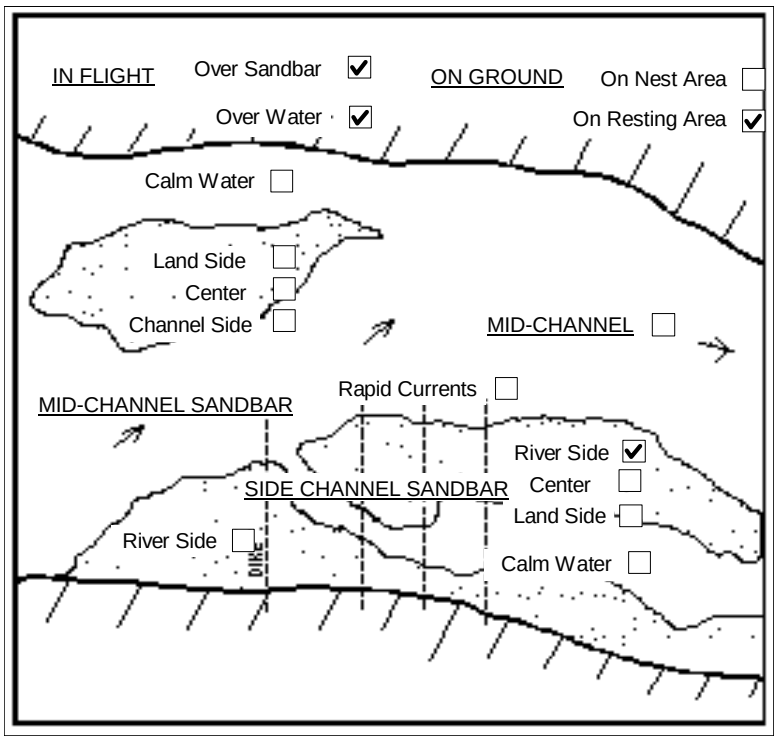
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 16:57 RIVER MILE 541

LOCALITY: Washington (County/Parish) MS (State) SITE NAME: Tarpley Cut-Off Lower

WHERE SITED: Latitude: 33.42329
Longitude: 91.11018

Approximate Distance to Water: 25 Feet



NUMBERS SIGHTED:

Adults: 25
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 0-5mph
% Cloud: 30

OTHER NOTES:

Right Bank. Drift count along small sand bar between dikes. Terns fishing along waterline or resting. No nesting observed.

AR side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

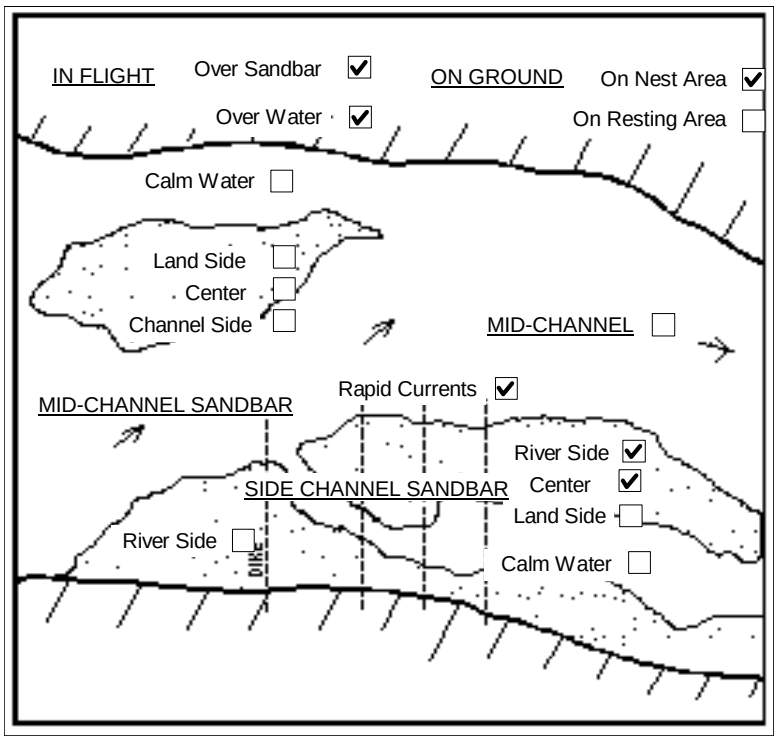
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/10/2012 TIME OF DAY: 17:00 RIVER MILE 540

LOCALITY: Chicot (County/Parish) AR (State) SITE NAME: Leland Neck Dikes

WHERE SITED: Latitude: 33.40900
Longitude: 91.11186

Approximate Distance to Water: 500 Feet



NUMBERS SIGHTED:

Adults: 400
Juveniles: Yes
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 5mph
% Cloud: 30

OTHER NOTES:

Left Bank. Drift count along low, high, flat gravel bar with patches of sand. Colony over entire bar for 1 mile in length. Forty-eight terns sitting on nests on high center with fledglings (first fledglings noted in survey) and chicks of all ages along the waterline. No disturbance noted.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

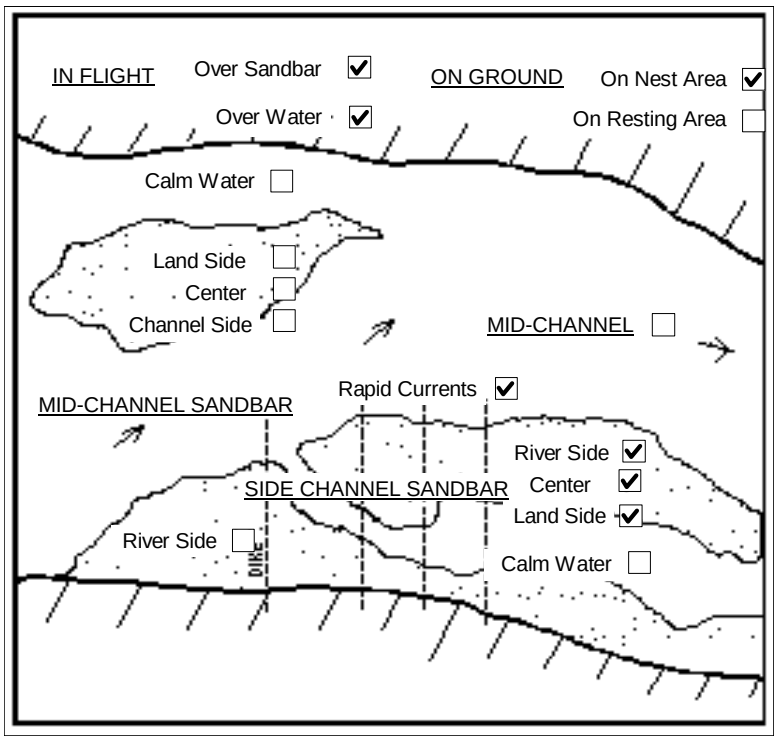
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 7:50 RIVER MILE 534.5

LOCALITY: Washignton (County/Parish) MS (State) SITE NAME: Island #84 Dikes Upper

WHERE SITED: Latitude: 33.33515
Longitude: 91.16061

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 170
Juveniles:
Eggs: 3(2) 1(3)
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 78 °F
Rain: No
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on low sand bar (1.5 x 400ft.) with 18 sitting on nests and many flying over bar and at the waterline. Mobbing of egret with several thousand Cliff Swallows migrating nearby.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

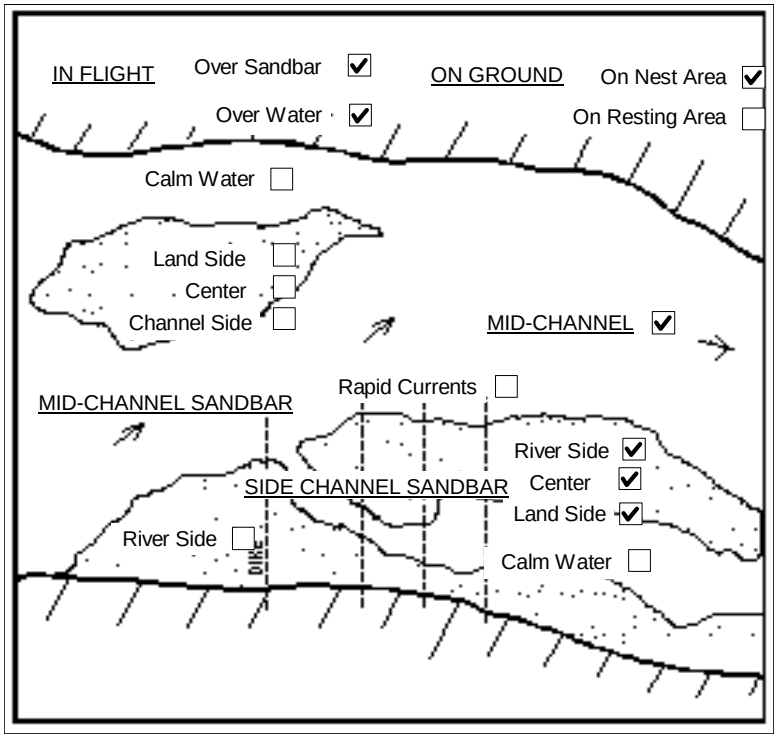
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 8:25 RIVER MILE 533

LOCALITY: Washignton (County/Parish) MS (State) SITE NAME: Island #84 Dikes Lower

WHERE SITED: Latitude: 33.32305
Longitude: 91.17844

Approximate Distance to Water: 1000 Feet



NUMBERS SIGHTED:

Adults: 670
Juveniles: Yes
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 79 °F
Rain: No
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on huge, unattached sand bar with history of very large, successful tern colonies. Fledglings flying and chicks of all ages across bar (3 miles x 1/2 mile wide) with many scrapes and chicks hatching. No signs of recent disturbance with Cliff Swallows and Spotted Sandpipers present.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

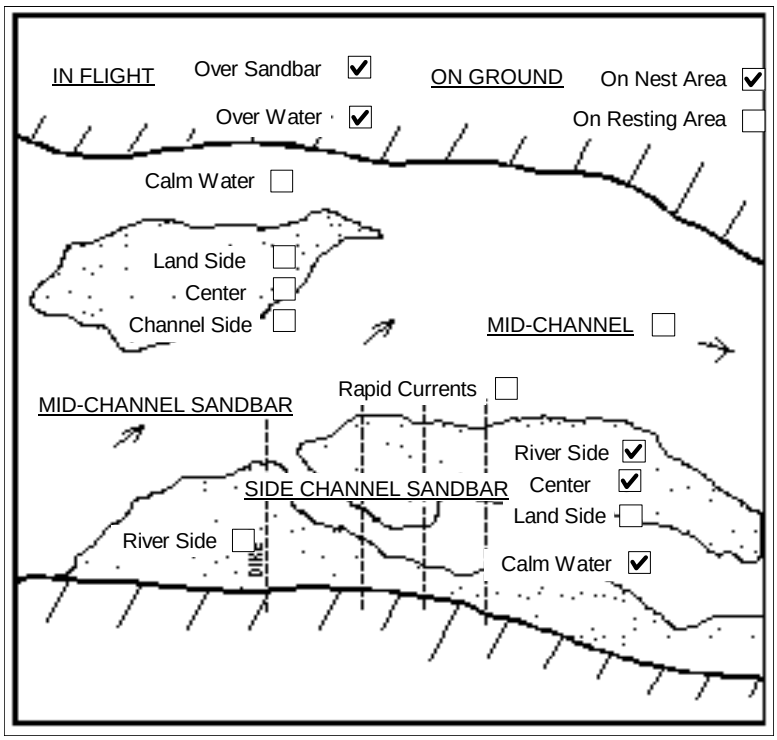
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 8:49 RIVER MILE 528.5

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

WHERE SITED: Latitude: 33.26257
Longitude: 91.12253

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 92
Juveniles:
Eggs: 1(1)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type: grass/forbs
Distance: 150 Feet

FIELD CONDITION:

Temperature: 78 °F
Rain: No
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on bar of sand, gravel, and mud with chicks and nests with eggs. Terns fishing in back chute and mobbing Great Blue Heron and Great Egret. Gizzard Shad and Channel Catfish dropped in colony. Snowy Egret present also, but no other signs of recent disturbance.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

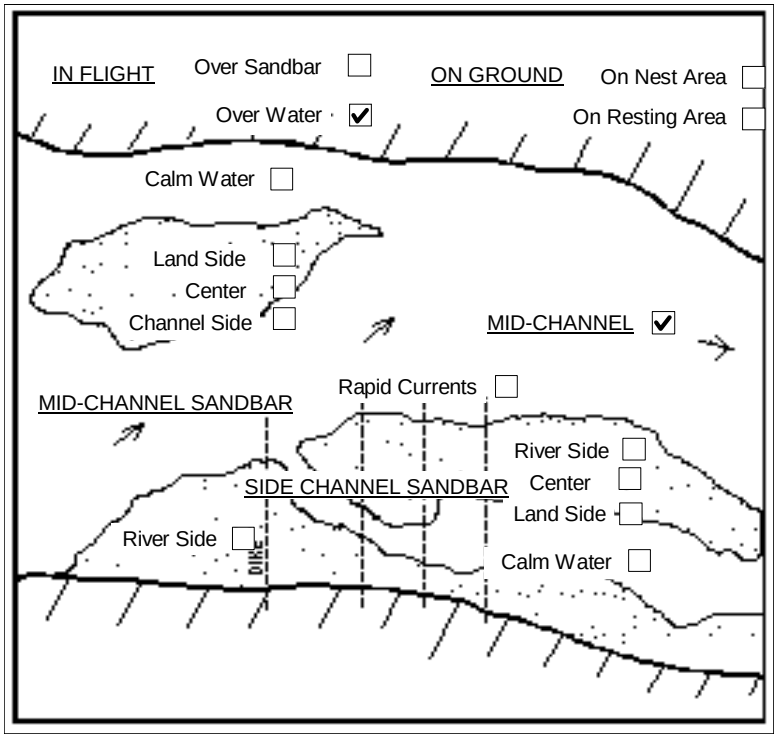
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 9:00 RIVER MILE 523.5

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

WHERE SITED: Latitude: 33.14054
Longitude: 91.09554

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 7
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☐
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: No
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Large, clean sand bar between dikes. Seven terns flying along right bank.

AR side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

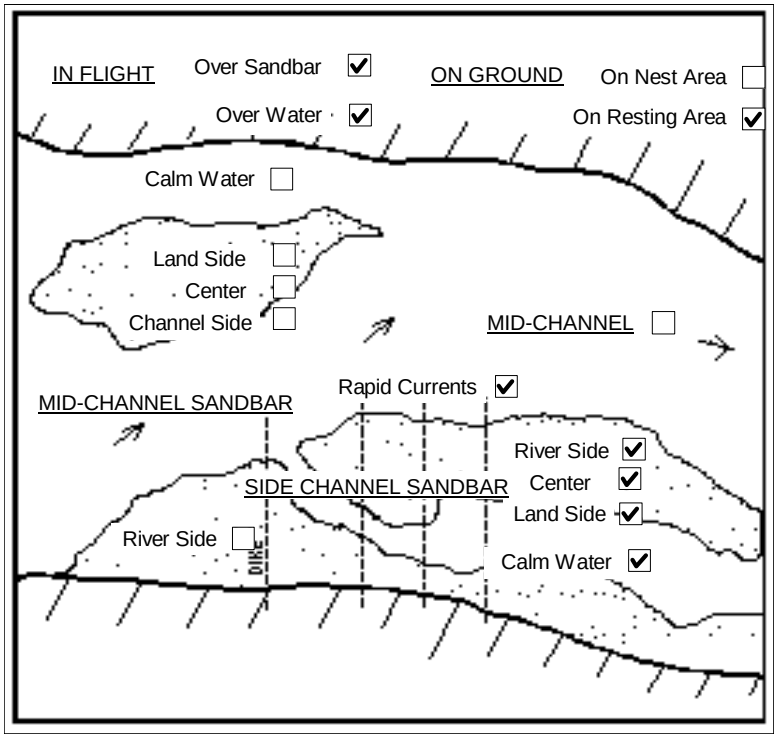
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 9:24 RIVER MILE 520

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

WHERE SITED: Latitude: 33.15462
Longitude: 91.08550

Approximate Distance to Water: 0 Feet



NUMBERS SIGHTED:

Adults: 110
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: No
Wind: calm
% Cloud: 100

OTHER NOTES:

Right Bank. Drift count along unattached, small, sand bar (800 x 100ft.) with terns resting at waterline or fishing at end of dike. Snowy Egret at waterline.

AR side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

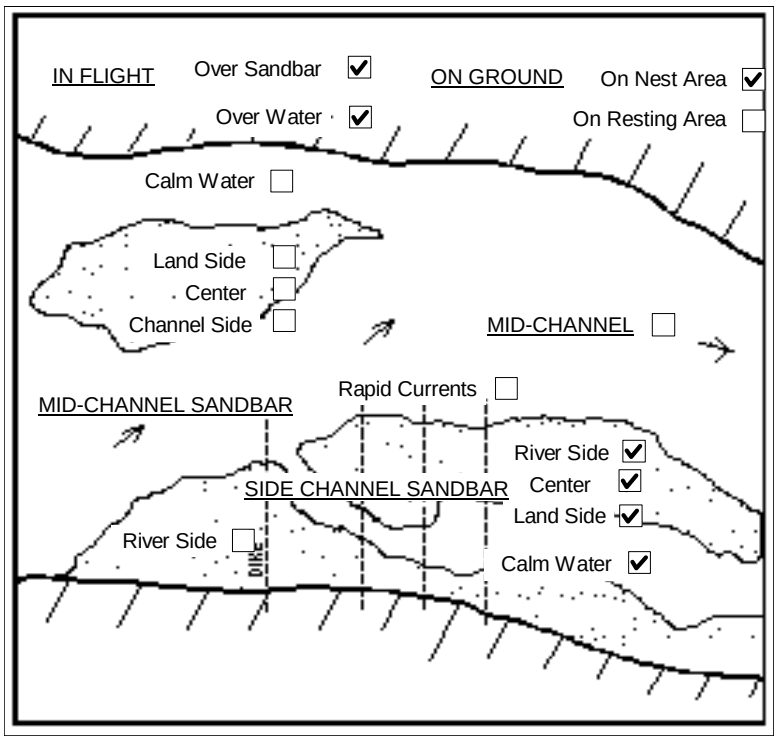
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 9:40 RIVER MILE 517

LOCALITY: Washington (County/Parish) MS (State) SITE NAME: Island #86 Dikes Lower

WHERE SITED: Latitude: 33.12421
Longitude: 91.10625

Approximate Distance to Water: 900 Feet



NUMBERS SIGHTED:

Adults: 184
Juveniles:
Eggs: 2(2)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type: grass/forbs
Distance: 800 Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: SW 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count downstream from previous colony on huge (2miles x 1500ft.) sand and gravel bar with colony on high center. Chicks scattered across bar up to 1 week old. Intense mobbing and diving at observers. Deer tracks and Mourning Doves also present.

AR side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

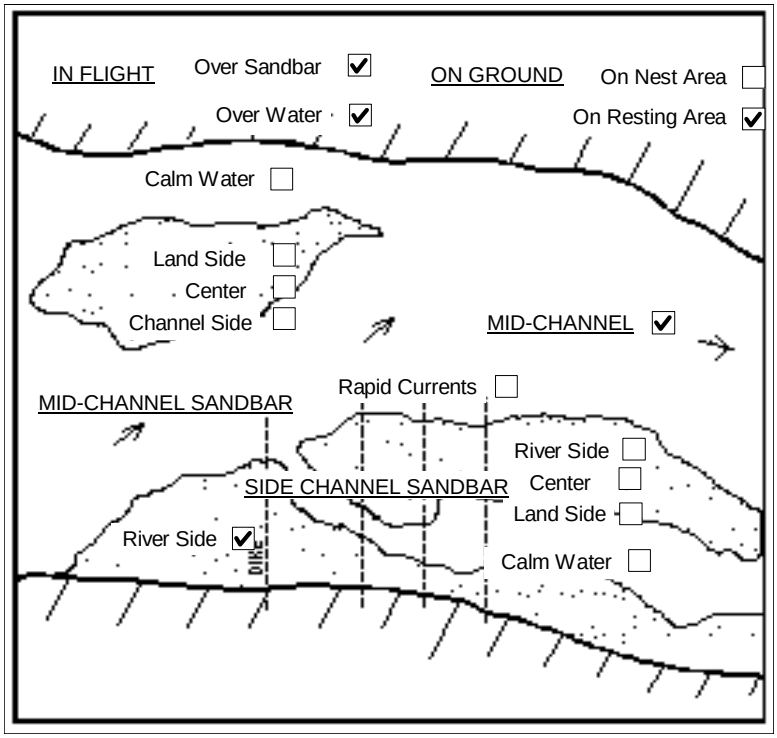
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 10:09 RIVER MILE 514

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

WHERE SITED: Latitude: 33.10000
Longitude: 91.16108

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 60
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Drift count shows terns resting at waterline and scattered widely across sand bar with gravel patches. No nesting activity. Barn Swallows present and 1 Laughing Gull perched on root wad in shallow water.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

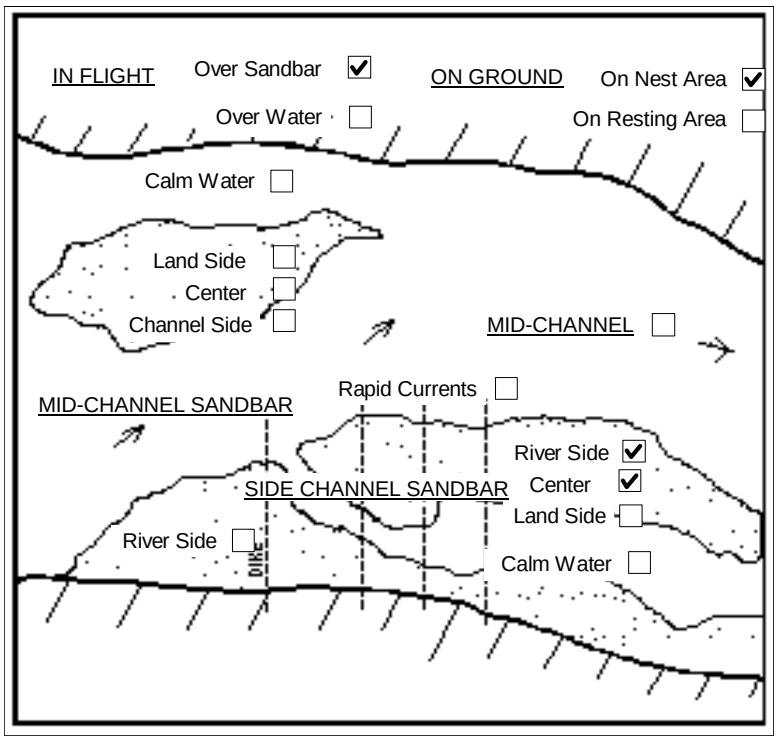
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 10:40 RIVER MILE 508.5

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

WHERE SITED: Latitude: 33.01805
Longitude: 91.15288

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 36
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: S 8-10mph
% Cloud: 100

OTHER NOTES:

Right Bank. Drift count on large sand bar with large gravel patches yeilds count of 36 Terns, some sitting inland on nests. Shallow reef prevents landing or even a close approach. Many crows and 220 White Pelicans just upstream at RM 509.

AR side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

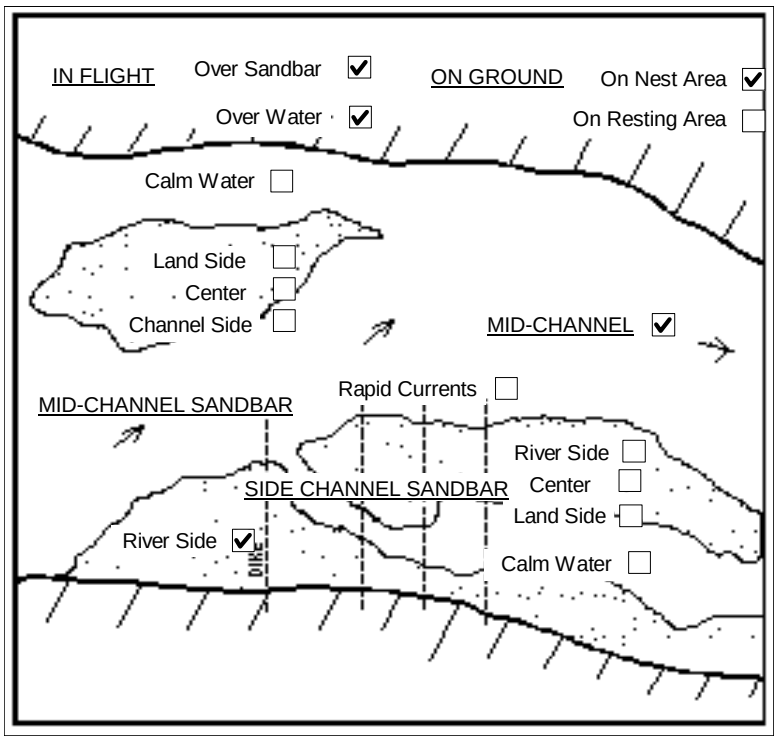
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 10:52 RIVER MILE 503

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

WHERE SITED: Latitude: 32.95714
Longitude: 91.14533

Approximate Distance to Water: 2000 Feet



NUMBERS SIGHTED:

Adults: 1200
Juveniles:
Eggs: 1(2)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 8-10mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on huge, high, flat, attached bar with large debris field and drift. Several scrapes and terns fishing mid-channel and opposite bank. Chicks abundant from 1 to 2 weeks old. Thousands of Cliff Swallows and 100 White Pelicans between dikes with mobbing of Great Blue Heron. Great and Snowy Egrets along with ATV tracks.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

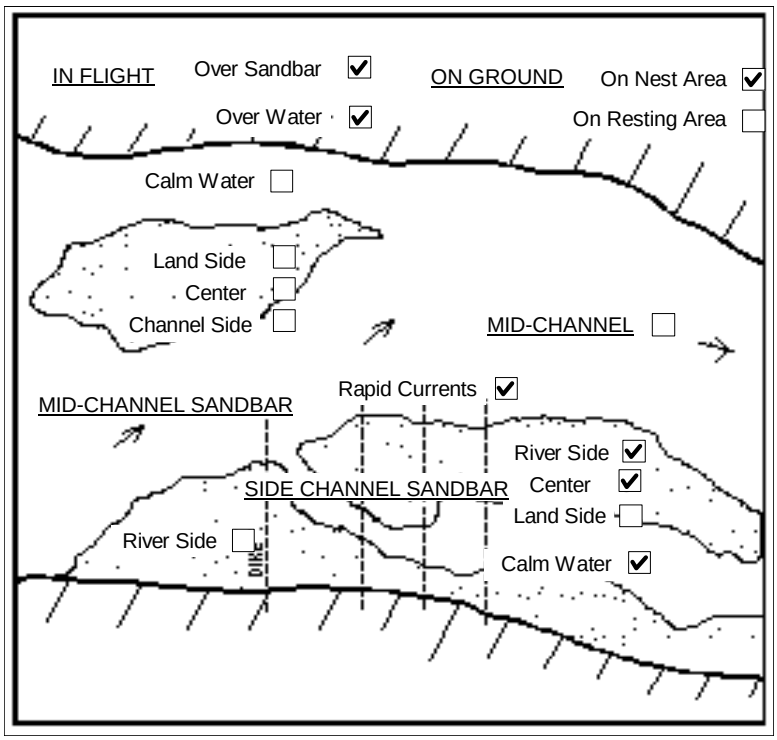
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 11:40 RIVER MILE 500

LOCALITY: East Carroll (County/Parish) LS (State) SITE NAME: Wilson Point Dikes

WHERE SITED: Latitude: 32.94149
Longitude: 91.08423

Approximate Distance to Water: 700 Feet



NUMBERS SIGHTED:

Adults: 94
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

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

OTHER NOTES:

Right Bank. Flush count on high, long, sand and gravel bar (2 x 1/2 miles) with colony on upper end near chute. Mobbing and sitting on scrapes, fishing back chute. Forty-two Wood Storks in flight over bar and fingerling shad (sp?) dropped in colony.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

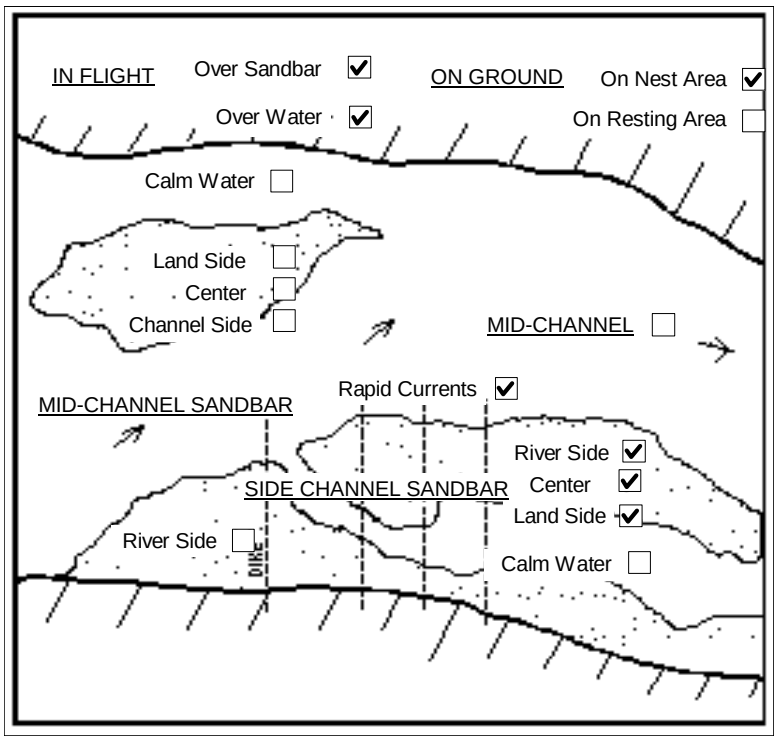
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 12:05 RIVER MILE 492

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

WHERE SITED: Latitude: 32.85623
Longitude: 91.11034

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 146
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 89 °F
Rain: No
Wind: S 5-8mph
% Cloud: 100

OTHER NOTES:

Left Bank. Drift count along narrow, long bar of sand and gravel. Nesting midway and top of 15ft. high center for about 2 miles. Terns sitting on 37 nests, fishing and resting at waterline.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

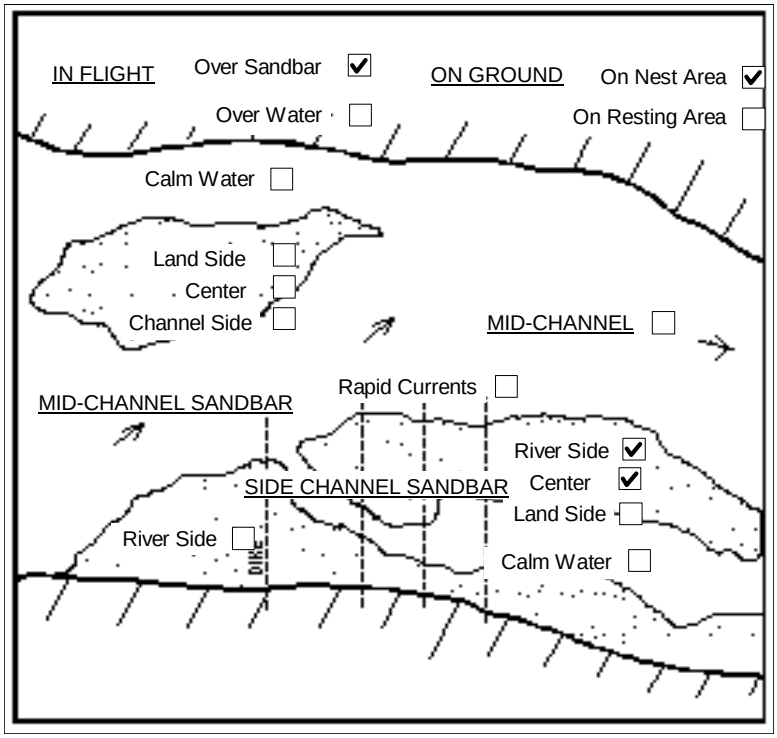
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 13:22 RIVER MILE 487.5

LOCALITY: Issaquena (County/Parish) MS (State) SITE NAME: Ben Lomand Dikes

WHERE SITED: Latitude: 32.80114
Longitude: 91.14995

Approximate Distance to Water: 30 Feet



NUMBERS SIGHTED:

Adults: 154
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: S 0-5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Drift and flush counts on 3 low, flat, unattached sand bars between dikes and behind trail dikes. Terns siting on 24 nests with chicks up to 1 week old. No tracks or other signs of disturbance.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Greenville (Gage Location) = 11.7 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

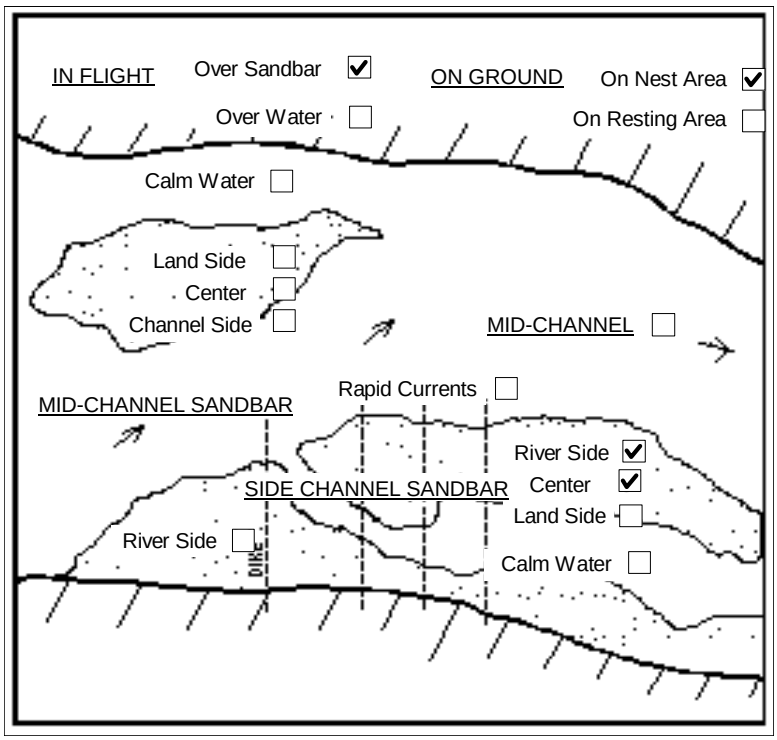
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 13:42 RIVER MILE 483

LOCALITY: Issaquena (County/Parish) MS (State) SITE NAME: Ajax Bar Dikes

WHERE SITED: Latitude: 32.74394
Longitude: 91.14267

Approximate Distance to Water: 900 Feet



NUMBERS SIGHTED:

Adults: 97
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 86 ^{o}F
Rain: No
Wind: S 0-5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Left Bank. Flush count on high, very large (3 x 1 miles) rolling sand bar with gravel patches. Nests located on high center of bar with intense mobbing, chicks upt to 2.5 weeks of age, but no tracks or signs of recent disturbance. Thousand of Cliff Swallows and a few Red-winged Black Birds on bar.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

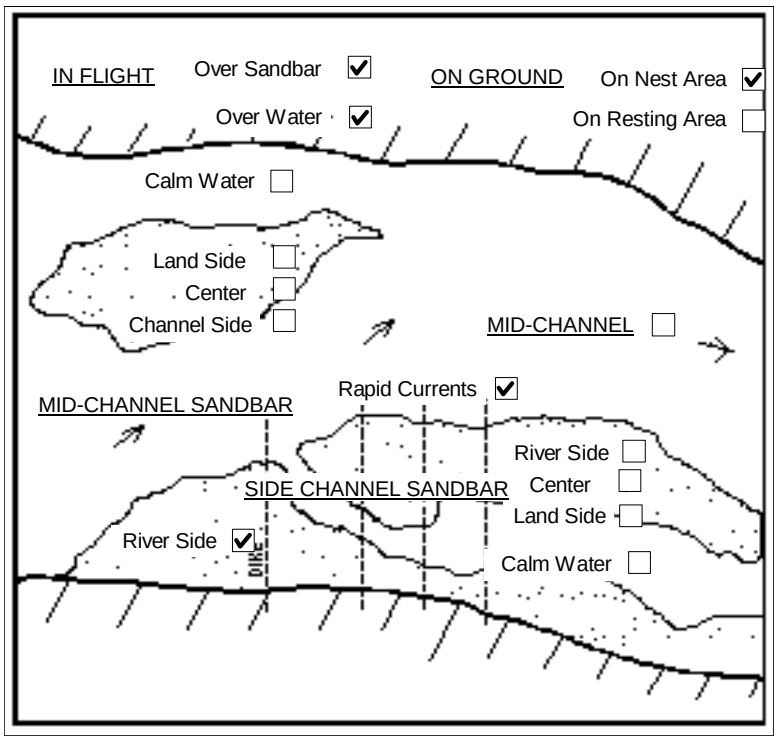
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 14:35 RIVER MILE 476

LOCALITY: East Carroll (County/Parish) LA (State) SITE NAME: Point Lookout Dike

WHERE SITED: Latitude: 32.70505
Longitude: 91.05998

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 52
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Drift count along high, long sand and gravel bar shows eight terns sitting on nests, resting at waterline or mobbing Snowy Egret. Eighty-five Whiite Pelicans resting upstream on bar. No tracks or evidence of disturbance.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

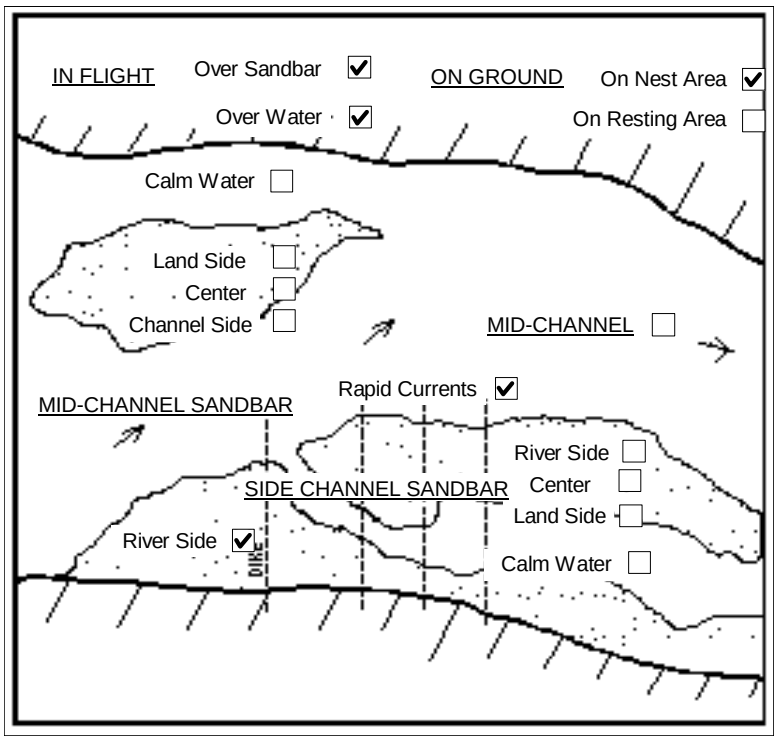
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 15:17 RIVER MILE 461

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

WHERE SITED: Latitude: 32.54301
Longitude: 91.09957

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 88
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 12-15mph
% Cloud: 100

OTHER NOTES:

Right Bank. Drift count along long, wide (2.5 mile x 1200ft.) sand and gravel bar. Terns sitting on nests, at the waterline, and flying over bar. White Ibis in vicinity but no signs of recent disturbance.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

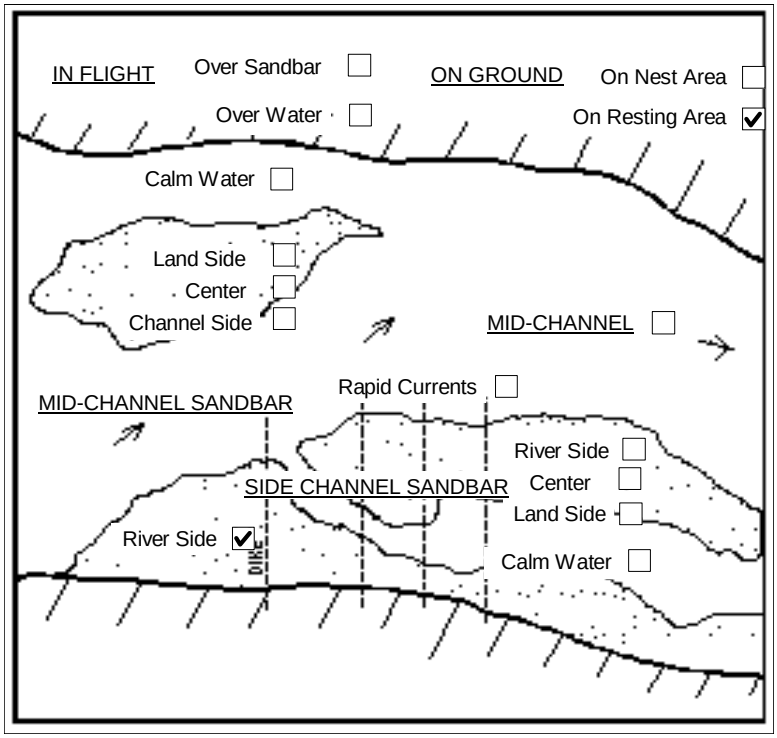
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 15:50 RIVER MILE 451

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

WHERE SITED: Latitude: 32.4456
Longitude: 91.0632

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 19
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 3-5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Drift count. Long (600 x 1 mile), narrow, attached sand bar with all terns resting at waterline.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

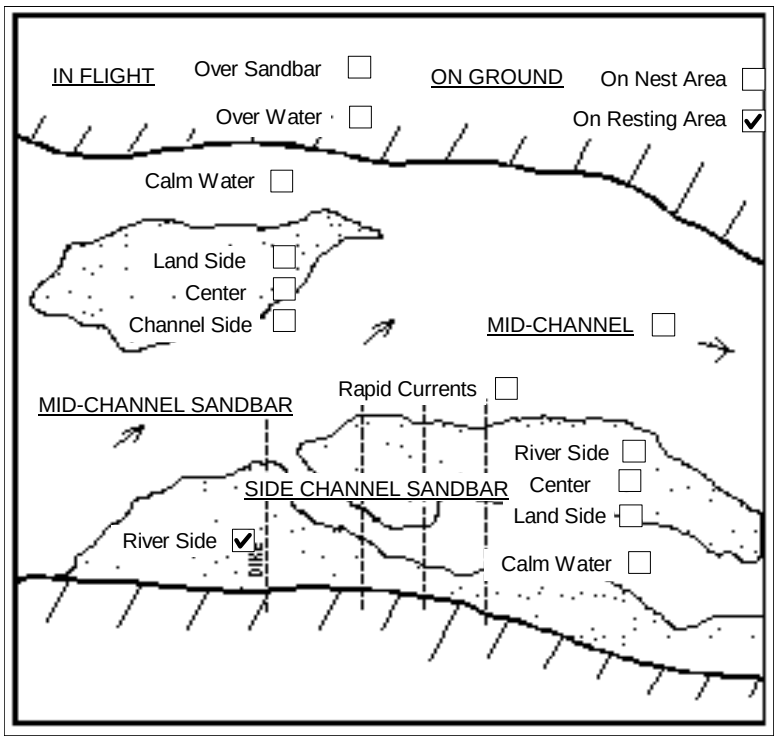
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/11/2012 TIME OF DAY: 16:12 RIVER MILE 447

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

WHERE SITED: Latitude: 32.40032
Longitude: 90.99166

Approximate Distance to Water: 5 Feet



NUMBERS SIGHTED:

Adults: 33
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 84 ^{o}F
Rain: Yes
Wind: S 12-15mph
% Cloud: 100

OTHER NOTES:

Right Bank. Drift count along flat, long, attached riverside bar with all terns resting at waterline. No other activity observed.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 S (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

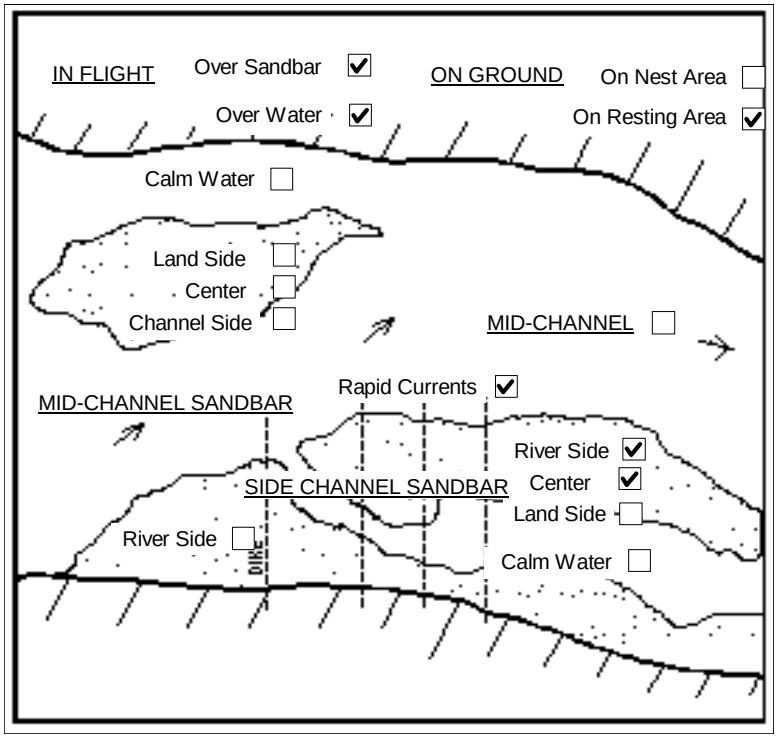
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 8:20 RIVER MILE 429

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

WHERE SITED: Latitude: 32.242220
Longitude: 90.97891

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 58
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 77 °F
Rain: Yes
Wind: W 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Drift count along high, undulating, huge (3miles x 1/3 mile) sand bar with gravel patches. All terns resting or flying at waterline with no activity inland. Ideal colony site but no nesting. Thousands of Cliff Swallows and a few Barn Swallows across bar.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

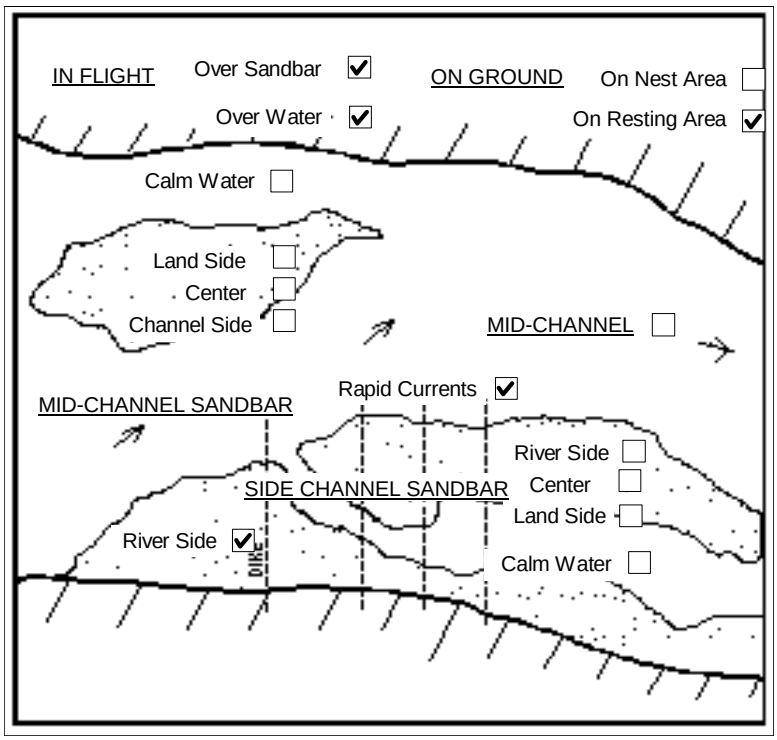
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 8:38 RIVER MILE 426

LOCALITY: Madison (County/Parish) LA (State) SITE NAME: Oak Bend Revetment

WHERE SITED: Latitude: 32.19206
Longitude: 90.99689

Approximate Distance to Water: 10 Feet



NUMBERS SIGHTED:

Adults: 10
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type: grasses
Distance: 100 Feet

FIELD CONDITION:

Temperature: 78 ^{o}F
Rain: Yes
Wind: W 5-8mph
% Cloud: 100

OTHER NOTES:

Right Bank. Drift count along sand and gravel bar opposite Oak Bend Revetment. All terns resting or flying at waterline entire length of bar, but no signs of nesting. Snowy Egret in vicinity.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

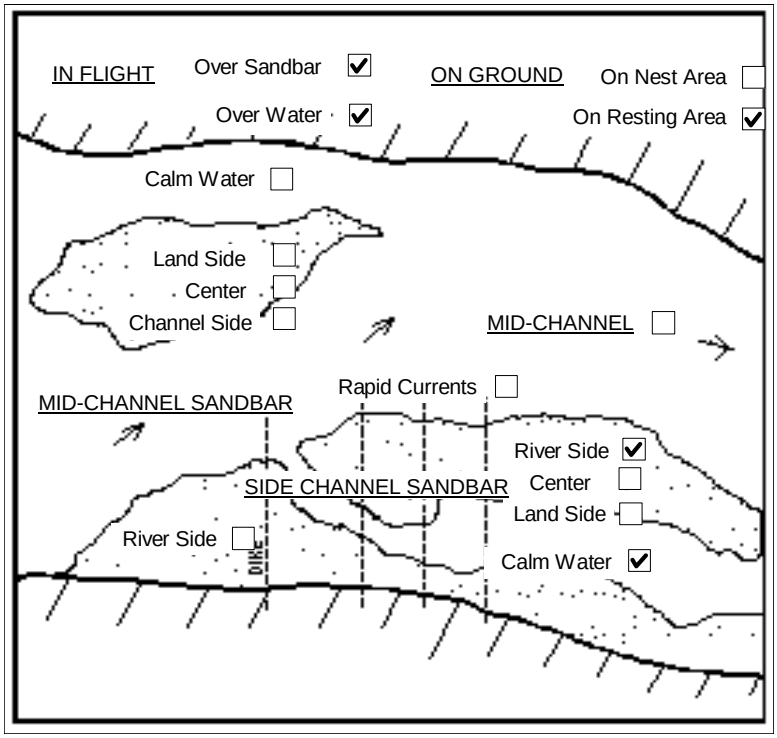
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 8:50 RIVER MILE 423.5

LOCALITY: Warren (County/Parish) MS (State) SITE NAME: Diamond Point Cut-Off Dikes

WHERE SITED: Latitude: 32.15235
Longitude: 91.00016

Approximate Distance to Water: 30 Feet



NUMBERS SIGHTED:

Adults: 22
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: Yes
Wind: W 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Drift count along low, flat, sand bar (2 miles x 900ft.) indicates all terns resting at waterline or flying on back side of bar. Thousands of Cliff Swallows with a few Snowy Egrets and Great Blue Herons on bar along with picinic debris.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

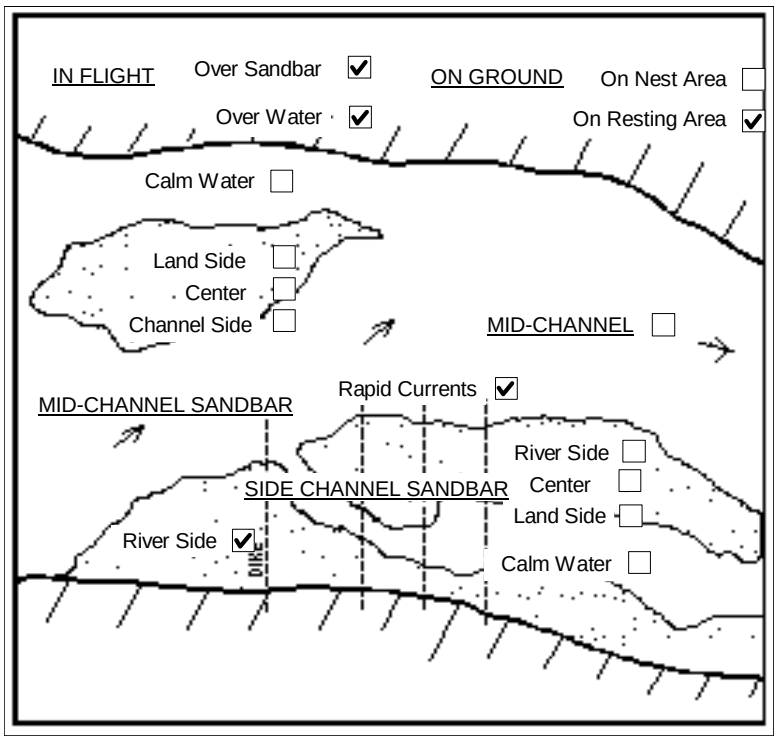
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 9:10 RIVER MILE 419.5

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

WHERE SITED: Latitude: 32.12232
Longitude: 91.03857

Approximate Distance to Water: 800 Feet



NUMBERS SIGHTED:

Adults: 10
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 77 °F
Rain: Yes
Wind: W 0-5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count on attached sand bar (2.5 miles x 1000ft.) with terns at waterline or on bar high point exhibiting slight mobbing. Crows, Great and Snowy Egrets present.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

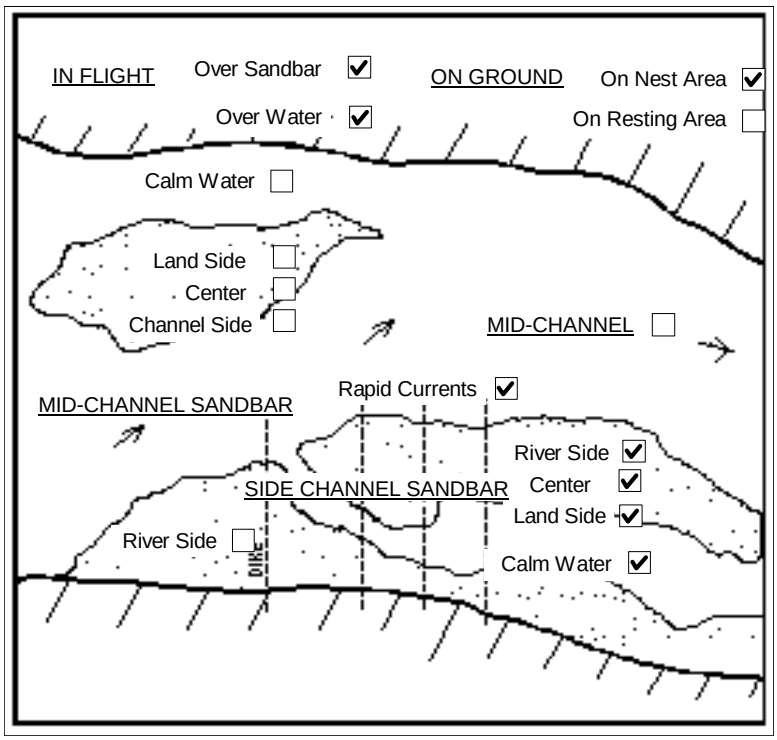
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 9:45 RIVER MILE 410

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

WHERE SITED: Latitude: 32.07296
Longitude: 91.07509

Approximate Distance to Water: 1000 Feet



NUMBERS SIGHTED:

Adults: 60
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 78 °F
Rain: No
Wind: W 0-5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count along high, flat, long sand and gravel bar (3 miles x 1200ft.) shows birds mobbing, carrying fish and sitting on nests. Map Turtle on bar.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Vicksburg (Gage Location) = 4.9 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

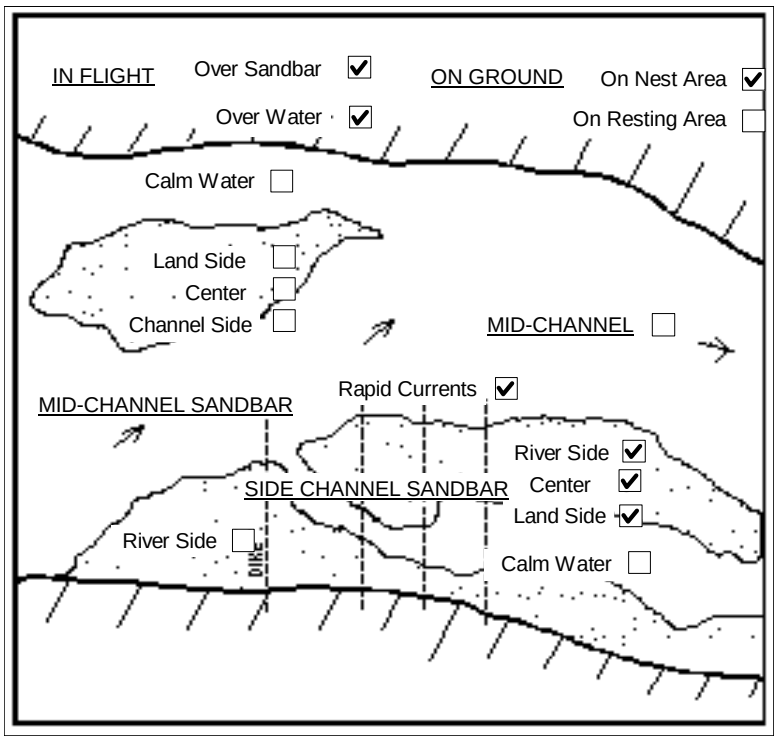
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 10:27 RIVER MILE 401.5

LOCALITY: Tensas (County/Parish) LA (State) SITE NAME: Coffee Point Dikes

WHERE SITED: Latitude: 31.986723
Longitude: 91.13622

Approximate Distance to Water: 300 Feet



NUMBERS SIGHTED:

Adults: 180
Juveniles:
Eggs: 1(1)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 79 °F
Rain: Yes
Wind: calm
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count on long, wide, convoluted,downstream end of sand and gravel bar (1l2 mile x 900ft.) with terns sitting on nests in patches of gravel center of bar or flying and resting at waterline. Chicks present up to 2 weeks old. Mobbing intense and nests widely dispersed length of bar. Three Willets at waterline, but no recent signs of disturbance.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 12.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

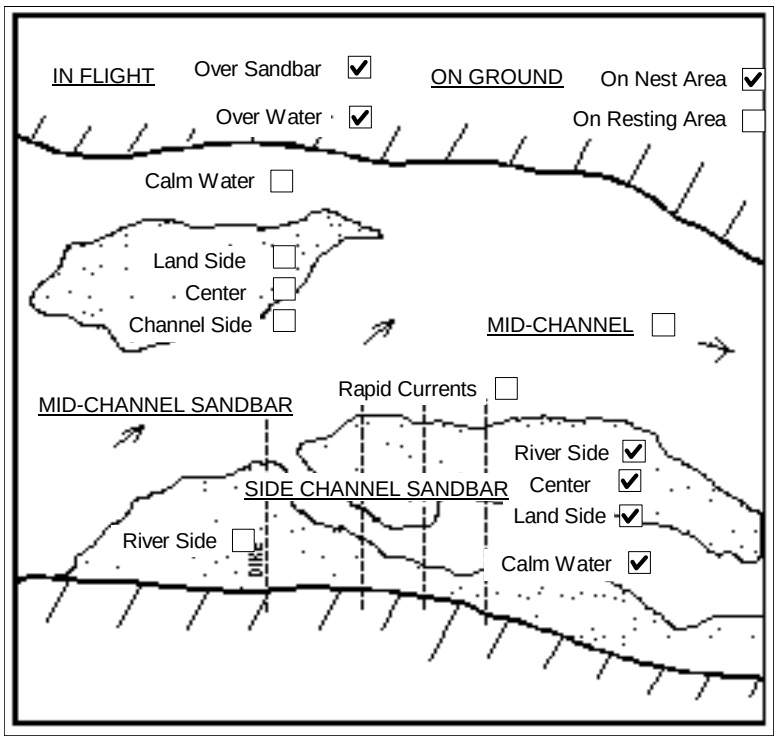
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 11:10 RIVER MILE 394

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

WHERE SITED: Latitude: 31.91163
Longitude: 91.20435

Approximate Distance to Water: 200 Feet



NUMBERS SIGHTED:

Adults: 212
Juveniles:
Eggs: 1(1) 2(2)
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: Yes
Wind: calm
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count on upstream point of flat sand with gravel patches (1000 x .600ft.) Colony located in middle of low, flat portion of bar with many nests in both sand and gravel. Chicks up to 1 week old all across bar. Gizzard Shad fingerling dropped in colony and Four Black Vultures in vicinity.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 12.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

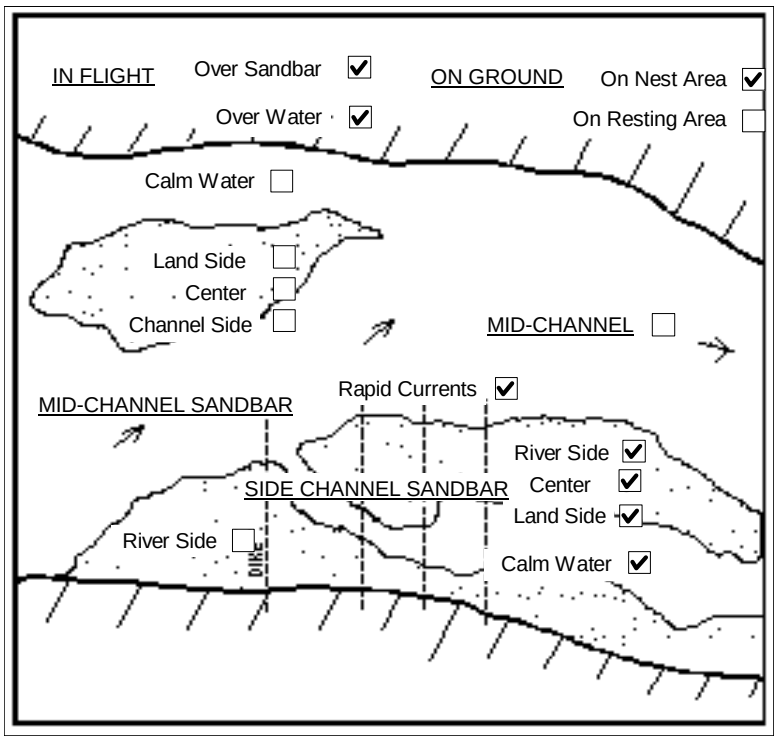
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 12:00 RIVER MILE 383

LOCALITY: Jefferson (County/Parish) MS (State) SITE NAME: Below Spithead Towhead Dikes

WHERE SITED: Latitude: 31.82876
Longitude: 91.34684

Approximate Distance to Water: 40 Feet



NUMBERS SIGHTED:

Adults: 89
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type: grasses
Distance: 100 Feet

FIELD CONDITION:

Temperature: 82 ^{o}F
Rain: No
Wind: calm
% Cloud: 100

OTHER NOTES:

Left Bank. Long, 2.75 miles, sand and gravel bar with 20 terns at waterline and the rest observed inland on nests. Colony on high, small, downstream point and terns fishing back chute. Mobbing observers and many chicks up to 1.5 weeks of age. Forty -seven terns obsreved upstream resting at waterlines.

MS side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 12.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

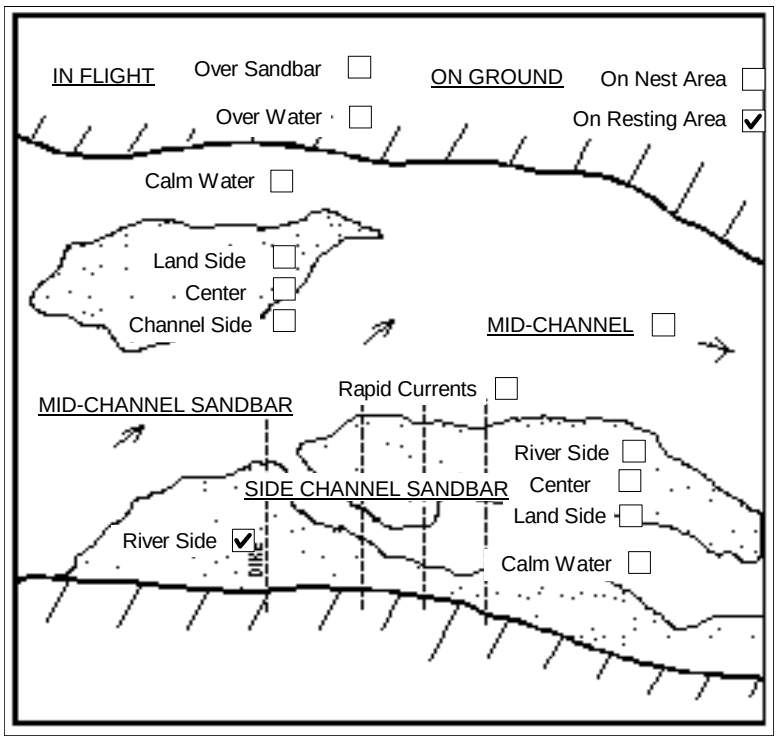
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/12/2012 TIME OF DAY: 12:40 RIVER MILE 378

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

WHERE SITED: Latitude: 31.76160
Longitude: 91.36942

Approximate Distance to Water: Feet



NUMBERS SIGHTED:

Adults: 38
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: calm
% Cloud: 100

OTHER NOTES:

Right Bank. High sand bar below dikes with birds resting at waterline, No nesting activity observed.

LA side

OBSERVERS: R. Davin, Fowlkes, Gamble, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 12.6 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

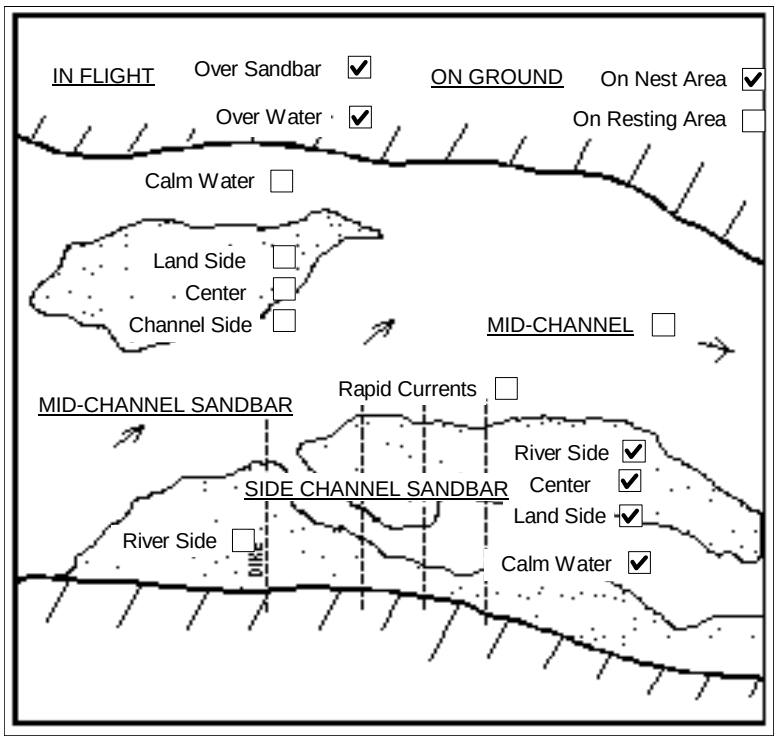
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/13/2012 TIME OF DAY: 7:57 RIVER MILE 351

LOCALITY: Adams (County/Parish) MS (State) SITE NAME: Opp. Warnicott Landing Dikes

WHERE SITED: Latitude: 31.43189
Longitude: 91.50563

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 109
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: grasses
Distance: 20 Feet

FIELD CONDITION:

Temperature: 77 °F
Rain: No
Wind: SW 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on high, long (1mile x 1000ft.) solid sand bar with open back chute. Many chicks up to 1.5 weeks of age in grass and sand backside. Many active nests and some abandoned eggs. ATV tracks abundant with thousands of Cliff Swallows, some Snowy Egrets, Crows, Great Egrets, Great Blue Herons and 1 White Ibis upstream from colony.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 13.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

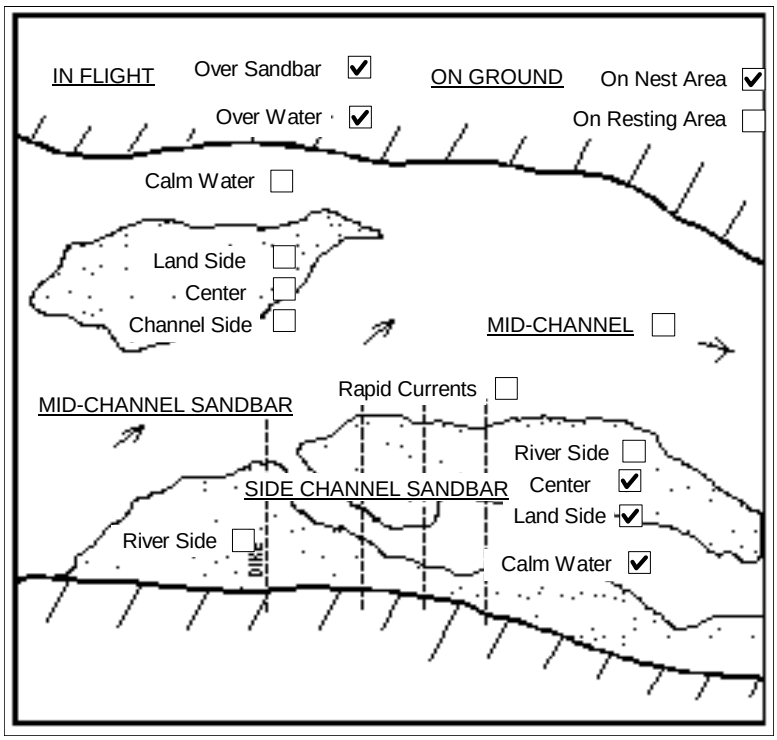
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/13/2012 TIME OF DAY: 8:48 RIVER MILE 348

LOCALITY: Adams (County/Parish) MS (State) SITE NAME: Opposite Esperance Point Dikes

WHERE SITED: Latitude: 31.40552
Longitude: 91.47725

Approximate Distance to Water: 400 Feet



NUMBERS SIGHTED:

Adults: 26
Juveniles:
Eggs:
Chicks: Yes

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: grasses
Distance: 15 Feet

FIELD CONDITION:

Temperature: 77 °F
Rain: No
Wind: SW 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on high, rolling sand bar (1200 x 700ft.) on downstream end. Terns nesting in grass, mobbing observers and fishing back chute. Three chicks observed, 3 days old. Signs of human intrusion and five Willets at the waterline.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 13.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

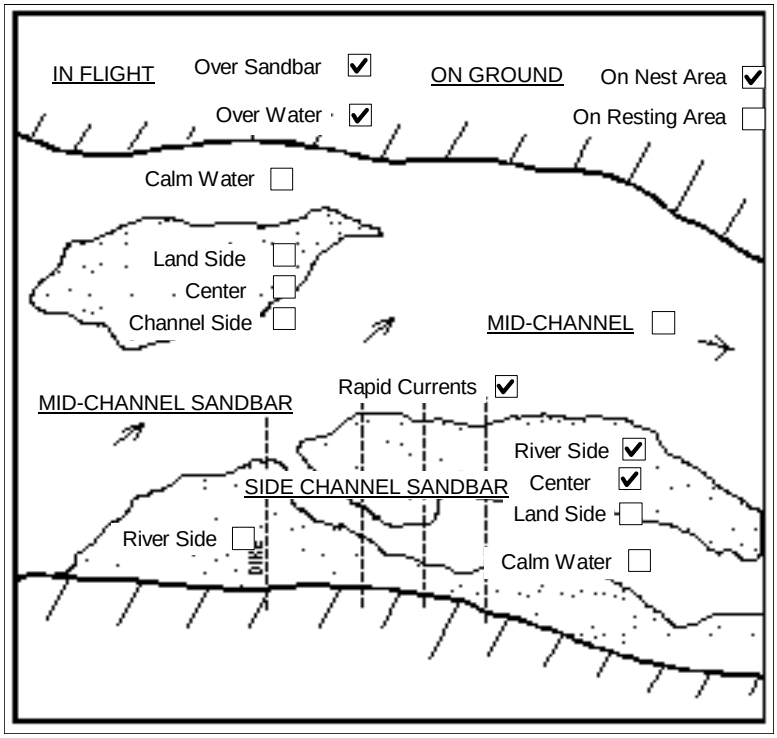
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/13/2012 TIME OF DAY: 9:25 RIVER MILE 346

LOCALITY: Concordia (County/Parish) LA (State) SITE NAME: Esperance Point Dikes

WHERE SITED: Latitude: 31.36784
Longitude: 91.47276

Approximate Distance to Water: 300 Feet



NUMBERS SIGHTED:

Adults: 92
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: No
Wind: SW 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count on long, sand bar (1.5 miles x 800ft.) with terns nesting near river side of bar on 9 scrapes. Mobbing geese nearby and some resting at waterline. Several hundred swallows in vicinity with Turkey vultures and Snowy Egrets in flight.

LA side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 13.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

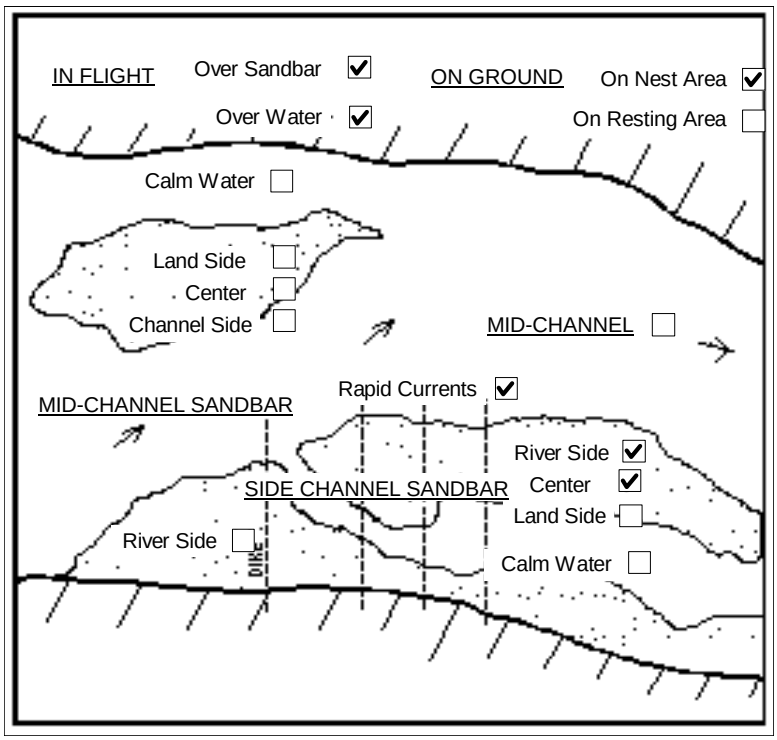
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/13/2012 TIME OF DAY: 9:50 RIVER MILE 336

LOCALITY: Concordia (County/Parish) LA (State) SITE NAME: Fritz Island Dikes

WHERE SITED: Latitude: 31.26137
Longitude: 91.55145

Approximate Distance to Water: 0 Feet



NUMBERS SIGHTED:

Adults: 44
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 77 °F
Rain: No
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count on high, flat sand and gravel bar (1.5 miles x 900ft.) with storm less than 1 mile away. No disturbance signs.

LA side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 13.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

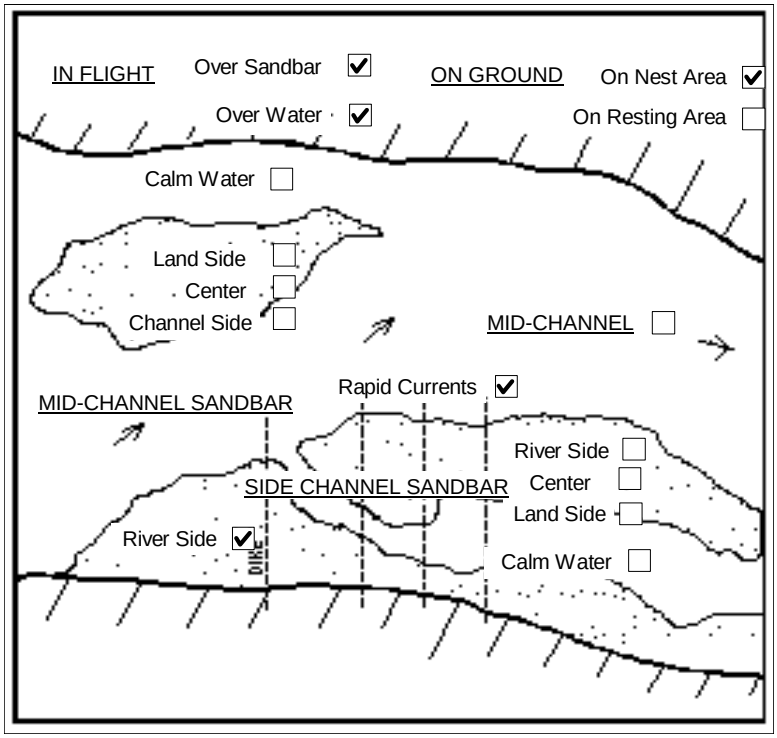
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/13/2012 TIME OF DAY: 10:30 RIVER MILE 329

LOCALITY: Adams (County/Parish) MS (State) SITE NAME: Jackson Point

WHERE SITED: Latitude: 31.24460
Longitude: 91.65143

Approximate Distance to Water: 100 Feet



NUMBERS SIGHTED:

Adults: 28
Juveniles:
Eggs: 2(2)
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☑

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 78 ^{o}F
Rain: Yes
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Left Bank. Flush count on huge, sand and gravel bar with debris (2 x 1 miles). Colony on river side and close to water with 6 terns sitting on nests and aberant green egg observed (?). Osprey flying over water but no other disturbance noted.

MS side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 13.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

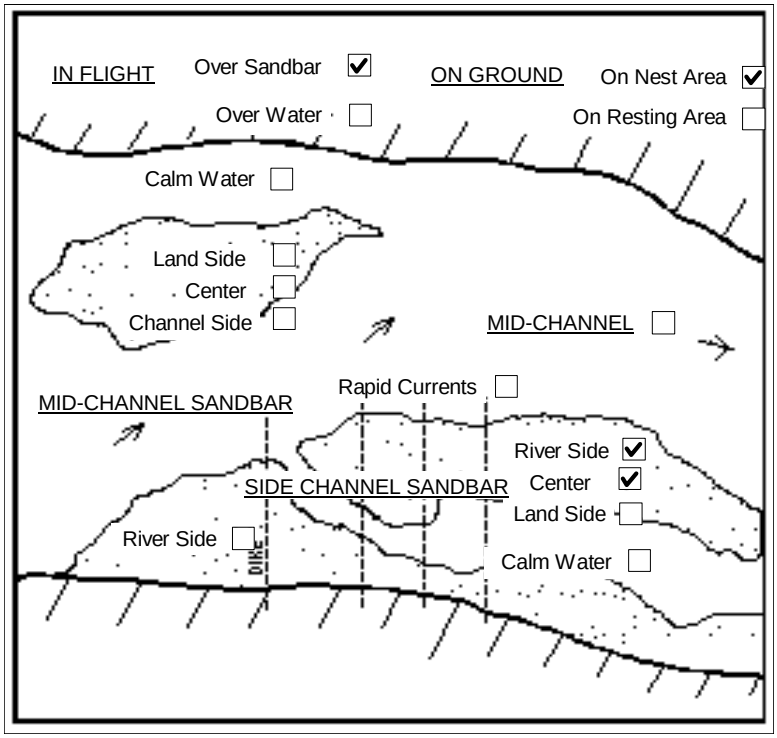
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/13/2012 TIME OF DAY: 10:47 RIVER MILE 325

LOCALITY: Concordia (County/Parish) LA (State) SITE NAME: Homochito Cut-Off

WHERE SITED: Latitude: 31.20904
Longitude: 91.60905

Approximate Distance to Water: 300 Feet



NUMBERS SIGHTED:

Adults: 48
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☑
Debris: ☐

VEGETATION:

Type:
Distance: Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: Yes
Wind: S 5mph
% Cloud: 100

OTHER NOTES:

Right Bank. Flush count on low, small sand and gravel bar (1200 x 800ft.) with colony on high center in gravel. Seven terns sitting on nests with others at the waterline upstream point.

LA side

OBSERVERS: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 13.0 R (Elevation)

FIELD SIGHTING
DATA SHEET

FLY ☐ BOAT ☑

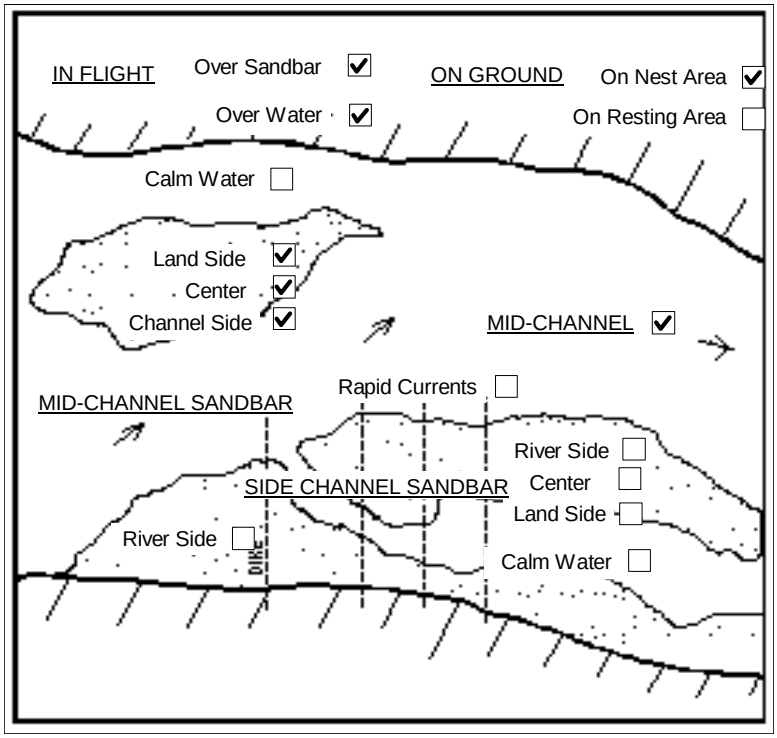
SPECIES: Interior Least Tern ***(Sterna antillarum athalassos)***

DATE: 7/13/2012 TIME OF DAY: 13:12 RIVER MILE 299

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

WHERE SITED: Latitude: 30.93309
Longitude: 91.64365

Approximate Distance to Water: 20 Feet



NUMBERS SIGHTED:

Adults: 35
Juveniles:
Eggs:
Chicks: No

SUBSTRATE:

Sand: ☑
Gravel: ☐
Debris: ☐

VEGETATION:

Type: Willows
Distance: 200 Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: Yes
Wind: S 5mph
% Cloud: 100

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: Blackwood, R. Davin, Fowlkes, Rumancik

RIVER GAGE READING: Natchez (Gage Location) = 13.0 R (Elevation)