

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

2006

By

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Under Contract with URS Corporation

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

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

This year's survey yielded a total count of 8,171 Least Terns and 107 nesting colonies, more colonies than have ever previously been recorded, and the third highest number of Least Terns since the surveys were initiated (the 2004 survey recorded 11,239 and 2005 recorded 10,960 Least Terns). Sixty-three colonies were identified based on the presence of eggs and/or chicks (Tables 1 and 2). Forty-four colonies were identified based on the presence of a large number of nest scrapes, adult behavior and other indicators of likely reproductive effort such as

wetting breast feathers, sitting inland, carrying fish or intense mobbing of intruders. The largest colony was located near Island #84 Dikes (RM 533) with 600 adult terns counted. Other large colonies included Sunflower Cut-off (RM 625.0) with 388 birds, Leland Neck Dikes (RM 540.0) with 350, and Randolph (RM 771.1) with 279 Least Terns. The smallest colonies were at Lower Kentucky Bend Bar (RM 517.5), Cat Island Dikes (RM 710.0), and Smith Point Dikes (RM 599.5) with just 6, 7, and 7 birds.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- 1) Hurricane Katrina (August 2005) may have disrupted the fall migration of Least Terns causing more mortality, either directly or indirectly, than is normally experienced by the inland nesting population.

- 2) Katrina may have enhanced coastal nesting habitats for Least Terns with more breeding birds opting for southern coastal colony locations in 2006 rather than riparian locations farther north.

- 3) Lower than usual river stages produced more available colony sites in 2006, but because of the wide dispersal of terns breeding at these locations, counts were more likely to miss birds than in previous years.

- 4) Or, this year's count simply reflected a downward trend in the population that, according to 20 years of census data, fluctuates with peaks and valleys every 4 to 5 years.

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

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

SUBTOTAL

940

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

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

SUBTOTAL

2,197

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

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

SUBTOTAL

1,732

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

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

SUBTOTAL

2,323

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

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

SUBTOTAL

979

TOTAL INDIVIDUALS

8,171

TOTAL SITES

144

TOTAL COLONIES

107

c Confirmed chicks or eggs

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

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

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

| River Reach | Number of Colonies |
|--|--------------------|
| Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954 | 2 |
| Cairo, IL, to Osceola, AR RM 954 – RM 790 | 22 |
| Osceola, AR, to Helena, AR RM 790 – RM 670 | 22 |
| Helena, AR, to Greenville, MS RM 670 – RM 530 | 27 |
| Greenville, MS, to Vicksburg, MS RM 530 – RM 430 | 20 |
| Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230 | 14 |
| TOTAL | 107 |

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

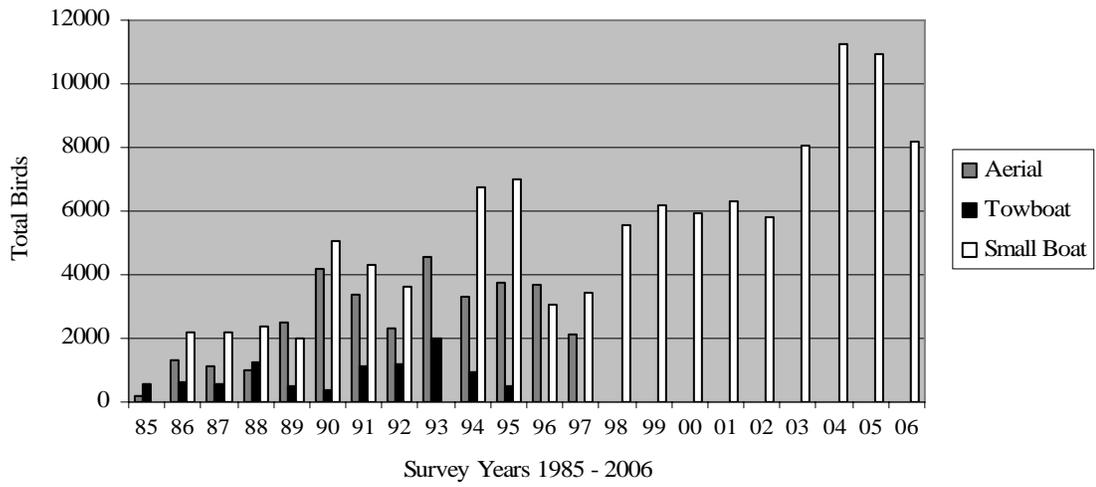
Bold numbers indicate crest in following river rise.
Shaded numbers indicate stages at time of survey.

| 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 | 13.9 | 3.9 | 7.0 | 0.2 | 7.1 | 6.4 | 17.0 | 10.1 | 18.2 |
| 22 | 13.7 | 3.5 | 6.7 | -0.2 | 6.8 | 6.5 | 16.9 | 9.9 | 17.6 |
| 23 | 13.4 | 3.2 | 6.4 | -0.6 | 6.6 | 6.2 | 17.0 | 9.7 | 17.1 |
| 24 | 14.4 | 3.1 | 6.1 | -1.0 | 6.0 | 6.1 | 16.7 | 9.5 | 16.9 |
| 25 | 14.2 | 3.8 | 6.5 | -1.5 | 5.4 | 5.6 | 16.1 | 9.3 | 16.8 |
| 26 | 14.7 | 3.9 | 6.7 | -1.5 | 4.9 | 5.7 | 16.1 | 8.9 | 16.4 |
| 27 | 15.4 | 4.4 | 7.0 | -1.4 | 4.7 | 5.0 | 15.5 | 8.6 | 16.1 |
| 28 | 15.7 | 4.9 | 7.5 | -1.2 | 4.7 | 4.7 | 15.0 | 8.1 | 15.8 |
| 29 | 16.3 | 5.3 | 7.9 | -0.9 | 4.9 | 4.4 | 14.8 | 7.5 | 15.3 |
| 30 | 18.4 | 6.5 | 8.5 | -0.5 | 5.1 | 4.4 | 14.7 | 7.1 | 14.8 |
| July | | | | | | | | | |
| 1 | 19.0 | 7.9 | 9.9 | -0.1 | 5.4 | 4.7 | 14.8 | 6.9 | 14.4 |
| 2 | 19.6 | 8.8 | 10.8 | 1.1 | 6.1 | 5.0 | 15.5 | 6.9 | 14.2 |
| 3 | 20.2 | 9.4 | 11.5 | 2.1 | 7.2 | 5.2 | 15.4 | 7.2 | 14.4 |
| 4 | 20.4 | 10.0 | 12.1 | 2.8 | 8.1 | 5.7 | 15.9 | 7.6 | 14.6 |
| 5 | 19.0 | 9.8 | 12.4 | 3.6 | 8.9 | 6.4 | 16.6 | 8.1 | 14.9 |
| 6 | 15.6 | 7.9 | 11.4 | 4.1 | 9.7 | 8.0 | 17.4 | 8.8 | 15.5 |
| 7 | 14.1 | 5.1 | 9.1 | 3.5 | 9.9 | 7.6 | 18.4 | 9.7 | 16.1 |
| 8 | 14.2 | 3.7 | 7.3 | 1.9 | 9.2 | 7.8 | 18.5 | 10.4 | 16.9 |
| 9 | 14.6 | 3.8 | 6.7 | -0.1 | 7.6 | 7.6 | 18.5 | 10.8 | 17.4 |
| 10 | 15.7 | 4.4 | 6.9 | -1.2 | 5.9 | 6.7 | 17.8 | 10.8 | 17.8 |
| 11 | 17.9 | 5.9 | 7.8 | -1.4 | 4.8 | 5.6 | 17.3 | 10.2 | 17.8 |
| 12 | 17.8 | 7.3 | 9.4 | -0.8 | 4.8 | 4.9 | 15.5 | 9.2 | 17.2 |
| 13 | 16.6 | 7.0 | 9.8 | 0.6 | 5.4 | 4.5 | 15.2 | 8.1 | 16.4 |
| 14 | 15.2 | 5.7 | 9.1 | 1.4 | 6.6 | 4.8 | 15.8 | 7.3 | 15.4 |
| 15 | 14.6 | 4.8 | 8.0 | 1.1 | 7.4 | 6.1 | 17.4 | 7.4 | 14.8 |
| 16 | 16.7 | 4.7 | 7.4 | 0.3 | 7.2 | 6.4 | 17.5 | 8.2 | 14.9 |
| 17 | 17.7 | 6.4 | 8.5 | -0.5 | 6.5 | 5.9 | 16.3 | 8.8 | 15.6 |
| 18 | 18.7 | 7.5 | 9.5 | -0.2 | 6.1 | 5.7 | 16.3 | 9.0 | 16.0 |
| 19 | 19.7 | 8.5 | 10.5 | 0.9 | 6.4 | 5.7 | 16.2 | 8.7 | 16.0 |
| 20 | 19.8 | 9.2 | 11.4 | 1.8 | 7.1 | 5.8 | 16.1 | 8.5 | 15.9 |
| 21 | 18.8 | 8.8 | 11.5 | 2.8 | 8.0 | 6.5 | 16.4 | 8.4 | 15.7 |

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

| Year | 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 |
| Towboat | | | | | | | | | | | |
| Individuals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sites | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Colonies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Small Boat | | | | | | | | | | | |
| Individuals | 3,067 | 3,428 | 5,538 | 6,159 | 5,920 | 6,361 | 5,802 | 8,082 | 11,239 | 10,960 | 8,171 |
| Sites | 47 | 79 | 91 | 134 | 124 | 141 | 100 | 115 | 114 | 118 | 144 |
| Colonies | 31 | 57 | 39 | 38 | 64 | 54 | 68 | 68 | 69 | 88 | 107 |

Least Tern Surveys
Lower Mississippi River



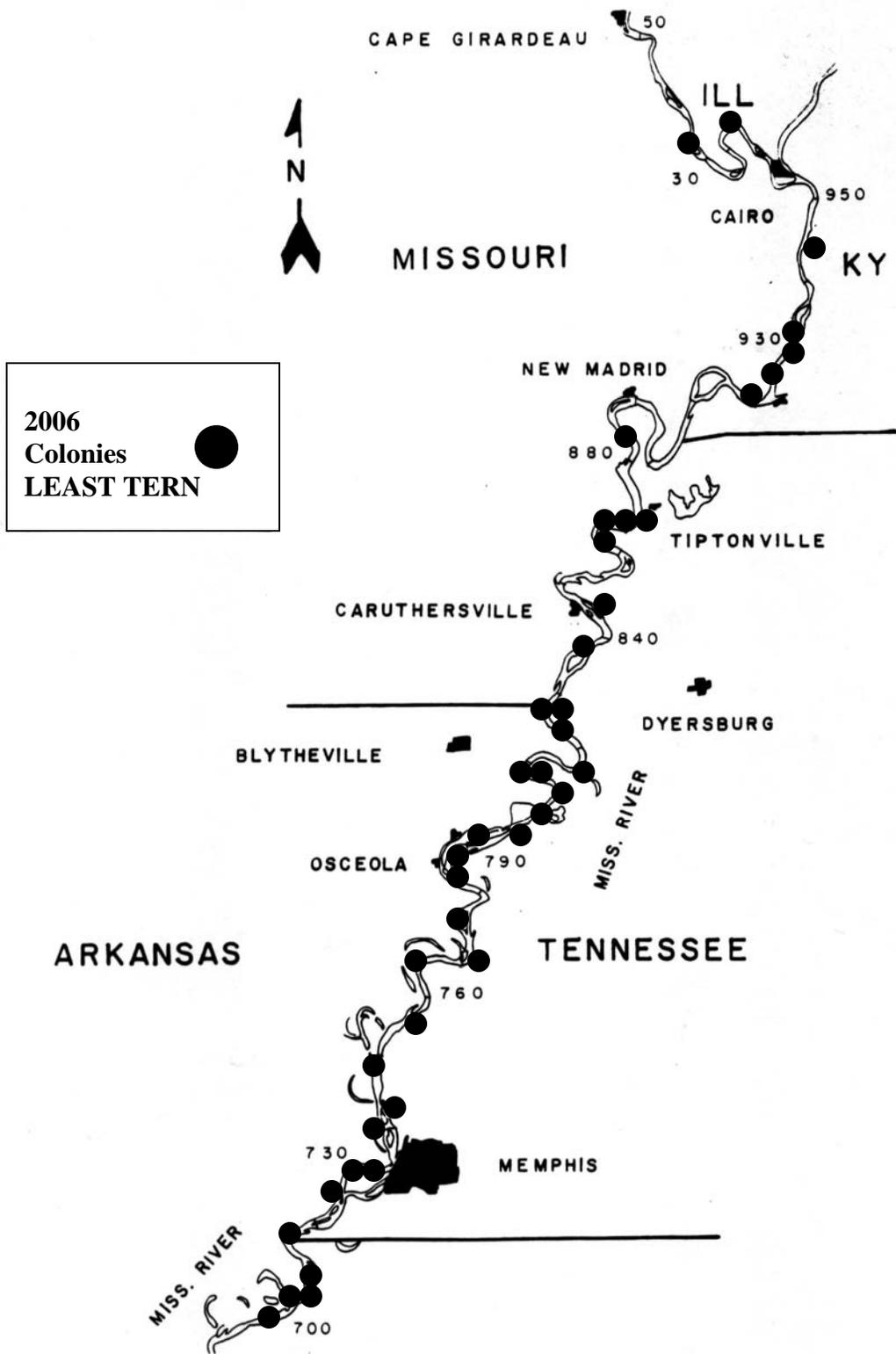


Figure 1: Least Tern Survey – 2006 – Area Map of Nest Colonies on Mississippi River – Cape Girardeau, MO to Baton Rouge, LA

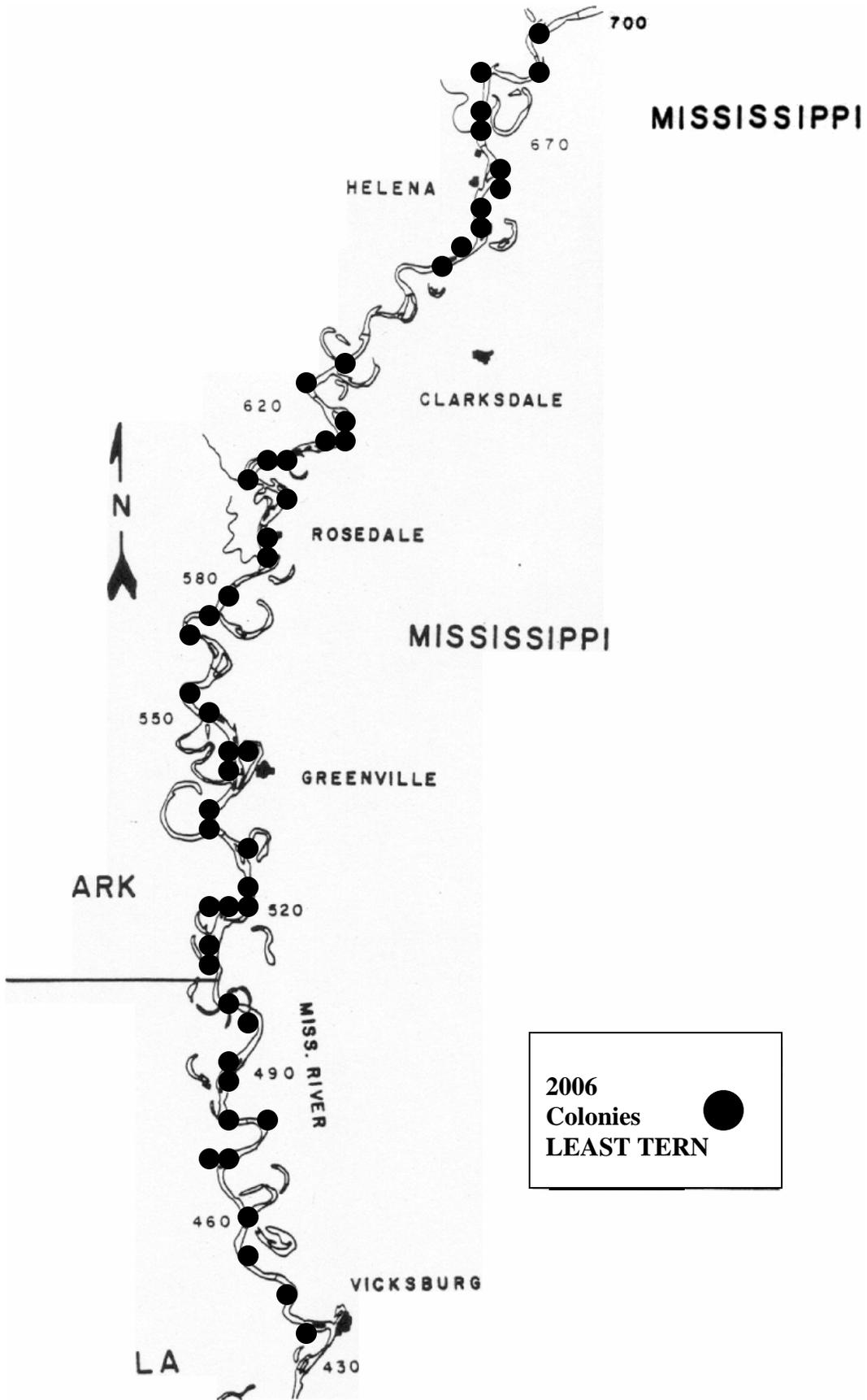


Figure 1 Continued: Area Map of Nest Colonies

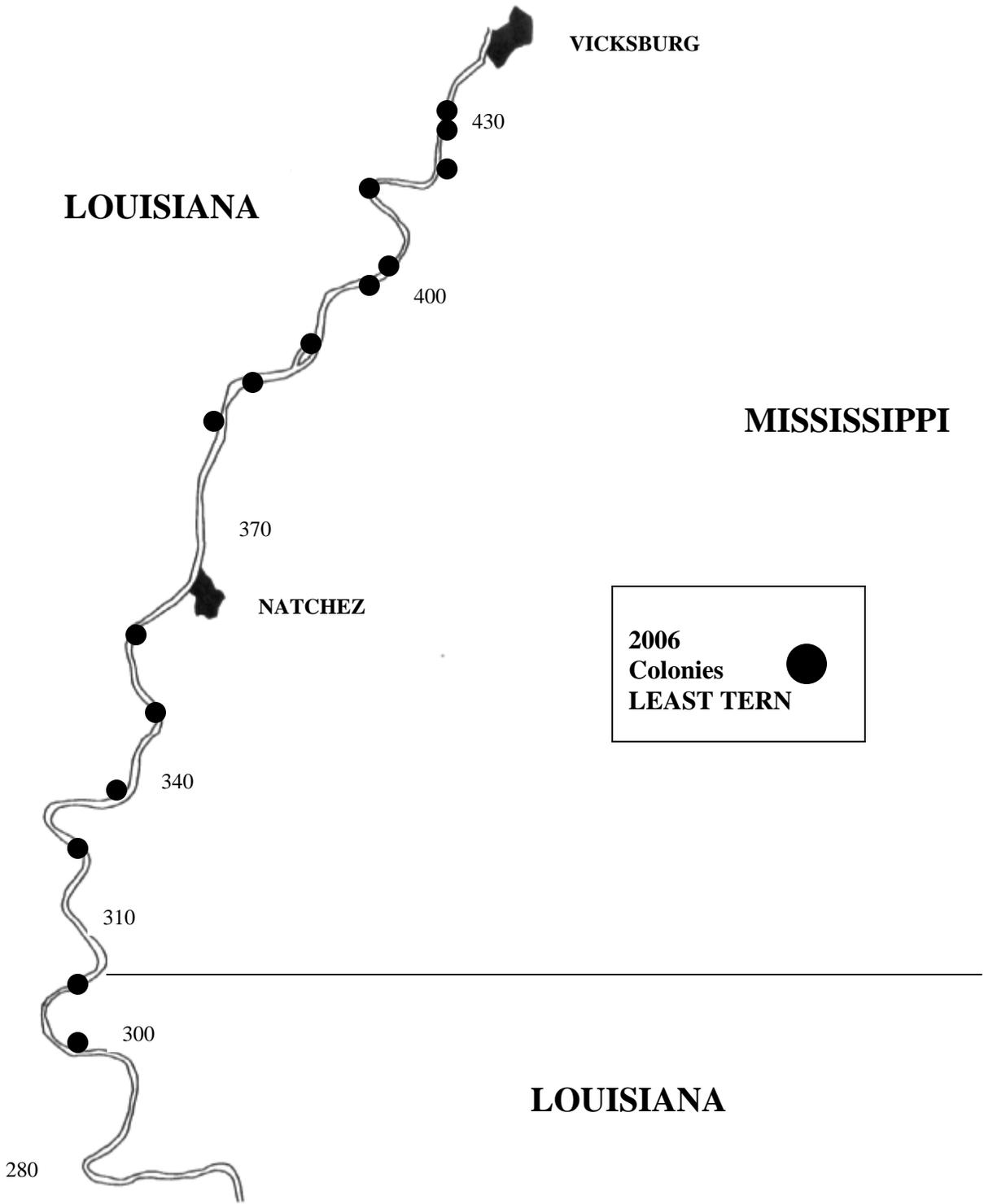


Figure 1 Continued: Area Map of Nest Colonies

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

2006

APPENDIX A

APPENDIX A – I

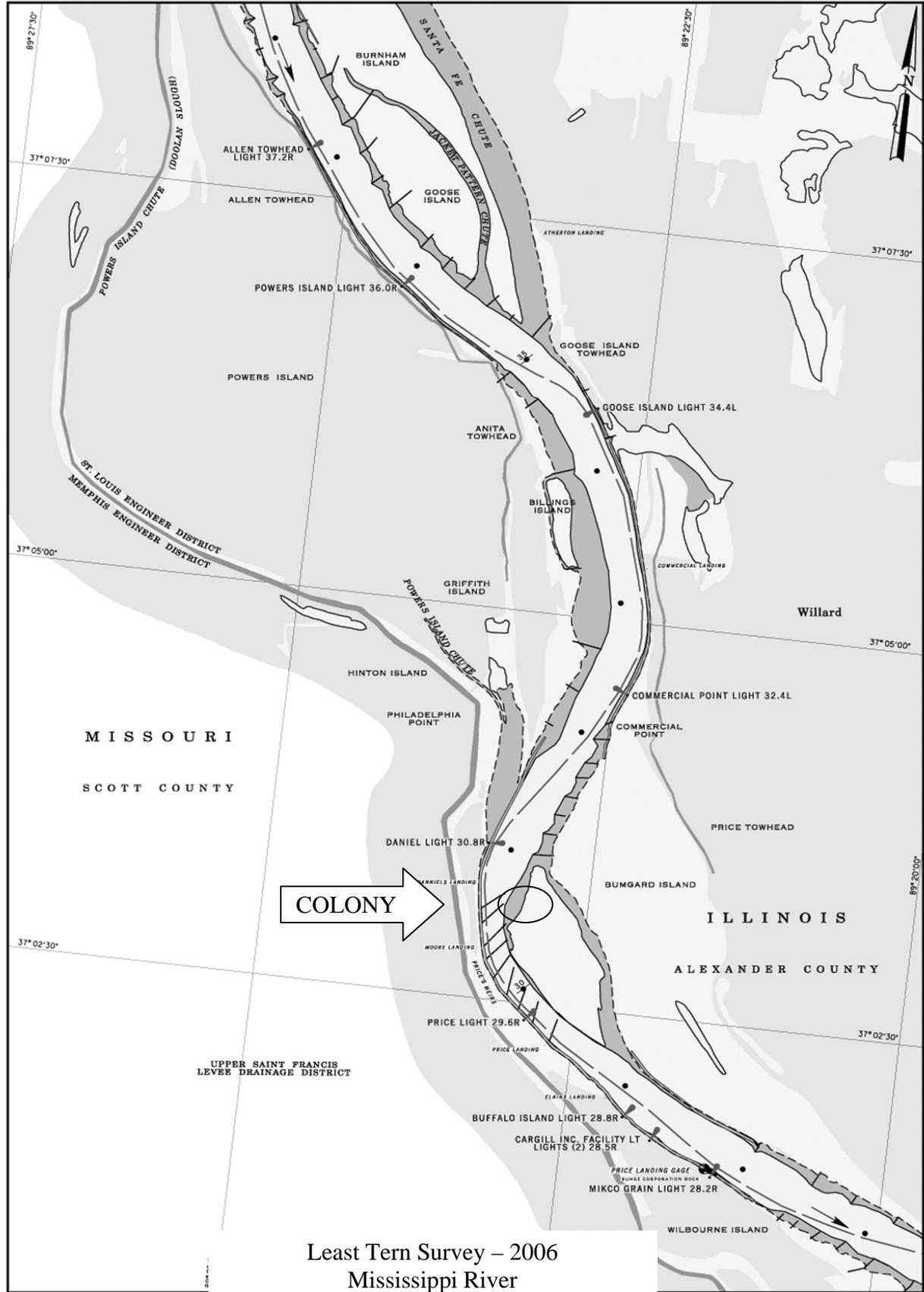
LEAST TERN SURVEY - 2006

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

NEST COLONY LOCATIONS

Memphis District, Corps of Engineers

Maps



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-1

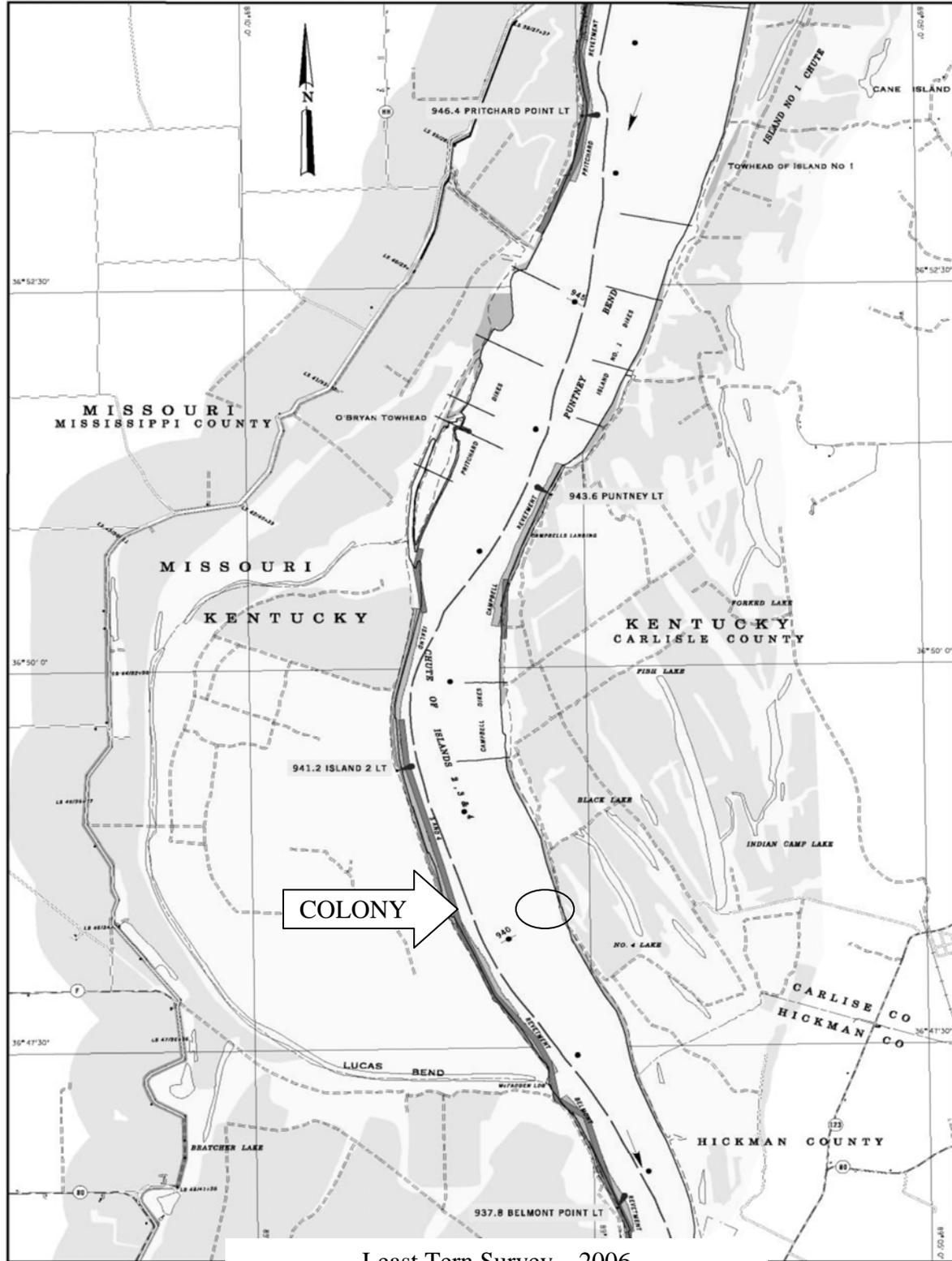
MAP NO. 27



Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-2

1998

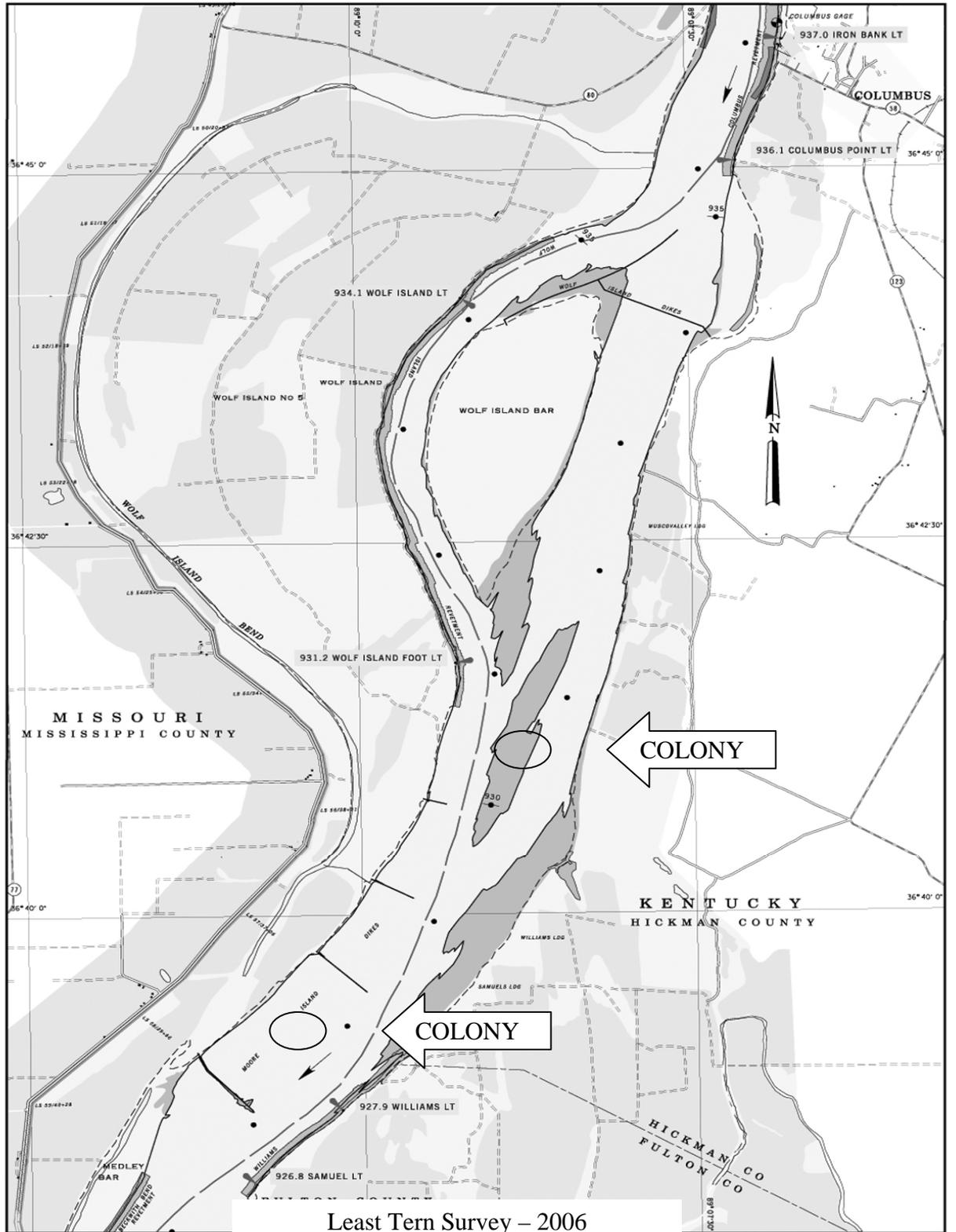
MAP NO. 28



1998

MAP NO. 31

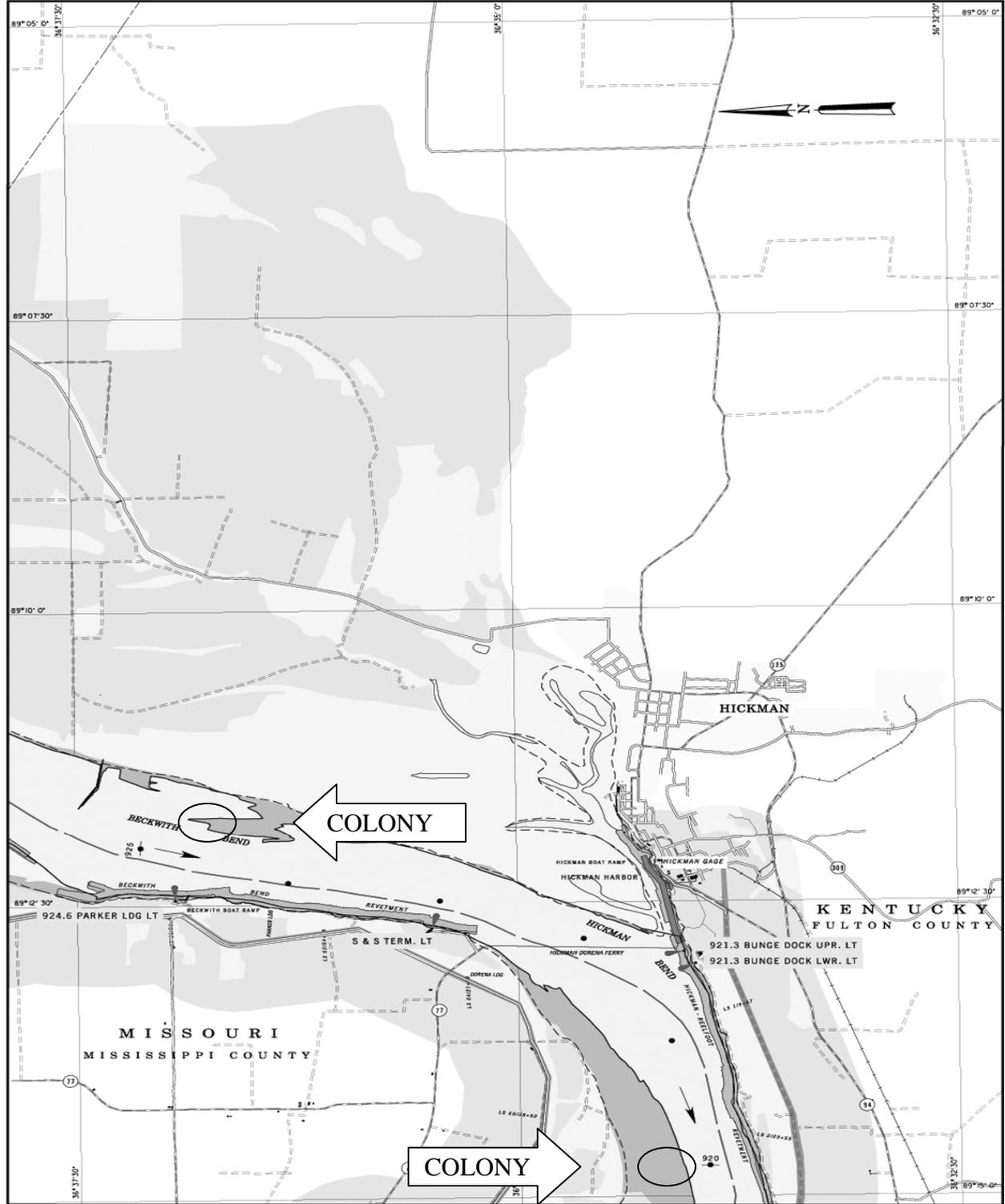
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-3



1998

MAP NO. 32

Least Tern Survey – 2006
Mississippi River
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-4

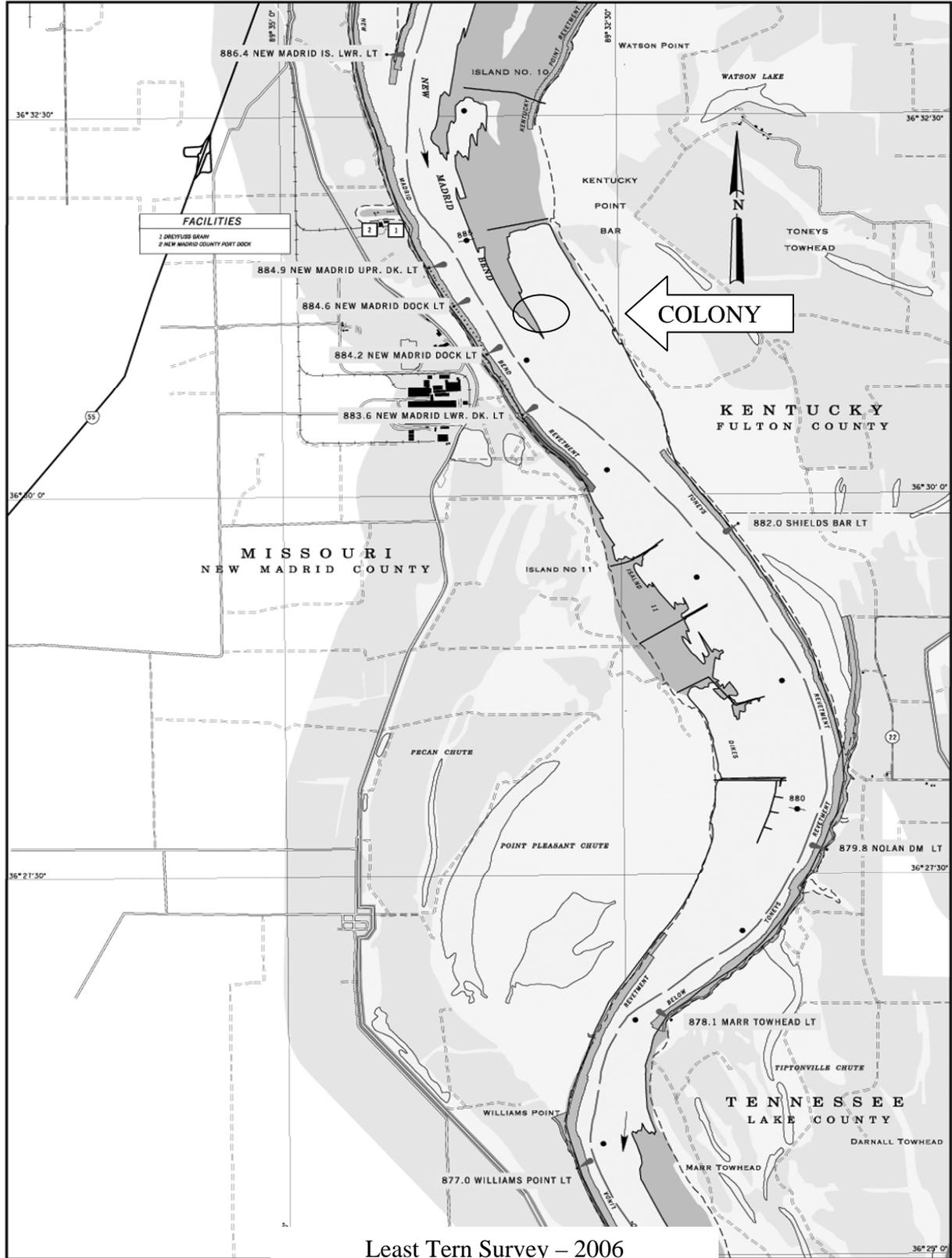


1998

SCALE 1:31,680
1 INCH = 1/2 MILE
1 KILOMETERS

MAP NO. 33

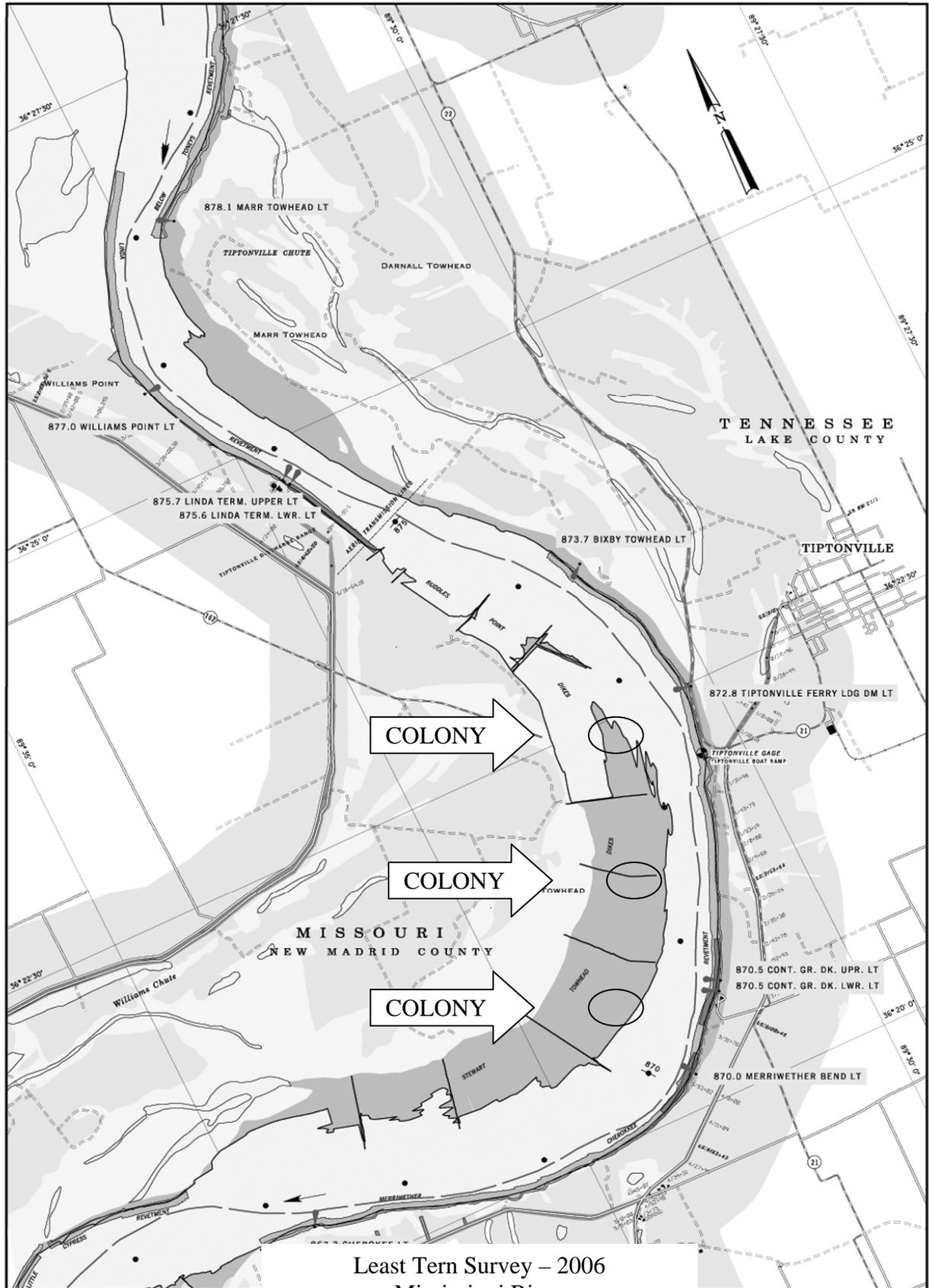
Least Tern Survey – 2006
Mississippi River
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-5



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-6

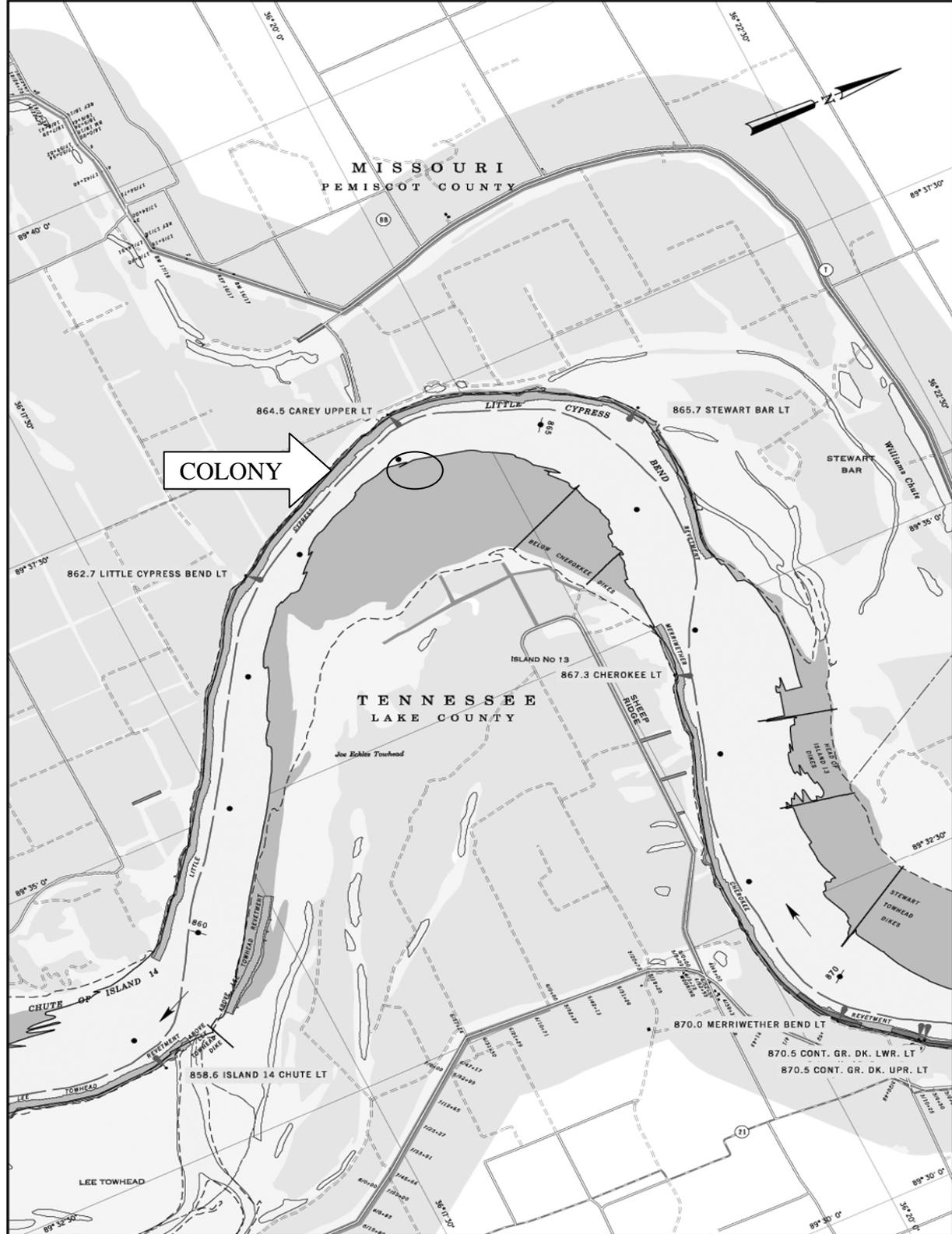
MAP NO. 37



1998

MAP NO. 38

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-7

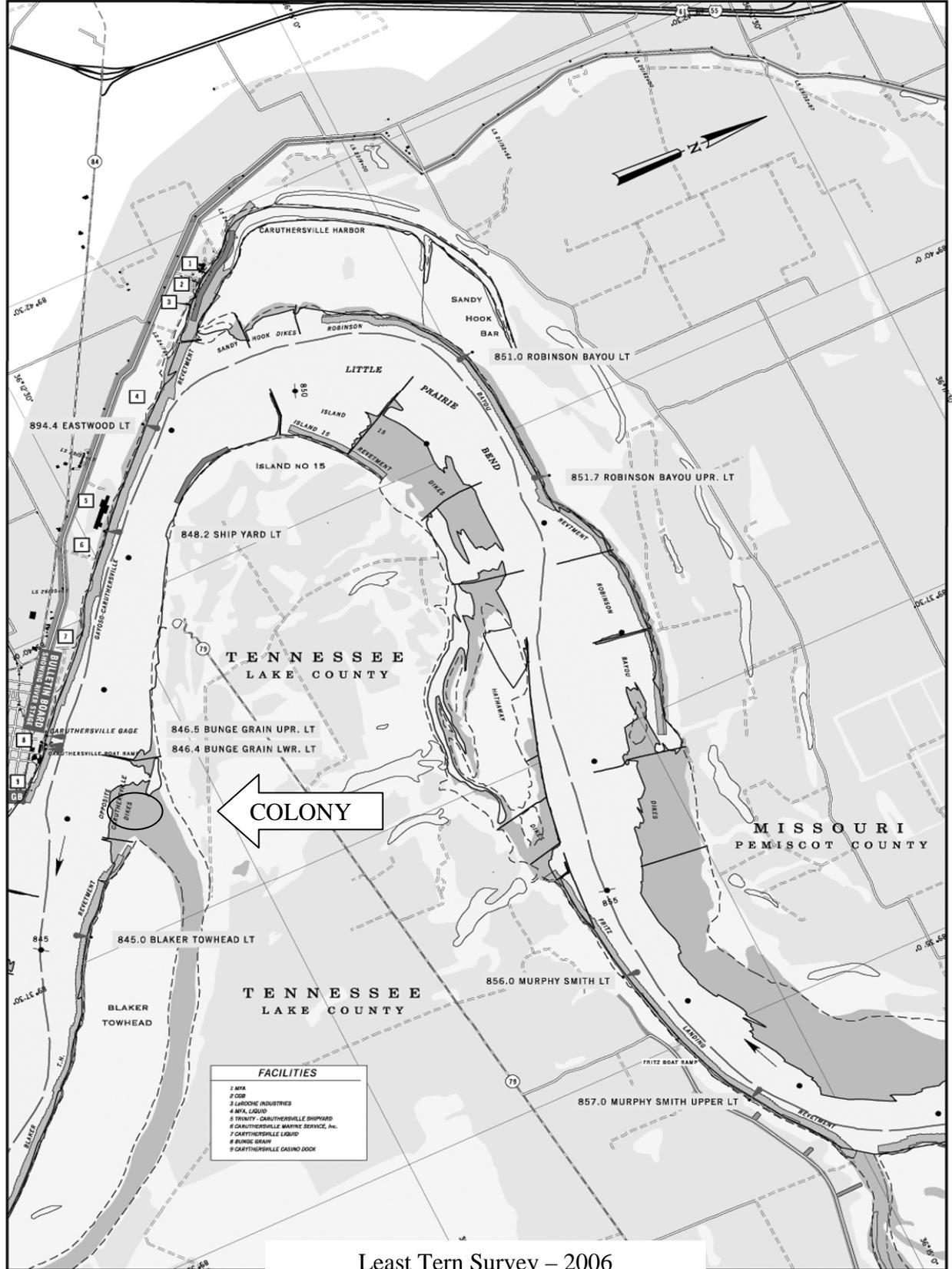


1998

SCALE 1:31,680
1 INCH = 1/2 MILE

MAP NO. 39

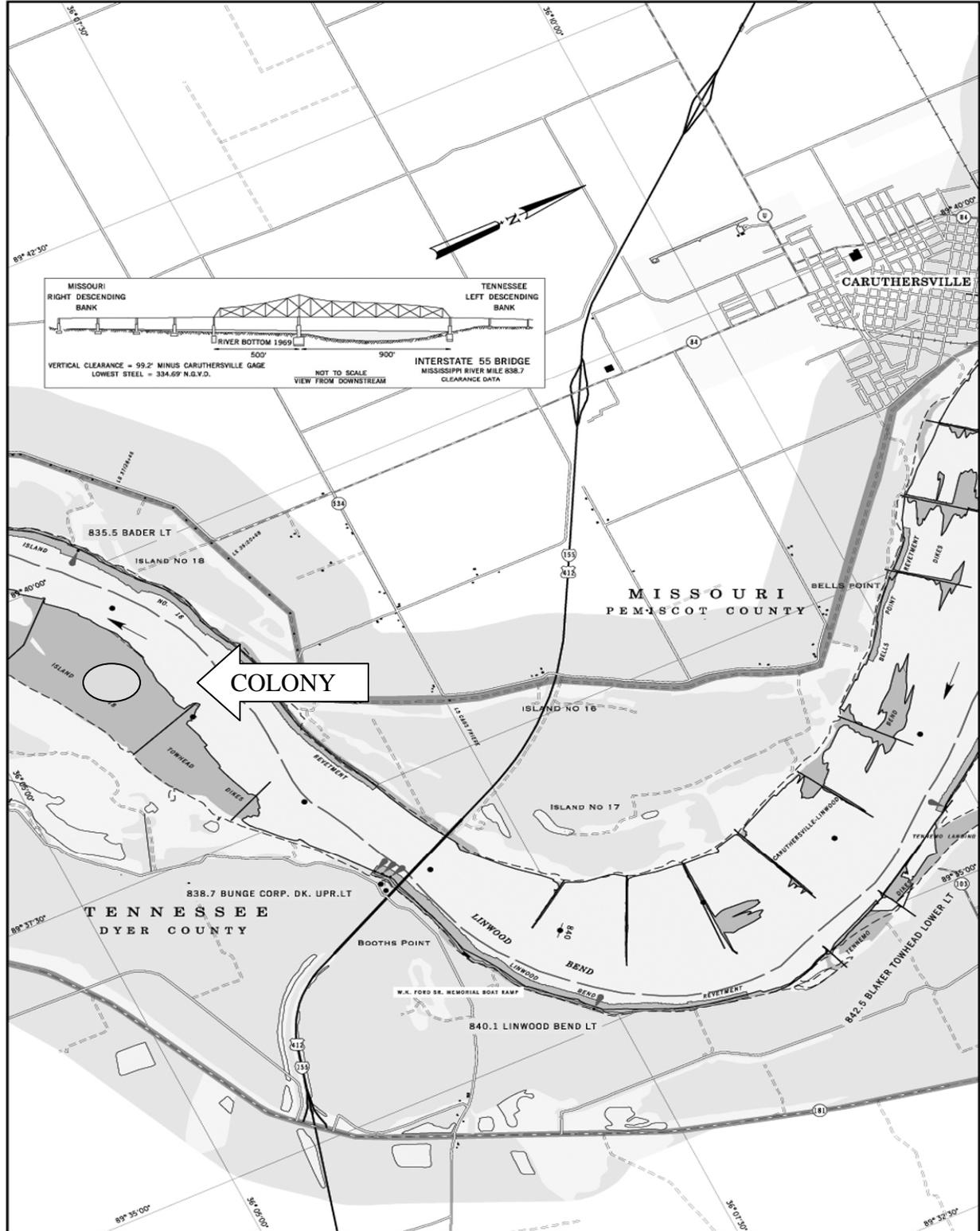
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-8



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-9

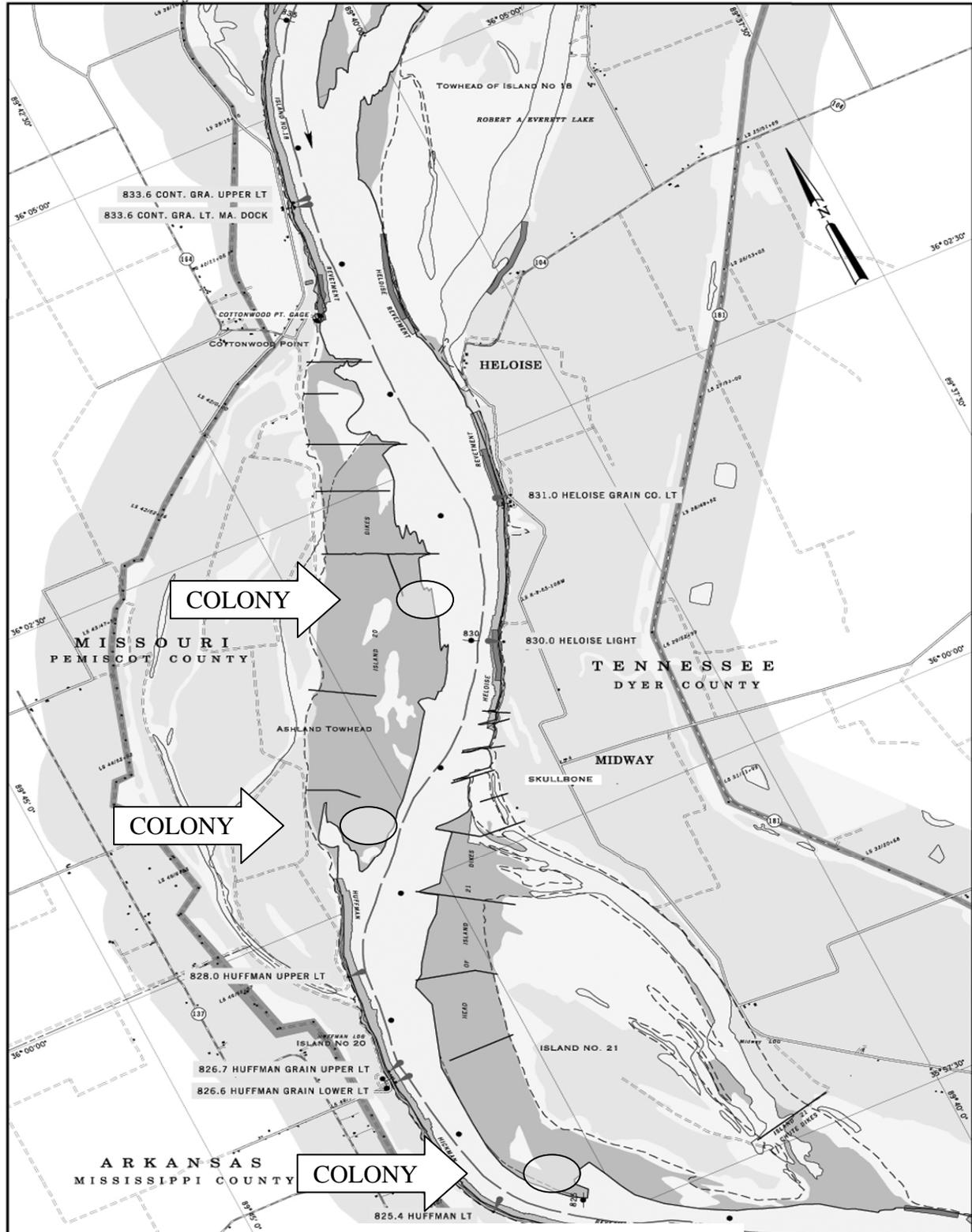
MAP NO. 40



1998

MAP NO. 42

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-10



1998

Least Tern Survey – 2006

MAP NO. 43

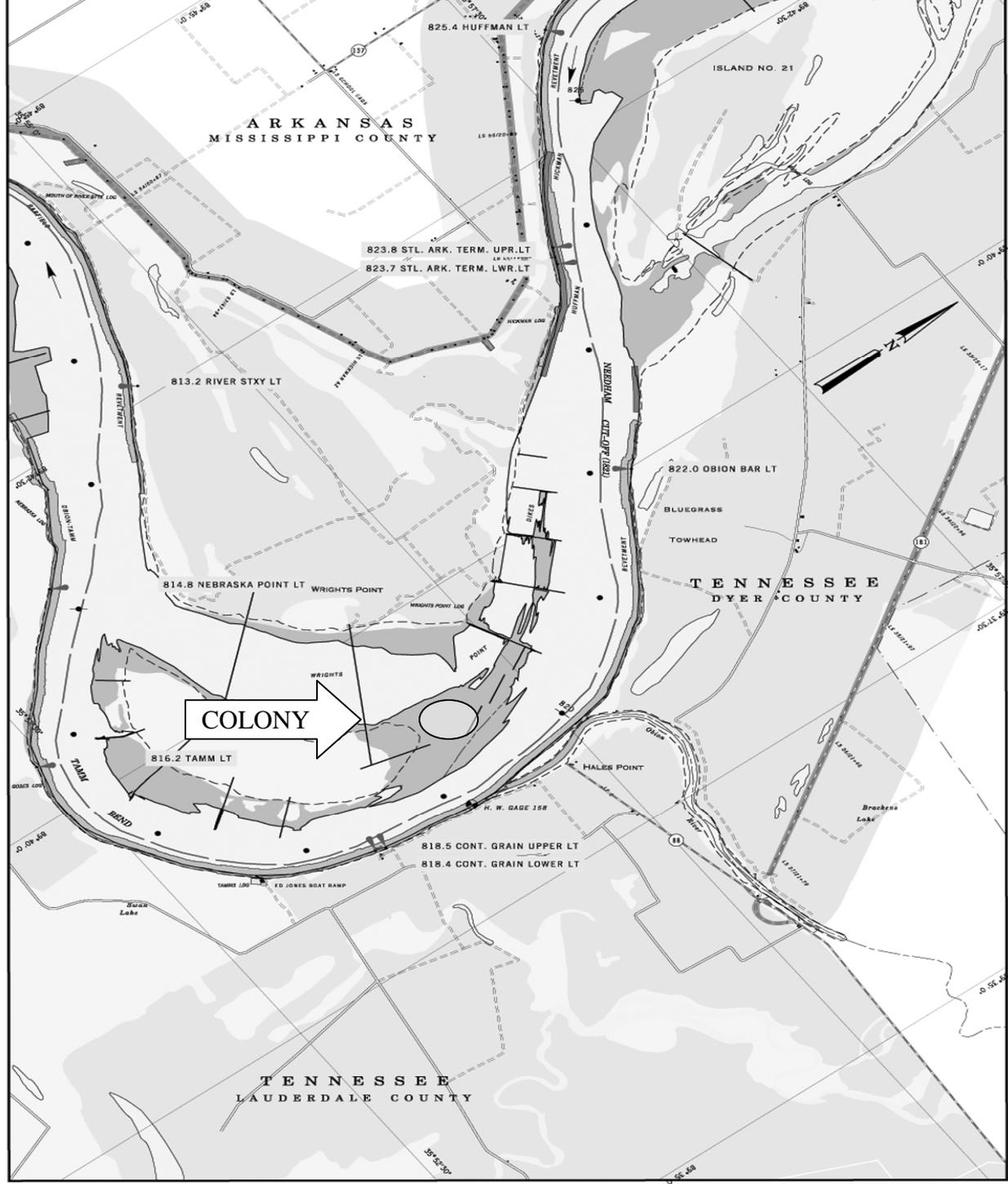
Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

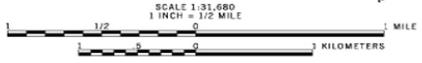
Nest Colony Locations

Memphis District Corps of Engineers

A-I-11

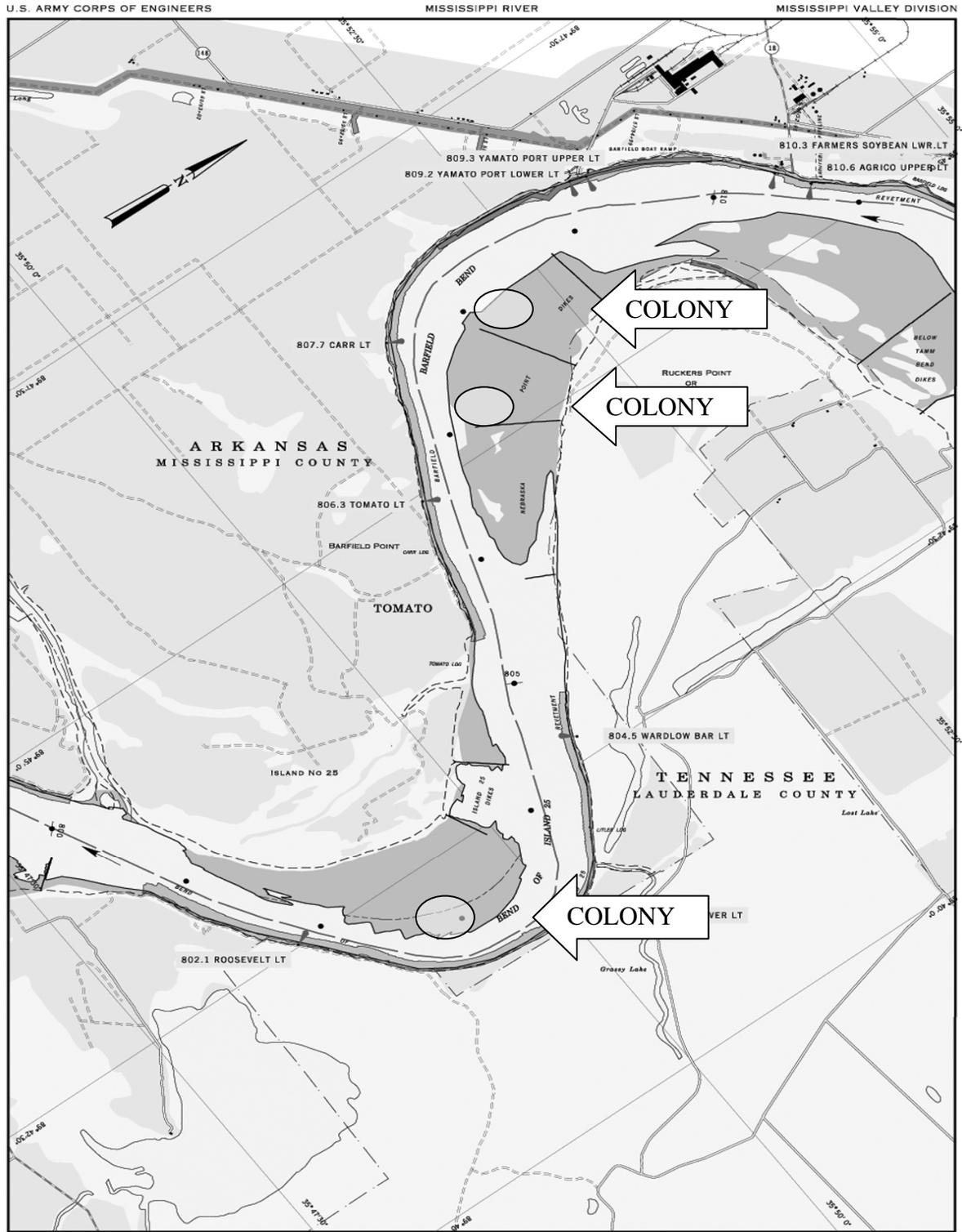


1998

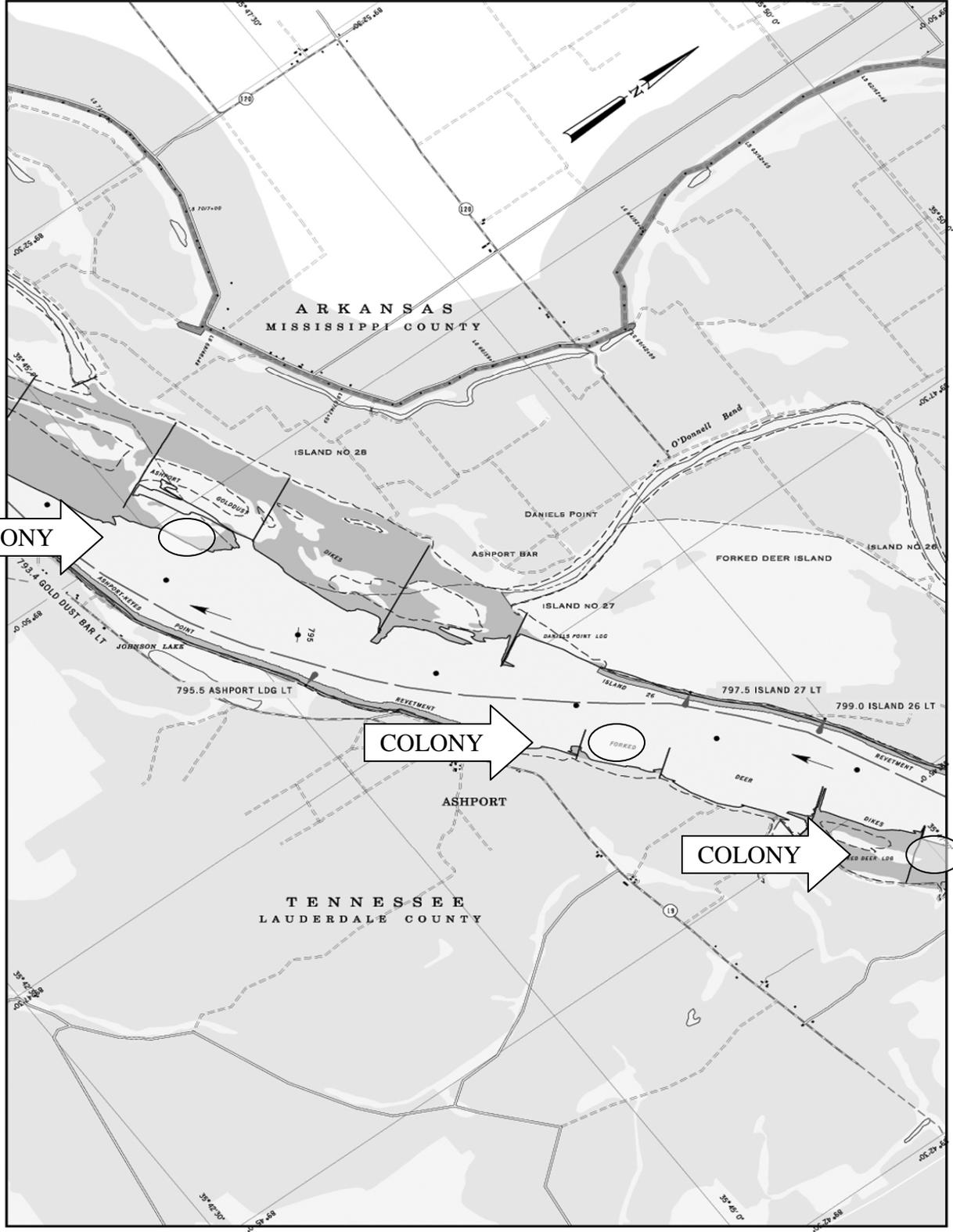


MAP NO. 44

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



Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-13



COLONY

COLONY

COLONY

1998

Least Tern Survey – 2006

MAP NO. 47

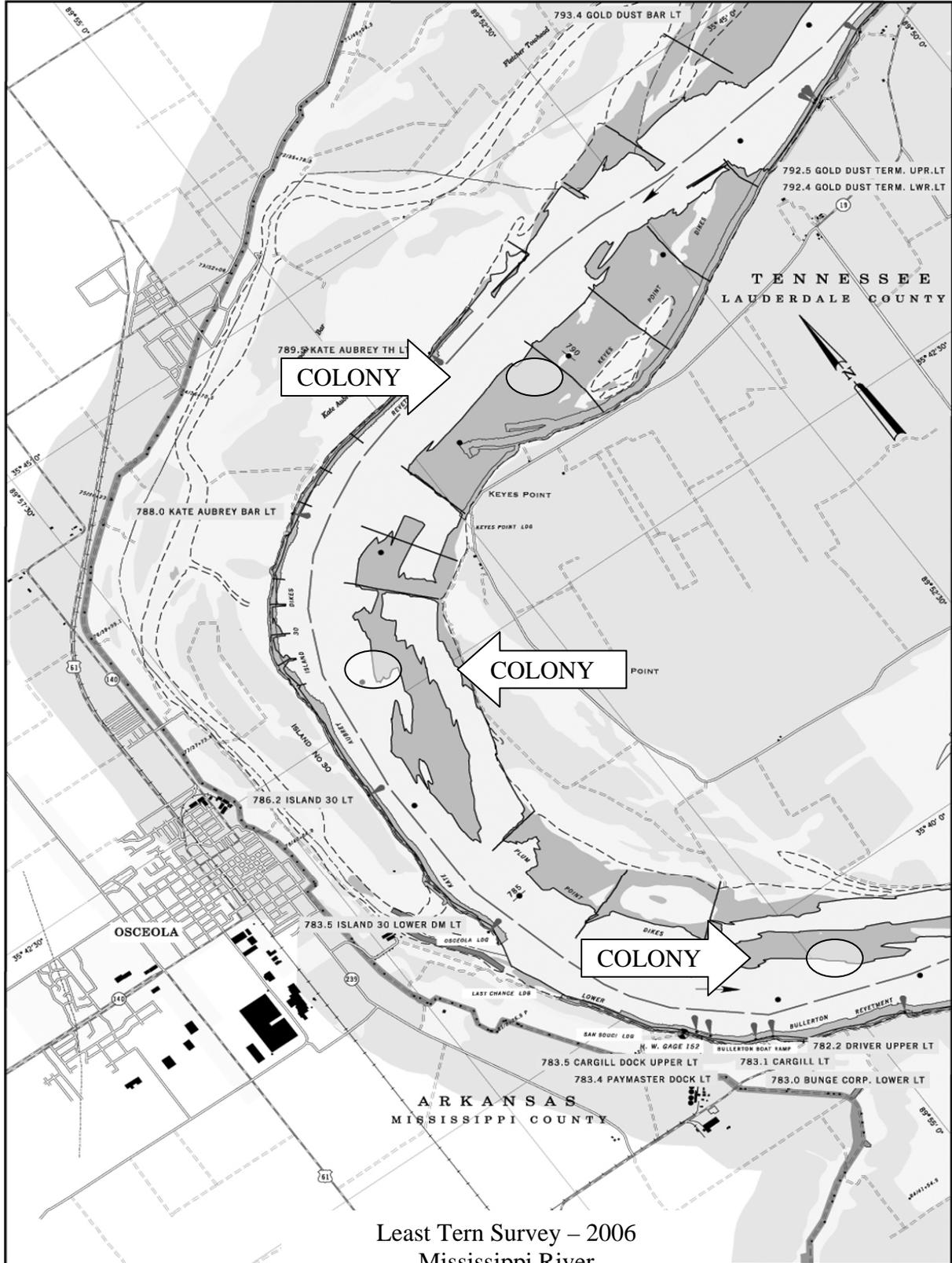
Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

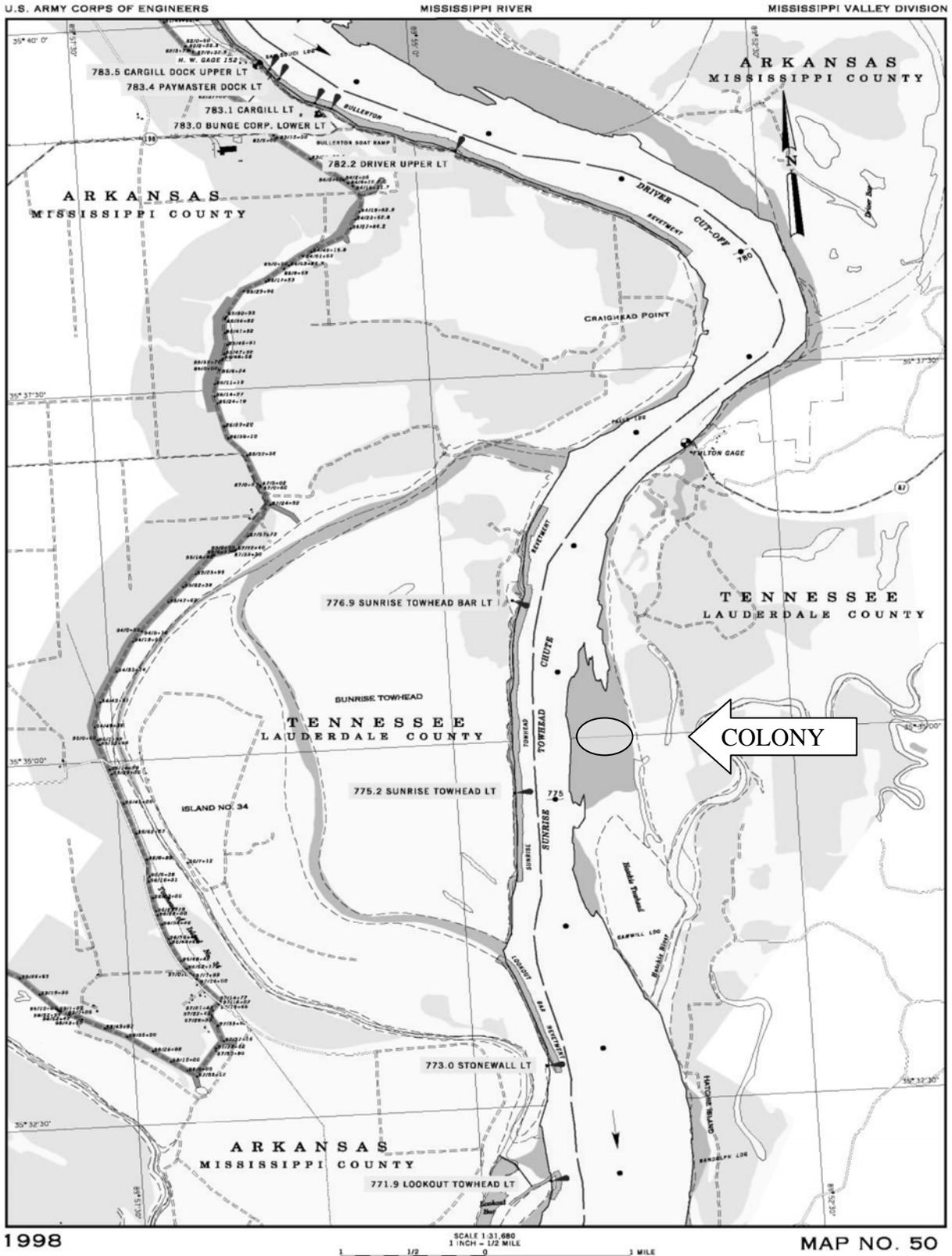
A-I-14



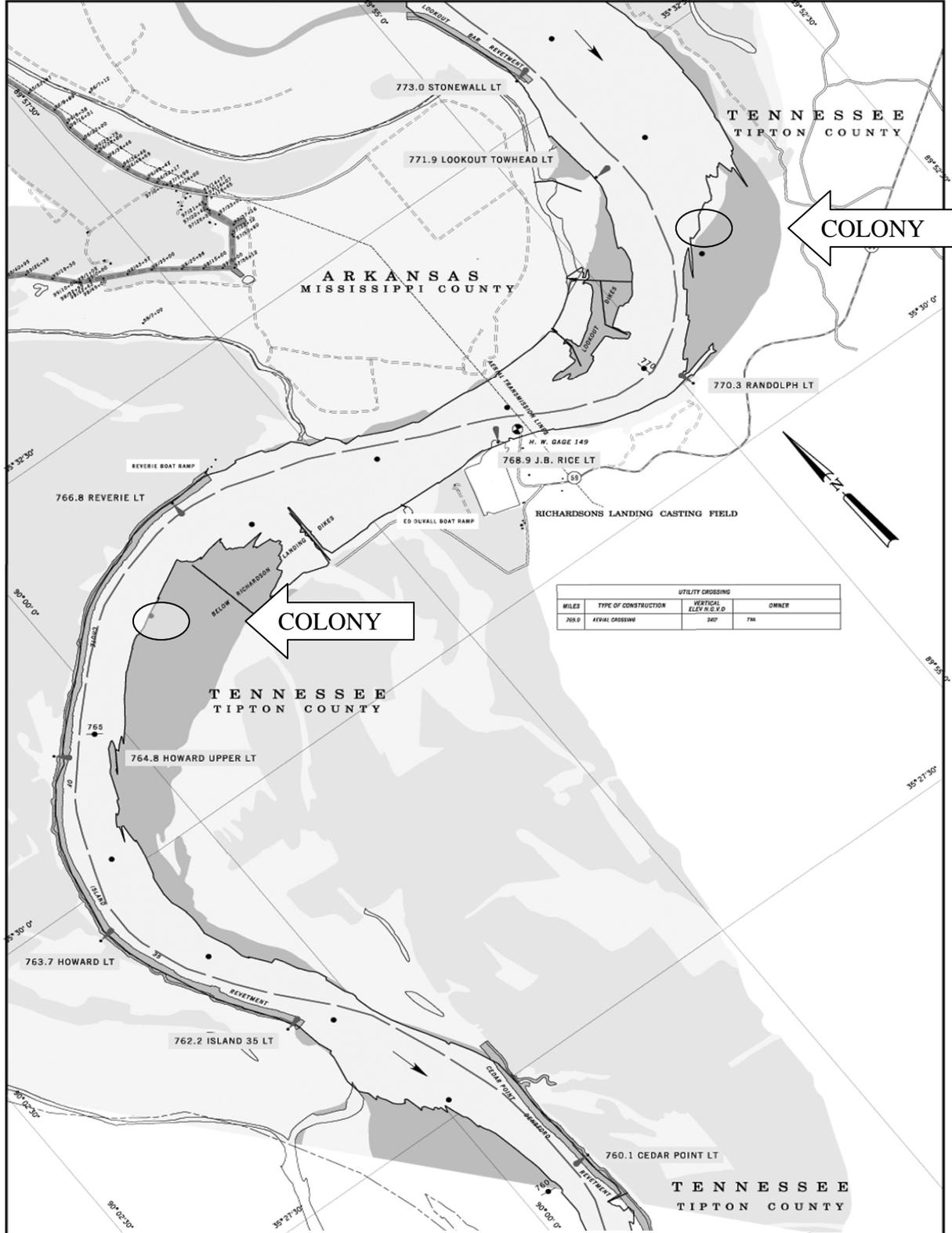
1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-15

MAP NO. 48



Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-16



1998

Least Tern Survey – 2006

MAP NO. 51

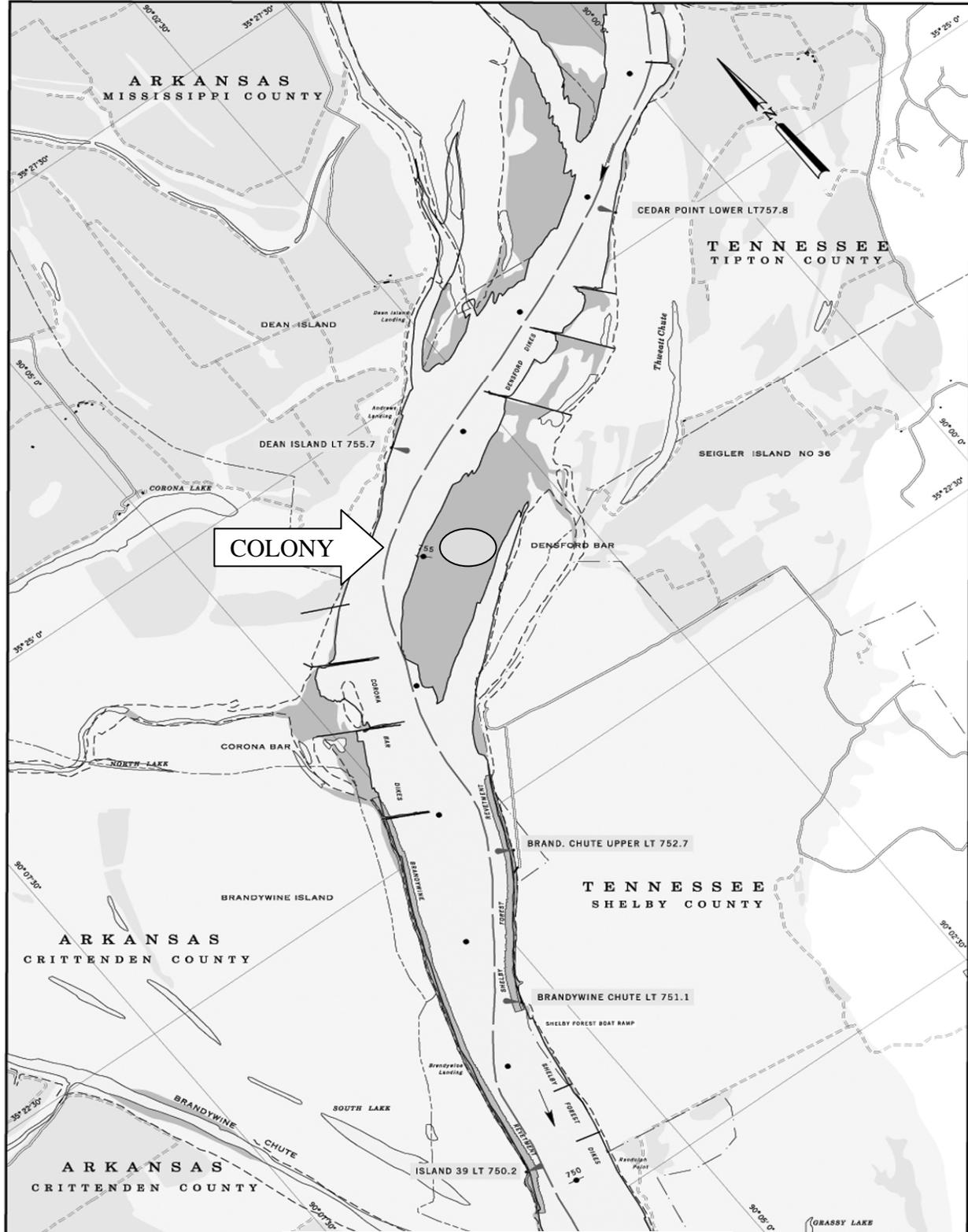
Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

A-I-17



1998

Least Tern Survey – 2006

MAP NO. 53

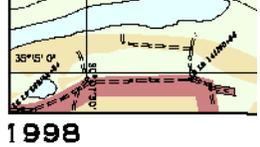
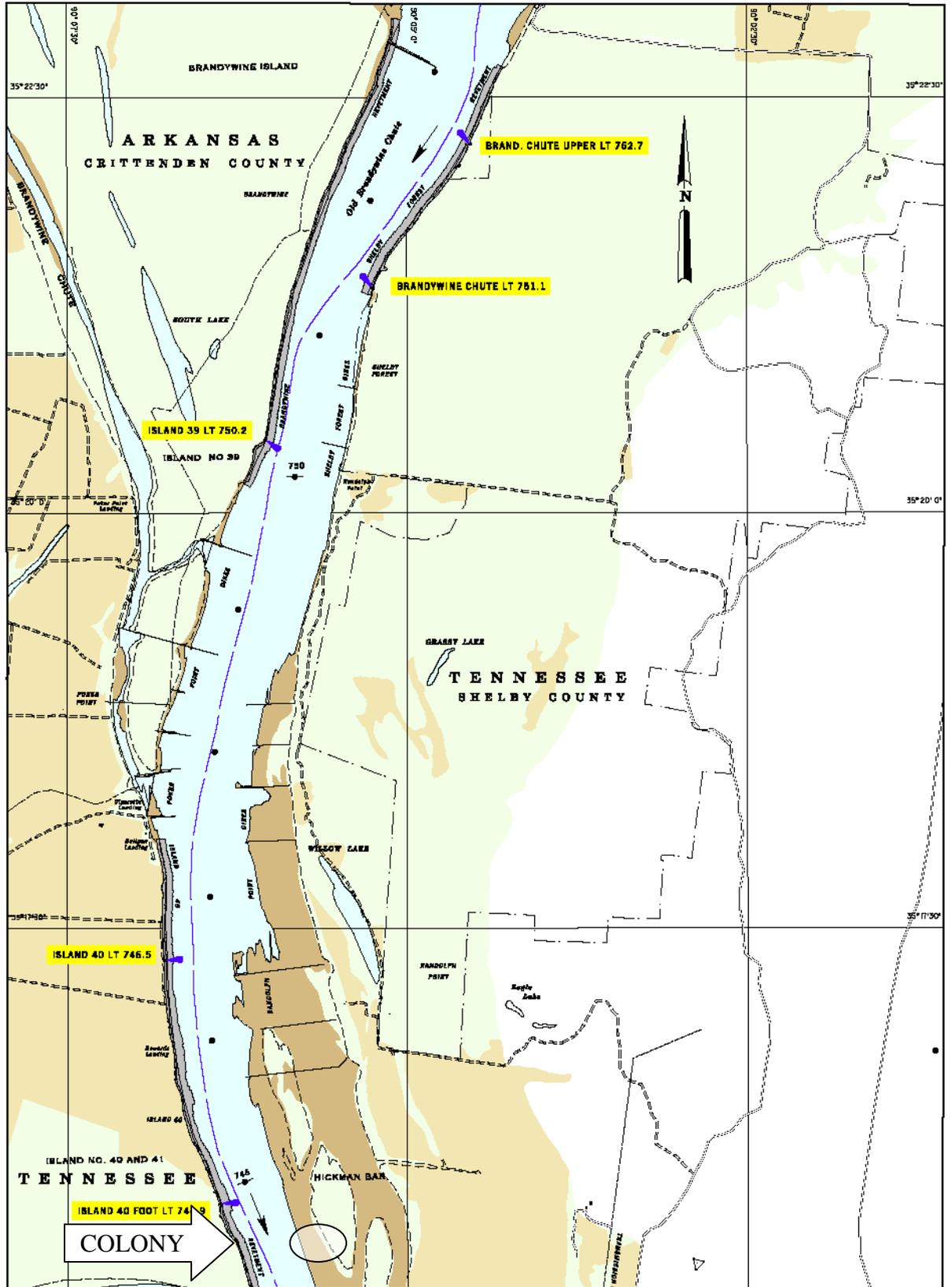
Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

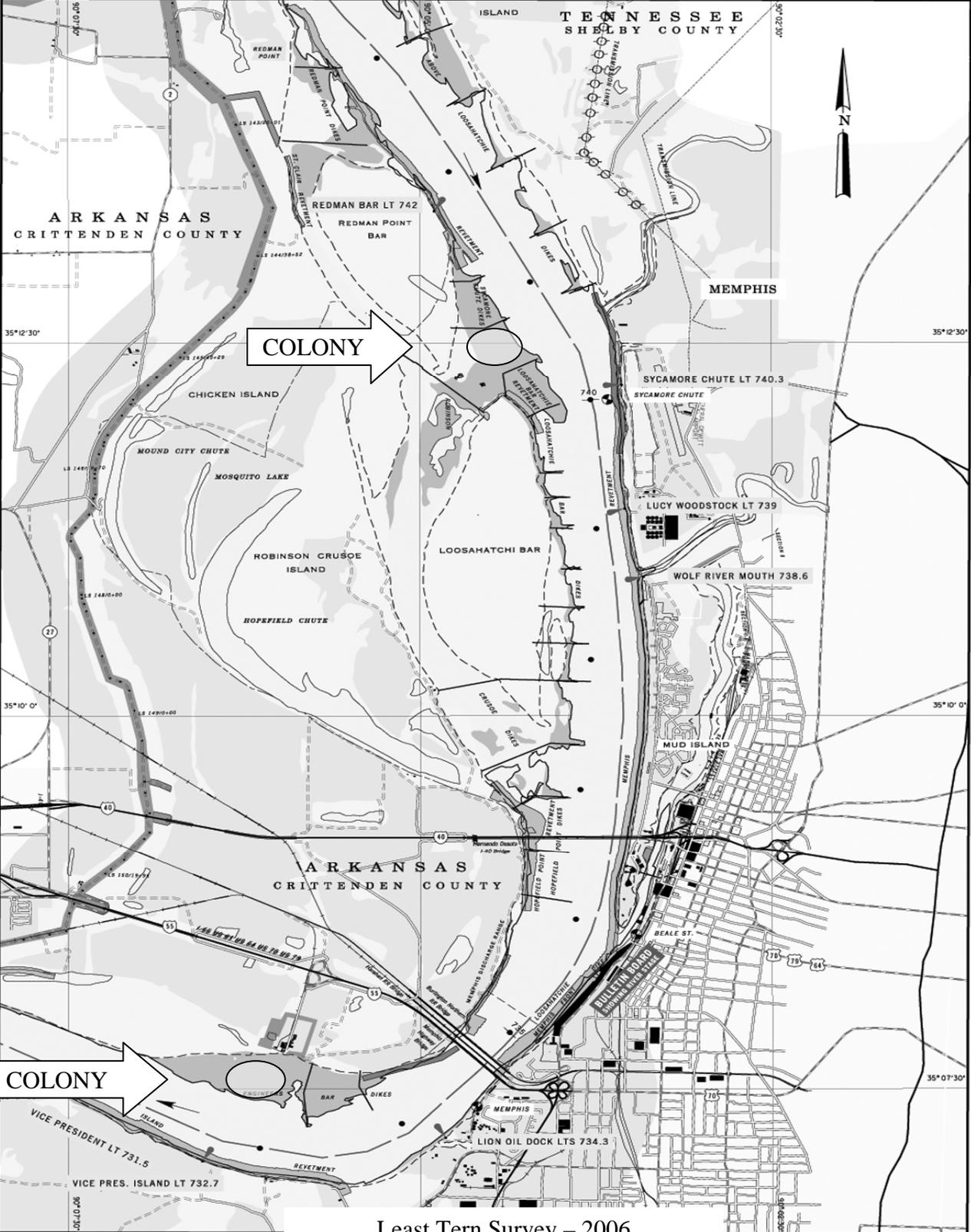
Nest Colony Locations

Memphis District Corps of Engineers

A-I-18



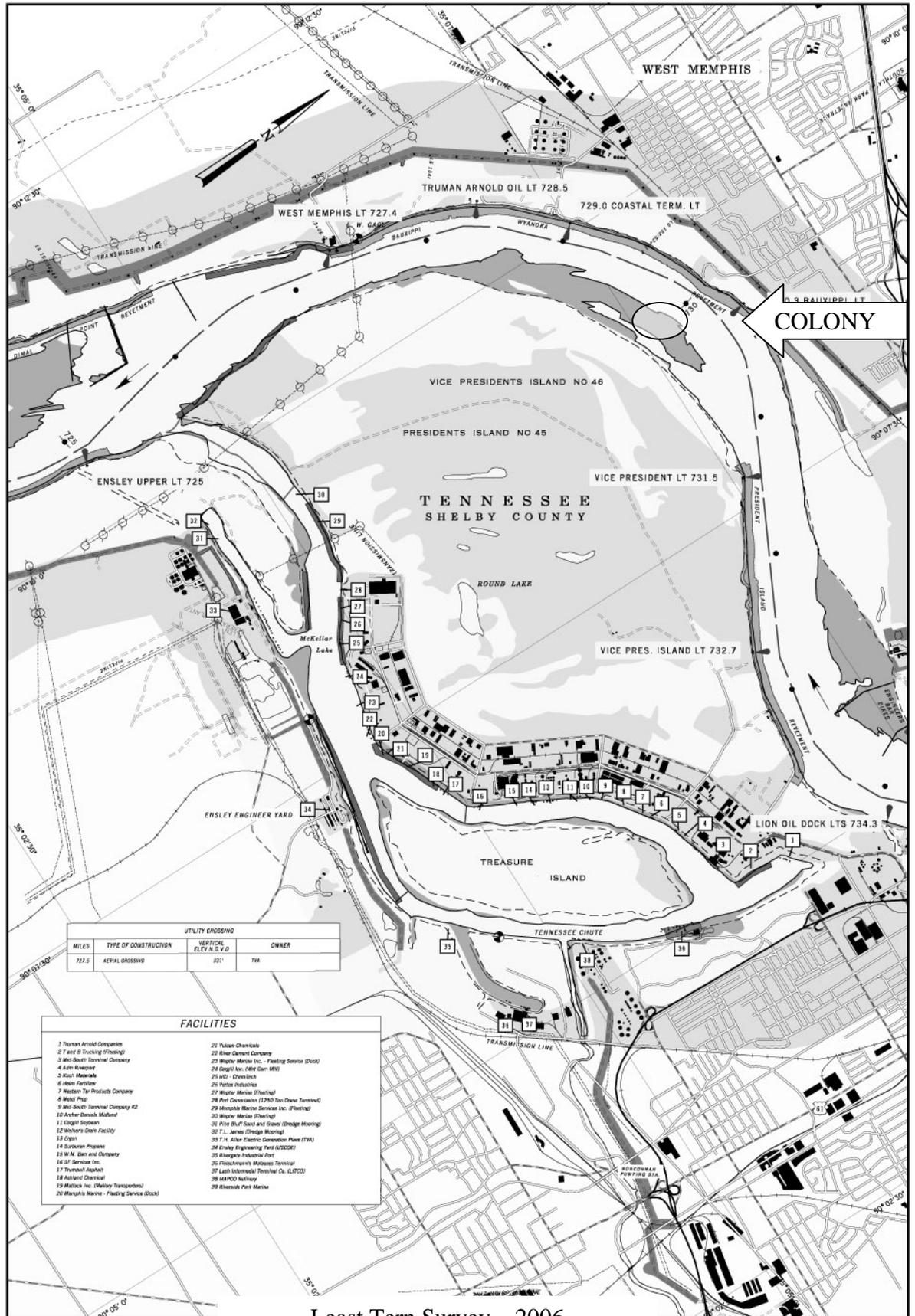
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-19



1998

MAP NO. 57

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-20



| UTILITY CROSSING | | | |
|------------------|----------------------|--------------------------|-------|
| MILES | TYPE OF CONSTRUCTION | VERTICAL ELEV. H.G. V.D. | OWNER |
| 727.5 | AERIAL CROSSING | 337' | TVA |

- FACILITIES**
- 1 Truman Arnold Company
 - 2 T and B Trucking (Fleet)
 - 3 M&S South Terminal Company
 - 4 Edin Research
 - 5 Koch Materials
 - 6 H&H Products
 - 7 Wabash Tar Products Company
 - 8 M&S Fuel
 - 9 M&S South Terminal Company #2
 - 10 Archer Daniels Midland
 - 11 Ongill Systems
 - 12 Babcock's Grain Facility
 - 13 Exort
 - 14 Sorbusen Process
 - 15 W. M. Barn and Company
 - 16 S.F. Services Inc.
 - 17 Thrivent Apparel
 - 18 Kalsberg Chemical
 - 19 M&S Inc. (Military Transport)
 - 20 Memphis Marine - Floating Service (Dock)
 - 21 Husker Chemicals
 - 22 Alar Cement Company
 - 23 Memphis Marine Inc. - Floating Service (Dock)
 - 24 Cargill Inc. (W&M Corn 180)
 - 25 H&I - ChemTech
 - 26 Fortec Industries
 - 27 Memphis Marine (Floating)
 - 28 Post Corporation (2350 Ton Crane Terminal)
 - 29 Memphis Marine Service Inc. (Floating)
 - 30 Memphis Marine (Floating)
 - 31 Pike Bluff Sand and Gravel (Drainage Material)
 - 32 T.L. James (Drainage Material)
 - 33 T.H. Allen Electric Generation Plant (TRB)
 - 34 Enbridge Engineering Firm (USDOE)
 - 35 Memphis Industrial Port
 - 36 Fishhawk's Molasses Terminal
 - 37 East International Terminal Co. (LITCO)
 - 38 M&S Railway
 - 39 Riverside Park Marine

1998

Least Tern Survey – 2006

Mississippi River

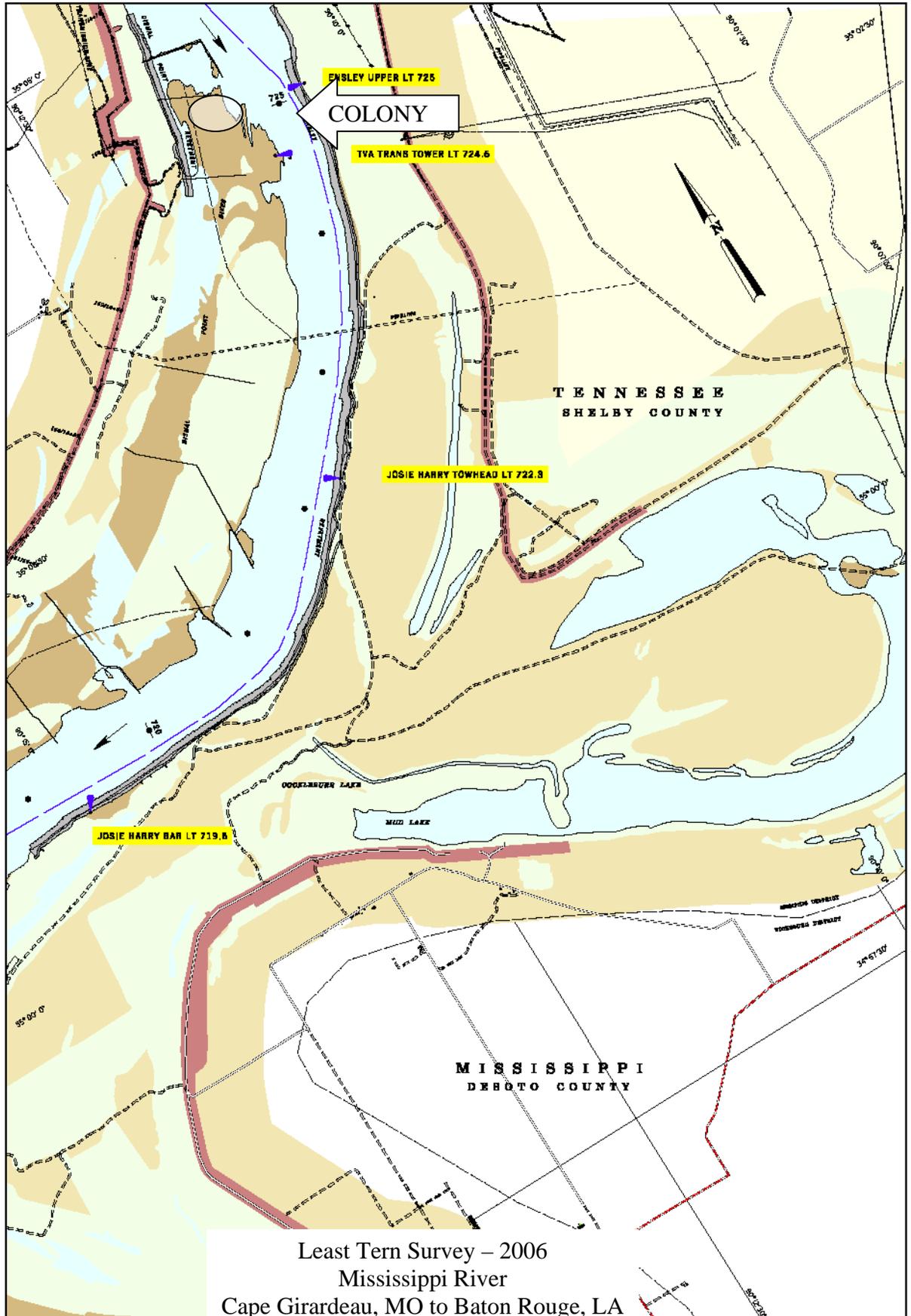
Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

A-I-21

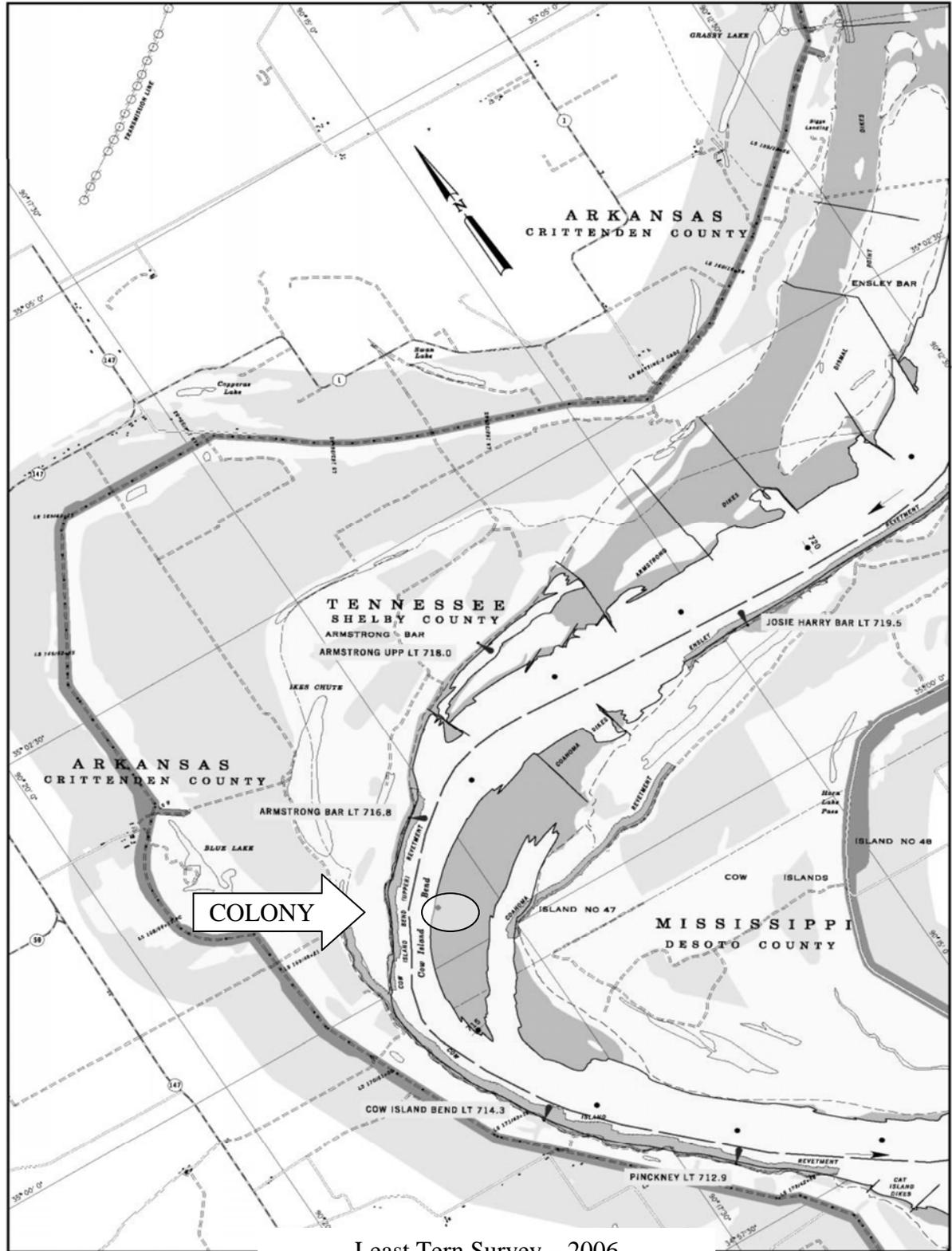
MAP NO. 58



1998

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

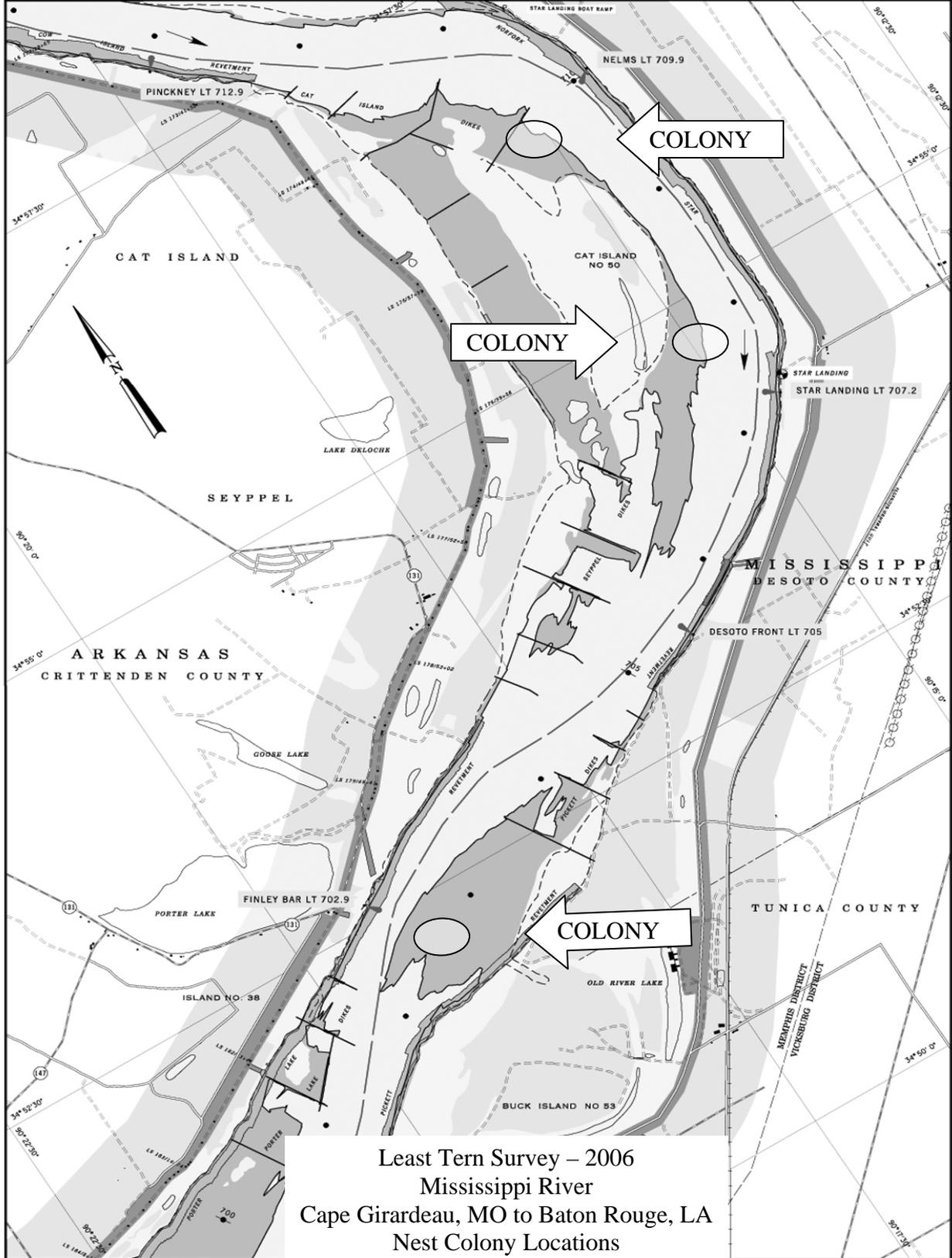
MAP NO. 59



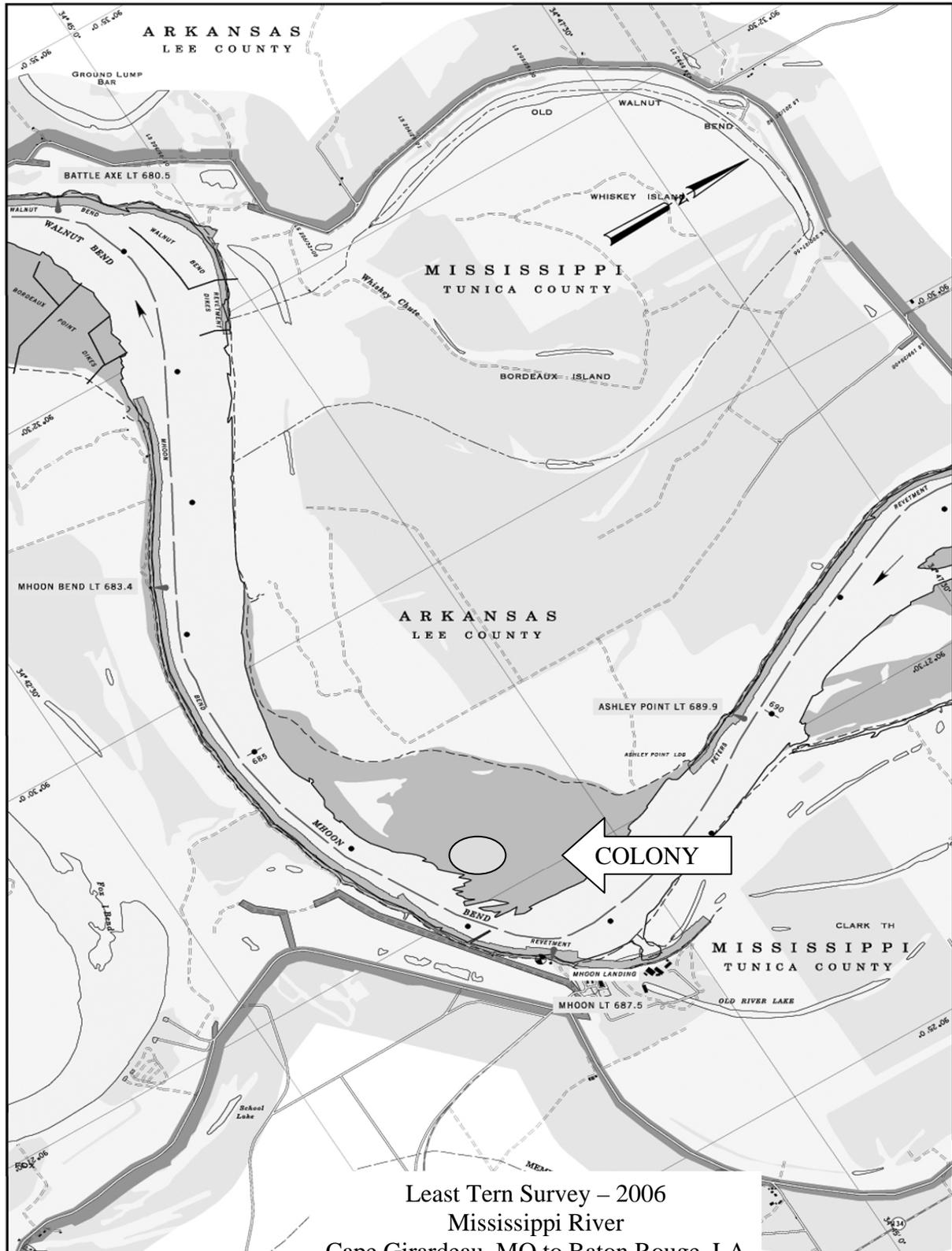
1998

MAP NO. 60

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-23



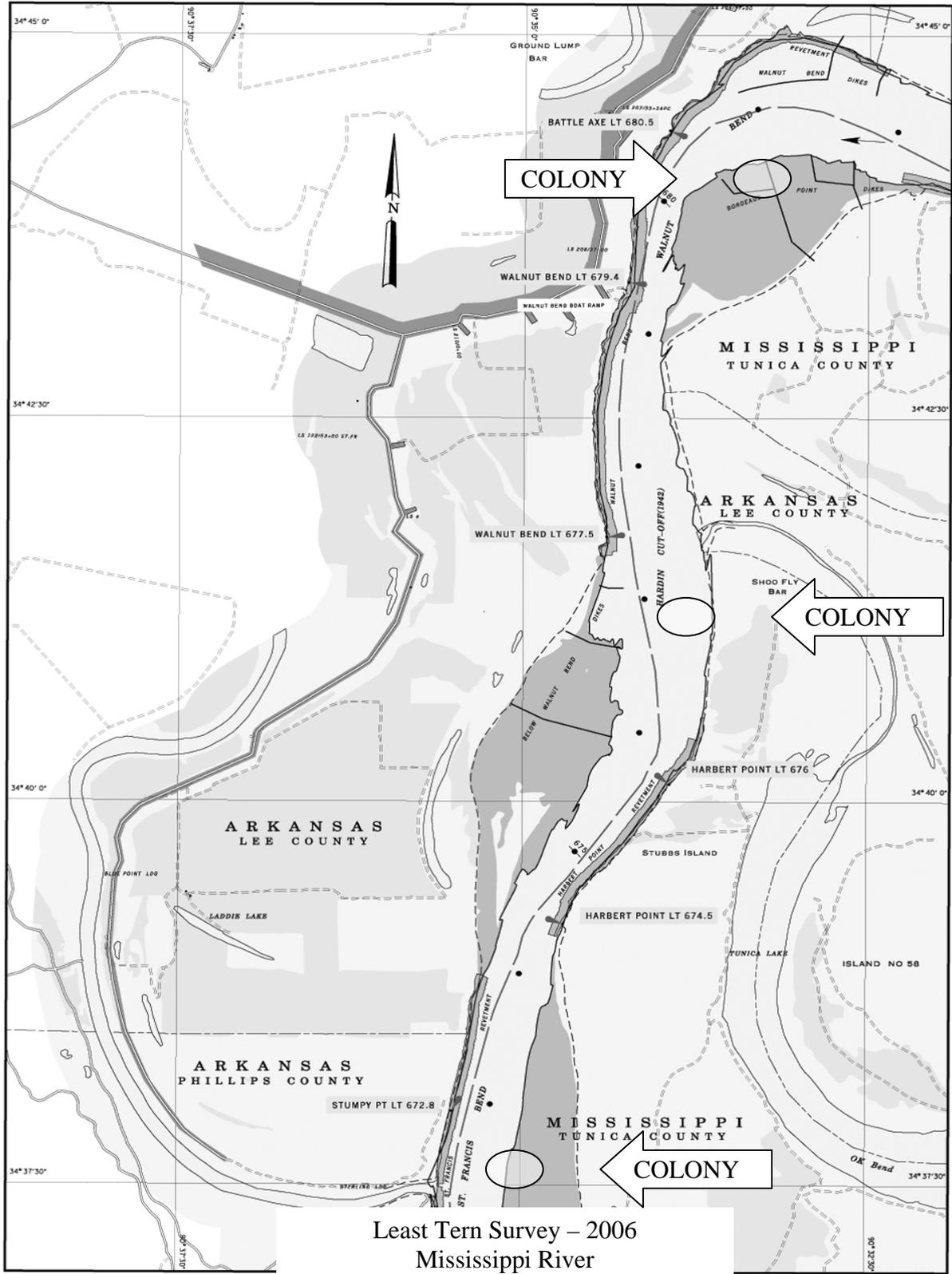
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-24



1998

MAP NO. 63

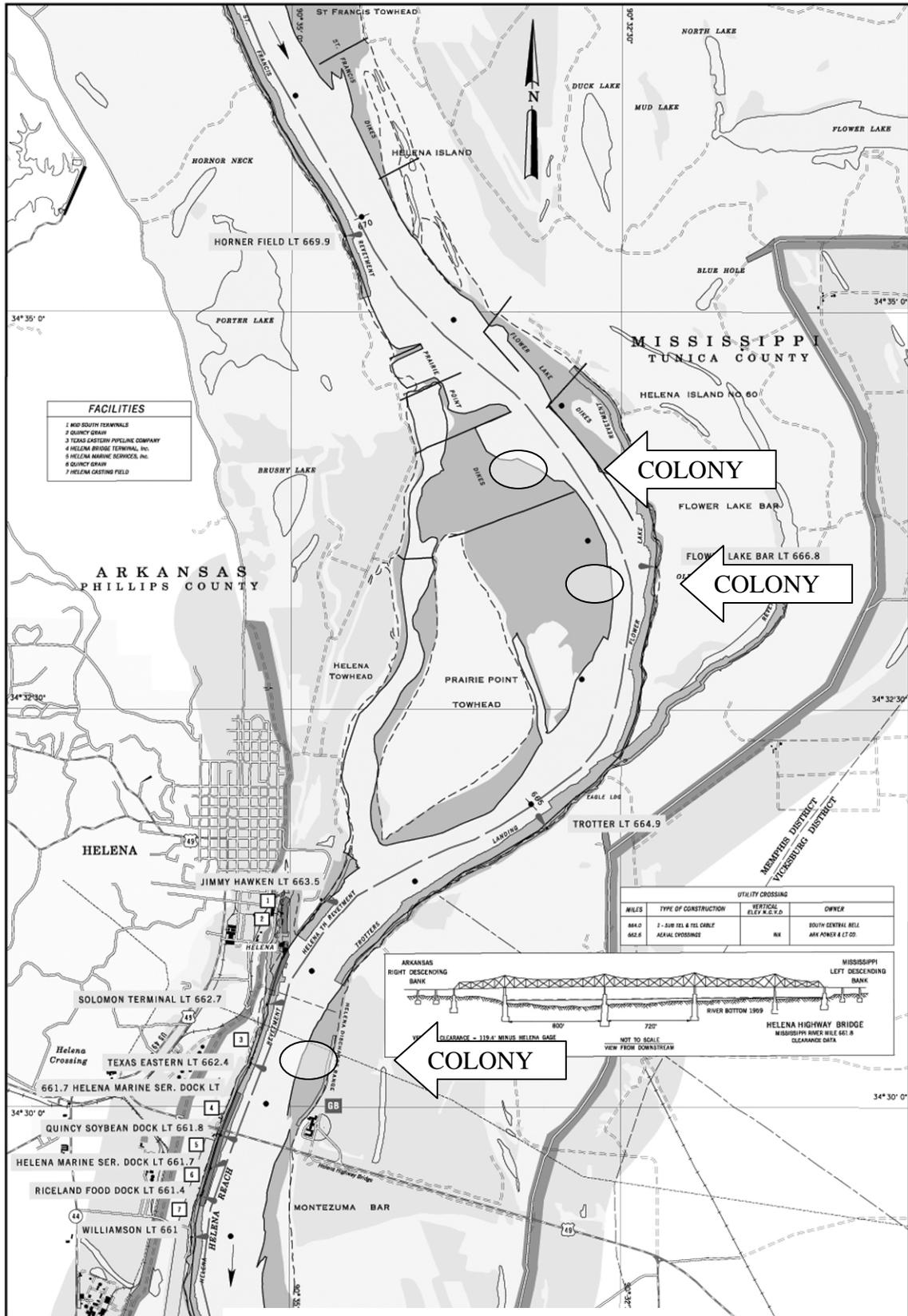
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-26



1998

MAP NO. 64

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-27

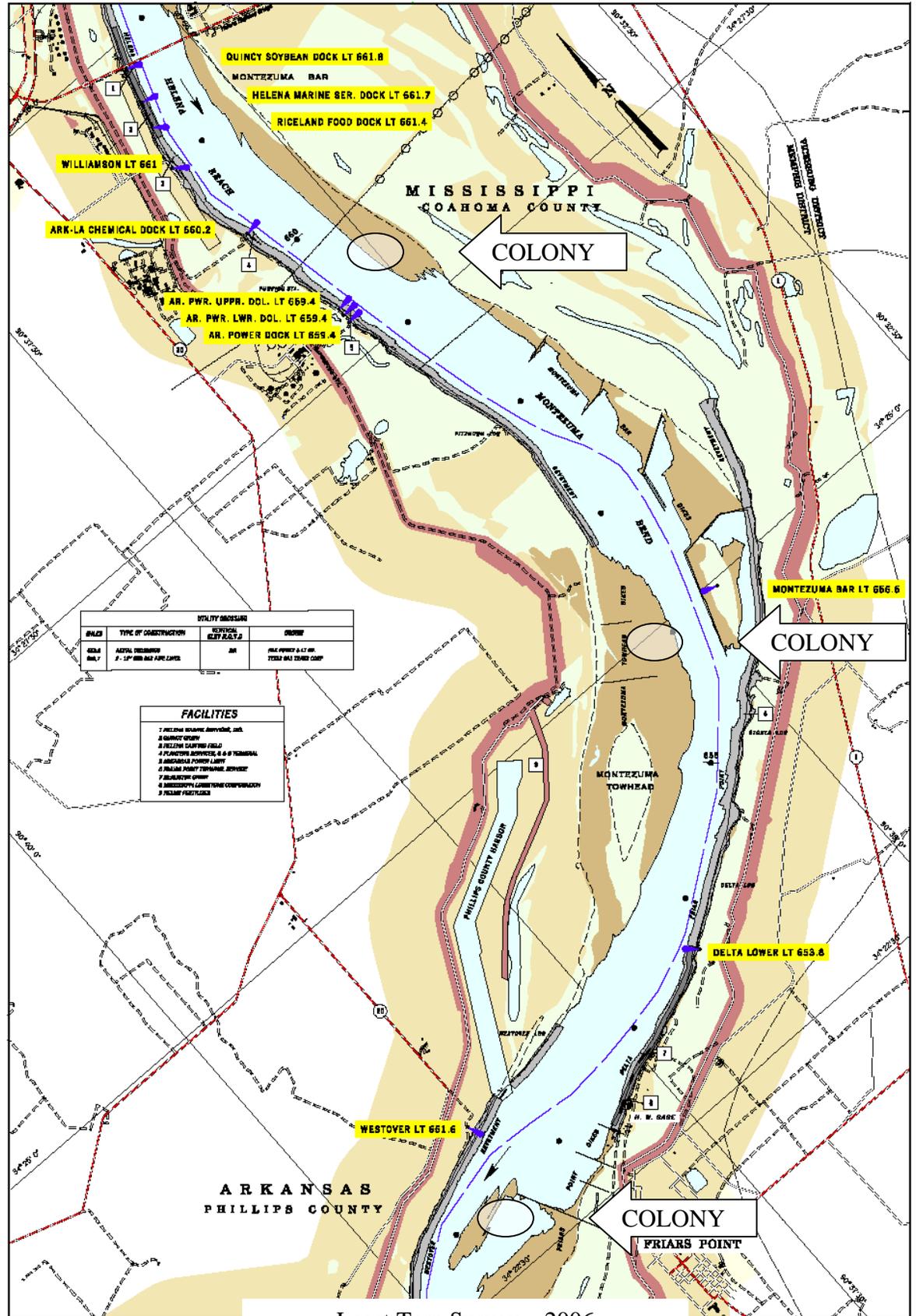


1998

Least Tern Survey - 2006

MAP NO. 66

Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-28



1998

Least Tern Survey – 2006

Mississippi River

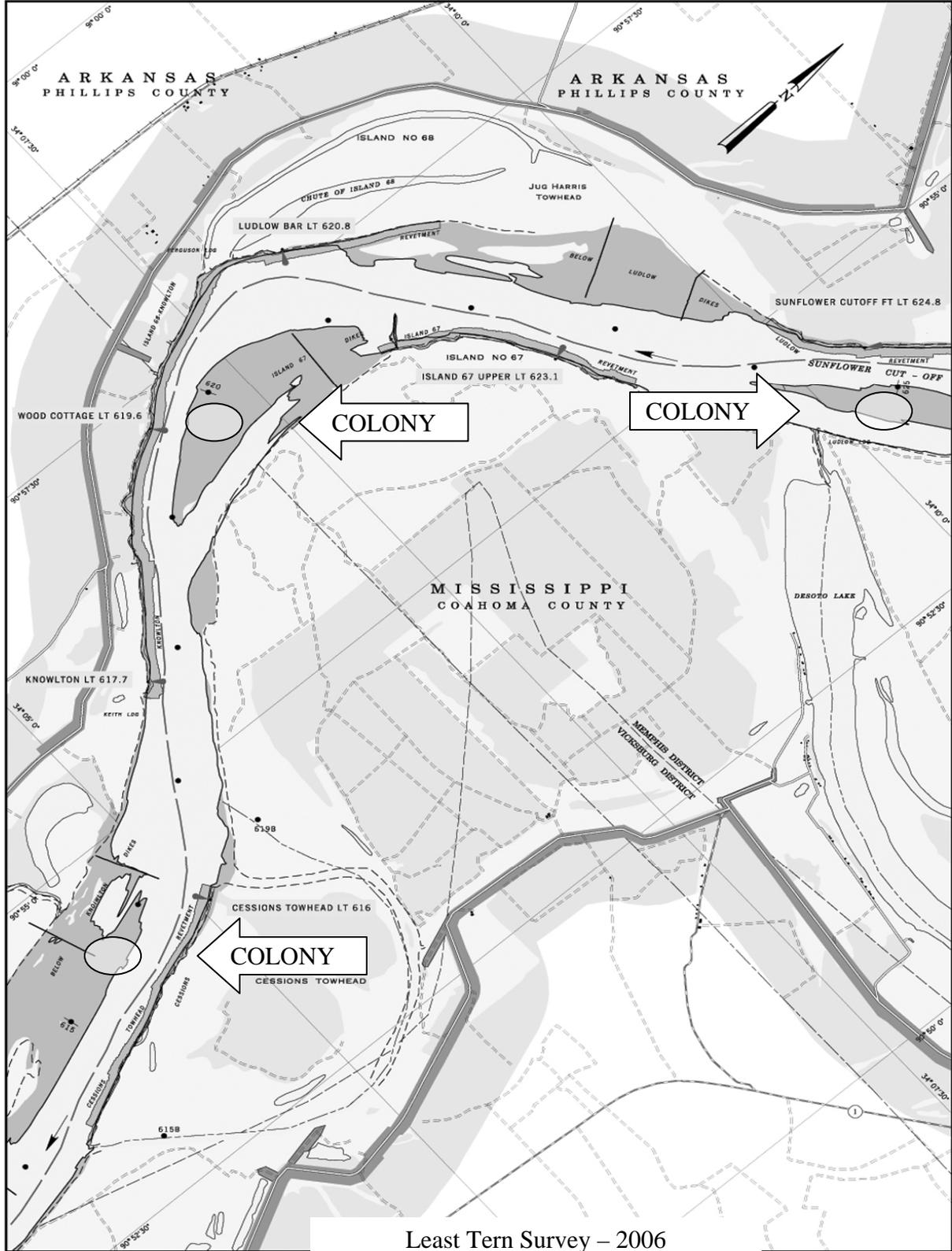
Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

A-I-29

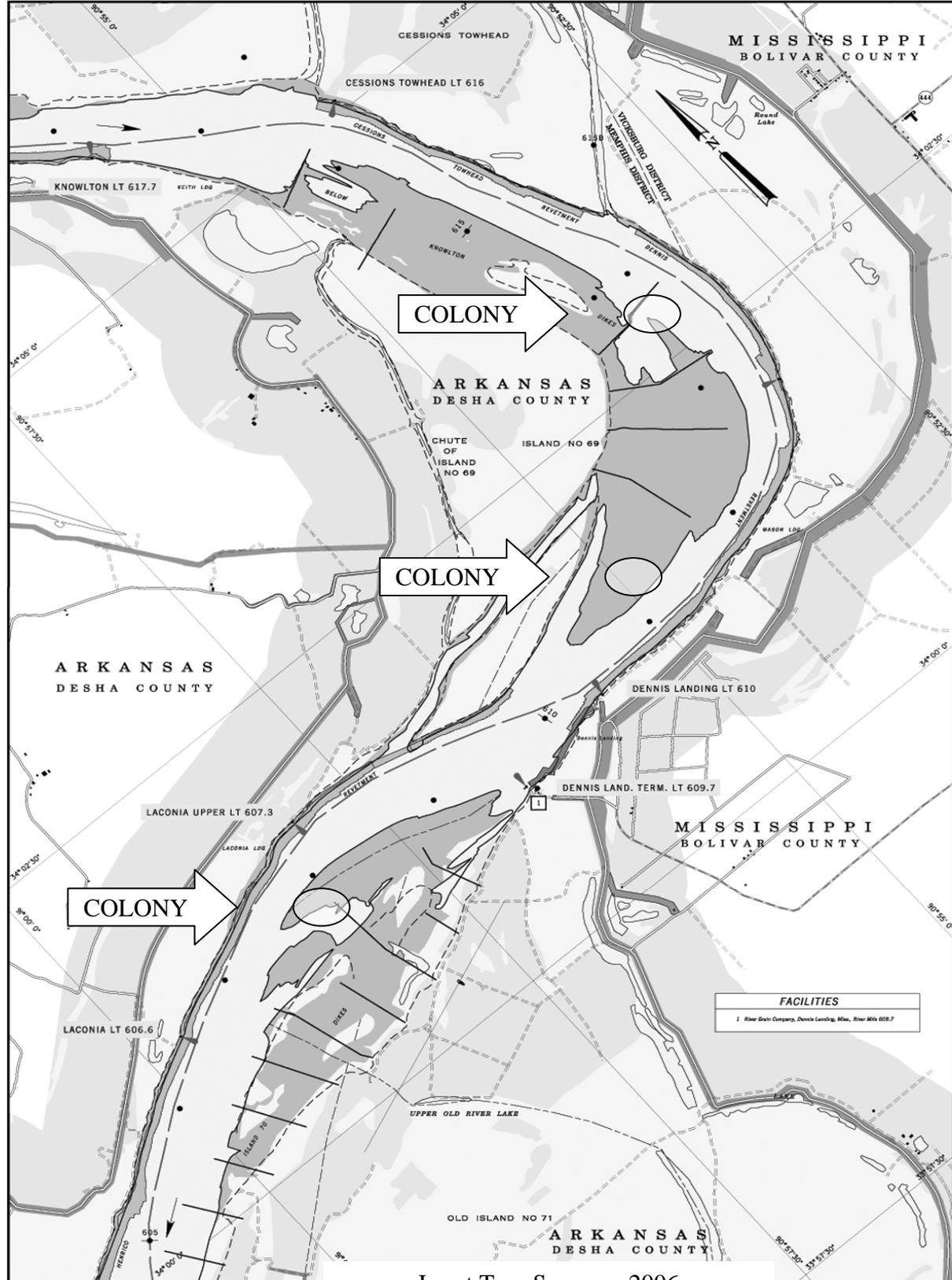
MAP NO. 67



1998

MAP NO. 72

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-30



1998

Least Tern Survey – 2006

MAP NO. 73

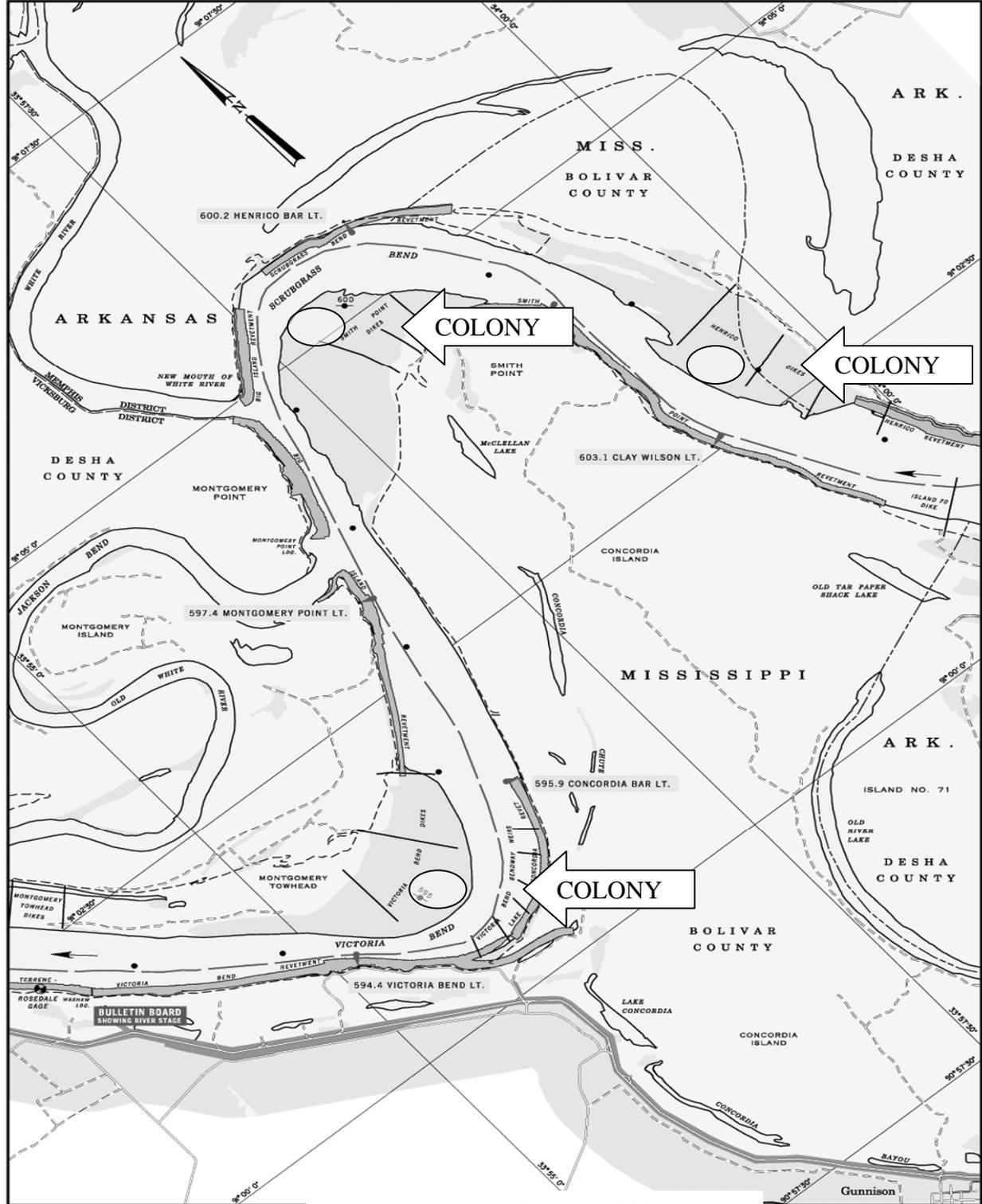
Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

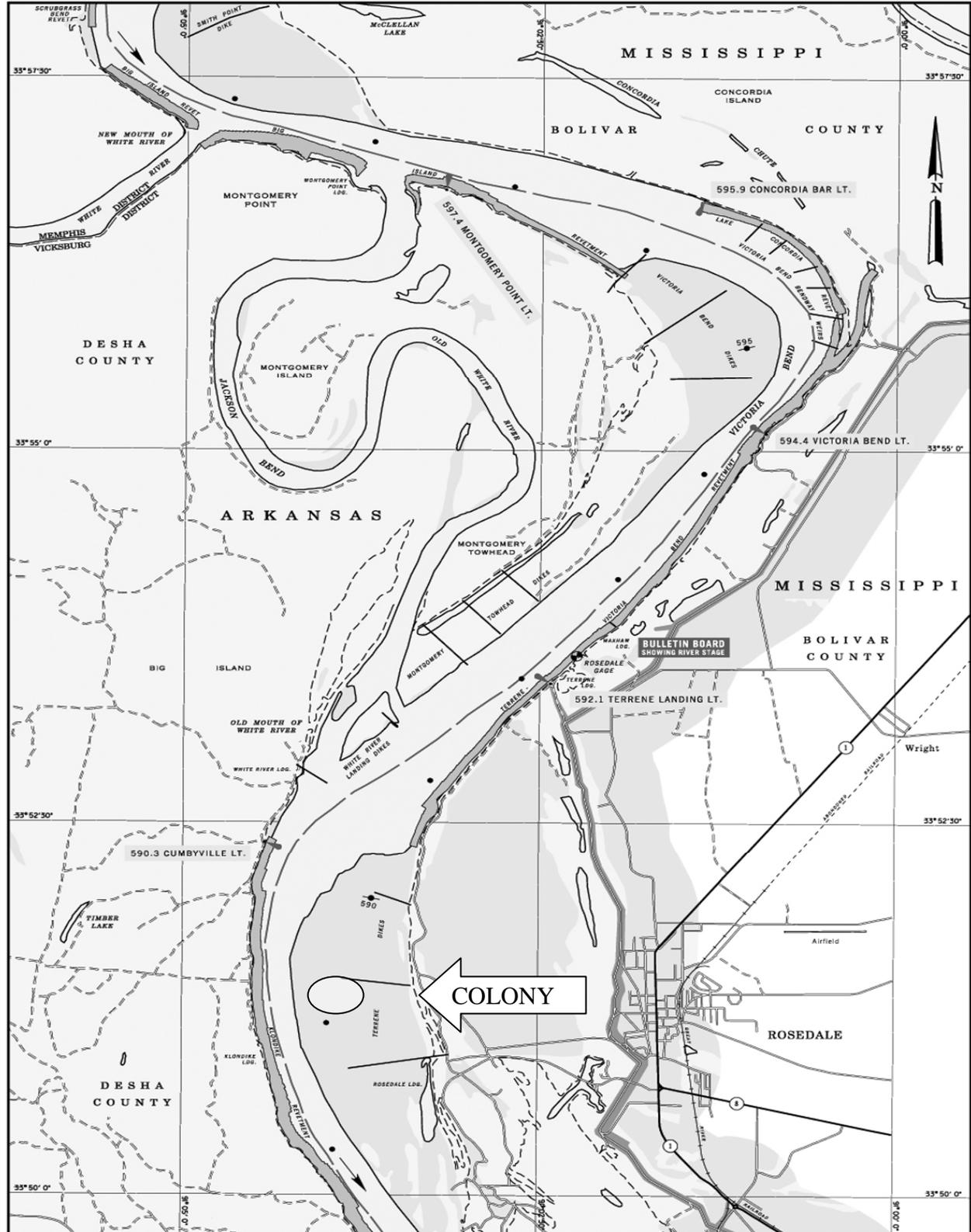
A-I-31



1998

MAP NO. 74

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-32



1998

Least Tern Survey – 2006

MAP NO. 75

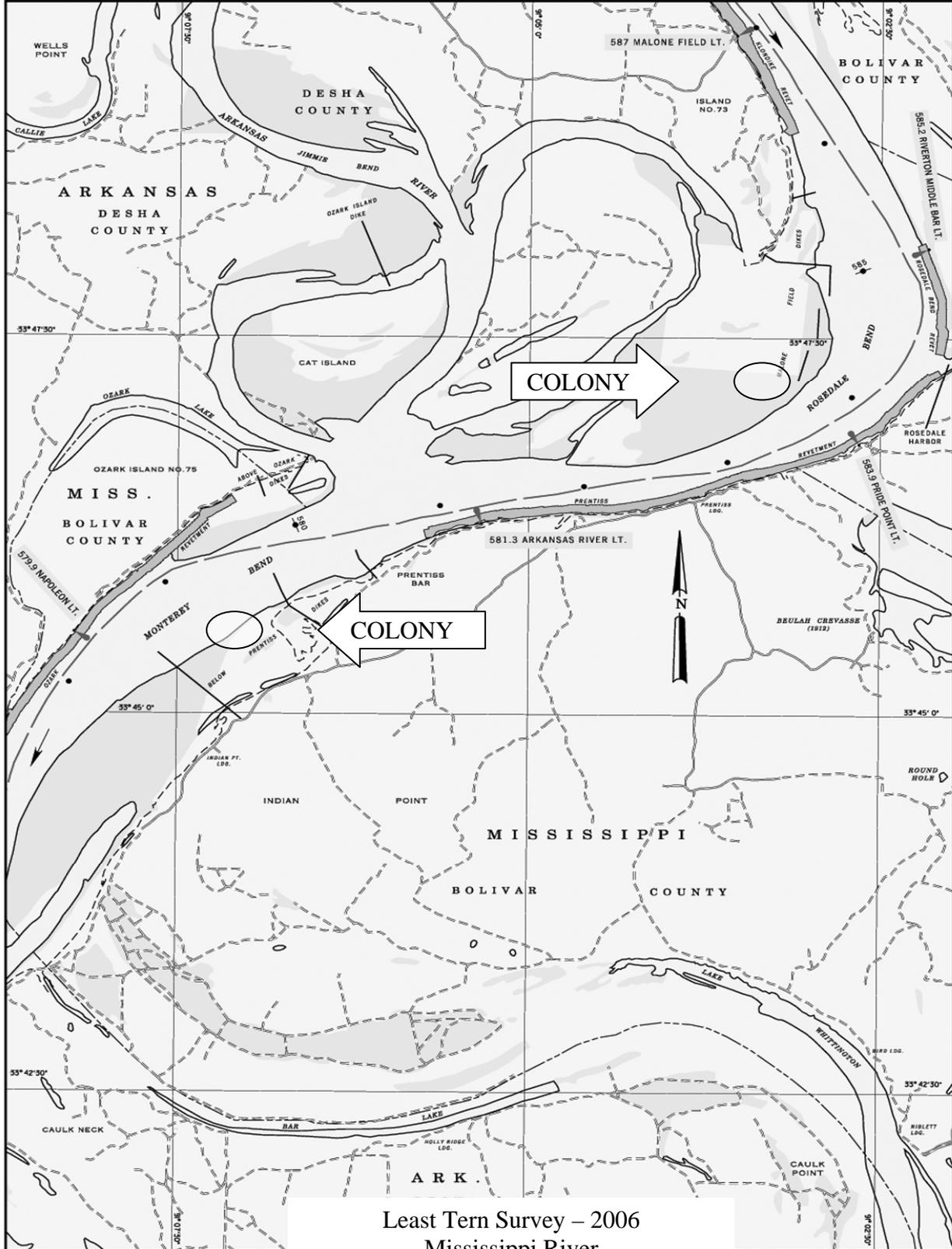
Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

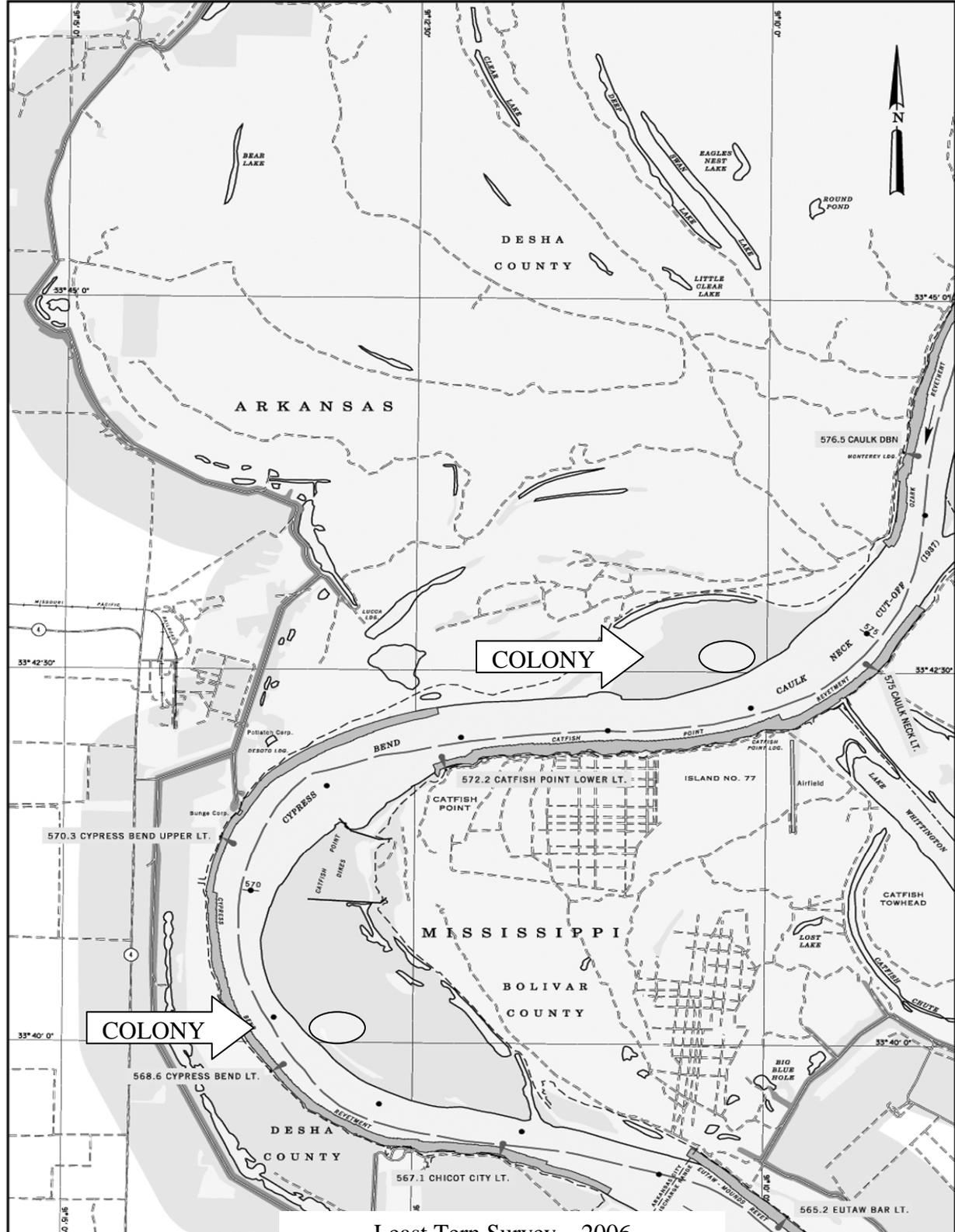
A-I-33



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-34

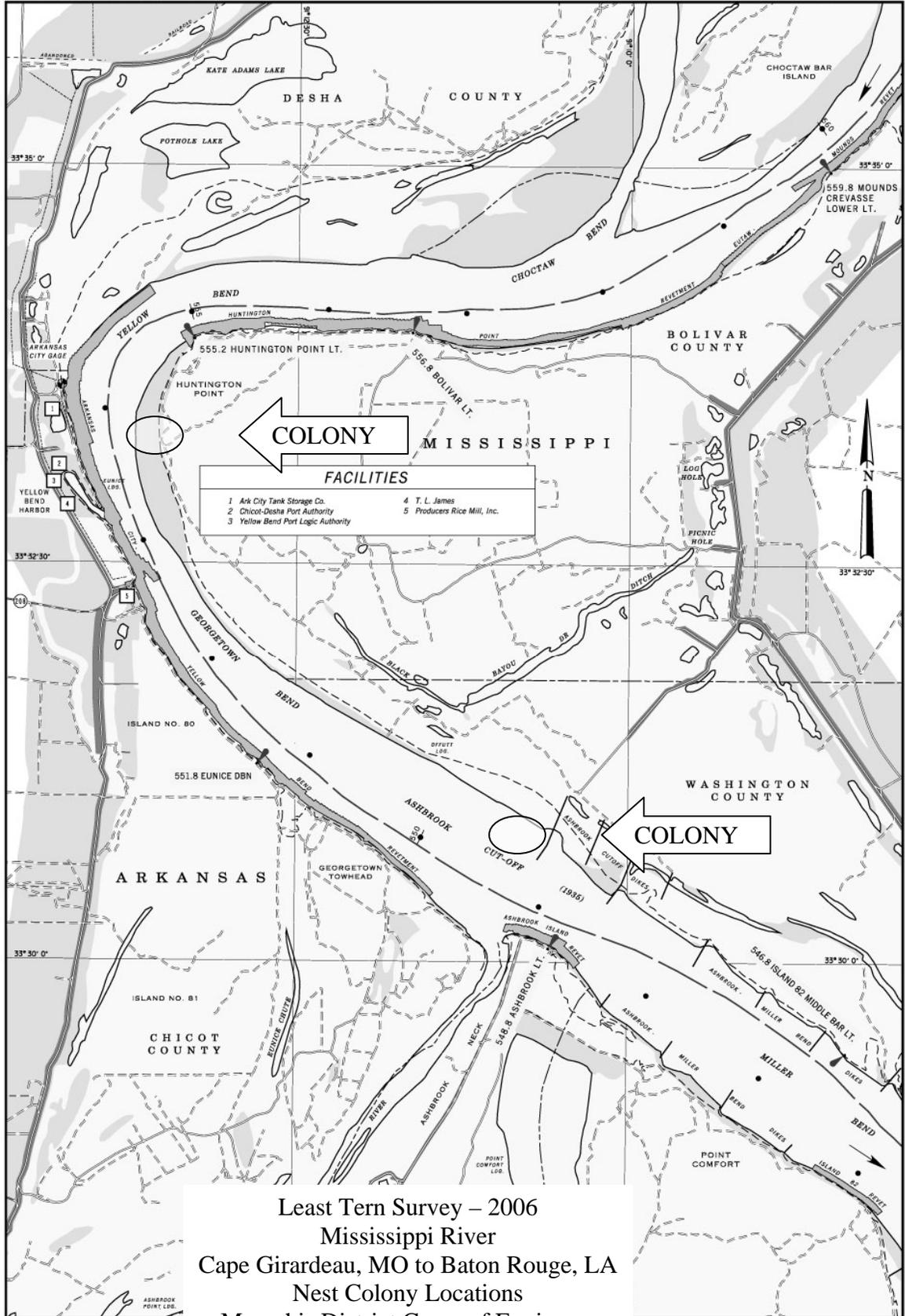
MAP NO. 76



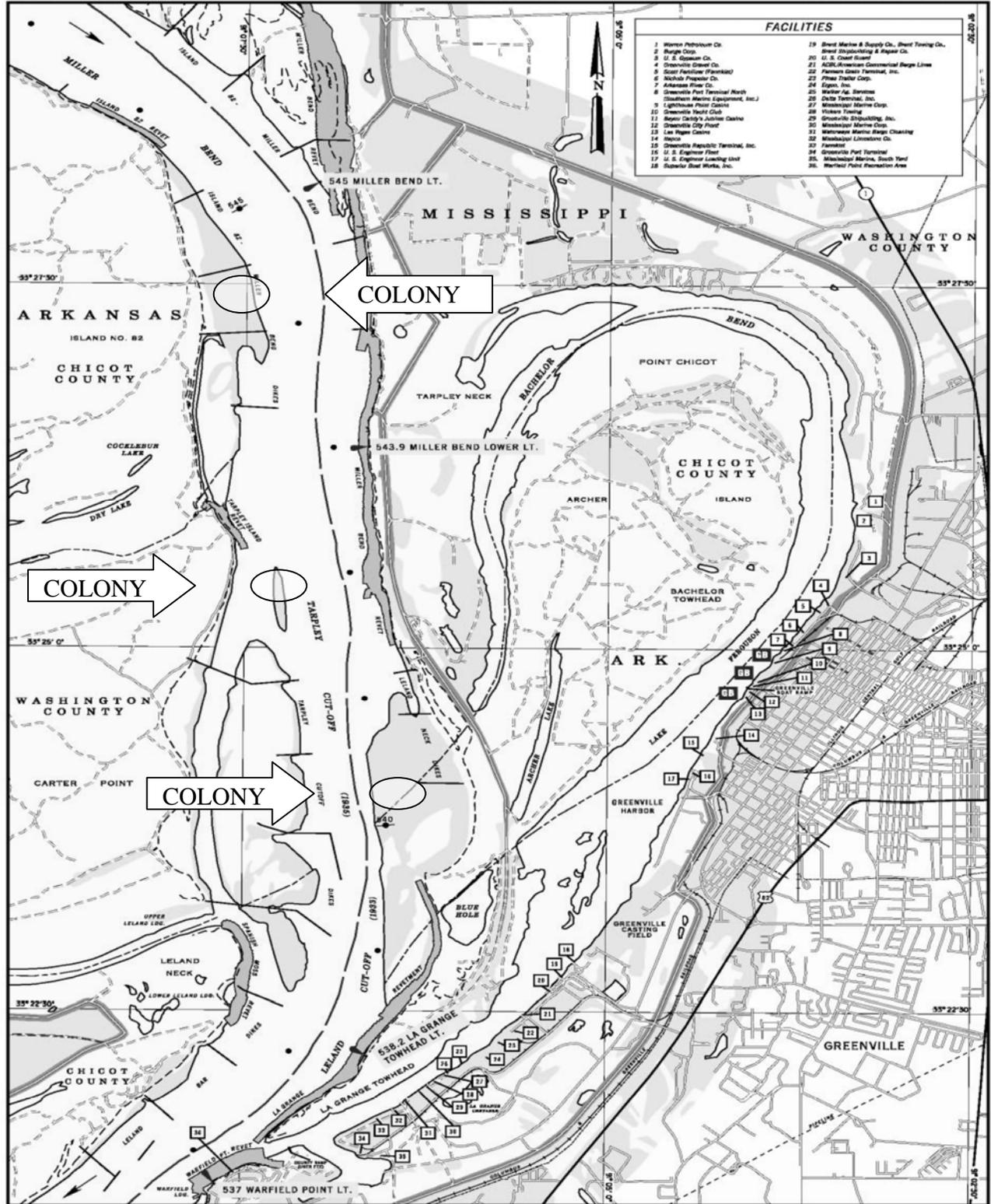
1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-35

MAP NO. 77



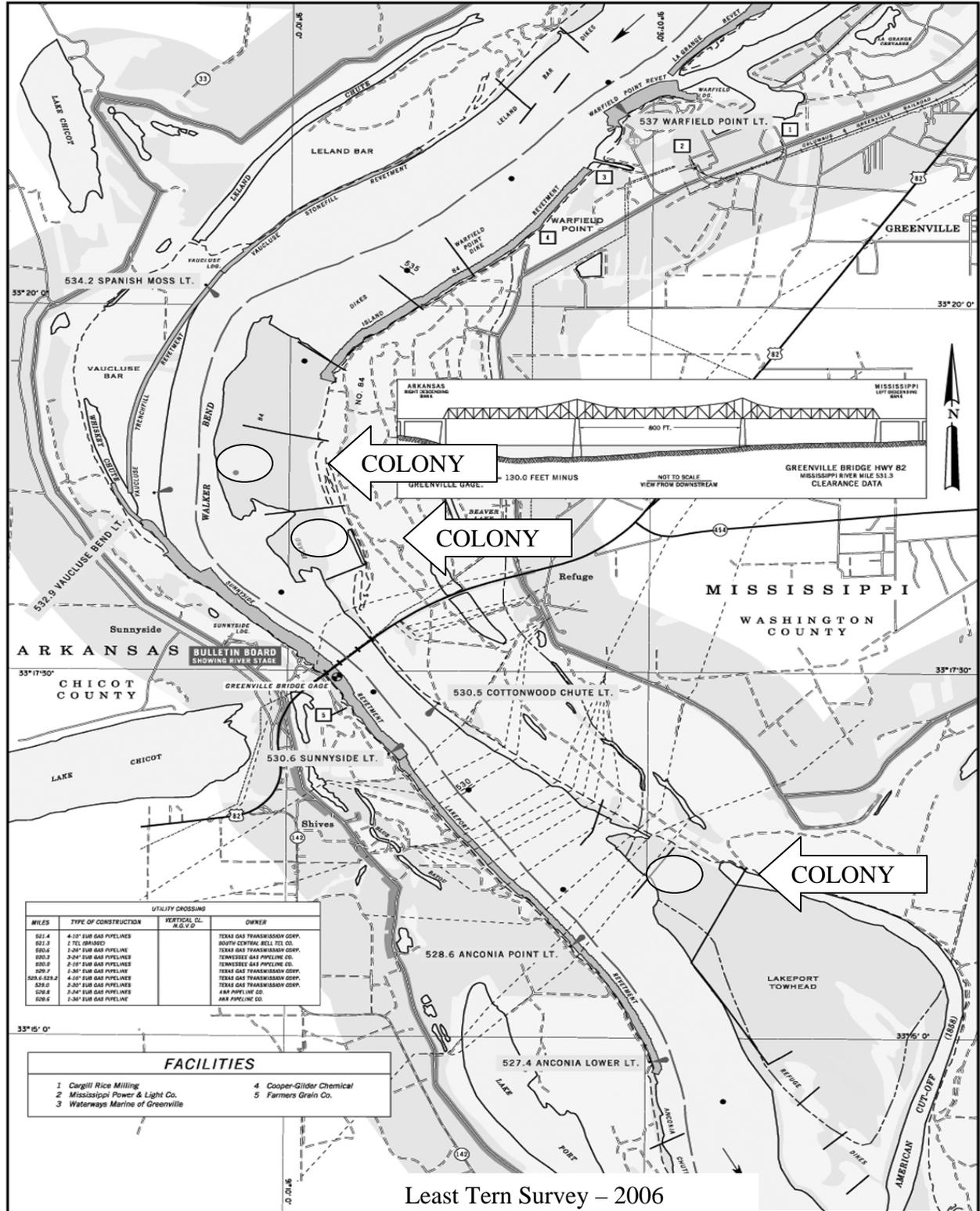
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers



1998

MAP NO. 80

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-37



1998

Least Tern Survey – 2006

Mississippi River

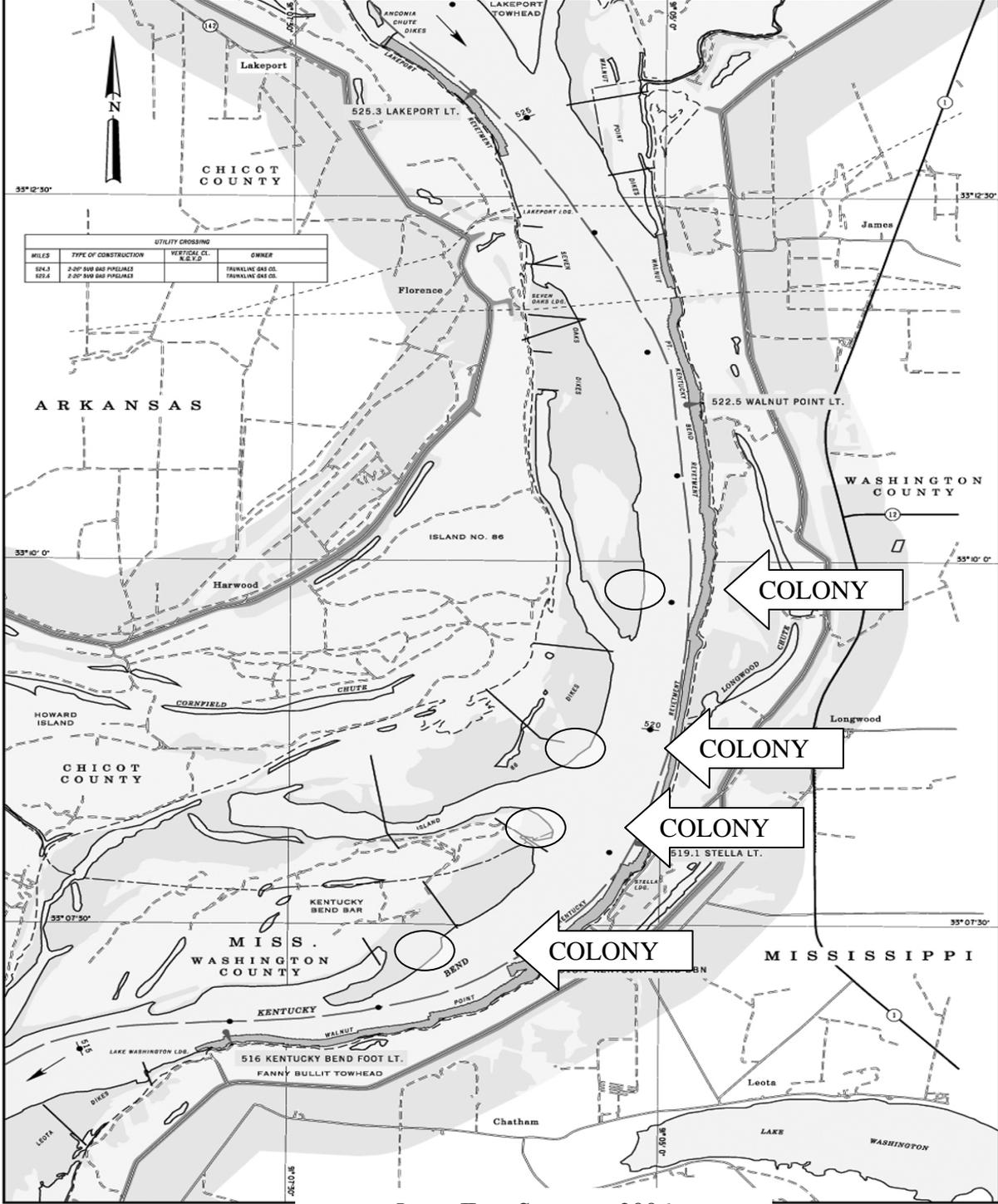
Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

A-I-38

MAP NO. 81

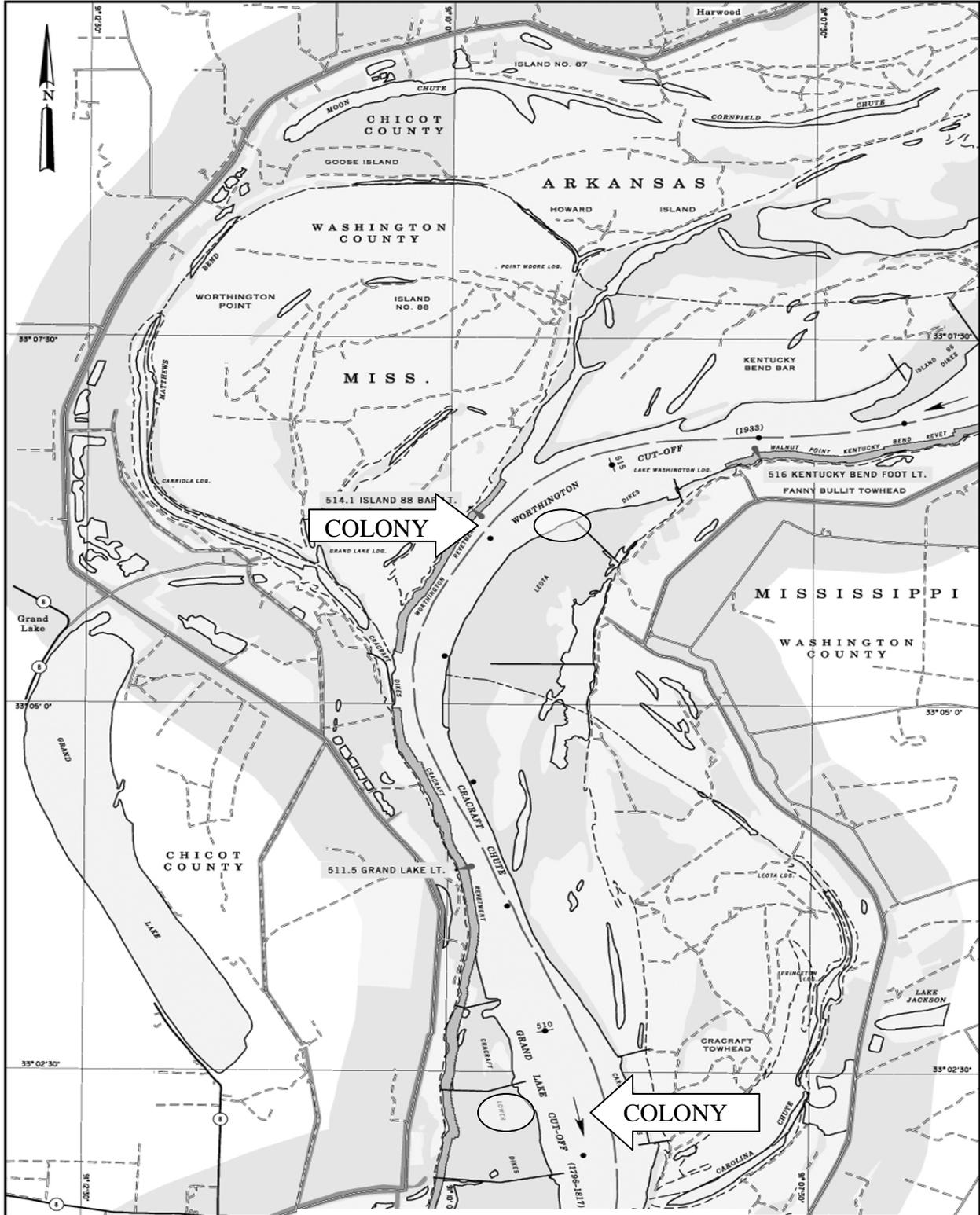


1998

Least Tern Survey – 2006

MAP NO. 83

Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-39



1998

Least Tern Survey – 2006

MAP NO. 84

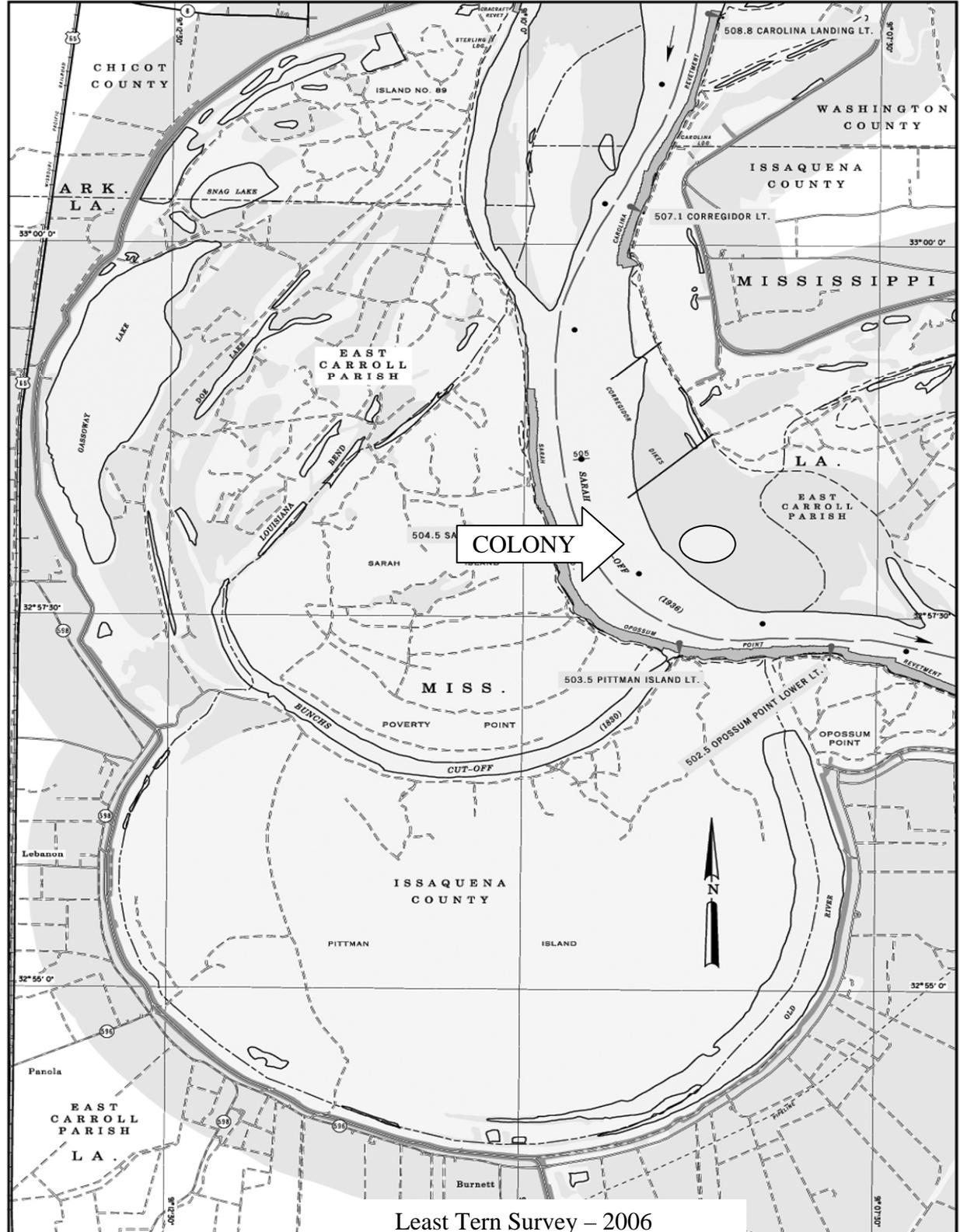
Mississippi River

Cape Girardeau, MO to Baton Rouge, LA

Nest Colony Locations

Memphis District Corps of Engineers

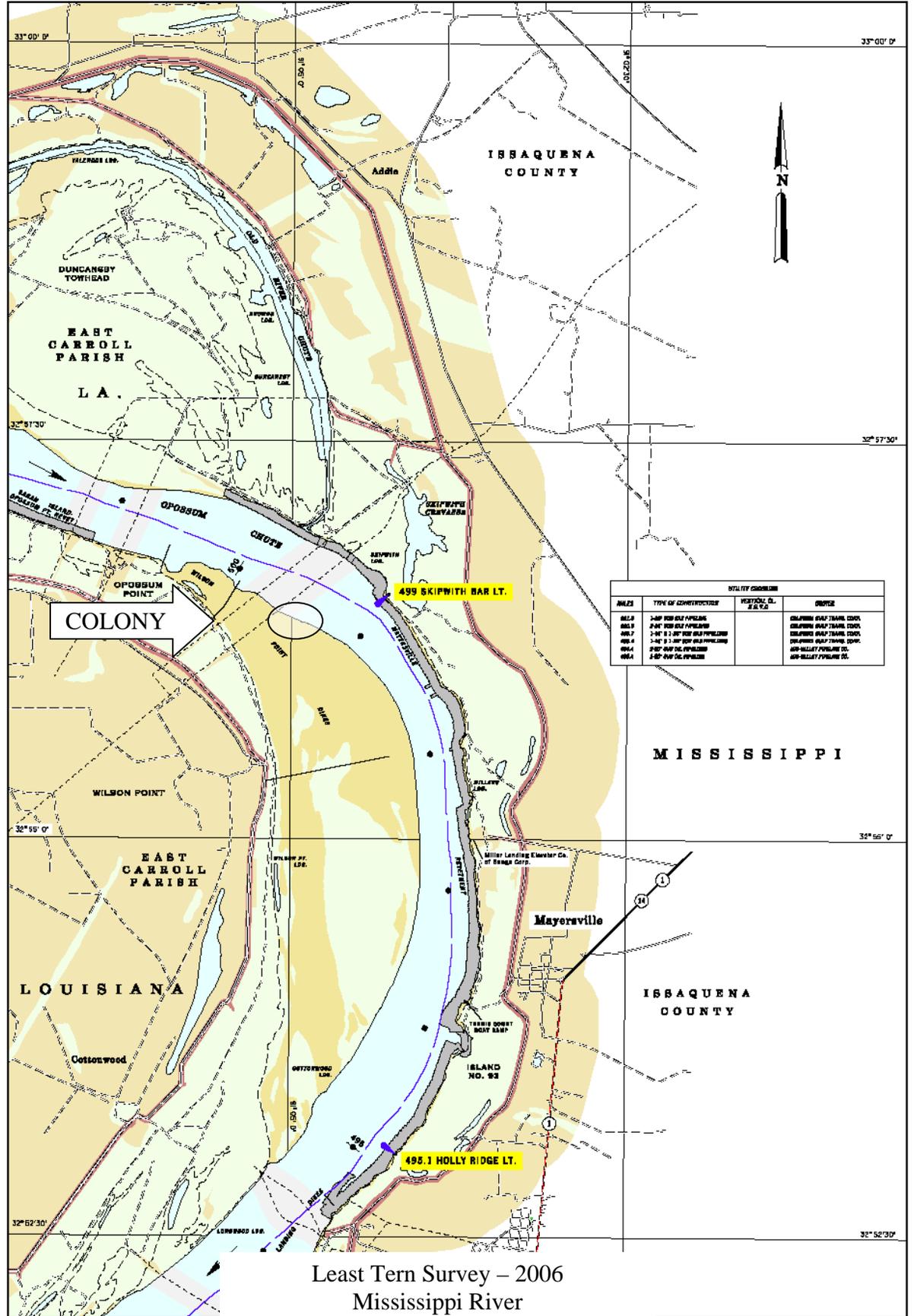
A-I-40



1998

MAP NO. 85

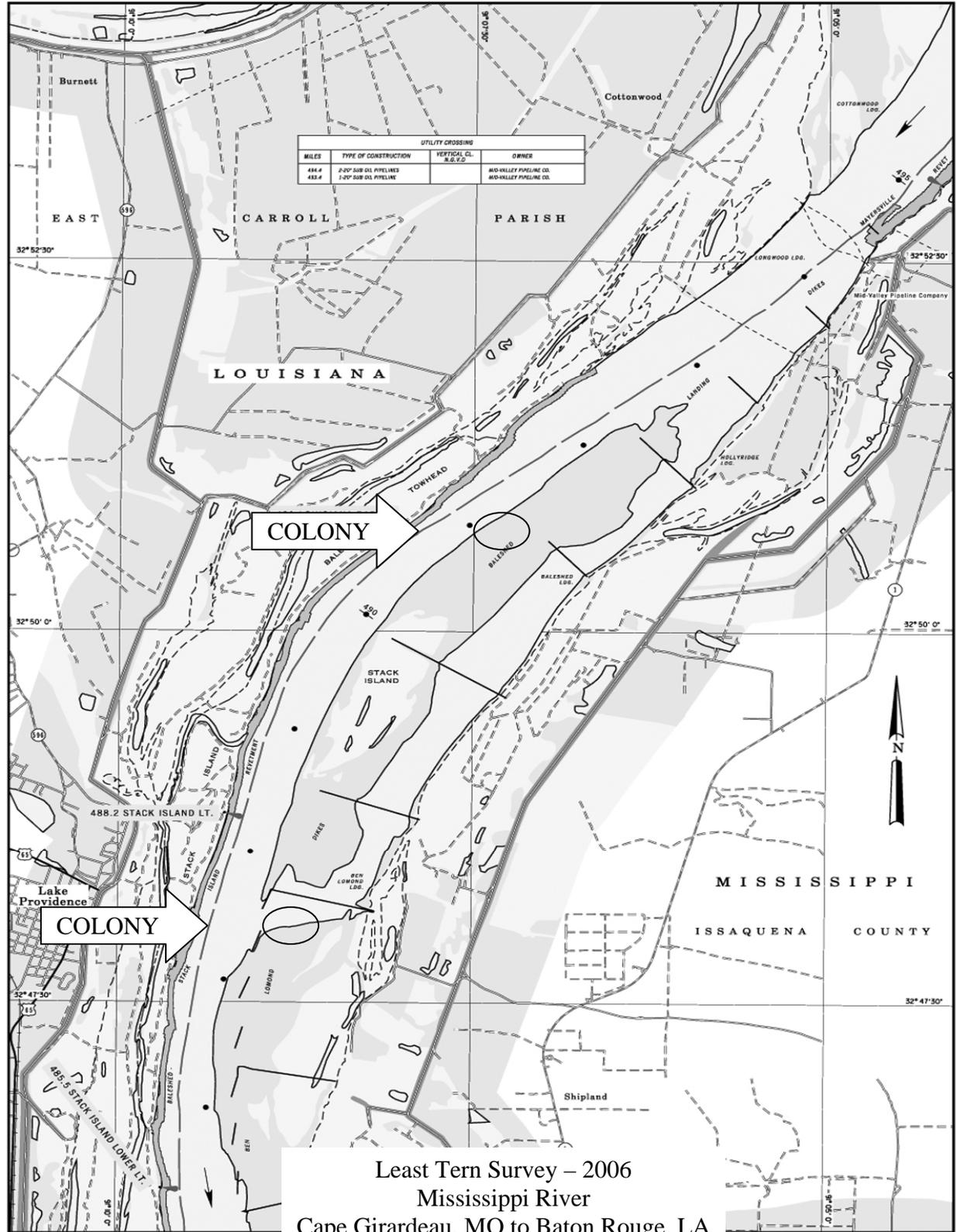
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-41



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-42

MAP NO. 86



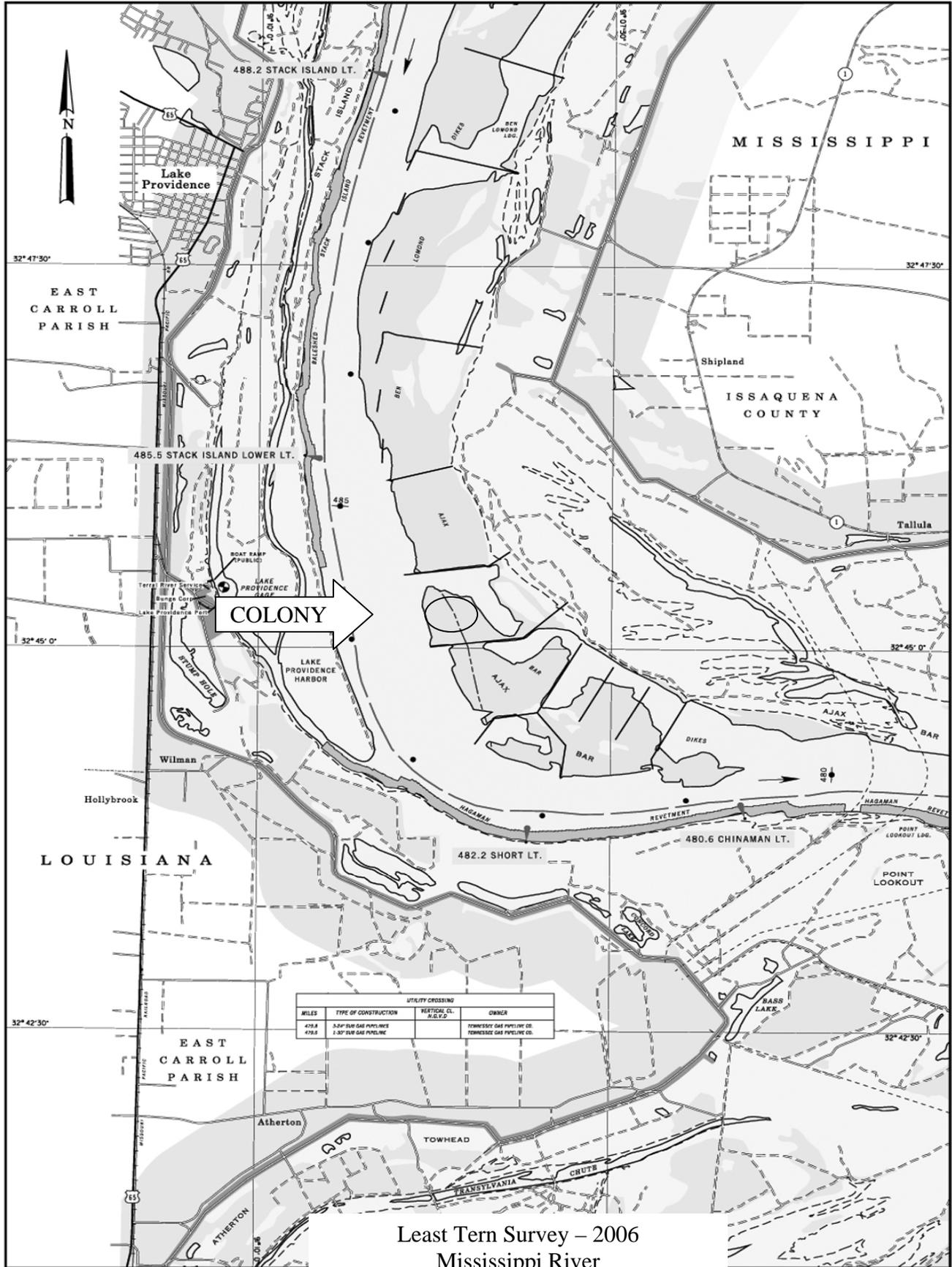
1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations

Memphis District Corps of Engineers

A-I-43

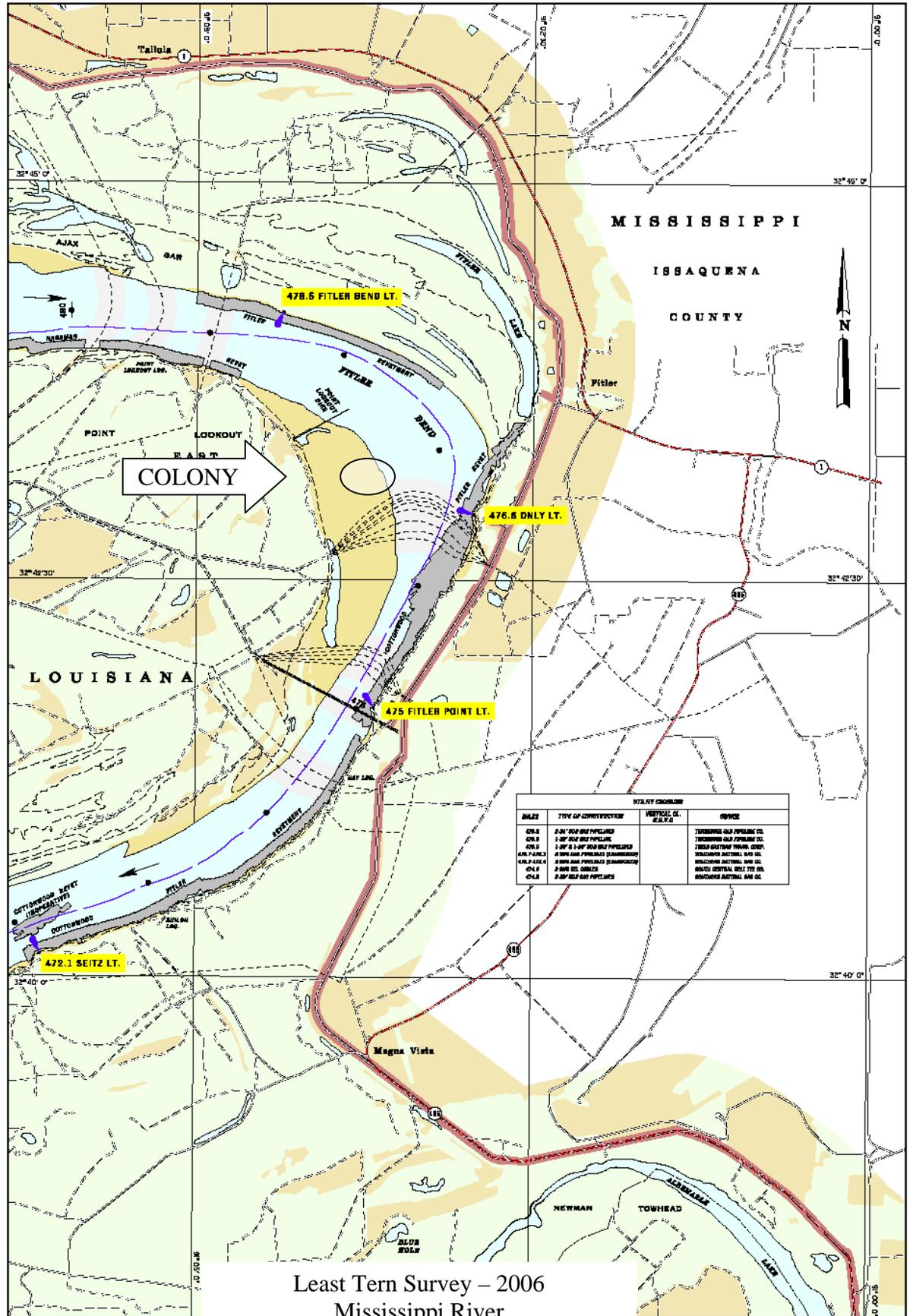
MAP NO. 87



1998

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

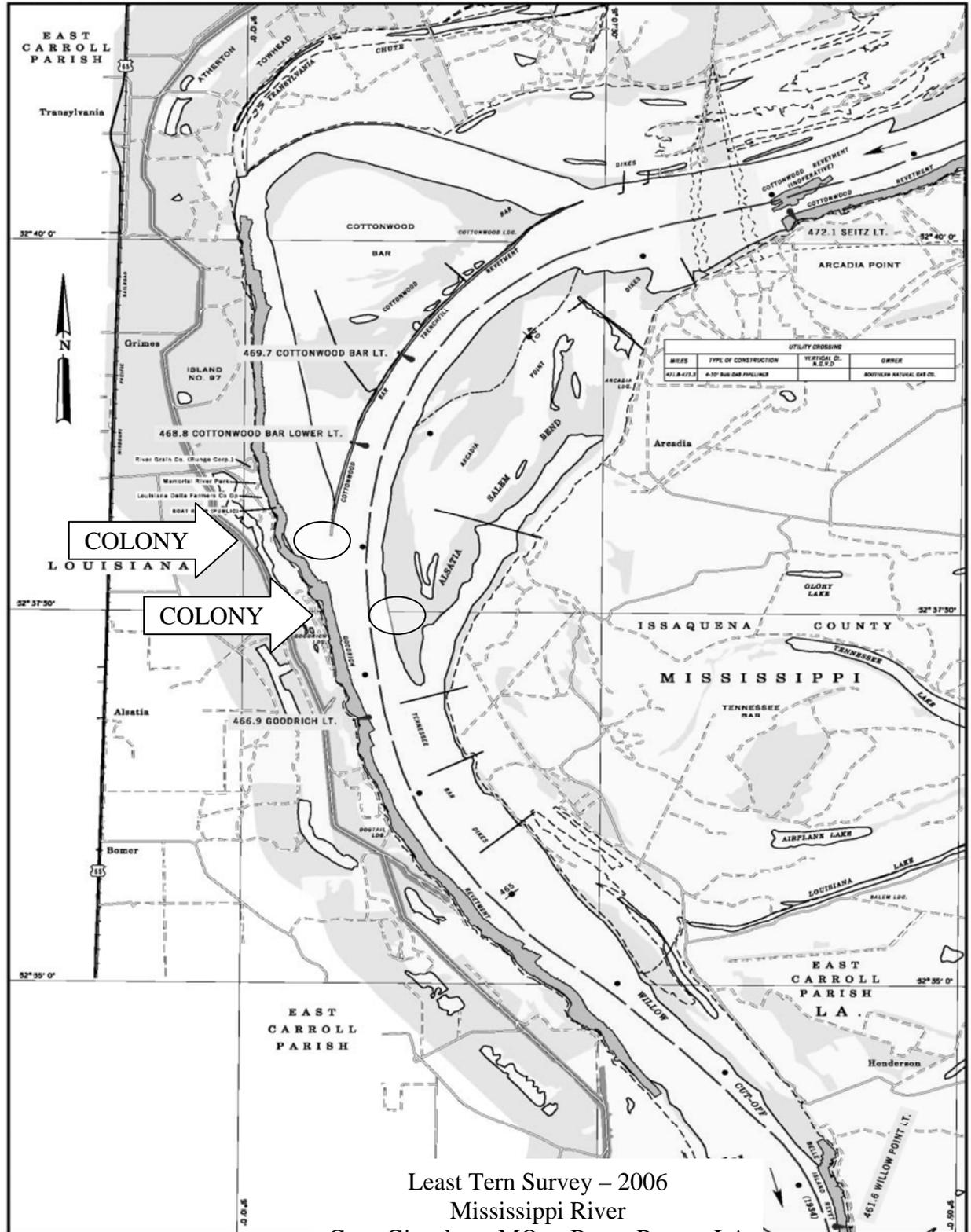
MAP NO. 88



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-45

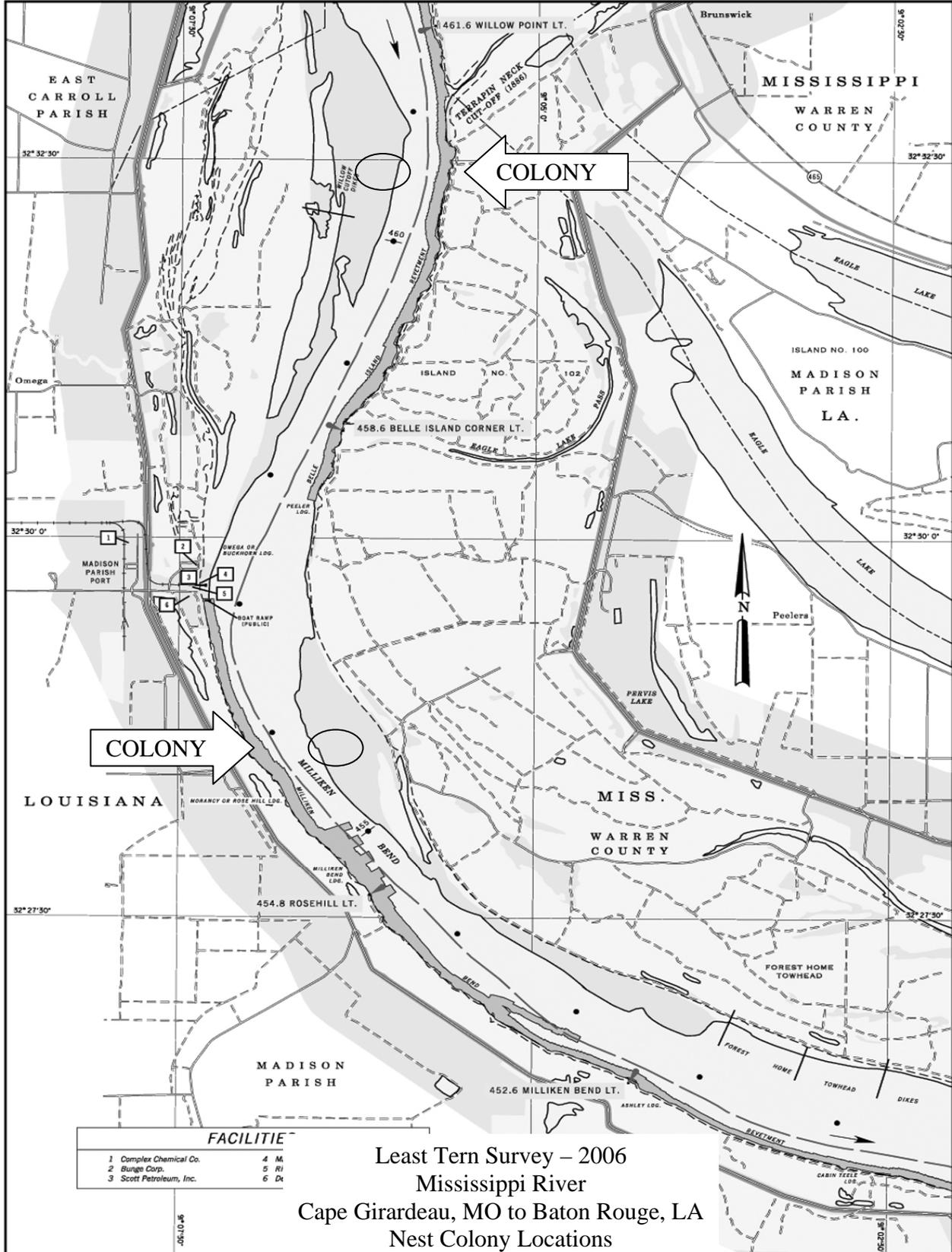
MAP NO. 89

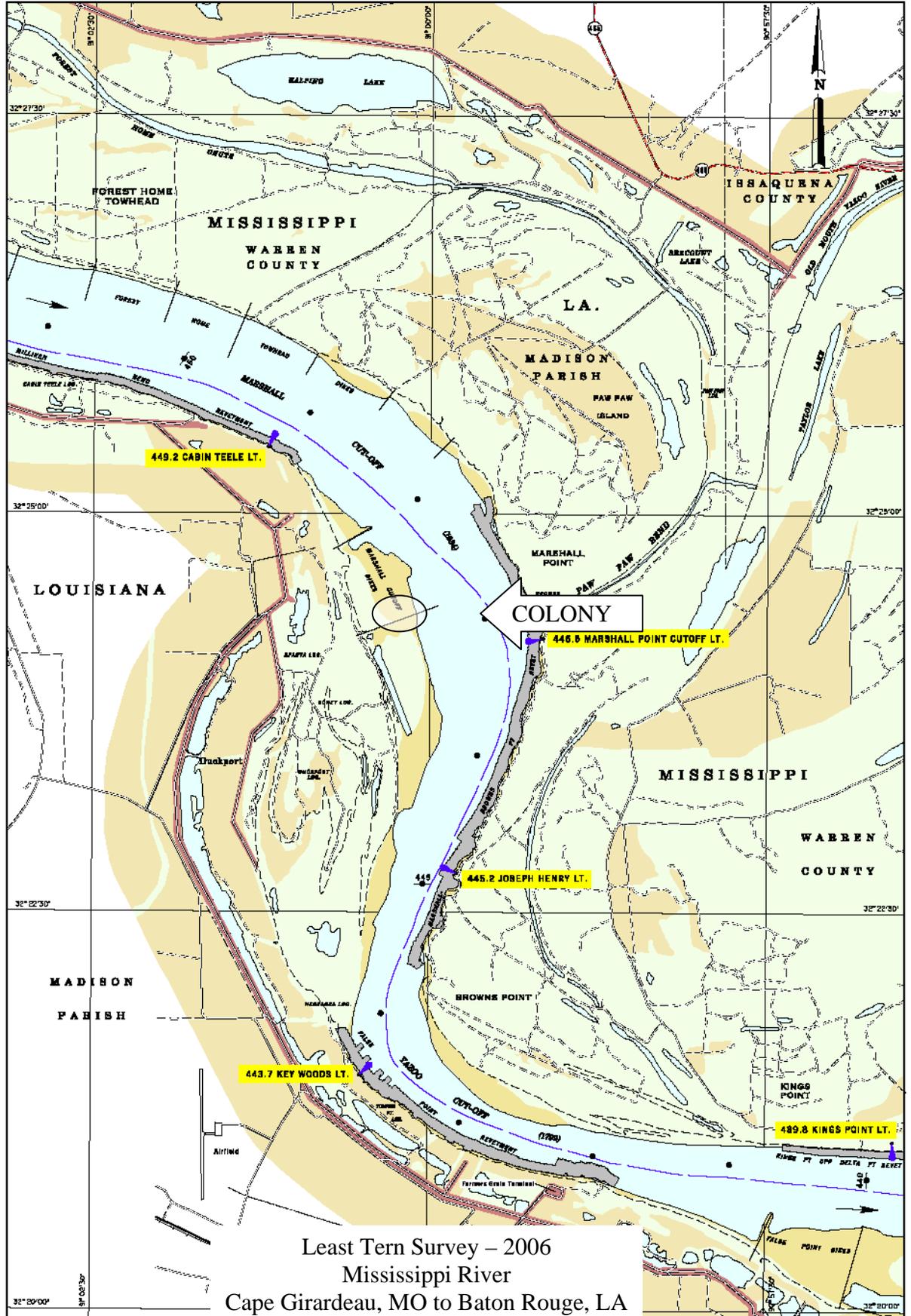


1998

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

MAP NO. 90





1998

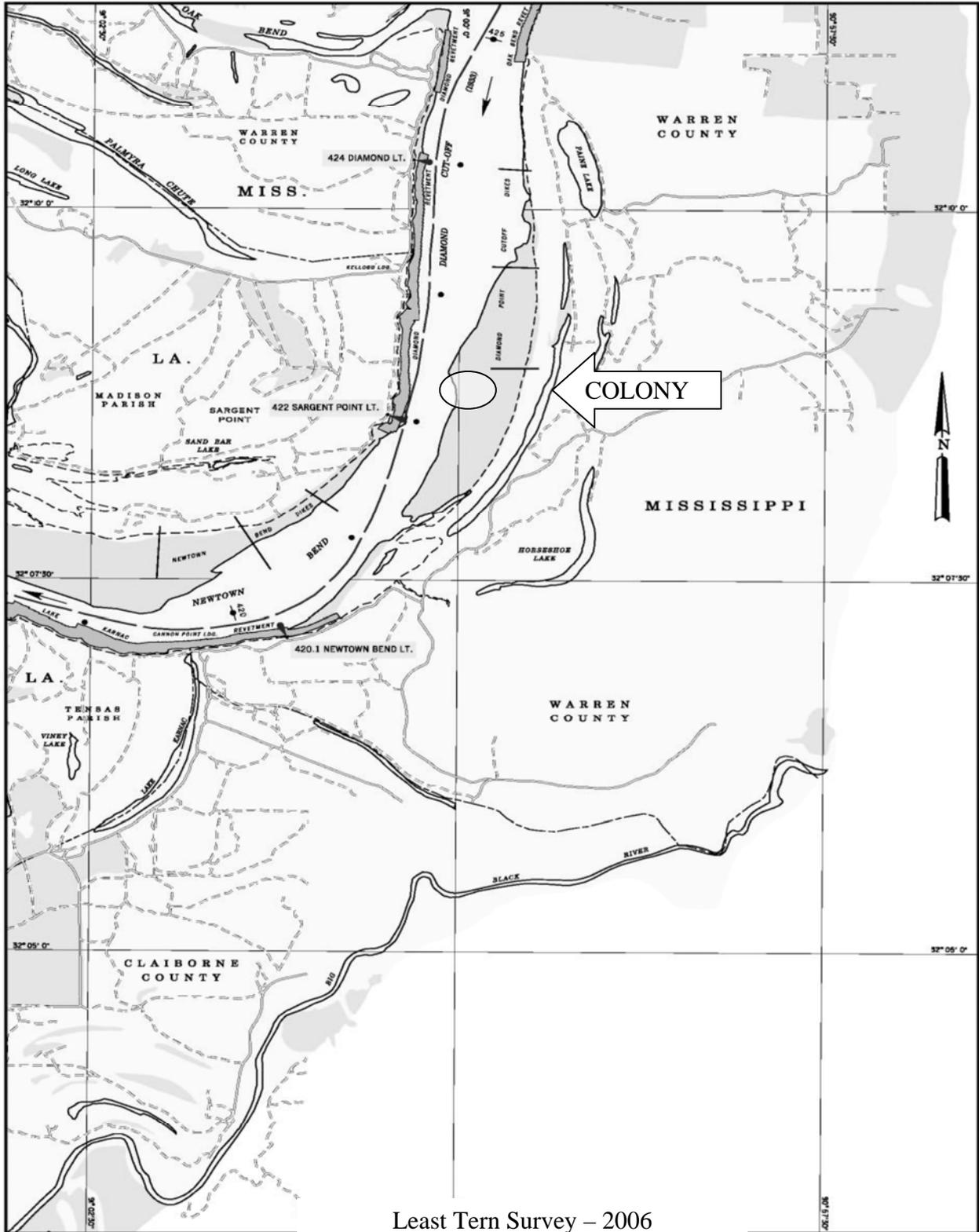
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers

A-I-48

MAP NO. 93



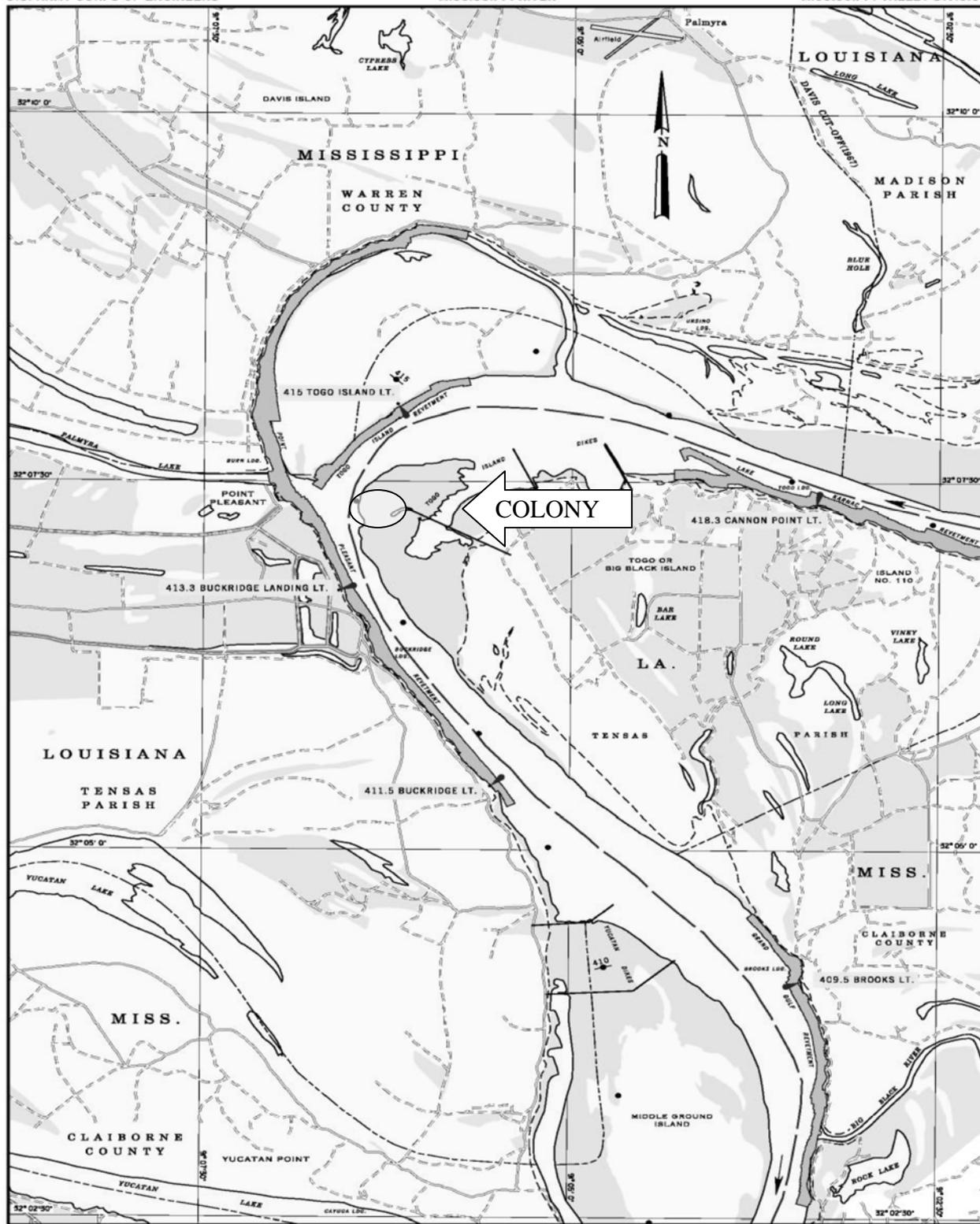
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-50



1998

MAP NO. 98

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-51

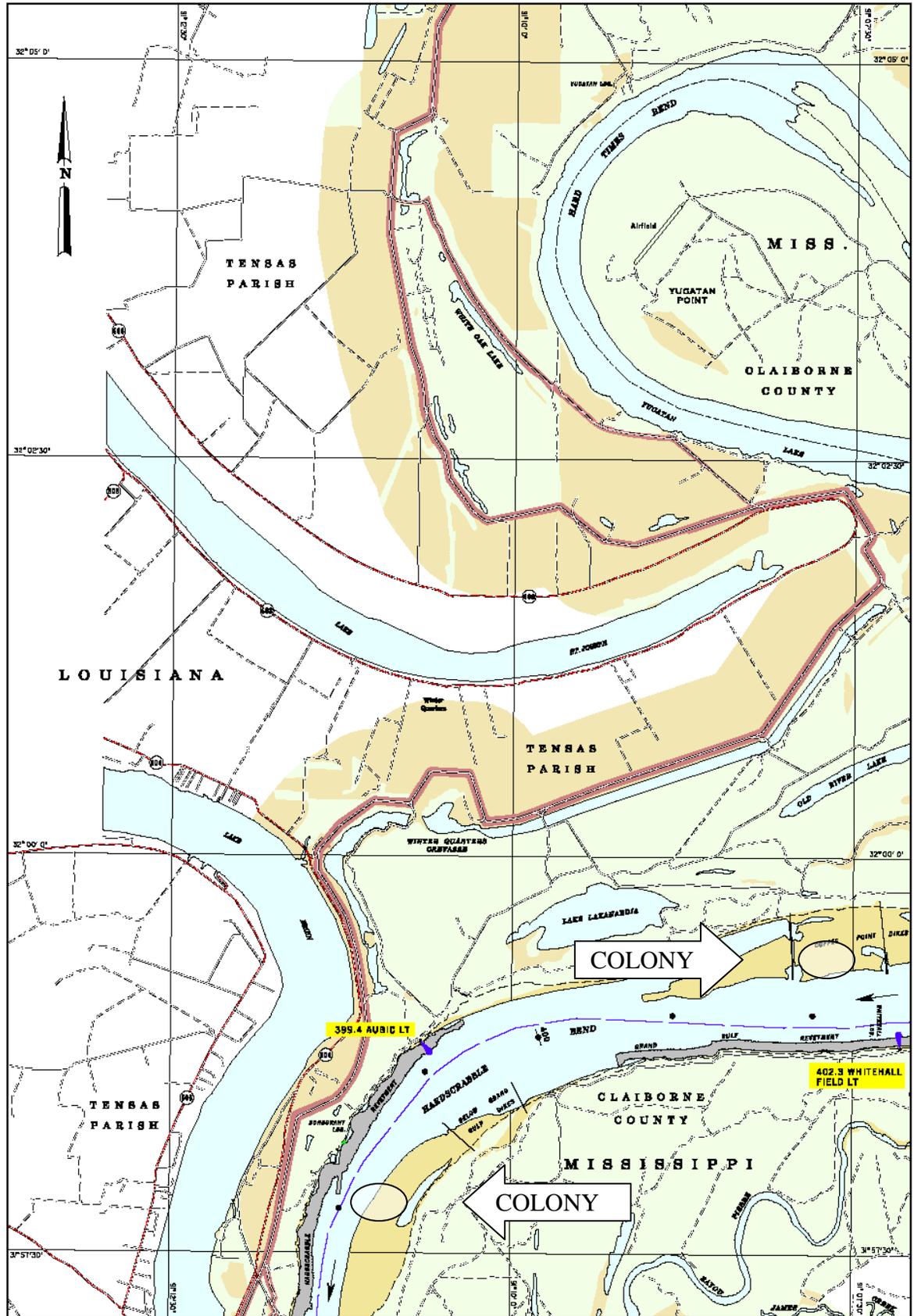


1998

SCALE 1:31,680
1 INCH = 170 METERS

MAP NO. 99

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-52

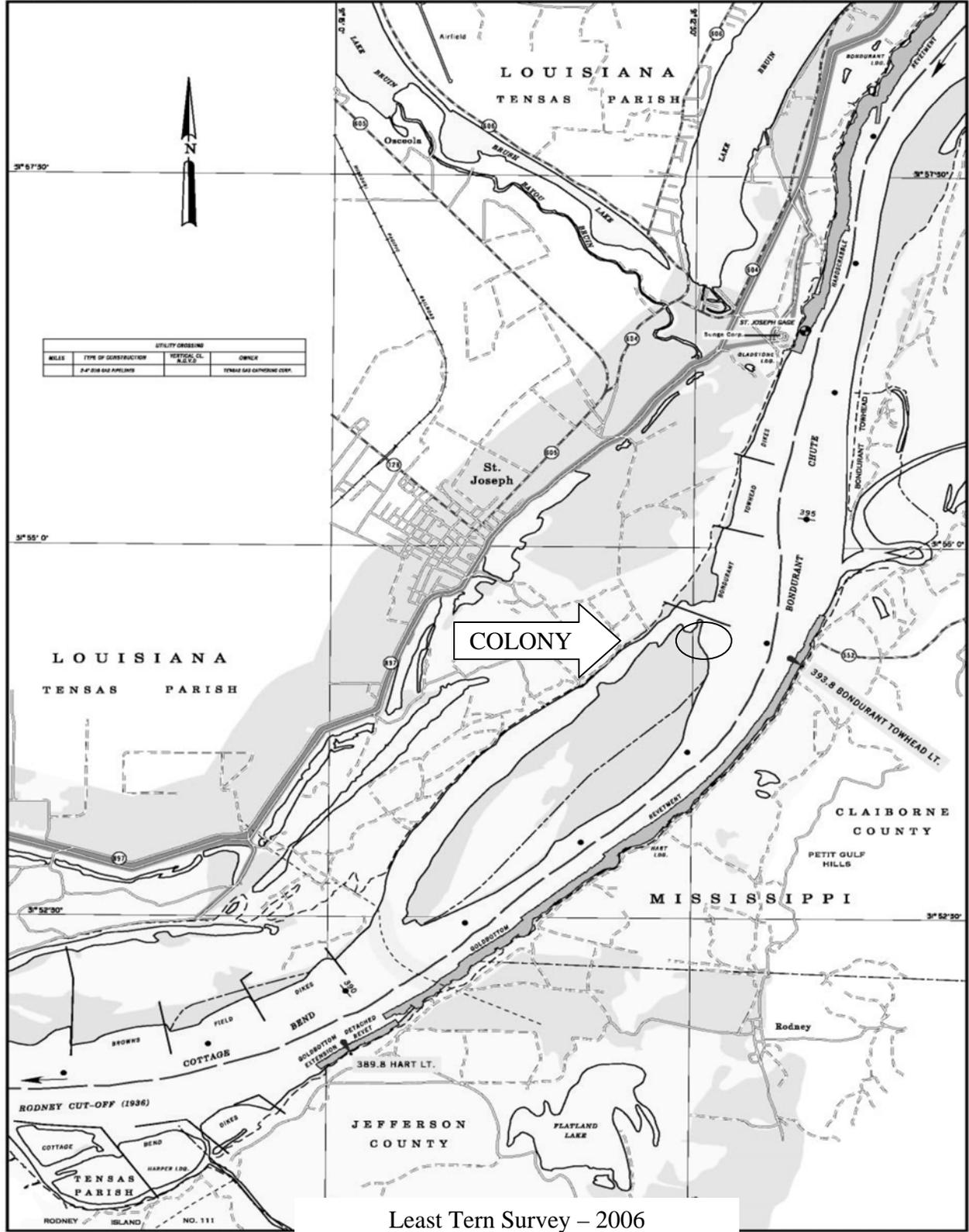


1998

SCALE 1:51,680
1 INCH = 1/2 MILE

MAP NO. 101

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-53

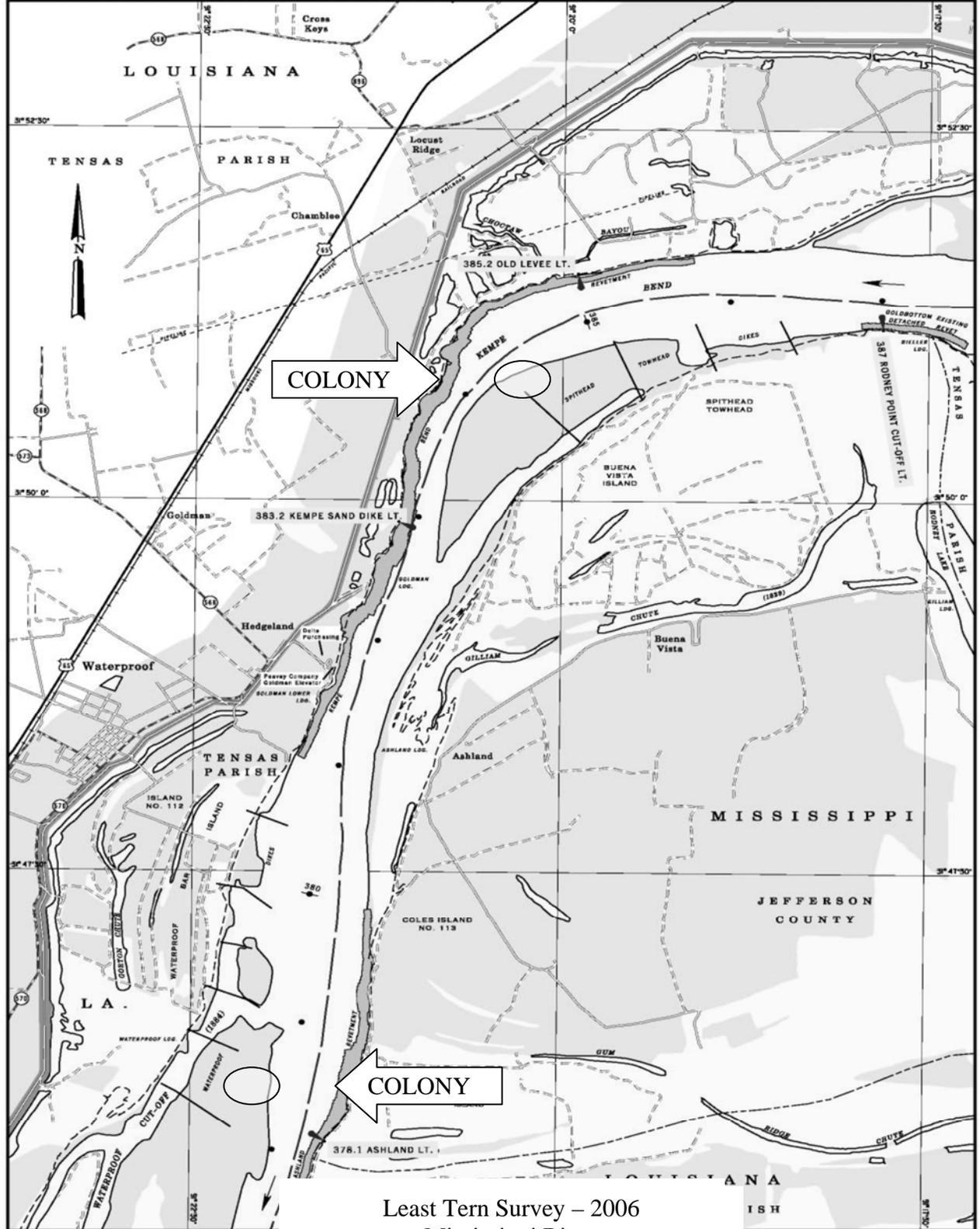


| UTILITY CROSSING | | | |
|------------------|----------------------|-----------------------|----------------------------|
| MILES | TYPE OF CONSTRUCTION | VERTICAL CL. P.E.T.C. | OWNER |
| 2.4 | 208 | 0.0 | AMPLUND |
| | | | TENSAS GAS GATHERING CORP. |

1998

MAP NO. 102

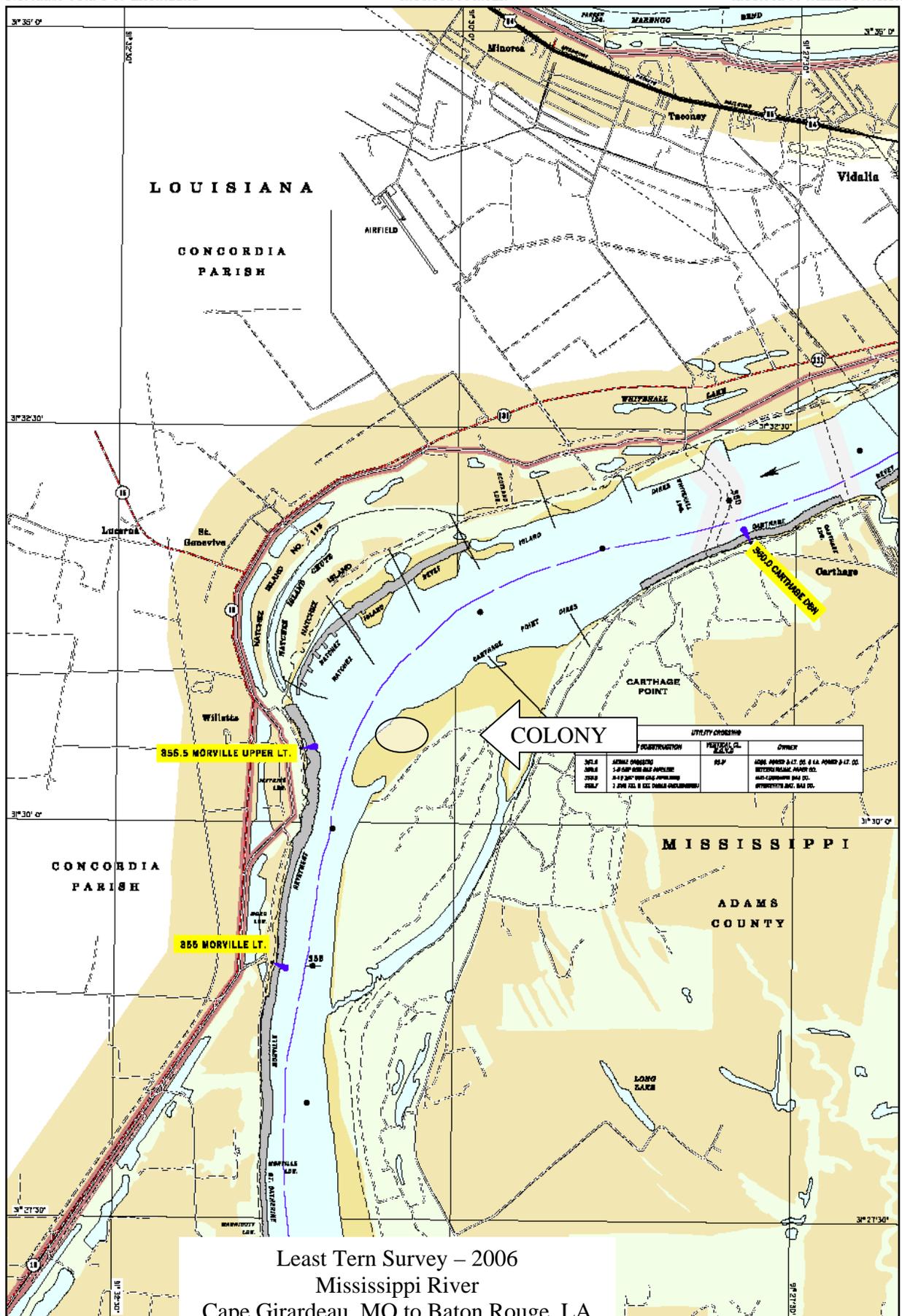
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-54



1998

MAP NO. 103

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-55

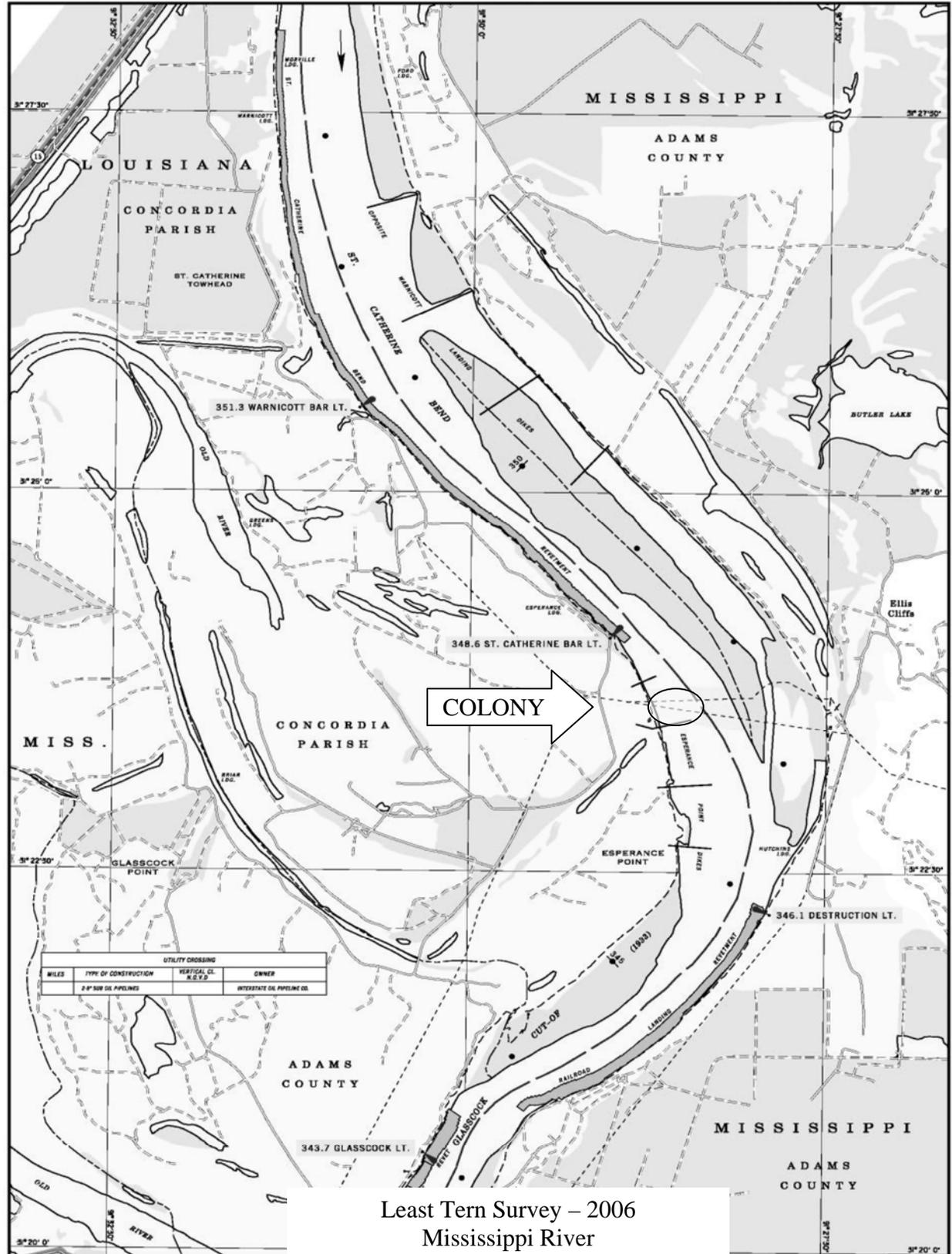


1998

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

LE

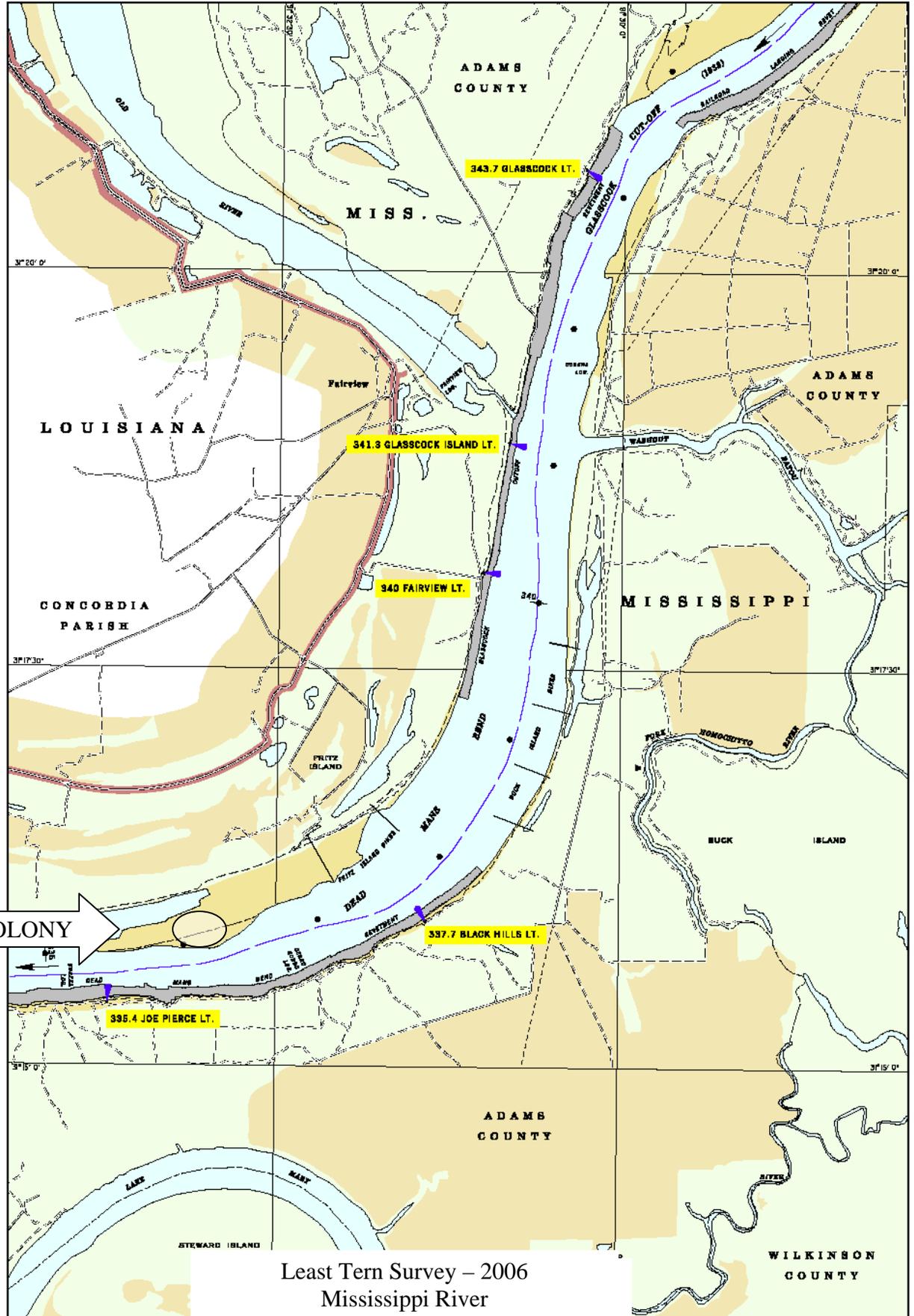
MAP NO. 107



1998

MAP NO. 109

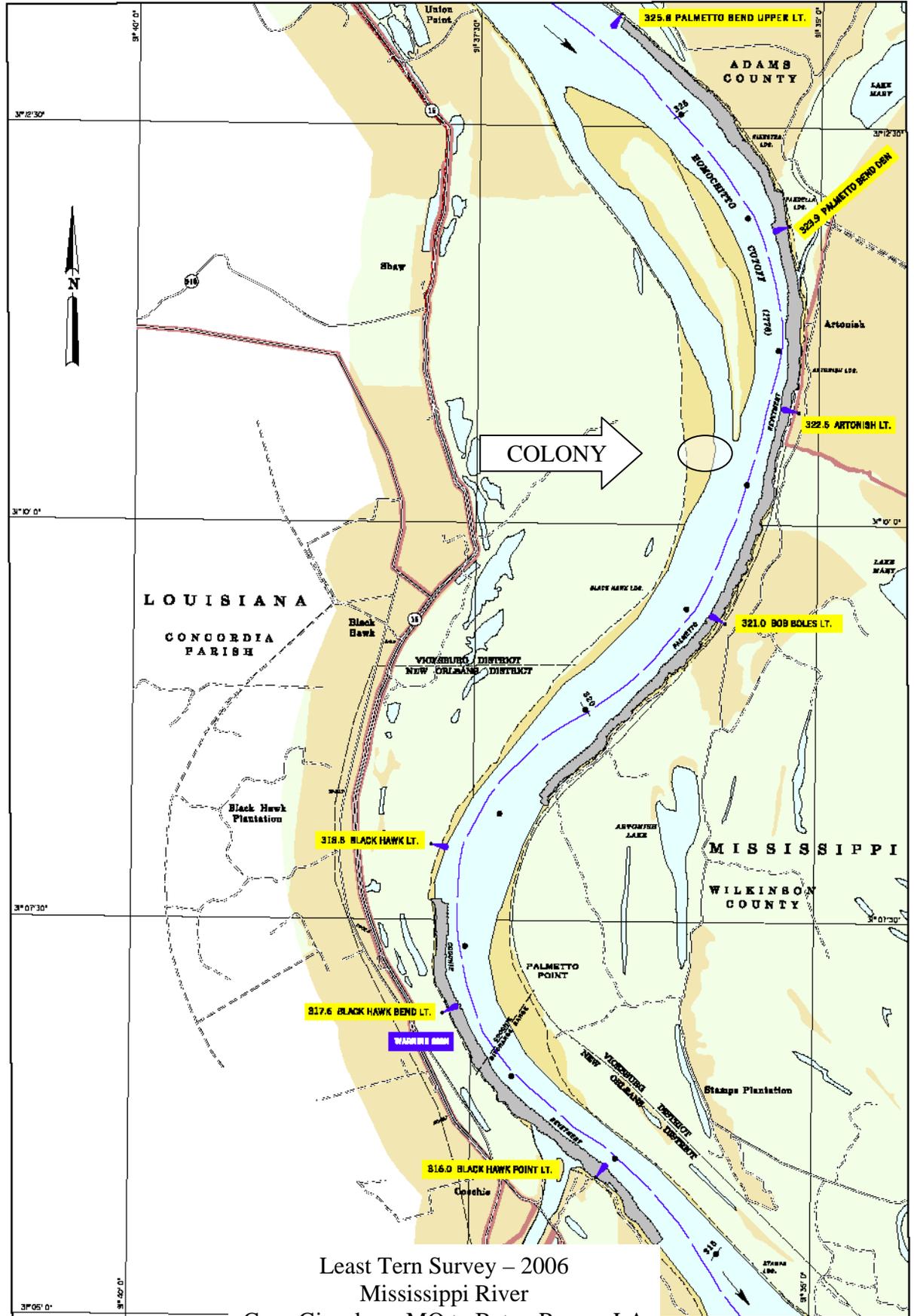
Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-57



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-58

MAP NO. 110



1998

Least Tern Survey – 2006
 Mississippi River
 Cape Girardeau, MO to Baton Rouge, LA
 Nest Colony Locations
 Memphis District Corps of Engineers
 A-I-59

MAP NO. 112

Appendix A – II

LEAST TERN SURVEY - 2006

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

SMALL BOAT SURVEY July 1 – July 15, 2006

Memphis District, Corps of Engineers

Data Sheets

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 8:15 RIVER MILE: UR 33.0

LOCALITY: Scott MO SITE NAME: Billings Island
County/Parish State

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 7
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

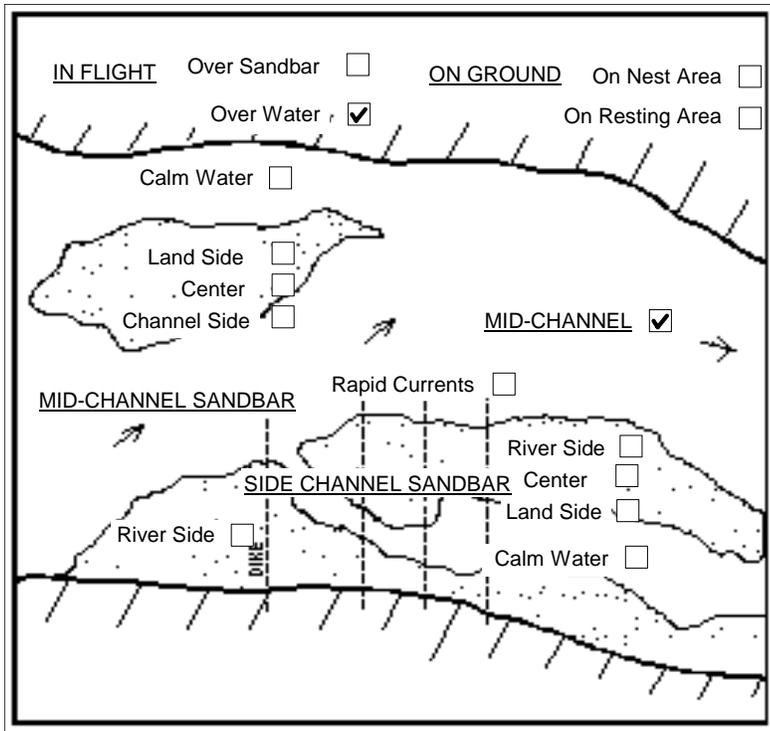
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: S 5 mph
% Cloud: haze



OTHER NOTES:

Seven terns flying mid-channel.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cape Girardeau = 12.0 S
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 8:30 RIVER MILE: UR 30.5

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

WHERE SITED: Latitude: 37.04536
Longitude: 89.38146

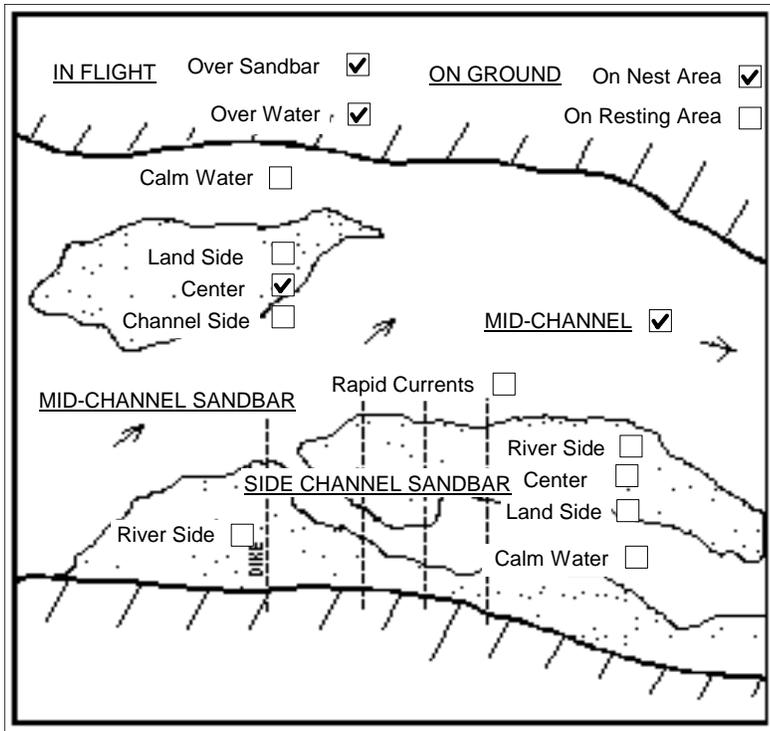
Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:
Adults: 43
Juveniles: _____
Eggs: 0
Nests: 19
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Willows/Cottonwoods
Distance: 2000 Feet

FIELD CONDITION:
Temperature: 81 °F
Rain: No
Wind: S 5 mph
% Cloud: haze



OTHER NOTES:

Left Bank. Flat, gently sloping to high center sand and gravel bar 18 ft. in elevation at highest point.
Courting and slight mobbing. Signs of recent coyote and fox predation with tracks in straight line from
scrape to scrape.

ILL side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cape Girardeau = 12.0 S
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 9:10 RIVER MILE: UR 23.2

LOCALITY: Alexander ILL SITE NAME: Browns Bar
County/Parish State

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 2
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

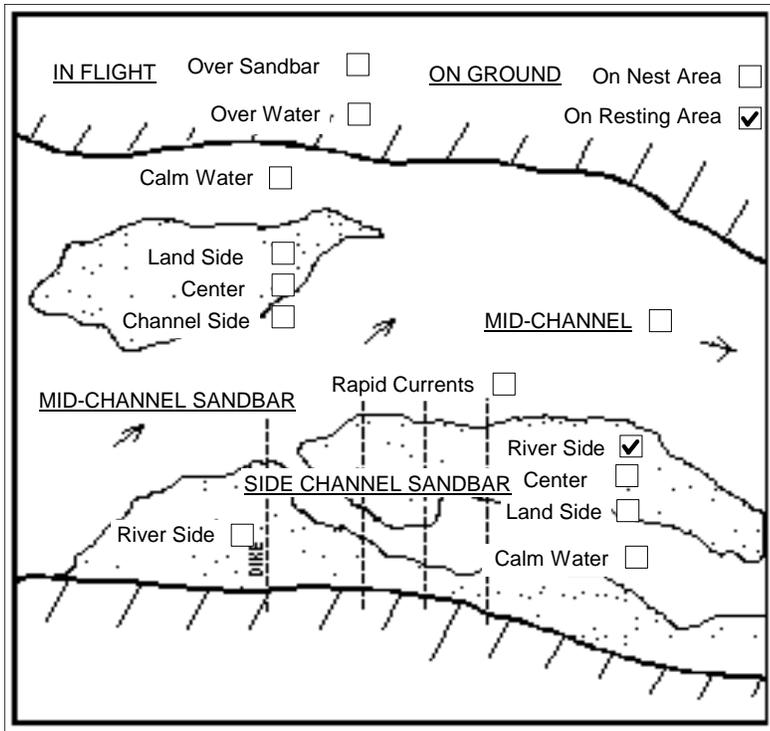
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Left Bank. Medium sized bar of mixed sand, gravel and debris. Resting bar only. Sixty Canada Geese along waterline presumed in molt.

ILL side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cape Girardeau = 12.0 S
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 9:25 RIVER MILE: UR 17.0

LOCALITY: Mississippi MO SITE NAME: Thompson Towhead
County/Parish State

WHERE SITED: Latitude: 37.05447
Longitude: 89.30672

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 17
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:

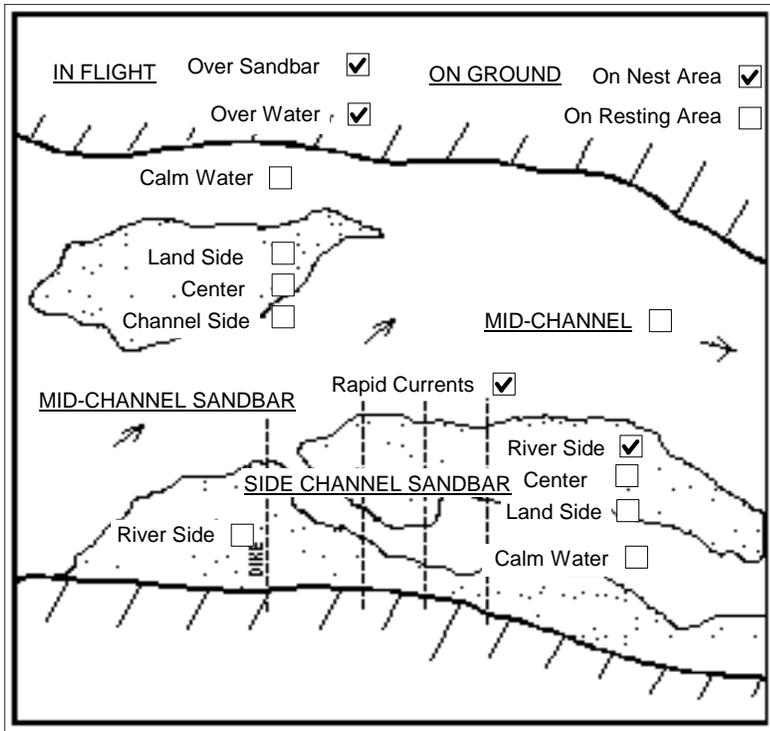
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: S 5-10 mph
% Cloud: haze



OTHER NOTES:

Right Bank. Unattached gravel bar up to 5 ft. elevation with 2 observed sitting on scrapes inland. Courting and fishing along waterline. No tracks or other signs of disturbance.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cape Girardeau = 12.0 S
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 10:22 RIVER MILE: 946.0

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

WHERE SITED: Latitude: 36.8899
Longitude: 89.1171

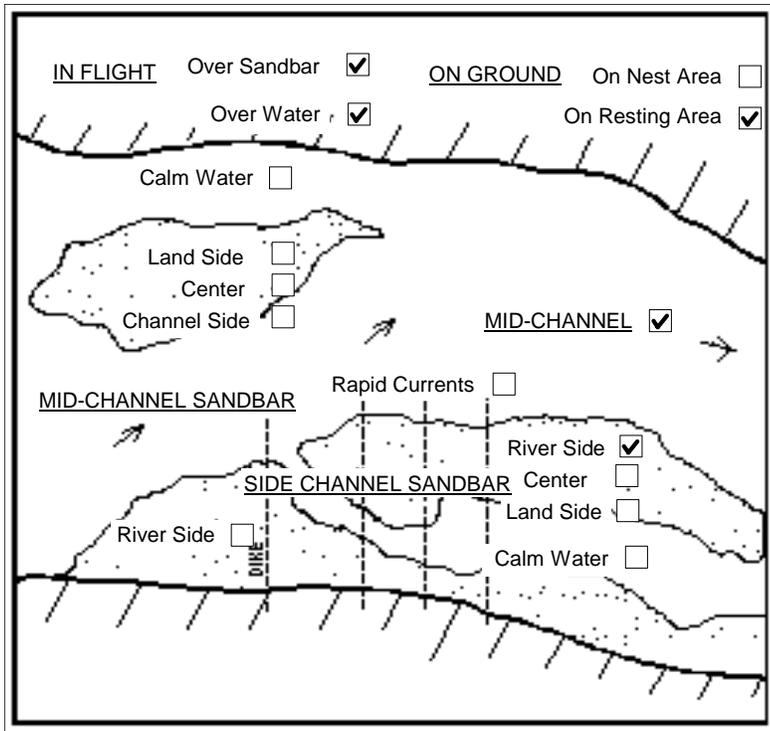
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 9
Juveniles: _____
Eggs: 0
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 86 °F
Rain: No
Wind: S 5-10 mph
% Cloud: haze



OTHER NOTES:

Left Bank. Long, medium high (8 ft.), unattached bar of sand, some gravel and mud on chute side.
Courting and resting at waterline. ATV tracks abundant.

KY side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cairo = 19.0 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 10:55 RIVER MILE: 940.0

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

WHERE SITED: Latitude: 36.80566
Longitude: 89.13377

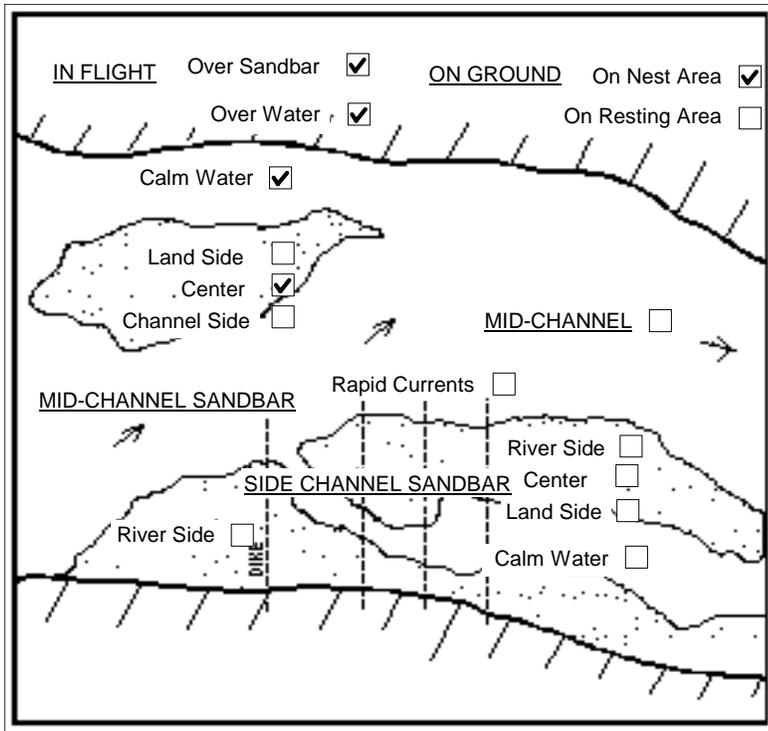
Approximate Distance to Water: 80 Feet

NUMBERS SIGHTED:
Adults: 16
Juveniles: _____
Eggs: 3(3) 1(2)
Nests: 5
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 86 °F
Rain: No
Wind: S 5-10 mph
% Cloud: haze



OTHER NOTES:

Left Bank. Low, flat, unattached sand and pea-sized gravel bar (3 ft.) with colony of 5 nests on center of bar. Old canine tracks and fresh ATV tracks. Courting and carrying fish, but no mobbing

KY side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cairo = 19.0 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 11:36 RIVER MILE: 930.5

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

WHERE SITED: Latitude: 36.6884
Longitude: 89.14823

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:

Adults: 43
Juveniles: _____
Eggs: 1(3) 4(2) 1(1)
Nests: 19
Chicks: No

SUBSTRATE:

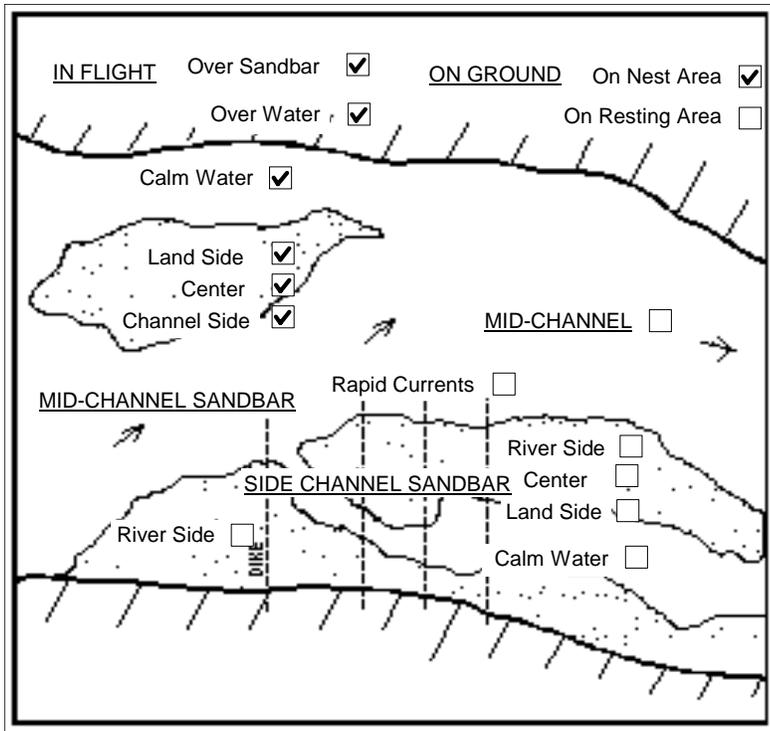
Sand:
Gravel:
Debris:

VEGETATION:

Type: Grass/3ft. Cottonwoods
Distance: 40 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: S 10 mph
% Cloud: haze



OTHER NOTES:

Left Bank. Large, mid-channel, undulating, high, sand bar with small wrack lines containing nests. Light mobbing and hatched egg shells. Evidence of coyote predation on at least 2 eggs, with tracks from scrape to scrape.

KY side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cairo = 19.0 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 12:56 RIVER MILE: 928.0

LOCALITY: Mississippi MO SITE NAME: Moore Island Dikes
County/Parish State

WHERE SITED: Latitude: 36.65362
Longitude: 89.17402

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 44
Juveniles: _____
Eggs: 5(3) 3(2) 2(1)
Nests: 12
Chicks: Yes

SUBSTRATE:

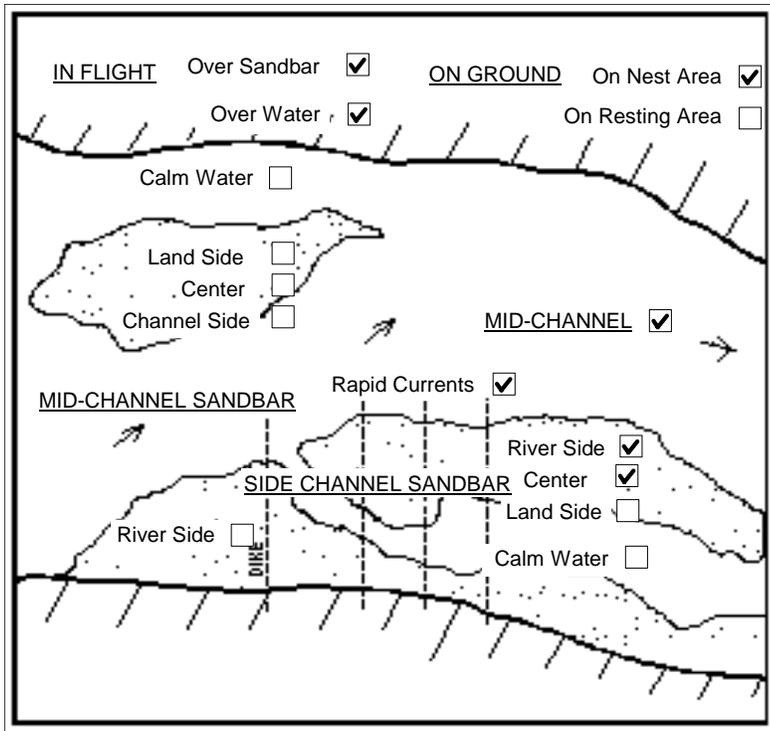
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willow/Cottonwoods
Distance: 500 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: S 5-10 mph
% Cloud: 10% haze



OTHER NOTES:

Right Bank. Unattached sand bar 6 ft. high. Chicks currently hatching, most nests with 3 eggs or chicks in wrack line. Coyote tracks and one dead chick (cause ?). Intense mobbing and fishing, breasting channel side. One immature Bald Eagle in proximity.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cairo = 19.0 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 13:36 RIVER MILE: 924.5

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

WHERE SITED: Latitude: 36.60621
Longitude: 89.20321

Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:

Adults: 28
Juveniles: _____
Eggs: _____
Nests: 5
Chicks: No

SUBSTRATE:

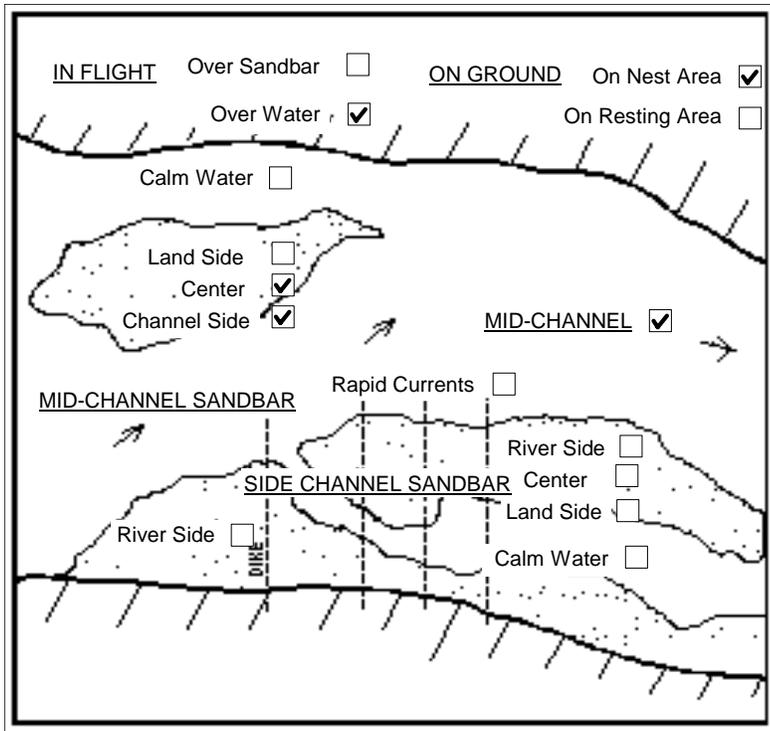
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: S 10 mph
% Cloud: 30%



OTHER NOTES:

Left Bank. Small, flat, unattached sand/gravel bar 2 ft. in elevation. Perimeter count only with most birds at waterline and 5 observed sitting inland. Recreational day campers one mile above and below colony site. No tracks or disturbance noted within colony.

KY side

OBSERVERS: Campan, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cairo = 19.0 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 13:50 RIVER MILE: 920.0

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

WHERE SITED: Latitude: 36.56873
Longitude: 89.23691

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:

Adults: 35
Juveniles: _____
Eggs: 1(3)
Nests: 1
Chicks: Yes

SUBSTRATE:

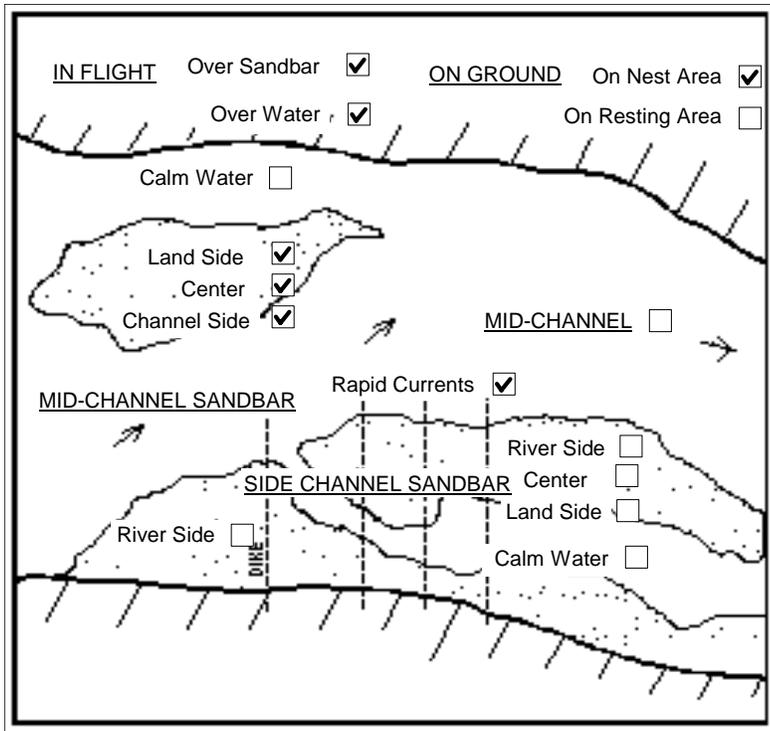
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: S 10-15 mph
% Cloud: 40%



OTHER NOTES:

Right Bank. Medium size and height (9 ft.) sand bar with some nests in wrack line. One chick 1 week old. Breasting and fishing channel side. Day campers at waterline edge of colony and opposite bank. Coyote tracks within colony.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cairo = 19.0 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 14:30 RIVER MILE: 908.0

LOCALITY: Fulton KY SITE NAME: Island #6
County/Parish State

WHERE SITED: Latitude: 36.5475
Longitude: 89.3989

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 3
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

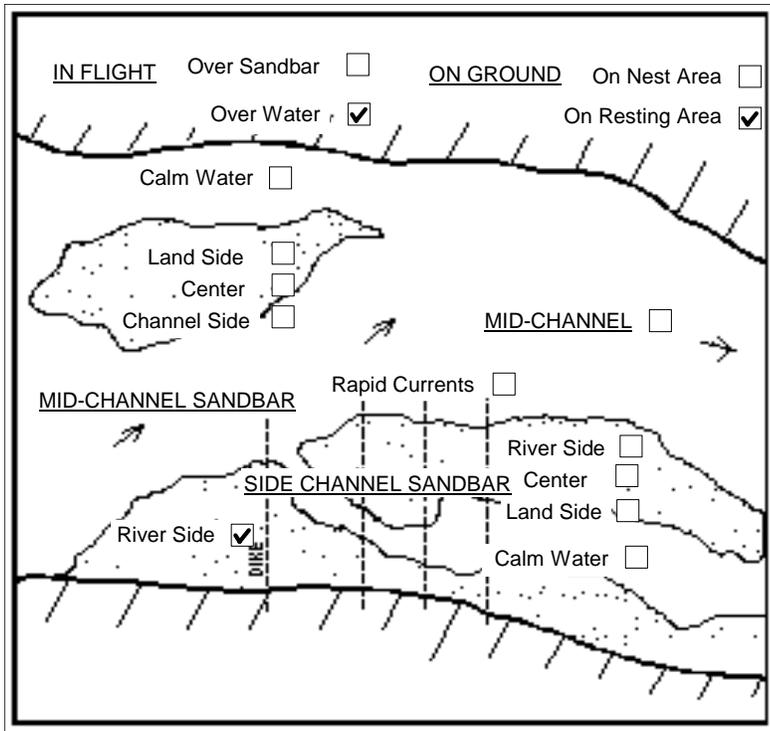
Sand:
Gravel:
Debris:

VEGETATION:

Type: Hardwoods
Distance: 1500 Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: S 5-10 mph
% Cloud: 40%



OTHER NOTES:

Left Bank. Resting bar attached to bank.

_____ KY side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Cairo = 19.0 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 14:50 RIVER MILE: 887.5

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

WHERE SITED: Latitude: 36.6653
Longitude: 89.5460

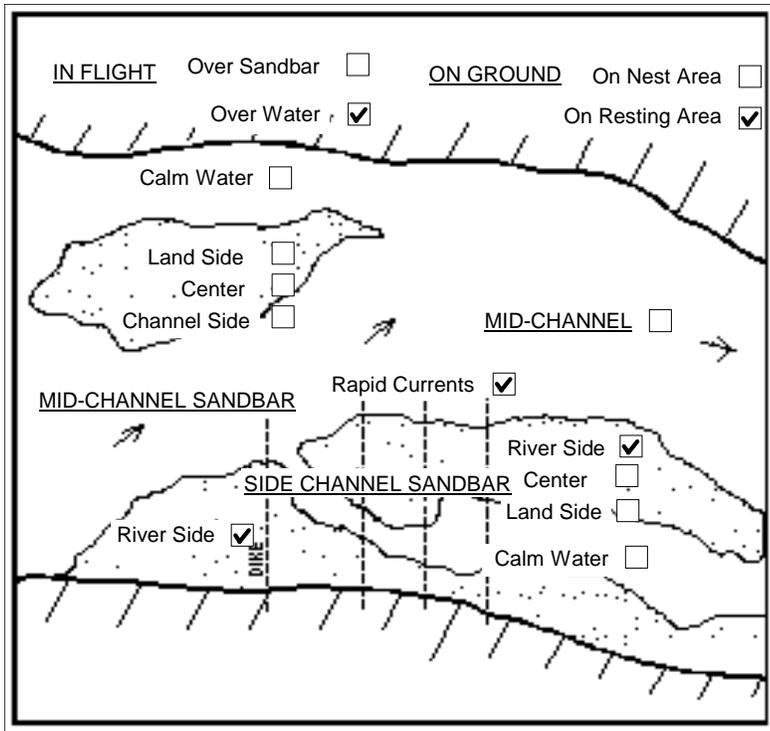
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 3
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 86 °F
Rain: No
Wind: S 5-7 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Attached sand bar behind trailer dike's downstream end. Two terns resting at waterline, 1 in flight over water. Day campers just upstream. Resting bar only.

KY side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: _____ = _____
New Madrid (Gage Location) 7.9 R (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 15:22 RIVER MILE: 884.0

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

WHERE SITED: Latitude: 36.52359
Longitude: 89.55793

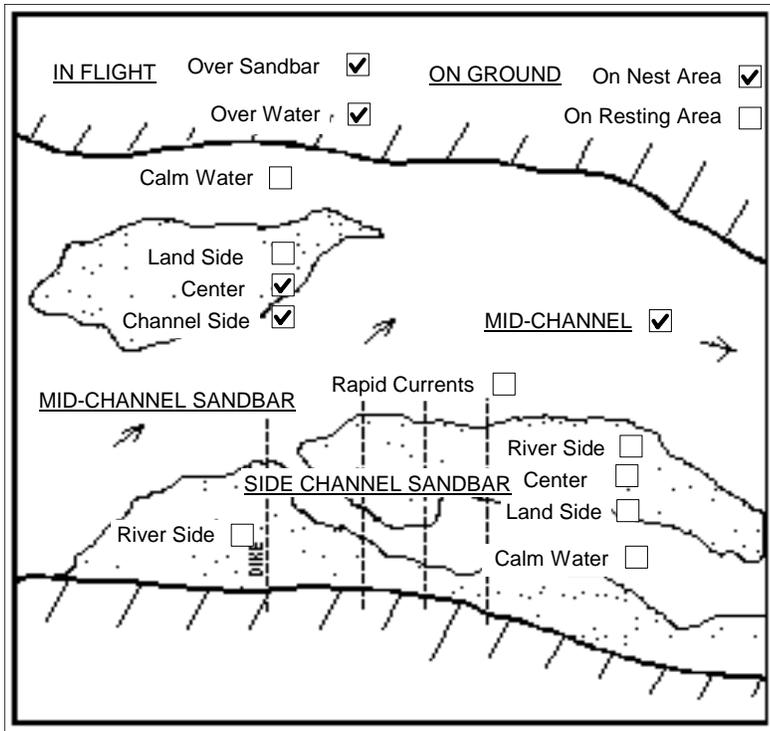
Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:
Adults: 32
Juveniles: _____
Eggs: 1(3) 1(2)
Nests: 7
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Grass
Distance: 100 Feet

FIELD CONDITION:
Temperature: 87 °F
Rain: No
Wind: S 15 mph
% Cloud: 30 %



OTHER NOTES:

Left Bank. Medium high (8 ft.), flat-topped sand bar, unattached, coyote tracks, birds carrying fish, feeding young. Twenty-five chicks up to 2 weeks old. One abandoned nest with only 2 eggs. No recreational evidence.

KY side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: New Madrid = 7.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 15:42 RIVER MILE: 880.5

LOCALITY: New Madrid MO SITE NAME: Island #11 Dikes
County/Parish State

WHERE SITED: Latitude: 36.4721
Longitude: 89.5230

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 7
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

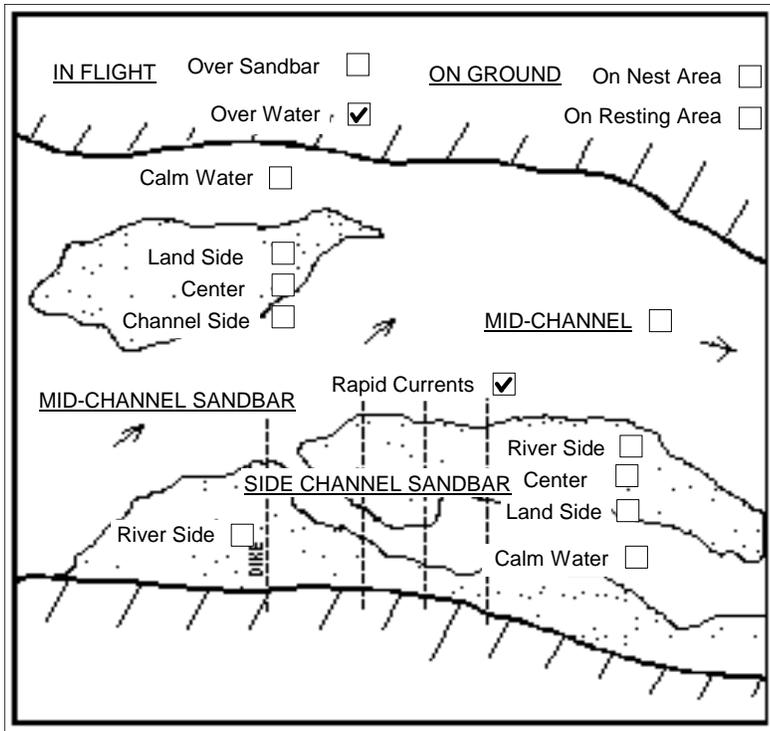
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 15 mph
% Cloud: 10 %



OTHER NOTES:

Right Bank. Seven terns flying in transit.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: New Madrid = 7.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 15:52 RIVER MILE: 876.0

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

WHERE SITED: Latitude: 36.4184
Longitude: 89.5363

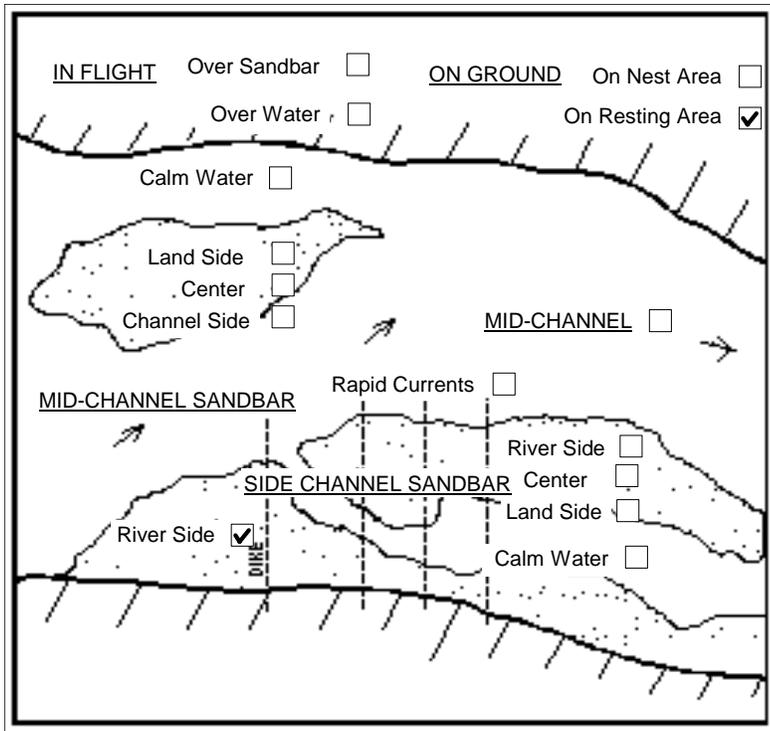
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 7
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

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



OTHER NOTES:

Left Bank. Seven terns resting at waterline. Day campers 2 miles upstream.

TN side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 9.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 16:05 RIVER MILE: 872.5

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

WHERE SITED: Latitude: 36.37141
Longitude: 89.51267

Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:

Adults: 51
Juveniles: _____
Eggs: 0
Nests: 0
Chicks: Yes

SUBSTRATE:

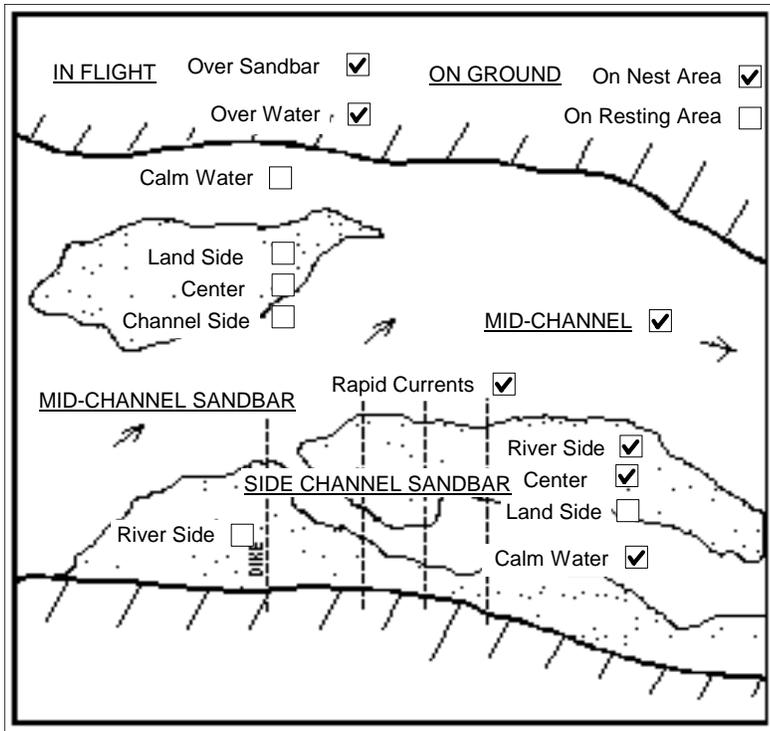
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Right Bank. Low (3 ft.), flat, clean gravel bar with patches of sand. Breasting, feeding, carrying fish on both sides. Perimeter count indicates some birds sitting inland. Mediocre mobbing with flush count but no nests could be found. Two chicks observed, 1 fledgling and 1 less than 1 week old. Four fishing opposite bank and 1 Black Tern also observed.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 9.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 16:26 RIVER MILE: 871.5

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

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: 0 Feet

NUMBERS SIGHTED:

Adults: 160
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: Yes

SUBSTRATE:

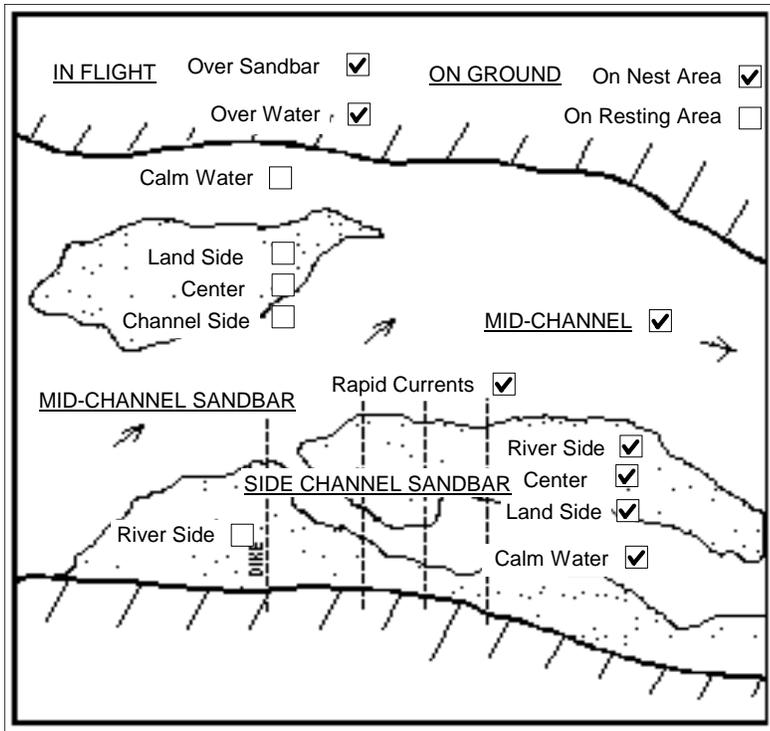
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 10 mph
% Cloud: 40%



OTHER NOTES:

Right Bank. High (10 ft.), flat, mostly sand with gravel patches, unattached. Forty chicks of all ages counted but most are from a few days to 1 week of age. Perimeter count only.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 9.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 16:40 RIVER MILE: 870.0

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

WHERE SITED: Latitude: 36.34520
Longitude: 89.52884

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 31
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: Yes

SUBSTRATE:

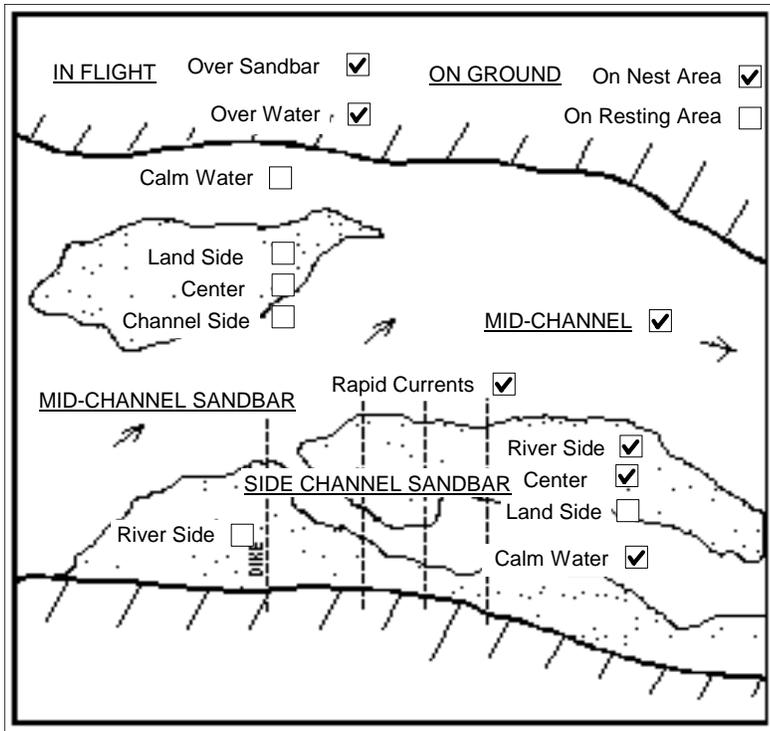
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 10 mph
% Cloud: 40



OTHER NOTES:

Right Bank. Downstream point of extended colony measured in previous data sheet. Similar description but slightly lower (8 ft.) and gently undulating. Two newly hatched chicks in one scrape. Three fishermen at waterline. One fingerling Silverside presumably dropped by foraging terns. Feeding in back chute and opposite bank.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 9.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 17:01 RIVER MILE: 864.5

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

WHERE SITED: Latitude: 36.32756
Longitude: 89.61777

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 26
Juveniles: _____
Eggs: 1(3)
Nests: 1
Chicks: No

SUBSTRATE:

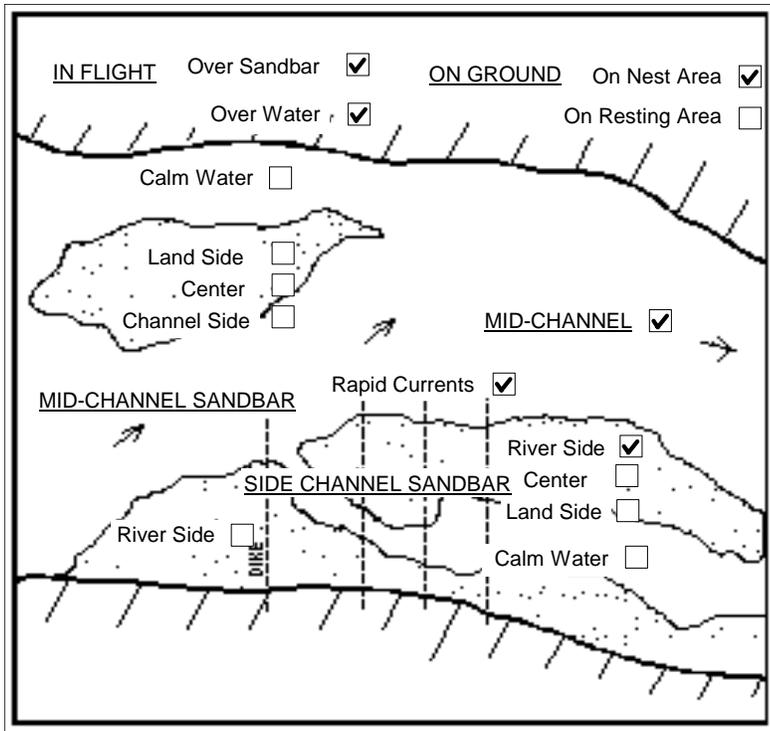
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 88 °F
Rain: No
Wind: S 10 mph
% Cloud: 50



OTHER NOTES:

Left Bank. Attached, very large, broad, gently sloping bar (5 ft.) of solid sand 2 miles in length. Many ATV and dog tracks. Perimeter count also notes 1 Great Blue Heron and 1 Caspian Tern.

TN side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 9.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 17:30 RIVER MILE: 857.3

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

WHERE SITED: Latitude: 36.25230
Longitude: 89.56588

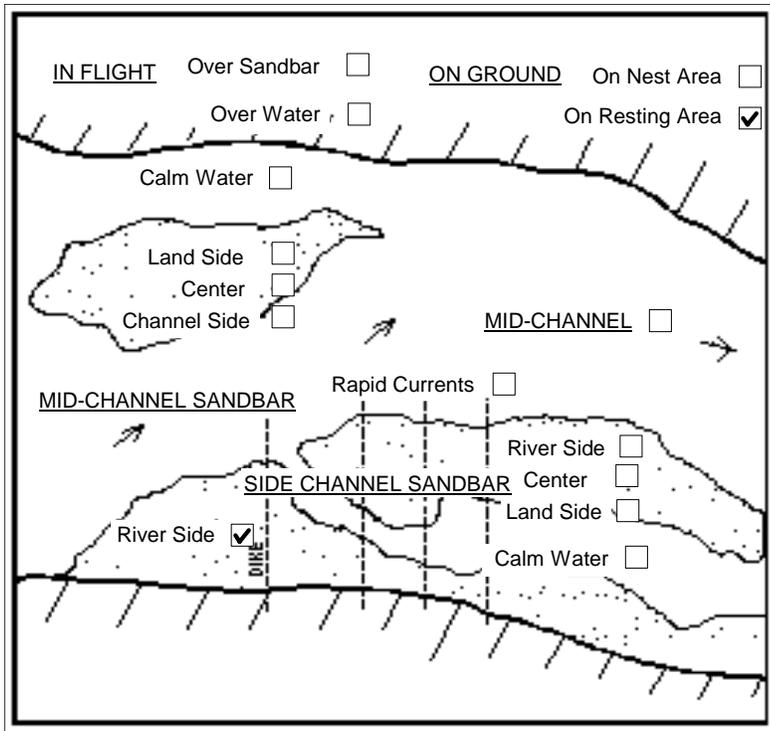
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 32
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 87 °F
Rain: No
Wind: S 5-10 mph
% Cloud: 50



OTHER NOTES:

Right Bank. Attached point bar, clean with no debris, long and undulating. ATV tracks. Resting bar only with no courting or breeding behavior evident.

MO side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 9.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/1/2006 TIME OF DAY: 17:52 RIVER MILE: 850.5

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

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 3
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

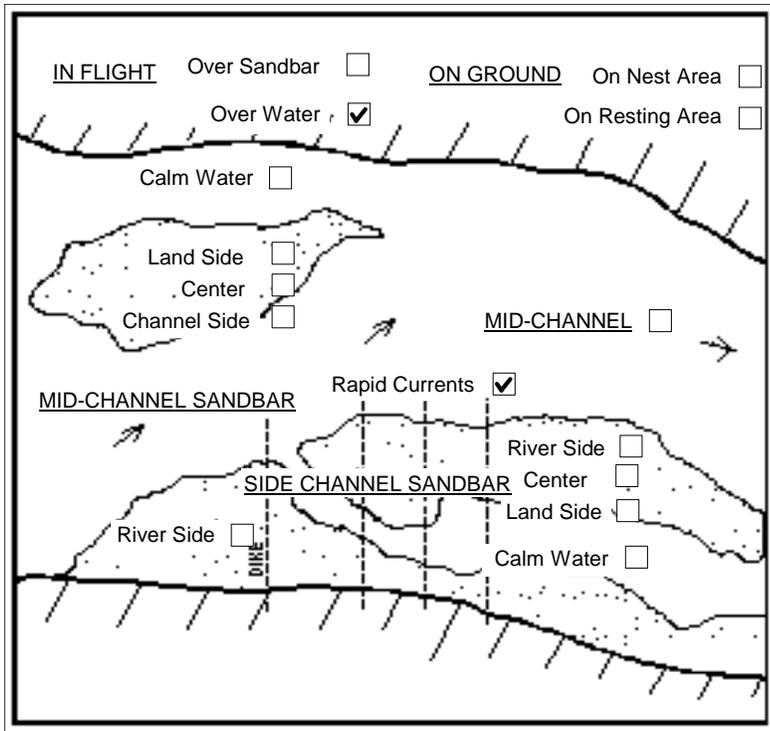
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: S 5 mph
% Cloud: 50



OTHER NOTES:

Three terns in transit.

TN side

OBSERVERS: Campen, Carpenter, Davin, Griffin, Grubaugh, Jones, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 9.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 9:02 RIVER MILE: 846.3

LOCALITY: Lake TN SITE NAME: Opp. Caruthersville Dikes
County/Parish State

WHERE SITED: Latitude: 36.19854
Longitude: 89.64261

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:

Adults: 26
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: Yes

SUBSTRATE:

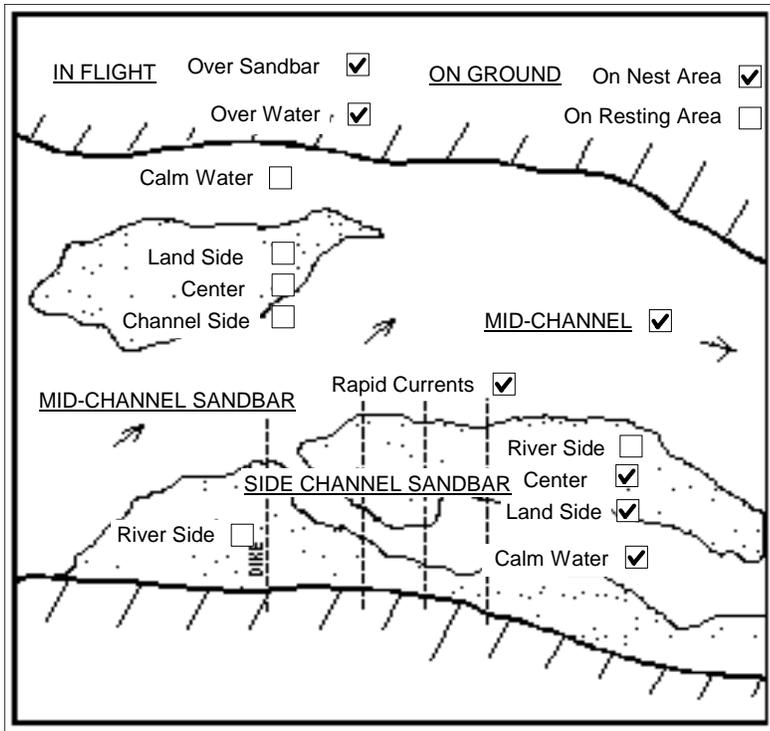
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows/Cottonwoods
Distance: 500 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: calm
% Cloud: 0



OTHER NOTES:

Left Bank. Small, undulating, sand bar upstream from Blaker Towhead between dikes. Heavy recreational use with ATV tracks, day campers abundant. Chick tracks and 1 week old chick observed.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 9:30 RIVER MILE: 840-843

LOCALITY: Pemiscott MO SITE NAME: Linwood Bend
County/Parish State

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 15
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

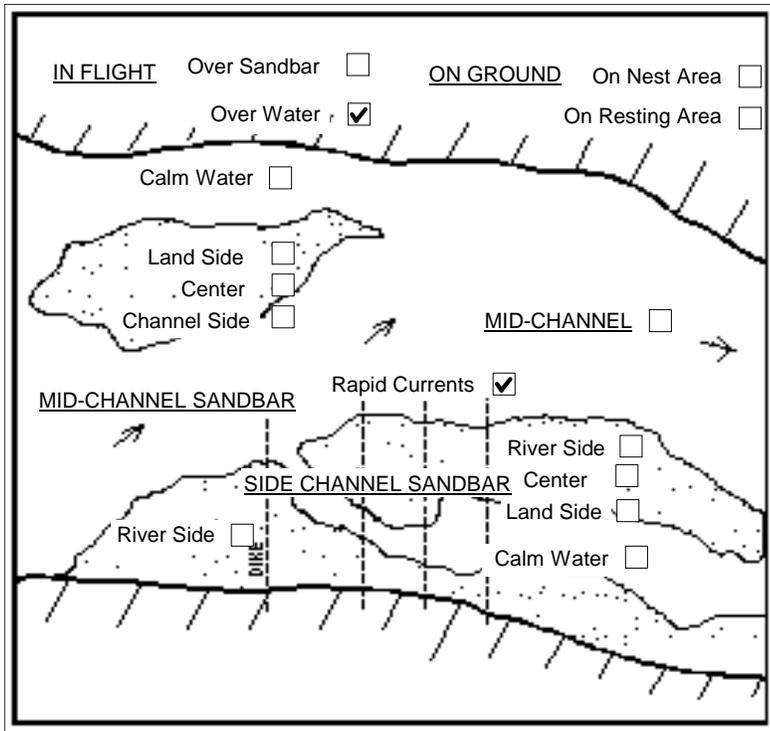
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: S 5 mph
% Cloud: 0



OTHER NOTES:

Fifteen terns in transit.

MO side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 9:45 RIVER MILE: 836.0

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

WHERE SITED: Latitude: 36.09858
Longitude: 89.65790

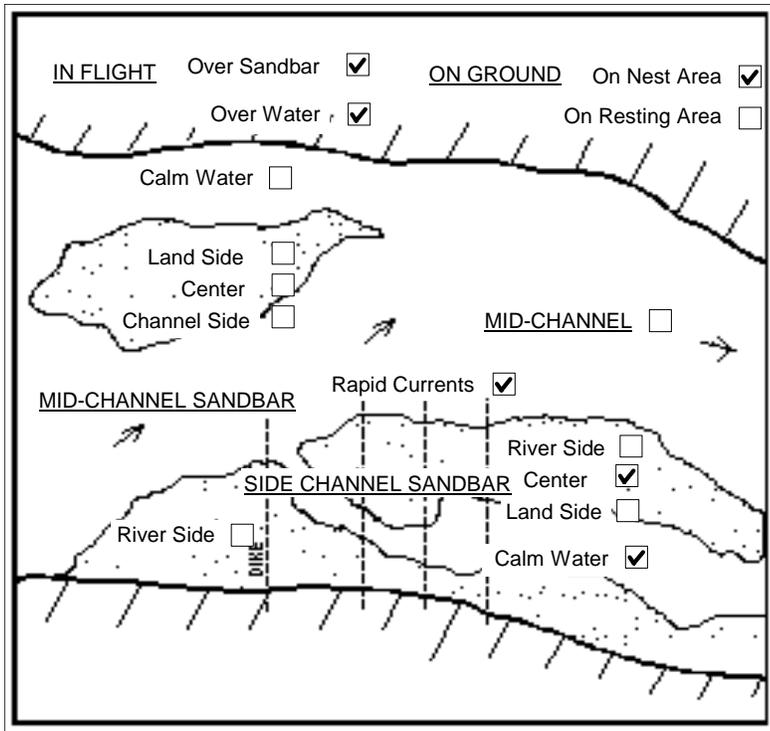
Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:
Adults: 84
Juveniles: _____
Eggs: 1(1)
Nests: 15
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 84 °F
Rain: No
Wind: S 5 mph
% Cloud: 0



OTHER NOTES:

Left Bank. Large, gently rolling sand bar (8-10 ft. high) attached to wooded island. Many fresh scrapes along wrack lines but only 1 egg observed abandoned. ATV tracks

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 10:20 RIVER MILE: 830.0

LOCALITY: Dyer TN COUNTY/Parish: State: SITE NAME: Island #20 Dikes Upper

WHERE SITED: Latitude: 36.02275 Longitude: 89.69420

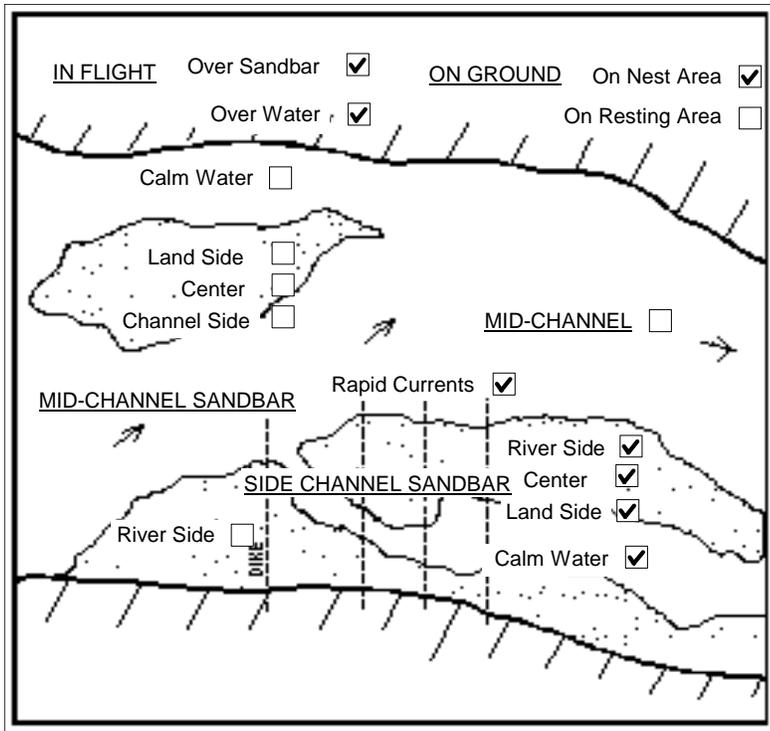
Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:
Adults: 14
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 90 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Right Bank. Small, barely emergent (1/2 ft.), half-acre sand bar, unattached but soon to be flooded. Two nests indicated by sitting terns

MO side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 10:28 RIVER MILE: 828.2

LOCALITY: Dyer TN COUNTY/PARISH: State SITE NAME: Island #20 Dikes Lower

WHERE SITED: Latitude: 36.01326 Longitude: 89.70654

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 17
Juveniles: _____
Eggs: _____
Nests: 5
Chicks: No

SUBSTRATE:

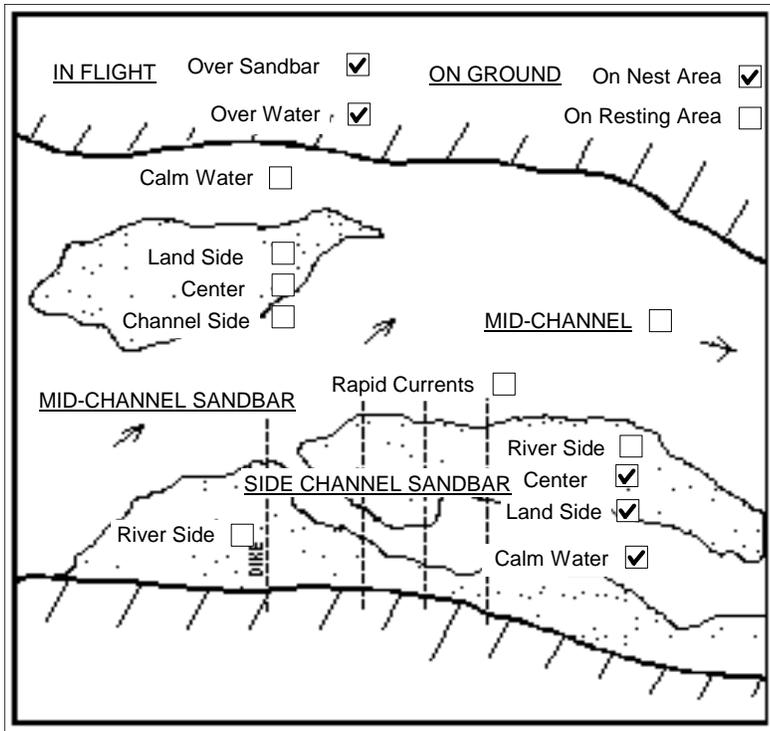
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows/Cottonwoods
Distance: 500 Feet

FIELD CONDITION:

Temperature: 90 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Right Bank. Attached downstream point of wooded island, 2 ft. elevation. Breasting and carrying fish, 5 sitting inland. No tracks or signs of disturbance.

MO side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 10:45 RIVER MILE: 827.0

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

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 7
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

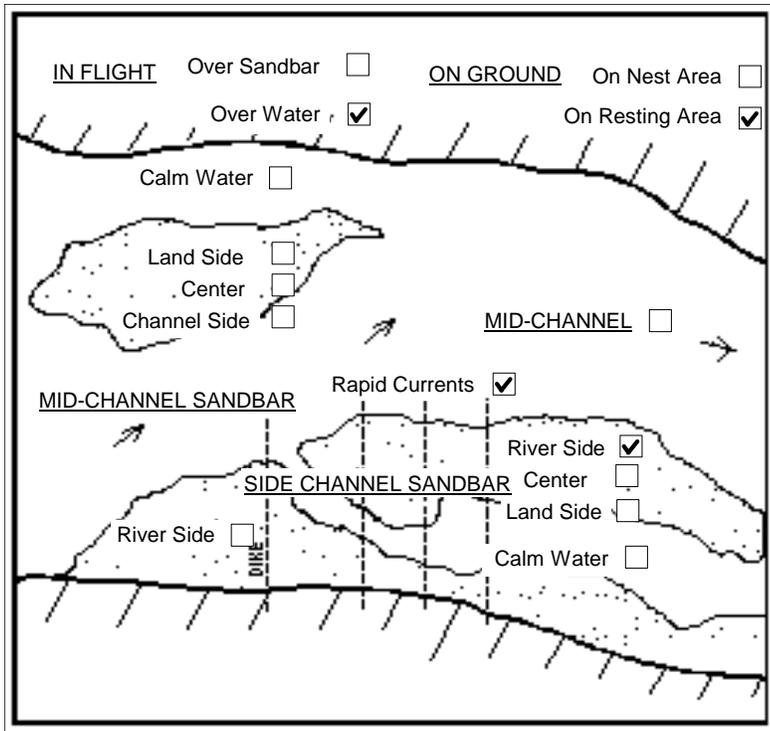
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 90 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Left Bank. Five resting, 2 flying

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 10:55 RIVER MILE: 825.2

LOCALITY: Dyer TN SITE NAME: Island #21
County/Parish State

WHERE SITED: Latitude: 35.96197
Longitude: 89.71049

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 21
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

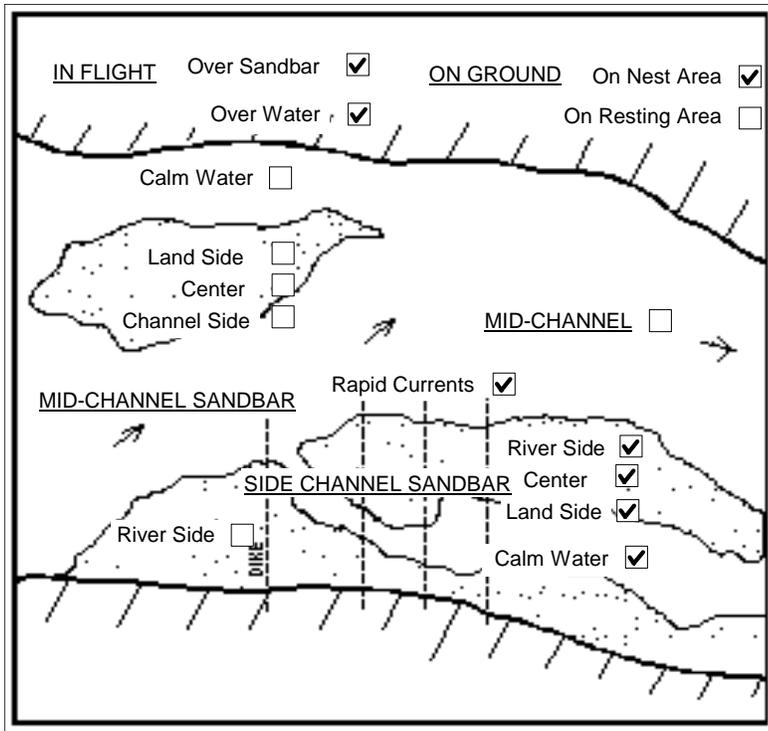
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows/Cottonwoods
Distance: 200 Feet

FIELD CONDITION:

Temperature: 90 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Left Bank. High (22 ft.), barely attached, steep, narrow, point bar. No mobbing but one egg shell fragment with dog tracks.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 11:18 RIVER MILE: 819.0

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

WHERE SITED: Latitude: 35.91050
Longitude: 89.64811

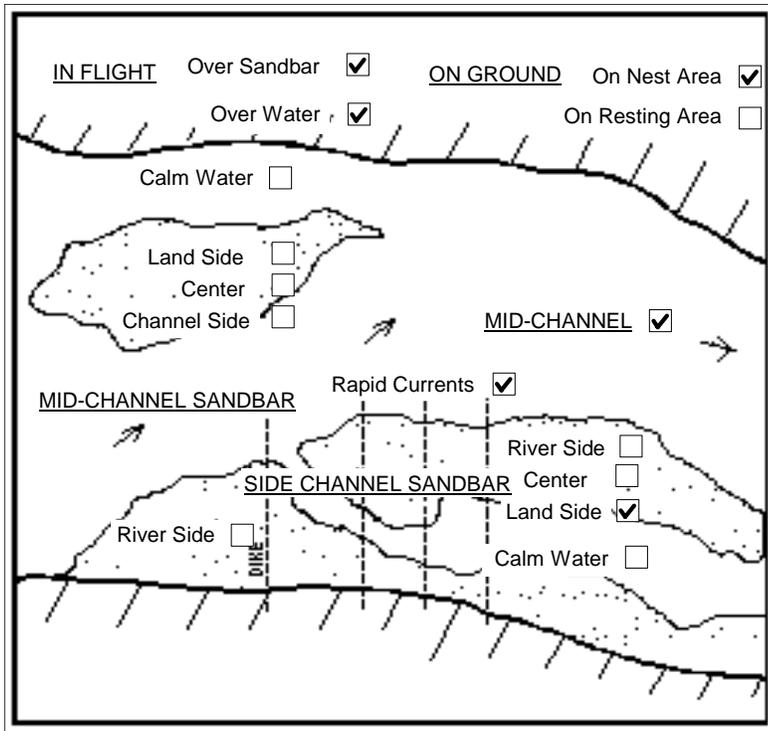
Approximate Distance to Water: 1200 Feet

NUMBERS SIGHTED:
Adults: 62
Juveniles: _____
Eggs: 1(1) 1(2) 2(3)
Nests: 4
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 91 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Right Bank. Large, high (18 ft.), attached 50/50 sand and gravel bar with nests in packed sand, gravel and mud along wrack lines. Nests difficult to locate in varying substrate. Campers present 1 mile downstream.

AR side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 12:15 RIVER MILE: 811.5

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

WHERE SITED: Latitude: 35.9077
Longitude: 89.7404

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 29
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

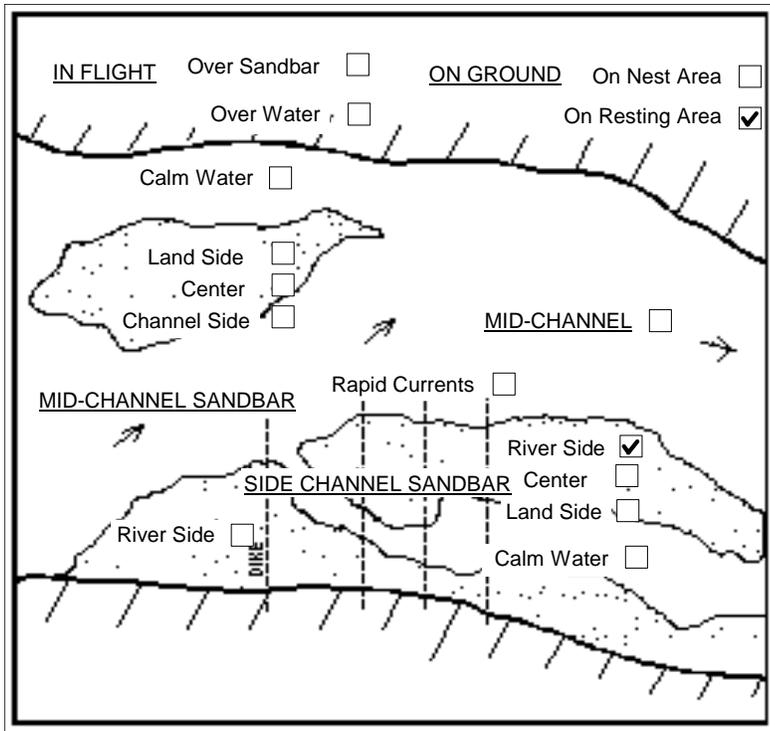
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 91 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. All birds at waterline, resting only. No reproductive activity noted. Perimeter count only.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 12:25 RIVER MILE: 810.0

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

WHERE SITED: Latitude: 35.8973
Longitude: 89.7557

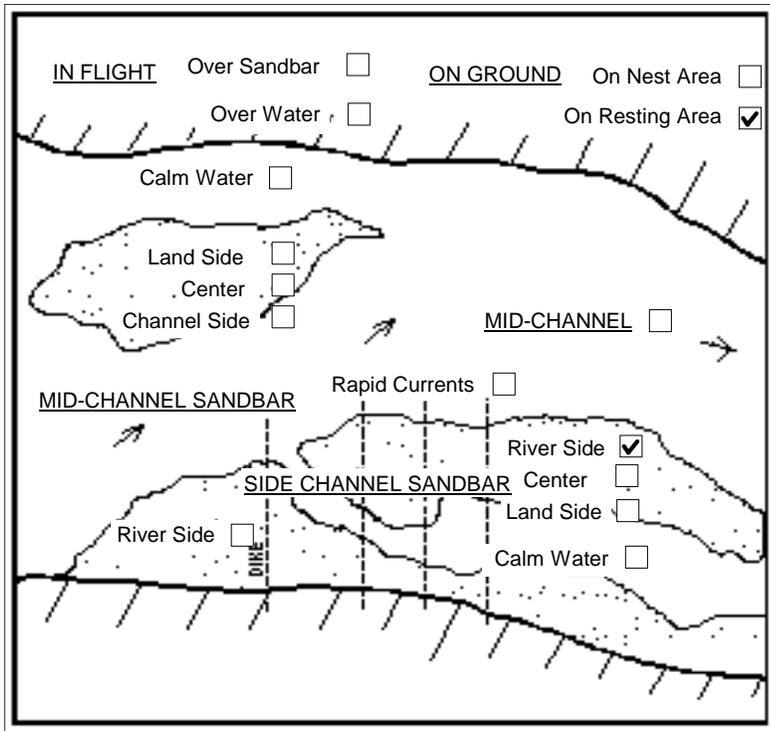
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 7
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 91 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Left Bank. Medium size sand bar with some mud, attached at this river stage. All birds observed resting at riverside waterline.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 12:30 RIVER MILE: 808.5

LOCALITY: Lauderdale TN COUNTY/PARISH STATE SITE NAME: Nebraska Point Dikes Upper

WHERE SITED: Latitude: 35.8719 Longitude: 89.7663

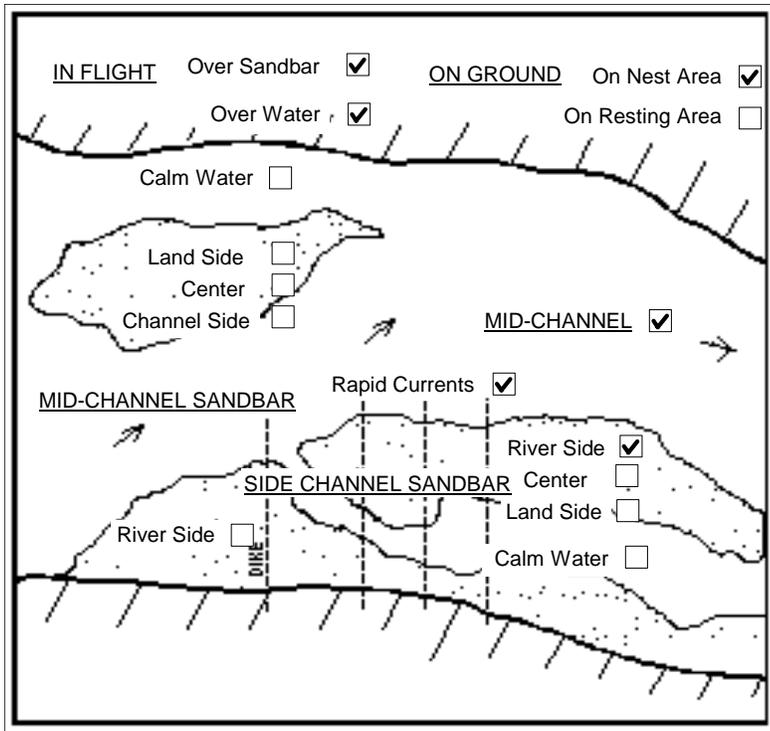
Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:
Adults: 59
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: grass, forbs
Distance: 100 Feet

FIELD CONDITION:
Temperature: 91 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Left Bank. Low, flat, clean sand bar between dikes with two terns sitting inland, the rest observed at the waterline.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 12:44 RIVER MILE: 807.3

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

WHERE SITED: Latitude: 35.85819 Longitude: 89.75436

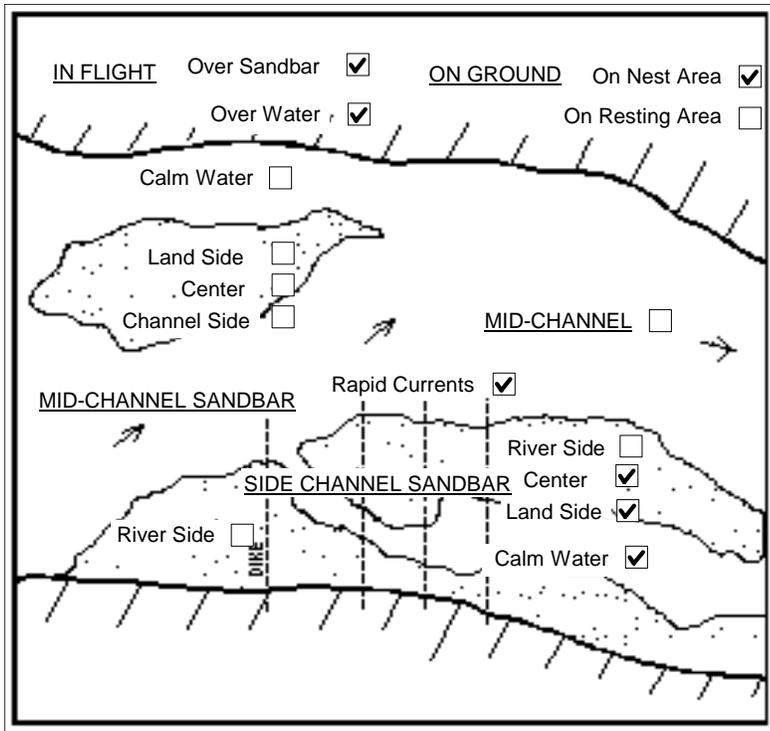
Approximate Distance to Water: 800 Feet

NUMBERS SIGHTED:
Adults: 24
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Grasses/Forbs/CW
Distance: 60 Feet

FIELD CONDITION:
Temperature: 91 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. High (20 ft.) long, broad bar of soft sand. Camping remnants and dog tracks. Chicks observed: 2 < 1 week, 3 > 1 week

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 13:40 RIVER MILE: 805.0

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

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 1
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

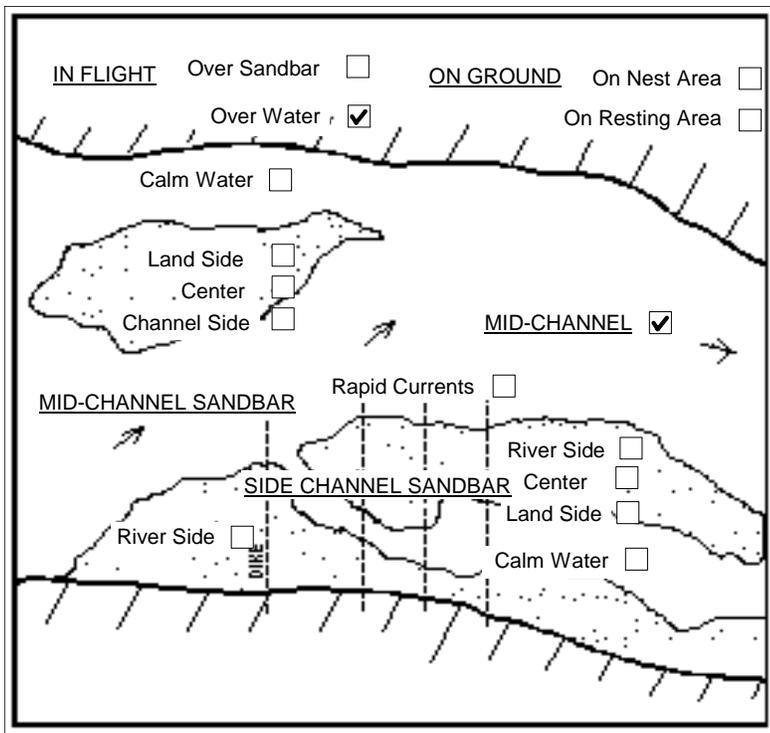
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 91 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

One observed over dikes in transit.

AR side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 13:45 RIVER MILE: 803.0

LOCALITY: Mississippi AR SITE NAME: Bend of Island #25
County/Parish State

WHERE SITED: Latitude: 35.82105
Longitude: 89.69914

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 50
Juveniles: _____
Eggs: 1(2)
Nests: 3
Chicks: No

SUBSTRATE:

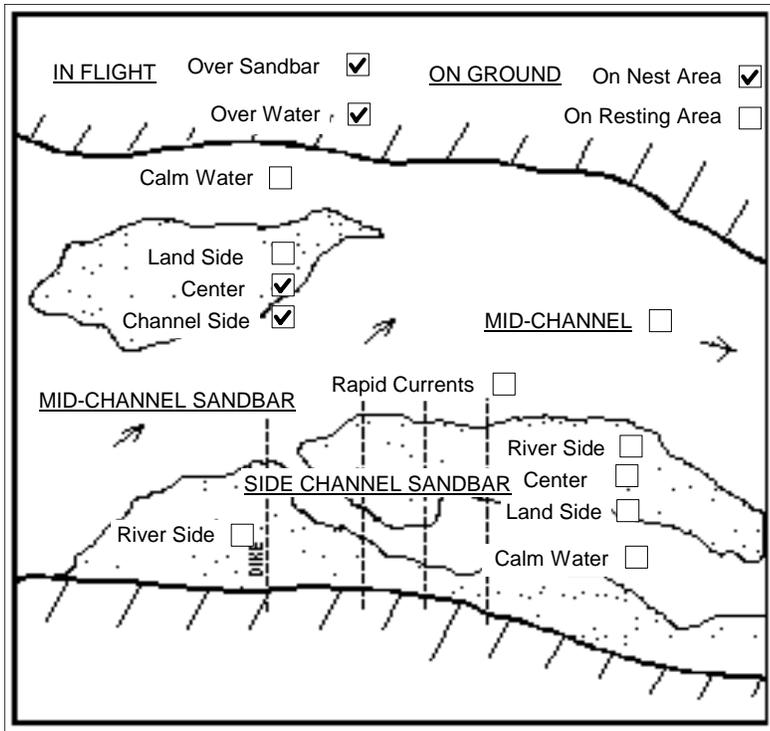
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 92 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

Right Bank. Small, low (4 ft.), flat, unattached mid-channel bar with several sitting on scrapes and
breasting. No tracks

AR side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 14:02 RIVER MILE: 799.0

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

WHERE SITED: Latitude: 35.79076
Longitude: 89.74235

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 18
Juveniles: _____
Eggs: 1(1, 2 hatchlings)
Nests: 3
Chicks: Yes

SUBSTRATE:

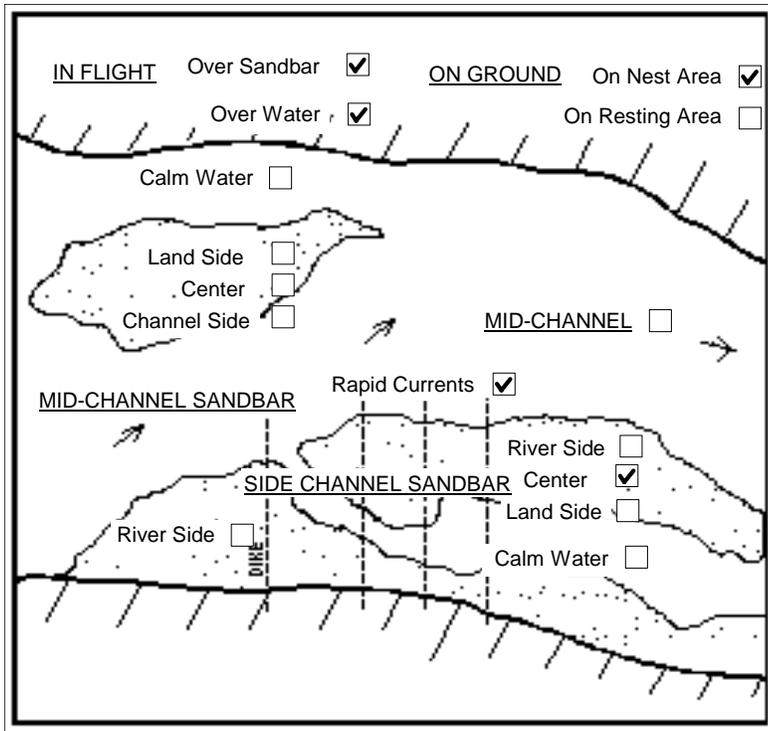
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows
Distance: 300 Feet

FIELD CONDITION:

Temperature: 92 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Gravel bar and undulating sand attached to wooded island but not to river bank. First use of this site to be noted. ATV tracks. Two scrapes empty, but a third with hatchlings and one egg.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 14:30 RIVER MILE: 797.5

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

WHERE SITED: Latitude: 35.78173
Longitude: 89.76920

Approximate Distance to Water: 75 Feet

NUMBERS SIGHTED:

Adults: 89
Juveniles: _____
Eggs: 1(2)
Nests: 1
Chicks: No

SUBSTRATE:

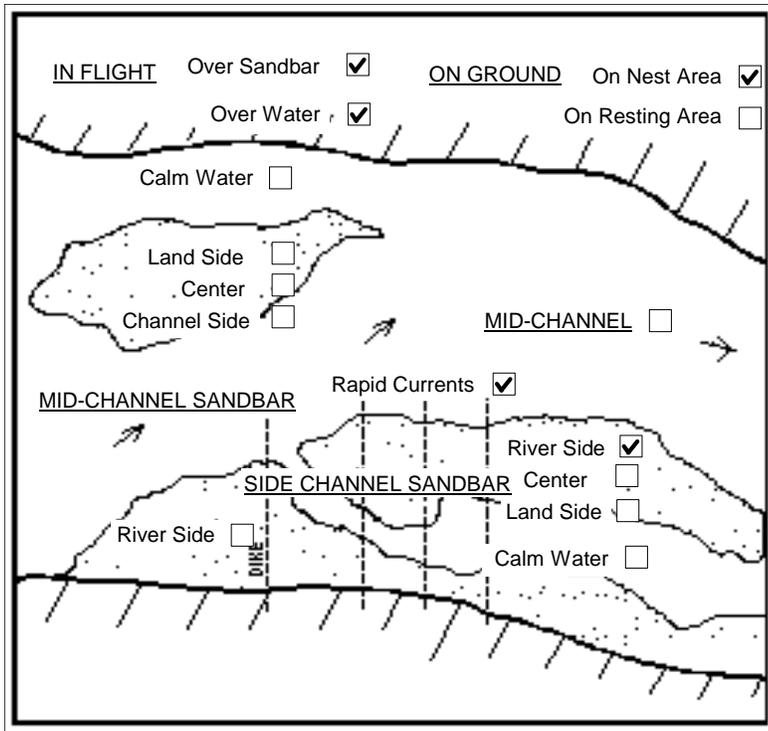
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 89 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Unattached, low (3 ft.), flat, sand bar with gravel patches (1 mile x 400 ft. wide). Human tracks. Perimeter count. New site.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 14:54 RIVER MILE: 794.0

LOCALITY: Mississippi AR SITE NAME: Ashport Goldust Dikes
County/Parish State

WHERE SITED: Latitude: 35.75007
Longitude: 89.91951

Approximate Distance to Water: 60 Feet

NUMBERS SIGHTED:

Adults: 48
Juveniles: _____
Eggs: 1(3)
Nests: 1
Chicks: No

SUBSTRATE:

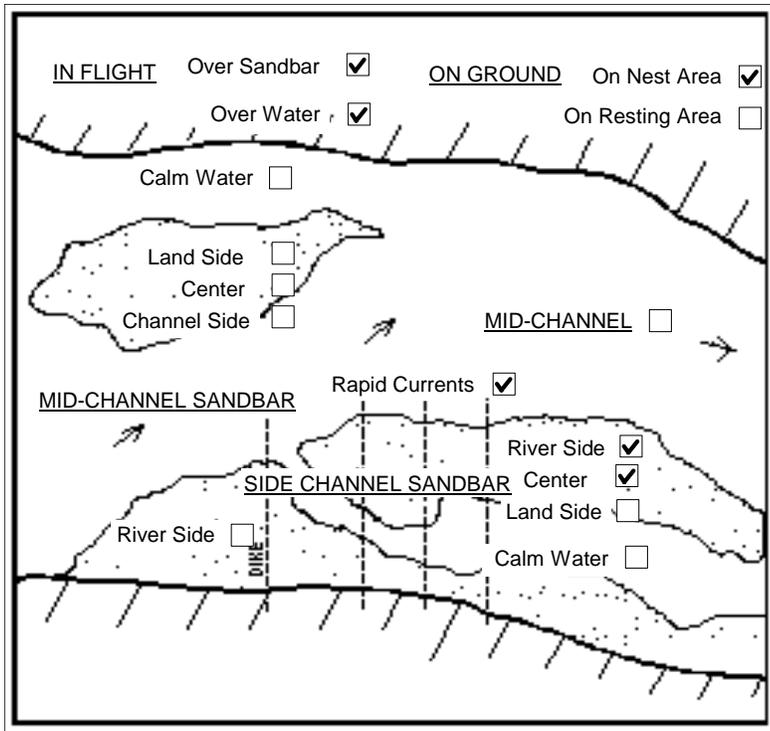
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 93 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

Right Bank. Huge, long, clean, flat sand bar (8-12 ft.) between dikes with highest elevation downstream point. Four boats with day campers lower end of colony and ATV tracks.

AR side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 15:16 RIVER MILE: 789.5

LOCALITY: Lauderdale TN COUNTY/Parish State SITE NAME: Keyes Point Dikes Upper

WHERE SITED: Latitude: 35.72993 Longitude: 89.90128

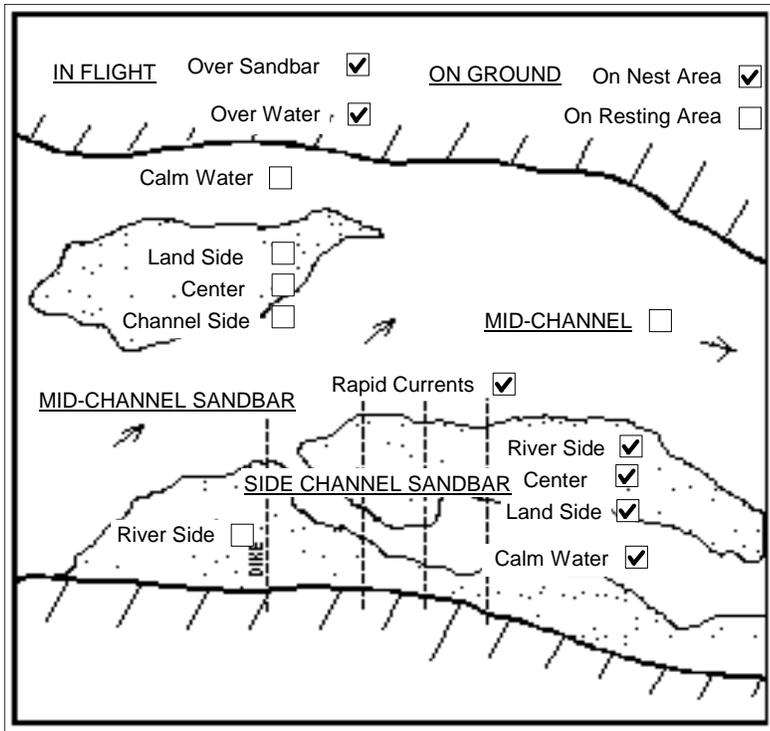
Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:
Adults: 125
Juveniles: _____
Eggs: 7(3) 2(2)
Nests: 19
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 87 °F
Rain: No
Wind: W 5 mph
% Cloud: 20



OTHER NOTES:

Left Bank. Flat, medium height (6 ft.), unattached sand bar with gravel upstream with nests. Many fresh scrapes with breasting both sides. Coyote and fox tracks abundant. Largemouth Bass fingerling.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 15:43 RIVER MILE: 787.0

LOCALITY: Lauderdale TN COUNTY/PARISH STATE SITE NAME: Keyes Point Dikes Lower

WHERE SITED: Latitude: 35.71472
Longitude: 89.93761

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 30
Juveniles: 1
Eggs: 7(3) 2(2)
Nests: 6
Chicks: Yes

SUBSTRATE:

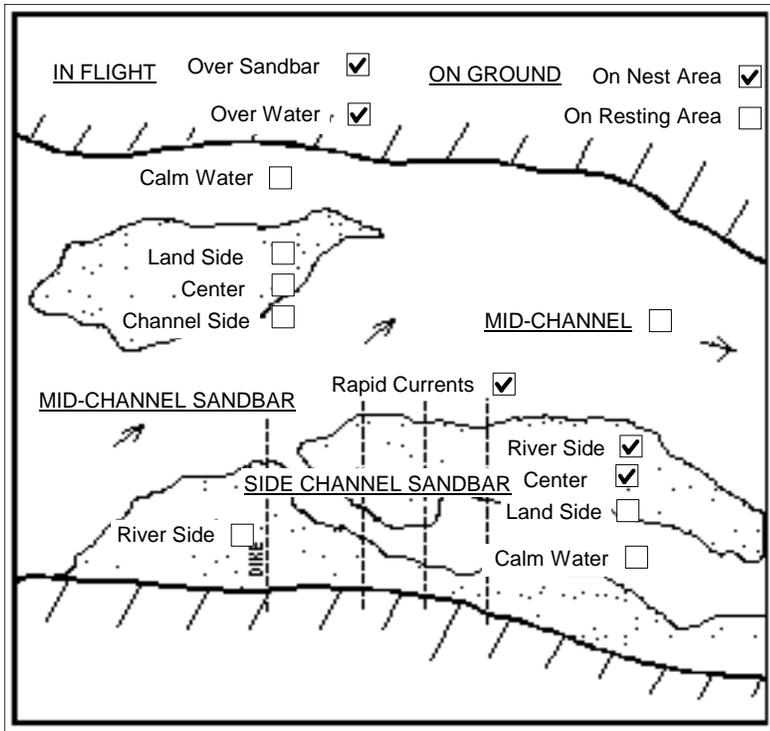
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: W 5 mph
% Cloud: 20



OTHER NOTES:

Left Bank. Long, low (7 ft.), extended sandbar, unattached. Perimeter count only.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 16:02 RIVER MILE: 783.5

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

WHERE SITED: Latitude: 35.65804
Longitude: 89.91649

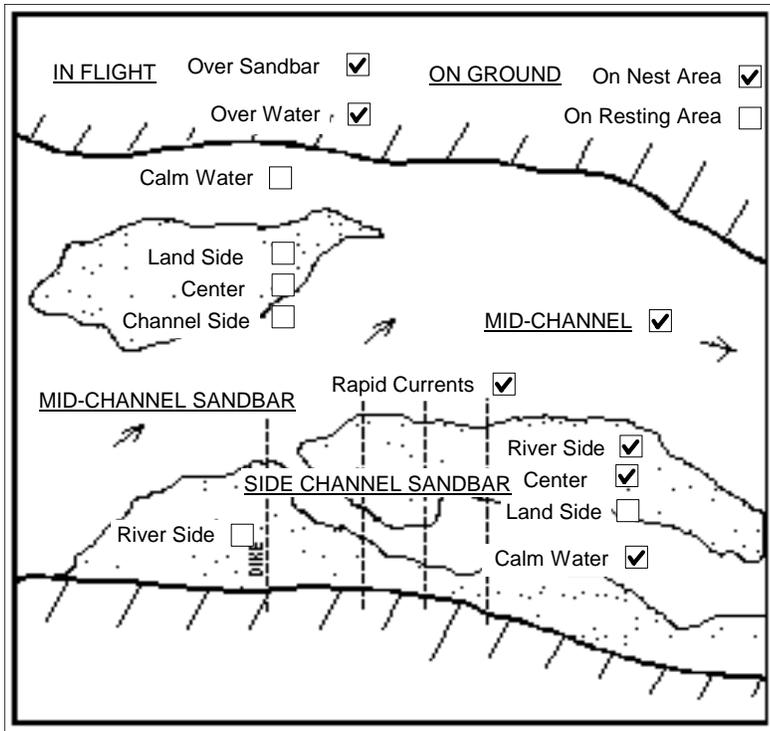
Approximate Distance to Water: 20 Feet

NUMBERS SIGHTED:
Adults: 96
Juveniles: _____
Eggs: 8(3) 1(2)
Nests: 32
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 93 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Small, unattached sand bar (300 x 100 yds) less than 2 ft. in elevation. Light mobbing with
breasting and fishing on both sides. ATV tracks above the dike, but no tracks within colony of any kind.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Caruthersville = 10.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 16:20 RIVER MILE: 780

LOCALITY: Mississippi AR SITE NAME: Driver Cut-Off
County/Parish State

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 2
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

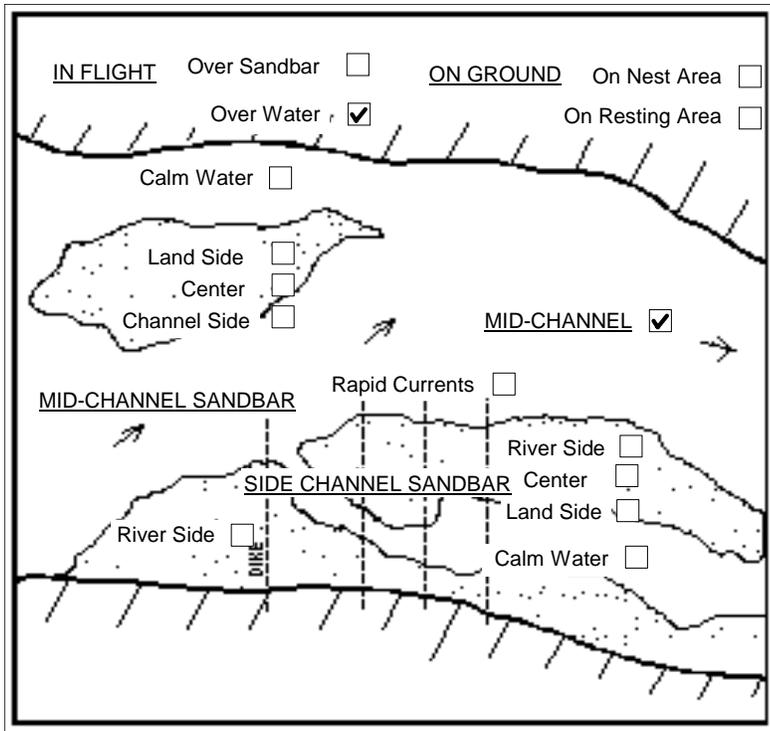
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 93 °F
Rain: No
Wind: W 5 mph
% Cloud: 10



OTHER NOTES:

2 Terns in flight outside bend.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 16:30 RIVER MILE: 775.5

LOCALITY: Lauderdale TN SITE NAME: Hatchie Towhead
County/Parish State

WHERE SITED: Latitude: 35.568
Longitude: 89.914

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 38
Juveniles: _____
Eggs: _____
Nests: 8
Chicks: No

SUBSTRATE:

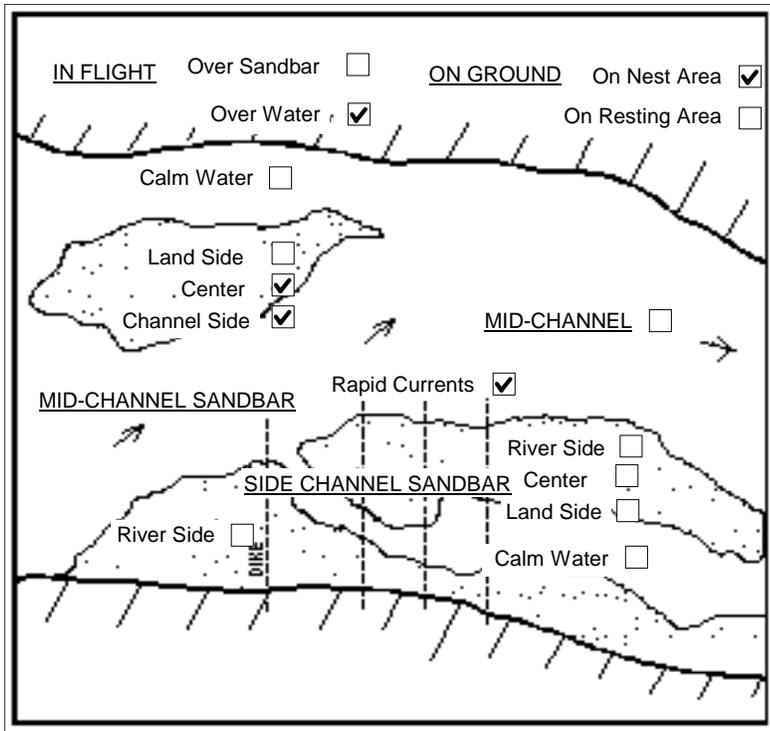
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 93 °F
Rain: No
Wind: W 3-5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Long(1 mile) attached sandbar 5 ft. in elevation at highest point. Perimeter count indicates 8 tending scrapes. No signs of disturbance.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 16:16 RIVER MILE: 771.1

LOCALITY: Tipton TN SITE NAME: Randolph
County/Parish State

WHERE SITED: Latitude: 35.52663
Longitude: 89.89879

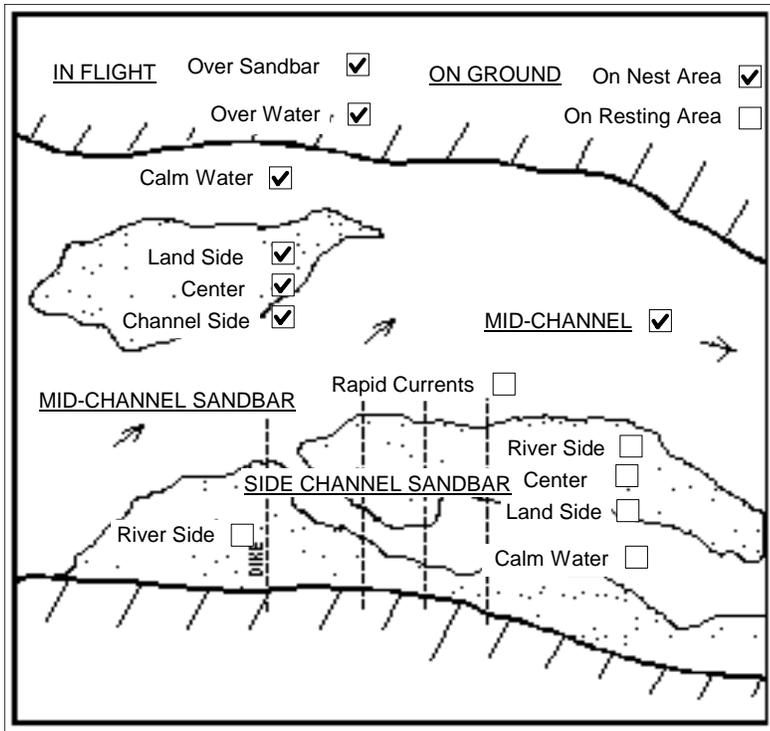
Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:
Adults: 279
Juveniles: _____
Eggs: 23(3) 8(2)
Nests: 63
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Grass/Forbs/Cottonwo
Distance: 50 Feet

FIELD CONDITION:
Temperature: 93 °F
Rain: No
Wind: W 3-5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Large, high (30 ft.), artificial dredging-spoil bar primarily of sand. Smaller, lower bar just upstream with 68 Terns, separated from larger colony of 211 by narrow chute of running water. Drift count on smaller colony yielded 30 nests. Flush count on larger colony 211. Heavy recreational use by day campers on both. One dead chick, cause unknown. Five nests with newly hatched chicks.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 17:18 RIVER MILE: 766.0

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

WHERE SITED: Latitude: 35.5070
Longitude: 90.0077

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 16
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

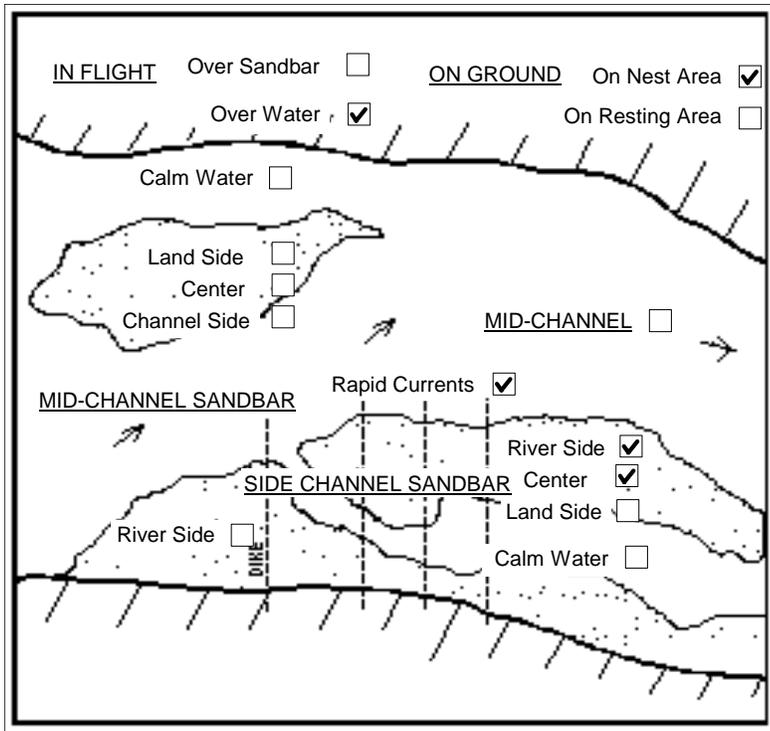
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 94 °F
Rain: No
Wind: W 5-10 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Low (3 ft.), long (2-3 miles), attached sand/gravel bar with lignite debris field. Day campers at waterline. Perimeter count indicates 3 scrapes.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 17:40 RIVER MILE: 760.5

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

WHERE SITED: Latitude: 35.45791
Longitude: 89.99908

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 33
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

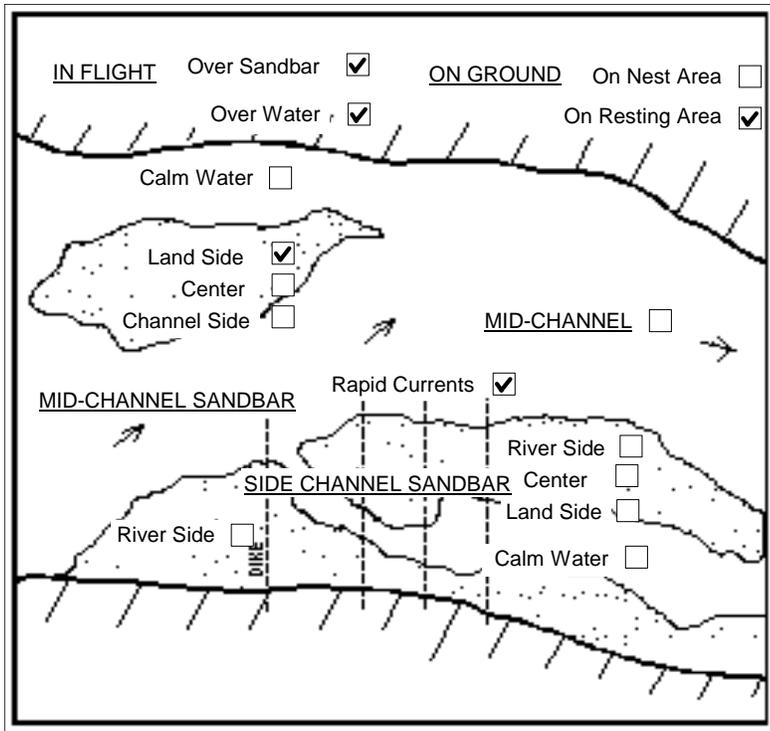
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows
Distance: 1000 Feet

FIELD CONDITION:

Temperature: 94 °F
Rain: No
Wind: W 5-10 mph
% Cloud: 10



OTHER NOTES:

Right Bank. Long, broad, large, attached at least to wooded island with large back chute. Perimeter count yields no nests. Bald Eagle is mobbed while traversing the bar.

AR side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 18:00 RIVER MILE: 755.0

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

WHERE SITED: Latitude: 35.3902
Longitude: 90.0703

Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:

Adults: 56
Juveniles: _____
Eggs: 1(3)
Nests: 1
Chicks: Yes

SUBSTRATE:

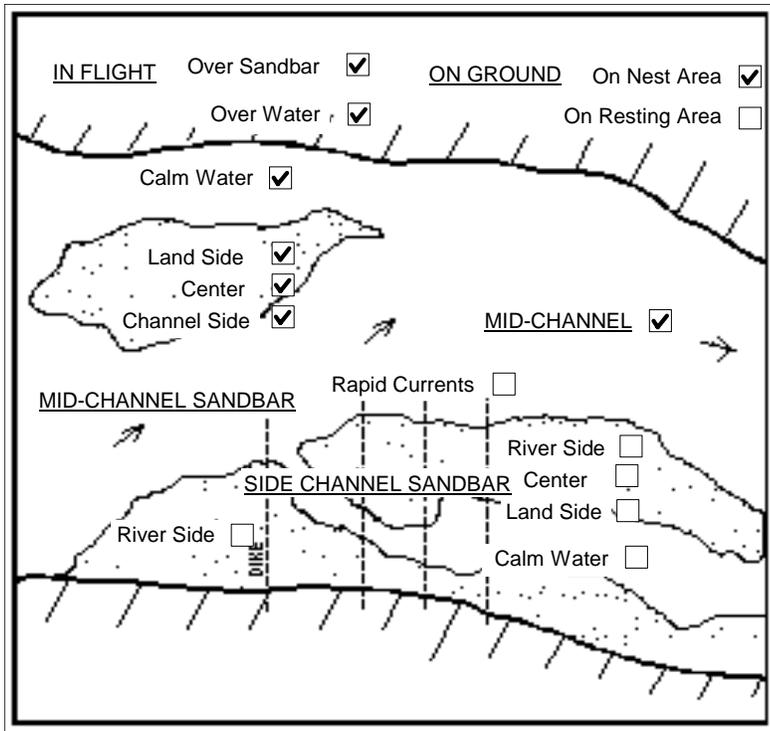
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows/Cottonwoods
Distance: 1000 Feet

FIELD CONDITION:

Temperature: 94 °F
Rain: No
Wind: W 5-10 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Long, high (20 ft.) mid-channel sand bar with over 100 scrapes noted on perimeter count. Fox tracks indicate heavy predation across entire colony. Many chicks from 1 1/2 to 3 weeks of age. Day campers at downstream point. One White Crappie and 1 shad.

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 18:41 RIVER MILE: 744.5

LOCALITY: Shelby TN SITE NAME: Hickman Bar
County/Parish State

WHERE SITED: Latitude: 35.25260
Longitude: 90.09265

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 86
Juveniles: _____
Eggs: 1(1)
Nests: 1
Chicks: Yes

SUBSTRATE:

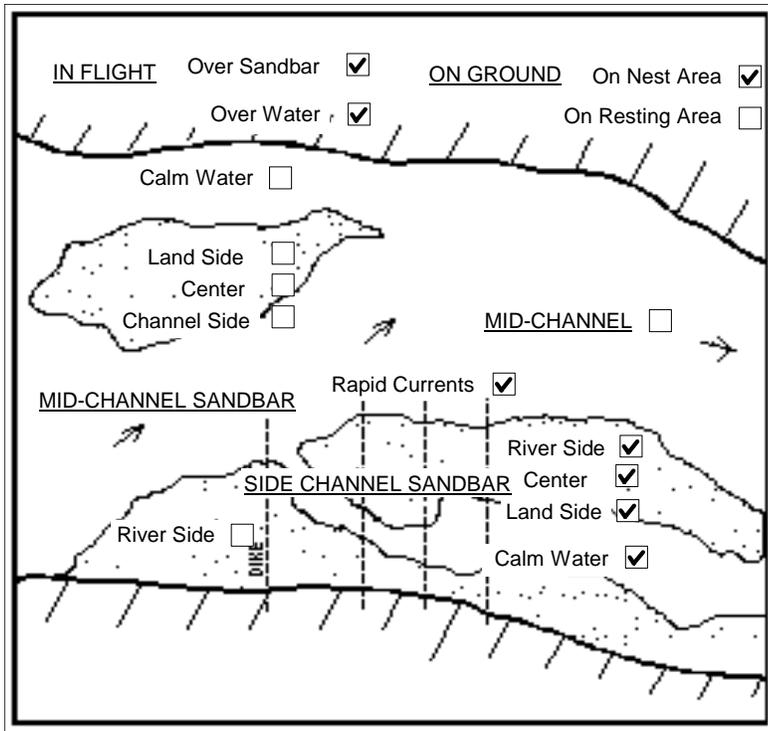
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 94 °F
Rain: No
Wind: W 5 mph
% Cloud: 0



OTHER NOTES:

Left Bank. Medium size (200 x 400 yds.), 5 ft. in elevation, sand bar unattached except at upstream dike.
Terns fishing and resting on both sides. One chick observed, age 3 days. Day campers

TN side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/2/2006 TIME OF DAY: 18:59 RIVER MILE: 740.5

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

WHERE SITED: Latitude: 35.20900
Longitude: 90.072429

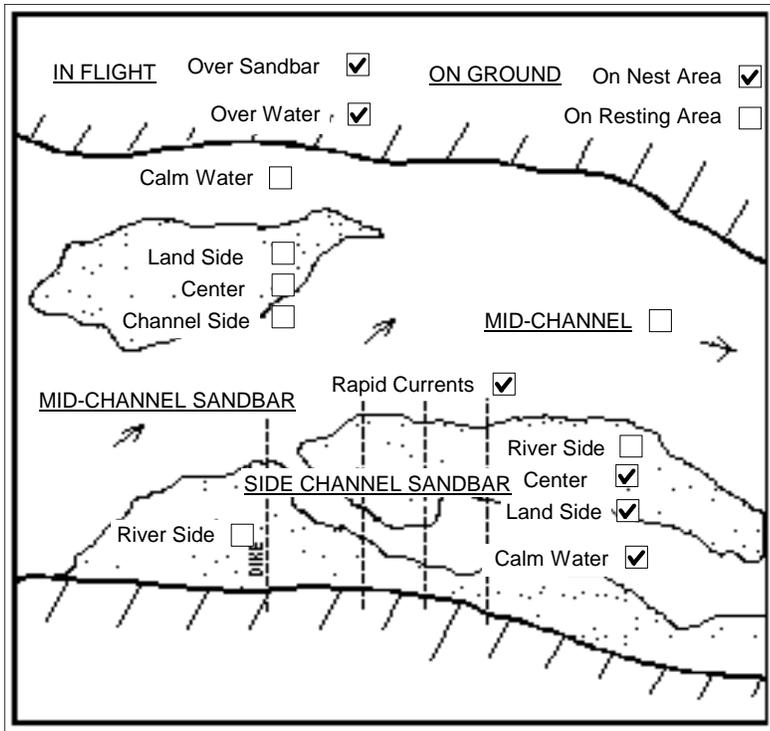
Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:
Adults: 38
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Hardwoods
Distance: 1000 Feet

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



OTHER NOTES:

Right Bank. Medium size gravel bar, 8 ft. in elevation with some sand and mud within dike field. Attached and undulating with scattered lignite. Scrapes but no eggs in wrack line, 1 chick < 1 week of age. Dog and human tracks. Kildeer nests and flock of Purple Martins above trees.

AR side

OBSERVERS: Davin, Griffin, Grubaugh, Jones, Milburn, Rumancik, Thron

RIVER GAGE READING: Memphis = 1.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 8:58 RIVER MILE: 733.0

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

WHERE SITED: Latitude: 35.1235
Longitude: 90.1020

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 11
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: Yes

SUBSTRATE:

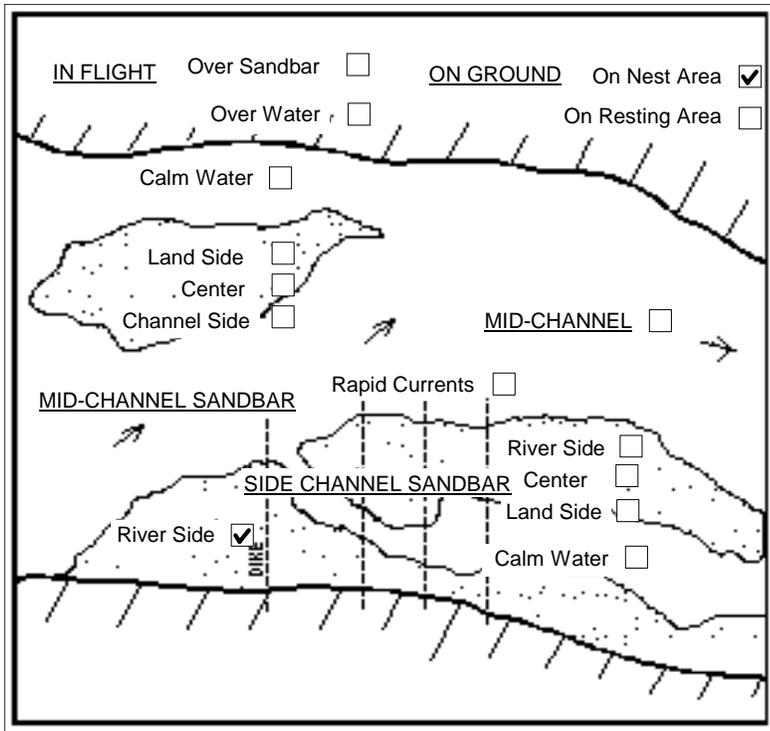
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows
Distance: 800 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: SE 8 mph
% Cloud: 0



OTHER NOTES:

Right Bank. High (10 ft.), flat, medium size, attached sand bar with all terns resting at waterline. Chicks up to 1 1/2 weeks old. ATV tracks.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 9:16 RIVER MILE: 730.0

LOCALITY: Shelby TN SITE NAME: Vice Presidents Island #46
County/Parish State

WHERE SITED: Latitude: 35.11744
Longitude: 90.1707

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 21
Juveniles: _____
Eggs: fragments
Nests: 14
Chicks: No

SUBSTRATE:

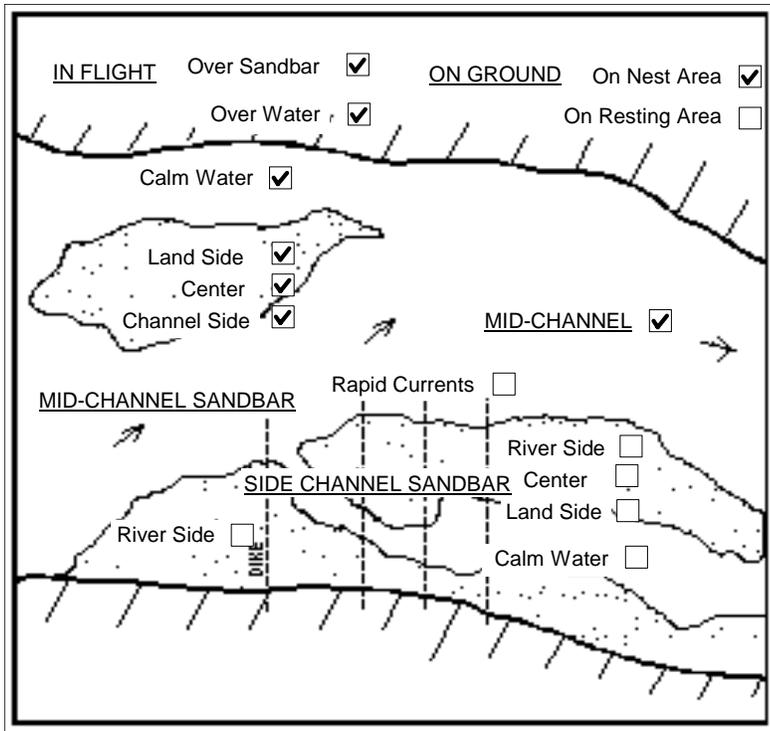
Sand:
Gravel:
Debris:

VEGETATION:

Type: Grass
Distance: 60 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: SE 5-10 mph
% Cloud: 20



OTHER NOTES:

Left Bank. Medium high (6 ft.) sand and gravel with lignite debris field, unattached. Fourteen scrapes observed but no eggs intact, just shells. Coyote predation and other canine tracks. No human tracks. Terns using both sides.

TN side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 9:55 RIVER MILE: 725.0

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

WHERE SITED: Latitude: 35.06633
Longitude: 90.18530

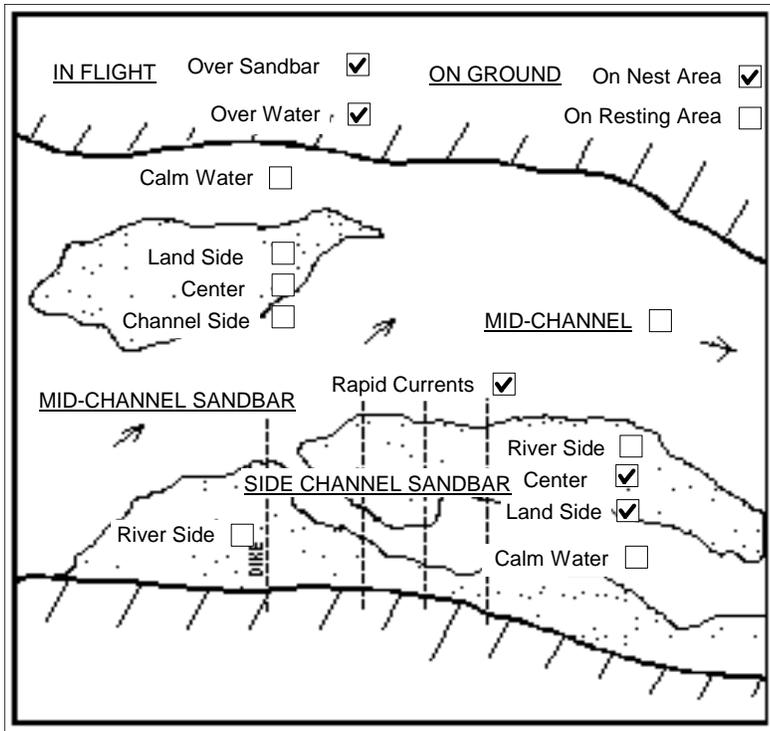
Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:
Adults: 23
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Willows
Distance: 800 Feet

FIELD CONDITION:
Temperature: 85 °F
Rain: No
Wind: SE 5-10 mph
% Cloud: 20



OTHER NOTES:

Right Bank. Medium high (7 ft.) unattached sand bar with undulations. Many scrapes but no eggs or chicks. Coyote and dog tracks with heavy predation evident (egg fragments). Much courting. Bald Eagle perched on second dike.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 10:15 RIVER MILE: 720.8

LOCALITY: Crittenden AR COUNTY/PARISH STATE SITE NAME: Dismal Point Dikes Lower

WHERE SITED: Latitude: _____
Longitude: _____

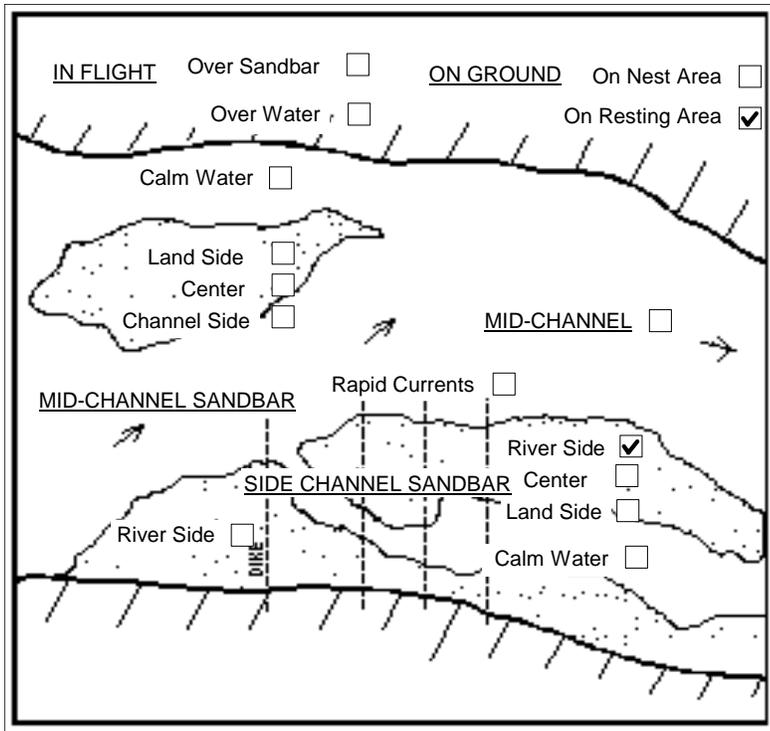
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 6
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 86 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Right Bank. Small (15 x 50 yds.), barely emergent (1/2 foot) sand bar. Resting only. No disturbance factors.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 10:30 RIVER MILE: 716.0

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

WHERE SITED: Latitude: 35.00984
Longitude: 90.29417

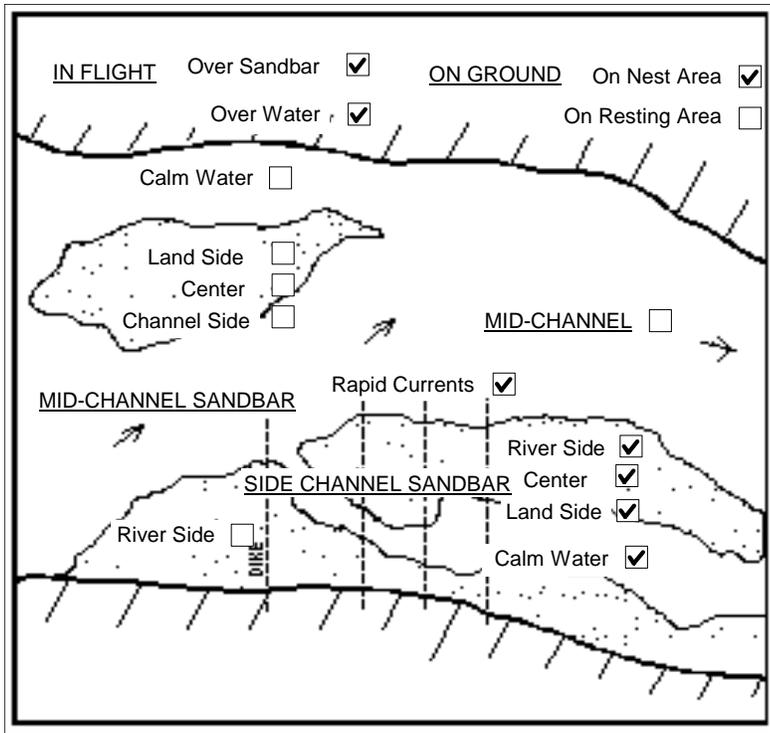
Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:
Adults: 130
Juveniles: _____
Eggs: 2(3) 2(2)
Nests: 4
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 86 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Unattached, 2 mile long sand bar (11 ft. elevation) with colony dispersed along entire length. Perimeter and flush count. Terns breasting and feeding on all sides, intense mobbing within colony. Chicks less than 1 week old. Coyote tracks, owl sign and predation from both.

MS side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 11:12 RIVER MILE: 714.0

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

WHERE SITED: Latitude: 34.96495
Longitude: 90.27486

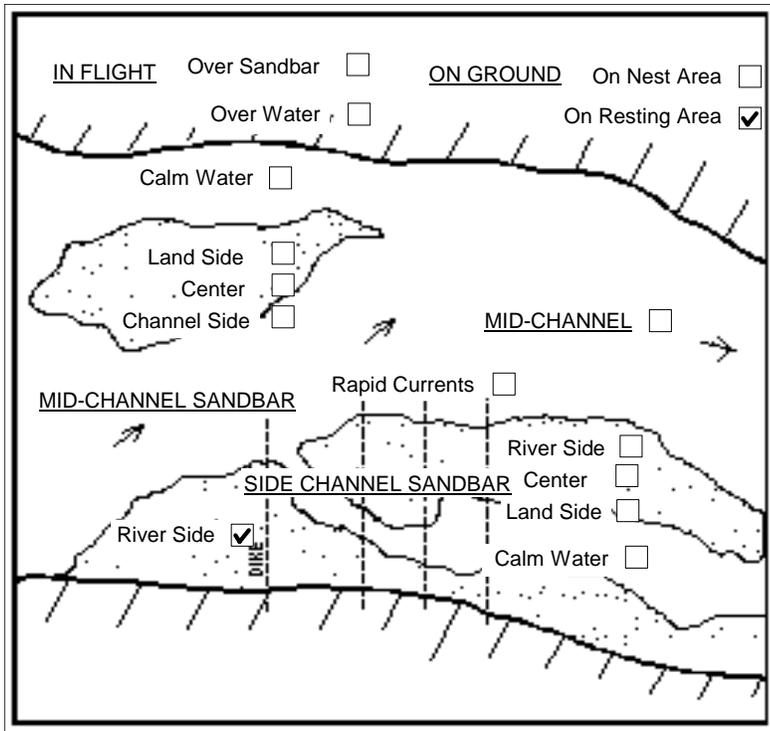
Approximate Distance to Water: 0 Feet

NUMBERS SIGHTED:
Adults: 3
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 86 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Attached sand resting only.

MS side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 11:20 RIVER MILE: 710.0

LOCALITY: Crittenden AR SITE NAME: Cat Island Dikes
County/Parish State

WHERE SITED: Latitude: 34.93881
Longitude: 90.2457

Approximate Distance to Water: 60 Feet

NUMBERS SIGHTED:

Adults: 7
Juveniles: _____
Eggs: _____
Nests: 1
Chicks: No

SUBSTRATE:

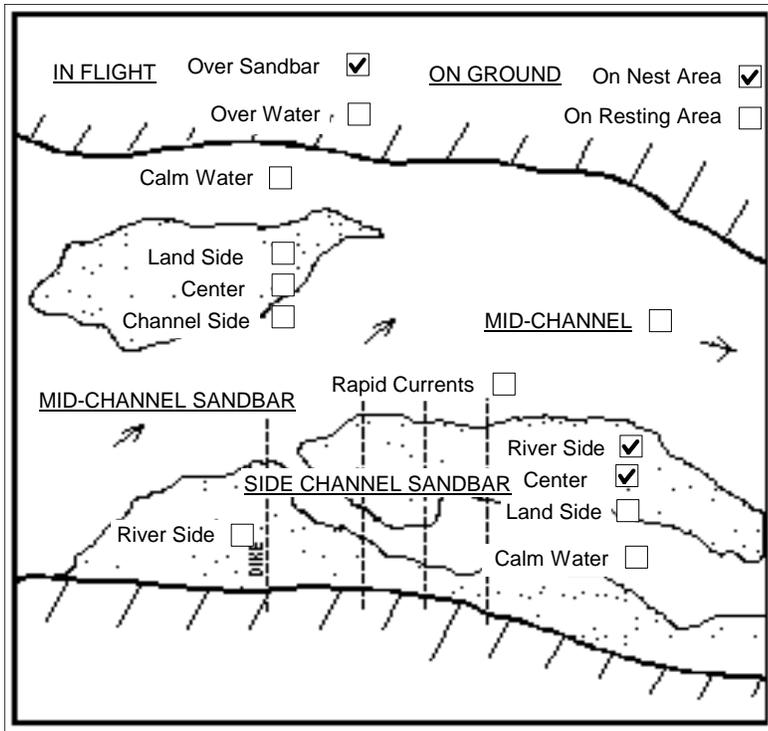
Sand:
Gravel:
Debris:

VEGETATION:

Type: Cottonwoods
Distance: 200 Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 5 mph
% Cloud: 30



OTHER NOTES:

Right Bank. Attached upper end of Cat Island, sand and gravel. One bird sitting inland, others are resting at waterline or courting.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 11:39 RIVER MILE: 707.5

LOCALITY: Crittenden AR SITE NAME: Cat Island No. 50
County/Parish State

WHERE SITED: Latitude: 39.89460
Longitude: 90.26430

Approximate Distance to Water: 60 Feet

NUMBERS SIGHTED:

Adults: 56
Juveniles: _____
Eggs: _____
Nests: 12
Chicks: No

SUBSTRATE:

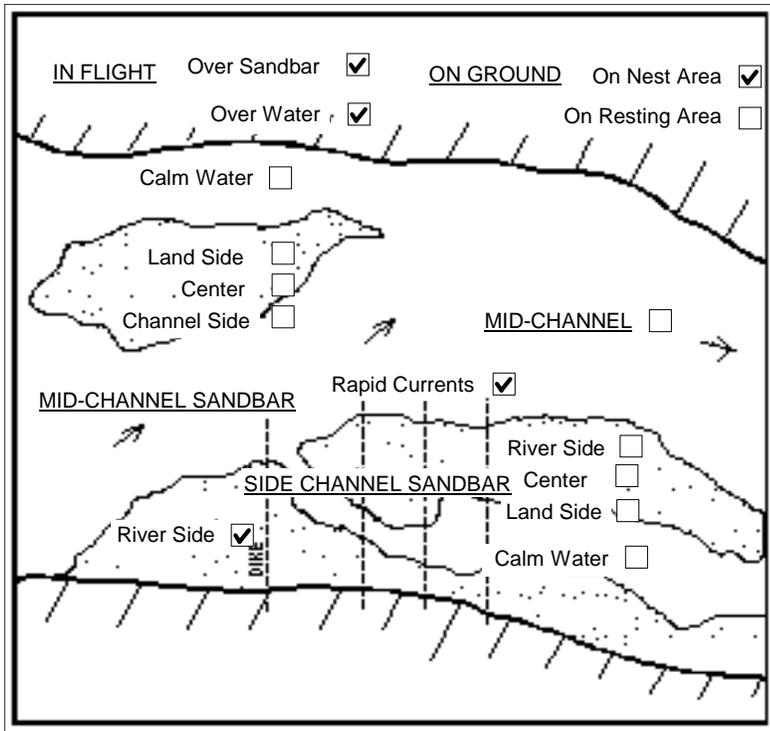
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 5 mph
% Cloud: 30



OTHER NOTES:

Right Bank. Long, narrow (200 ft.) sand bar most likely attached to Cat Island but not certain. Perimeter count shows widely spaced nests length of bar.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 12:04 RIVER MILE: 702.5

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

WHERE SITED: Latitude: 34.87502
Longitude: 90.31190

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 242
Juveniles: 1
Eggs: _____
Nests: 44
Chicks: No

SUBSTRATE:

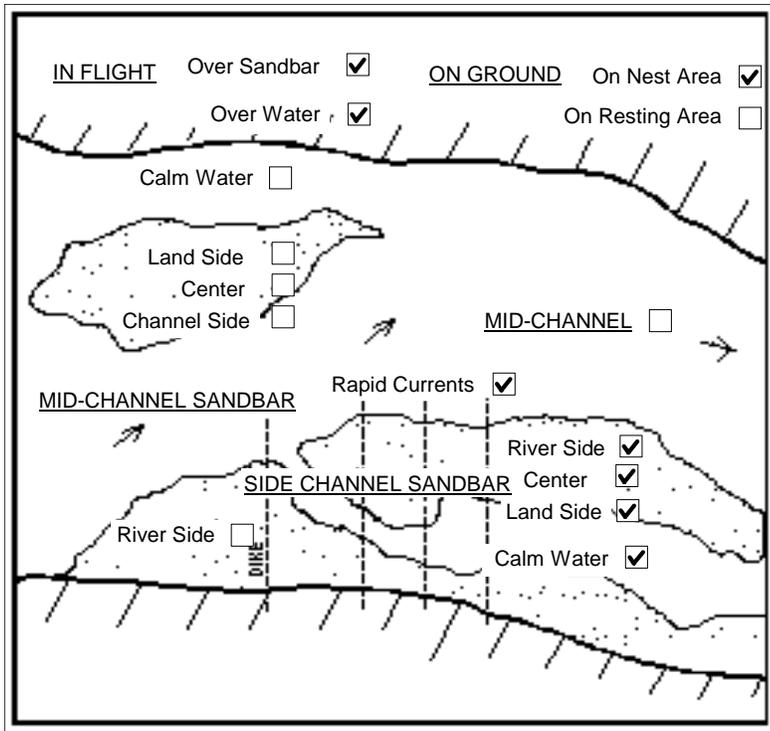
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows
Distance: 1000 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: S 5 mph
% Cloud: 30



OTHER NOTES:

Left Bank. Unattached, medium size sand bar with courting, breasting on both sides. Caspian Tern on upstream dike. Perimeter count with high accuracy. No tracks or disturbance indicators.

MS side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 13:10 RIVER MILE: 700.0

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

WHERE SITED: Latitude: 34.84440
Longitude: 90.36590

Approximate Distance to Water: 40 Feet

NUMBERS SIGHTED:

Adults: 91
Juveniles: _____
Eggs: _____
Nests: 12
Chicks: Yes

SUBSTRATE:

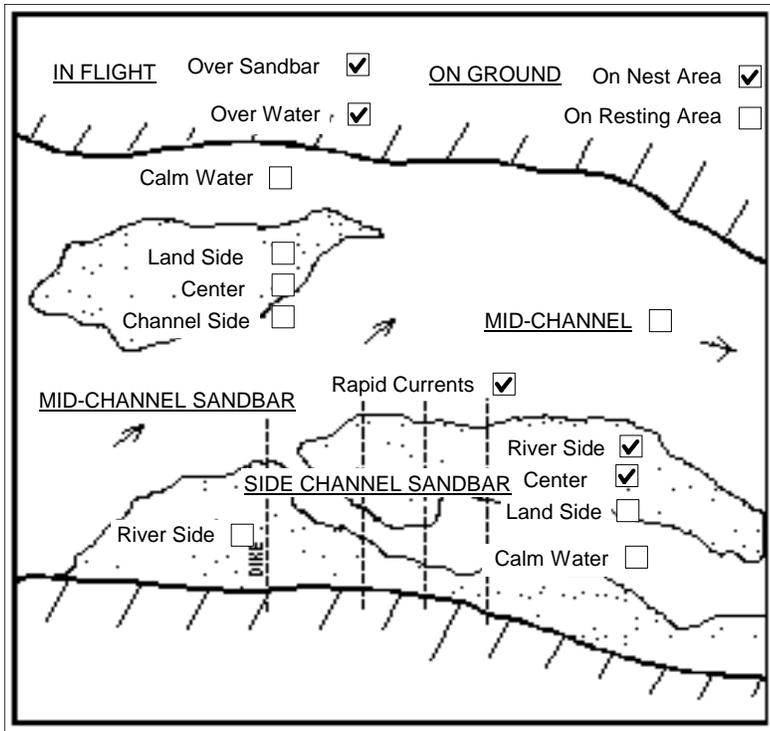
Sand:
Gravel:
Debris:

VEGETATION:

Type: Grasses
Distance: 30 Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 5 mph
% Cloud: 30



OTHER NOTES:

Right Bank. Medium size sand bar, unattached, long, between dikes. Coyote tracks within colony. One chick approx. 5 days old. Empty scrapes in wrack line.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 13:27 RIVER MILE: 698.5

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

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 16
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

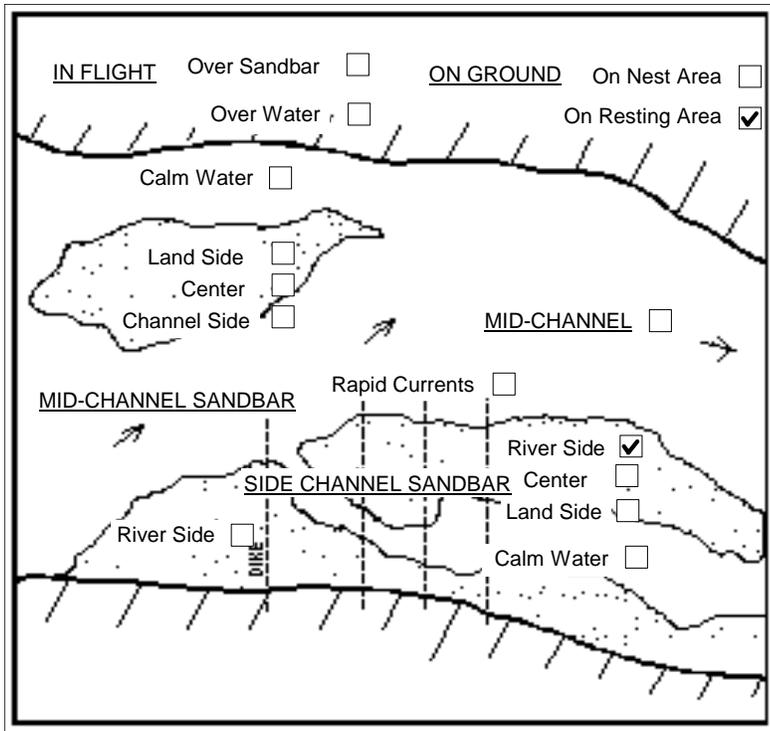
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 3-5 mph
% Cloud: 30



OTHER NOTES:

Right Bank. Resting bar only, all birds counted at waterline.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Memphis = 2.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 14:02 RIVER MILE: 693.0

LOCALITY: Tunica MS SITE NAME: Commerce Dikes
County/Parish State

WHERE SITED: Latitude: 34.8152
Longitude: 90.4563

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 130
Juveniles: _____
Eggs: _____
Nests: 6
Chicks: Yes

SUBSTRATE:

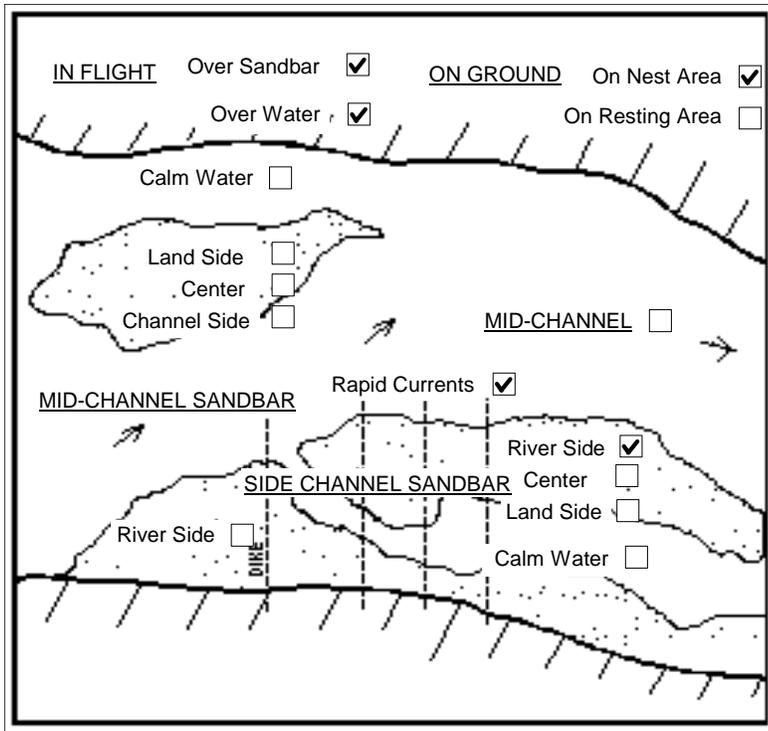
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: S 5 mph
% Cloud: 50



OTHER NOTES:

Left Bank. Large, attached 2.5 mile long by 1 mile wide sand bar, gently undulating with patches of pea gravel. Most Terns resting at waterline. Twenty-five chicks 2-3 weeks old. Mobbing. Most birds counted along the waterline during perimeter count. Six nests assumed from terns sitting inland.

MS side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 14:15 RIVER MILE: 687.0

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

WHERE SITED: Latitude: 34.73875
Longitude: 90.45414

Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:

Adults: 133
Juveniles: _____
Eggs: _____
Nests: 3
Chicks: No

SUBSTRATE:

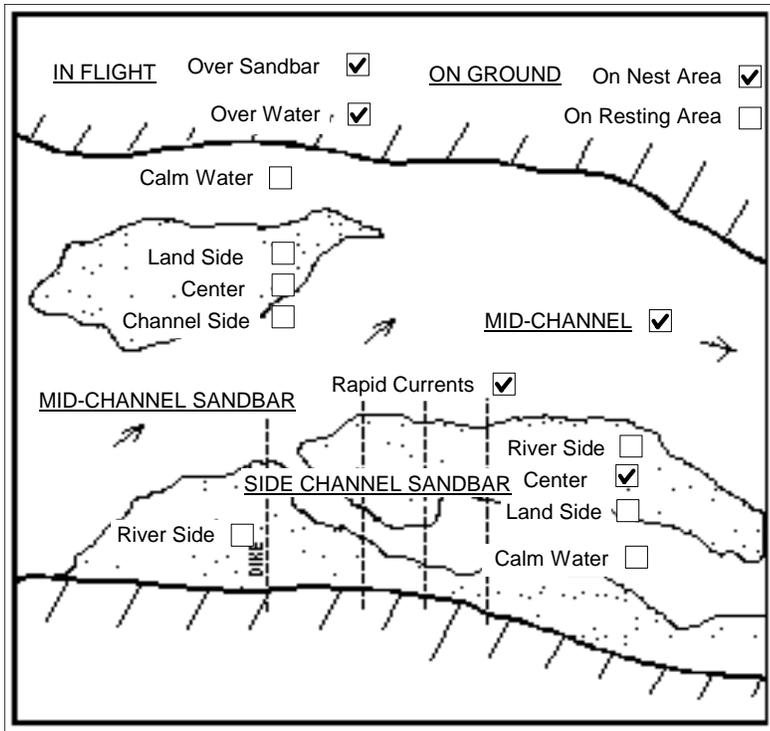
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: S 5 mph
% Cloud: 70



OTHER NOTES:

Right Bank. Another very large (3 miles) attached, sand and gravel bar with large stand of willows at center. Perimeter count with colony dispersed widely across the high center. One Black Tern and 1 Great Blue Heron, but no other signs of disturbance.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 14:40 RIVER MILE: 680.0

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

WHERE SITED: Latitude: 34.7300
Longitude: 90.5656

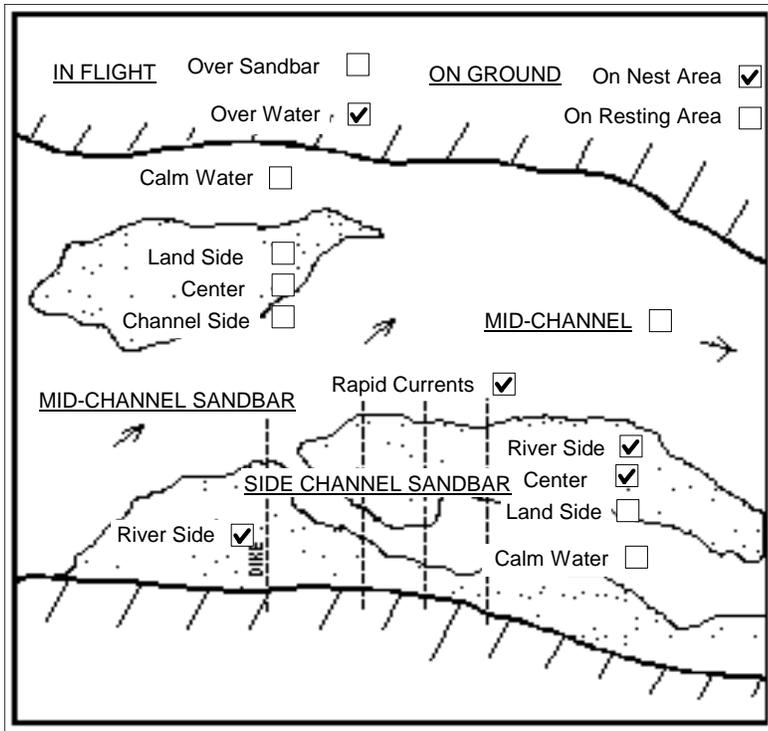
Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:
Adults: 47
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 86 °F
Rain: No
Wind: S 5 mph
% Cloud: 75



OTHER NOTES:

Left Bank. Large, sloping, attached point bar of sand and gravel. Perimeter count indicates 2 on nests.
Campers at the waterline. One Comorant, 1 Mississippi Kite. Logging downstream left bank.

MS side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 14:56 RIVER MILE: 676.7

LOCALITY: Lee AR SITE NAME: Hardin Cut-Off
County/Parish State

WHERE SITED: Latitude: 34.68682
Longitude: 90.56555

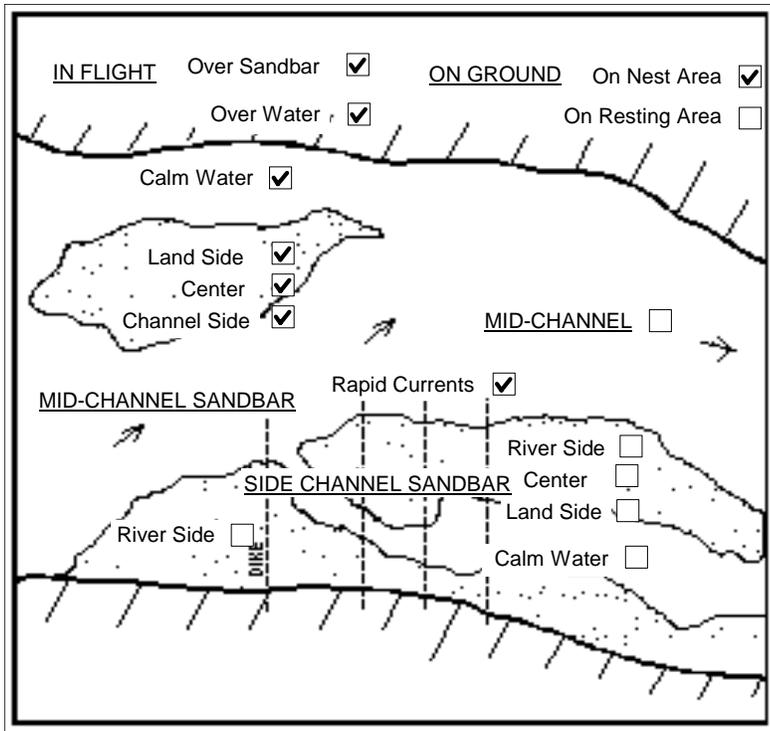
Approximate Distance to Water: 30 Feet

NUMBERS SIGHTED:
Adults: 252
Juveniles: _____
Eggs: 15(3) 15(2) 1(1)
Nests: 41
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 87 °F
Rain: No
Wind: S 10 mph
% Cloud: 80



OTHER NOTES:

Left Bank. Small, low, flat, mid-channel bar (1/2 mile long x 600 ft. wide) completely sampled by observers. Nests and scrapes along ripple lines. All sides utilized by colony. Deer tracks but no other disturbance.

MS side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 15:10 RIVER MILE: 676.5

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

WHERE SITED: Latitude: 34.6742
Longitude: 90.5752

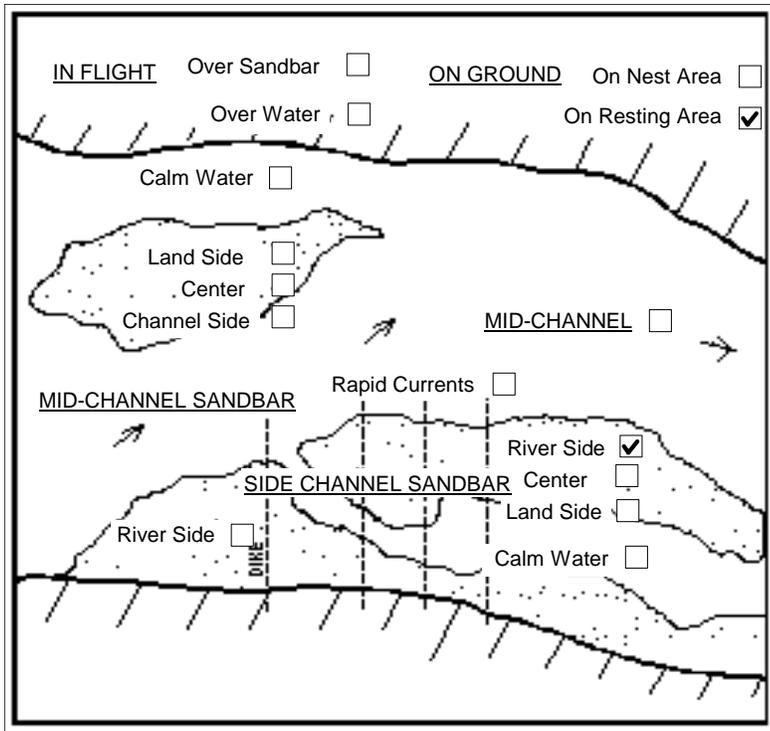
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 12
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 87 °F
Rain: No
Wind: S 5 mph
% Cloud: 60



OTHER NOTES:

Right Bank. Gently sloping, attached sand bar with patches of gravel. All birds counted along waterline. No apparent disturbance or tracks.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 15:45 RIVER MILE: 672.0

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

WHERE SITED: Latitude: 34.6241
Longitude: 90.5835

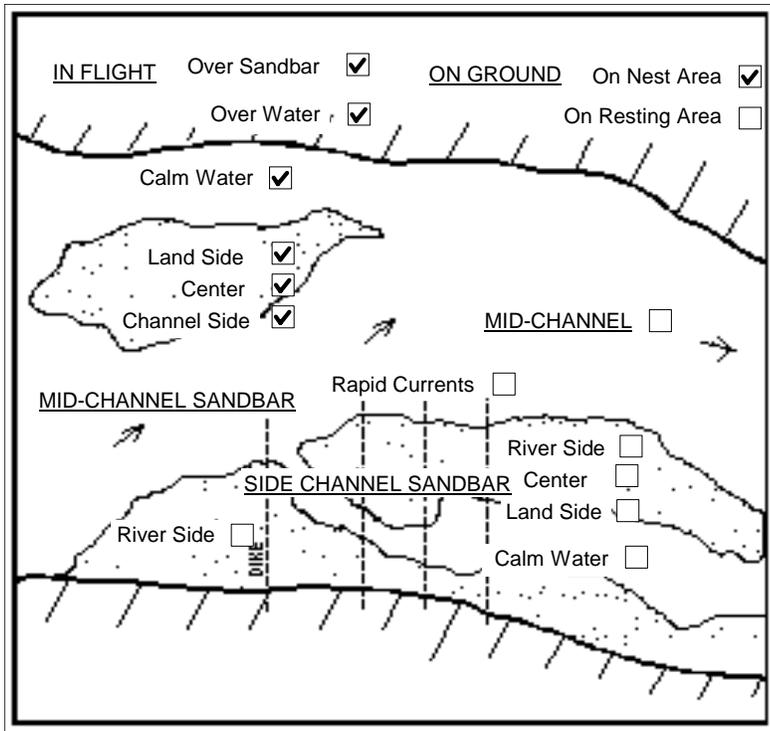
Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:
Adults: 123
Juveniles: 1
Eggs: _____
Nests: 9
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 87 °F
Rain: No
Wind: S 5 mph
% Cloud: 50



OTHER NOTES:

Left Bank. Very large, flat, high, unattached, clean sand bar. Colony at least 3 miles long by 1/2 mile wide, with nests widely scattered. Perimeter count only. Three chicks at waterline < 1 week old. Day campers at lower end. One Black Tern, 4 Great Blue Herons (1 white phase).

MS side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 16:20 RIVER MILE: 668.0

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

WHERE SITED: Latitude: 34.5625
Longitude: 90.5536

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 39
Juveniles: _____
Eggs: _____
Nests: 4
Chicks: No

SUBSTRATE:

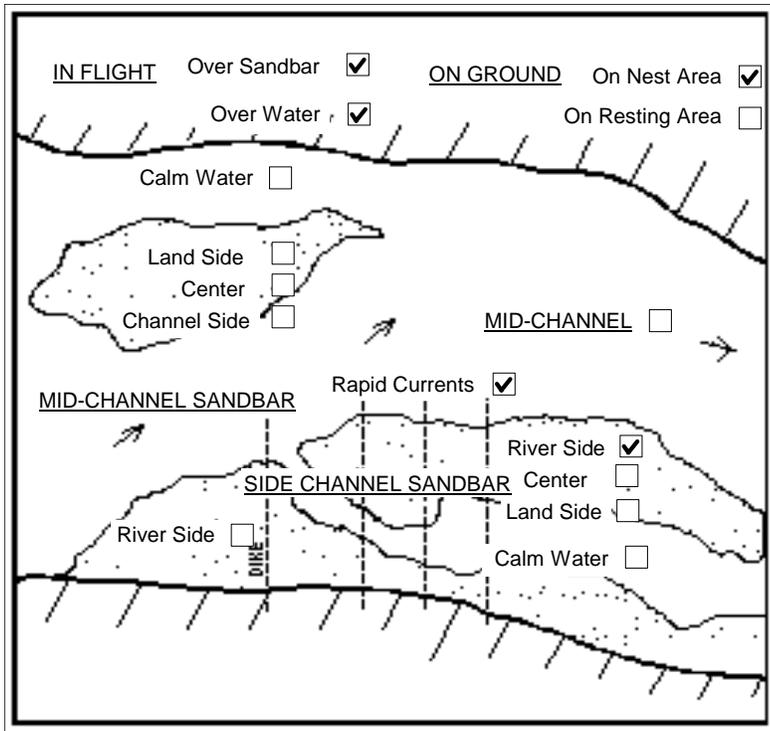
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: S 5 mph
% Cloud: 40



OTHER NOTES:

Right Bank. Large, high, gravel bar attached to heavily wooded island. Terns were breasting, fishing and carrying fish. Perimeter count yields 4 nests in gravel. No disturbance noted.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/3/2006 TIME OF DAY: 16:45 RIVER MILE: 666.5

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

WHERE SITED: Latitude: 34.54669
Longitude: 90.54383

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 86
Juveniles: _____
Eggs: 2(2)
Nests: 30
Chicks: No

SUBSTRATE:

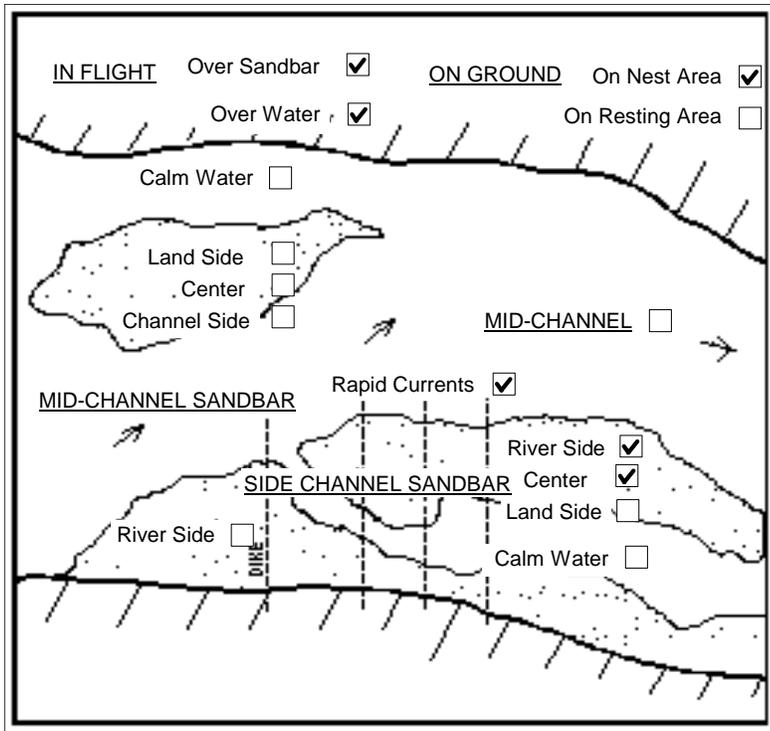
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 87 °F
Rain: No
Wind: S 5-10 mph
% Cloud: 60



OTHER NOTES:

Right Bank. Large point bar of gravel (attached upper end) and sand (unattached lower end). Canine and human tracks with signs of predation.

AR side

OBSERVERS: Burks, Campen, Carpenter, Fowlkes, Haglund, Jones, Maloney, Rumancik

RIVER GAGE READING: Helena = 7.2 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 8:26 RIVER MILE: 662.5

LOCALITY: Coahoma MS SITE NAME: Helena Reach Upper
County/Parish State

WHERE SITED: Latitude: 34.51256
Longitude: 90.58333

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 60
Juveniles: 3
Eggs: _____
Nests: 11
Chicks: Yes

SUBSTRATE:

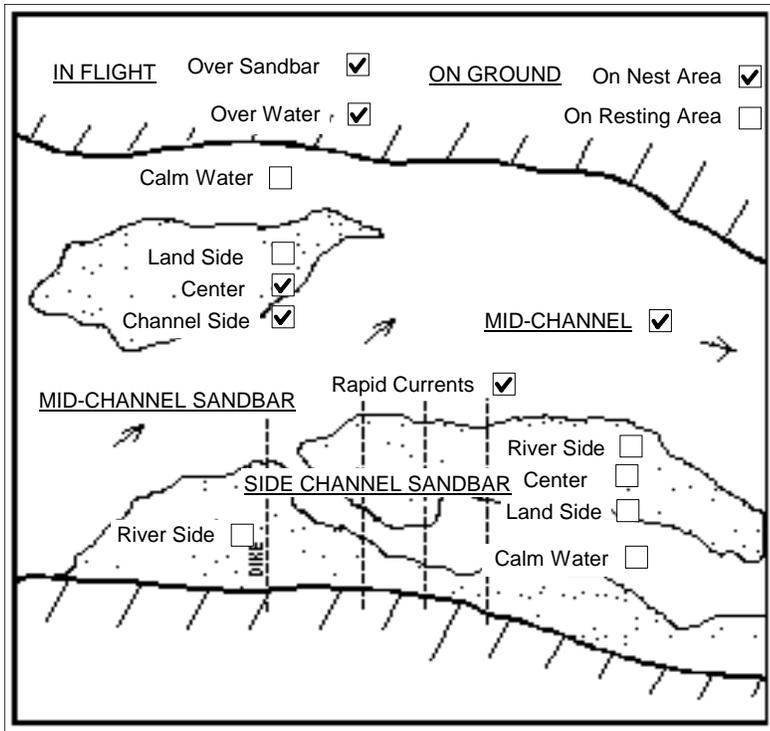
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Left Bank. New colony site, with solid, flat, low (3 ft.) unattached, mid-channel sand bar. Courting and
breasting on channel side. No tracks or disturbance signs.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 8:43 RIVER MILE: 660.0

LOCALITY: Coahoma MS SITE NAME: Helena Reach Lower
County/Parish State

WHERE SITED: Latitude: 34.4602
Longitude: 90.5827

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 37
Juveniles: _____
Eggs: _____
Nests: 1
Chicks: No

SUBSTRATE:

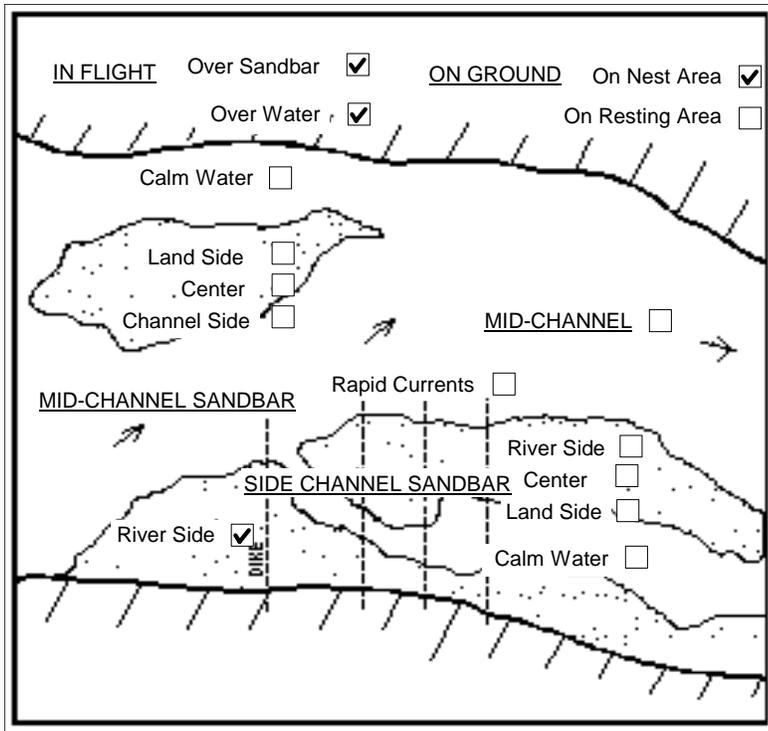
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Left Bank. Attached sand bar (5 ft.) of clean, solid sand. No visible tracks or disturbance. Most resting at waterline with one observed on scrape in center. Killdeers present also.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 9:00 RIVER MILE: 656.0

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

WHERE SITED: Latitude: 34.4106
Longitude: 90.5911

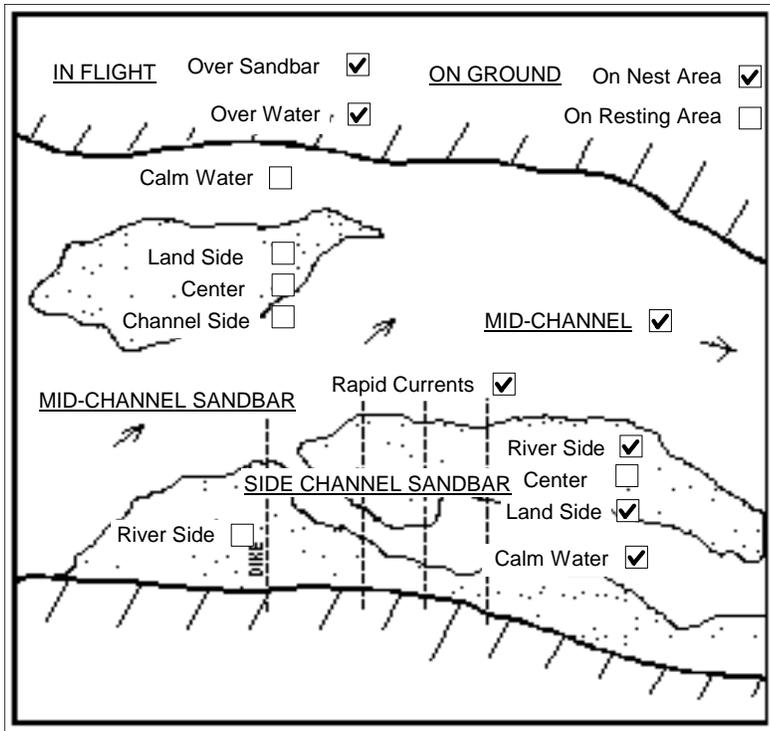
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 11
Juveniles: _____
Eggs: _____
Nests: 5
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

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



OTHER NOTES:

Right Bank. Attached medium size sand bar with patches of gravel. Courting behavior but no mobbing, fishing on channel side. Muskrat and coyote tracks present.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 9:39 RIVER MILE: 651.5

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

WHERE SITED: Latitude: 34.37736
Longitude: 90.66152

Approximate Distance to Water: 250 Feet

NUMBERS SIGHTED:

Adults: 94
Juveniles: _____
Eggs: _____
Nests: 24
Chicks: No

SUBSTRATE:

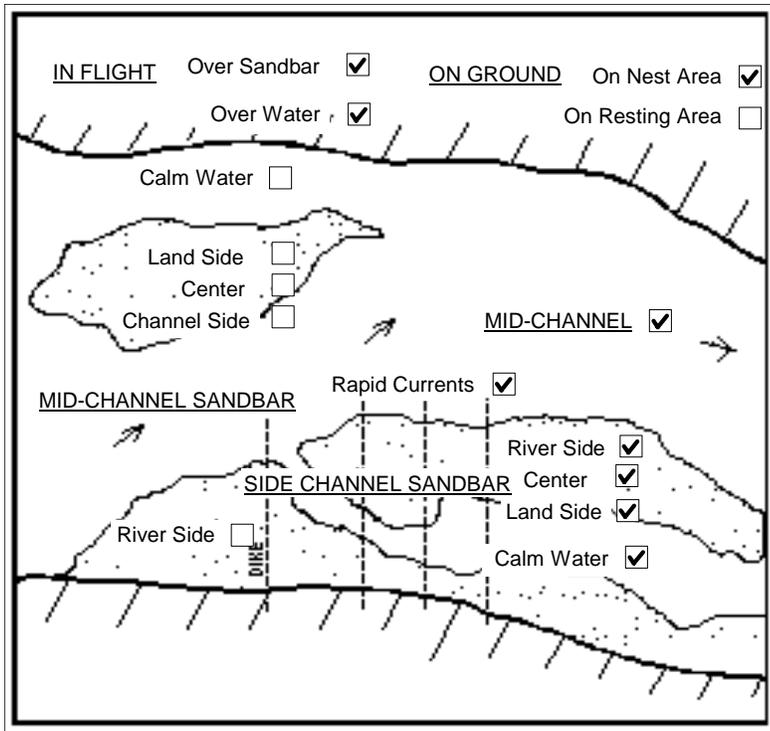
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Left Bank. Clean, medium high (8 ft.), flat sand bar, attached upstream. Terns utilizing all sides, courting, breasting, and 24 sitting inland. ATV tracks. Perimeter count.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 9:57 RIVER MILE: 647.0

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

WHERE SITED: Latitude: 34.3661
Longitude: 90.7297

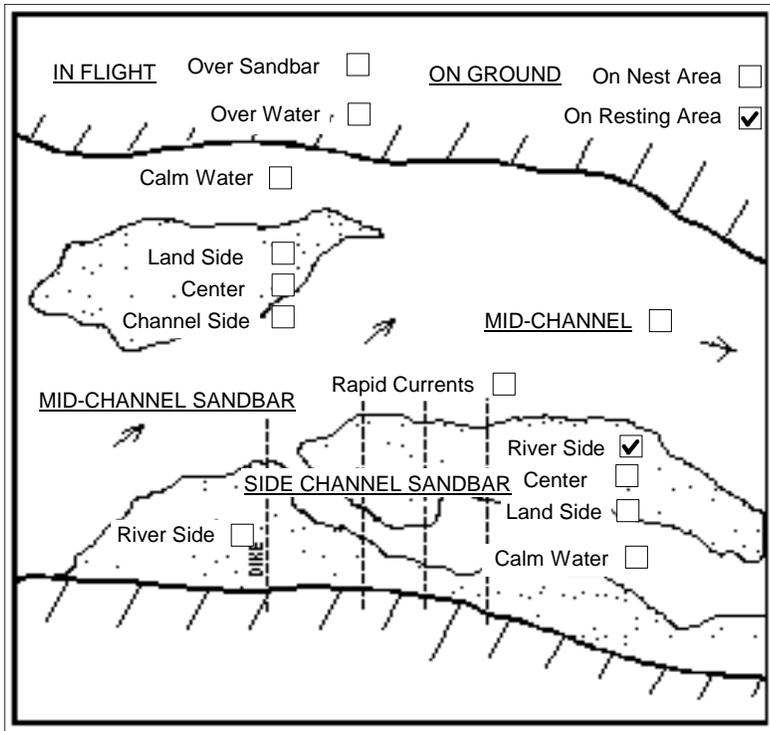
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 25
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

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



OTHER NOTES:

Right Bank. Long, attached sand bar (9ft.). Perimeter count for all birds resting at waterline.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 10:12 RIVER MILE: 643.4

LOCALITY: Coahoma MS SITE NAME: Old Town Bend
County/Parish State

WHERE SITED: Latitude: 34.3485
Longitude: 90.7658

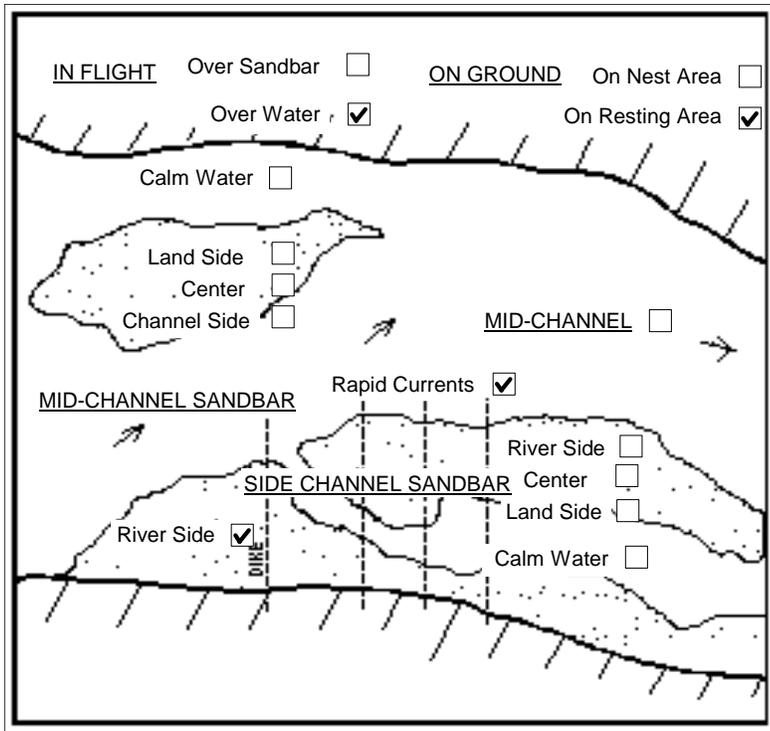
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 26
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 81 °F
Rain: No
Wind: S 5 mph
% Cloud: 100



OTHER NOTES:

Left Bank. Attached, convoluted bar (12 ft.) of sand, mud and gravel. All birds at waterline perimeter count.
Coyote scat.

MS

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 10:26 RIVER MILE: 640.0

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

WHERE SITED: Latitude: 34.3064
Longitude: 90.7400

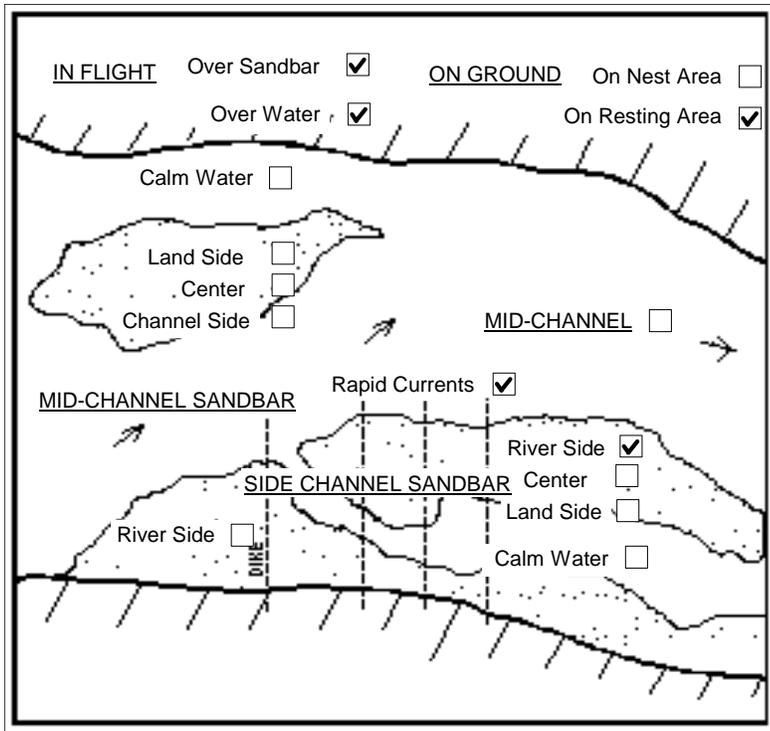
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 27
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 81 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Right Bank. High (12 ft.), gently sloping, attached sand bar. Twenty-six Terns resting at waterline, 1 fishing. ATV tracks

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 10:45 RIVER MILE: 637.0

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

WHERE SITED: Latitude: 34.2764
Longitude: 90.7669

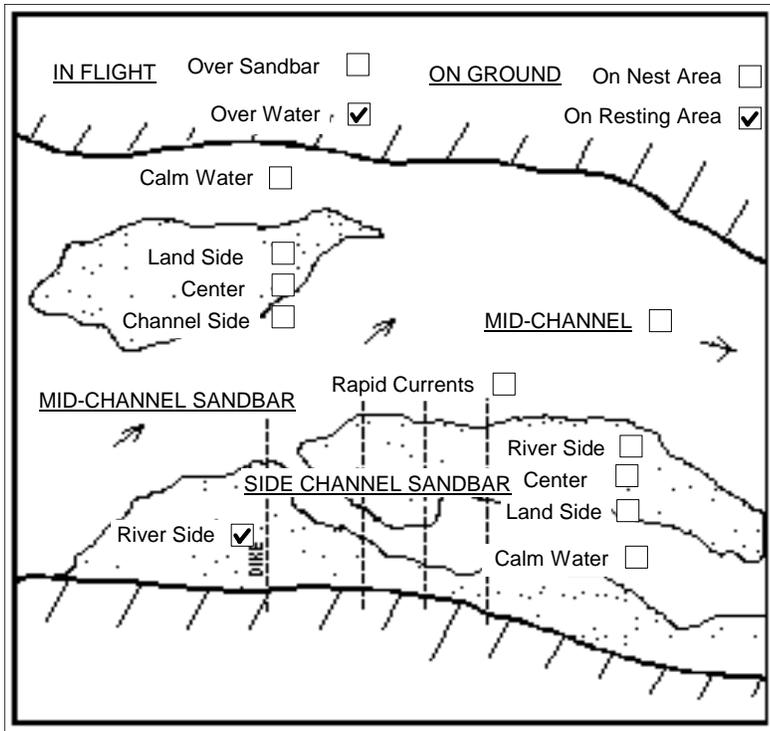
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 20
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Willows
Distance: 500 Feet

FIELD CONDITION:
Temperature: 81 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Right Bank. Attached, river side bar bordering chute behind Island #63 Bar Revetment.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 10:49 RIVER MILE: 633.0

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

WHERE SITED: Latitude: 34.26166
Longitude: 90.83301

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 15
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

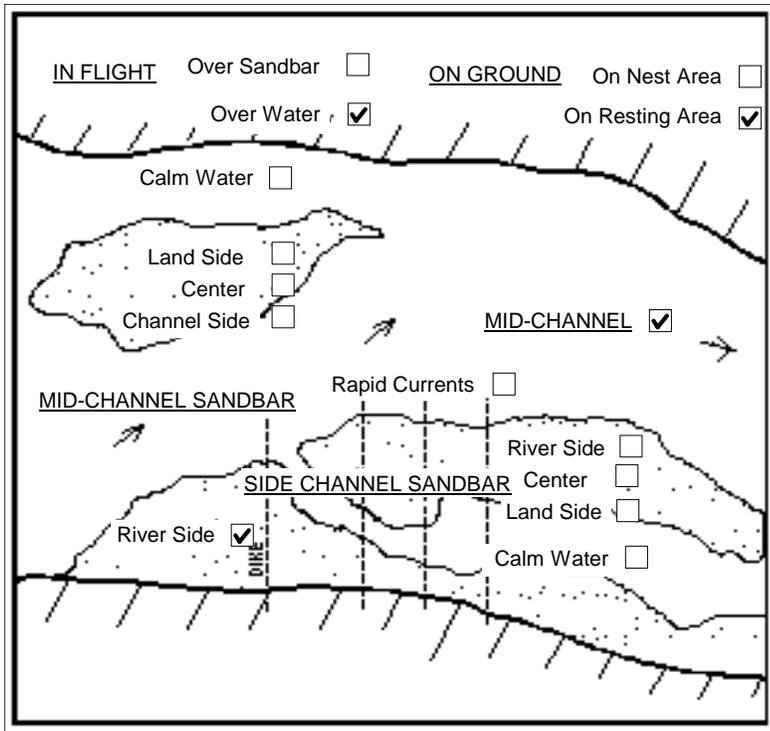
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Left Bank. Low (3 ft.), attached riverside bar. All birds resting except one flying 1 mile downstream.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 11:10 RIVER MILE: 629.0

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

WHERE SITED: Latitude: 34.2203
Longitude: 90.8483

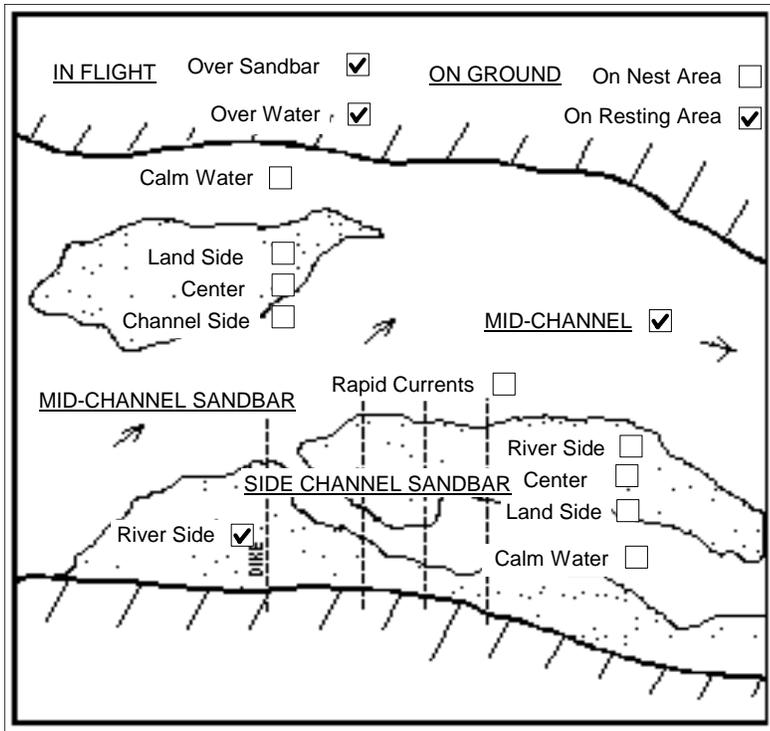
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 27
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 82 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Right Bank. Large, attached, riverside sandbar. All resting at waterline except for 2 fishing in mid-channel. Canada Geese with 4 young at waterline also.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 11:32 RIVER MILE: 625.0

LOCALITY: Phillips AR SITE NAME: Sunflower Cut-Off
County/Parish State

WHERE SITED: Latitude: 34.16858
Longitude: 90.89939

Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:

Adults: 388
Juveniles: _____
Eggs: 6(3)
Nests: 110
Chicks: Yes

SUBSTRATE:

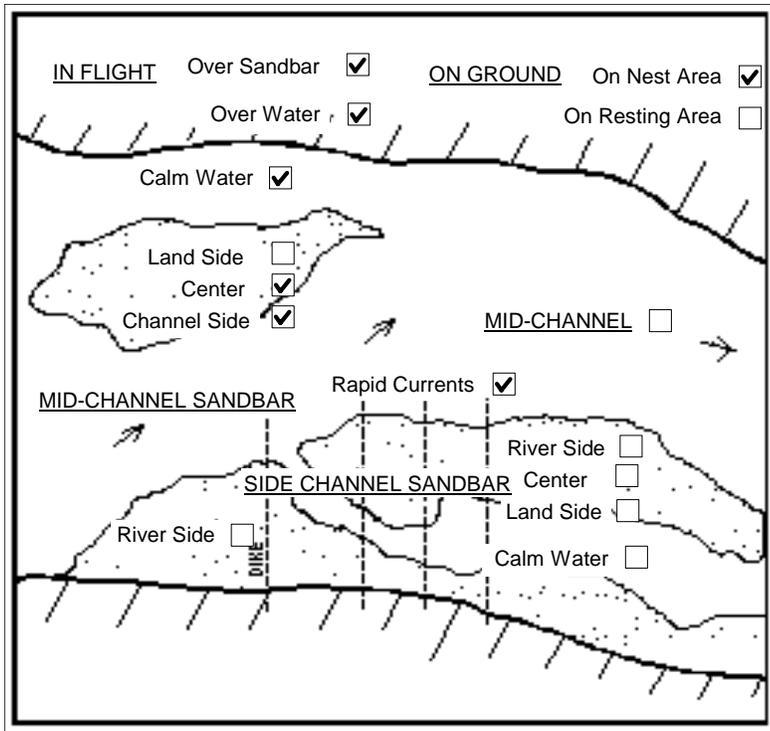
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 83 °F
Rain: No
Wind: S 3 mph
% Cloud: 90



OTHER NOTES:

Left Bank. Medium size (1/2 mile x 500 yds. Wide), 8 ft. tall, flat, mid-channel bar of sand and mud, unattached at entrance to Desoto Lake. GPS from lower chute side. Nests on edge of ripple drop-offs. No signs of predation but day-campers on chute side waterline. Mobbing intense with 18 newly hatched chicks at center and chute-side waterline. Courting and fishing both sides. Three abandoned eggs, 1 Largemouth Bass fingerling.
MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 12:20 RIVER MILE: 623.0

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

WHERE SITED: Latitude: 34.1583
Longitude: 90.9303

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 5
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

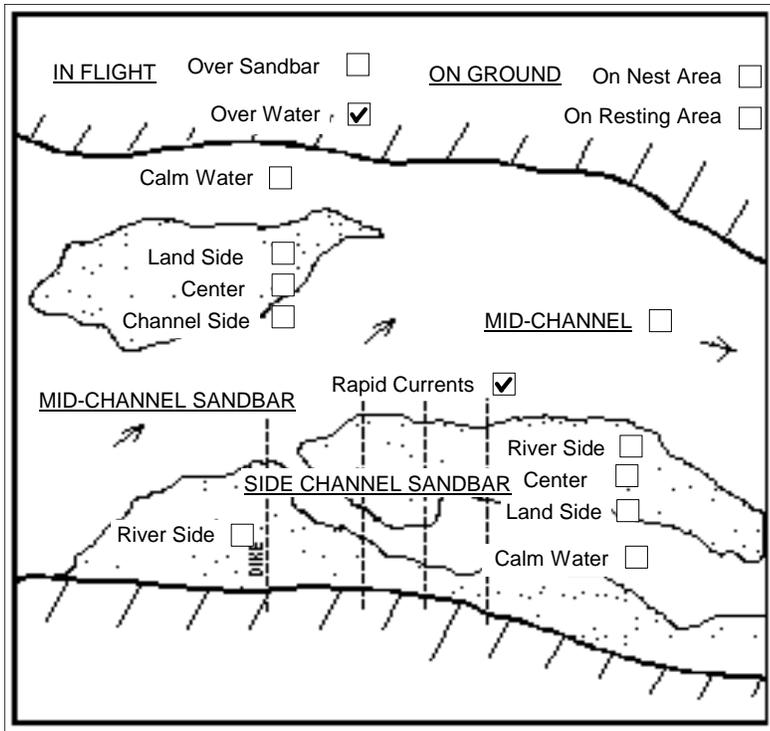
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 83 °F
Rain: No
Wind: S 3 mph
% Cloud: 90



OTHER NOTES:

Right Bank. Five Terns in transit.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 12:30 RIVER MILE: 620.0

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

WHERE SITED: Latitude: 34.1150
Longitude: 90.9490

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 41
Juveniles: _____
Eggs: _____
Nests: 7
Chicks: No

SUBSTRATE:

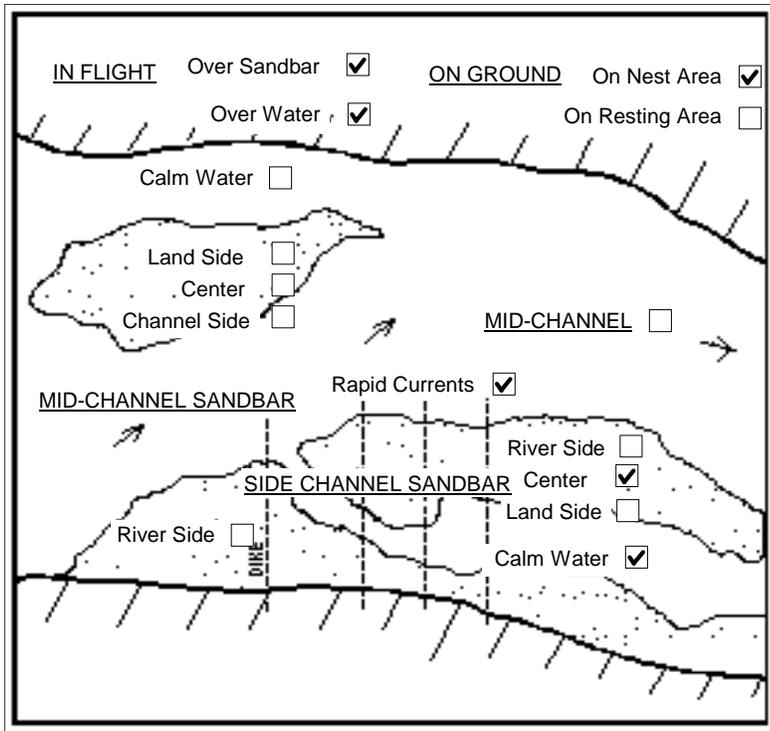
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows/Cottonwoods
Distance: 800 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Left Bank. Long, large, high (15 ft.), attached, rippled sand bar with nests along length of bar's high center. Dog tracks and 3 ATVs present.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 1:16 RIVER MILE: 616.0

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

WHERE SITED: Latitude: 34.0811
Longitude: 90.9081

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 37
Juveniles: _____
Eggs: _____
Nests: 3
Chicks: No

SUBSTRATE:

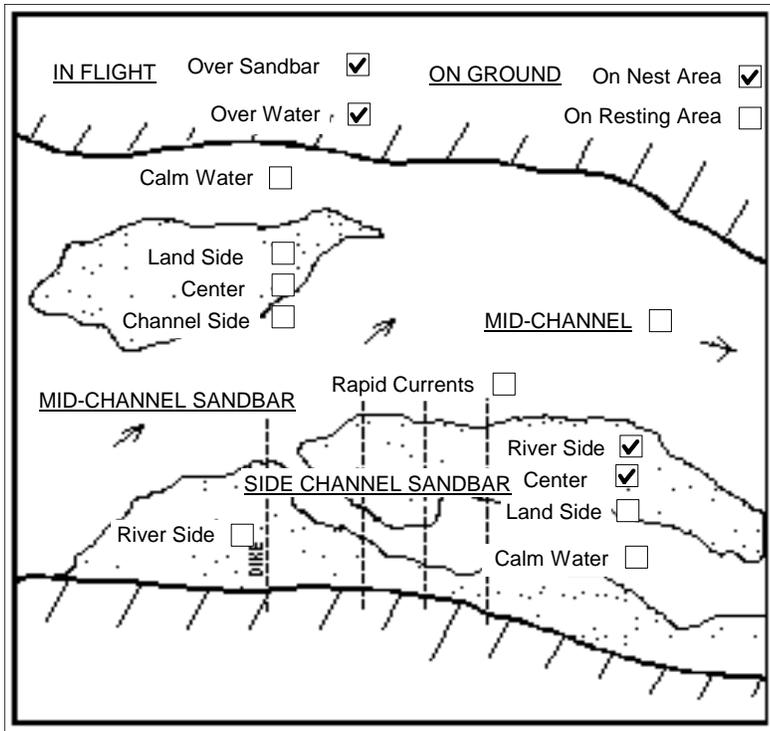
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Right Bank. Small, unattached sand bar (6 ft.) below first dike. Perimeter count yields 3 possible nests.
One Cormorant.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 13:24 RIVER MILE: 613.6

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

WHERE SITED: Latitude: 34.04383
Longitude: 90.89169

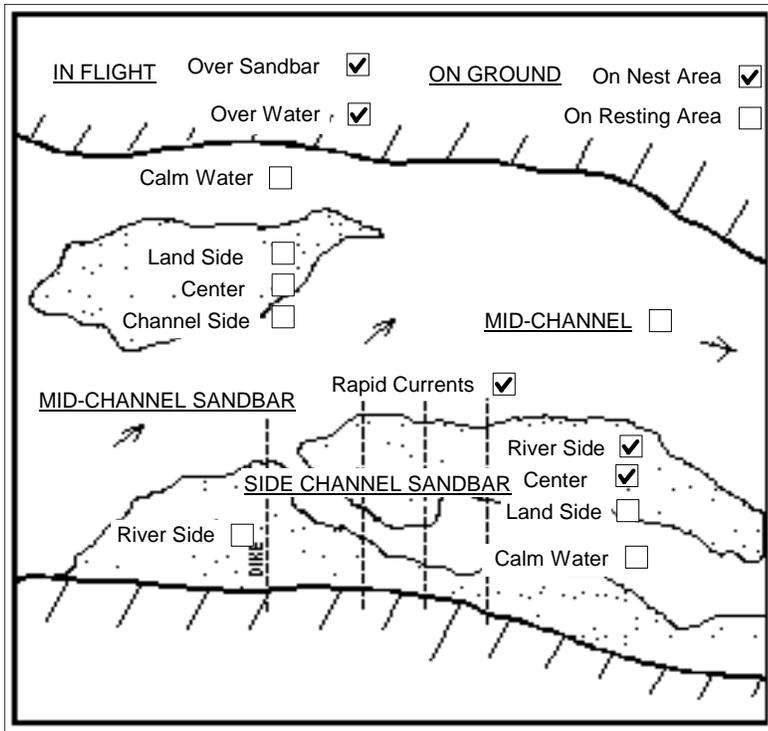
Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:
Adults: 72
Juveniles: _____
Eggs: 1(3)
Nests: 1
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 84 °F
Rain: No
Wind: S 3-5 mph
% Cloud: 90



OTHER NOTES:

Right Bank. Small, low (4 ft.), undulating sand bar upper end, with higher sand bar downstream (8 ft.). Eight empty scrapes, but 1 nest with 3 eggs. Old canine tracks

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 13:48 RIVER MILE: 611.0

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

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: 60 Feet

NUMBERS SIGHTED:

Adults: 11
Juveniles: _____
Eggs: _____
Nests: 1
Chicks: No

SUBSTRATE:

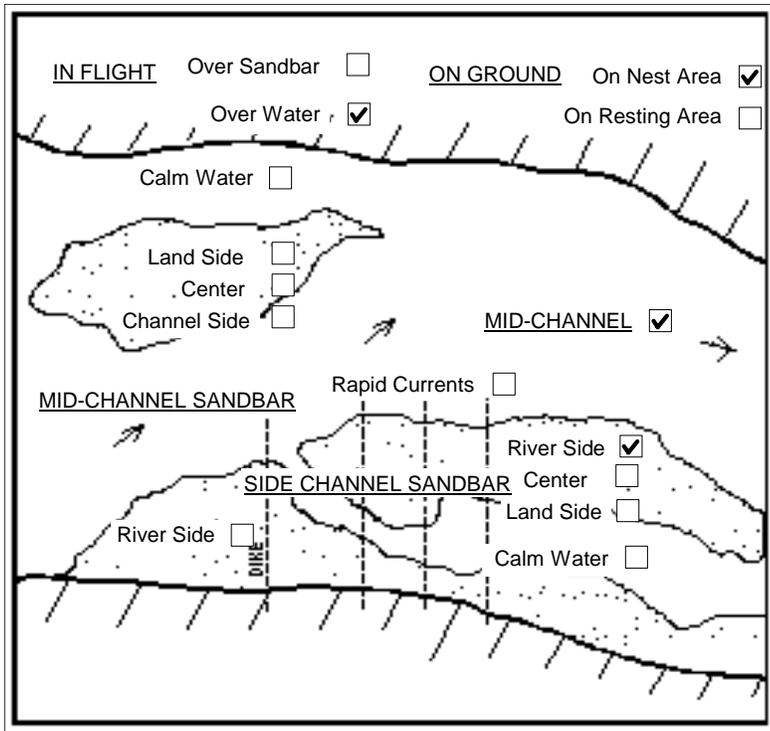
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows
Distance: 500 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: S 3-5 mph
% Cloud: 90



OTHER NOTES:

Right Bank. Small sand bar below last dike, attached (6 ft. elevation). No tracks or disturbance.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 14:04 RIVER MILE: 608.0

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

WHERE SITED: Latitude: 34.0233
Longitude: 90.9667

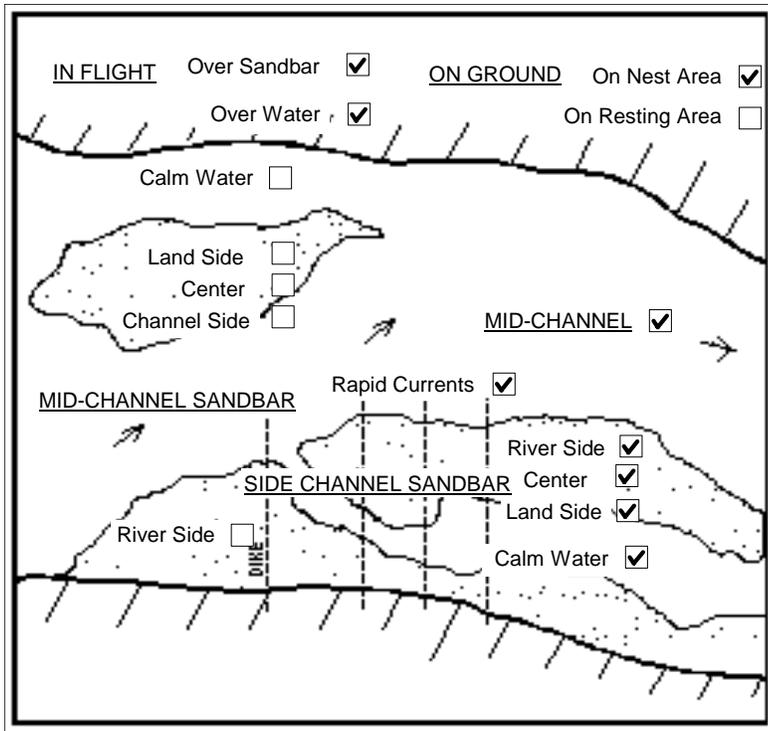
Approximate Distance to Water: 600 Feet

NUMBERS SIGHTED:
Adults: 44
Juveniles: _____
Eggs: _____
Nests: 3
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

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



OTHER NOTES:

Left Bank. Long, high (10 ft.) sand and gravel bar with most birds at waterline, but 3 sitting inland on scrapes. Most likely attached with ATV and canine tracks. Fifteen Miss. Kites in flight above bar.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 14:31 RIVER MILE: 603.0

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

WHERE SITED: Latitude: 33.9898
Longitude: 91.0500

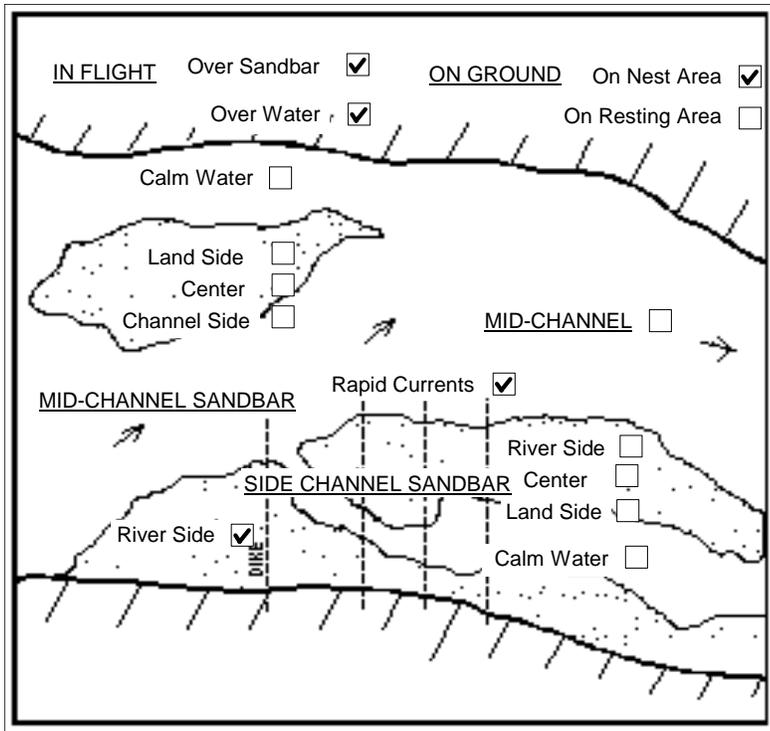
Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:
Adults: 64
Juveniles: _____
Eggs: 1(3)
Nests: 1
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

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



OTHER NOTES:

Right Bank. Small, low, flat, attached river-side sand bar with some debris. ATV and canine tracks.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Helena = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 14:52 RIVER MILE: 599.5

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

WHERE SITED: Latitude: 33.9571
Longitude: 91.0798

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 7
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:

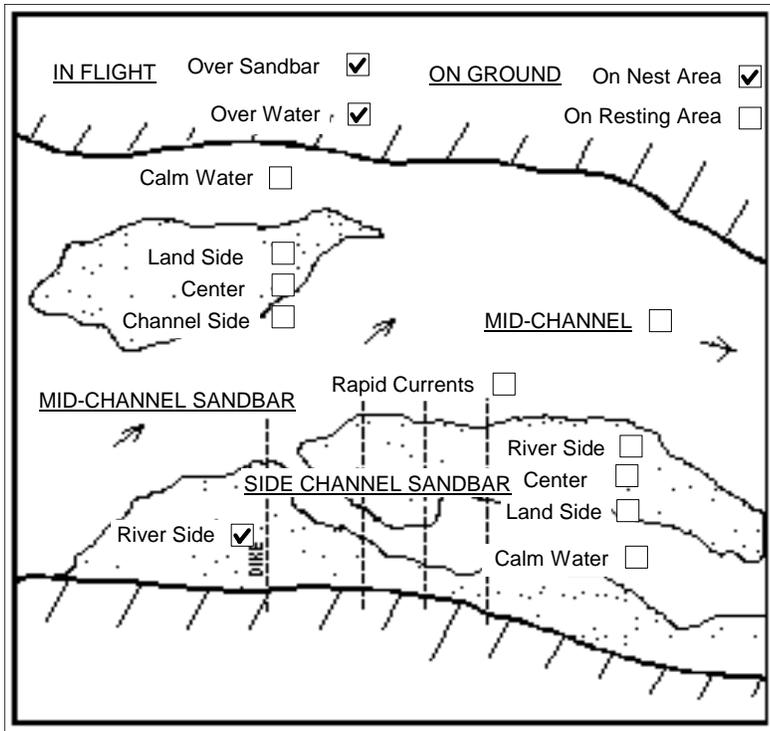
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Left Bank. Large, attached point bar with undulating and dissected mud and sand. ATVs and day campers at waterline.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 15:07 RIVER MILE: 595.0

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

WHERE SITED: Latitude: 33.9295
Longitude: 91.0186

Approximate Distance to Water: 250 Feet

NUMBERS SIGHTED:

Adults: 30
Juveniles: _____
Eggs: _____
Nests: 14
Chicks: Yes

SUBSTRATE:

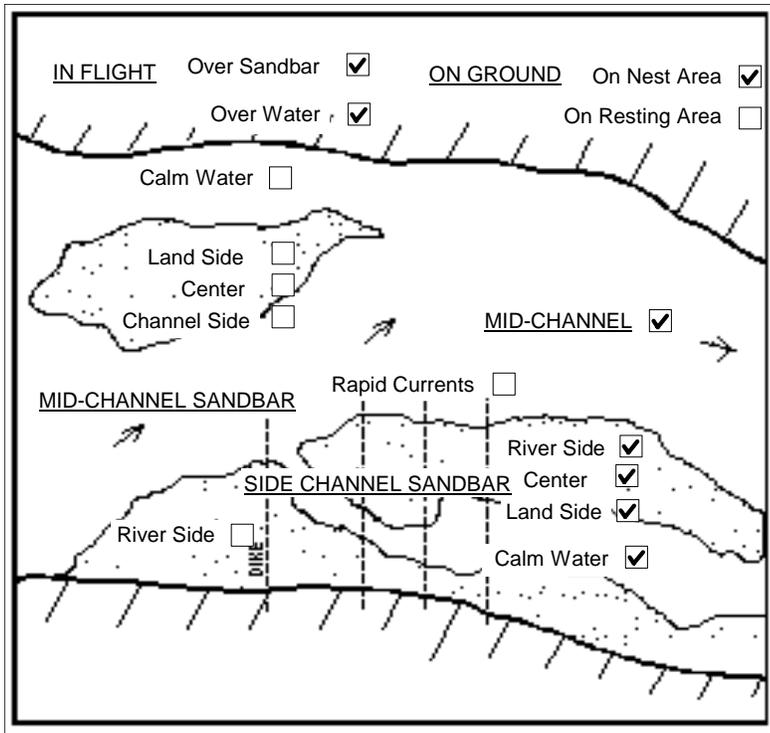
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: S 5 mph
% Cloud: 90



OTHER NOTES:

Right Bank. Large, broad, rounded, attached sand bar with patches of silt and mud (avg. ht. 6 ft. max 10 ft.). One nest with 1 chick only (no eggs) in human footprint for scrape. Two other chicks 1 week of age. Perimeter count = 30, flush count = 29. Day campers, dog and human tracks. One Yellow-legged Sandpiper.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 15:44 RIVER MILE: 589.0

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

WHERE SITED: Latitude: 33.8415
Longitude: 91.0632

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 18
Juveniles: _____
Eggs: _____
Nests: 7
Chicks: No

SUBSTRATE:

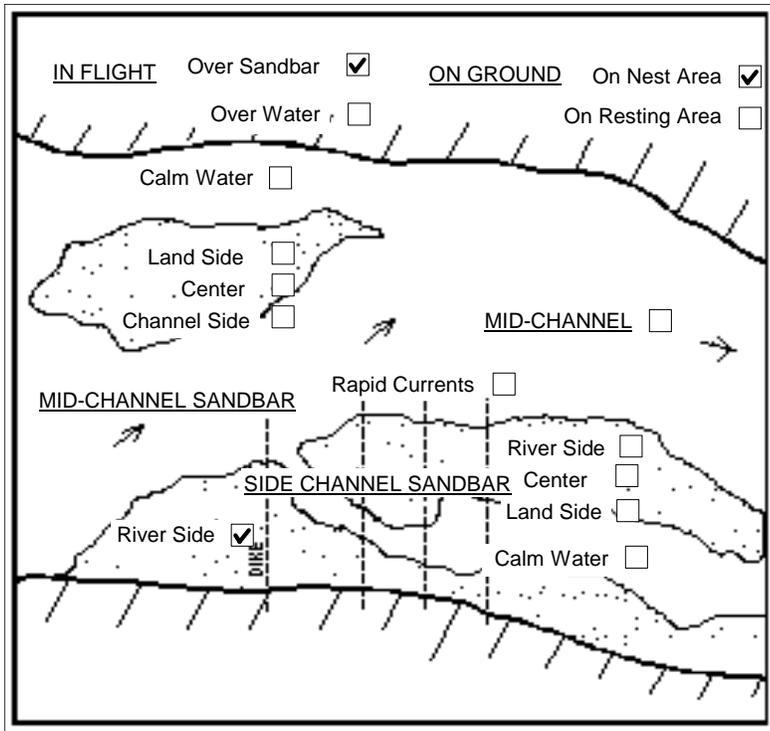
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 83 °F
Rain: No
Wind: S 5 mph
% Cloud: 100



OTHER NOTES:

Left Bank. Long, attached, undulating sand bar with a few Terns setting inland on 7 suspected nests, though not confirmed. People walking across the bar and day campers.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 16:02 RIVER MILE: 583.5

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

WHERE SITED: Latitude: 33.7860
Longitude: 91.0517

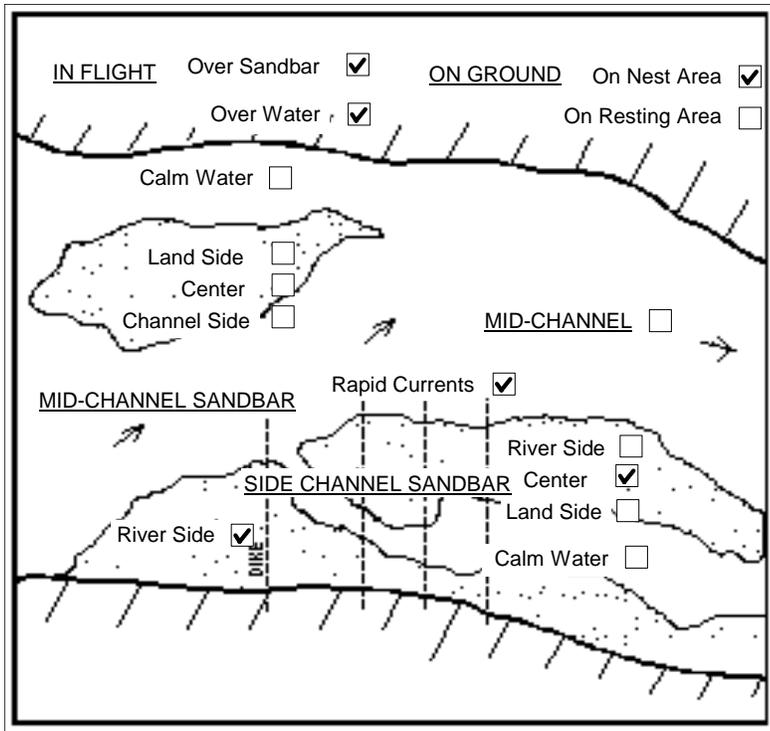
Approximate Distance to Water: 1000 Feet

NUMBERS SIGHTED:
Adults: 113
Juveniles: _____
Eggs: _____
Nests: 18
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Willows
Distance: 800 Feet

FIELD CONDITION:
Temperature: 89 °F
Rain: No
Wind: S 5 mph
% Cloud: 80



OTHER NOTES:

Right Bank. Broad, wide, high (6 ft.), attached, flat-topped, bar of sand and gravel and wrack lines on higher ground. Nests dispersed for 1 mile along wrack line. Due to swift currents and shallow water perimeter count yielded 18 nests with Terns sitting inland. Four separate day camping parties.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 16:24 RIVER MILE: 578.0

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

WHERE SITED: Latitude: 33.7502
Longitude: 91.1336

Approximate Distance to Water: 600 Feet

NUMBERS SIGHTED:

Adults: 28
Juveniles: _____
Eggs: _____
Nests: 7
Chicks: Yes

SUBSTRATE:

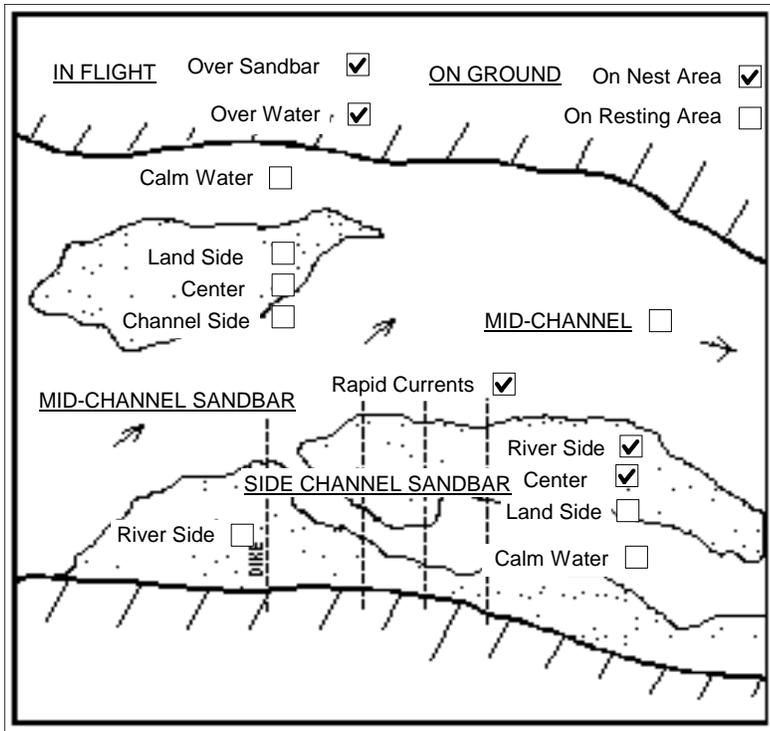
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 89 °F
Rain: No
Wind: S 5 mph
% Cloud: 80



OTHER NOTES:

Left Bank. Long, flat, unattached sand bar with intense recreational activity. Perimeter count yields 28 Terns with 7 nests and 6 chicks 1-2 weeks of age. Over 25 boats and 200 people at waterline lower end. Logging opposite bank.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 16:40 RIVER MILE: 573.5

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

WHERE SITED: Latitude: 33.7087
Longitude: 91.1706

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 67
Juveniles: _____
Eggs: _____
Nests: 9
Chicks: No

SUBSTRATE:

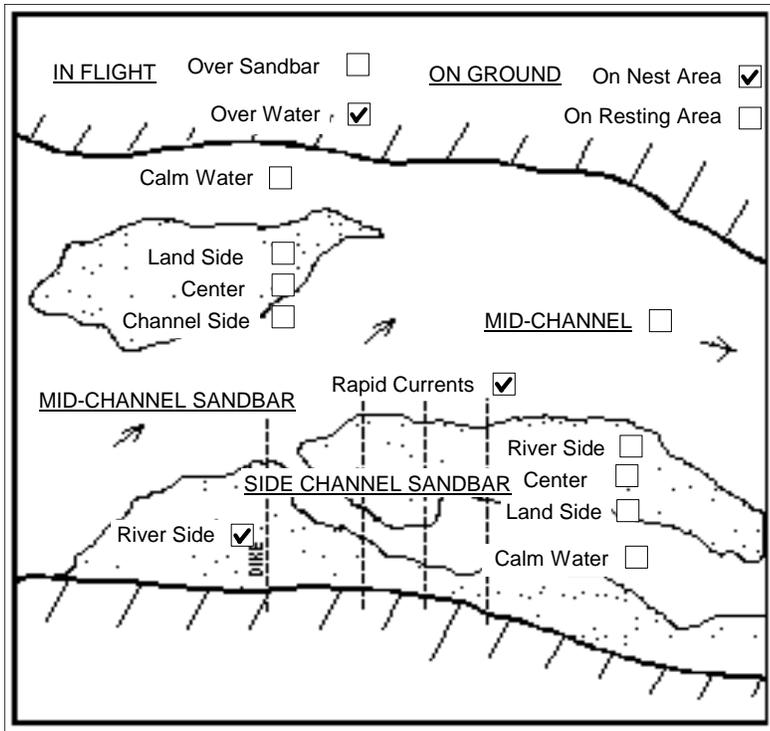
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Right Bank. Attached, medium size point bar with terns fishing in back chute Perimeter count yields 9 on possible nests. ATV and dog tracks within colony.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 17:06 RIVER MILE: 568.6

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

WHERE SITED: Latitude: 33.6781
Longitude: 91.2242

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 76
Juveniles: _____
Eggs: _____
Nests: 5
Chicks: No

SUBSTRATE:

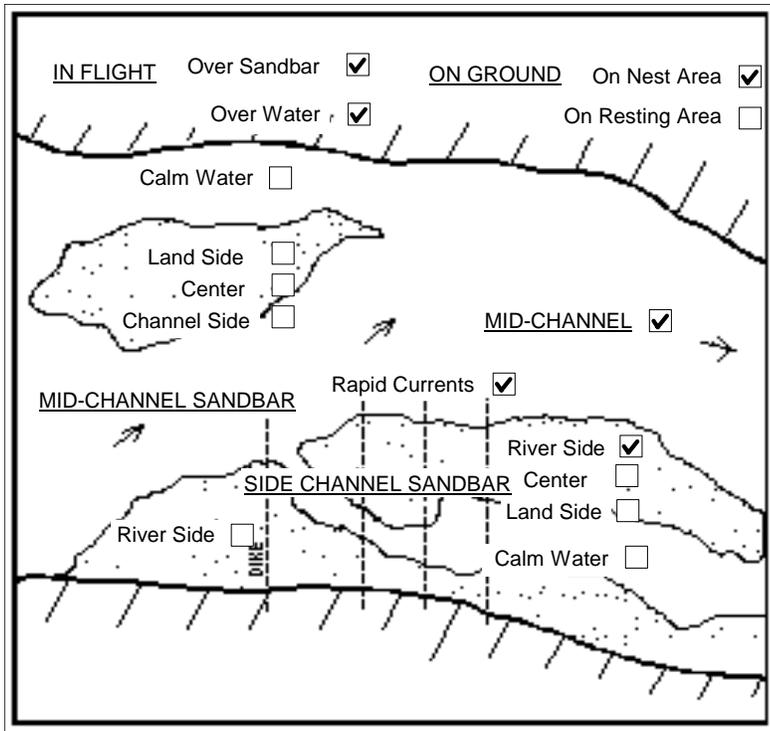
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Left Bank. Wide, attached, sand and gravel bar (10 ft. max. ht.). Most Least Terns were counted along waterline, but 5 sitting indicated nests. ATV tracks

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 17:30 RIVER MILE: 560.0

LOCALITY: Desha AR COUNTY/Parish State SITE NAME: Choctaw Bar Island

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 7
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

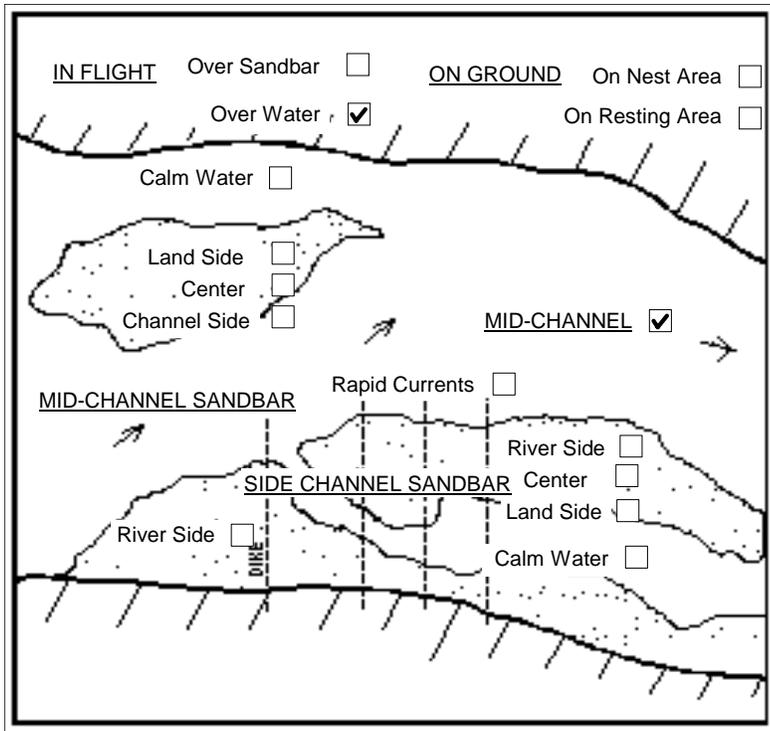
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: Yes
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Attached bar in back chute of Choctaw Bar Island. Did not count site due to poor visibility from rain. Seven terns counted flying mid-channel.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 17:47 RIVER MILE: 554.0

LOCALITY: Bolivar MS COUNTY/Parish State SITE NAME: Huntington Point

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 30
Juveniles: _____
Eggs: _____
Nests: 5
Chicks: No

SUBSTRATE:

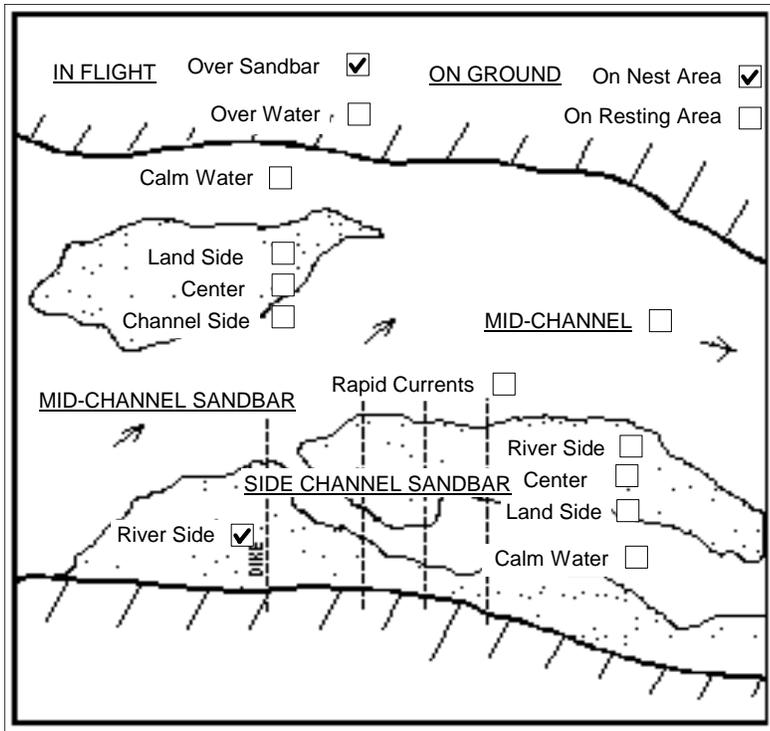
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 83 °F
Rain: Yes
Wind: Calm
% Cloud: 90



OTHER NOTES:

Left Bank. Low (4 ft.), attached, riverside bar of sand, gravel and mud on lower end. Most birds resting waterline with some flying inland. Five sitting on scrapes. ATV tracks and mobbing of Great Blue Heron.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 17:58 RIVER MILE: 550.0

LOCALITY: Washington MS SITE NAME: Ashbrook Cutoff Dikes
County/Parish State

WHERE SITED: Latitude: 33.51860
Longitude: 91.19605

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 92
Juveniles: _____
Eggs: _____
Nests: 20
Chicks: Yes

SUBSTRATE:

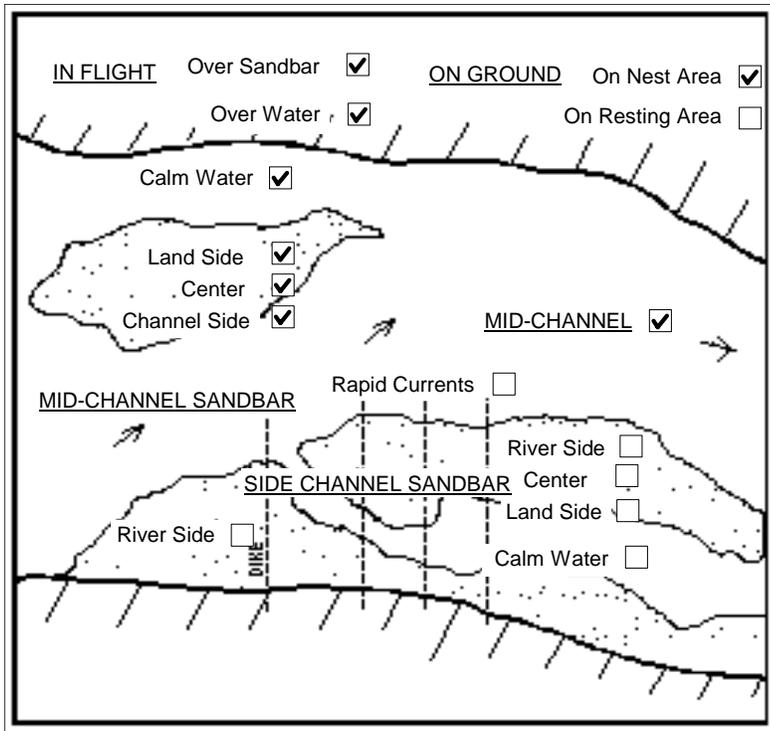
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: Yes
Wind: Calm
% Cloud: 90



OTHER NOTES:

Left Bank. Small, (10 ft. high), isolated, unattached, mid-channel sand bar (1000 ft. long by 100 ft. wide) above dike field. Six chicks < 1 week old. No tracks or disturbance noted.

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Arkansas City = 5.7 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 18:13 RIVER MILE: 544.5

LOCALITY: Chicot AR SITE NAME: Island #82 Miller Bend Dikes
County/Parish State

WHERE SITED: Latitude: 33.45265
Longitude: 91.12111

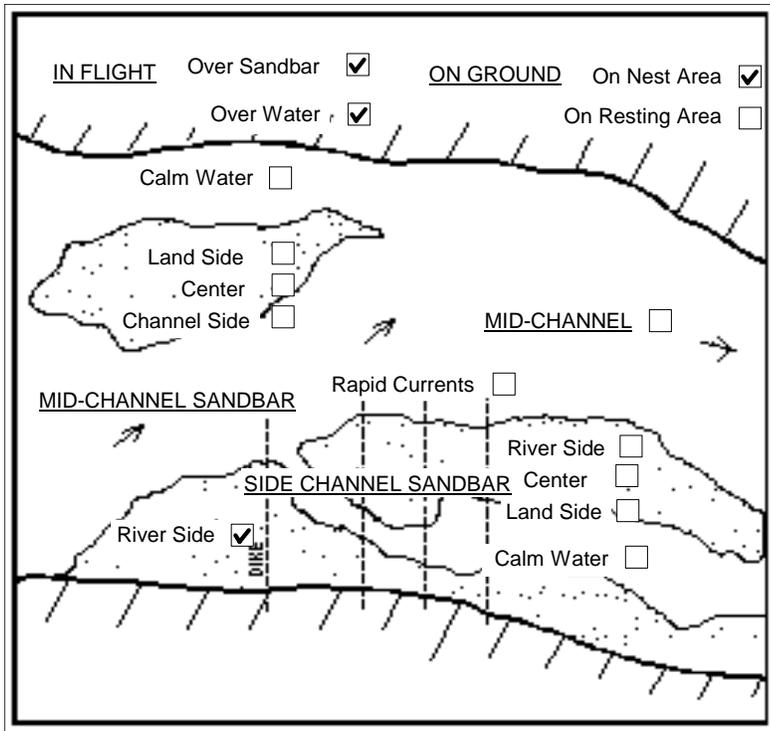
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 23
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 80 °F
Rain: No
Wind: Calm
% Cloud: 90



OTHER NOTES:

Right Bank. Low (5 ft.), attached, mostly gravel-bar, some sand. Eight Terns mobbing Great Blue Heron indicates probable colony though no nests observed. No tracks or other disturbing factors.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Greenville = 15.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 18:18 RIVER MILE: 541.5

LOCALITY: Washington MS SITE NAME: Tarpley Cutoff Dikes
County/Parish State

WHERE SITED: Latitude: 33.42761
Longitude: 91.11880

Approximate Distance to Water: 75 Feet

NUMBERS SIGHTED:

Adults: 103
Juveniles: _____
Eggs: 1(2)
Nests: 1
Chicks: Yes

SUBSTRATE:

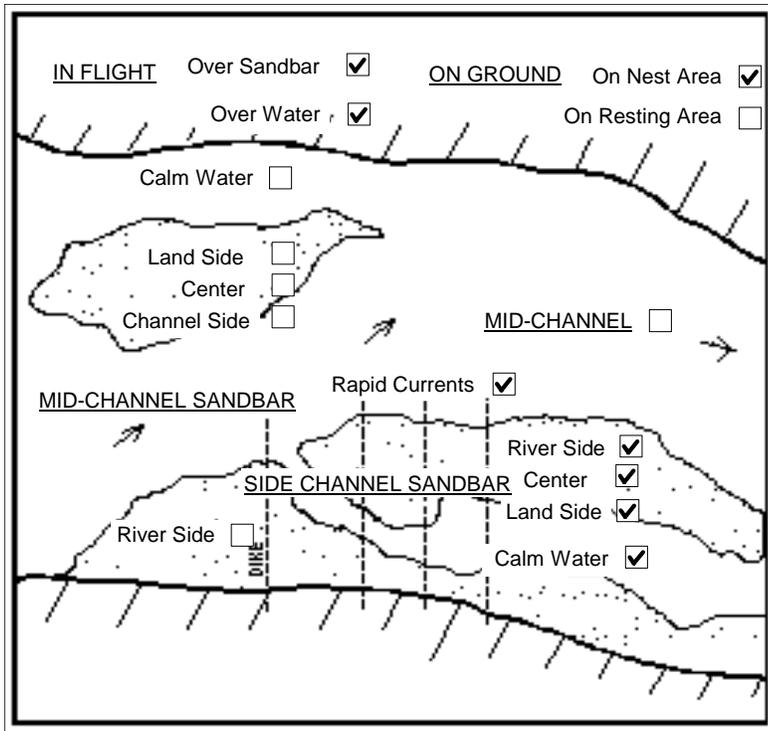
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: No
Wind: Calm
% Cloud: 80



OTHER NOTES:

Right Bank. Medium size (1/2 mile x 500 ft. wide) solid sandbar, unattached, flat, 6-9 ft. elevation. Eleven chicks up to 1 week old. No tracks or disturbance.

AR side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Greenville = 15.9 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/4/2006 TIME OF DAY: 18:50 RIVER MILE: 540.0

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

WHERE SITED: Latitude: 33.40525
Longitude: 91.10829

Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:

Adults: 350
Juveniles: Yes
Eggs: _____
Nests: 0
Chicks: Yes

SUBSTRATE:

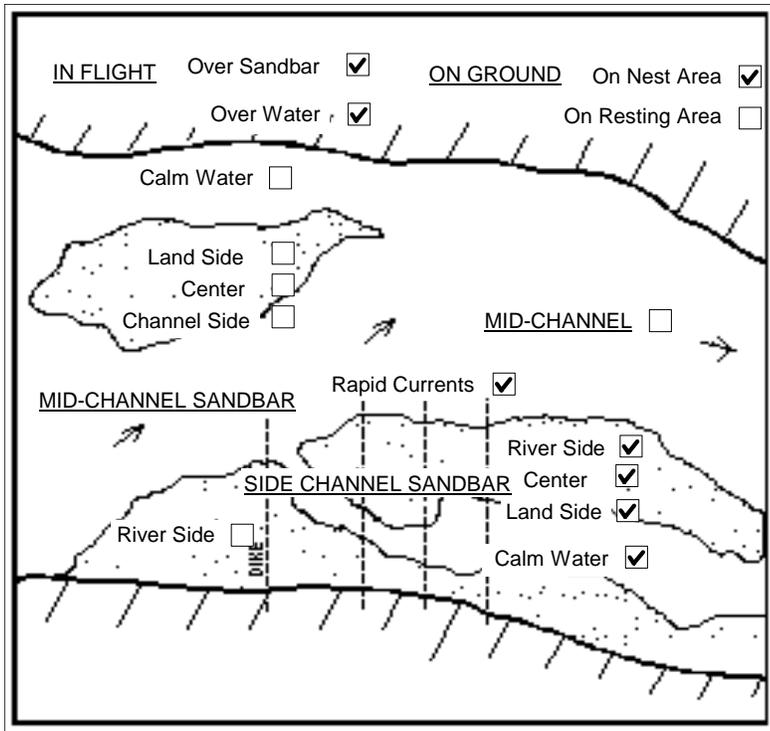
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 83 °F
Rain: No
Wind: Calm
% Cloud: 80



OTHER NOTES:

Left Bank. Medium size, unattached sand bar (8 ft. elevation) 3 miles upstream from entrance to Greenville harbor. Over 150 chicks observed up to 1 1/2 weeks of age. One abandoned egg. Bear tracks (others possibly obscured by recent rain).

MS side

OBSERVERS: Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik

RIVER GAGE READING: Greenville = 15.9 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 8:45 RIVER MILE: 533.0

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

WHERE SITED: Latitude: 33.31610
Longitude: 91.17846

Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:

Adults: 600
Juveniles: _____
Eggs: 1(3) 1(2) 8(1)
Nests: 40
Chicks: Yes

SUBSTRATE:

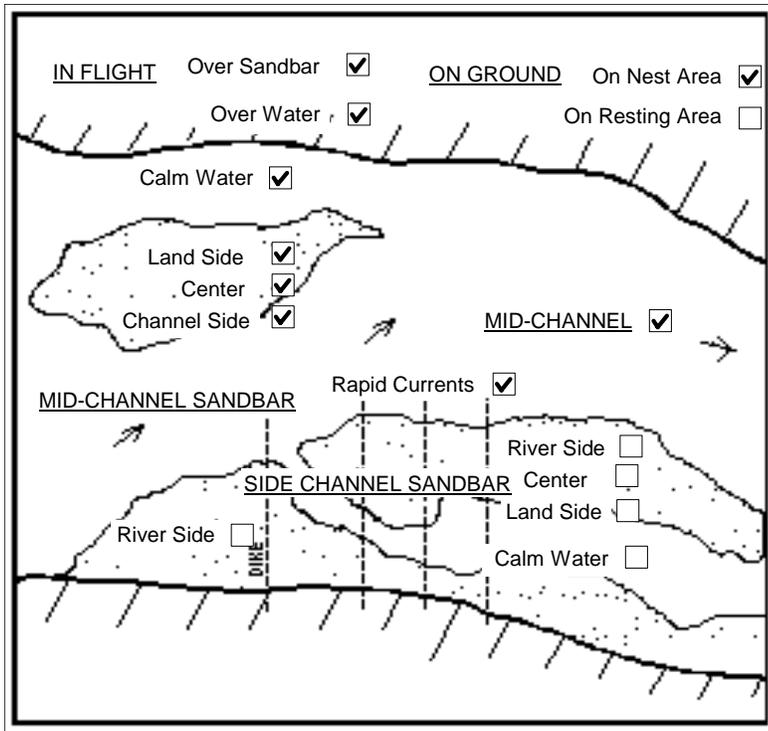
Sand:
Gravel:
Debris:

VEGETATION:

Type: Grass/Forbs
Distance: 50 Feet

FIELD CONDITION:

Temperature: 79 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Left Bank. Large size (1 mile x 800 ft. wide), flat-topped, 15 foot high sand bar with no tracks but recent camping signs. Bar has increased in size (see 2005 data). Perimeter count = 140, flush count = 600. Chicks hatching and up to 2 weeks old. Mobbing intense, 1 Gambusia fingerling. Four sandpipers

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 9:20 RIVER MILE: 532.2

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

WHERE SITED: Latitude: 33.30069
Longitude: 91.16606

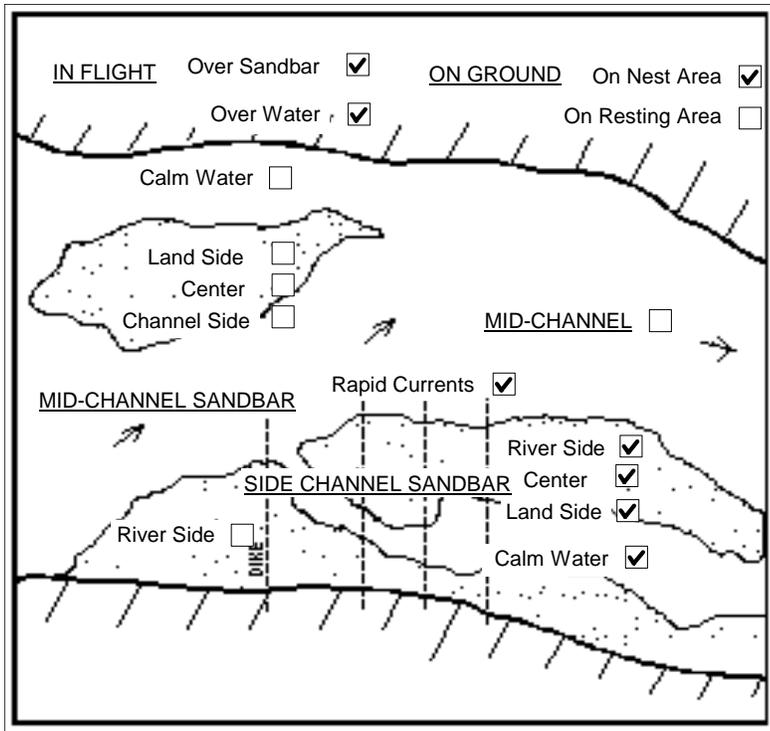
Approximate Distance to Water: 10 Feet

NUMBERS SIGHTED:
Adults: 49
Juveniles: _____
Eggs: 2(1) 1(2)
Nests: 23
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 80 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Left Bank. Medium size (7 ft. elevation), unattached sand bar in same dike field as previous site, but very close to bank. Human tracks and predator scat in colony. Ten - 15 Bank Swallows. Some nests in wet zone will soon be inundated. One Silverside fingerling.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 9:44 RIVER MILE: 528.3

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

WHERE SITED: Latitude: 33.2664
Longitude: 91.1222

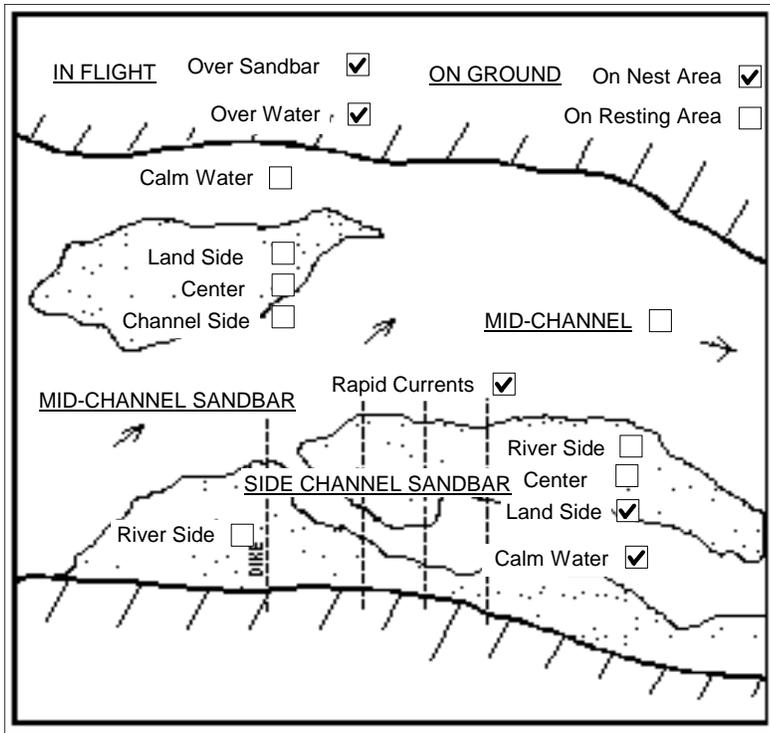
Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:
Adults: 30
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Willows/Grass
Distance: 100 Feet

FIELD CONDITION:
Temperature: 80 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Left Bank. Small, high, clean, unattached sand bar below 1st dike. Approximately 1/4 mile long and wide, with upper end of mud flats. Nests in wrack lines on back side. Nine chicks 1-2 weeks old. Egrets and Great Blues being mobbed.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 10:24 RIVER MILE: 523.0

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

WHERE SITED: Latitude: 33.1814
Longitude: 91.0904

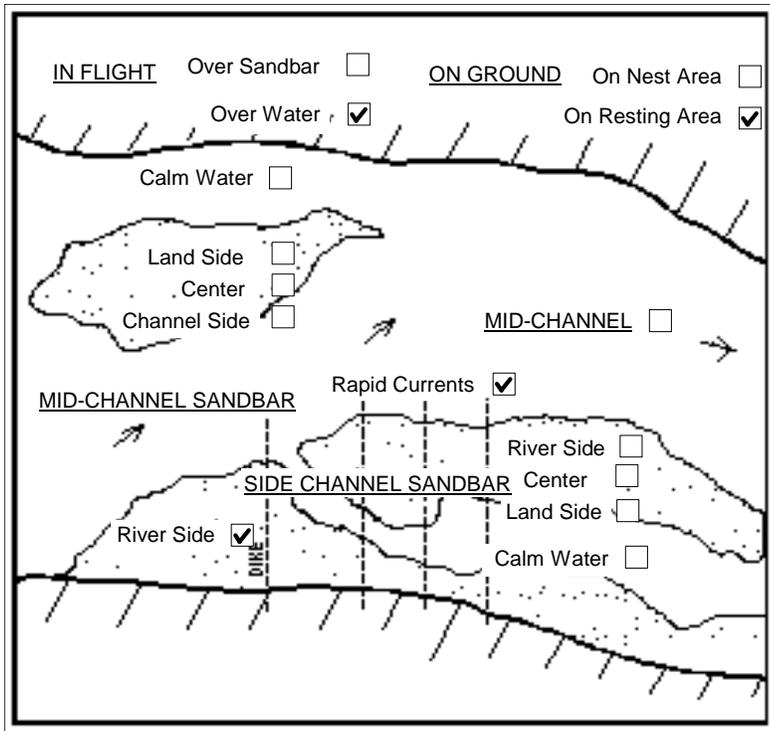
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 18
Juveniles: _____
Eggs: _____
Nests: 0
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. Small, attached sand bar to large wooded island. Eight Terns resting at waterline, the rest flying over swift water end of dikes. One Cormorant, Great Egrets, unknown Buteo.

AR side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 10:35 RIVER MILE: 521.0

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

WHERE SITED: Latitude: 33.15335
Longitude: 91.08585

Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:

Adults: 16
Juveniles: _____
Eggs: _____
Nests: 4
Chicks: No

SUBSTRATE:

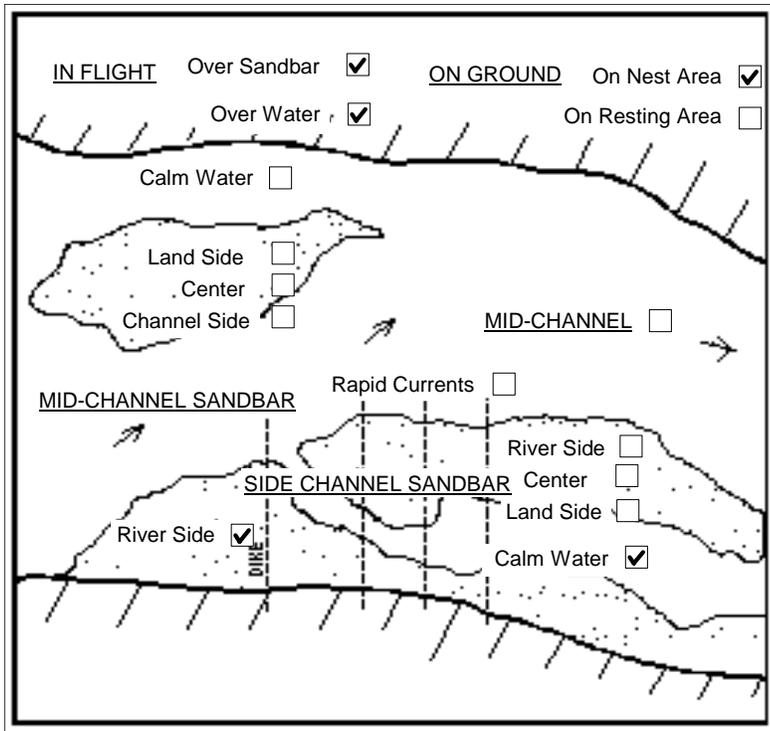
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Right Bank. Small, low, flat, sand bar (5 ft. elevation) attached to larger wooded island just upstream. All but 4 Terns resting at waterline, these are sitting inland, presumably on scrapes. No tracks.

AR side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 10:45 RIVER MILE: 519.5

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

WHERE SITED: Latitude: 33.13931
Longitude: 91.09040

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 16
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

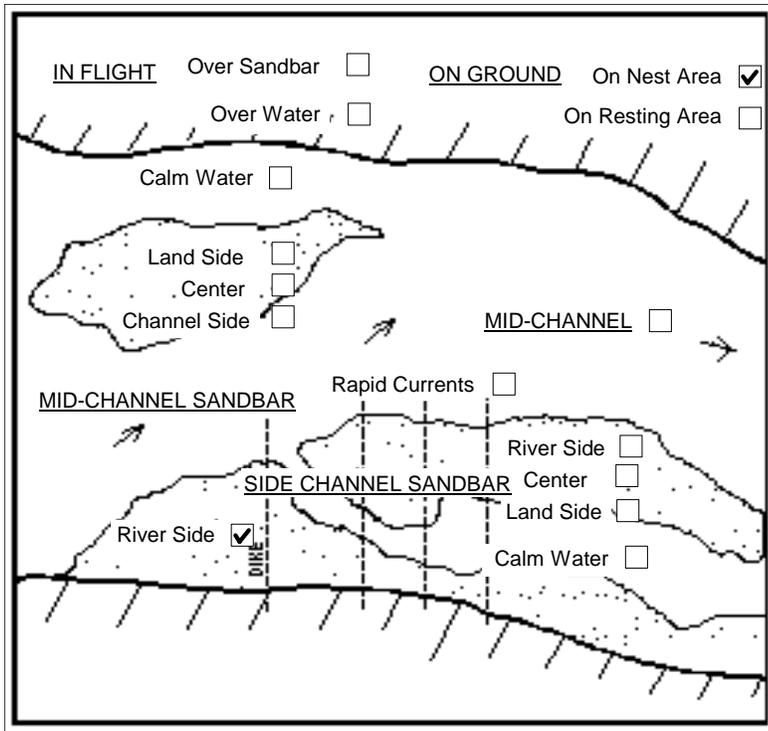
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Right Bank. Small, attached sand bar attached to same wooded island as previous colony. Four fresh scrapes but no eggs or chicks indicate young colony. ATV tracks and White Ibis.

AR side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 11:00 RIVER MILE: 518.1

LOCALITY: Washington MS COUNTY/PARISH STATE SITE NAME: Kentucky Bend Bar Upper

WHERE SITED: Latitude: 33.1403
Longitude: 91.0899

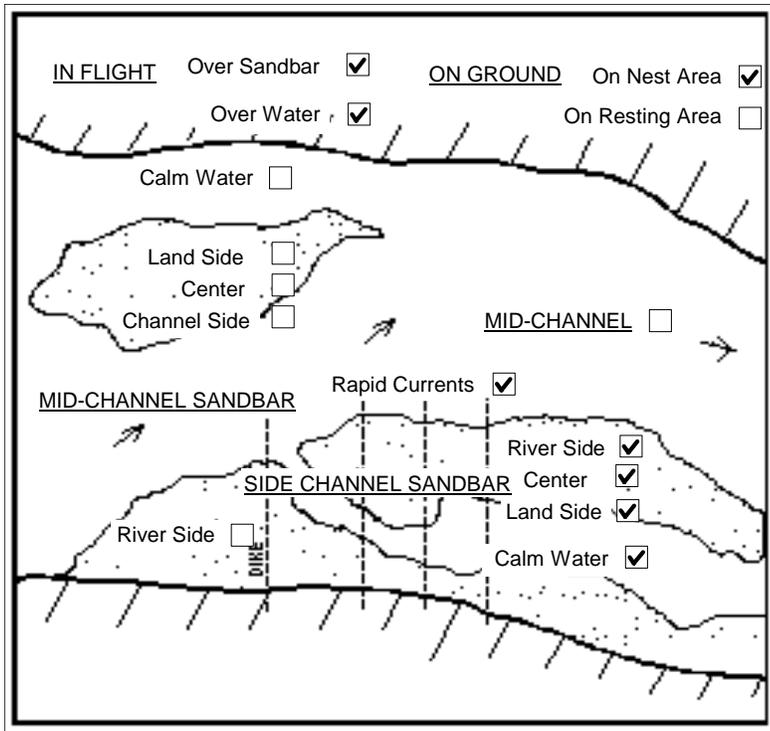
Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:
Adults: 35
Juveniles: _____
Eggs: _____
Nests: 7
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. Unattached, medium size, gently rolling sand bar. Seven sitting inland on scrapes. No tracks or disturbance.

AR side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 11:07 RIVER MILE: 517.5

LOCALITY: Washington MS COUNTY/PARISH: STATE: SITE NAME: Kentucky Bend Bar Lower

WHERE SITED: Latitude: 33.1214 Longitude: 91.1011

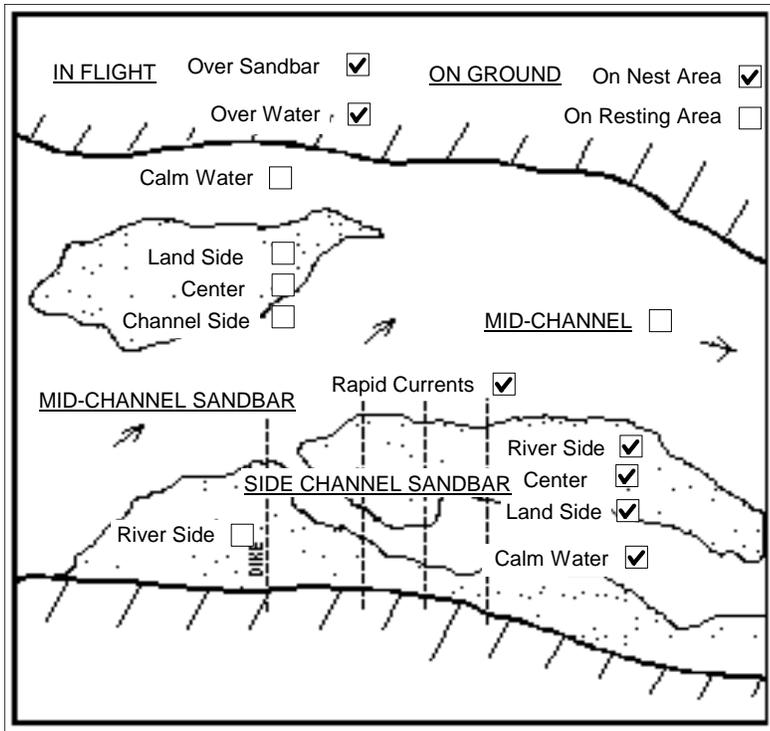
Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:
Adults: 6
Juveniles: _____
Eggs: _____
Nests: 1
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, just 3/4 mile below upper colony between 2nd and 3rd dikes. Only 1 nest observed. No disturbance noted.

AR side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 11:19 RIVER MILE: 514.0

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

WHERE SITED: Latitude: 33.0978
Longitude: 91.1592

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 27
Juveniles: _____
Eggs: _____
Nests: 1
Chicks: No

SUBSTRATE:

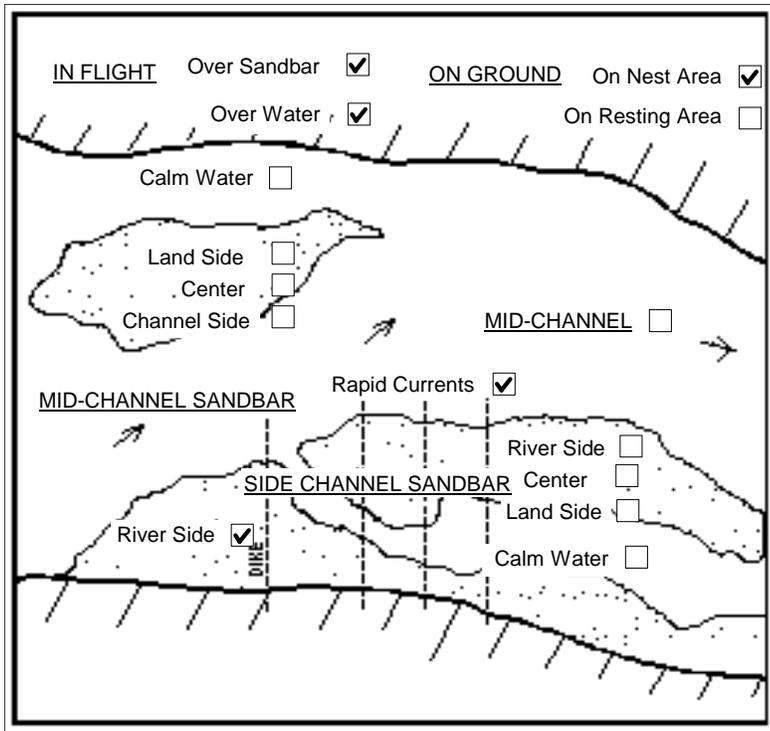
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: Calm
% Cloud: 85



OTHER NOTES:

Left Bank. Long, attached sand bar (12 ft. elevation). Only 1 Tern sitting inland on suspected scrape. All activity on riverside, fishing, courting, carrying fish. Heron being mobbed, but no tracks or predation sign, other than ATV tracks. Mississippi Kites overhead.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 11:35 RIVER MILE: 509.5

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

WHERE SITED: Latitude: 33.03874
Longitude: 91.15846

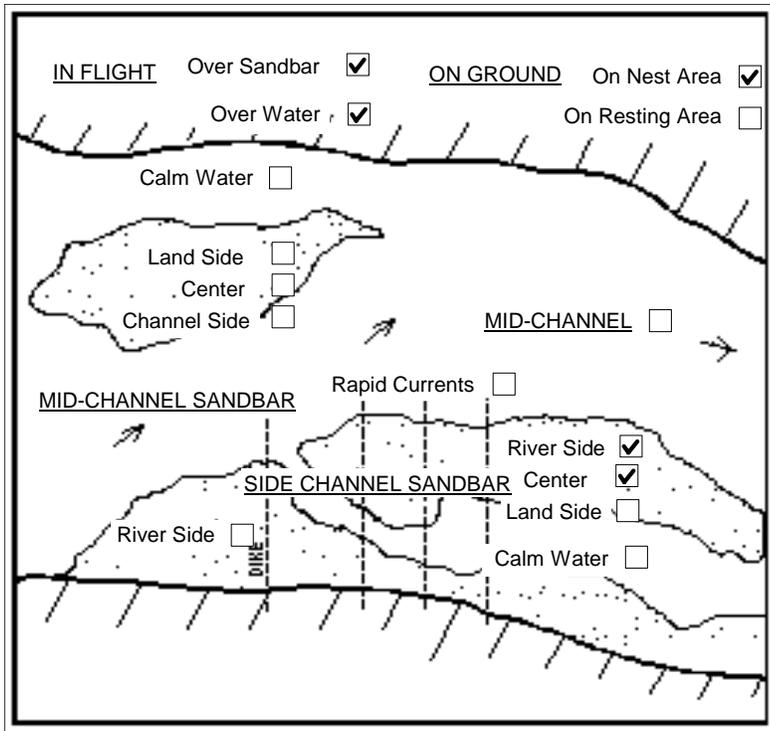
Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:
Adults: 58
Juveniles: _____
Eggs: _____
Nests: 3
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 82 °F
Rain: Yes
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Long, attached sand bar (11 ft. elevation) with patches of mud. Perimeter count indicates 3 scrapes, but mobbing of Anhinga indicates likely colony. No tracks. Ring-necked Duck, Comorant, and Great Blue Herons.

AR side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 12:17 RIVER MILE: 504.0

LOCALITY: Issaquena MS COUNTY/Parish STATE SITE NAME: Corregidor Dikes

WHERE SITED: Latitude: 32.95736
Longitude: 91.14347

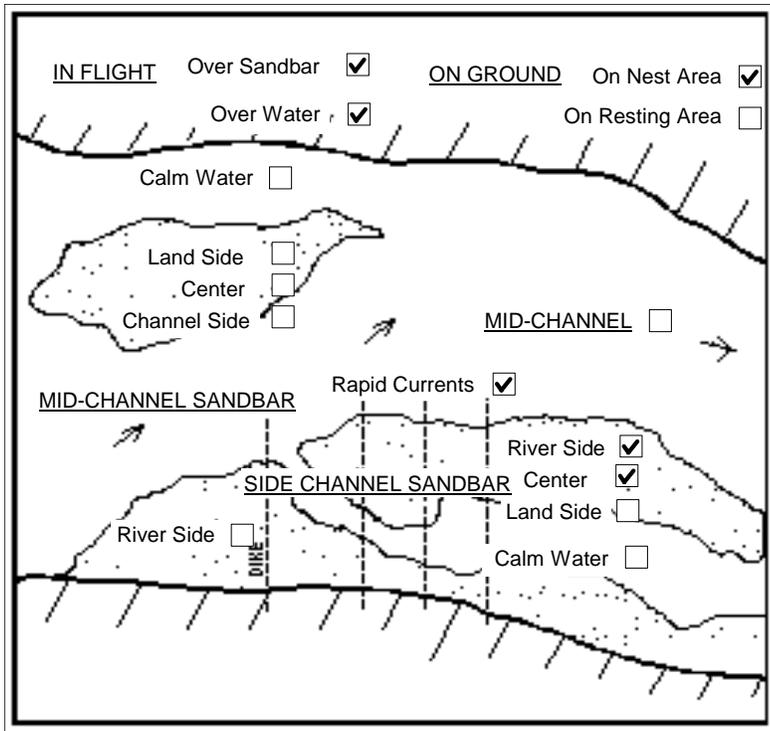
Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:
Adults: 79
Juveniles: _____
Eggs: _____
Nests: 5
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 82 °F
Rain: No
Wind: Calm
% Cloud: 80



OTHER NOTES:

Left Bank. Long (3/4 mile), narrow, attached, (10ft. elevation) crescent shaped sand and mud bar in bend of Sarah Cut-Off. Perimeter count with 5 sitting inland on scrapes, with ATV tracks and Great Egrets.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 13:20 RIVER MILE: 499.5

LOCALITY: East Carroll LA SITE NAME: Wilson Point Dikes
County/Parish State

WHERE SITED: Latitude: 32.9435
Longitude: 91.0833

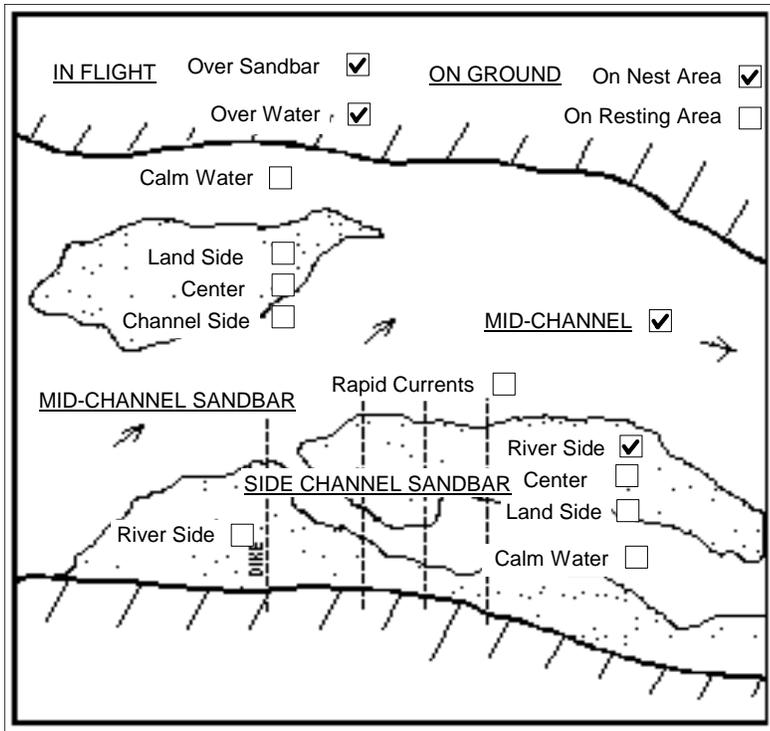
Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:
Adults: 30
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 85 °F
Rain: No
Wind: Calm
% Cloud: 80



OTHER NOTES:

Right Bank. Attached, sand bar above last visible dike. Elevation = 8 ft., Most Terns observed resting at waterline or fishing during perimeter count, but 2 sitting inland on scrapes. Human and Coyote tracks, 3 Great Blue Herons, 1 Egret, 3 Caspian Terns.

LA side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 13:44 RIVER MILE: 491.5

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

WHERE SITED: Latitude: 32.8417
Longitude: 91.1278

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:

Adults: 169
Juveniles: _____
Eggs: _____
Nests: 30
Chicks: No

SUBSTRATE:

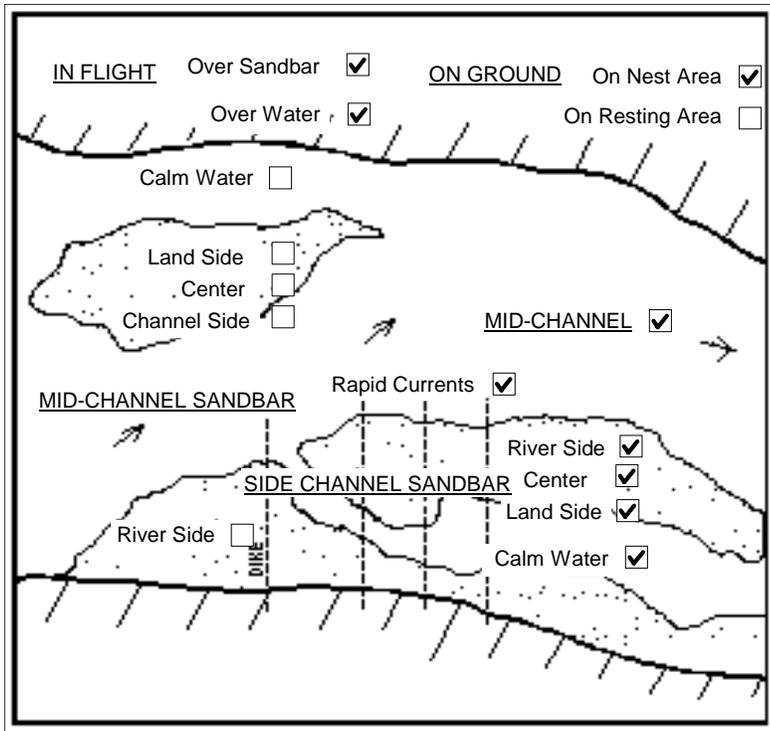
Sand:
Gravel:
Debris:

VEGETATION:

Type: Small Willows
Distance: 150 Feet

FIELD CONDITION:

Temperature: 84 °F
Rain: No
Wind: L & V
% Cloud: 75



OTHER NOTES:

Left Bank. Very long, clean, extended sand bar (8 ft. elevation) with some gravel upstream from Stack Island. Most of colony site is unattached from island because of new cut across bar into back chute with water flowing through breached dikes. Perimeter count indicates 30 nests mainly on high center. Human tracks present.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Greenville = 16.6 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 14:04 RIVER MILE: 487.5

LOCALITY: Issaquena MS COUNTY/Parish STATE SITE NAME: Ben Lommond Dikes

WHERE SITED: Latitude: 32.80114
Longitude: 91.14859

Approximate Distance to Water: 20 Feet

NUMBERS SIGHTED:

Adults: 73
Juveniles: _____
Eggs: _____
Nests: 4
Chicks: No

SUBSTRATE:

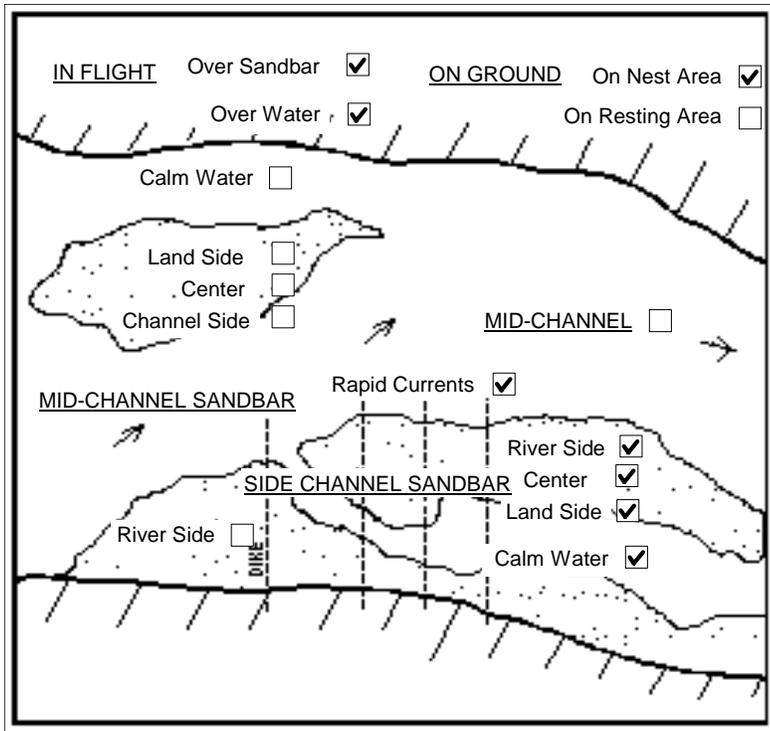
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: L & V
% Cloud: 50



OTHER NOTES:

Left Bank. Low, very small (1/4 acre) and less than 1 ft. elevation sand bar just downstream from historical colony site just above this location. No disturbance, but river rise will flood entire colony. Four Black Terns.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 14:29 RIVER MILE: 484.0

LOCALITY: Issaquena MS COUNTY/Parish STATE SITE NAME: Ajax Bar Dikes Upper

WHERE SITED: Latitude: 32.74734
Longitude: 91.14461

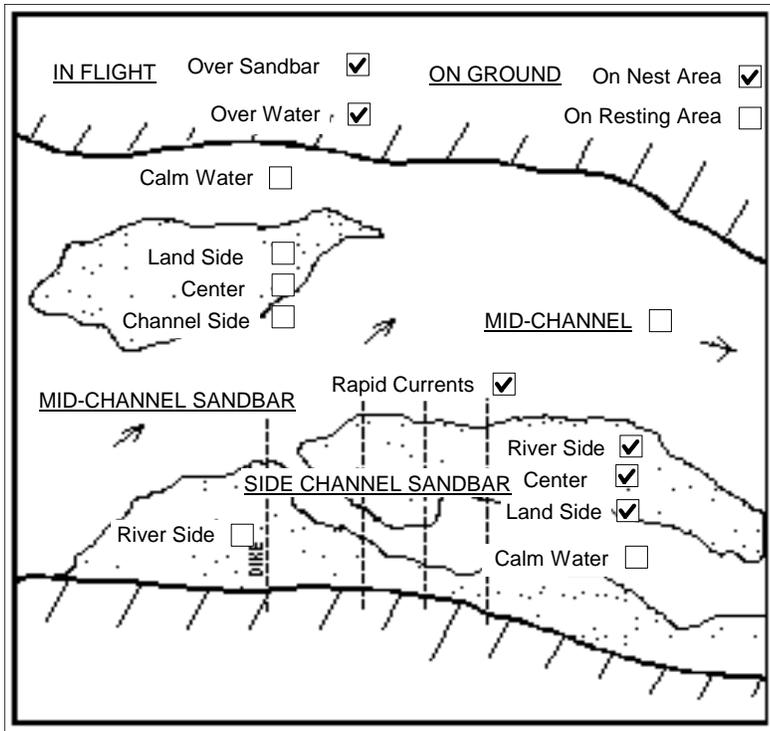
Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:
Adults: 10
Juveniles: _____
Eggs: _____
Nests: 1
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 85 °F
Rain: No
Wind: Calm
% Cloud: 50



OTHER NOTES:

Left Bank. Broad, high, undulating, attached bar of sand and mud. One newly hatched chick observed in scrape, and one chick mortality (cause ?). ATV tracks and 100s of migrating Cliff Swallows.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 14:46 RIVER MILE: 481.6

LOCALITY: Issaquena MS COUNTY/Parish STATE SITE NAME: Ajax Bar Dikes Lower

WHERE SITED: Latitude: 32.7375
Longitude: 91.1192

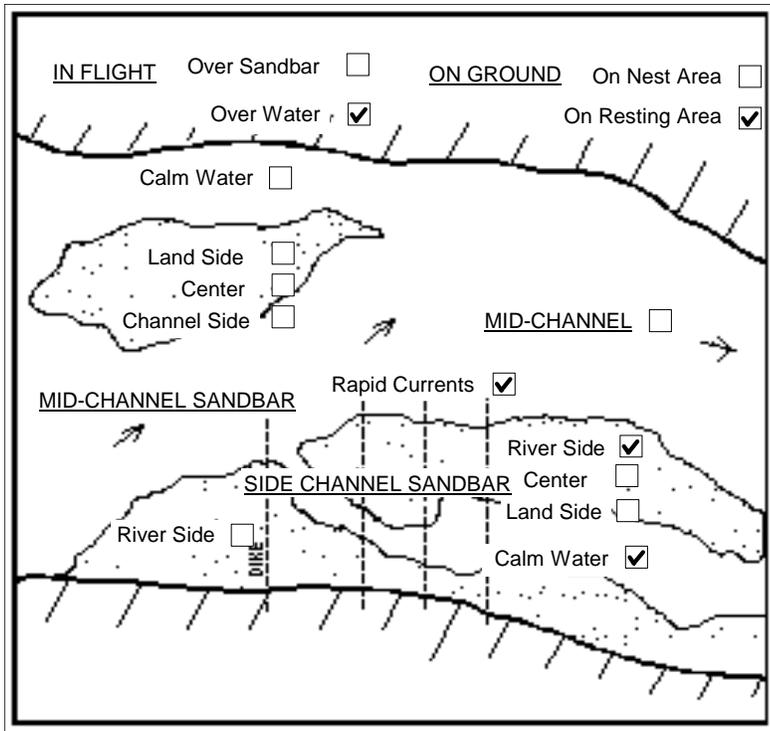
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 25
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 85 °F
Rain: No
Wind: Calm
% Cloud: 70



OTHER NOTES:

Left Bank. Small (1/4 acre), unattached, but barely emergent (1/2 ft. elevation) sand bar with no nests or scrapes. Fishing in back chute. No tracks or disturbance factors.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 15:00 RIVER MILE: 476.6

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

WHERE SITED: Latitude: 32.70994
Longitude: 91.05667

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 152
Juveniles: _____
Eggs: _____
Nests: 16
Chicks: No

SUBSTRATE:

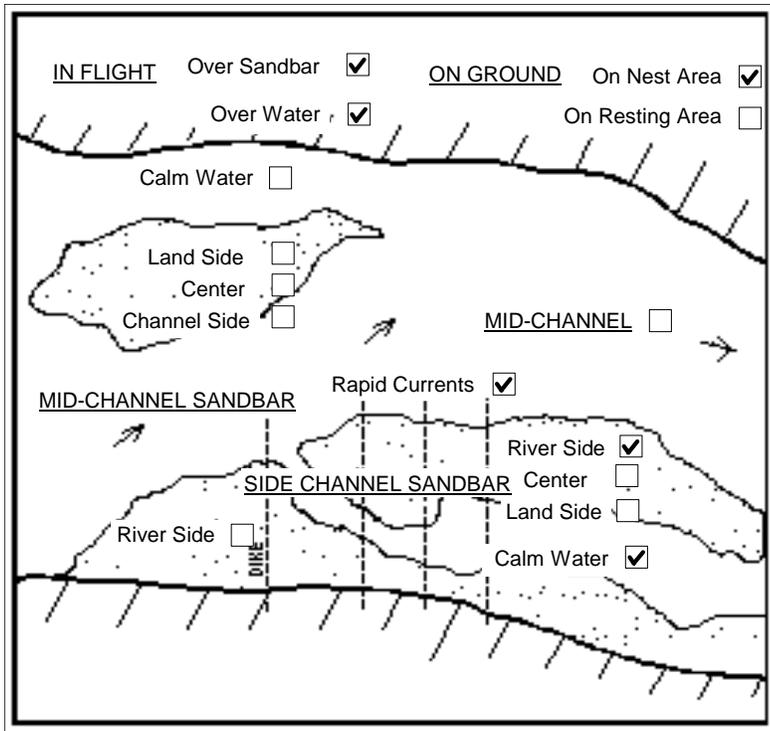
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: Calm
% Cloud: 70



OTHER NOTES:

Right Bank. Large, attached, convoluted sand bar. Perimeter count yields 16 likely nests, mostly along a wrack line varying 200-500 ft from the waterline. ATV tracks found within colony.

LA side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 15:33 RIVER MILE: 468.0

LOCALITY: East Carroll LA SITE NAME: Cottonwood Bar
County/Parish State

WHERE SITED: Latitude: 32.63442
Longitude: 91.15839

Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:

Adults: 16
Juveniles: _____
Eggs: _____
Nests: 1
Chicks: No

SUBSTRATE:

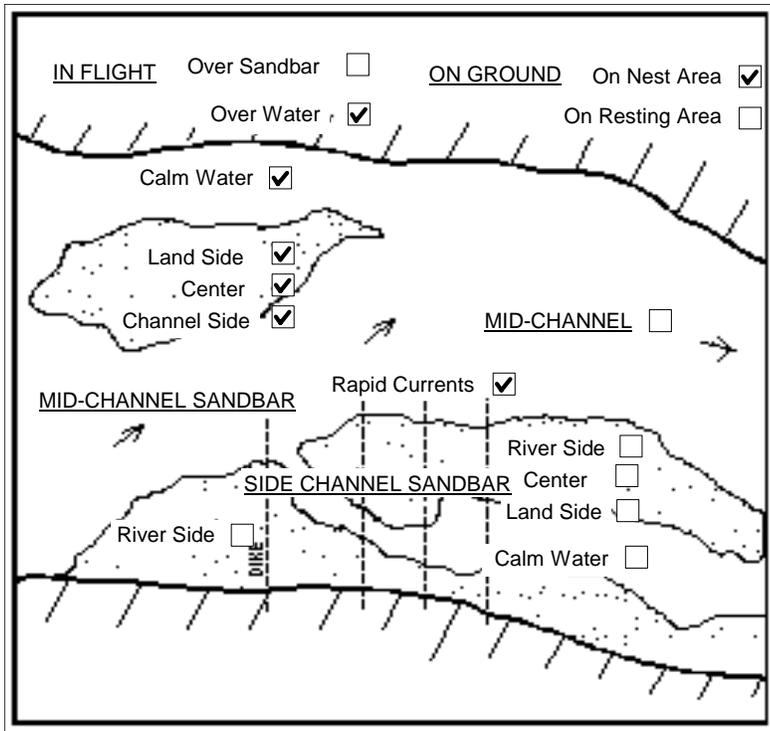
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: Calm
% Cloud: 60



OTHER NOTES:

Right Bank. Mid-channel, unattached, barely emergent (elev. 1/2 ft.) sand bar at downstream end of Cottonwood Bar back chute. Terns mobbing egrets.

LA side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 15:43 RIVER MILE: 467.0

LOCALITY: Issaquena MS SITE NAME: Arcadia Point Dikes
County/Parish State

WHERE SITED: Latitude: 32.6250
Longitude: 91.1375

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 90
Juveniles: _____
Eggs: _____
Nests: 22
Chicks: No

SUBSTRATE:

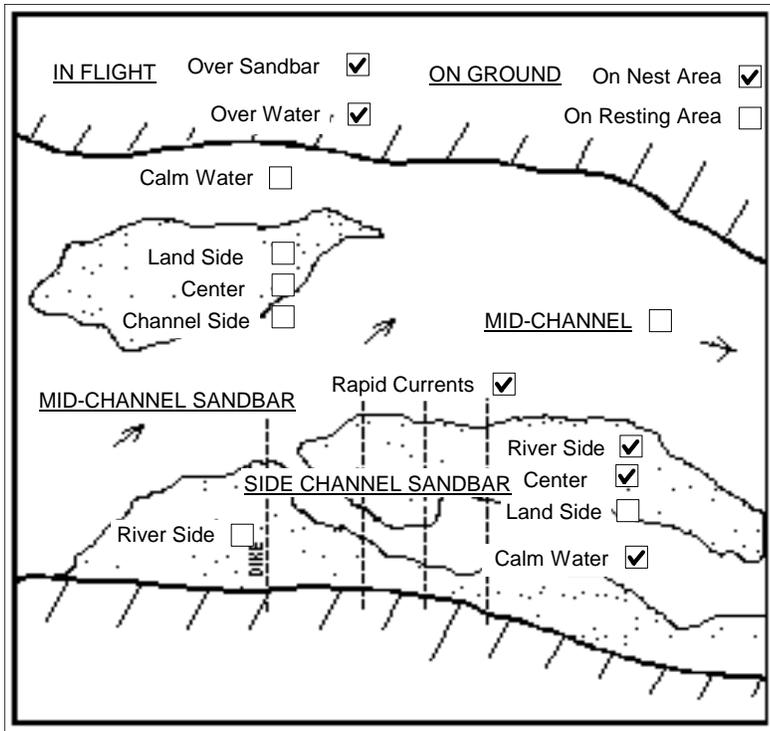
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: Calm
% Cloud: 60



OTHER NOTES:

Left Bank. Large, sand bar attached to downstream end of large wooded island. Colony 1 1/2 mile in length with varying width. Perimeter count yields nests riverside and middle of bar. Terns fishing over 1 mile downstream on dikes, and breasting, fishing riverside. No tracks or disturbance. Twelve Canada Geese.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 16:10 RIVER MILE: 460.4

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

WHERE SITED: Latitude: 32.5361
Longitude: 91.1006

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 37
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:

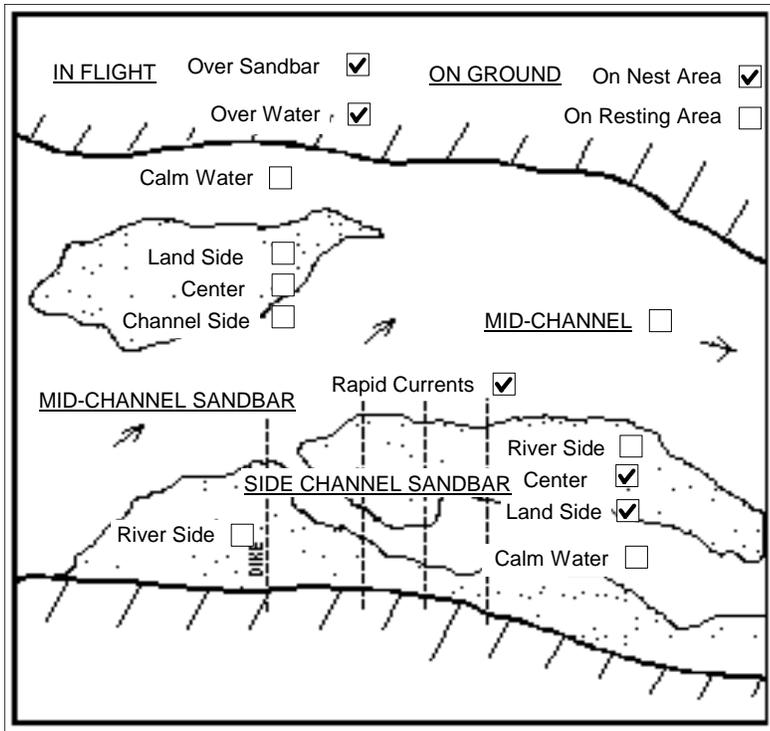
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: Calm
% Cloud: 60



OTHER NOTES:

Right Bank. Large, long, low, flat, sand and gravel bar. Perimeter count yields 2 on nests. No tracks or disturbance.

LA side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 16:25 RIVER MILE: 456.0

LOCALITY: Warren MS SITE NAME: Milliken Bend
County/Parish State

WHERE SITED: Latitude: 32.4742
Longitude: 91.1042

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 68
Juveniles: _____
Eggs: _____
Nests: 32
Chicks: Yes

SUBSTRATE:

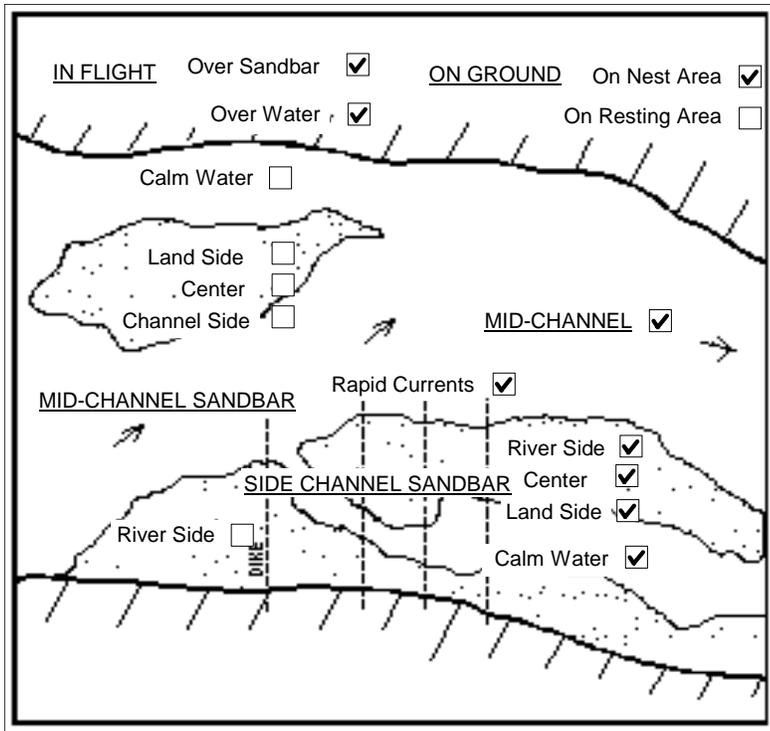
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows
Distance: 500 Feet

FIELD CONDITION:

Temperature: 86 °F
Rain: No
Wind: Calm
% Cloud: 70



OTHER NOTES:

Left Bank. Unattached point bar of gravel, sand and debris with nests along wrack lines. No tracks or disturbance. Two chicks observed 1-2 weeks of age.

MS side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/5/2006 TIME OF DAY: 16:45 RIVER MILE: 446.5

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

WHERE SITED: Latitude: 32.40670
Longitude: 90.99530

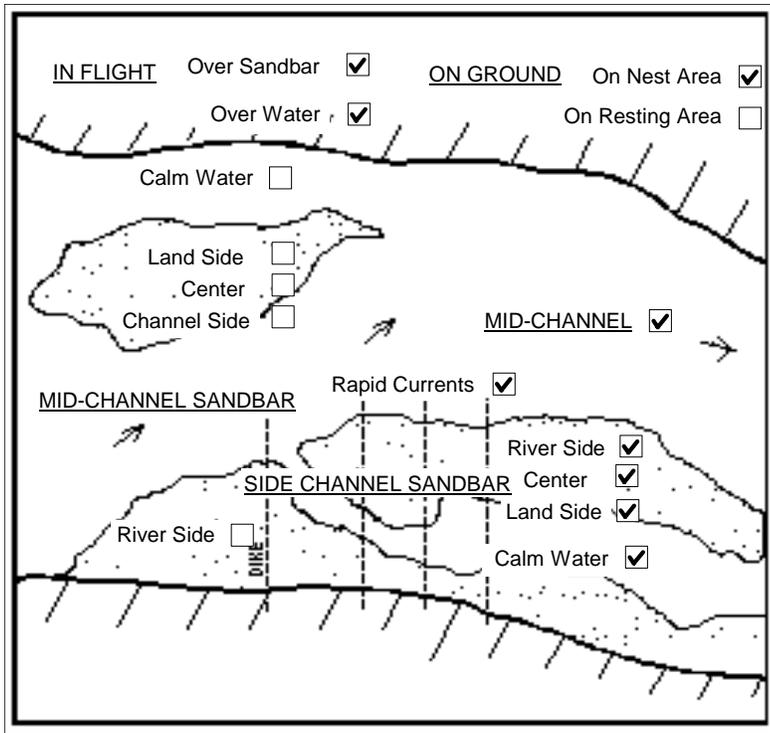
Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:
Adults: 149
Juveniles: _____
Eggs: _____
Nests: 70
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 80 °F
Rain: No
Wind: SW 10 mph
% Cloud: 50



OTHER NOTES:

Right Bank. Unattached, long, low sand bar (3 ft. elevation). Perimeter count yields 141, 70 nests, and 8 terns fishing 3 miles downstream. No tracks, but terns mobbing egrets at waterline. New colony site.

LA side

OBSERVERS: Campen, Carpenter, Fowlkes, Grubaugh, Jones, Rumancik

RIVER GAGE READING: Vicksburg = 8.1 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 10:14 RIVER MILE: 440.0

LOCALITY: Madison LA SITE NAME: False Point Dikes
County/Parish State

WHERE SITED: Latitude: 32.33000
Longitude: 90.94648

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 8
Juveniles: _____
Eggs: _____
Nests: 4
Chicks: No

SUBSTRATE:

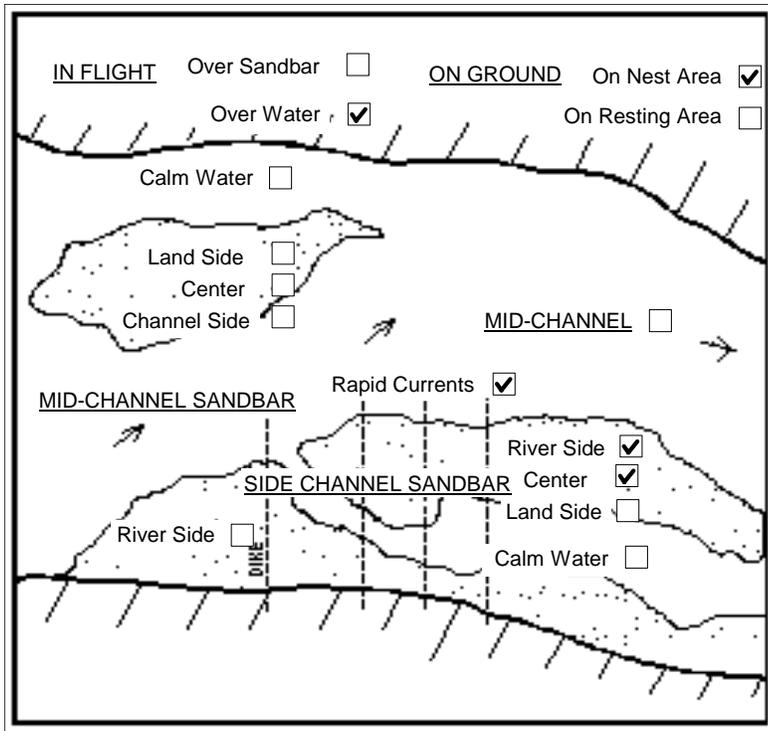
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 79 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Low gravel bar below last dike with 4 on nests, 4 more mobbing egrets at waterline. No tracks visible.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 10:40 RIVER MILE: 432.5

LOCALITY: Madison LA SITE NAME: Racetrack Towhead Dikes
County/Parish State

WHERE SITED: Latitude: 32.28504
Longitude: 90.94882

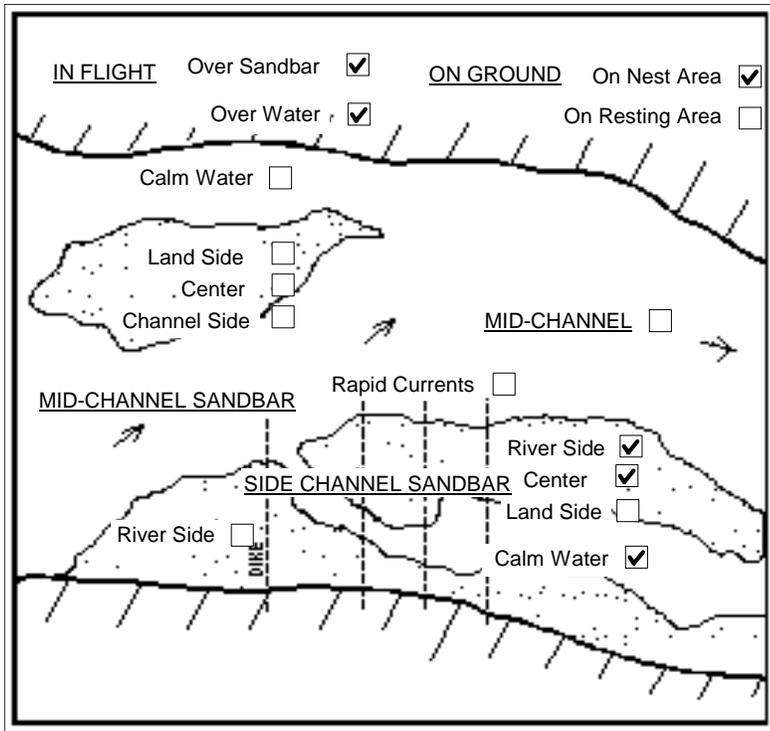
Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:
Adults: 22
Juveniles: _____
Eggs: 3(3) 3(2)
Nests: 6
Chicks: Yes

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Willows/Cottonwoods/gr
Distance: 60 Feet

FIELD CONDITION:
Temperature: 79 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Medium size, partially vegetated sand bar (8 ft. elev.) between 1st and 2nd dikes. Attached with ATV tracks. One chick newly hatched, all other nests with 2-3 eggs. Campers at waterline just downstream.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 10:54 RIVER MILE: 429.5

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

WHERE SITED: Latitude: 32.2389
Longitude: 90.9694

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 24
Juveniles: _____
Eggs: _____
Nests: 8
Chicks: No

SUBSTRATE:

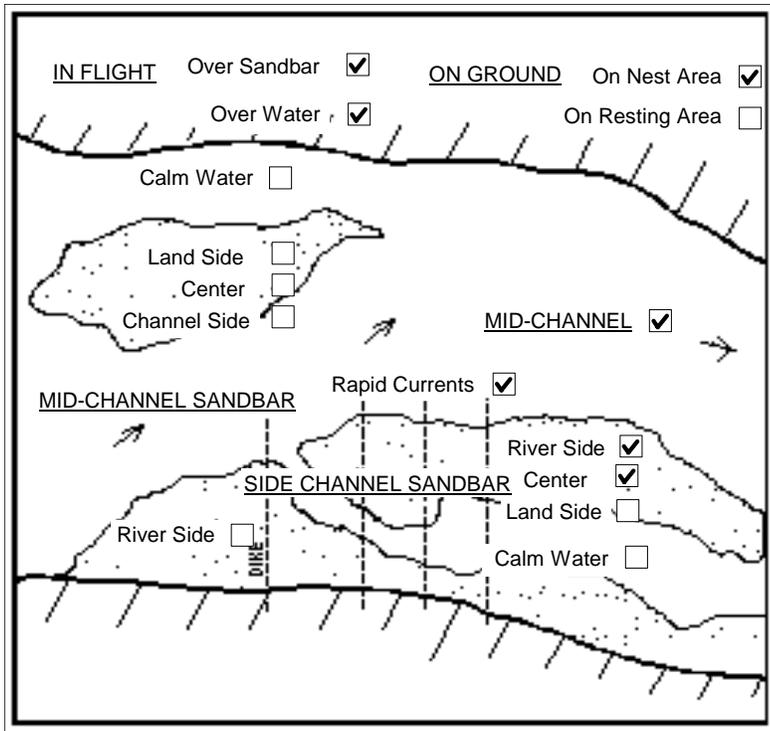
Sand:
Gravel:
Debris:

VEGETATION:

Type: Cottonwoods/grass
Distance: 200 Feet

FIELD CONDITION:

Temperature: 79 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Left Bank. Low series of flat, unattached, incised sand bars (max. elev. 8 ft.). Perimeter count conducted on dispersed colony 3 miles long by 500 ft. wide. Terns observed sitting on 8 nests, carrying fish and fishing river side currents. No tracks or disturbance noted.

MS side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 11:10 RIVER MILE: 425.0

LOCALITY: Warren MS SITE NAME: Oak Bend
County/Parish State

WHERE SITED: Latitude: _____
Longitude: _____

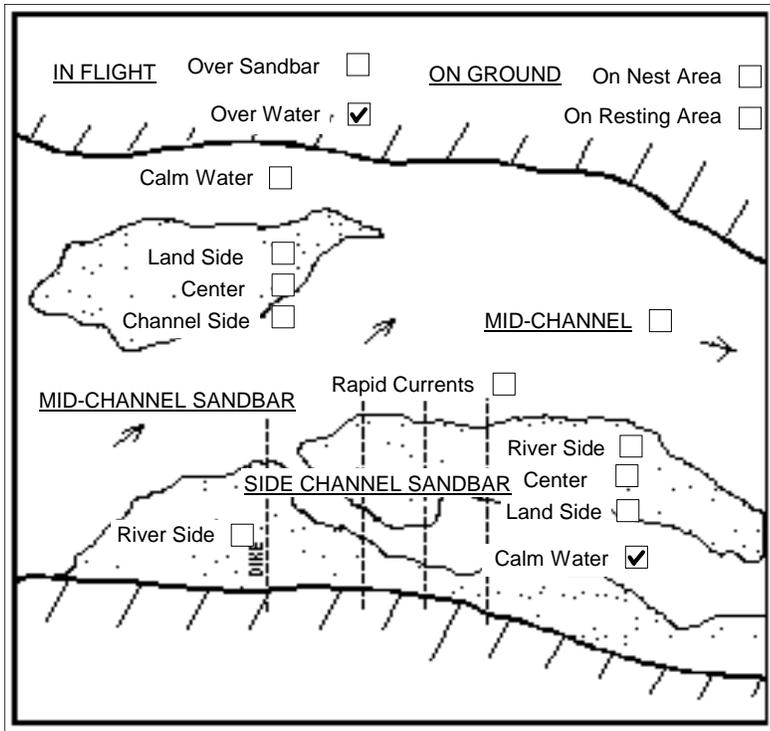
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 12
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 79 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Twelve Terns flying over back chute of Oak Bend.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 11:15 RIVER MILE: 422.5

LOCALITY: Warren MS COUNTY/PARISH STATE SITE NAME: Diamond Point Cutoff Dikes

WHERE SITED: Latitude: 32.1503
Longitude: 91.0085

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 17
Juveniles: _____
Eggs: _____
Nests: 1
Chicks: No

SUBSTRATE:

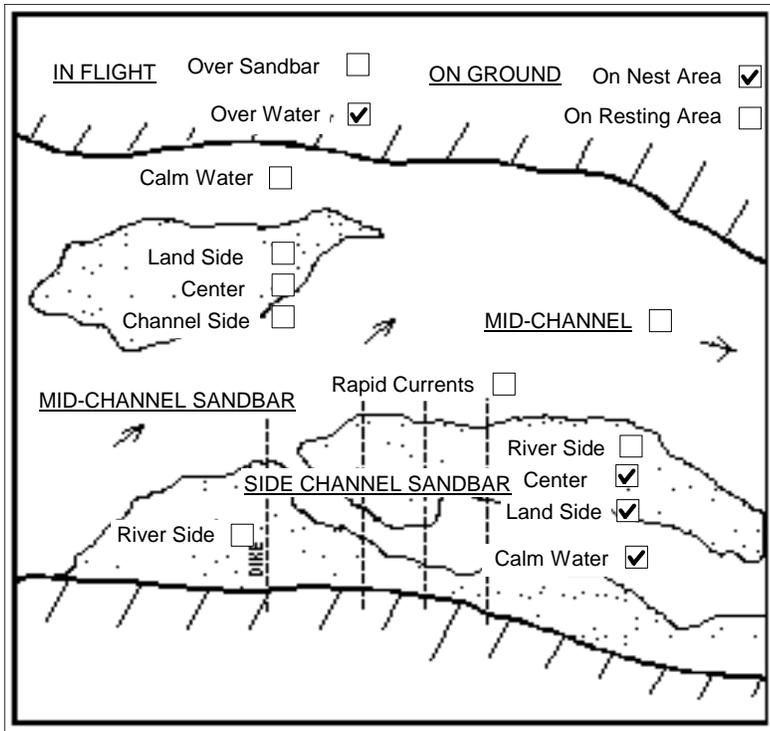
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 79 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Left Bank. Medium-size (3 ft. elevation), unattached sand bar with terns flying on chute side. No tracks or signs of disturbance.

MS side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 11:18 RIVER MILE: 419.0

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

WHERE SITED: Latitude: 32.1367
Longitude: 91.0100

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 11
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

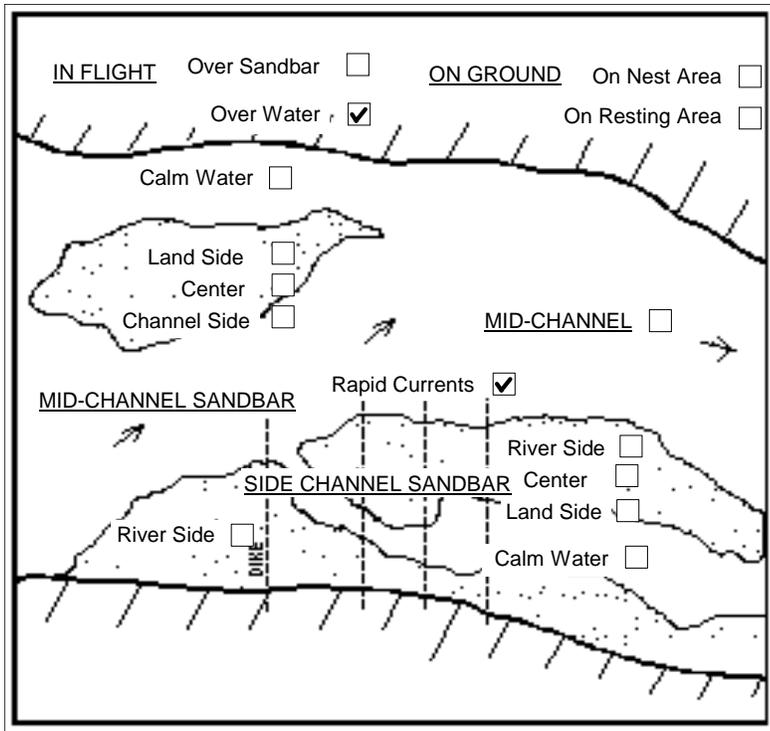
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Right Bank. Medium-sized, attached sand bar (6 ft. elev.). Terns in flight at waterline. Two Black Vultures on opposite bank revetment.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 11:30 RIVER MILE: 414.0

LOCALITY: Tensas LA SITE NAME: Togo Island Dikes
County/Parish State

WHERE SITED: Latitude: 32.1072
Longitude: 91.0997

Approximate Distance to Water: 300 Feet

NUMBERS SIGHTED:

Adults: 90
Juveniles: _____
Eggs: _____
Nests: 39
Chicks: No

SUBSTRATE:

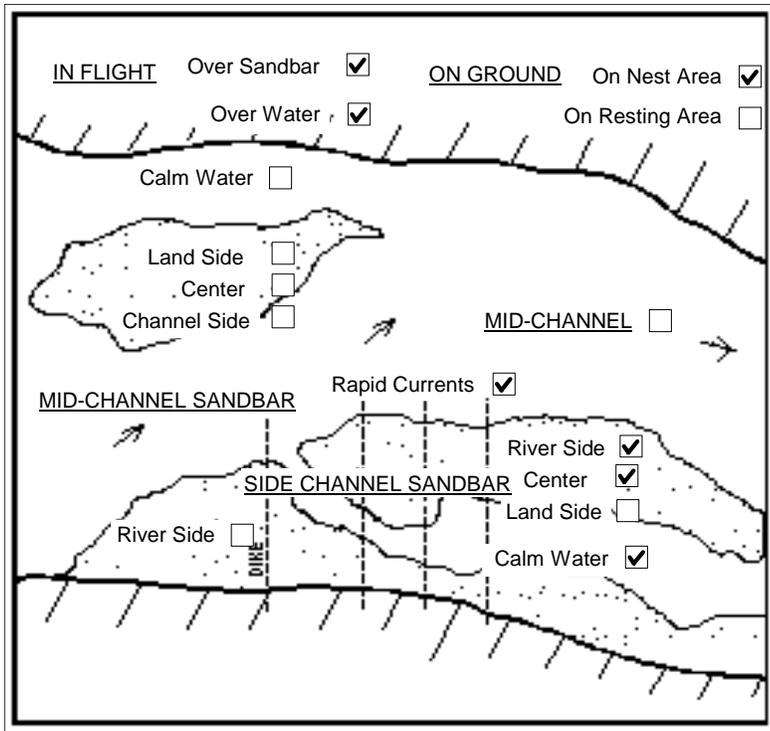
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

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



OTHER NOTES:

Left Bank. Long (2 miles), broad, mostly attached sand and gravel bar (6 ft. elev.) with colony dispersed over entire length. Much activity in back chute, courting and fishing. Perimeter count yields 39 nests. No signs of disturbance.

MS side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 11:42 RIVER MILE: 409.5

LOCALITY: Claiborne MS COUNTY/PARISH STATE SITE NAME: Yucatan Dikes

WHERE SITED: Latitude: 32.0589
Longitude: 91.0628

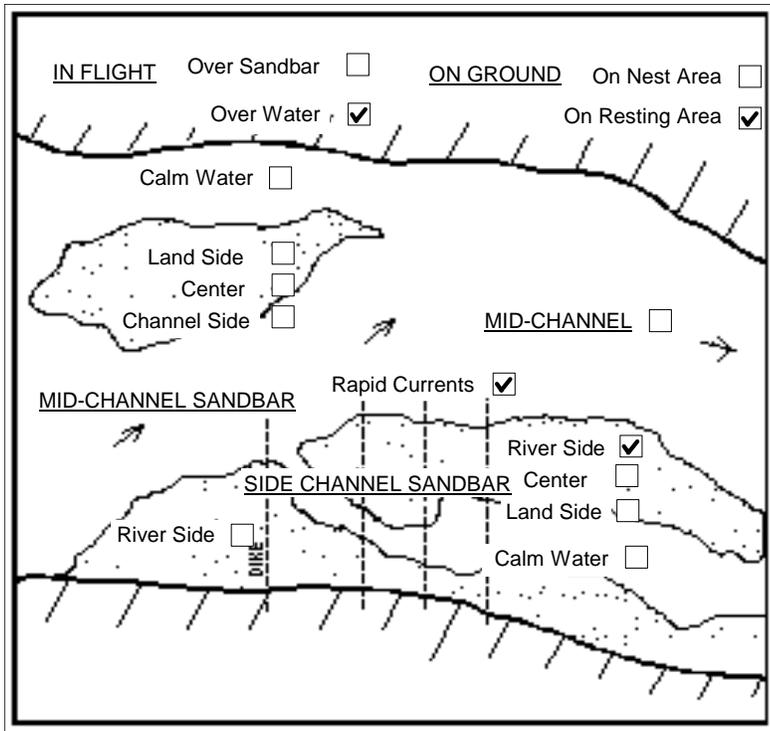
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 10
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: Willows
Distance: 500 Feet

FIELD CONDITION:
Temperature: 80 °F
Rain: Yes
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Upstream attached point of Middle Ground Island. Six flying along waterline, 4 resting.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 12:10 RIVER MILE: 402.0

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

WHERE SITED: Latitude: 31.98511
Longitude: 91.13611

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 90
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:

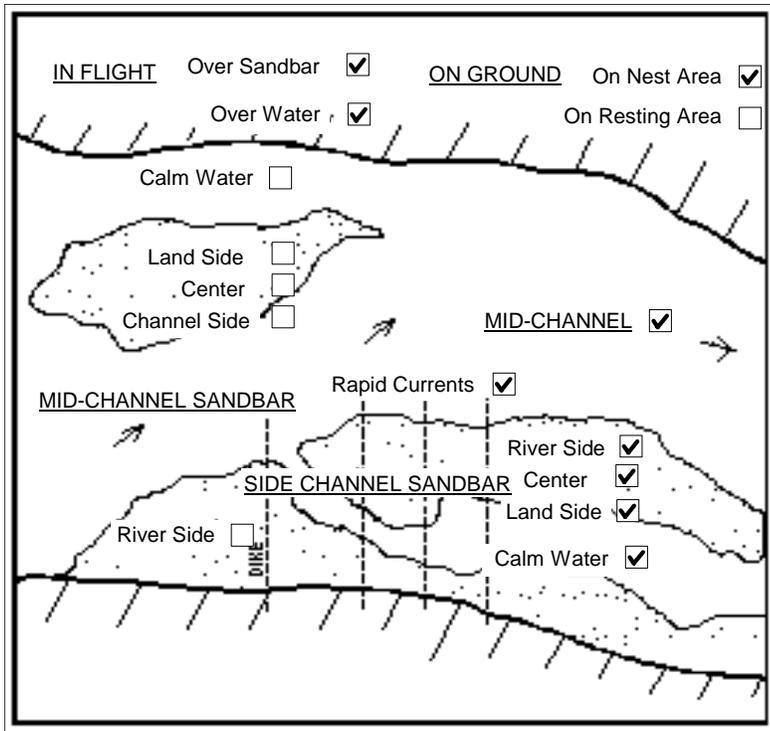
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Series of gravel and sand bars (1-3 ft. elev.) between dikes. Most birds counted resting at waterline, with 2 nesting inland. No tracks or disturbance noted.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 12:38 RIVER MILE: 398.0

LOCALITY: Claiborne MS SITE NAME: Below Grand Gulf Dikes
County/Parish State

WHERE SITED: Latitude: 31.96746
Longitude: 91.18238

Approximate Distance to Water: 500 Feet

NUMBERS SIGHTED:

Adults: 106
Juveniles: _____
Eggs: _____
Nests: 16
Chicks: No

SUBSTRATE:

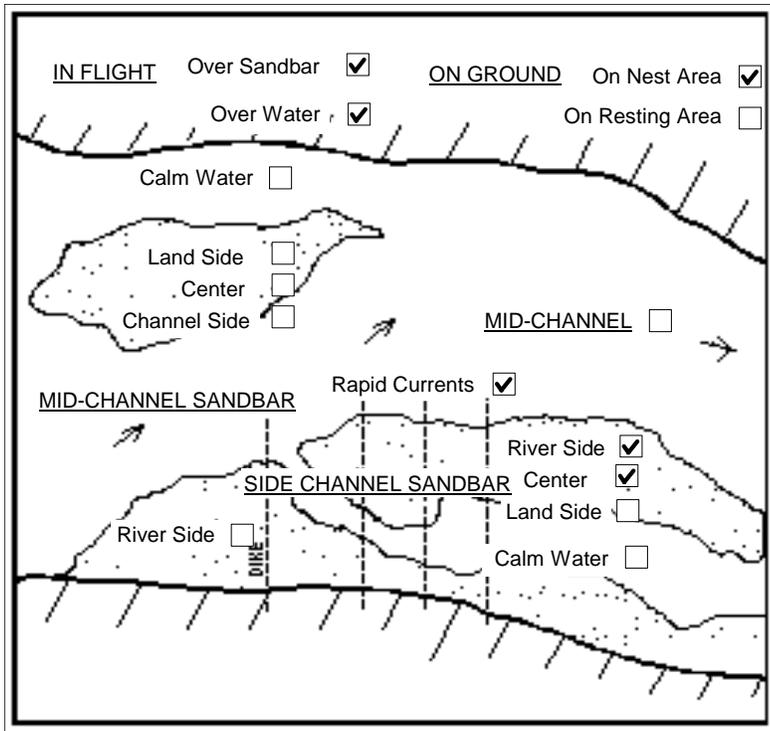
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: No
Wind: Calm
% Cloud: 90



OTHER NOTES:

Left Bank. Medium-size (5 ft. elev.) attached sand bar with most of perimeter count birds at the waterline, but 16 on nests. Canine, Coyote, tracks and egg shell fragments. Great Blue Heron being mobbed.

MS side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Vicksburg = 8.8 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 12:55 RIVER MILE: 393.5

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

WHERE SITED: Latitude: 31.89964
Longitude: 91.20785

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 68
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:

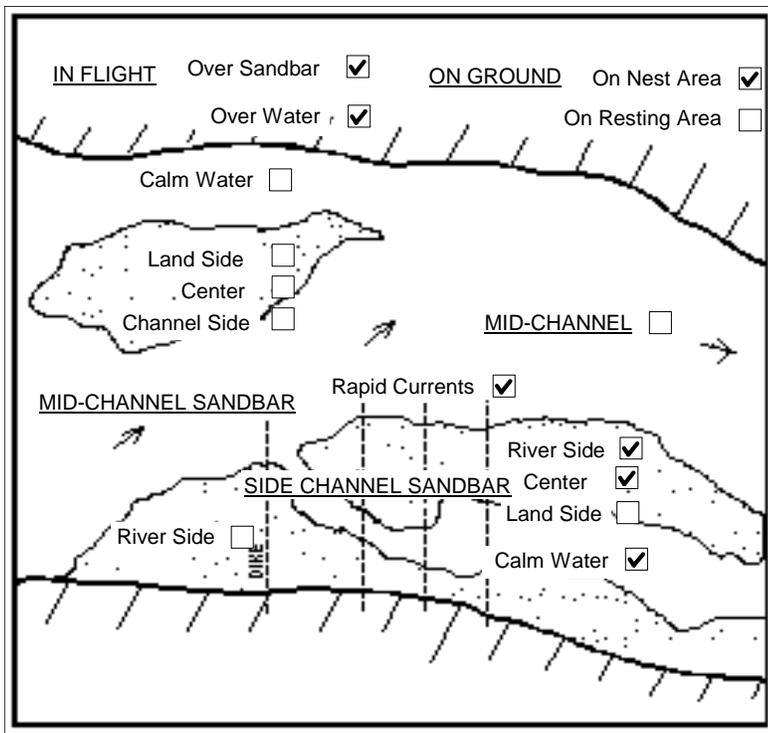
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: Calm
% Cloud: 100



OTHER NOTES:

Right Bank. Low, flat, gently sloping, (1 1/2 ft. elevation) gravel bar with Terns breasting and fishing channel side. No tracks observed. Two Black Terns.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 15.5 R
(Gage Location) (Elevation)

FIELD SIGHTING
DATA SHEET

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 13:20 RIVER MILE: 384.2

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

WHERE SITED: Latitude: 31.84327
Longitude: 91.34509

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 93
Juveniles: _____
Eggs: _____
Nests: 10
Chicks: Yes

SUBSTRATE:

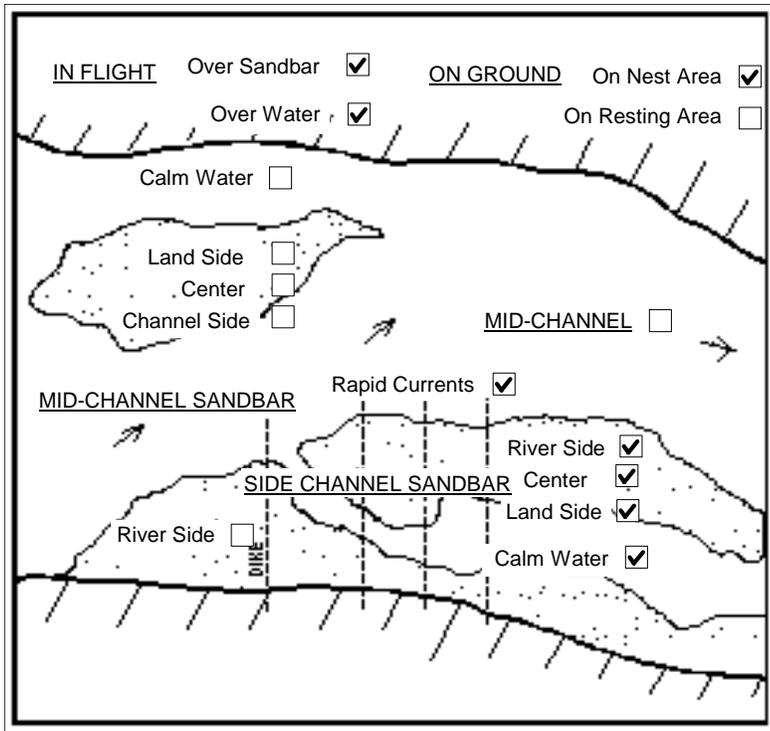
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows/grasses
Distance: 60 Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: Calm
% Cloud: 50



OTHER NOTES:

Left Bank. Huge, long, high (6-12 ft.), extended, unattached, sand bar with patches of mud and gravel.
Colony dispersed along central high ridge of bar. No tracks.

MS side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 15.5 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 14:20 RIVER MILE: 378.0

LOCALITY: Tensas LA SITE NAME: Waterproof Dikes
County/Parish State

WHERE SITED: Latitude: 31.7604
Longitude: 91.3708

Approximate Distance to Water: 400 Feet

NUMBERS SIGHTED:

Adults: 21
Juveniles: _____
Eggs: _____
Nests: 4
Chicks: No

SUBSTRATE:

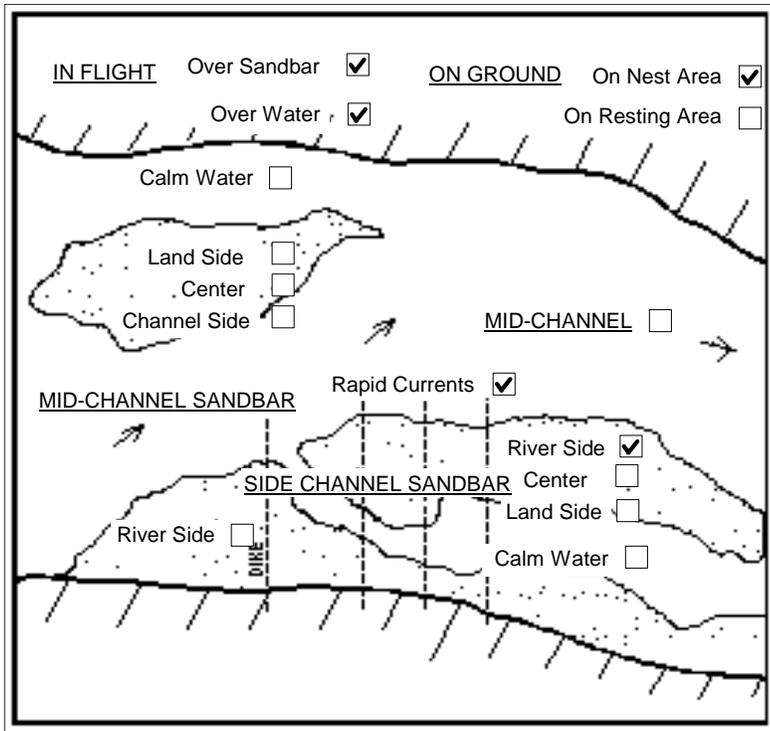
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: Calm
% Cloud: 50



OTHER NOTES:

Right Bank. Attached sand bar (6 ft. elev.) with most Terns resting at water line, 4 sitting inland along weak wrack lines. Coyote in colony retreats to cover upon our approach.

LA side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 15.5 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/6/2006 TIME OF DAY: 14:33 RIVER MILE: 372.5

LOCALITY: Adams MS SITE NAME: Farichilds Bend
County/Parish State

WHERE SITED: Latitude: _____
Longitude: _____

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 18
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

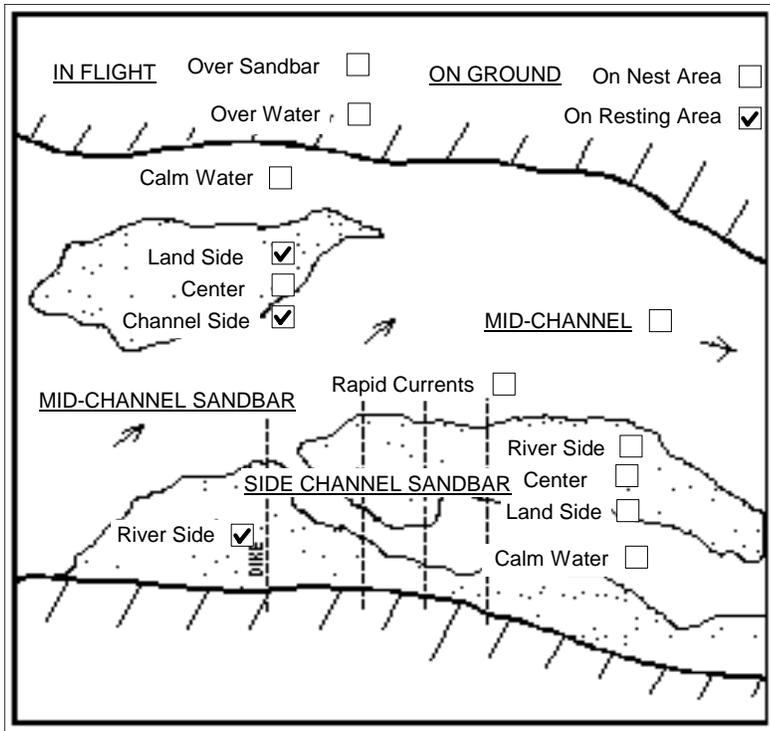
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 81 °F
Rain: No
Wind: Calm
% Cloud: 50



OTHER NOTES:

Left Bank. Unattached, mid-channel sand bar. No reproductive activity noted. All birds resting at waterline.

MS side

OBSERVERS: Fowlkes, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 15.5 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/7/2006 TIME OF DAY: 9:06 RIVER MILE: 357.0

LOCALITY: Adams MS SITE NAME: Carthage Point Dikes
County/Parish State

WHERE SITED: Latitude: 31.5197
Longitude: 91.4103

Approximate Distance to Water: 30 Feet

NUMBERS SIGHTED:

Adults: 69
Juveniles: _____
Eggs: _____
Nests: 17
Chicks: No

SUBSTRATE:

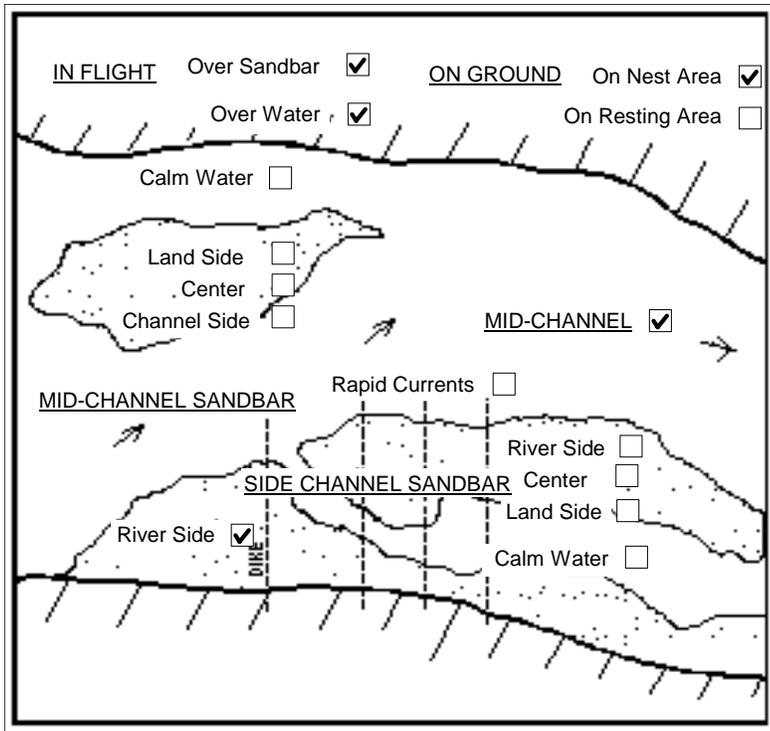
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 79 °F
Rain: No
Wind: S 5 - 10 mph
% Cloud: 75



OTHER NOTES:

Left Bank. Attached medium size sand bar (4 ft. elev.) Mobbing of egrets, camping sign, and ATV tracks abundant. Perimeter count yields 17 nests.

MS side

OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 16.1R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/7/2006 TIME OF DAY: 9:40 RIVER MILE: 349.0

LOCALITY: Adams MS SITE NAME: Opposite Warnicott Landing Dikes
County/Parish State

WHERE SITED: Latitude: 31.4208
Longitude: 91.4950

Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:

Adults: 13
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:

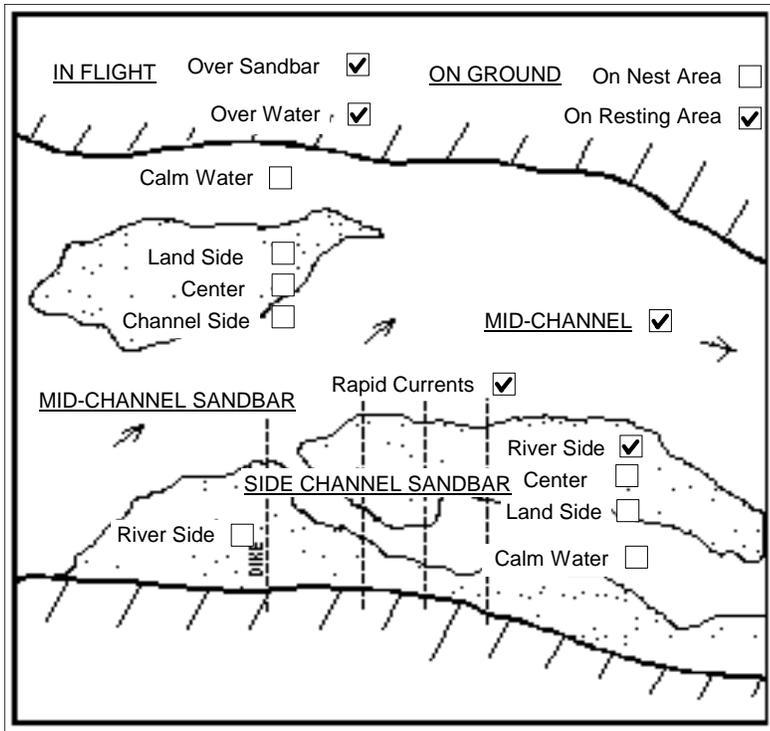
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Large, attached bar of sand and mud at head of Island with back chute. Large colony previous year, but attached now and resting bar only. One Bald Eagle also observed.

MS side

OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 16.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/7/2006 TIME OF DAY: 9:50 RIVER MILE: 347.5

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

WHERE SITED: Latitude: 31.3580
Longitude: 91.4848

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 73
Juveniles: _____
Eggs: _____
Nests: 18
Chicks: No

SUBSTRATE:

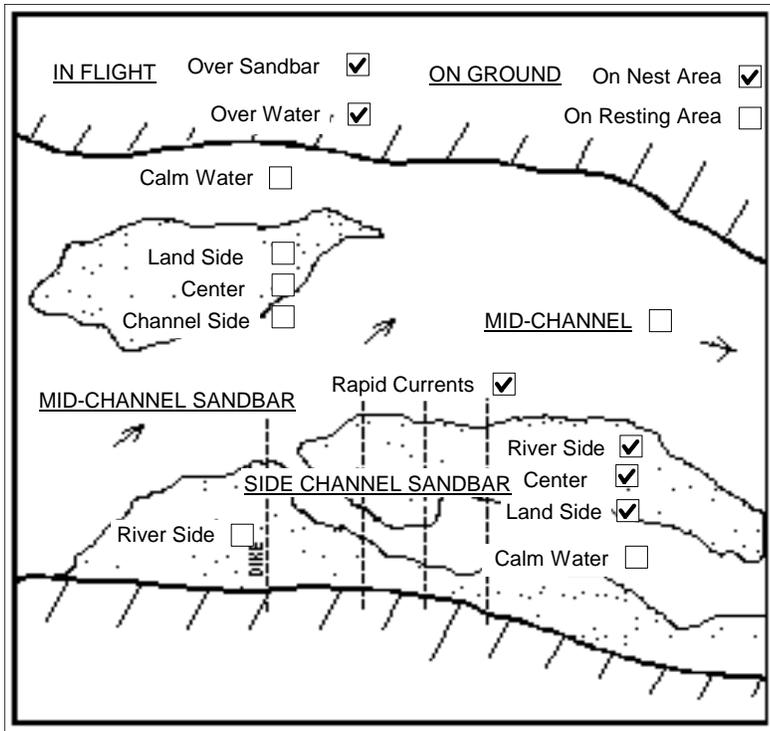
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Right Bank. Unattached series of small gravel and sand bars, extremely undulating and dissected. Much courting behavior. Twelve Turkey Vultures just upstream on bar. No tracks visible.

LA side

OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 16.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/7/2006 TIME OF DAY: 10:02 RIVER MILE: 341.3

LOCALITY: Adams MS SITE NAME: Washout Bayou
County/Parish State

WHERE SITED: Latitude: _____
Longitude: _____

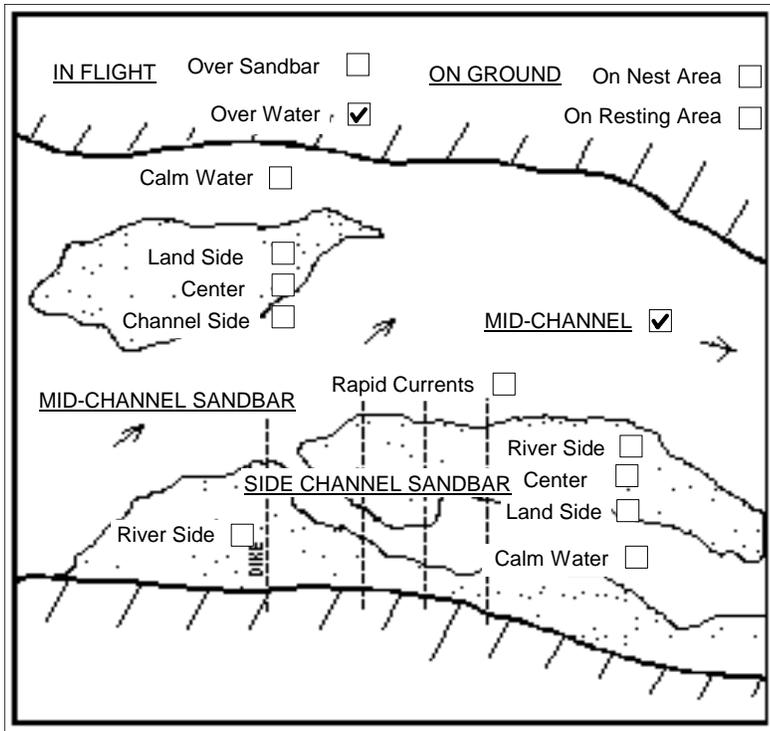
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 3
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 81 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Entrance to Washout Bayou. Three Terns in transit.

MS side

OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 16.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/7/2006 TIME OF DAY: 10:07 RIVER MILE: 336.5

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

WHERE SITED: Latitude: 31.26087
Longitude: 91.56138

Approximate Distance to Water: 100 Feet

NUMBERS SIGHTED:

Adults: 165
Juveniles: _____
Eggs: _____
Nests: 36
Chicks: No

SUBSTRATE:

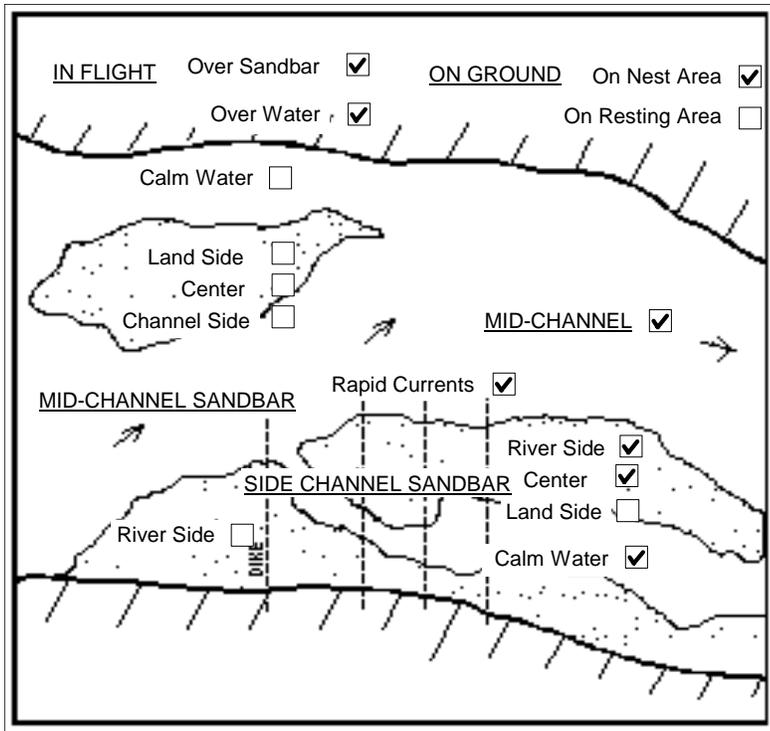
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 80 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Right Bank. Attached, medium high (8 ft.) sand bar with perimeter count yielding 115 on upper reach, and flush count on lower point (1 mile downstream) yielding 45. Heavy mobbing of observers. ATV tracks

LA side

OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 16.1 R
(Gage Location) (Elevation)

FIELD SIGHTING DATA SHEET

FLY BOAT

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

DATE: 7/7/2006 TIME OF DAY: 10:53 RIVER MILE: 329.0

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

WHERE SITED: Latitude: 31.2411
Longitude: 91.6475

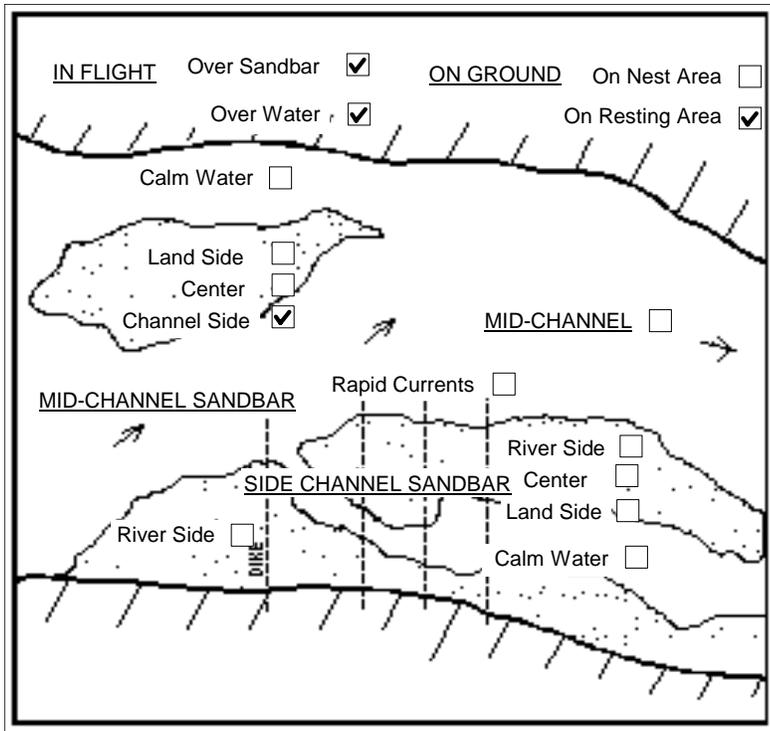
Approximate Distance to Water: _____ Feet

NUMBERS SIGHTED:
Adults: 26
Juveniles: _____
Eggs: _____
Nests: 0
Chicks: No

SUBSTRATE:
Sand:
Gravel:
Debris:

VEGETATION:
Type: _____
Distance: _____ Feet

FIELD CONDITION:
Temperature: 82 °F
Rain: No
Wind: S 5 mph
% Cloud: 10



OTHER NOTES:

Left Bank. Mid-channel, isolated point bar, attached, resting only. No reproductive activity or disturbance noted.

MS side

OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 16.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/7/2006 TIME OF DAY: 11:10 RIVER MILE: 322.0

LOCALITY: Concordia LA SITE NAME: Homochito Cutoff
County/Parish State

WHERE SITED: Latitude: 31.1742
Longitude: 91.5947

Approximate Distance to Water: 50 Feet

NUMBERS SIGHTED:

Adults: 16
Juveniles: _____
Eggs: 2(3) 1(2)
Nests: 3
Chicks: Yes

SUBSTRATE:

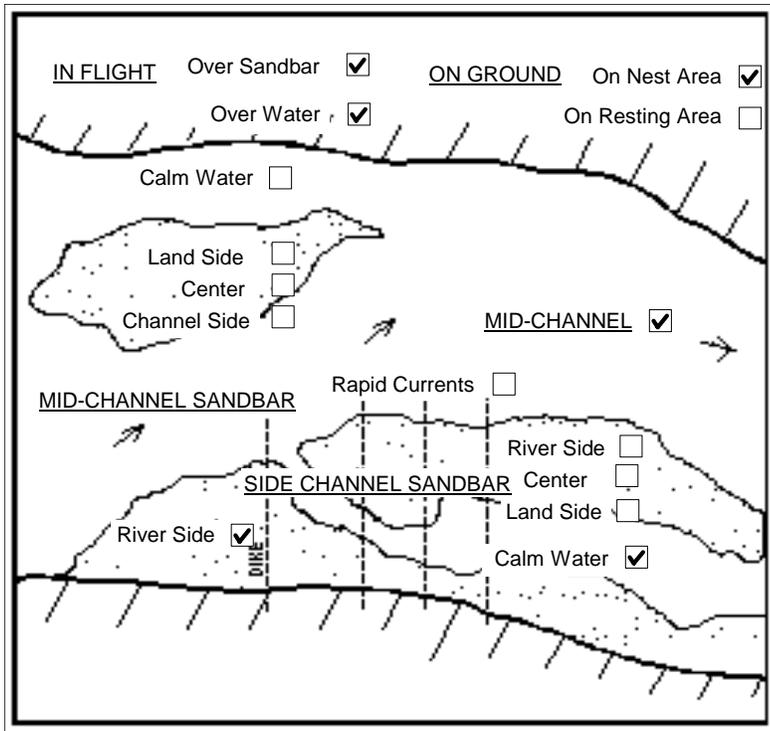
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 82 °F
Rain: No
Wind: S 5 mph
% Cloud: 20



OTHER NOTES:

Right Bank. Riverside sand bar (5 ft. elev.) behind Island in Homochito Cutoff. Two chicks at 1 1/2 weeks of age and nests with eggs. No tracks or disturbance. Osprey observed 2.5 miles upstream, 4 White Ibis in flight.

LA side

OBSERVERS: Carpenter, Fowlkes, Grubaugh, Haglund, Jones, Milburn, Rumancik, Warren

RIVER GAGE READING: Natchez = 16.1 R
(Gage Location) (Elevation)

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/15/2006 TIME OF DAY: 9:35 RIVER MILE: 305.0

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

WHERE SITED: Latitude: 30.9960
Longitude: 91.6441

Approximate Distance to Water: 200 Feet

NUMBERS SIGHTED:

Adults: 32
Juveniles: _____
Eggs: _____
Nests: 2
Chicks: No

SUBSTRATE:

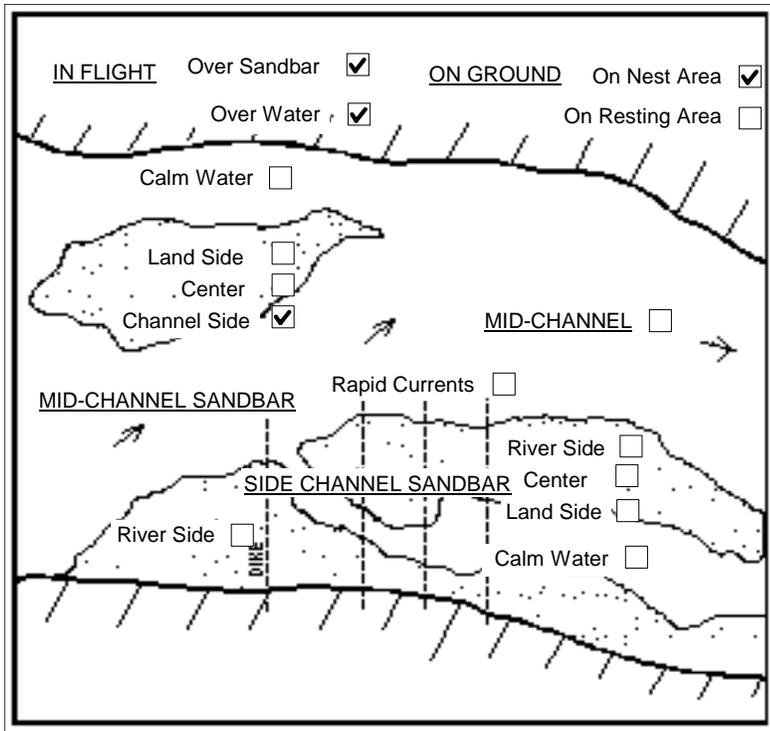
Sand:
Gravel:
Debris:

VEGETATION:

Type: _____
Distance: _____ Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: Calm
% Cloud: 50



OTHER NOTES:

Left Bank. Attached, upstream point of large island. Medium high bar with most birds resting at waterline, 2 sitting inland on scrapes. No tracks or signs of predation.

OBSERVERS: Jones, Talley

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

**FIELD SIGHTING
DATA SHEET**

FLY BOAT

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

DATE: 7/15/2006 TIME OF DAY: 10:34 RIVER MILE: 300.5

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

WHERE SITED: Latitude: 30.9347
Longitude: 91.6450

Approximate Distance to Water: 150 Feet

NUMBERS SIGHTED:

Adults: 86
Juveniles: _____
Eggs: _____
Nests: 13
Chicks: Yes

SUBSTRATE:

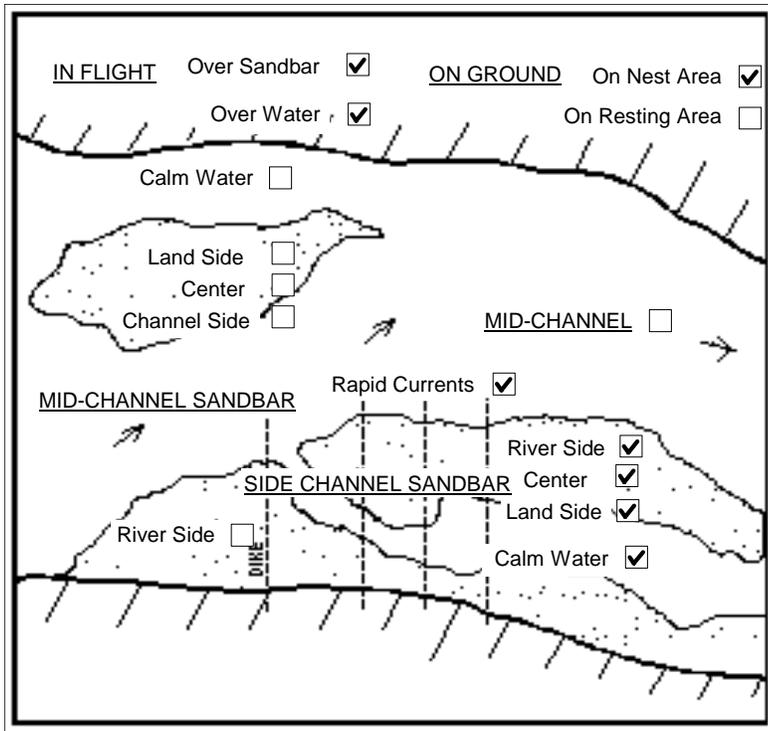
Sand:
Gravel:
Debris:

VEGETATION:

Type: Willows
Distance: 200 Feet

FIELD CONDITION:

Temperature: 85 °F
Rain: No
Wind: Calm
% Cloud: 50



OTHER NOTES:

Left Bank. Attached, upstream point of wooded island with large, open back chute. Nests all across bar, chicks abundant 1-2 weeks old, utilizing all sides of bar. No tracks observed.

OBSERVERS: Jones, Talley

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