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

2007

By

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Under Contract with URS Corporation

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On and between June 23 and July 8, 2007, Kenneth H. Jones, Associate Professor of Biology at Dyersburg State Community College, under contract with URS Corporation, conducted a survey of interior Least Tern (Sternula antillarum athalassos) nesting colonies along the Mississippi River. This annual survey is performed for the Memphis District Army Corps of Engineers and assists the U.S. Fish and Wildlife Service with its census in determining population size and distribution of the Interior Least Tern. This survey was the 23rd 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 Memphis District and Paul DuBowy, Environmental Program Manager at the Corps of Engineers Mississippi Valley Division. Experienced counters from past surveys helping on this year's count included Mark Campen, Andrea Carpenter, Dennis Davin, Dr. Jack Grubaugh, Wanda Jones, and Rob Thomas.

This year's survey yielded a total count of 9,814 Least Terns and 96 nesting colonies, fewer colonies than last years survey, which was 107, but higher total numbers. Forty-one colonies were identified based on the presence of eggs and/or chicks (Tables 1 and 2). Fifty-five colonies were identified based on the presence of a large number of nest scrapes, adult behavior and other indicators of likely reproductive effort such as wetting breast feathers, sitting inland, carrying fish or intense mobbing of intruders. The largest colony was located at Corregidor Dikes (RM 504) with 633 adult terns counted. Other large colonies included Sunflower Cut-off (RM 625.0) with 350 birds, Leland Neck Dikes (RM 540.0) with 410, and Below Plum Pt. Dikes

(RM 303.0) with 303 Least Terns. The smallest colonies were at Marr Towhead (RM 876.0), Linwood Bend (RM 840.0), and Below Grand Gulf Dikes (RM 398.0) with just 13, 16, and 15 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 102, with colony sizes ranging from as little as 13 adults to as many as 633. 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 June 23, 2007, with the river stage at Memphis, Tennessee at 2.0 and falling (Table 3). This slow fall continued for the duration of the survey, however stages below the mouth of the Arkansas River were influenced by flood conditions on its drainage to the west, adding an extra 10 ft. to Mississippi river stages downstream. This year, as in 2005 and 2006, 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 2007 survey the river was exhibiting a slow, continuous fall 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 inclement weather on June 24, the section of river from Caruthersville, Mo (RM 846.0) to Memphis, Tn (RM 735.0) was skipped and surveyed later on July 8 after the rest of the survey was completed.

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 55 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. Only one fledged juvenile was noted during the entire survey, and it was on July 8 during the make-up run from Caruthersville, Mo., to Memphis, Tn. 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 300, 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. Nine thousand eight hundred fourteen (9,814) Least Terns were recorded at 121 locations (Table 1, Figure 1). Of these, 96 sites were identified as nesting colonies with 9,372 adults, 17 sites as resting bars only with 364 adults, and 8 observations were of 78 birds that could not be associated with colonies, either flying over feeding areas or in transit along the river. Of the identified nest colonies, 41 had eggs and/or chicks present and 57 had no observed chicks or eggs. Of the 41 colonies with eggs and/or chicks observed, 6 had chicks but no eggs, 24 had eggs but no chicks, and 11 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 1,000 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 80 colony sites, but 16 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 5 colony sites. Mostly Coyotes, but also dogs and foxes 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 13 sites and still 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 96 colonies, 18 had track evidence of recent intrusion by humans on foot, by boats and ATVs. In 5 colonies there were day campers present at the time of the survey date, but with most limiting their activities to the water line.

Besides Coyotes (*Canis latrans*) and fox (*Vulpes* or *Urocyon*) other potential predators, or their sign, seen near colonies during this year's survey included Armadillo (*Dasypus novemcinctus*), Great Blue Heron (*Ardea herodius*), Egrets (*Casmerodius*, *Egretta*, *Bubulcus*), American Crow (*Corvus brachyrhynchos*), Turkey Vulture (*Cathartes aura*), Black Vulture (*Coragyps atratus*), Mississippi Kite (*Ictinia mississippiensis*) and Bald Eagle (*Haliaeetus leucocephalus*). Also, a possible Red Wolf (*Canis niger*) was observed at Carthage Point Dikes (RM 358).

Other bird species observed on the sand bars or in close proximity to Least Tern colonies included White Pelican (*Pelecanus erythrorhyncos*), Anhinga (*Anhinga anhinga*), Double-

Crested Cormorant (*Phalocrorax auritus*), Cattle Egret (*Bubulcus ibis*), Snowy egret (*Egretta thula*), Great Egret (*Casmerodius albus*), Great Blue Heron (*Ardea herodias*), Belted Kingfisher (*Megaceryle alcyon*) White Ibis (*Eudocius albus*), Canada Goose (*Branta canadensis*), Mallard Duck (*Anas platyrhynchos*), Killdeer (*Charadrius vociferous*), Sandpipers (*Calidris sp.*) Caspian Tern (*Sterna caspia*), Tree Swallow (*Tachycineta bicolor*), Purple Martin (*Progne subis*), Redwinged Blackbird (*Agelaius phoeniceus*), and Common Grackle (*Quiscalus quiscula*).

Fingerling-size fish of shad (*Dorosoma*), White Bass (*Morone chrysops*), Silver Carp (*Hypophthalmichthys molitrix*) and other fish species were found in colonies and are presumed to have been dropped by foraging adults.

This year's survey was the fourth to cover the additional 200 river miles below Vicksburg, Mississippi and yielded a total count that was up from the 2006 count by roughly 20%. Only the 2004 and 2005 surveys (Figure 2) yielded a higher count than this year's, the third highest count ever for Least Terns in the Lower Mississippi.

Table 1: Least Tern Survey - June 23 - July 8, 2007 - Mississippi River Cape Girardeau, Missouri, to Baton Rouge, Louisiana

| River | Eupe Ghardead, Missouri, to Bator | | <u> </u> | | Least | | |
|-------------|-----------------------------------|-------|-----------|------------|---------|----|--------|
| Mile | Mississippi River Location | State | Lat. N | Long. W | Terns | | Nests |
| RIVER MILE: | SITE NAME: | State | Latitude: | Longitude: | Adults: | | Nests: |
| UR 30.5 | Bumgard Island | IL | 37.04622 | 89.38099 | 16 | c* | 1 |
| 946.0 | Island #1 Dikes | KY | 36.88722 | 89.11982 | 23 | * | 1 |
| 940.0 | Below Campbell Dikes | KY | 36.8035 | 89.13336 | 220 | c* | 8 |
| 930.5 | Wolf Island Bar | KY | 36.68979 | 89.1482 | 95 | c* | 12 |
| 924.5 | Beckwith Bend | KY | 36.60686 | 89.20319 | 82 | c* | 12 |
| 920.0 | Hickman Bend | МО | 36.56955 | 89.23435 | 33 | c* | 3 |
| 908.0 | Island #6 | KY | 36.5505 | 89.40043 | 21 | | 0 |
| 884.0 | Kentucky Point Dikes Lower | KY | 36.51784 | 89.55375 | 22 | c* | 1 |
| 876.0 | Marr Towhead | TN | 36.4184 | 89.5363 | 13 | c* | 3 |
| 872.5 | Stewart Towhead Dikes Upper | МО | 36.35763 | 89.51528 | 150 | c* | 2 |
| 870.5 | Stewart Towhead Dikes Lower | МО | 36.34634 | 89.52654 | 75 | c* | 5 |
| 864.5 | Below Cherokee D kes | TN | 36.3201 | 89.615 | 9 | | 0 |
| 855 | Robinson Bayou D kes | МО | 36.24504 | 89.58076 | 74 | c* | 3 |
| 846.3 | Opp. Caruthersville Dikes | TN | 36.19892 | 89.64358 | 56 | c* | 0 |
| 840-843 | Linwood Bend | МО | 36.1659 | 89.6065 | 15 | c* | 9 |
| 836.0 | Island #18 Towhead Dikes | TN | 36.10308 | 89.63945 | 127 | c* | 10 |
| 830.0 | Island #20 D kes Upper | TN | 36.02275 | 89.69420 | 2 | | 0 |
| 828.2 | Island #20 Dikes Lower | TN | 36.01326 | 89.70654 | 11 | | 0 |
| 827.0 | Head of Island #21 D kes | TN | NA | NA | 8 | | 0 |
| 825.2 | Island #21 | TN | 35.99061 | 89.71052 | 42 | c* | 0 |
| 819.0 | Wrights Point Dikes | AR | 35.91022 | 89.64837 | 56 | c* | 6 |
| 811.5 | Below Tamm Bend Dikes Upper | TN | 35.90696 | 89.7452 | 135 | c* | 9 |

SUBTOTAL 1,285

Table 1 continued: Least Tern Survey - June 23 - July 8, 2007 - Mississippi River Cape Girardeau, MO, to Baton Rouge, LA

| River | Cupe Offaracau, 1910, to | | | | Least | | |
|-------------|--------------------------------|-------|-----------|------------|---------|----|--------|
| Mile | Mississippi River Location | State | Lat. N | Long. W | Terns | | Nests |
| RIVER MILE: | SITE NAME: | State | Latitude: | Longitude: | Adults: | | Nests: |
| 807.3 | Nebraska Point Dikes Lower | TN | 35.85965 | 89.75936 | 53 | c* | 9 |
| 803.0 | Bend of Island #25 | AR | 35.82105 | 89.69914 | 62 | c* | 17 |
| 797.5 | Forked Deer Dikes Lower | TN | 35.78093 | 89.77006 | 225 | c* | 30 |
| 794.0 | Ashport Goldust Dikes | AR | 35.79805 | 89.82213 | 35 | | 0 |
| 789.5 | Keyes Point Dikes Upper | TN | 35.71679 | 89.92629 | 46 | c* | 9 |
| 787.0 | Keyes Point Dikes Lower | TN | 35.71675 | 89.92629 | 79 | c* | 13 |
| 783.5 | Below Plum Point D kes | TN | 35.68624 | 89.91379 | 303 | c* | 50 |
| 778 | Driver Cut-Off | AR | NA | NA | 4 | | 0 |
| 775.5 | Hatchie Towhead | TN | 35.53149 | 89.9095 | 64 | * | 6 |
| 771.1 | Randolph Upper | TN | 35.53444 | 89.89822 | 150 | c* | 40 |
| 770.5 | Randolph Lower | TN | 35.52599 | 89.89949 | 250 | c* | 15 |
| 766.0 | Below Richardson Landing Dikes | TN | 35.5244 | 89.98 | 16 | | 0 |
| 760.5 | Cedar Point | TN | 35.45266 | 89.9981 | 87 | * | 2 |
| 755.0 | Densford Bar | TN | 35.3902 | 90.0703 | 54 | c* | 4 |
| 743 | Above Loosahatchie Dikes | TN | 35.25086 | 90.09163 | 27 | c* | 4 |
| 740.5 | Loosahatchie Bar Dikes | AR | 35.20767 | 90.07191 | 32 | c* | 1 |
| 733.0 | Engineer Bar Dikes | AR | 35.12323 | 90.10361 | 27 | * | 0 |
| 729.5 | Vice Presidents Island #46 | TN | 35.1252 | 90.1614 | 121 | c* | 2 |
| 725.0 | Dismal Point D kes Upper | AR | 35.0691 | 90.1838 | 22 | * | 0 |
| 720.8 | Dismal Point Dikes Lower | AR | 35.02695 | 90.21297 | 60 | | 0 |
| 715 | Cow Island Bend | MS | 35.00434 | 90.29861 | 36 | c* | 6 |
| 705 | Seyppel Dikes | AR | 34.88831 | 90.2876 | 32 | c* | 5 |
| 703 | Pickett D kes | AR | 34.87582 | 90.30779 | 200 | c* | 25 |
| 700.0 | Porter Lake D kes | AR | 34.8433 | 90.36764 | 65 | c* | 4 |
| 693.0 | Commerce Dikes | MS | 34.8152 | 90.4563 | 112 | * | 0 |
| 687.0 | Mhoon Bend | AR | 34.73875 | 90.45414 | 81 | c* | 2 |
| 680.0 | Bordeaux Point D kes | MS | 34.73383 | 90.56013 | 21 | * | 0 |
| 676.7 | Hardin Cut-Off | AR | 34.68522 | 90.56622 | 230 | c* | 75 |

SUBTOTAL 2,494

Table 1 continued: Least Tern Survey - June 23 - July 8, 2007 - Mississippi River Cape Girardeau, MO, to Baton Rouge, LA

| River | | | | | Least | | |
|-------------|----------------------------|-------|-----------|------------|---------|----|--------|
| Mile | Mississippi River Location | State | Lat. N | Long. W | Terns | | Nests |
| RIVER MILE: | SITE NAME: | State | Latitude: | Longitude: | Adults: | | Nests: |
| 676.5 | Below Walnut Bend Dikes | AR | 34.67685 | 90.57188 | 29 | * | 2 |
| 672.0 | St. Francis Bend | MS | 34.6241 | 90.5835 | 97 | c* | 8 |
| 668.0 | Prairie Point D kes | AR | 34.5625 | 90.5536 | 39 | * | 3 |
| 666.5 | Prairie Point Towhead | AR | 34.54669 | 90.54383 | 92 | c* | 20 |
| 662.5 | Helena Reach Upper | MS | 34.51256 | 90.58333 | 35 | c* | 1 |
| 660.0 | Helena Reach Lower | MS | 34.4602 | 90.5827 | 49 | c* | 1 |
| 658.5 | Montezuma Bar Dikes | MS | 34.4601 | 90.58348 | 40 | c* | 9 |
| 656 | Montezuma Towhead Dikes | AR | 34.40805 | 90.59296 | 65 | c* | 2 |
| 651.5 | Friars Point Dikes | MS | 34.37308 | 90.67082 | 65 | c* | 1 |
| 647.0 | Kangaroo Point Dikes | AR | 34.3661 | 90.7297 | 13 | | 0 |
| 643.4 | Old Town Bend | MS | 34.3485 | 90.7658 | 39 | c* | 10 |
| 640.0 | Island #62 Dikes | AR | 34.30351 | 90.73866 | 18 | * | 0 |
| 633.0 | Robson Towhead | MS | 34.26166 | 90.83301 | 18 | c* | 4 |
| 629.0 | Island #64 Dikes | AR | 34.2203 | 90.8483 | 6 | | 0 |
| 625.0 | Sunflower Cut-Off | AR | 34.1695 | 90.90257 | 350 | c* | 110 |
| 623.0 | Below Ludlow Dikes | AR | 34.1583 | 90.9303 | 12 | | 0 |
| 620.0 | Island #67 Dikes | MS | 34.1150 | 90.9490 | 61 | c* | 11 |
| 616.0 | Below Knowlton Dikes Upper | AR | 34.0811 | 90.9081 | 34 | * | 2 |
| 613.6 | Below Knowlton D kes | AR | 34.04383 | 90.89169 | 25 | c* | 15 |
| 608.0 | Island #70 Dikes | MS | 34.01977 | 90.9859 | 166 | * | 48 |
| 603.0 | Henrico D kes | MS | 33.9898 | 91.0500 | 70 | * | 4 |
| 599.5 | Smith Point Dikes | MS | 33.9571 | 91.0798 | 15 | | 0 |
| 595.0 | Victoria Bend Dikes | AR | 33.9295 | 91.0186 | 130 | c* | 0 |
| 589.0 | Terrene Dikes | MS | 33.8415 | 91.0632 | 88 | * | 30 |
| 583.5 | Malone Field Dikes | AR | 33.7860 | 91.0517 | 42 | * | 4 |
| 578.0 | Below Prentiss Dikes | MS | 33.7502 | 91.1336 | 54 | * | 9 |
| 573.5 | Caulk Neck Cut-Off | AR | 33.7087 | 91.1706 | 3 | | 0 |
| 568.6 | Catfish Point Dikes | MS | 33.6781 | 91.2242 | 62 | * | 9 |
| 560.0 | Choctaw Bar Island | AR | 33.62822 | 91014918 | 21 | | 0 |
| 558.5 | Choctaw Bend | AR | NA | NA | 11 | | 0 |
| 554.0 | Huntington Point | MS | NA | NA | 18 | * | 4 |
| 551 | Georgetown Bend | MS | 33.51858 | 91.19123 | 153 | c* | 25 |

SUBTOTAL 1,920

Table 1 continued: Least Tern Survey - June 23 - July 8, 2007 - Mississippi River Cape Girardeau, MO, to Baton Rouge, LA

| River | | | | | Least | | |
|-------------|------------------------------|-------|-----------|------------|---------|----|--------|
| Mile | Mississippi River Location | State | Lat. N | Long. W | Terns | | Nests |
| RIVER MILE: | SITE NAME: | State | Latitude: | Longitude: | Adults: | | Nests: |
| 544.5 | Island #82 Miller Bend D kes | AR | 33.42406 | 91.11989 | 239 | c* | 18 |
| 540.0 | Leland Neck Dikes | MS | 33.39602 | 91.1087 | 410 | c* | 130 |
| 528.3 | Refuge D kes | MS | 33.26653 | 91.12264 | 125 | c* | 8 |
| 523.0 | Seven Oaks D kes | AR | 33.18262 | 91.09313 | 75 | c* | 4 |
| 521.0 | Island #86 D kes Upper | AR | 33.15795 | 91.0872 | 148 | * | 50 |
| 519.5 | Island #86 Dikes Lower | AR | 33.1291 | 91.10169 | 42 | * | 7 |
| 514.0 | Leota Dikes | MS | 33.09132 | 91.16353 | 62 | * | 25 |
| 510 | Cracraft Lower Dikes Upper | AR | 33.0381 | 91.1577 | 32 | * | 6 |
| 509 | Cracraft Lower D kes Lower | AR | 33.02516 | 91.15446 | 32 | * | 7 |
| 504.0 | Corregidor Dikes | MS | 32.95736 | 91.14347 | 667 | * | 300 |
| 499 | Wilson Point D kes | LA | 32.9435 | 91.0833 | 37 | * | 8 |
| 491.5 | Baleshed Landing Dikes | MS | 32.8417 | 91.1278 | 140 | * | 36 |
| 487.5 | Ben Lommond Dikes | MS | 32.80477 | 91.14308 | 65 | c* | 17 |
| 484.0 | Ajax Bar Dikes Upper | MS | 32.7455 | 91.14376 | 45 | c* | 12 |
| 481.5 | Ajax Bar Dikes | MS | 32.73746 | 91.11895 | 28 | c* | 4 |
| 480.8 | Ajax Bar D kes Lower | MS | 32.73697 | 91.10903 | 95 | c* | 22 |
| 476.6 | Point Lookout Dike | LA | 32.71685 | 91.05885 | 146 | * | 34 |
| 468.5 | Arcadia Point Dikes | MS | 32.65489 | 91.1406 | 29 | * | 5 |
| 460.4 | Willow Cutoff D kes | LA | 32.5361 | 91.1006 | 112 | | 0 |
| 456.0 | Milliken Bend | MS | 32.4757 | 91.10504 | 37 | * | 4 |
| 446.5 | Marshall Cutoff D kes | LA | 32.40516 | 901.00311 | 260 | * | 120 |
| 428.5 | Below Racetrack Dikes | MS | 32.2355 | 90.97885 | 109 | c* | 34 |
| 419.0 | Newton Bend Dikes | LA | 32.1367 | 91.0100 | 52 | * | 22 |

SUBTOTAL 2,987

Table 1 continued: Least Tern Survey - June 23 - July 8, 2007 - Mississippi River

Cape Girardeau, MO, to Baton Rouge, LA

| River | | | | | Least | | |
|-------------|----------------------------------|-------|-----------|------------|---------|----|--------|
| Mile | Mississippi River Location | State | Lat. N | Long. W | Terns | | Nests |
| RIVER MILE: | SITE NAME: | State | Latitude: | Longitude: | Adults: | | Nests: |
| 414.0 | Togo Island D kes | LA | 32.1094 | 91.10172 | 115 | c* | 35 |
| 410 | Yucatan D kes | MS | 32.07094 | 91.07669 | 40 | c* | 2 |
| 409 | Big Black River | | NA | NA | 38 | | 0 |
| 398 | Below Grand Gulf D kes | MS | 31.95363 | 91.18744 | 15 | * | 1 |
| 384.2 | Spithead Towhead D kes | MS | 31.83712 | 91.34592 | 200 | c* | 68 |
| 378.0 | Waterproof Dikes | LA | 31.7604 | 91.3708 | 18 | | 0 |
| 357.5 | Carthage Point Dikes | MS | 31.51529 | 91.49569 | 7 | | 0 |
| 352 | Opposite Warnicott Landing Dikes | MS | 31.4208 | 91.4950 | 17 | | 0 |
| 347.5 | Esperance Point | LA | 31.39534 | 91.46793 | 125 | c* | 22 |
| 336.5 | Fritz Island Dikes | LA | 31.2617 | 91.56205 | 150 | c* | 32 |
| 329.0 | Jackson Point | MS | 31.24683 | 91.65112 | 225 | c* | 16 |
| 322.0 | Homochito Cuttoff | LA | 31.1742 | 91.5947 | 35 | * | 9 |
| 305.0 | Shreves Bar | LA | 30.9960 | 91.6441 | 2 | | |
| 300.5 | Hog Point Dikes | LA | 30.9354 | 91.64571 | 138 | c* | 32 |

| SUBTOTAL | 1125 |
|----------|------|
|----------|------|

| TOTAL INDIVIDUALS | 9,814 |
|-------------------|-------|
| TOTAL SITES | 121 |
| TOTAL COLONIES | 96 |

c Confirmed chicks or eggs

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

Table 2: Summary of 2007 Least Tern Survey on the Lower Mississippi River

| River Reach | Number of Terns (June 23-July 8, 2007) | | | | |
|--|---|--|--|--|--|
| Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954 | 16 | | | | |
| Cairo, IL, to Osceola, AR RM 954 – RM 790 | 1,647 | | | | |
| Osceola, AR, to Helena, AR RM 790 – RM 670 | 2,245 | | | | |
| Helena, AR, to Greenville, MS RM 670 – RM 530 | 2,443 | | | | |
| Greenville, MS, to Vicksburg, MS RM 530 – RM 430 | 2,177 | | | | |
| Vicksburg, MS, to Baton Rouge, LA RM 430 - RM 230 | 1,286 | | | | |
| TOTAL | 9,814 | | | | |
| River Reach | Number of Colonies | | | | |
| Cape Girardeau, MO, to Cairo, IL URM 50 – RM 954 | 1 | | | | |
| Cairo, IL, to Osceola, AR RM 954 – RM 790 | 20 | | | | |
| Osceola, AR, to Helena, AR RM 790 – RM 670 | 23 | | | | |
| | 23 | | | | |
| Helena, AR, to Greenville, MS RM 670 – RM 530 | 23 | | | | |
| · | 23 18 | | | | |

TOTAL

96

Table 3: Gage Readings – Lower Mississippi River Least Tern Surveys – June, July 2007

Shaded numbers indicate local stages at time of survey.

| Date | Cairo | New Madrid | Caruthersville | Memphis | Helena | Arkansas City | Greenville | Vicksburg | Natchez |
|------|-------|------------|----------------|---------|--------|---------------|------------|-----------|---------|
| June | | | | | | | | - | |
| 14 | 19.3 | 10.4 | 12.8 | 5.6 | 12.3 | 13.8 | 25.4 | 19.6 | 26.8 |
| 15 | 19.5 | 10.2 | 12.4 | 5.2 | 11.8 | 13.8 | 25.2 | 19.2 | 26.5 |
| 16 | 19.1 | 10.0 | 12.3 | 4.9 | 11.5 | 14.1 | 25.5 | 19.1 | 26.2 |
| 17 | 18.5 | 9.6 | 12.0 | 4.7 | 11.2 | 14.3 | 25.8 | 19.2 | 26.1 |
| 18 | 17.8 | 8.9 | 11.4 | 4.4 | 10.9 | 14.6 | 26.0 | 19.4 | 26.2 |
| 19 | 17.4 | 8.3 | 10.7 | 3.9 | 10.6 | 14.9 | 26.3 | 19.6 | 26.4 |
| 20 | 17.1 | 7.6 | 10.2. | 3.3 | 10.1 | 14.8 | 26.2 | 20.0 | 26.9 |
| 21 | 17.4 | 7.6 | 9.9 | 2.6 | 9.5 | 14.6 | 26.0 | 20.0 | 27.1 |
| 22 | 16.8 | 7.4 | 9.8 | 2.2 | 8.9 | 14.3 | 25.7 | MSG | 27.3 |
| 23 | 16.4 | 6.9 | 9.4 | 2.0 | 8.4 | 14.1 | 25.5 | 19.8 | 27.3 |
| 24 | 16.2 | 6.5 | 9.0 | 1.7 | 8.2 | 13.8 | MSG | 19.6 | 27.2 |
| 25 | 16.2 | 6.2 | 8.7 | 1.3 | 7.8 | 13.5 | 24.9 | 19.4 | 27.0 |
| 26 | 17.1 | 6.7 | 8.7 | 1.0 | 7.4 | 13.3 | 24.7 | 18.9 | 26.8 |
| 27 | 17.5 | 7.3 | 9.2 | 0.9 | 7.1 | 13.2 | 24.5 | 18.6 | 26.7 |
| 28 | 18.7 | 8.2 | 10.0 | 1.3 | 7.1 | 13.0 | 24.3 | 18.4 | 26.5 |
| 29 | 17.9 | 8.3 | 10.5 | 1.9 | 7.5 | 12.9 | 24.1 | 18.1 | 26.1 |
| 30 | .917 | 8.1 | 10.4 | 2.5 | 8.1 | 12.8 | 24.0 | 17.8 | 26.0 |
| July | | | | | | | | | |
| 1 | 17.3 | 7.9 | 10.3 | 2.7 | 8.6 | 13.0 | 24.0 | 17.6 | 27.3 |
| 2 | 17.4 | 7.4 | 9.9 | 2.8 | 8.9 | 13.5 | MISG | 17.8 | 27.4 |
| 3 | 17.0 | 7.5 | 9.7 | 2.5 | 9.1 | 14.0 | 25.1 | 18.2 | 27.4 |
| 4 | 16.9 | 7.1 | 9.5 | 2.2 | 9.0 | 14.2 | 25.5 | 18.7 | 27.2 |
| 5 | 17.0 | 5.9 | 9.3 | 1.8 | 8.8 | 14.3 | 25.7 | 19.1 | 26.7 |
| 6 | 16.8 | 7.2 | 9.7 | 1.6 | 8.6 | 14.2 | 25.8 | 19.3 | 27.1 |
| 7 | 16.6 | 6.3 | 10.3 | 1.8 | 8.4 | 14.2 | 25.8 | 19.4 | 27.3 |
| 8 | 16.3 | 5.2 | 11.0 | 2.2 | 8.3 | 14.0 | 25.6 | 19.4 | 27.4 |
| 9 | 16.1 | 4.0 | 11.6 | 2.9 | 8.2 | 13.7 | 25.3 | 19.2 | 27.4 |
| 10 | 16.0 | 3.7 | 11.2 | 3.5 | 8.1 | 13.4 | 25.0 | 18.9 | 27.2 |
| 11 | 15.8 | 3.8 | 10.5 | 3.6 | 7.9 | 13.1 | 24.7 | 18.6 | 26.9 |
| 12 | 16.6 | 7.2 | 9.9 | 3.1 | 9.9 | 16.3 | 28.1 | 22.1 | 30.7 |
| 13 | 15.8 | 6.3 | 9.1 | 2.4 | 9.5 | 16.8 | 28.6 | 22.7 | 31.2 |
| 14 | 14.4 | 5.2 | 8.2 | 1.6 | 8.9 | 16.9 | 28.8 | 23.5 | 31.8 |
| 15 | 14.0 | 4.0 | 7.0 | 0.8 | 8.0 | 16.7 | 28.6 | 23.9 | 32.7 |
| 16 | 14.4 | 3.7 | 6.3 | -0.4 | 7.0 | 16.3 | 28.2 | 24.1 | 33.4 |
| 17 | 14.2 | 3.8 | 6.3 | -1.3 | 5.8 | 15.9 | 27.7 | 23.8 | 33.4 |

Table 4: Summary of Least Tern Surveys – 1985 – 2007 Lower Mississippi River

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

| Year | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|
| Aerial | | | | | | | | | | | |
| Individuals | 3,677 | 2,129 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sites | 81 | 81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Colonies | 20 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Small Boat | | | | | | | | | | | |
| Individuals | 3,067 | 3,428 | 5,538 | 6,159 | 5,920 | 6,361 | 5,802 | 8,082 | 11,239 | 10,960 | 8,171 |
| Sites | 47 | 79 | 91 | 134 | 124 | 141 | 100 | 115 | 114 | 118 | 144 |
| Colonies | 31 | 57 | 39 | 38 | 64 | 54 | 68 | 68 | 69 | 88 | 107 |

| Year Small Boat | 2007 |
|--------------------|-------|
| Individuals | 9,814 |
| Sites | 121 |
| Colonies | 96 |

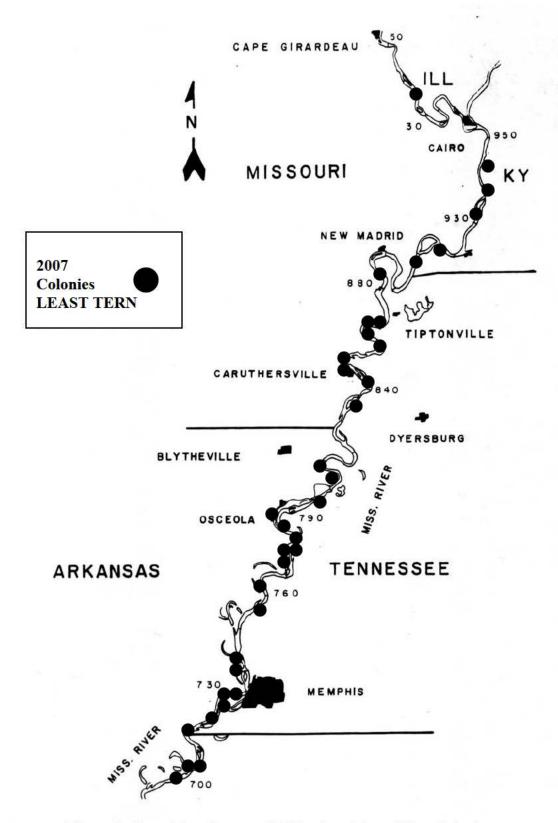


Figure 1: Least Tern Survey – 2007 – Area Map of Nest Colonies on Mississippi River – Cape Girardeau, MO to Baton Rouge, LA

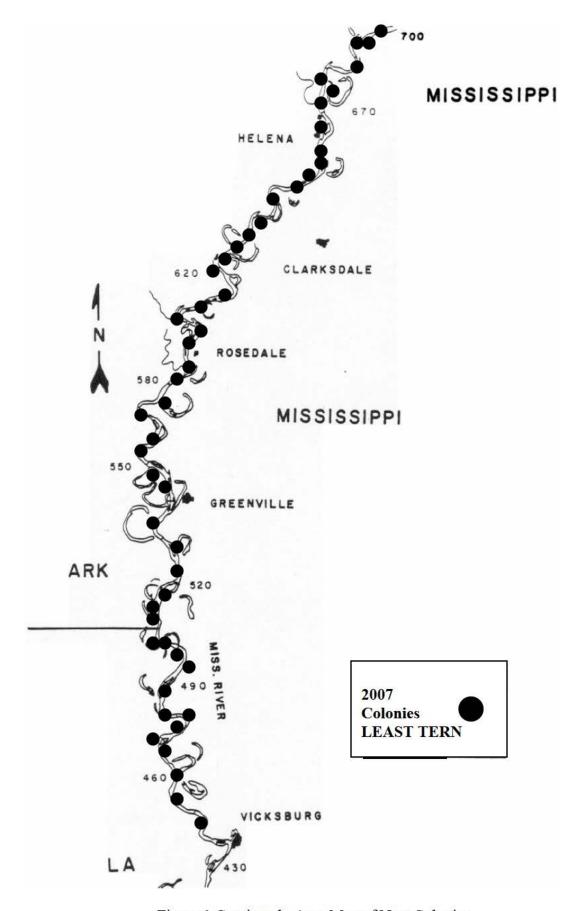


Figure 1 Continued: Area Map of Nest Colonies

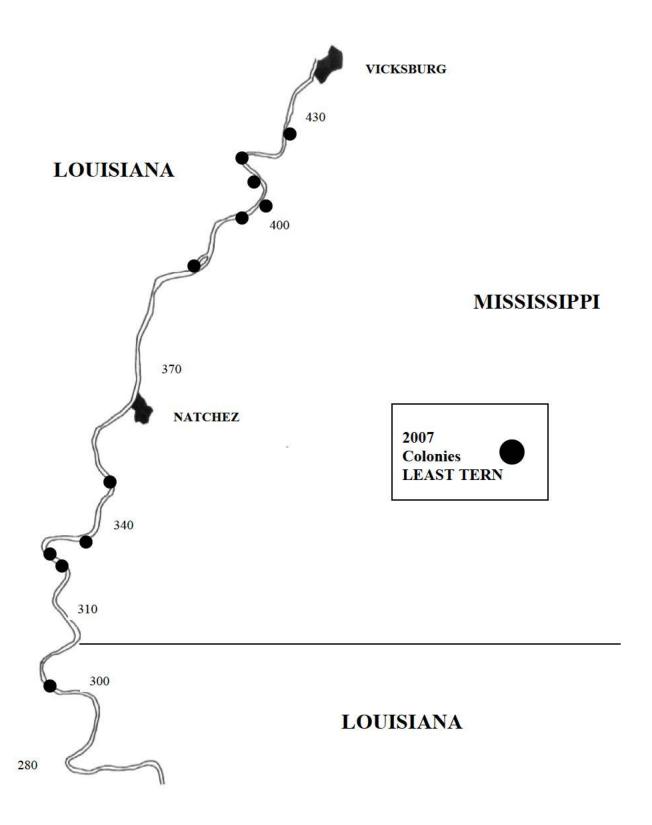
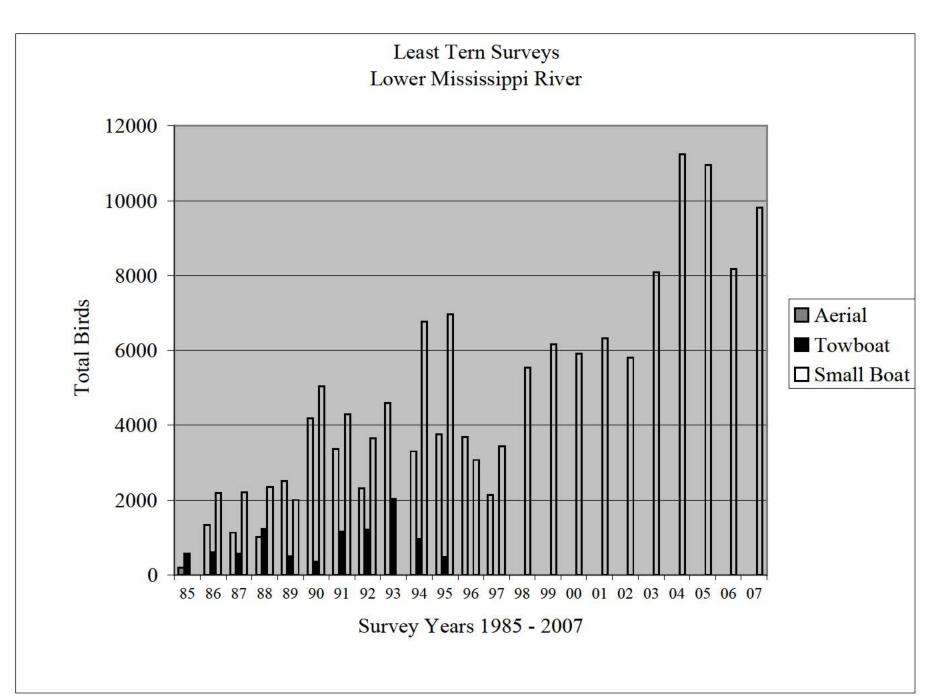


Figure 1 Continued: Area Map of Nest Colonies



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

2007

APPENDIX A

APPENDIX A – I

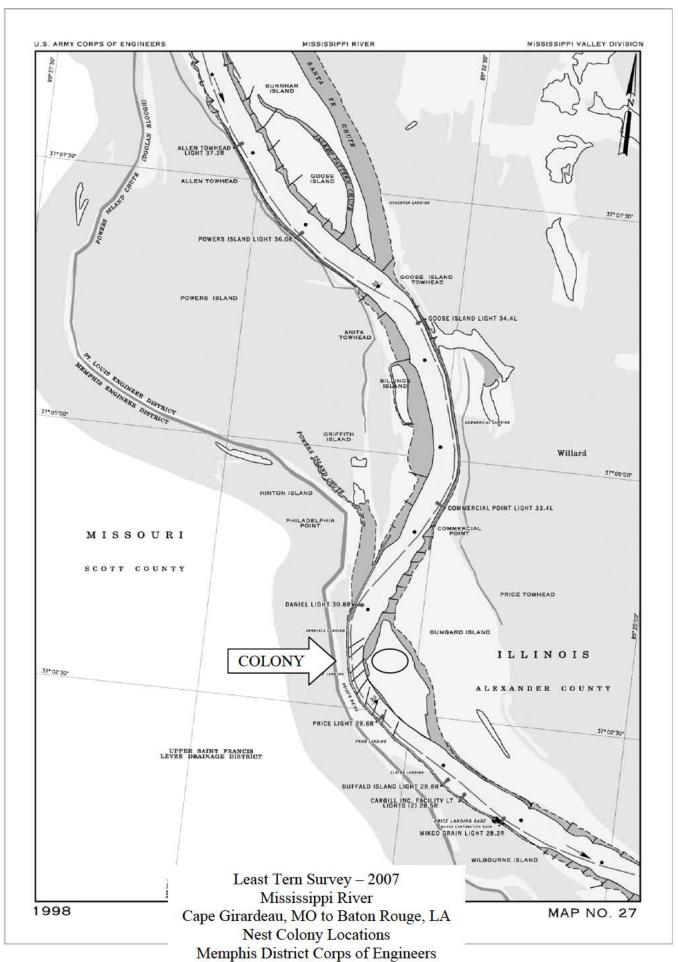
LEAST TERN SURVEY - 2007

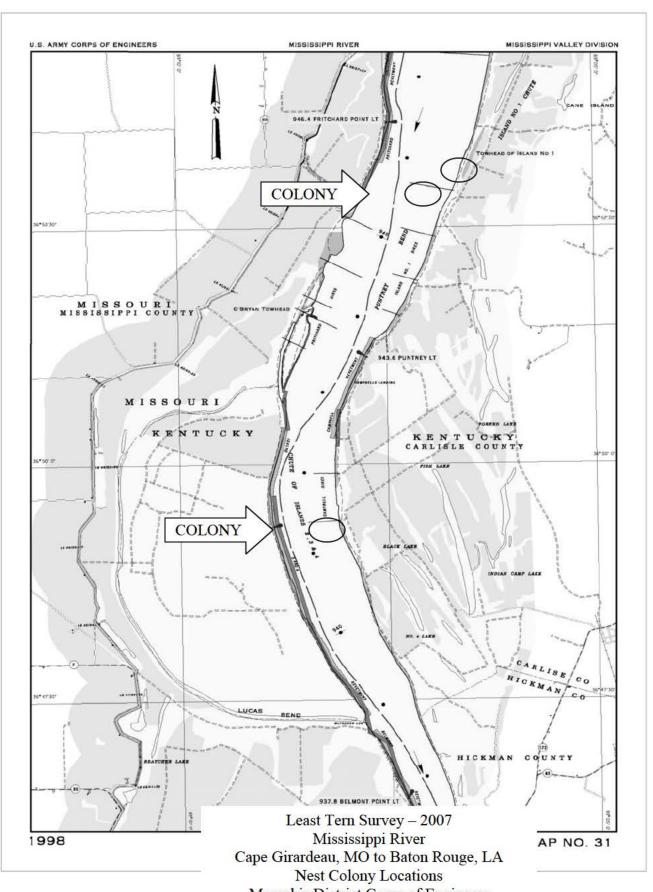
Mississippi River Cape Girardeau, MO to Baton Rouge, LA

NEST COLONY LOCATIONS

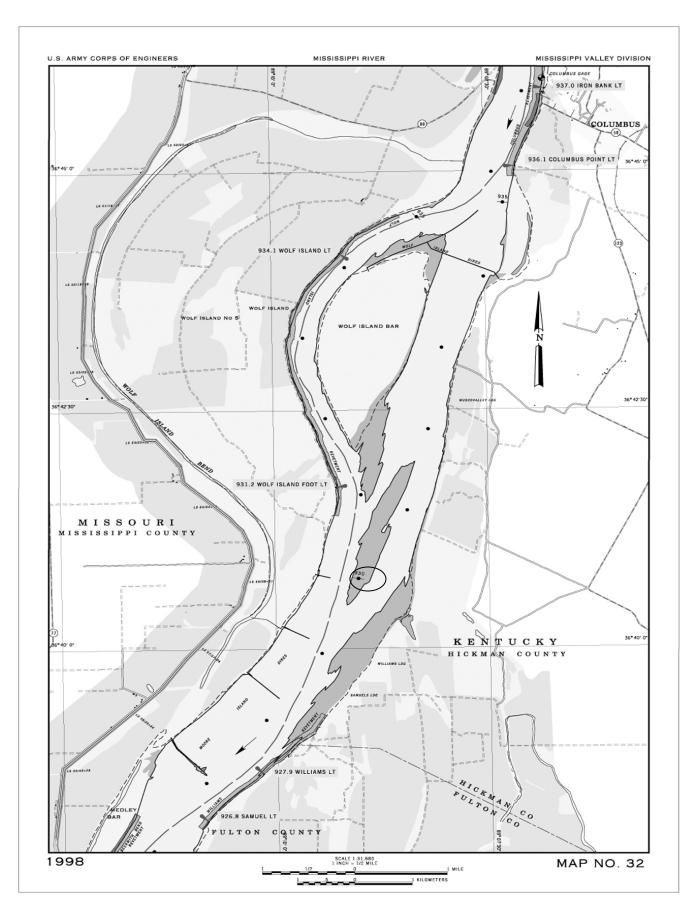
Memphis District, Corps of Engineers

Maps

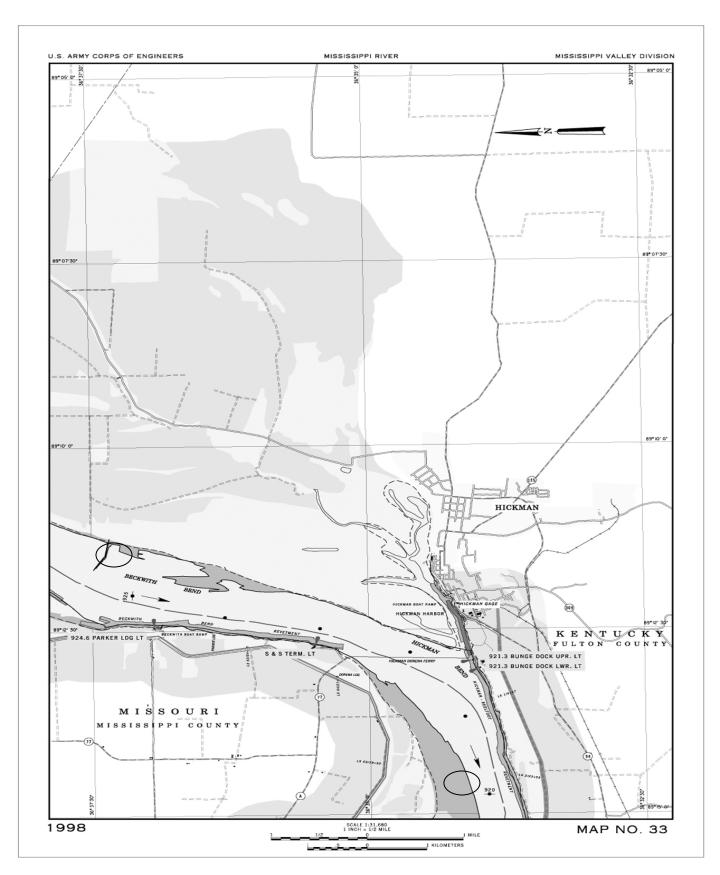




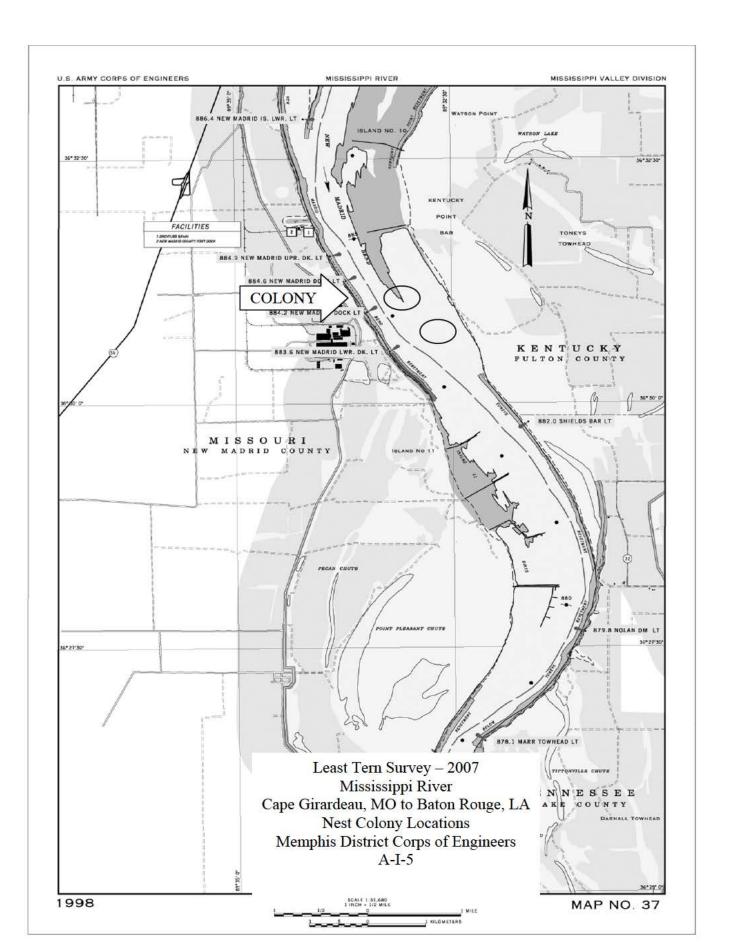
Memphis District Corps of Engineers A-I-2

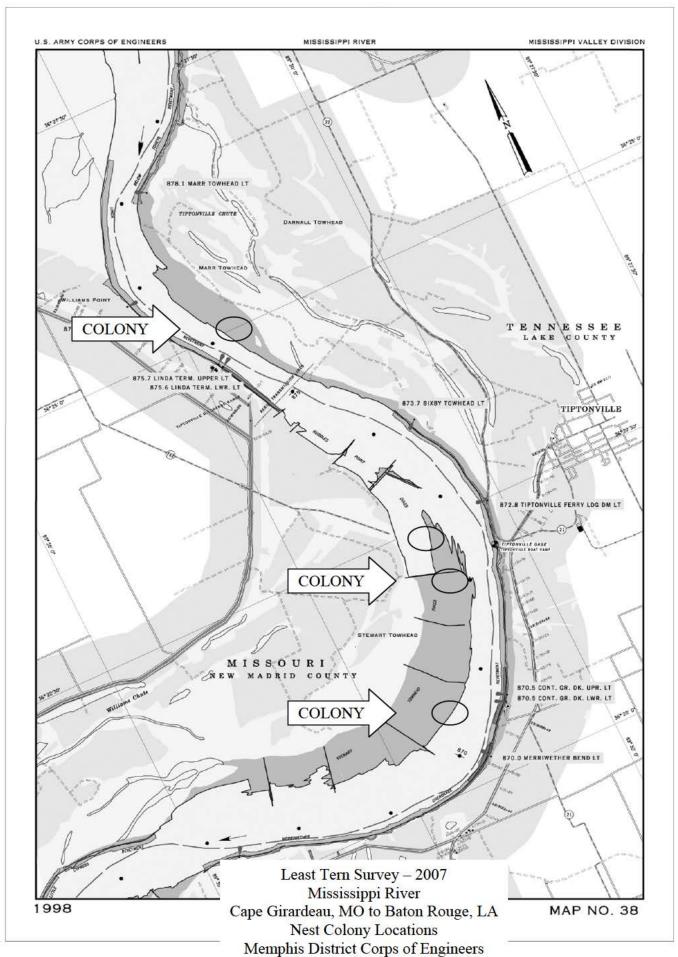


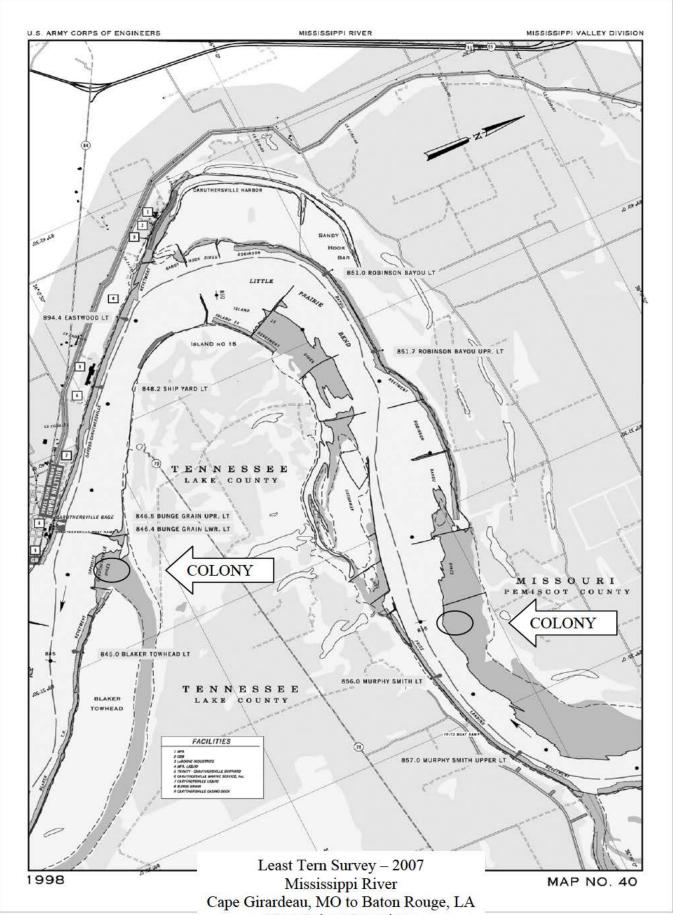
Memphis District Corps of Engineers A-I-3



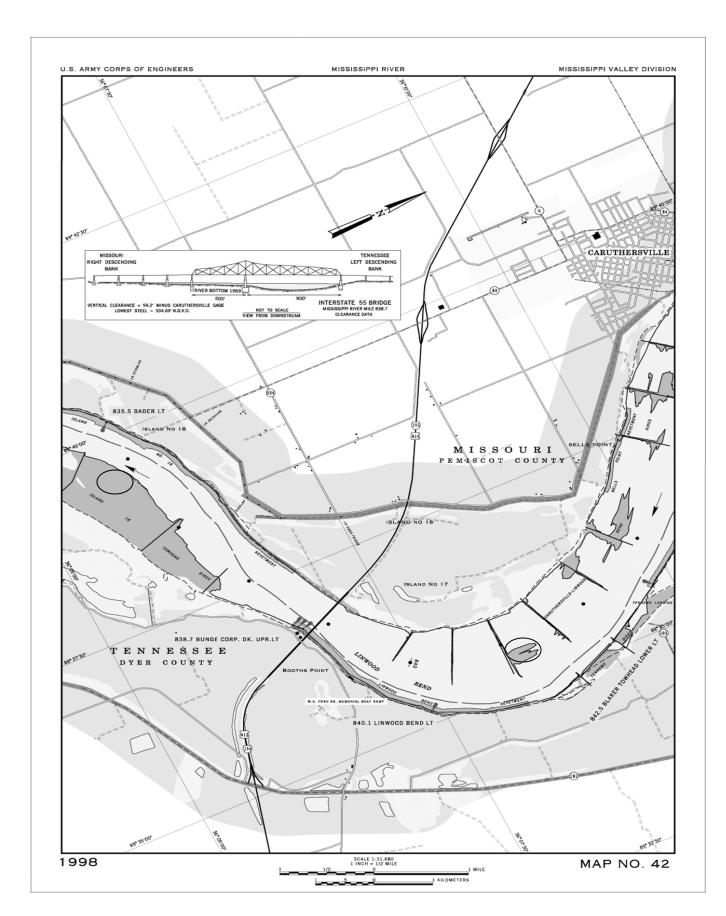
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-4



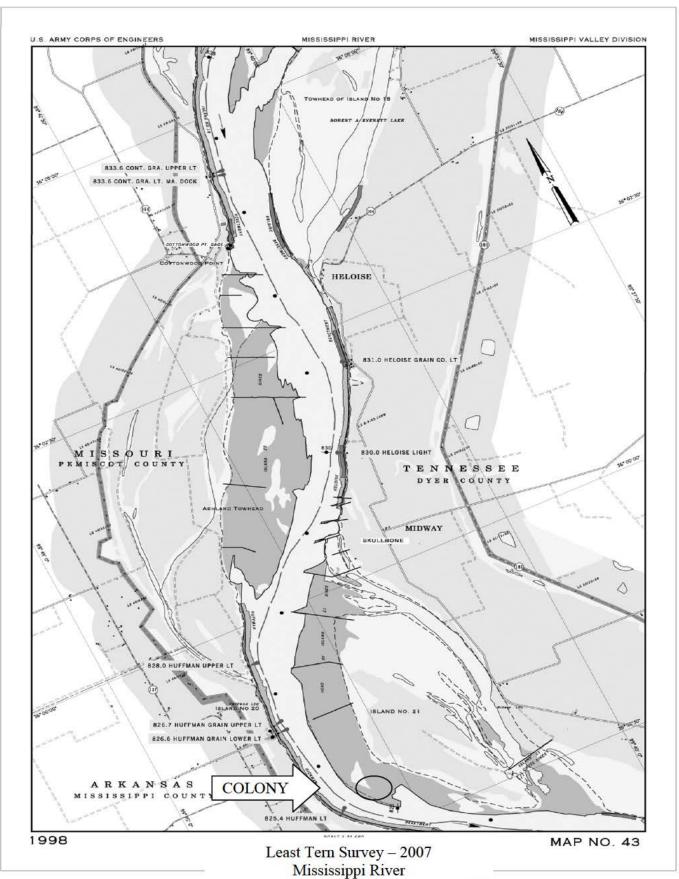




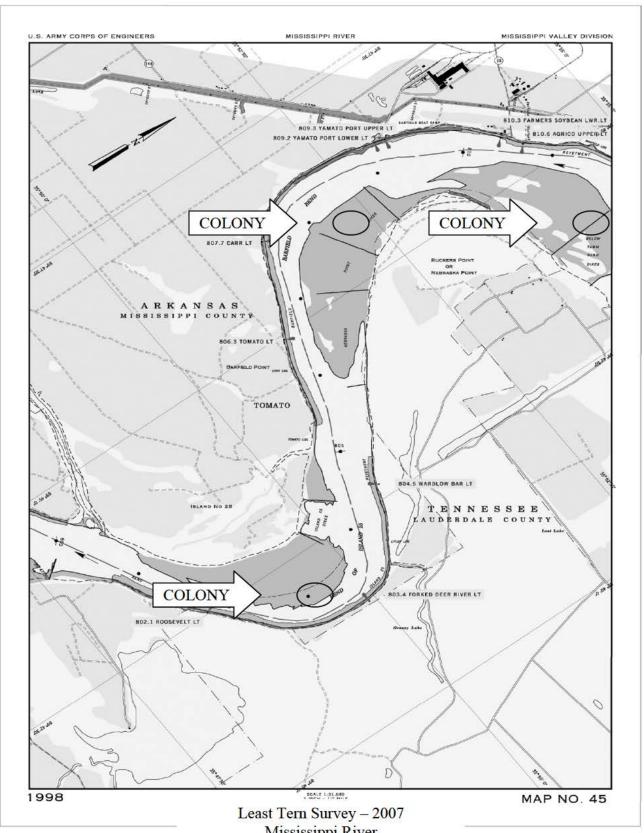
Nest Colony Locations Memphis District Corps of Engineers A-I-7



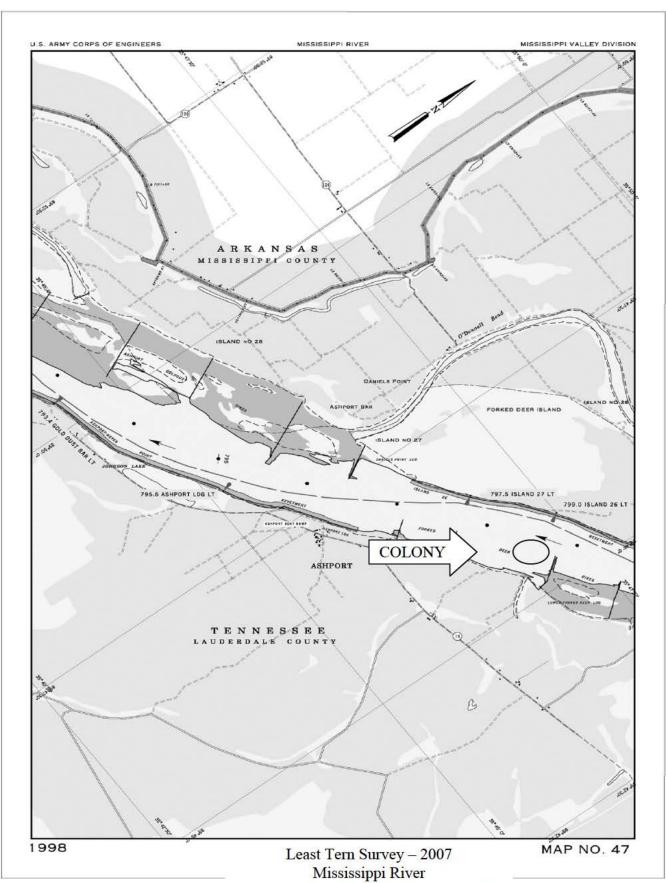
Memphis District Corps of Engineers A-I-8



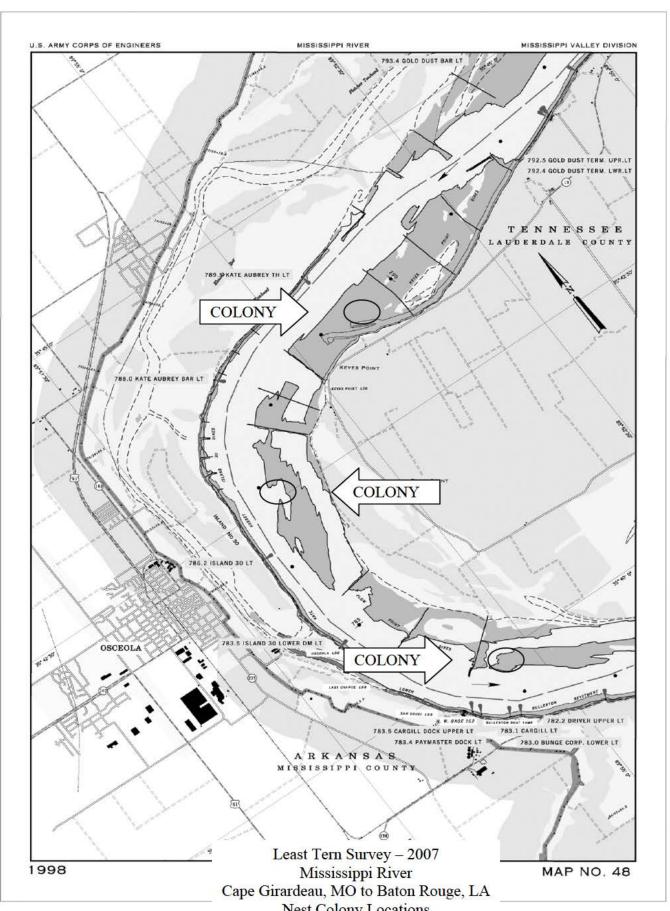
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-9



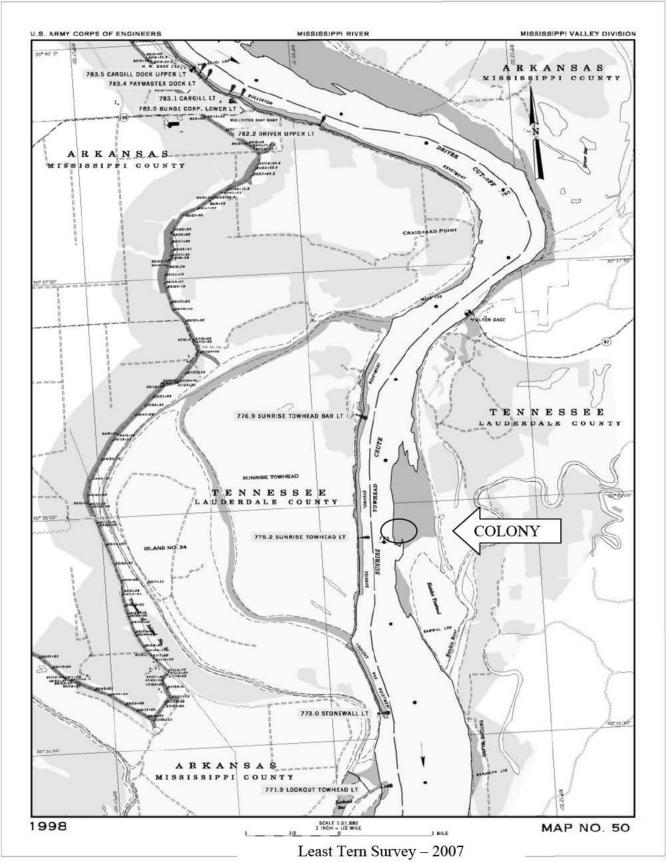
Mississippi River
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-10



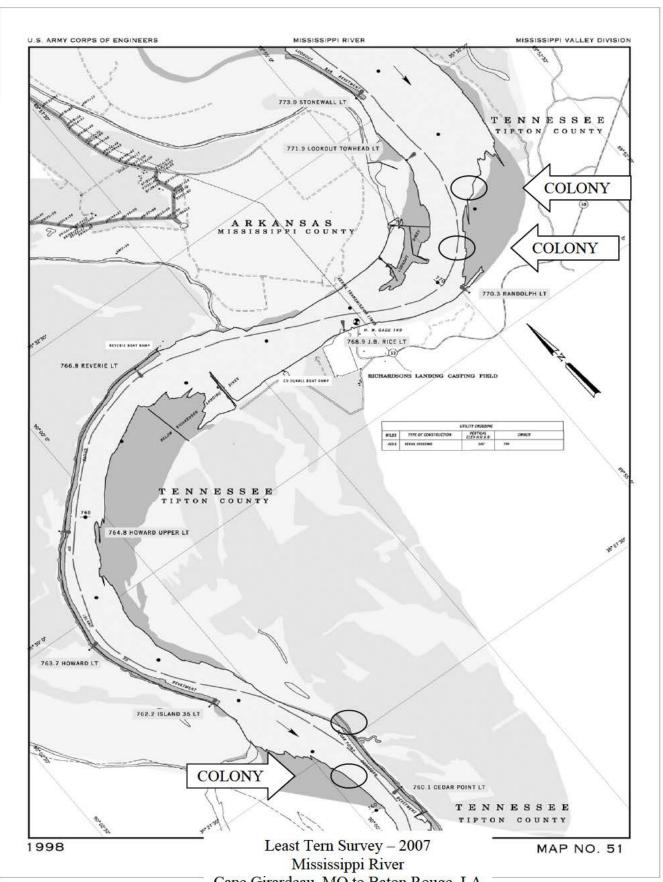
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-11



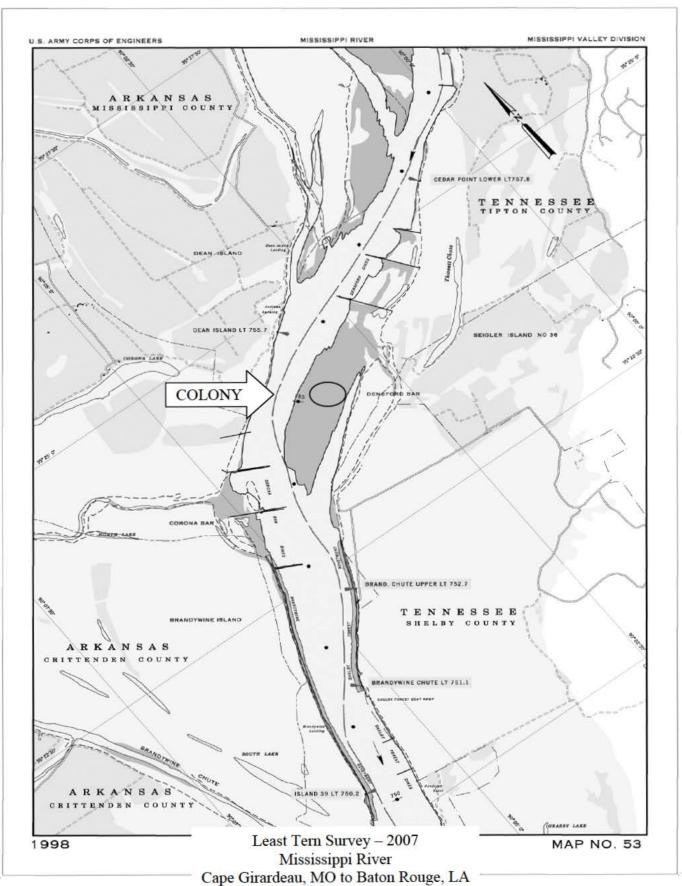
Nest Colony Locations
Memphis District Corps of Engineers
A-I-12



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



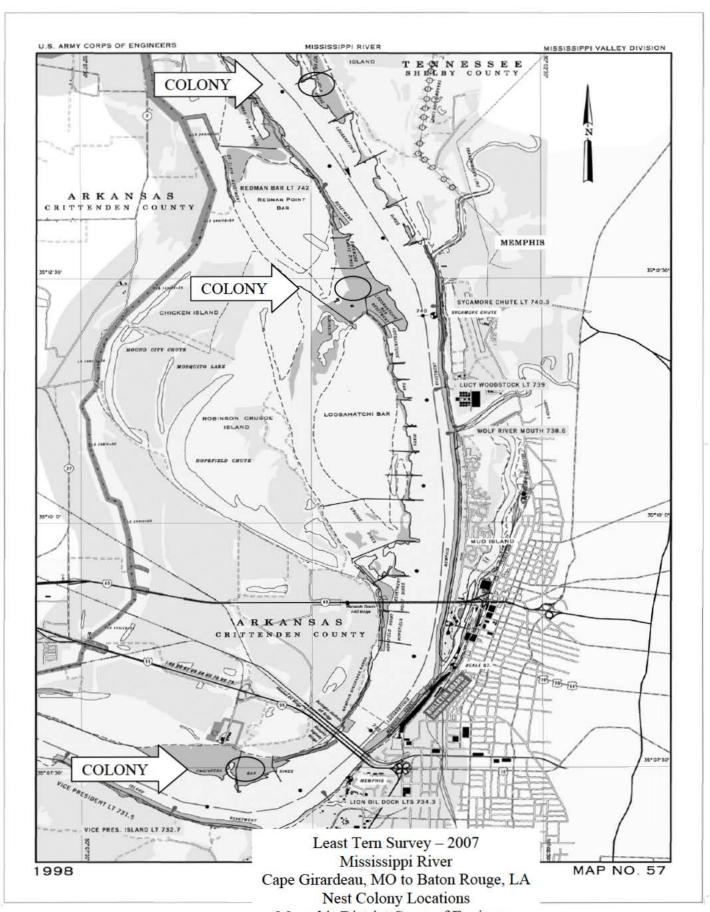
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-14



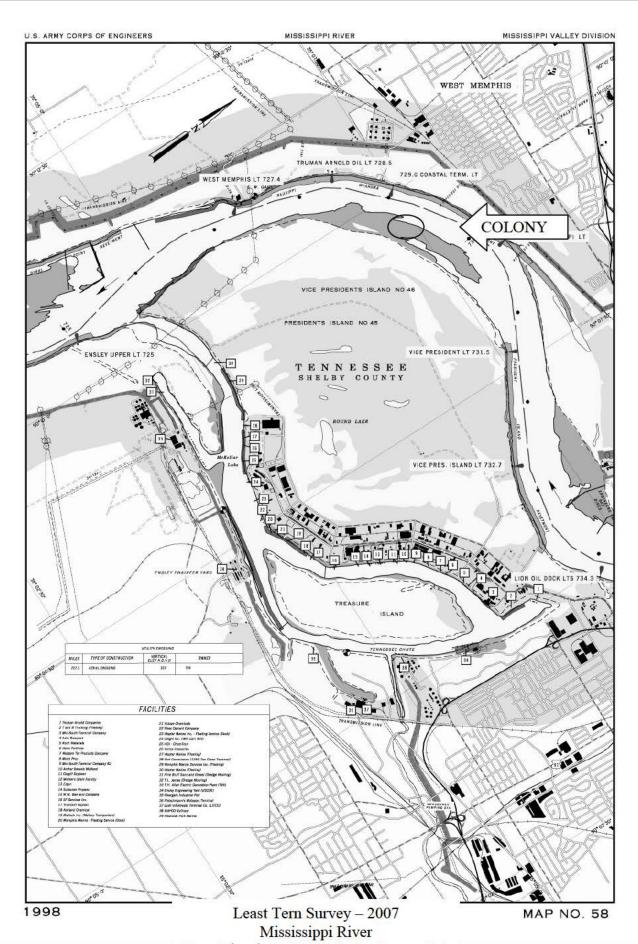
Nest Colony Locations

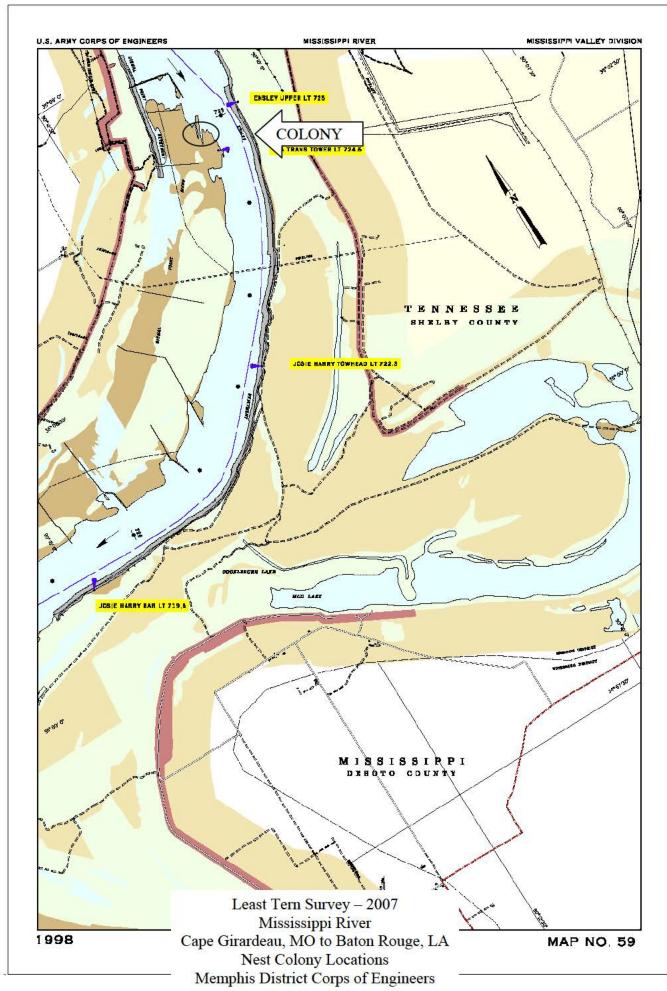
Memphis District Corps of Engineers

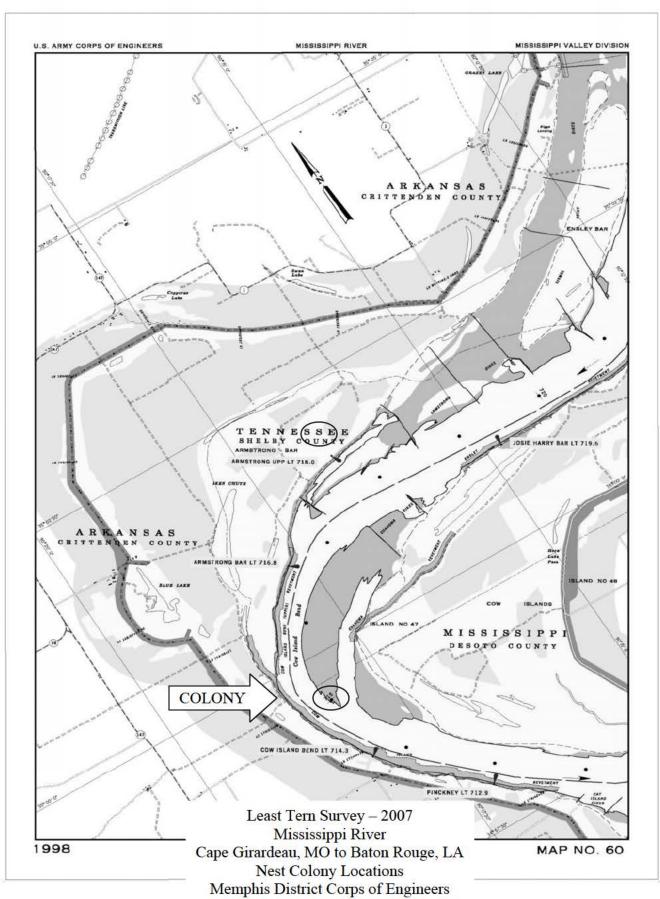
A-I-15



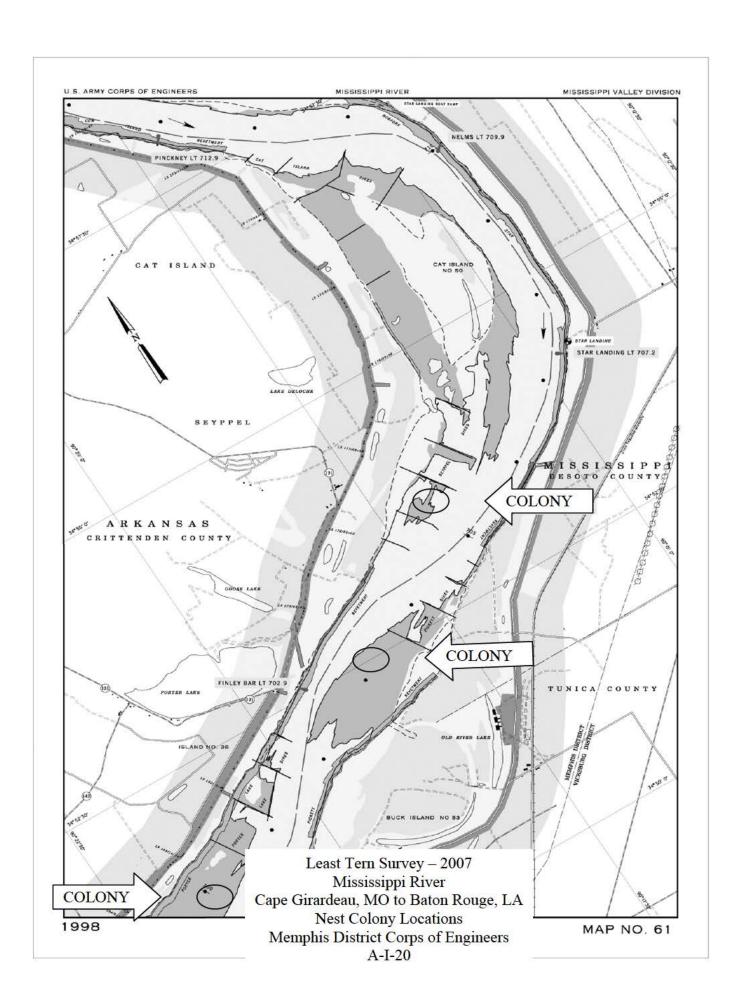
Memphis District Corps of Engineers A-I-16

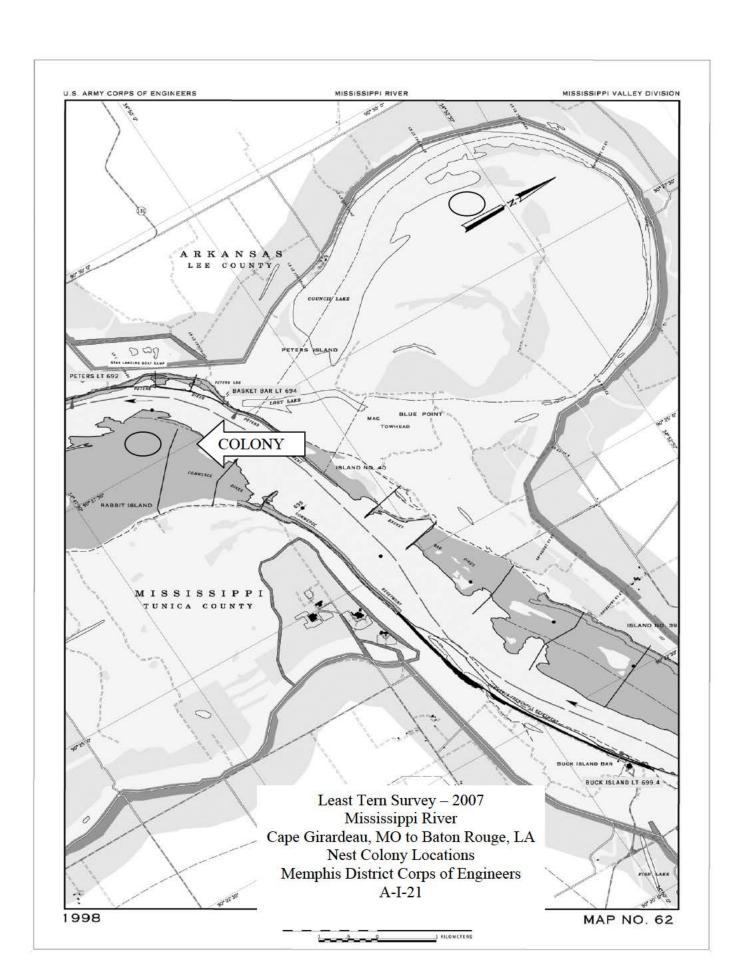


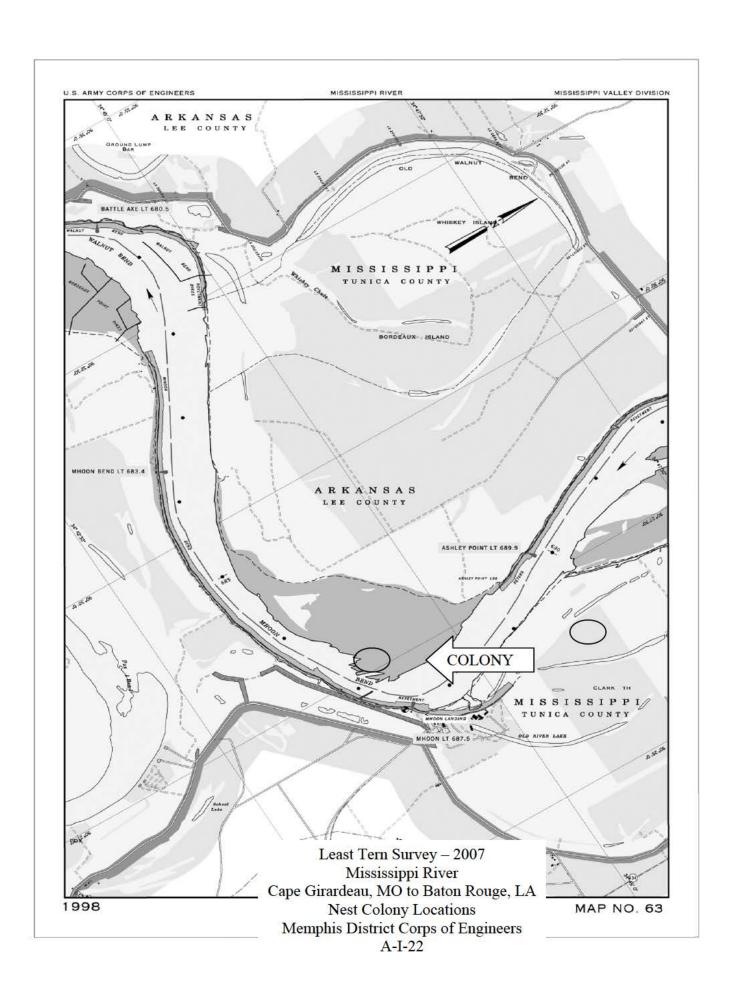


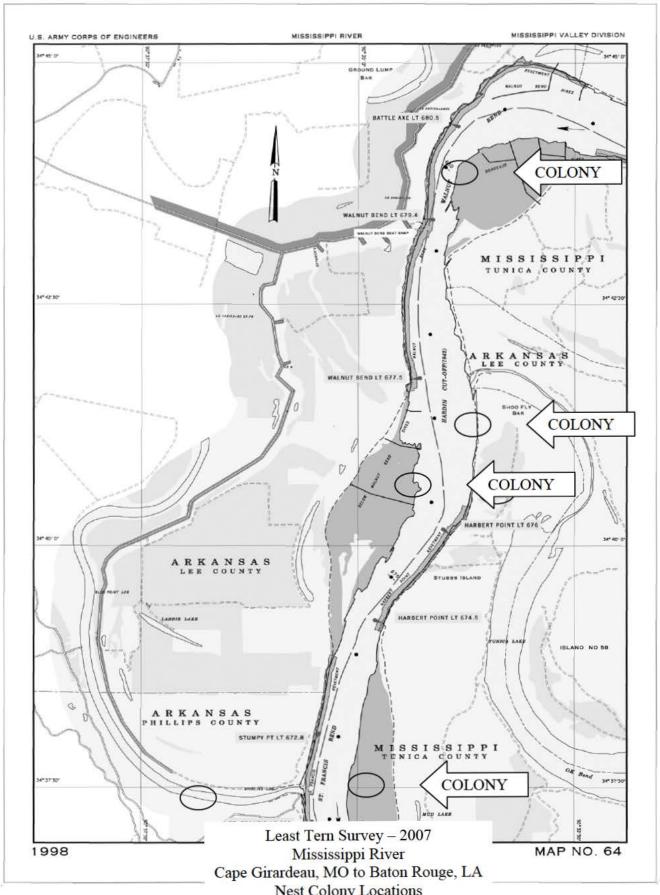


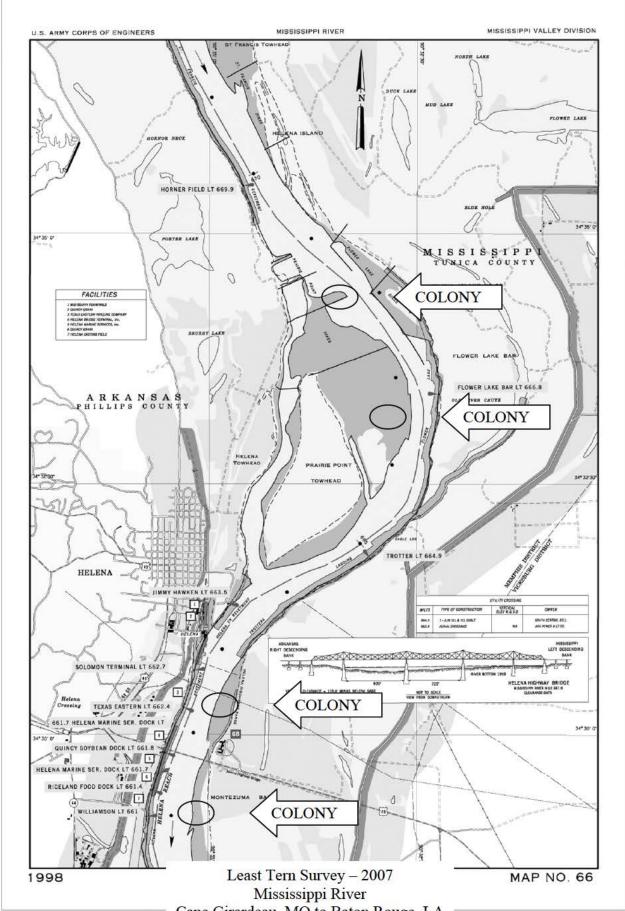
District Corps of Engineer A-I-19

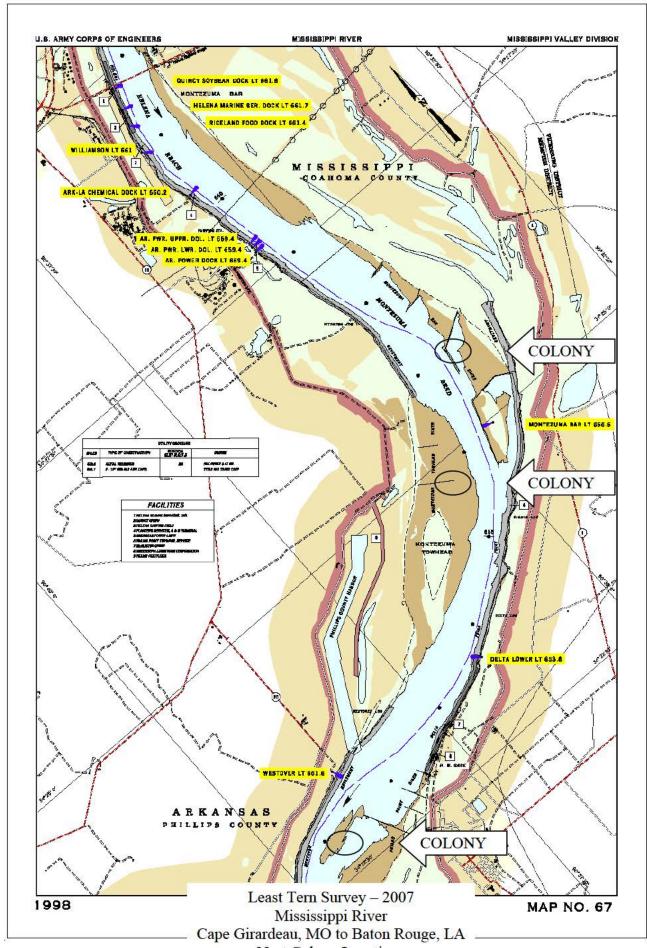


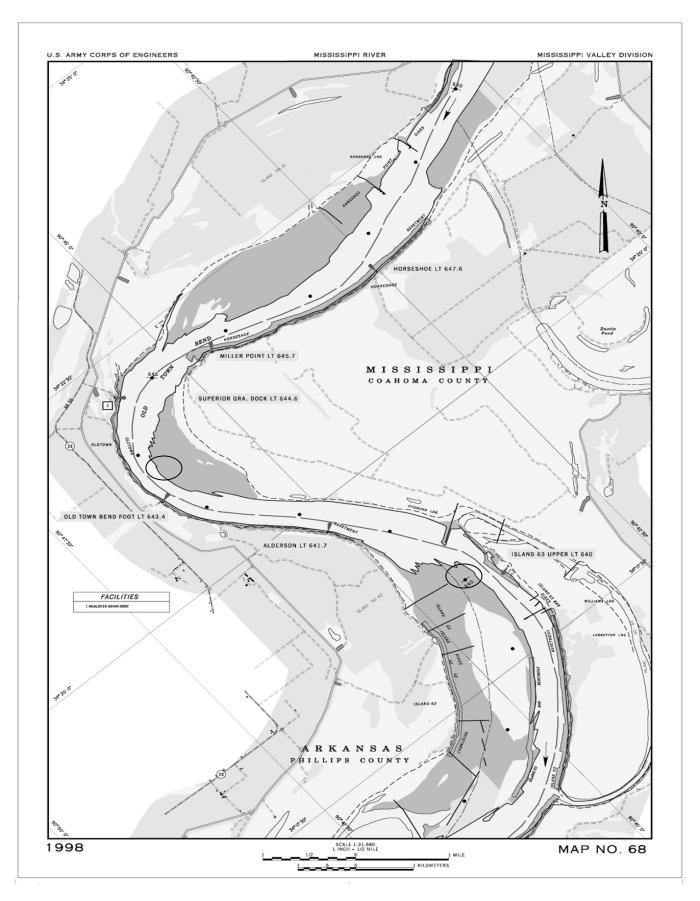




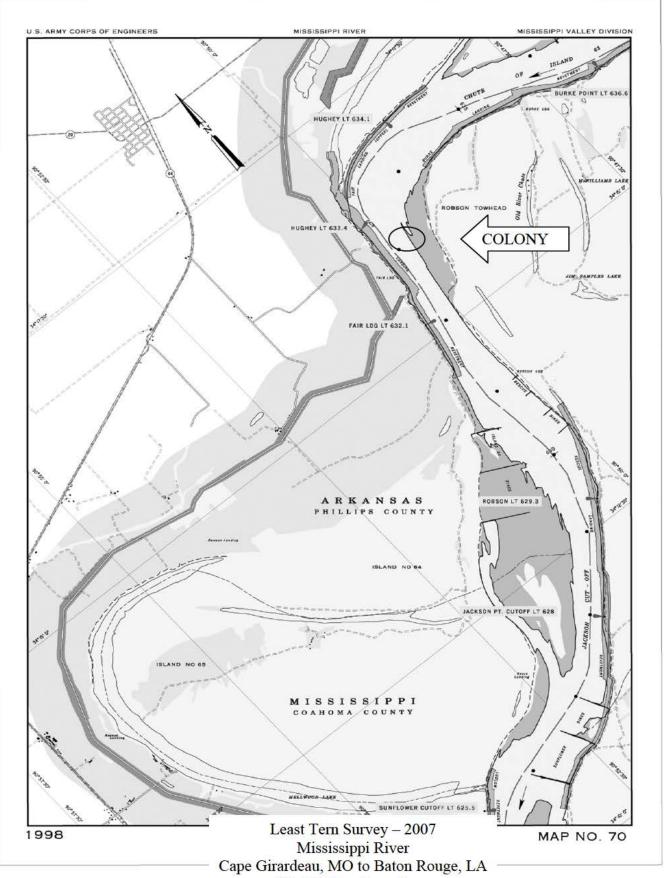


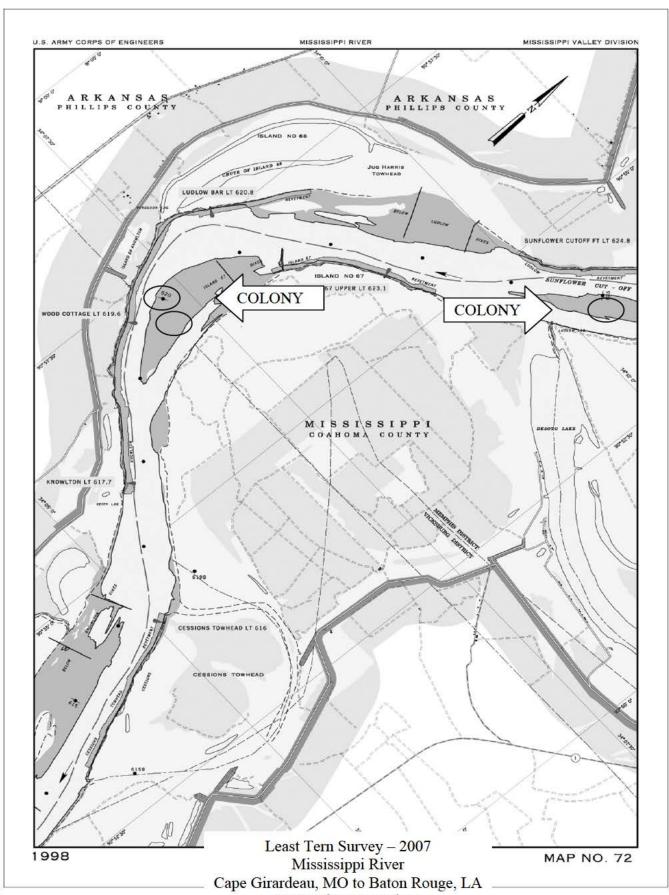


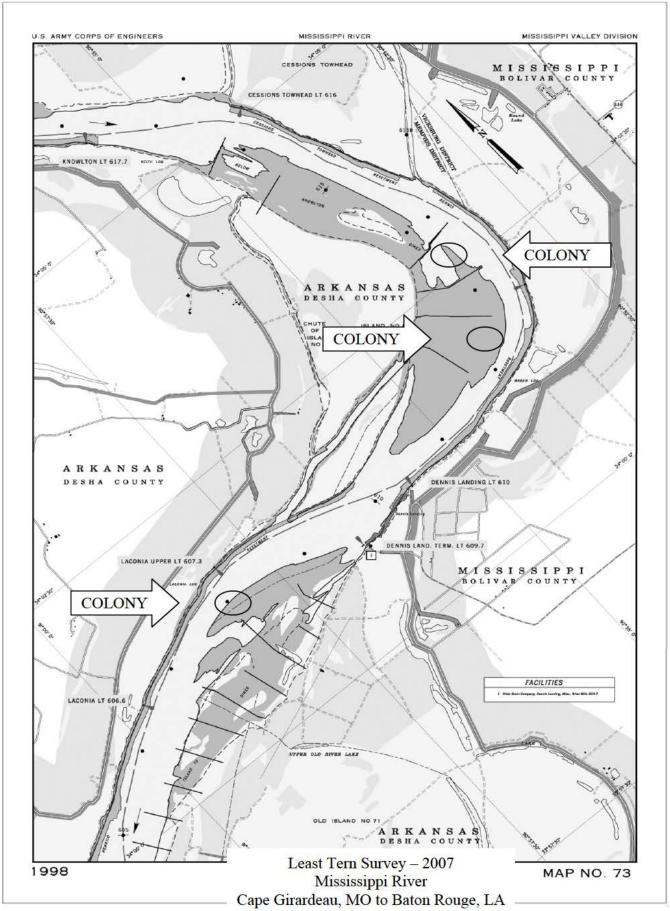


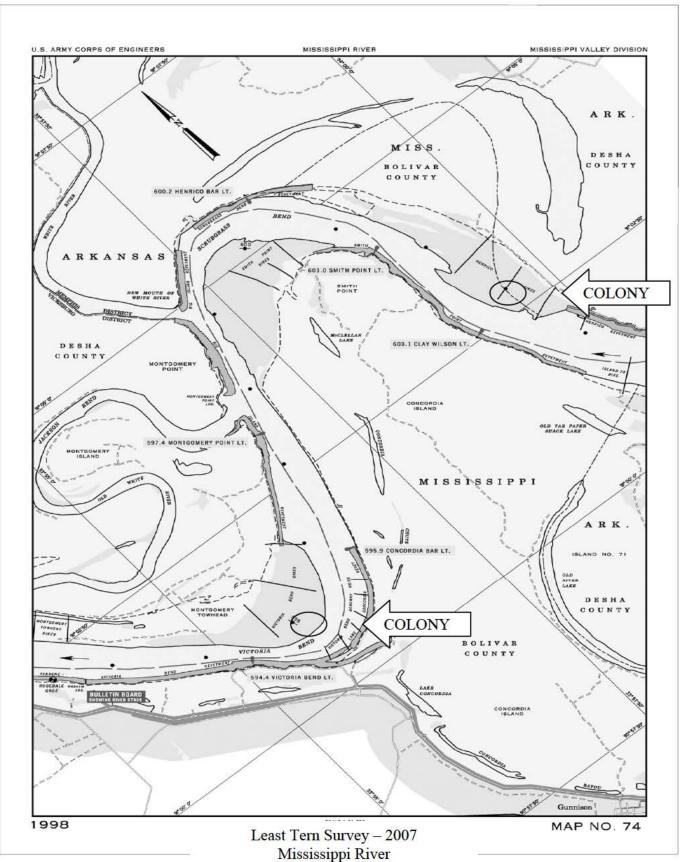


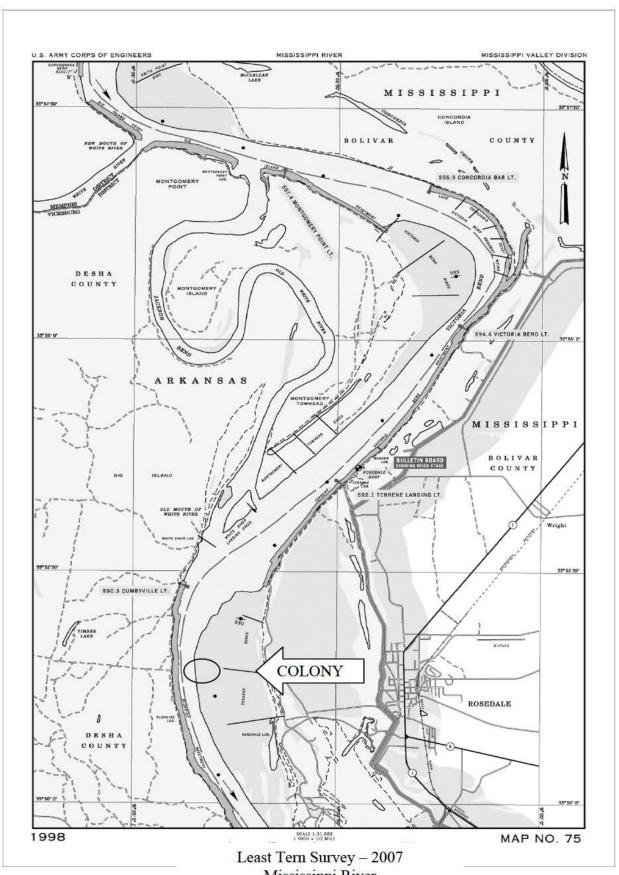
Nest Colony Locations Memphis District Corps of Engineers A-I-26

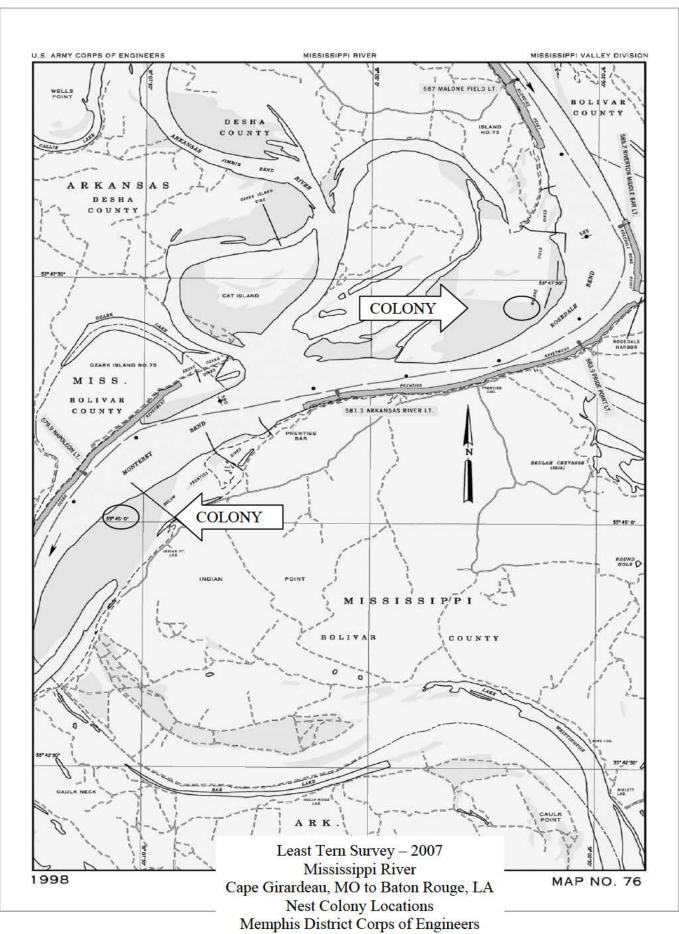


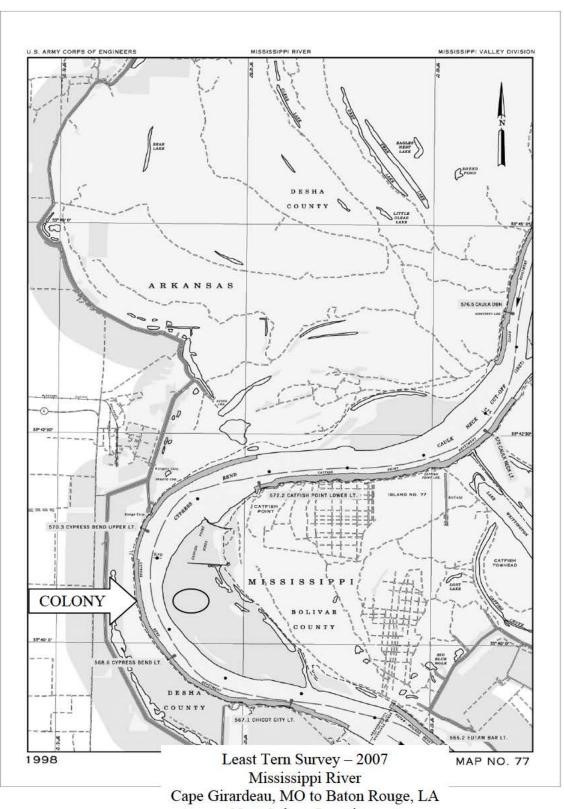


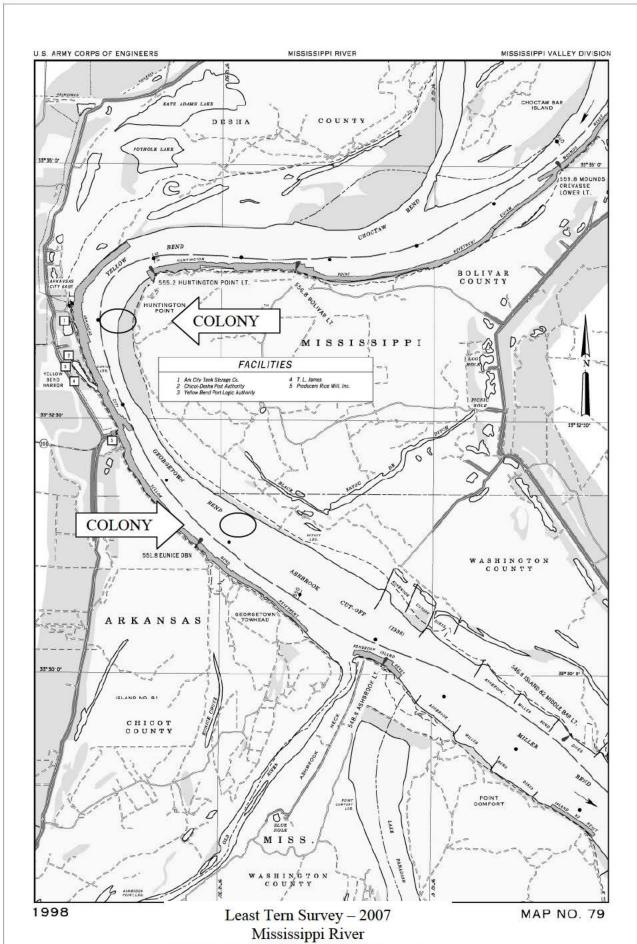


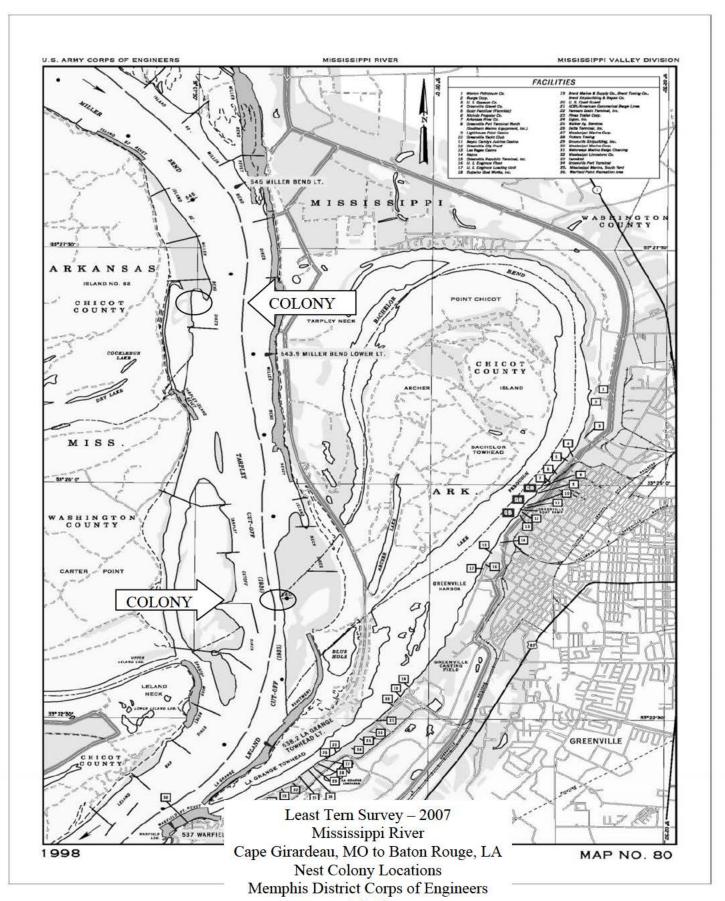


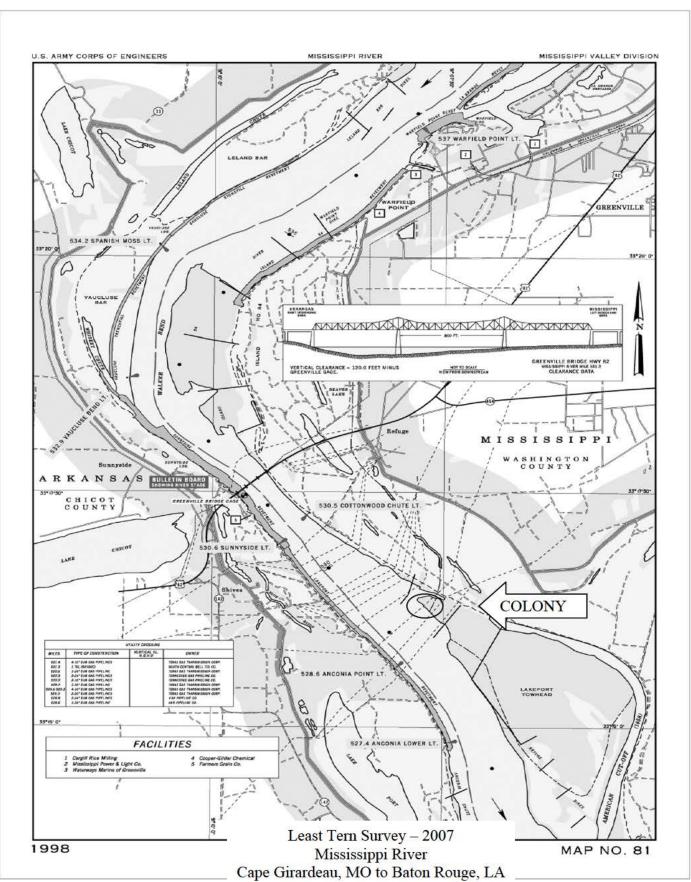


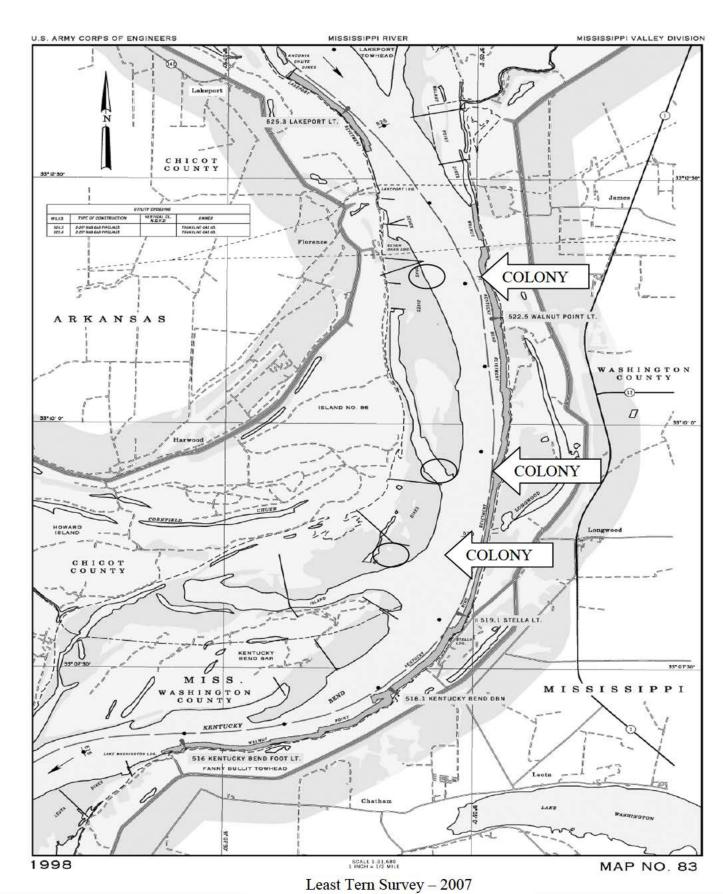


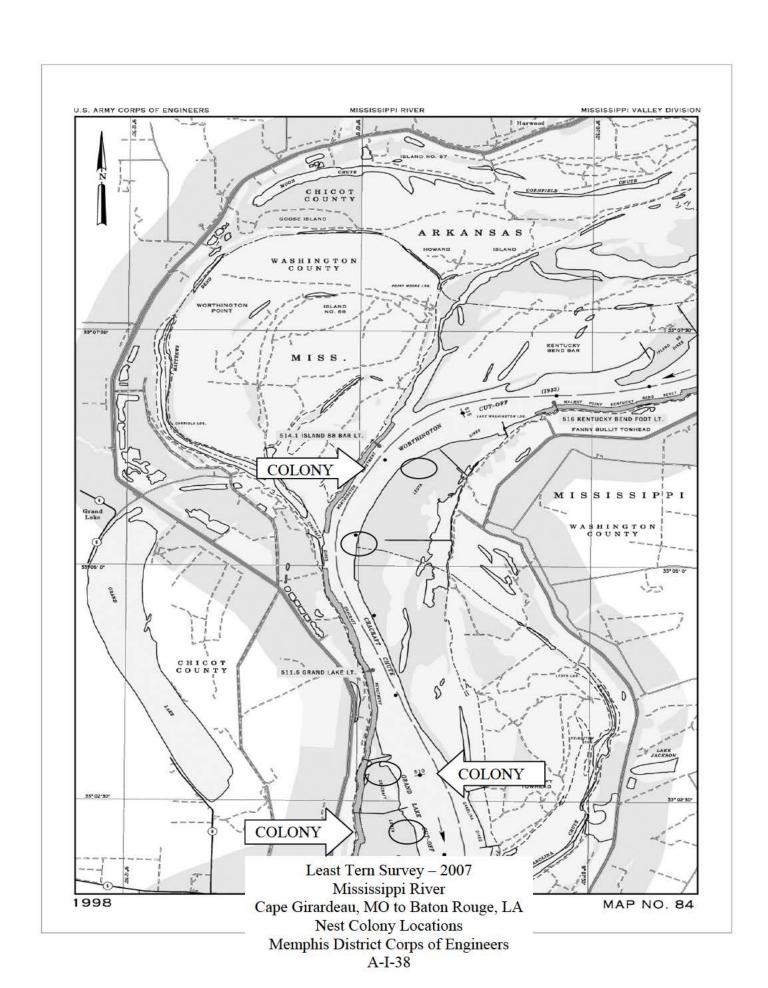


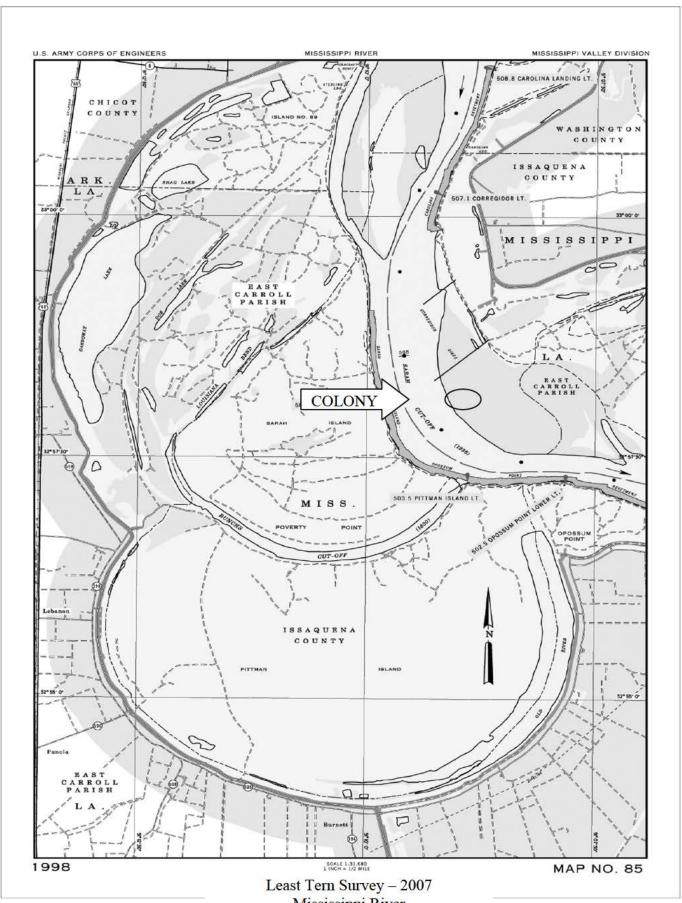


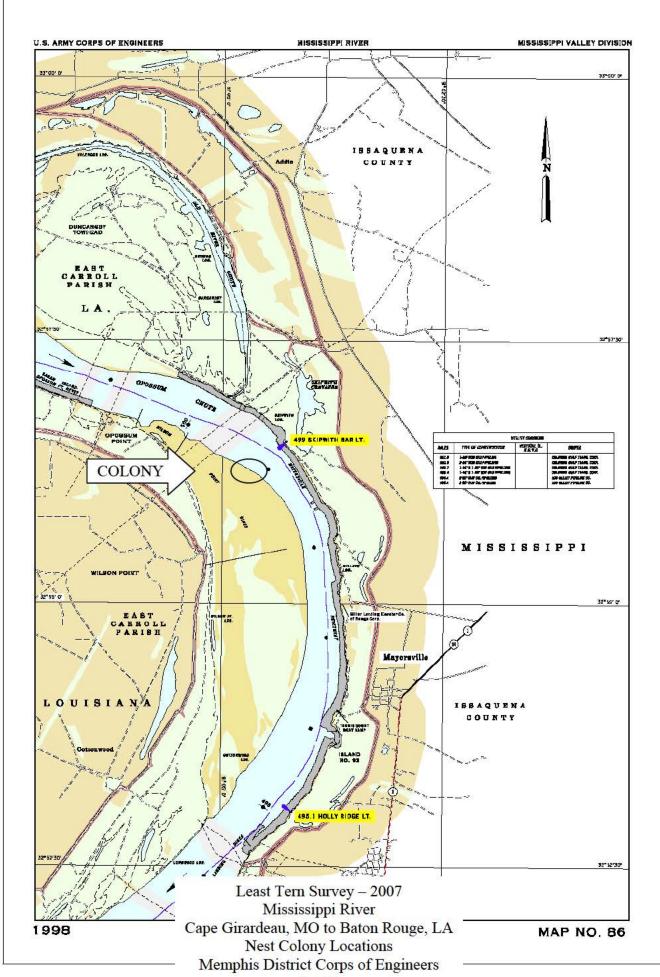


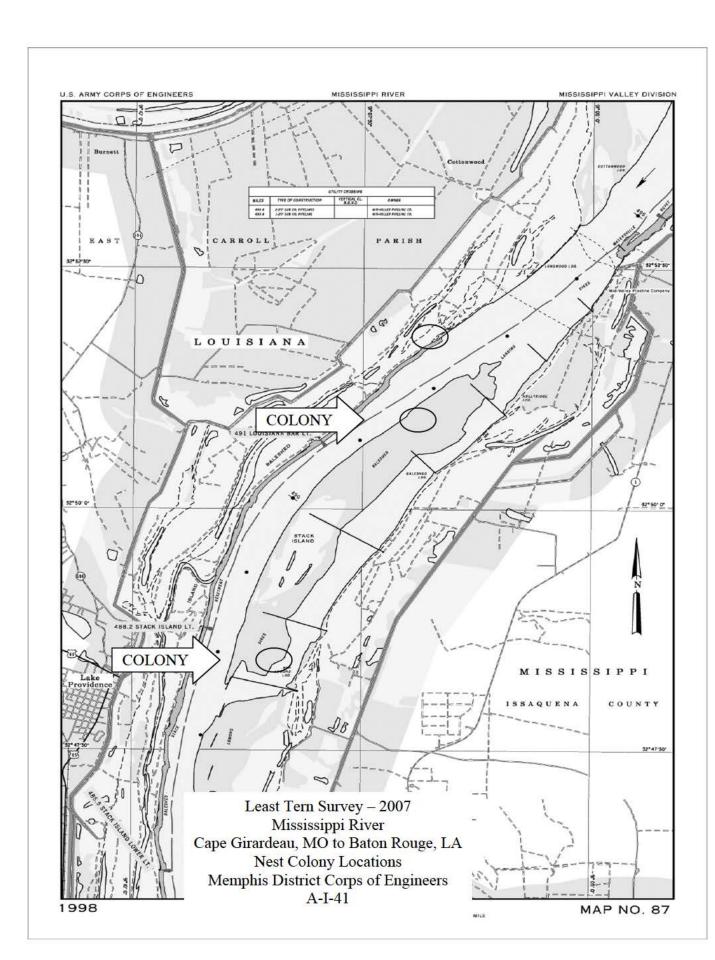




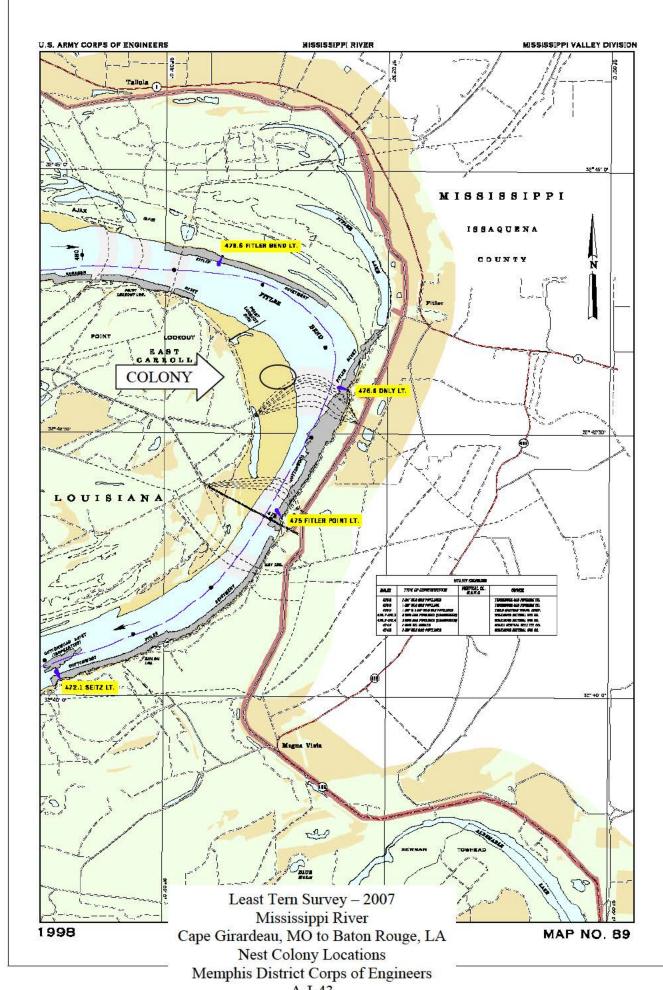


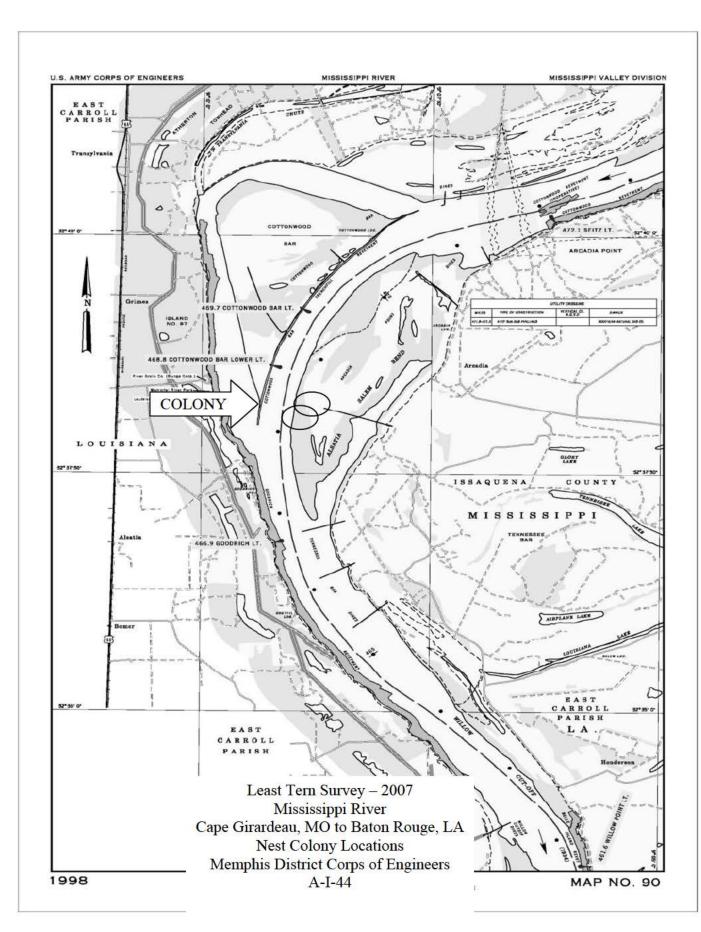


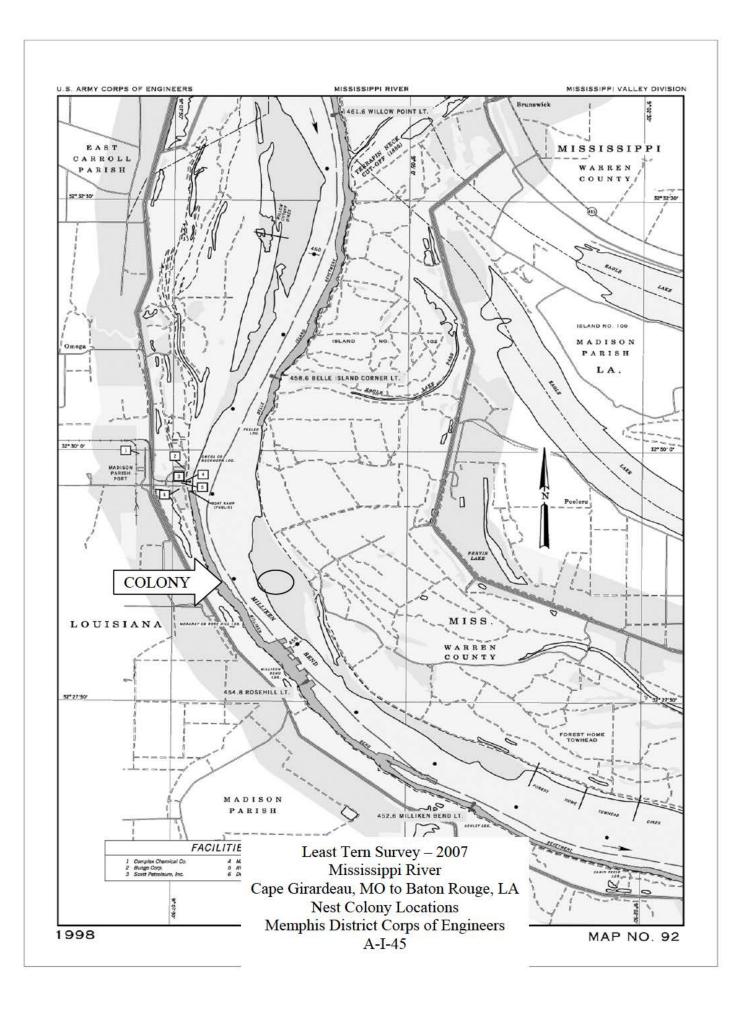


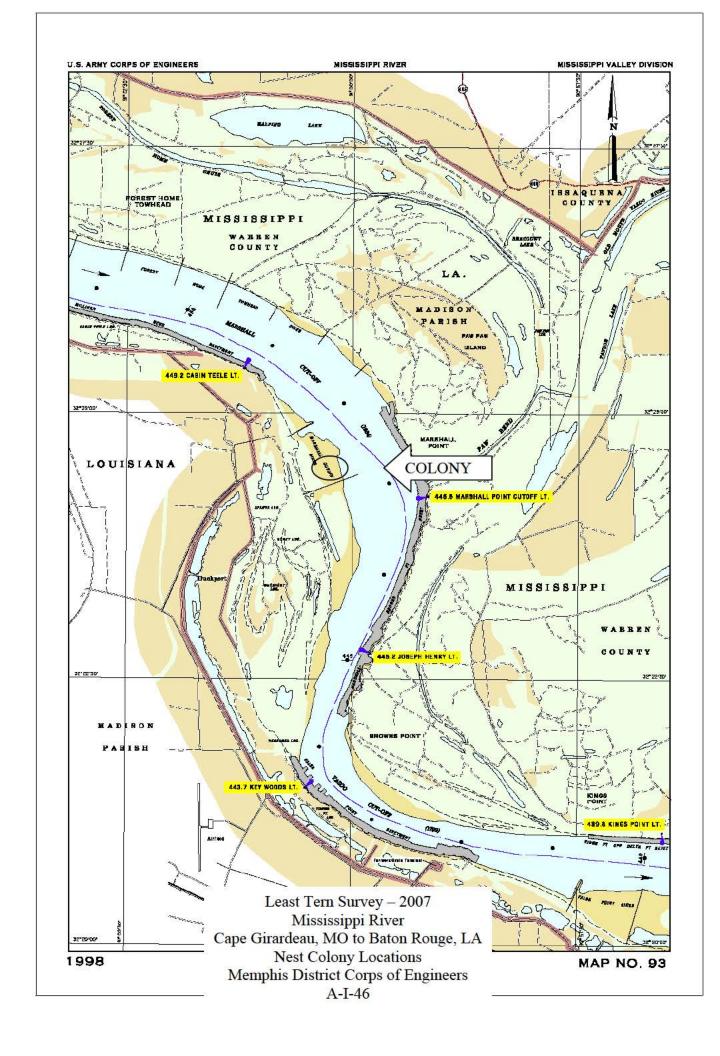


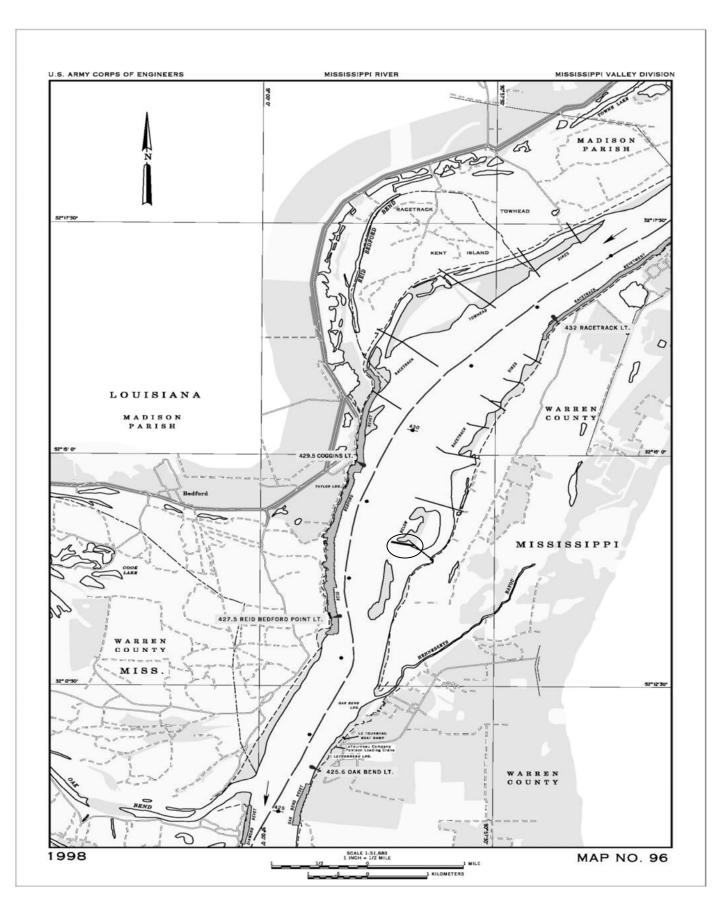
A-I-42



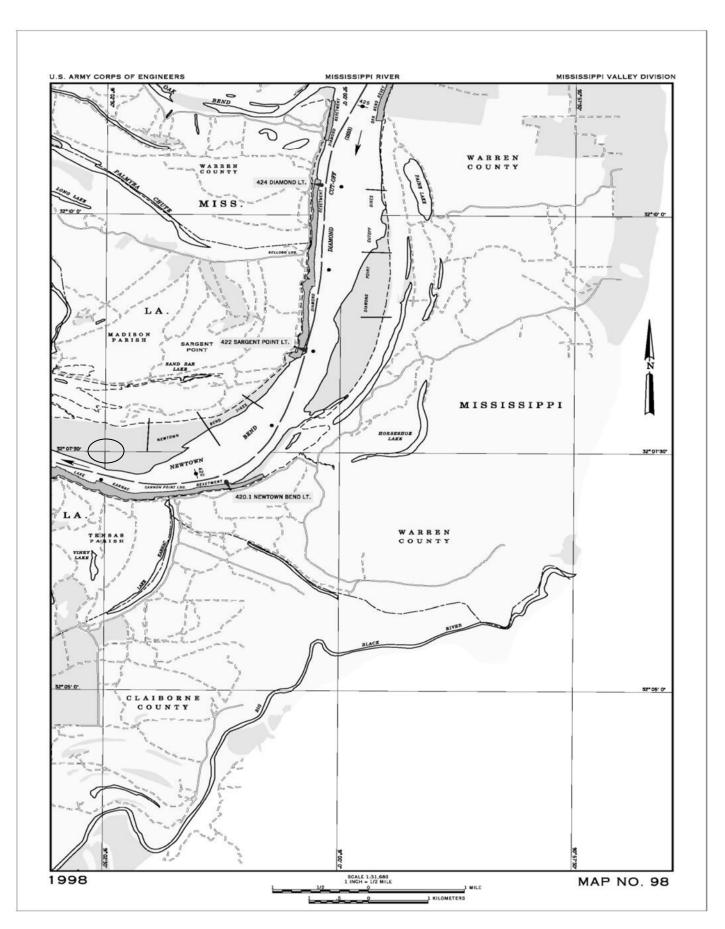




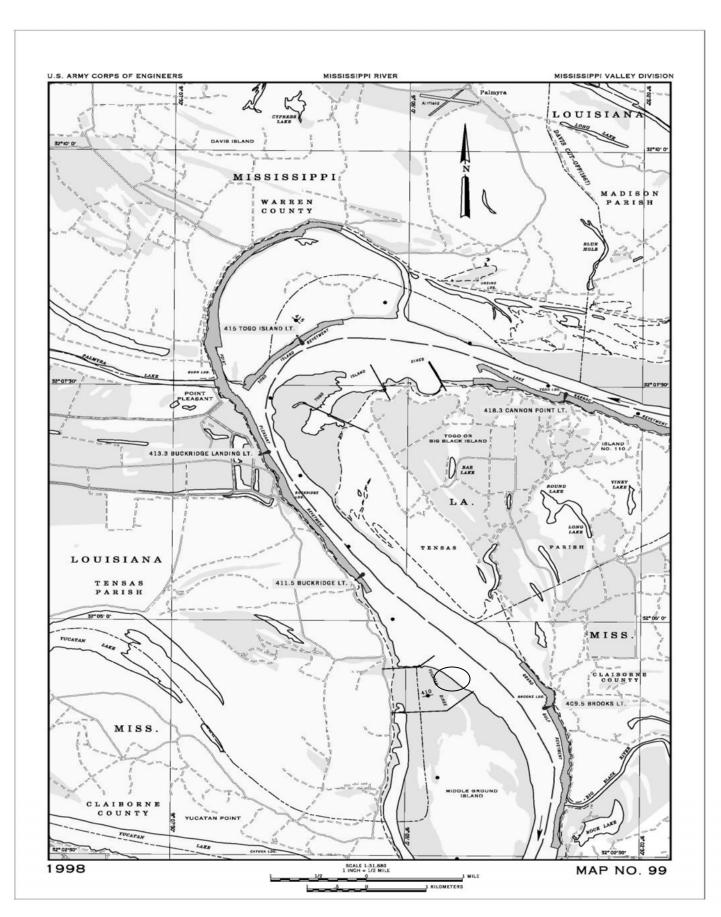




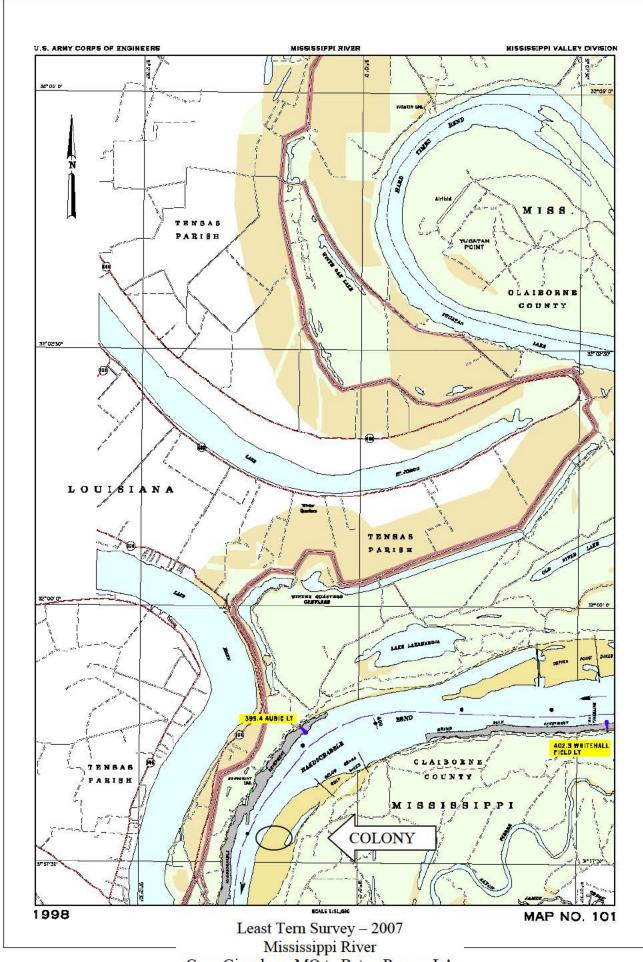
Nest Colony Locations Memphis District Corps of Engineers A-I-47

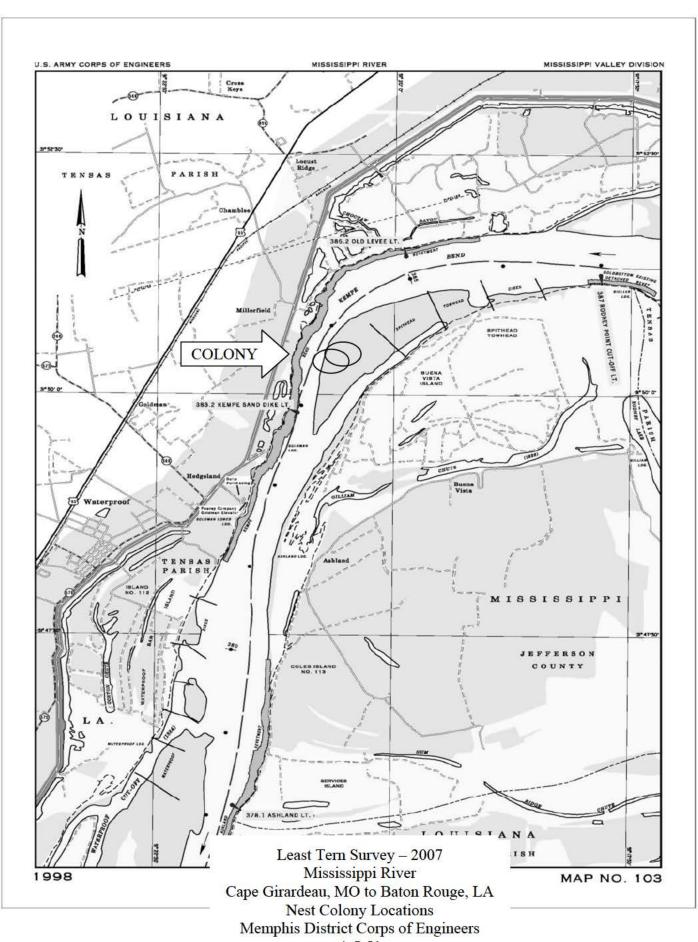


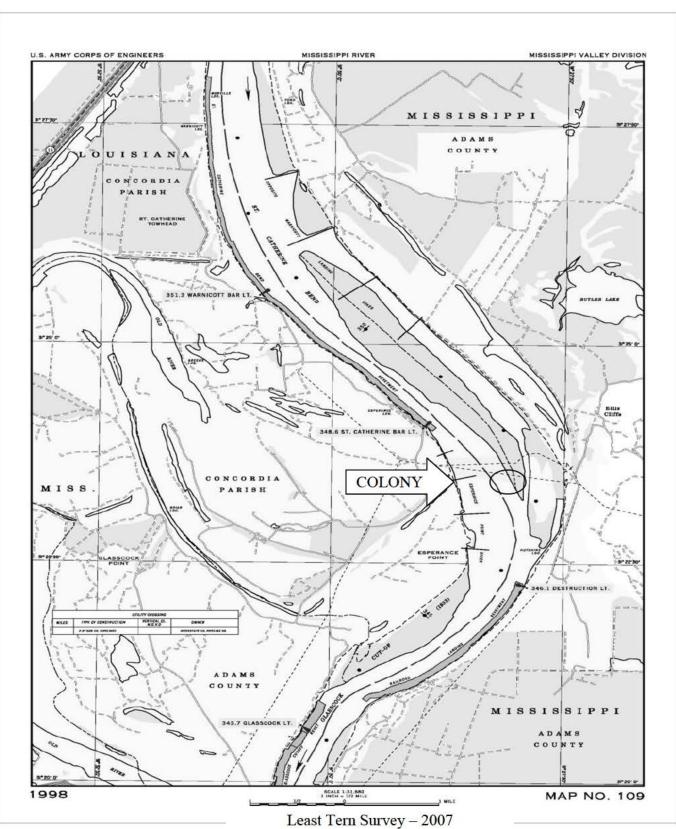
Memphis District Corps of Engineers A-I-48



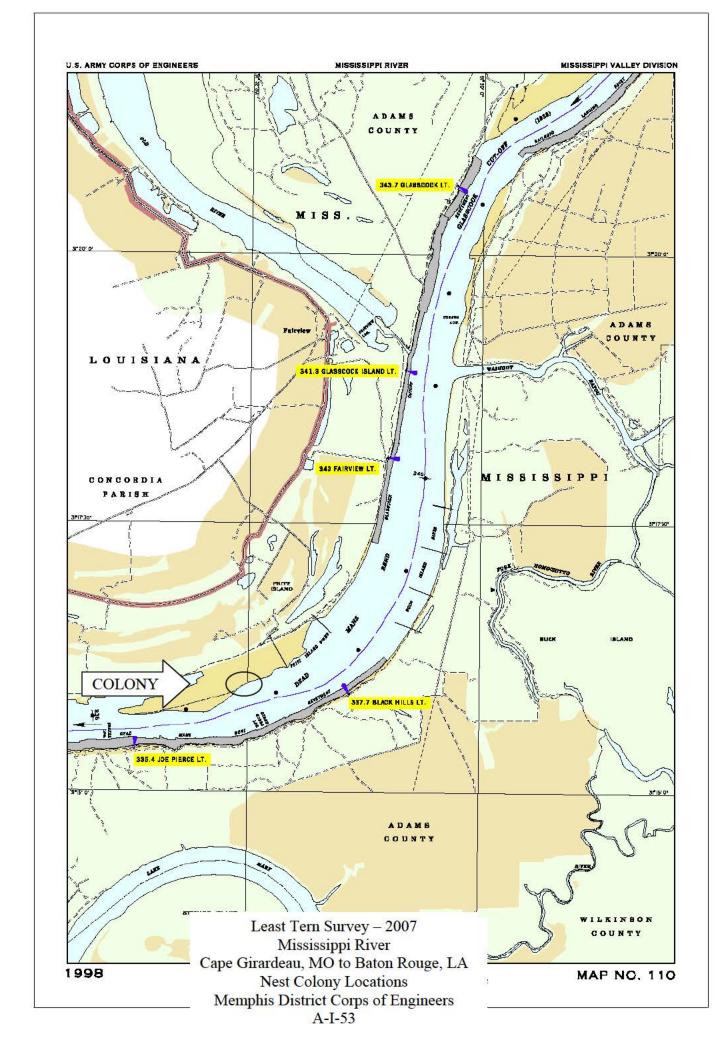
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-49

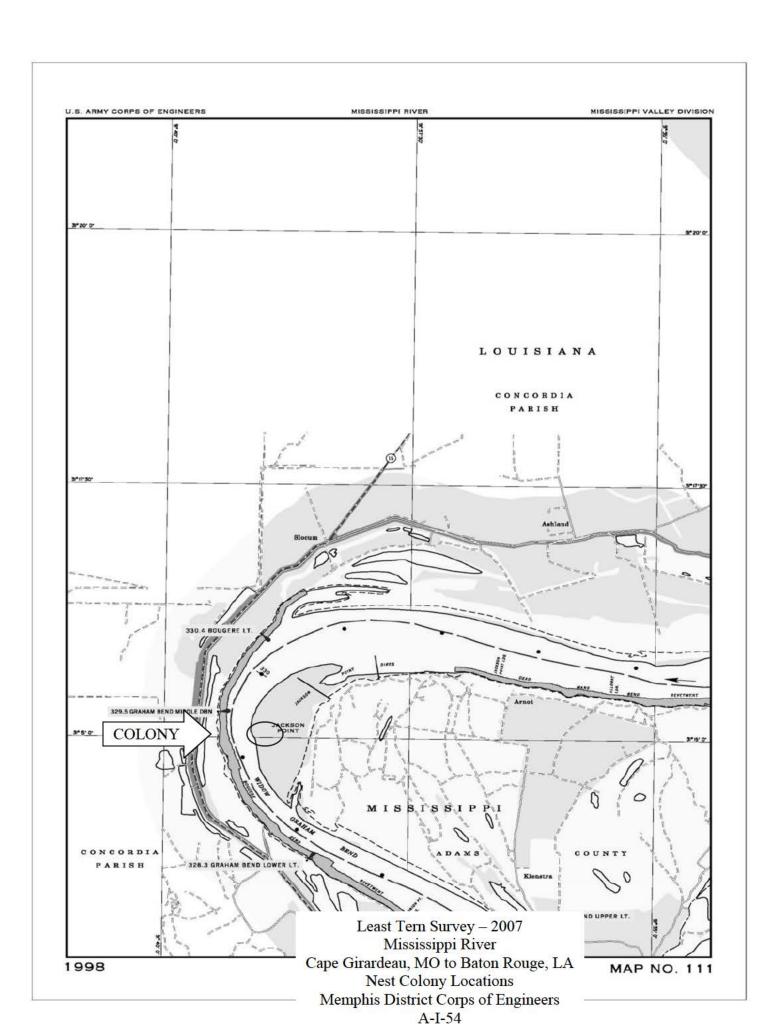


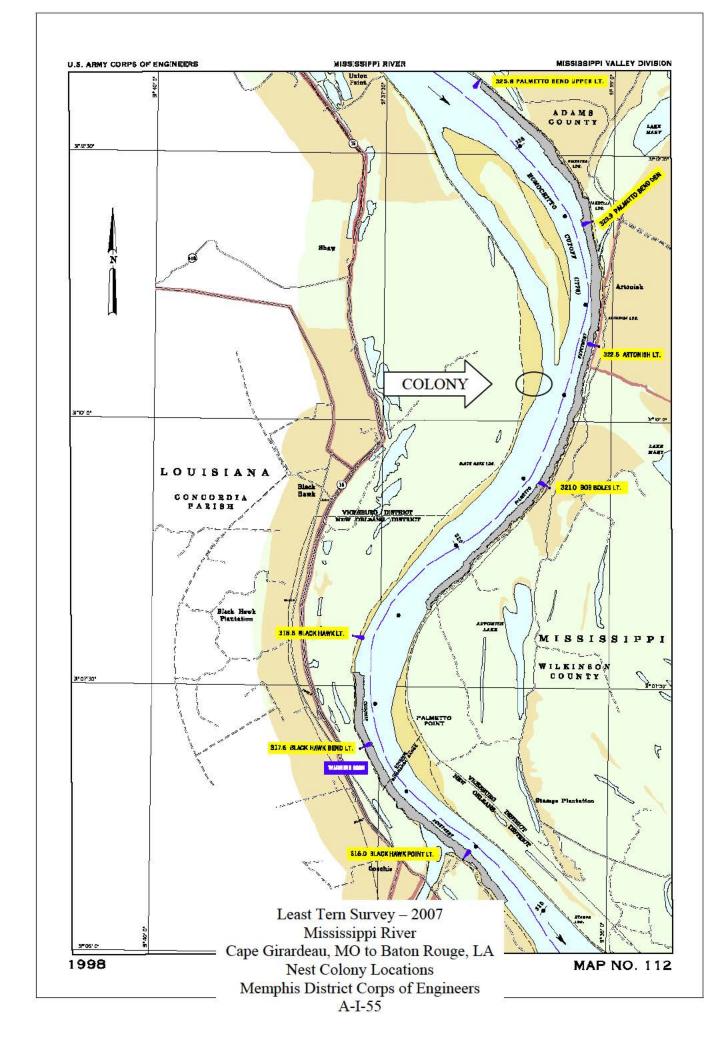


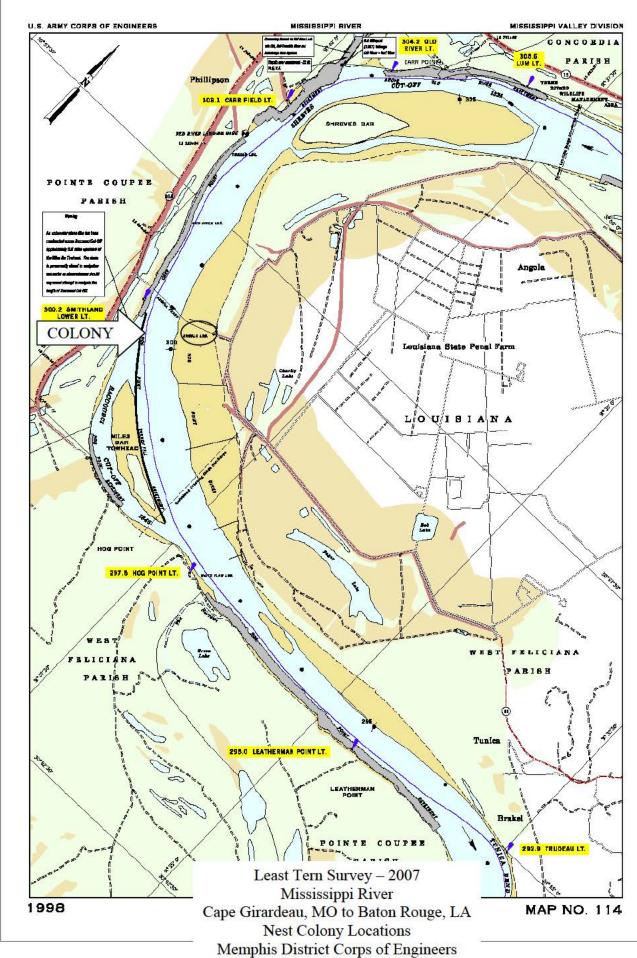


Mississippi River
Cape Girardeau, MO to Baton Rouge, LA
Nest Colony Locations
Memphis District Corps of Engineers
A-I-52









Appendix A - II

LEAST TERN SURVEY - 2007

Mississippi River Cape Girardeau, MO to Baton Rouge, LA

SMALL BOAT SURVEY June 23 – July 8, 2007

Memphis District, Corps of Engineers

Data Sheets

| | FLY □ BOAT 🗸 |
|---|---|
| SPECIES: Interior Least Tern (Sterna antillarum athalassos) | |
| DATE: 6/23/2007 TIME OF DAY: | RIVER MILE: UR 30.5 |
| LOCALITY: Alexander ILL SITE NAME: | Bumgard Island |
| County/Parish State | NUMBERS SIGHTED: |
| WHERE SITED: Latitude: 37.04622 | Adults:16 |
| Longitude: 89.38099 | Juveniles: |
| Approximate Distance to Water:500 | Eggs: 1(2) |
| Approximate distance to water. 500 Feet | Nests: 1 |
| | Chicks: No |
| IN FLIGHT Over Sandbar ✓ ON GROUND On Nest Area ✓ | SUBSTRATE: |
| On Resting Area | Sand: ☑ |
| Calm Water | Gravel: |
| Land Side | Debris: |
| C Center . | VEGETATION: |
| Channel Side MID-CHANNEL | Туре: |
| MID-CHANNEL SANDBAR Rapid Currents | Distance: 500 Feet |
| River Side SIDE CHANNEL SANDBAR Center | FIELD CONDITION: |
| River Side | Temperature: 80 °F |
| Calm Water ✓ | |
| | Rain: No |
| '' '\ | Wind: <u>calm</u> |
| | % Cloud: <10% |
| OTHER NOTES: | |
| Left Bank. Medium-height, flat sand and gravel bar (1 mile long x 1/2 Fishing, courting, carrying fish and resting both sides. One set of coyo predation. | mile wide) with no wrack line. te tracks suggesting possible |
| F | |
| ODOEDVEDO: Provin Comenter D and D Davin Law | ILL side |
| OBSERVERS: Brown, Carpenter, D. and R. Davin, Jor | 22027 174 |
| RIVER GAGE READING: Cape Girardeau | = 19.6 F |
| (Gage Location) | (Elevation) |

| | | FLY BOAT V |
|--|--|-----------------------------------|
| SPECIES: Interior Least Tern (| (Sterna antillarum athalassos) | |
| DATE: 6/23/2007 TI | ME OF DAY: 9:59 | RIVER MILE: 943.6 |
| | KY SITE NAME: | Island #1 Dikes |
| County/Parish | n State | NUMBERS SIGHTED: |
| WHERE SITED: Latitude: | | Adults: 23 Juveniles: |
| Longitude | : 89.11982 | Eggs: 0 |
| Approximate Distance to Water | : <u>200 Feet</u> | Nests:1 |
| | | Chicks: No |
| IN FLIGHT Over Sandbar ✓ Over Water ✓ | ON GROUND On Nest Area ✓ On Resting Area ✓ | SUBSTRATE: |
| Calm Water | , | Sand: ☑ |
| Califi Water | | Gravel: □ Debris: ☑ |
| Land Side | | • |
| Channel Side | MID-CHANNEL - | VEGETATION: |
| MID-CHANNEL SANDBAR Rapid | Currents 🗸 | Type: Distance:Feet |
| | SANDBAR Center L | FIELD CONDITION: |
| River Side 📗 | Calm Water ☑ | Temperature: 83 F |
| | | Rain: No |
| | , , \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | Wind: <u>calm</u> |
| | | % Cloud: <u>15%</u> |
| OTHER NOTES: | | |
| Left Bank. Low, flat, 1.5 mile lo | ng x 0.5 wide sand bar with scattered of itting inland on presumed nest. | debris. ATV tracks present. Drift |
| | | KY side |
| OBSERVERS: | Brown, Carpenter, D. and R. Davin, Jo | |
| RIVER GAGE READING: | Cairo | 16.4 F |
| The state of the s | (Gage Location) | = (Elevation) |

FLY \square

(Elevation)

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/23/2007 TIME OF DAY: 10:30 RIVER MILE: 940.0 KY SITE NAME: Below Campbell Dikes LOCALITY: Carlisle County/Parish State NUMBERS SIGHTED: 220 Adults: Latitude: 36.80350 WHERE SITED: Juveniles: Longitude: 89.13336 Eggs: 3(3) 2(2) Approximate Distance to Water: 500 Feet 5 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: On Resting Area Over Water · 🗸 Sand: Calm Water Gravel: ~ Debris: Land Side . Center . VEGETATION: MID-CHANNEL V Channel Side Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side Temperature: 87 °F River Side [Calm Water V Rain: No Wind: calm % Cloud: 40% cirrus OTHER NOTES: Left Bank. Long, low, flat, unattached sand and pea-sized gravel bar (1 X 1/4 mile wide) with nests along ripple lines center of bar. No tracks. Nine adults fishing opposite bank. Three fingerling sized fish dropped in colony. KY side OBSERVERS: Brown, Carpenter, D. and R. Davin, Jones, Rumancik, Thron RIVER GAGE READING: 16.4 F Cairo (Gage Location)

| | | | FLY | □ BOAT ✓ |
|------------------------------|-------------------------------|-----------------------|--------------------|-----------------------|
| SPECIES: Interior Least Terr | (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 11:18 | RIVER MILE: _ | 930.0 |
| LOCALITY: Hickma | n KY | SITE NAME: | Wolf | Island Bar |
| County/Pa | arish State | | NUMBERS SIG | HTED: |
| WHERE SITED: Latitud | e: 36 68979 | | Adults: | 95 |
| | ude: 89.14820 | | Juveniles: | <u> </u> |
| ~ | | Foot | Eggs: | 2(3) 10(2) |
| Approximate Distance to Wa | aler | <u>reet</u> | Nests: | 12 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>ON OROGIND</u> O | n Nest Area | SUBSTRATE: | |
| Over Water | ⊻ | esting Area | Sand: | ✓ |
| Calm Water 🗸 | | <u> </u> | Gravel: | ✓ |
| Land Side 🗹 | <u>``</u> | | Debris: | \checkmark |
| Channel Side ✓ | # MID-CHANNE | | VEGETATION: | |
| <u> </u> | <i></i> | <u> </u> | Type: Gra | ss/3ft. Cottonwoods |
| MID-CHANNEL SANDBAR | apid Currents 🗌 | | Distance: | 100 Feet |
| | River Side | Bj∕ | ELECTRICATE S | |
| | INEL SANDBAR Center Land Side | | FIELD CONDIT | COUNTY OF THE PARTY. |
| / River Side ☐ | Calm Water | | Temperatu | re: 86 ⁰ F |
| 77777 | 77 | | Rain: No | |
| | 1179 | | Wind: S | 3-5 mph |
| z: | | | % Cloud: | 70% cirrus |
| OTHER NOTES: | | | | |
| Left Bank. Large, mid-chan | nel undulating high s | sand har with small w | rack lines and rin | onles containing |
| nests. Fishing, breasting, o | | | | |
| - | | | | - |
| 0 | | | | KY side |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | nes, Rumancik, T | hron |
| RIVER GAGE READING: | (| Cairo | | 16.4 F |
| | (Gage | Location) | | (Elevation) |

FLY □ BOAT ✓ SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/23/2007 TIME OF DAY: 11:38 RIVER MILE: 928.0 LOCALITY: _____ Mississippi ____ MO ___ SITE NAME: ____ Moore Island Dikes County/Parish State NUMBERS SIGHTED: 2 Adults: WHERE SITED: Latitude: Juveniles: Longitude: Eggs: Approximate Distance to Water: Feet Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL V Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side [Temperature: 86 F Calm Water Rain: No Wind: S 5-10 mph % Cloud: 70% OTHER NOTES: Two fishing mid-channel. OBSERVERS: Brown, Carpenter, D. and R. Davin, Jones, Rumancik, Thron RIVER GAGE READING: 16.4 F Cairo (Gage Location) (Elevation)

| | | | FLY [| BOAT ✓ |
|--|----------------------|----------------------|-------------------------------------|-------------------|
| SPECIES: Interior Least Ter | n (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 12:02 | RIVER MILE: | 924.5 |
| LOCALITY:Fultor | KY_ | SITE NAME: | Beckwith | n Bend |
| County/Pa | arish State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitud | le: 36.60686 | 2 | Adults: | 82 |
| Longit | ude: 89.20319 | | Juveniles: | |
| | | | Eggs: | 12 |
| Approximate Distance to W | ater:50 | Feet | Nests: | 12 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>ON ORCOND</u> | n Nest Area ✓ | SUBSTRATE: | |
| Over Water | ⊻ / / / On F | Resting Area | Sand: | |
| Calm Water | | ∠ / .l | Gravel: | |
| Land Side | <u> </u> | \sim | Debris: | |
| Conter . | MID CHANNI | | VEGETATION: | |
| Channel Side ✓ | A MID-CHANNI | [≛] "→ | Type: | |
| MID-CHANNEL SANDBAR R | apid Currents | * | | |
| بے ا | River Side | | Distance: | Feet |
| SIDE CHA! | NNEL SANDBAR Center | | FIELD CONDITION | 1. |
| River Side 🚆 | Land Side Calm Water | - · · | Temperature: | 1021 |
| 77777 | 1717 | | Rain: No | |
| | /// | 7-7-7 | Wind: _S 5-1 | 0 mph |
| 77 | | | % Cloud: 809 | % |
| OTUED WOTER | | | 351923 Harriston (5176/10), 802 II. | |
| OTHER NOTES: | | | | |
| Left Bank. Small, flat, unatt waterline, colony widely dis | | | erimeter count only w | ith most birds at |
| 5 | | | | |
| s | | | | KY side |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | nes, Rumancik, Thro | n |
| RIVER GAGE READING: | (| Cairo | | 16.4 F |
| | (Gage | Location) | (E | levation) |

| | | | FLY | BOAT 🗸 |
|---|--|----------------------|----------------------|------------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 12:21 | RIVER MILE: | 920.0 |
| LOCALITY: Mississipp | i <u>MO</u> | SITE NAME: | Hickman | Bend |
| County/Pari | sh State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitude: | 36 56955 | | Adults: | 33 |
| | e: 89.23435 | <u>_</u> c | Juveniles: | |
| (70 0 | | | Eggs: | 1(2) 2(3) |
| Approximate Distance to Water | er: <u>300</u> | Feet | Nests: | 3 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar ✓ | | n Nest Area ✓ | SUBSTRATE: | |
| Over Water 🗸 | / / / On F | Resting Area | Sand: | |
| Calm Water | - | | Gravel: ✓ | |
| Land Side ☑ | 1 | | Debris: | |
| Channel Side (A) | - MID CHANNI | | VEGETATION: | |
| Channel Side | MID-CHANNI | [┺] | Type: | |
| MID-CHANNEL SANDBAR Rapi | d Currents | | | |
| | River Side | | Distance: | геец |
| SIDE CHANN | EL SANDBAR Center Land Side | | FIELD CONDITION | |
| / River Side □ | Calm Water | | Temperature: | 88 °F |
| 7777 | 7+7- | | Rain: No | |
| | 1179 | | Wind: <u>\$ 5-10</u> |) mph |
| | | | % Cloud: 80% | 6 |
| OTHER NOTES: | | | | |
| | ached cand/gravel b | ar with day compare | nlaving friches Meh | hing light some |
| Right Bank. Medium size, att. breasting 3 eggs abandoned. | | | playing madee. Mor | bing light, some |
| | | | | |
| ODCEDVEDO. | Prown Corporter | D. and R. Davin, Jor | oc Dumaneil Three | MO side |
| OBSERVERS: | | | | |
| RIVER GAGE READING: | the same of the sa | Cairo | | 16.4 F |
| | (Gage | Location) | (El | levation) |

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/23/2007 TIME OF DAY: 13:30 RIVER MILE: 908.0 KY SITE NAME: Island #6 LOCALITY: Fulton County/Parish State NUMBERS SIGHTED: Adults: 21 WHERE SITED: Latitude: 36.55050 Juveniles: _____ Longitude: 89,40043 Eggs: Approximate Distance to Water: 100 Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: Channel Side MID-CHANNEL Type: Hardwoods Rapid Currents MID-CHANNEL SANDBAR Distance: 1500 Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side . Temperature: 86 F River Side Calm Water Rain: No Wind: S 5-10 mph % Cloud: 80% OTHER NOTES: Left Bank. Resting bar attached to bank, but one scrape in gravel observed with no eggs. Terns courting and carrying fish, but most resting at waterline. No tracks or disturbance factors noted. KY side OBSERVERS: Brown, Carpenter, D. and R. Davin, Jones, Rumancik, Thron RIVER GAGE READING: 16.4 F Cairo (Gage Location) (Elevation)

| | | | FLY [| BOAT ✓ |
|---|-------------------------------|----------------------|-----------------------|-------------|
| SPECIES: Interior Least Te | rn (Sterna antillarun | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 14:33 | RIVER MILE: | 891.0 |
| LOCALITY: Fulto | | SITE NAME: | Kentucky Point | Dikes Upper |
| County/P | arish State | | NUMBERS SIGHTE | :D: |
| WHERE SITED: Latitu | do | | Adults: | |
| Vinere Sited. Lautu | | <u>-</u> 28 | | |
| | | | Eggs: | |
| Approximate Distance to W | /ater: | Feet | Nests: | 0 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area | SUBSTRATE: | |
| Over Water | Sand: | | | |
| Calm Water | <u></u> | | Gravel: | |
| Land Side | <u>~</u> | \sim | Debris: | |
| Channel Side | A MID-CHANN | | VEGETATION: | |
| \ | · · | → | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: | Feet |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITION: | |
| River Side | Calm Water | | Temperature: | 85 °F |
| 77777 | +>+> | | Rain: No | |
| | 1179 | ~~~~ | Wind: SW 15 | 5-20 mph |
| | | | % Cloud: 80% | ń |
| OTHER NOTES. | | | ,,, e.e.a <u>see.</u> | |
| OTHER NOTES: One tern fishing mid-chan | nol. Day compare just | downstroomstroom | | |
| One terri lishing mid-chari | nei. Day campers just | downstreamstream. | | |
| | | | | 7 |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | nes, Rumancik, Thron | 1 |
| RIVER GAGE READING: | Nev | √ Madrid | | 6.9 F |
| | (Gage | Location) | _ (El | evation) |

| | | | FLY | □ BOAT ✓ |
|---|----------------------|----------------------|--------------------|----------------|
| SPECIES: Interior Least Ter | n (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 14:50 | RIVER MILE: | 884.0 |
| LOCALITY: Fulton | | SITE NAME: | Kentucky Poi | nt Dikes Lower |
| County/P | arish State | | NUMBERS SIGH | TED: |
| WHERE SITED: Latitud | de: 36.51784 | | Adults: | 22 |
| | rude: 89.55375 | - | Juveniles: | |
| | | | Eggs: | |
| Approximate Distance to W | ater: | Feet | Nests: | 0 |
| | | | Chicks: | No |
| <u>IN FLIGHT</u> Over Sandbar | <u>ON ORCOND</u> | n Nest Area | SUBSTRATE: | |
| Over Water | ☑ / / On R | esting Area | Sand: | |
| Calm Water | | | Gravel: | |
| Land Side | ``` | | Debris: |] |
| Center . ✓ | |] | VEGETATION: | |
| Channel Side ✓ | MID-CHANNE | ± ☑ -→ │ | | nwoods <2 ft, |
| MID-CHANNEL SANDBAR | apid Currents . | * | Market CO | 200 |
| 1 / | River Side | | Distance: | 50 Feet |
| SIDE CHA | NNEL SANDBAR Center | | FIELD CONDITIO | oN: |
| River Side _ | Land Side Calm Water | | | : 85 °F |
| | +>+>+ | | Rain: No | |
| | 1/74 | | Wind: SW | 15-25 mph |
| | | | % Cloud: 8 | 111 |
| | | | 70 Oloda. <u>o</u> | 070 |
| OTHER NOTES: | | | | |
| Left Bank. Medium high (8 shell observed, chicks likely | | | | bbing, one egg |
| 8 | | 11111 | | |
| 8 | | | | KY side |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | nes, Rumancik, Thr | ron |
| RIVER GAGE READING: | New | Madrid | | 6.9 F |
| | (Gage | Location) | (| (Elevation) |

| | | | FLY [| BOAT ✓ |
|-----------------------------|-------------------------------|--------------------------|---------------------|-------------------|
| SPECIES: Interior Least Ter | n (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 15:26 | RIVER MILE: | 876.0 |
| LOCALITY:Lake | | SITE NAME: | Marr To | owhead |
| County/Pa | arish State | | NUMBERS SIGHT | ED: |
| WILLEDE CITED: 1 -4:4 | J 20 4404 | | Adults: | 13 |
| WHERE SITED: Latitud | | <u> </u> | | |
| Longit | ude: 89.5363 | | Eggs: | |
| Approximate Distance to W | ater: 500 | Feet | (5.77.) | 3 |
| | | 1 | Chicks: | |
| IN FLIGHT Over Sandbar | <u>or orodra</u> | n Nest Area | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: | |
| Calm Water | - | 47.I | Gravel: | |
| Land Side | <u>``</u> | \sim | Debris: | |
| Channel Side | A MID-CHANNI | a n | VEGETATION: | |
| | <i>'</i> | - → | Type: | |
| MID-CHANNEL SANDBAR R | apid Currents River Side | | Distance: | Feet |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITION | N: |
| River Side ☑ | Calm Water | | Temperature: | 85 °F |
| 77777 | +7+74 | | Rain: No | |
| | // / / / | | Wind: N5r | nph |
| | | | % Cloud: 70 | % |
| OTHER NOTES: | | | | |
| Left Bank. Small, attached | riverside har with hird | resting at waterline | Day campers 1/2 | mile downstream |
| zon zaniki oman, akaonoa | The load bal Will blia | o resuming at waterinine | . Day campore me | mio do miododini. |
| | | | | TN side |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | nes, Rumancik, Thro | |
| RIVER GAGE READING: | Caru | thersville | | 9.4 F |
| | (Gage | Location) | (E | Elevation) |

| | | | FLY [| BOAT ✓ |
|--|------------------------|----------------------|---|---------------------|
| SPECIES: Interior Least Terr | n (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 15:44 | RIVER MILE: | 871 <mark>.6</mark> |
| LOCALITY: New Mad | | SITE NAME: | Stewart Towher | ad Dikes Upper |
| County/Pa | arish State | | NUMBERS SIGHT | ED: |
| WHERE CITED: Lake | 20.25702 | | Adults: | |
| WHERE SITED: Latitud | | 28 | 200 | |
| Longiu | ude: 89.51528 | | Eggs: | |
| Approximate Distance to Wa | ater: 500 | Feet | Nests: | 2 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area 🗸 | SUBSTRATE: | |
| Over Water · [| ☑ / / On F | Resting Area | Sand: 🔽 | |
| Calm Water | - | < / .l | Gravel: | |
| | <u> </u> | \sim | Debris: | |
| Land Side | | ٦ | VECETATION | |
| Channel Side | A MID-CHANNI | <u>EL ☑</u> | VEGETATION: | |
| MID-CHANNEL SANDBAR | apid Currents | | Type: | |
| 1 / | River Side | | Distance: | Feet |
| SIDE CHAN | NEL SANDBAR Center | ≅ ∵. | FIELD CONDITION | N: |
| River Side □ | Land Side Calm Water | | Temperature: | 82 °F |
| | 1717 17 | | Rain: No | |
| | 1179 | 7-7-7 | Wind: N5r | mph |
| | | | % Cloud: 70 | 0% |
| OTHER NOTES: | | | 74 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - | |
| Right Bank. Flat, 1/2 mile k | ang colony with day ca | mnere and human tr | acke Rirde fiehing | onnocite hank |
| Night Dank. That, 1/2 mile id | ong colony with day ca | impers and numan ii | acks. Dirus lishing t | opposite bank. |
| 5 | | | | MO sida |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | nes, Rumancik, Thro | MO side |
| RIVER GAGE READING: | Caru | thersville | | 9.4 F |
| | (Gage | Location) | - (1 | Elevation) |

| | | | FLY | □ BOAT ✓ |
|--|-----------------------------|--------------------------|------------------|-----------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 16:13 | RIVER MILE: | 870.5 |
| LOCALITY: New Madrid | | SITE NAME: | Stewart Towh | ead Dikes Lower |
| County/Paris | sh State | | NUMBERS SIGH | ITED: |
| WHERE SITED: Latitude: | 36 34634 | | Adults: | 75 |
| | e: 89.52654 | | Juveniles: _ | |
| - | | | Eggs: _ | 3(3) 2(1) |
| Approximate Distance to Water | er: <u>500</u> | Feet | Nests: | 5 |
| | | | Chicks: _ | No |
| IN FLIGHT Over Sandbar ✓ | | Nest Area 🗸 | SUBSTRATE: | |
| Over Water · 🗸 | / / / On R | esting Area | Sand: 🕟 | |
| Calm Water | ~ | 47.1 | Gravel: | |
| Land Side | E | \sim | Debris: | Z |
| Channel Side | MID-CHANNE | | VEGETATION: | |
| / | | | Туре: | |
| MID-CHANNEL SANDBAR | d Currents 🔽 | | Distance: _ | Feet |
| SIDE CHANNE | EL SANDBAR Center Land Side | | FIELD CONDITIO | ON: |
| River Side | Calm Water | - · · | Temperature | e: 86 °F |
| 7777 | 777 | | Rain: No | |
| | 1 1 7 | 7 | Wind: N 5 | mph |
| | | | % Cloud: 7 | 75% |
| OTHER NOTES: | | | | |
| Right Bank. Downstream of c with nests located near debris other researchers. No other s | . One abandoned so | | | |
| | | | | MO side |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | es, Rumancik, Th | ron |
| RIVER GAGE READING: | Carut | hersv <mark>il</mark> le | | 9.4 F |
| | (Gage | Location) | | (Elevation) |

| | | | FLY [| BOAT ✓ |
|--|------------------------|-------------------------|--|--------------|
| SPECIES: Interior Least Ter | n (Sterna antillarum | athalassos) | | |
| DATE: 6/23/2007 | TIME OF DAY: | 16:36 | RIVER MILE: | 864.5 |
| LOCALITY:Lake | TN | SITE NAME: | Below Cher | okee Dikes |
| County/P | arish State | | NUMBERS SIGHT | ED: |
| WHERE SITED: Latitue | do: 36 32010 | | Adults: | 9 |
| | tude: 89.61500 | 28 | Juveniles: | |
| Longi | lude. 89.61500 | | Eggs: | |
| Approximate Distance to W | /ater: | Feet | Nests: | 0 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area | SUBSTRATE: | |
| Over Water | ✓ / / On R | esting Area | Sand: 🔽 | |
| Calm Water | <u></u> | Z / .l | Gravel: | |
| Land Side | `` | | Debris: | |
| C Center . 🖵 | | | VEGETATION: | |
| Channel Side | MID-CHANNE | | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | * | | |
| / / Le/ | River Side | | Distance: | reet |
| SIDE CHA | NNEL SANDBAR Center | | FIELD CONDITION | V : |
| River Side | Land Side Calm Water | - · · | Temperature: | 86 °F |
| 77777 | +7+74 | | Rain: No | |
| | /// | | Wind: <u>W 10</u> | -15 mph |
| | | | % Cloud: 90 | % |
| OTHER NOTES: | | | | |
| Left Bank. Attached, very | argo broad gontly slov | ning har of colid can | 1.2 miles in length / | \T\/ procent |
| along with many ATV track | | oing bai of solid saile | i z miles in lengui. <i>F</i> | ATV present |
| Er. | | | | |
| SS | 2004 | and the second second | The second secon | TN side |
| OBSERVERS: | Brown, Carpenter, | D. and R. Davin, Jor | nes, Rumancik, Thro | n |
| RIVER GAGE READING: | Caru | thersville | | 9.4 F |
| | (Gage | Location) | (E | levation) |

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/23/2007 TIME OF DAY: 17:08 RIVER MILE: 854.0 ___ MO SITE NAME: Robinson Bayou Dikes LOCALITY: Pemiscot County/Parish State NUMBERS SIGHTED: 74 Adults: WHERE SITED: Latitude: 36.24504 Juveniles: Longitude: 89.58076 3(3) Eggs: Approximate Distance to Water: 300 Feet ____3 Nests: Chicks: Yes Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: On Resting Area Over Water · 🗸 Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL V Channel Side Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side [Temperature: 87 °F Calm Water Rain: No Wind: W 12-15 mph % Cloud: 60% OTHER NOTES: Right Bank. Very long (2-3 miles), attached, flat, point bar of packed sand with colony in dike field lower end. One chick observed (1 day old), and 4 empty scrapes, but 3 with eggs. ATV and canine tracks present. Four White Pelicans, 8 Canada Geese in vicinity. MO side OBSERVERS: Brown, Carpenter, D. and R. Davin, Jones, Rumancik, Thron 9.4 F RIVER GAGE READING: Caruthersville (Gage Location) (Elevation)

| | | | FLY | □ BOAT ₩ | 1 |
|---|--------------------------|-----------------------------------|---|---------------------|-----|
| SPECIES: Interior Least Tel | rn (Sterna antillarum a | athalassos) | | | |
| DATE: 7/8/2007 | TIME OF DAY: | 6:13 | RIVER MILE: | 846.3 | |
| LOCALITY: Lake | | SITE NAME: | Opp. Caru | thersville Dikes | |
| County/P | Parish State | | NUMBERS SIGI | HTED: | |
| WHERE SITED: Latitu | de: 36.19892 | | Adults: | 56 | |
| | tude: 89.64358 | | Juveniles: | | |
| Approximate Distance to W | /ater: | Feet | Eggs: | 7500 | — |
| Approximate distance to W | rater. | | _ | 0 | — |
| IN FLIGHT Over Sandbar | | | Chicks: | Yes | _ |
| IN FLIGHT Over Sandbar Over Water | ON OROGINE OIL | Nest Area ✓ sting Area ☐ | SUBSTRATE: | | |
| | <u>-</u> /_/_/ / | / , | Sand: | ✓ | |
| Calm Water | | $\langle \langle \rangle \rangle$ | Gravel: | | |
| Land Side 🗆 | <u>~</u> | \sim | Debris: | ✓ | |
| Channel Side | # MID-CHANNEL | | VEGETATION: | | |
| | <i>/</i> | ` → | Type: Willo | ows/Cottonwoods (| (3- |
| MID-CHANNEL SANDBAR | Rapid Currents 🔽 | | Distance: | 300 Feet | |
| | River Side | | | | _ |
| | NNEL SANDBAR Center L | | FIELD CONDITI | 2011111 | |
| / River Side □ | Calm Water | ≥ ~~~ | Temperatur | re: 76 °F | |
| 17777 | 4242 | | Rain: No | | |
| | 1/17 | 7-7-7 | Wind: <u>ca</u> | lm | |
| | | | % Cloud: | 0 | |
| OTHER NOTES: | | | | | |
| Left Bank. Small, undulating | ng, sand bar upstream fr | om Blaker Towhead | d between dikes. I | Four chicks (4-5 | |
| days old) observed. Many fishing both sides, and carr | scrapes with hatched eg | g shells. Terns mo | bbing juvenile Ba | ld Eagle, courting, | |
| at mouth of Caruthersville | | | ong dikes. Mature | 7- | |
| THE ANALYSIS PRODUCTS | | | - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 | TN side | _ |
| OBSERVERS: | D. and R. Davin, Grub | paugh, K. and W. J | lones, Rumancik, | Thron | |
| RIVER GAGE READING: | Caruth | ersville | | 11.0 | |
| | (Gage L | ocation) | | (Elevation) | |

| | | | FLY | BOAT 🗸 |
|-----------------------------|--------------------------------|-------------------------|-------------------------|-------------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillarun</i> | n athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 6:33 | RIVER MILE: | 841.2 |
| LOCALITY: Pemise | cott MO | SITE NAME: | Linwood | Bend |
| County/F | Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitu | ide: 36 15166 | | Adults: | 15 |
| | itude: 89.59692 | | Juveniles: | |
| Longi | itude. 09.39092 | | Eggs: | |
| Approximate Distance to V | Vater: 50 | Feet | Nests: | 9 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>ON OROGIND</u> | on Nest Area ✓ | SUBSTRATE: | |
| Over Water | _ / / On F | Resting Area | Sand: ✓ | |
| Calm Water | | ∠/. | Gravel: | |
| Land Side 🗆 🗸 | > | | Debris: | |
| . Center . Channel Side | # MID-CHANN | | VEGETATION: | |
| Charmer Side | A MID-CHANN | [≒] | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | | Distance: | Foot |
| | River Side | 25 S 107 C | Distance. | reet |
| SIDÈ CH/ | ANNEL SANDBAR Center Land Side | | FIELD CONDITION: | |
| River Side □ | Calm Water | - · · | Temperature: _ | 76 ⁰ F |
| 7777 | +7+7+7 | | Rain: No | |
| | 1179 | `~~~ | Wind: <u>calm</u> | |
| | | | % Cloud: 0 | |
| OTHER NOTES: | | | | |
| Right Bank. Small, low, fla | at cand and gravel har | (900 × 300 ft) upatta | achod Many fishing | along dikes and |
| back chutes, no disturband | | (000 X 300 It.), unatte | acried. Marry listiling | along tikes and |
| 5 | | | | |
| <u>0</u> | | | | MO side |
| OBSERVERS: | D. and R. Davin, Gr | ubaugh, K. and W. | Jones, Rumancik, Thr | on |
| RIVER GAGE READING: | Caru | ıthersville | | 11.0 |
| | (Gage | Location) | (Ele | evation) |

FLY □ BOAT ☑

| SPECIES: Interior Least T | ern (Sterna antillarui | m athalassos) | | |
|--|-------------------------|----------------------------|-----------------------|-------------------------|
| DATE: 7/8/2007 | TIME OF DAY: | 7:02 | RIVER MILE: | 836.0 |
| LOCALITY: Dy | rer TN /Parish State | | | |
| WHERE SITED: Lati Lon Approximate Distance to | gitude: 89.63945 | | Eggs: | 127 |
| | · | Teet | Nests: | |
| Over Water Calm Water Land Side Center . Channel Side MID-CHANNEL SANDBAR River Side River Side SIDE CI | 10-10. | | Rain: No Wind: calm | Feet I: 76 °F |
| OTHER NOTES: Left Bank. Large, gently | | | | |
| across entire bar with 12 Bald Eagle in vicinity. | counted, age 1 & 1/2 w | eeks old. Ten adults s | sitting on nests. AT\ | / tracks and 1 TN side |
| OBSERVERS: | D. and R. Davin, G | rubaugh, K. and W. J | lones, Rumancik, Th | |
| RIVER GAGE READING: | No. | uthersville e Location) | =(E | 11.0 |

FLY □ BOAT ✓ SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 7/8/2007 TIME OF DAY: 7:29 RIVER MILE: 830.0 LOCALITY: _____ Dyer ___ TN ___ SITE NAME: ____ Island #20 Dikes Upper County/Parish State NUMBERS SIGHTED: ____2 Adults: Latitude: 36.02275 WHERE SITED: Juveniles: Longitude: 89.69420 Eggs: Approximate Distance to Water: Feet 0 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side [Temperature: 77 °F Calm Water Rain: No Wind: calm % Cloud: 0 OTHER NOTES: Two terns fishing between dikes. MO side OBSERVERS: _____ D. and R. Davin, Grubaugh, K. and W. Jones, Rumancik, Thron RIVER GAGE READING: Caruthersville 11.0 (Gage Location) (Elevation)

| | | | FLY [| □ BOAT ✓ |
|------------------------------|---|----------------------------|--------------------|----------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillaru</i> | m athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 7:35 | RIVER MILE: | 829.5 |
| LOCALITY: Dye | r TN | SITE NAME: | Island #20 | Dikes Lower |
| County/F | Parish State | Э | NUMBERS SIGH | TED: |
| WHERE SITED: Latitu | de: 36.01326 | | Adults: | 11 |
| | tude: 89.70654 | * | Juveniles: _ | |
| ~ | | | Eggs: | |
| Approximate Distance to V | /ater: | Feet | Nests: | 0 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | 49-32 | On Nest Area | SUBSTRATE: | |
| Over Water | / /or | Resting Area | Sand: 🗸 |] |
| Calm Water | | ≺/. | Gravel: | |
| Land Side | <u>></u> | | Debris: |] |
| Channel Side | MID-CHAN | NEL 🗆 | VEGETATION: | |
| \ | | <u>~</u> | Type: Willow | vs/Cottonwoods |
| MID-CHANNEL SANDBAR | Rapid Currents Rapid Currents River Sic | te 🔽 📞 | Distance: | 500 Feet |
| SIDE CHA | ANNEL SANDBAR Center | | FIELD CONDITIO | N. |
| River Side ☐ | Land Sid | - · · | | : 77 °F |
| 77777 | | | Rain: No | |
| | , , , | | Wind: <u>caln</u> | 1 |
| Jan 1997 | | | % Cloud: 0 | 001 |
| OTHER NOTES: | | | | |
| Right Bank. Attached dow | nstream point of woo | ded island 2 ft elevation | on Fleven resting | at waterline |
| Trigin Burin. Tittaorieu uom | notice in point of wee | ded Island, 2 II. Sievan | on. Eleven resumg | at watering. |
| <u>-</u> | | | | MO side |
| OBSERVERS: | D. and R. Davin, G | Grubaugh, K. and W. J | Jones, Rumancik, T | |
| RIVER GAGE READING: | Ca | ruthersville | | 11.0 |
| | (Gag | ge <mark>Location</mark>) | _ (| (Elevation) |

| | | | FLY | BOAT 🗸 |
|----------------------------|------------------------|-------------------|--|-----------|
| SPECIES: Interior Least Te | ern (Sterna antillarur | n athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 7:37 | RIVER MILE: | 827.0 |
| LOCALITY:Dye | er TN | SITE NAME: | Head of Island | #21 Dikes |
| County/F | Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitu | ıde. | | Adults: | 8 |
| | itude: | | Juveniles: | |
| _ | | | Eggs: | |
| Approximate Distance to V | Vater: | Feet | Nests: | 0 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>ON ORCOND</u> | On Nest Area | SUBSTRATE: | |
| Over Water | / / On | Resting Area | Sand: ☑ | |
| Calm Water | | ≺/ | Gravel: | |
| Land Side | > | | Debris: | |
| | |] | VEGETATION: | |
| Channel Side | MID-CHANN | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | | 1000 | |
| بع ا 🗷 | River Side | | Distance: | Feet |
| SIDE CH | ANNEL SANDBAR Center | | FIELD CONDITION: | |
| River Side | Land Side | | Temperature: | 1 221 |
| 7777 | +>+> | | Rain: No | |
| | | | Wind: calm | |
| | | CV • 80 85 | % Cloud: 0 | |
| OTHER NOTES: | | | A CONTRACTOR OF THE CONTRACTOR | |
| Left Bank. Eleven resting | at waterline | | | |
| Lott Bank. Eleven resting | at watering | | | |
| | | | | |
| | | | | TN side |
| OBSERVERS: | D. and R. Davin, Gr | ubaugh, K. and W. | Jones, Rumancik, Thr | on |
| RIVER GAGE READING: | All Management of the | uthersville | | 11.0 |
| | (Gag | e Location) | (Ele | evation) |

| | | | FLY [| BOAT ✓ |
|--|--------------------------------------|---|--------------------|------------------|
| SPECIES: Interior Least Tel | rn <i>(Sterna antillaru</i> | m athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 7:45 | RIVER MILE: | 825.2 |
| LOCALITY: Dye | r TN | SITE NAME: | Island | d #21 |
| County/P | Parish State | e | NUMBERS SIGHT | ED: |
| WHERE SITED: Latitu | de: 35.96197 | | Adults: | 42 |
| | tude: 89.71049 | | Juveniles: | |
| Approximate Distance to W | /ater: 800 | Feet | Eggs: | (3) |
| Approximate distance to W | vater | <u> </u> | | 0 |
| Over Condher | | | Chicks: | Yes |
| IN FLIGHT Over Sandbar Over Water | ON GROOM | On Nest Area Resting Area | SUBSTRATE: | |
| | - | / Likesung Alea | Sand: ☑ | |
| Calm Water | | \sim | Gravel: | |
| Land Side | <u>~</u> | \sim | Debris: | |
| Channel Side | MID-CHAN | NEL 🗆 | VEGETATION: | |
| \ | · · | <u>~</u> | Type: Willow | s/Cottonwoods/gr |
| MID-CHANNEL SANDBAR | Rapid Currents ☑ | - <u>-</u> _ | Distance: 5 | i00 Feet |
| | River Sid | | 2.0 | |
| | NNEL SANDBAR Center Land Sid | | FIELD CONDITION | 1111 |
| River Side □ | Calm Wat | er 🗹 | Temperature: | 78 °F |
| 17777 | 1717 | | Rain: No | |
| | // /~ | | Wind: calm | |
| | | | % Cloud: 0 | |
| OTHER NOTES: | | | | |
| Left Bank. High, unattache | ed sand mud and dr | avel har with much del | hris Many chicks u | n to 1 1/2 weeks |
| old, many at waterline. He | avy mobbing of Great | t Blue Heron and ATV | tracks. | |
| | | | | |
| The second secon | CENTER IN A SECURITION OF SECURITION | 2012 A 11 11 11 12 12 12 12 12 12 12 12 12 12 | and the same and | TN side |
| OBSERVERS: | D. and R. Davin, G | Brubaugh, K. and W. J | Jones, Rumancik, T | hron |
| RIVER GAGE READING: | | ruthersville | | 11.0 |
| | (Gag | ge Location) | (1 | Elevation) |

| | | | FLY | BOAT | ~ |
|--|--------------------------------|------------------|------------------|-------------|---|
| SPECIES: Interior Least Te | ern (Sterna antillarum | athalassos) | | | |
| DATE: 7/8/2007 | TIME OF DAY: | 7:54 | RIVER MILE: | 819.0 | |
| LOCALITY: Missis | sippi AR | SITE NAME: | Wrights | Point Dikes | |
| County/F | Parish State | | NUMBERS SIGH | HTFD: | |
| WHERE SITED: Latit. | do: 25.01022 | | Adults: | | |
| WHERE SITED: Latitu | itude: 89.64837 | | Juveniles: | | |
| - | | | Eggs: | 1(3) | |
| Approximate Distance to V | Vater: 800 | Feet | Nests: | 6 | |
| | | | Chicks: _ | Yes | |
| IN FLIGHT Over Sandbar | M7 - 12 | n Nest Area ✓ | SUBSTRATE: | | |
| Over Water | ☑ / / On R / / / / | esting Area | Sand: | | |
| Calm Water | | 47.l | Gravel: | <u> </u> | |
| Land Side | > | \sim | Debris: | | |
| Channel Side | MID-CHANNE | | VEGETATION: | | |
| \ | / | → | Туре: | | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: _ | Feet | |
| SIDE CH/ | ANNEL SANDBAR Center Land Side | | FIELD CONDITION | ON: | |
| River Side □ | Calm Water | | Temperature | e: 80 °F | |
| 7777 | / | | Rain: No | | |
| | 1/74 | | Wind: NE | 5 mph | |
| | | - 1 | % Cloud: (|) | |
| OTHER NOTES: | | | | | _ |
| Right Bank. Large, high (and backside, sand and grand 2 fishing boats. | | | | | |
| 53 | | | | AR side | , |
| OBSERVERS: | D. and R. Davin, Gru | baugh, K. and W. | lones, Rumancik, | Thron | |
| RIVER GAGE READING: | Caru | thersville | | 11.0 | |
| | (Gage | Location) | | (Elevation) | |

| | | | FLY [| BOAT ✓ |
|--|----------------------------|---|-----------------------|--------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillar</i> | rum athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: _ | 8:50 | RIVER MILE: | 811.5 |
| LOCALITY: Lauder | | | Below Tamm | Bend Dikes |
| County/F | Parish Sta | te | NUMBERS SIGHTI | ED: |
| WHERE SITED: Latitu | 1do: 35.00606 | | Adults: | |
| | itude: 89.74520 | | Juveniles: | |
| · · | | | Eggs: | 1(2) |
| Approximate Distance to V | Vater: 300 | Feet | Nests: | 9 |
| | | 1 | Chicks: | Yes |
| IN FLIGHT Over Sandbar | 25 | - 15 M () () () () | SUBSTRATE: | |
| Over Water | <u>*</u> /_/_′ | On Resting Area | Sand: ☑ | |
| Calm Water | | \sim | Gravel: ✓ | |
| Land Side | <u>></u> | \sim | Debris: | |
| Channel Side | A MID-CHA | NNEL 🗆 | VEGETATION: | |
| | | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents River S | | Distance: | Feet |
| SIDE CH/ | ANNEL SANDBAR Cente | er 🔲 ' | FIELD CONDITION | I: |
| River Side ☐ | Calm W | - · · | Temperature: | 81 °F |
| 77777 | +7+7 | | Rain: No | |
| | /// | | Wind: calm | |
| | | | % Cloud: 0 | |
| OTHER NOTES: | | | | |
| Left Bank. Very large grav scrapes. | el/sand bar with col | ony widely dispersed. | Ten chicks up to 1 we | ek old, many |
| | | | | |
| 13 | | ATATA DE 100 DE | | TN side |
| OBSERVERS: | D. and R. Davin, | Grubaugh, K. and W. | Jones, Rumancik, Th | iron |
| RIVER GAGE READING: | No. | aruthersville | | 11.0 |
| | (Ga | age Location) | (E | levation) |

| | | | FLY | □ BOAT ✓ |
|--|--------------------------------|------------------------|--------------------|-----------------------|
| SPECIES: Interior Least Te | rn (Sterna antillaru | m athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 9:15 | RIVER MILE: _ | 807.3 |
| LOCALITY:Lauder | dale TN | SITE NAME: | Nebrask | a Point Dikes |
| County/F | Parish State | | NUMBERS SIG | HTED: |
| WHERE SITED: Latitu | ıde: 35.85965 | | Adults: | 53 |
| | itude: 89.75936 | | | <u>v</u> |
| Approximate Distance to V | Vater: 800 | Feet | Eggs: | |
| | | | | 9 No |
| IN FLIGHT Over Sandbar | ON GROUND | On Nest Area ✓ | SUBSTRATE: | |
| Over Water · | | Resting Area | 821 THE | ▽ |
| Calm Water | | Z/ | | |
| , | <u> </u> | \sim | Debris: | <u> </u> |
| Land Side | |] | VEGETATION: | |
| Channel Side | A MID-CHANI | ■ ✓ → | | onwood/willows |
| MID-CHANNEL SANDBAR | Rapid Currents | _ " | | 60 Feet |
| 7 | River Side | | Distance. | 00 1001 |
| River Side \(\text{\text{\text{River Side}}} \) | ANNEL SANDBAR Center Land Side | , V | FIELD CONDIT | 11111111 |
| River Side | Calm Wate | ar 🔼 💛 | Temperatu | re: 83 ⁰ F |
| 1 1 7 7 7 | 4 | | Rain: No | |
| | ///~ | | Wind: ca | ılm |
| 27 | | | % Cloud: | 0 |
| OTHER NOTES: | | | | |
| Left Bank. High (20 ft.) lor remnants, Armadillo and d | | and. Eight fishing and | flying opposite ba | ank. Camping |
| £. | | | | |
| OBSERVERS: | D. and R. Davin G | rubaugh, K. and W. J | lones, Rumancik | TN side . Thron |
| RIVER GAGE READING: | | uthersville | | 11.0 |
| | No. | e Location) | | (Elevation) |

| | | | FLY | BOAT 🗸 |
|--|---------------------------------|---------------------------|----------------------|------------------|
| SPECIES: Interior Least Ter | n (Sterna antillaru | m athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 9:30 | RIVER MILE: | 803.0 |
| LOCALITY: Mississ | ippi AR | SITE NAME: | Bend of Is | and #25 |
| County/P | arish State | • | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitud | do: 35.93105 | | Adults: | |
| | tude: 89.69914 | | Juveniles: | |
| _, | | | Eggs: | |
| Approximate Distance to W | /ater: 100 | Feet | Nests: | 17 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | 200 | On Nest Area | SUBSTRATE: | |
| Over Water | ☑ / / / or _ / / / / | Resting Area | Sand: | |
| Calm Water | - <u></u> - | ≺/ | Gravel: ✓ | |
| Land Side | <u>~</u> | \sim | Debris: | |
| Channel Side ✓ | MID-CHAN | NEI 🗆 | VEGETATION: | |
| | / | <u>~</u> | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents Rapid River Sic | le | Distance: | Feet |
| SIDE CHA | NNEL SANDBAR Center | | FIELD CONDITION | : |
| River Side □ | Calm Wat | - · · | Temperature: | 82 °F |
| 77777 | +7+7+ | | Rain: No | |
| | // /~ | | Wind: calm | |
| Ti. | | | % Cloud: 0 | |
| OTHER NOTES: | | | | |
| Right Bank. Small, low, fla fishing back shoot. No trace | t, unattached mid-cha ks | annel bar with 17 sitting | g on scrapes, others | at waterline and |
| <i>a</i> | | | | |
| OBSERVERS: | D and R Davin G | Grubaugh, K. and W. J | lones Rumanoik Th | AR side |
| OBSERVERS: | | ruthersville | ones, Rumanon, III | 11.0 |
| RIVER GAGE READING: | Ca | | | |

| | | | FLY | BOAT 🗸 |
|---|------------------------------|------------------------|-----------------------------|------------------|
| SPECIES: Interior Least Terr | (Sterna antillaru | m athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 9:53 | RIVER MILE: | 798.0 |
| LOCALITY:Lauderd | ale TN | SITE NAME: | Forked De | er Dikes |
| County/Pa | arish State | • | NUMBERS SIGHTE | =D· |
| | | | Adults: | |
| WHERE SITED: Latitud | | <u></u> | 28 | 220 |
| Longite | ude: 89.77006 | | | 1(2) 2(1) |
| Approximate Distance to Wa | ater: 75 | Feet | | 30 |
| | | | Chicks: | |
| IN FLIGHT Over Sandbar | ON GROUND | On Nest Area ✓ | | |
| Over Water · [| W- | Resting Area | SUBSTRATE: | |
| Calm Water | ~ <i>~</i> ((| -// | Sand: ☑ Gravel: □ | |
| | 3-a | \sim | D 1 : | |
| Land Side | | | Debris: | |
| Channel Side | A MID-CHAN | NEL 🗆 | VEGETATION: | |
| | .f. | > | Type: | |
| MID-CHANNEL SANDBAR | apid Currents ☑ ┼──-┴Ù | | Distance: | Feet |
| | River Sid | <u> </u> | | |
| \parallel \mathcal{F} . $\mathbb{P} \setminus \mathbb{N}$ | INEL SANDBAR Center Land Sid | | FIELD CONDITION | 11 |
| River Side ☐ | Calm Wat | er 🗹 📉 | Temperature: | 82 °F |
| 77777 | 777 | | Rain: No | |
| | // /~ | 7-7-7 | Wind: calm | |
| | | | % Cloud: 0 | |
| OTHER NOTES: | | | | |
| Left Bank. Unattached, long | n low (3 ft) flat cles | an sand har with nea- | gravel natches (1 mil | e v 400 ft |
| wide). Many chicks (20+ up or disturbance sign noted. | to 4 days old) and s | scrapes. Terns breasti | ng and fishing both s | sides. No tracks |
| S | | | | TN side |
| OBSERVERS: | D. and R. Davin. G | rubaugh, K. and W. J | Jones, Rumancik. Th | |
| RIVER GAGE READING: | | ruthersville | | 11.0 |
| THE CASE READING. | | ge Location) | =(E | levation) |

| | | | FLY | BOAT 🗸 |
|--|------------------------|---------------------------|--|--------------|
| SPECIES: Interior Least Te | rn (Sterna antilları | ım athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 10:29 | RIVER MILE: | 794.0 |
| LOCALITY: Mississ | sippi AR | SITE NAME: | Ashport Gold | ust Dikes |
| County/F | Parish Stat | е | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitu | ide: 35 79805 | | Adults: | 35 |
| | itude: 89.82213 | _ * | Juveniles: | |
| - | | | Eggs: | |
| Approximate Distance to V | Vater: <u>100</u> | Feet | Nests: | 0 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | ON CHOCKE | On Nest Area | SUBSTRATE: | |
| Over Water | | n Resting Area | Sand: ✓ | |
| Calm Water | <u> </u> | ~ ./ . | Gravel: | |
| Land Side 🗆 | > | | Debris: | |
| | | 1 | VEGETATION: | |
| Channel Side | A MID-CHAN | <u>INEL</u> □ > | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents 🗸 | · · | 1001 -004 00000000 | |
| بم 🖪 | River Sie | de ☑ \ | Distance: | Feet |
| SIDE CH/ | ANNEL SANDBAR Center | ☑ ∵.` 🖳 | FIELD CONDITION: | |
| River Side 🖳 | Land Sid | - · · | Temperature: | 1 221 |
| | +7+7 | | Rain: No | |
| | 1/7 | 7-7-7 | Wind: NE 5m | nph |
| | | | | |
| OTHER NOTES. | | | STATE OF THE STATE | |
| OTHER NOTES: | | turan dikas Dayraan | | lany and ATV |
| Right Bank. Large, long, of tracks abundant. | clean, hat sand bar be | tween dikes. Day can | ripers lower end or co | lony and ATV |
| - | | | | |
| ST | | | | AR side |
| OBSERVERS: | D. and R. Davin, (| Brubaugh, K. and W. | Jones, Rumancik, Thr | on |
| RIVER GAGE READING: | Ca | ruthersville | | 11.0 |
| | (Ga | ge Location) | (Ele | evation) |

| | | | FLY | BOAT | ~ |
|-----------------------------|----------------------------|--|--------------------|-----------------|----|
| SPECIES: Interior Least Ter | n <i>(Sterna antillaru</i> | ım athalassos) | | | |
| DATE: 7/8/2007 | TIME OF DAY: | 10:38 | RIVER MILE: | 789.5 | |
| LOCALITY: Lauderd | dale TN | SITE NAME: | Keyes Poin | nt Dikes Upper | |
| County/P | arish State | е | NUMBERS SIGH | ITED: | |
| WHERE SITED: Latitud | de: 35.73037 | | Adults: _ | 46 | |
| | tude: 89.90223 | _ | Juveniles: _ | | |
| | | I Promo | Eggs: _ | 1(2) | |
| Approximate Distance to W | ater: 30 | Feet | Nests: | 9 | |
| | | | Chicks: _ | No | |
| IN FLIGHT Over Sandbar | ON ONOONE | On Nest Area | SUBSTRATE: | | |
| Over Water | ⊻ / / or | Resting Area | Sand: | | |
| Calm Water | | ~ | Gravel: | 2 | |
| Land Side | ዄ | | Debris: | | |
| Channel Side | A MID-CHAN | INFL 🗆 | VEGETATION: | | |
| | / | <u>~</u> | Type: Cotto | nwoods/grass | |
| MID-CHANNEL SANDBAR | Rapid Currents | | Distance: | 100 Feet | |
| | River Sid | 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Distance | 100 1 001 | |
| SIDE CHA | NNEL SANDBAR Center | | FIELD CONDITION | ON: | |
| River Side 🗔 | Calm Wat | - · · | Temperature | e: 83 °F | |
| 77777 | +>+> | | Rain: No | | |
| | /// | | Wind: <u>calı</u> | m | |
| | | | % Cloud: 0 |) | |
| OTHER NOTES: | | | | | |
| Left Bank. Flat, medium he | eight sand and grave | l har with most nests in | a gravel Rinds bre | easting and hum | an |
| footprints. | olgini, Junia una grave | or bar with most nests in | rgiavei. Biras bie | asting and nam | un |
| £ | | | | | |
| <i>a</i> | | | | TN side | |
| OBSERVERS: | D. and R. Davin, C | Brubaugh, K. and W. | Jones, Rumancik, | Thron | |
| RIVER GAGE READING: | Ca | ruthersville | | 11.0 | |
| | (Gag | ge Location) | - | (Elevation) | |

| | | | FLY 🗆 | FLY □ BOAT ☑ | | |
|----------------------------|---------------------------|-----------------------------------|-------------------------|--------------------|--|--|
| SPECIES: Interior Least Te | rn <i>(Sterna antilla</i> | rum athalassos) | | | | |
| DATE: 7/8/2007 | TIME OF DAY: _ | 11:01 | RIVER MILE: | 787.0 | | |
| LOCALITY: Lauder | dale Ti | N SITE NAME | Keyes Point Dikes Lower | | | |
| County/F | Parish Sta | ate | NUMBERS SIGHTE | ED: | | |
| WHERE SITED: Latitu | ide: 35.71675 | | Adults: | 79 | | |
| | itude: 89.93629 | | Juveniles: | | | |
| · · | | | Eggs: | | | |
| Approximate Distance to V | Vater: 200 | Feet | Nests: | 13 | | |
| | | 1 | Chicks: | No | | |
| IN FLIGHT Over Sandbar | ON ONCOME | On Nest Area ✓ On Resting Area | SUBSTRATE: | | | |
| Over Water | Sand: ☑ | | | | | |
| Calm Water | Gravel: | | | | | |
| Land Side 🗆 | <u>></u> | \sim | Debris: | | | |
| | VEGETATION: | VEGETATION: | | | | |
| Channel Side | A MID-CHA | NNEL □ → | Type: | | | |
| MID-CHANNEL SANDBAR | Rapid Currents | | - | | | |
| | | Side 🗹 | Distance: | reet | | |
| SIDE CH/ | FIELD CONDITION: | | | | | |
| River Side Calm Water | | | Temperature: | Temperature: 84 °F | | |
| 7777 | +>+> | | Rain: No | | | |
| | /// | | Wind: <u>calm</u> | | | |
| | | | % Cloud: 0 | | | |
| OTHER NOTES: | | | | | | |
| Left Bank. Long, low, exte | anded candbar, attac | shad unstream Drift o | ount only but no tracks | or other | | |
| disturbance observed. | rided Saridbar, attac | med upstream. Diffi c | ount only but no tracks | or other | | |
| 8 | | | | | | |
| 5 | | | | TN side | | |
| OBSERVERS: | D. and R. Davin, | Grubaugh, K. and W. | Jones, Rumancik, Th | ron | | |
| RIVER GAGE READING: | | aruthersville | = | 11.0 | | |
| | (G | age Location) | (EI | evation) | | |

| | | | FLY BOAT | | ~ |
|---|--|---------------------------------|------------------------|-------------|---|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 7/8/2007 | TIME OF DAY: | 11:20 | RIVER MILE: _ | 783.5 | |
| LOCALITY:Lauder | dale TN | SITE NAME: | Below Plum Point Dikes | | |
| County/F | Parish State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitu | udo: 35.65674 | | | 303 | |
| | itude: 89.91379 | 28 | Juveniles: | <u>V</u> | |
| <u>.</u> | | | Eggs: | | |
| Approximate Distance to Water: 150 Feet | | | Nests: | 50 | |
| | | | Chicks: | Yes | |
| IN FLIGHT Over Sandbar | <u>ON ORCOND</u> O | n Nest Area ✓ Lesting Area □ | SUBSTRATE: | | |
| Over Water | Sand: | ✓ | | | |
| Calm Water | Gravel: | | | | |
| Land Side | > | | Debris: | | |
| Channel Side | A MID-CHANNE | | VEGETATION: | | |
| \ | Type: grass | | | | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | <u></u> | Distance: | Feet | |
| SIDE CH/ | FIELD CONDITION: Temperature: 84 ° F | | | | |
| River Side □ | | | | | |
| 7777 | +7+7 | | Rain: No | | |
| | 1179 | | Wind: ca | ılm | |
| er. | | | % Cloud: | 0 | |
| OTHER NOTES: | | | | | |
| Left Bank. Small, unattack breasting and fishing on be | | | | | |
| S | | | | | |
| ORCEDVEDO: | D and P Davin Co | ibaliah K and W | longe Dumanaile | Thron | } |
| OBSERVERS: | D. and R. Davin, Gru | | iones, Rumancik, | 110 | |
| RIVER GAGE READING: | A Company of the Comp | thersville | = | 11.0 | |
| | (Gage | Location) | | (Elevation) | |

| | | | FLY | BOAT 🗸 |
|----------------------------|--|--|-------------------------------|----------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillarun</i> | n athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 11:50 | RIVER MILE: | 778.0 |
| LOCALITY: Mississ | sippi AR | SITE NAME: | Driver Cu | ut-Off |
| County/F | Parish State | | NUMBERS SIGHTE | D. |
| | | | | 4 |
| WHERE SITED: Latitu | and the second s | <u></u> |) . | |
| Long | itude: | | Eggs: | |
| Approximate Distance to V | Vater: | Feet | - Control De | 0 |
| Γ | | 1 | | No |
| IN FLIGHT Over Sandbar | ON GROUND (| On Nest Area ☐ | SUBSTRATE: | |
| Over Water | ☑ , , On | Resting Area | Sand: | |
| Calm Water | ~ | Z / | Gravel: | |
| بمبسب | <u>~</u> | \sim | Debris: | |
| Land Side | | 7 | | |
| Channel Side | MID-CHANN | EL 🗸 | VEGETATION: | |
| | Rapid Currents | 7 | Type: | |
| MID-CHANNEL SANDBAR | ╱╬╌┼╌┼╌┿╌╌ | l | Distance: | Feet |
| SIDE CH/ | River Side | Walley 1975 19 | FIELD CONDITION | |
| River Side | Land Side | | FIELD CONDITION: Temperature: | 1 021 |
| ├ ─ / ── | Calm Wate | | | 00 F |
| | 77 | | Rain: No | |
| | / / / 7 | | Wind: calm | |
| | | | % Cloud: 0 | |
| OTHER NOTES: | | | Andre Schoolscharmanistics | |
| Four terns in flight. | | | | |
| Tour terns in night. | | | | |
| ₩. | | | | |
| а П | | | | TN side |
| OBSERVERS: | D. and R. Davin, Gr | ubaugh, K. and W. | lones, Rumancik, Thr | on |
| RIVER GAGE READING: | M | emphis | | 2.2 |
| | (Gage | Location) | (Fle | evation) |

| | | | FLY | □ BOAT ✓ |
|------------------------------|--|-------------------------------------|----------------------|----------------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antilla</i> | rum athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: _ | 12:05 | RIVER MILE: _ | 775.0 |
| LOCALITY:Laudero | dale Ti | N SITE NAME | E: Hatchi | ie Towhead |
| County/F | Parish Sta | ite | NUMBERS SIG | HTED: |
| WHERE SITED: Latitu | de: 35.53149 | | Adults: | 64 |
| | tude: 89.90950 | | Juveniles: | |
| Approximate Distance to W | /ater | Feet | Eggs: | ***** |
| Approximate distance to vi | vater. | | | 6 |
| IN FLIGHT Over Sandbar | | | Chicks: | No |
| Over Water | ON OROGIND | On Nest Area ✓ On Resting Area ☐ | SUBSTRATE: | |
| | -4-4 | L / ,] | | $ \mathbf{Z} $ |
| Calm Water | <u>~</u> | \sim | Dalada | ⊻ |
| Land Side | <u>, </u> | ~ | Debris: | |
| Channel Side ✓ | A MID-CHA | NNEL | VEGETATION: | |
| \ \- | Rapid Currents 🗸 | > | Type: | |
| MID-CHANNEL SANDBAR | ╱╬╌┼╌┼╌┼ | | Distance: | Feet |
| ا کہ ا | NNEL SANDBAR Cent | | | |
| / River Side | T Land S | ide 🗆 | FIELD CONDIT | 220 DE 1 |
| ├ ─ / ──, | Calm W | ater 🗆 📉 | Temperatu | re: 86 °F |
| | '/77 | | Rain: No | |
| | / / / | 7-7-7 | Wind: ca | ılm |
| | | 4 | % Cloud: | 10% |
| OTHER NOTES: | | | | |
| Left Bank. Long(1 mile) at | tached sandbar with | lignite chunks. Perin | neter count indicate | s 6 tending scrapes. |
| others breasting river side. | | | | 77. 3. 47. |
| 8 | | | | |
| ODOEDVEDO | D and D D | Crubouch I/ 1 W | longs Dumana" | TN side |
| OBSERVERS: | D. and K. Davin, | Grubaugh, K. and W | . Jones, Rumancik | 111 |
| RIVER GAGE READING: | /0 | Memphis age Location) | | (5) |
| | (G | age Location) | | (Elevation) |

| | | | FLY [| BOAT ✓ |
|--|--------------------------------|-------------------|--|------------|
| SPECIES: Interior Least Te | ern (Sterna antillarun | athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 12:22 | RIVER MILE: | 771.5 |
| LOCALITY:Tipto | on TN | SITE NAME: | Randolpl | h Upper |
| County/F | Parish State | | NUMBERS SIGHT | ED: |
| | | | Adults: | |
| WHERE SITED: Latitu | | 28 | 28 | 100 |
| Long | itude: 89.89822 | | | 1(3) 5(2) |
| Approximate Distance to V | Vater: 50 | Feet | | 40 |
| | | | Chicks: | |
| IN FLIGHT Over Sandbar | M7 - 12 | n Nest Area 🗸 | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: ☑ | |
| Calm Water ✓ | | | Gravel: | |
| Land Side 🗹 | > | | Debris: | |
| Channel Side ✓ | A MID-CHANN | | VEGETATION: | |
| | /* | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: | Feet |
| SIDE CH | ANNEL SANDBAR Center Land Side | | FIELD CONDITION | ۷: |
| River Side | Calm Water | | Temperature: | 87 °F |
| 7777 | H71777 | | Rain: No | |
| | / / / 7 | | Wind: calm | |
| | | | % Cloud: 10 | % |
| OTHER NOTES: | | | And a confidence of the confid | |
| Left Bank. Mid-size, unatt dredge spoil. Many chicks signs of disturbance. | | | | |
| 8 | | | | TN side |
| OBSERVERS: | D. and R. Davin, Gr | ubaugh, K. and W. | Jones, Rumancik, Th | |
| RIVER GAGE READING: | Me | emphis | | 2.2 |
| | (Gage | Location) | <u>=</u> (E | Elevation) |

| | | | FLY | □ BOAT ✓ |
|---|---|---------------------|--|----------------------|
| SPECIES: Interior Least Tern (S | iterna antillarum | athalassos) | | |
| DATE: 7/8/2007 TIM | IE OF DAY: | 12:43 | RIVER MILE: | 770.0 |
| LOCALITY: | | SITE NAME: | Rando | olph Lower |
| County/Parish WHERE SITED: Latitude: | | | NUMBERS SIGH | HTED: 250 |
| | 89.89949 | 2 | Juveniles: _ Eggs: | |
| Approximate Distance to Water: | 100 | Feet | Nests: | 15 Yes |
| MID-CHANNEL SANDBAR | On R | * | Gravel: Debris: VEGETATION: Type: Gras Distance: FIELD CONDITION | 50 Feet ON: re: 87 F |
| | / / /~ | 7-7-7 | Wind: <u>cal</u> % Cloud: | lm 10% |
| OTHER NOTES: Left Bank. Large, high, spoil bar hiding in grass clumps, one foundation. OBSERVERS: | d dead. Signs of | camping at the wate | 2 weeks of age a | |
| RIVER GAGE READING: | | | | 2.2 |
| MIVEN GAGE NEADING. | *************************************** | emphis Location) | | (Elevation) |

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: TIME OF DAY: 13:12 RIVER MILE: 766.0 7/8/2007 TN LOCALITY: Tipton SITE NAME: Below Richardson Landing Dikes County/Parish State NUMBERS SIGHTED: Adults: 16 WHERE SITED: Latitude: 35.52440 Juveniles: Longitude: 89.98000 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side Temperature: 87 °F River Side Calm Water Rain: No Wind: calm % Cloud: 10% OTHER NOTES: Left Bank. Low (3 ft.), long (2-3 miles), attached sand/gravel bar with lignite debris field. No reproductive behavior, resting bar only. No signs of disturbance. TN side OBSERVERS: D. and R. Davin, Grubaugh, K. and W. Jones, Rumancik, Thron RIVER GAGE READING: Memphis 2.2 (Gage Location) (Elevation)

| | | | | FL | Υ | BOAT | ~ |
|---|---------------------------|---|-------------|----------------|----------------|-----------|-----|
| SPECIES: Interior Least Te | rn <i>(Sterna antilla</i> | rum athalass | os) | | | | |
| DATE: 7/8/2007 | TIME OF DAY: _ | 13:30 | | RIVER MILE: | | 760.5 | |
| LOCALITY:Tipto | on T | N SIT | E NAME: | Ce | edar Poi | nt | |
| County/F | Parish Sta | ate | | NUMBERS SIG | SHTED: | | |
| WHERE SITED: Latitu | ide: 35.45266 | | | Adults: | 72 | 87 | |
| | itude: 89.9981 | <u> </u> | | Juveniles: | | | |
| · · | | | | Eggs: | 5 2 | | |
| Approximate Distance to V | Vater:700 | Feet | | Nests: | 7 <u></u> | 2 | |
| | | | 7 | Chicks: | <u> </u> | No | |
| IN FLIGHT Over Sandbar | <u>ON ORCOND</u> | | A-100 | SUBSTRATE: | | | |
| Over Water | \mathbb{Z}_{1} | On Resting Area | | Sand: | v | | |
| Calm Water | | - - </td <td>. </td> <td>Gravel:</td> <td>✓</td> <td></td> <td></td> | . | Gravel: | ✓ | | |
| Land Side ☑ | <u>></u> | ~ | | Debris: | ✓ | | |
| Center . □ | | | | VEGETATION | • | | |
| Channel Side | A MID-CHA | ANNEL □ → | 6 | Type: Wil | | | |
| MID-CHANNEL SANDBAR | Rapid Currents | | | | | | |
| | River | Side 🔲 👠 | | Distance: | 1000 | reet | |
| SIDE CH/ | ANNEL SANDBAR Cent | er 🔲 | | FIELD CONDI | TION: | | |
| River Side ☐ | √ ~ 1 | /ater 🗆 | | Temperat | ure: | 88 °F | |
| 7777 | +>+> | | or a | Rain: No |) | | |
| | /// | 7-7- | _ | Wind: c | alm | | |
| | | DV (#EX) | | % Cloud: | 10% | | |
| OTHER NOTES. | | | | | | | |
| OTHER NOTES: | large attached at le | ant to wandon | iolond with | Jarga baak ahi | ıta Dar | imatar aa | t |
| Right Bank. Long, broad, yields 2 nests. No signs o | | asi io wooded | isiano with | narge back chi | ile. Per | ineter co | unt |
| 8 | | | | | | | |
| 5 | | | | | | AR side | 3 |
| OBSERVERS: | D. and R. Davin, | Grubaugh, K. | and W. Jo | ones, Rumanci | k, Thron | | |
| RIVER GAGE READING: | 87 | Memphis | | | 2. | 2 | |
| | (G | age Location) | | | (Eleva | ation) | |

FLY BOAT 🗹

| SPECIES: Interior Least Te | ern (Sterna antillarur | n athalassos) | | |
|-----------------------------|-------------------------|------------------------|-------------------|------------------|
| DATE: 7/8/2007 | TIME OF DAY: | 13:51 | RIVER MILE: | 755.0 |
| LOCALITY: She | lby TN Parish State | | Dens | sford Bar |
| oounty/ | Tunon otato | | NUMBERS SIGN | HTED: |
| WHERE SITED: Latit | ude: 35.3902 | | Adults: | 54 |
| Long | gitude: 90.0703 | | Juveniles: | |
| Approximate Distance to | Nator: 500 | Foot | Eggs: | |
| Approximate distance to | water | reet | Nests: | 4 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | ON GROOND | On Nest Area 🔽 | SUBSTRATE: | |
| Over Water | · ⊻ /// / On | Resting Area | Sand: | ✓ |
| Calm Water 🗸 | | ≺/ . | Gravel: | |
| Land Side 🗹 | <u> </u> | | Debris: | |
| | | ו | VEGETATION: | |
| Channel Side | A MID-CHANN | EL 🗹 🛶 📗 | | ws/Cottonwoods |
| MID-CHANNEL SANDBAR | Rapid Currents | · | No. | |
| 1 0 | River Side | | Distance: | 1000 Feet |
| SIDE CH | ANNEL SANDBAR Center | | FIELD CONDITI | ON: |
| River Side 🖳 | Land Side | | Temperatur | re: 88 °F |
| | | | | |
| | // 7// | | resource resource | |
| | , , | (777) | Wind: <u>cal</u> | lm |
| | | | % Cloud: | 10% |
| OTHER NOTES: | | | | |
| Left Bank. Long, high (20 | ft.) mid-channel sand b | oar with only 2 scrape | s noted on perime | eter count. Most |
| are resting at waterline. F | | | | |
| | | | | |
| 55 | | | | TN side |
| OBSERVERS: | D. and R. Davin, Gr | ubaugh, K. and W. J | ones, Rumancik, | Thron |
| RIVER GAGE READING: | M | emphis | | 2.2 |
| | (Gage | e Location) | | (Elevation) |

| | | | FLY | BOAT 🗸 |
|---|--|---------------------------------|---|--------------------------------------|
| SPECIES: Interior Least Terr | (Sterna antillarum | athalassos) | | |
| DATE: 7/8/2007 | TIME OF DAY: | 14:28 | RIVER MILE: | 743.1 |
| LOCALITY: | | SITE NAME: | Above Loosaha | tchie Dikes |
| WHERE SITED: Latitud Longitu Approximate Distance to Wa IN FLIGHT Over Sandbar Over Water Calm Water Land Side Center Channel Side MID-CHANNEL SANDBAR Ra | rish State e: 35.25086 ide: 90.09163 iter: 100 ON GROUND O | Feet n Nest Area Resting Area | Chicks: SUBSTRATE: Sand: Gravel: Debris: VEGETATION: Type: Distance: FIELD CONDITION: Temperature: Rain: No | 27 2(1) 1(2) 1(3) 4 No Feet 88 ° F |
| OTHER NOTES: Left Bank. Small (800 x 500 | ft.), unattached, sand | d bar below dike. Hu | man tracks. | |
| OBSERVERS: | | | | |
| RIVER GAGE READING: | | emphis Location) | =(Ele | 2.2 evation) |

FLY BOAT 🗹

| SPECIES: Interior Least Ter | n (Sterna antillai | rum athalassos) | | |
|--|-----------------------|-------------------------|---------------------|-----------------------|
| DATE: 7/8/2007 | TIME OF DAY: _ | 14:41 | RIVER MILE: _ | 740.5 |
| LOCALITY:Crittend | | | Loosahat | chie Bar Dikes |
| | | ····· | NUMBERS SIG | HTED: |
| WHERE SITED: Latitud | de: 35.20767 | | Adults: | 32 |
| | tude: 90.07191 | | Juveniles: | 1 |
| Approximate Distance to M | lator: E | Foot | Eggs: | |
| Approximate Distance to W | aler. <u>5</u> | <u>reet</u> | Nests: | 1 |
| | _ | | Chicks: | Yes |
| IN FLIGHT Over Sandbar | <u>OIT OITOOITD</u> | On Nest Area | SUBSTRATE: | |
| Over Water | ⊻ ///′ | On Resting Area | Sand: | ✓ |
| Calm Water | | ~ | Gravel: | ✓ |
| | <u>~</u> | \sim | Debris: | ✓ |
| Land Side | | ٦ | VEGETATION | |
| Channel Side | A MID-CHA | NNEL | VEGETATION: | |
| MID-CHANNEL SANDBAR | Rapid Currents | ´ | Type: Har | dwoods |
| بم 10 | River S | | Distance: | 1000 Feet |
| SIDE CHA | NNEL SANDBAR Cent | | FIELD CONDIT | ION: |
| / River Side □ | Calm W | · · · | Temperatu | re: 88 ⁰ F |
| 7777 | +7+7 | | Rain: No | |
| | //7 | 7-7-7 | Wind: _ca | alm |
| | | | % Cloud: | 10 |
| OTHER NOTES: | | | | |
| THE CONTRACTOR SECTION | araval bar 0 ft in al | ovation with some cand | and mud within a | like field Attached |
| Right Bank. Medium size of and undulating with scatter | ed lignite. Two scra | apes and one adult on n | est at waterline, 2 | |
| of age, 1 fledgling. Terns r | mobbing and breast | ing. Day campers at wa | terline | 5 |
| | | | | AR side |
| OBSERVERS: | D. and R. Davin, | Grubaugh, K. and W. | lones, Rumancik | , Thron |
| RIVER GAGE READING: | | Memphis | | 2.2 |
| | (Ga | age Location) | | (Elevation) |

| | | | FLY | BOAT | ~ |
|---|---|--------------------------------|--------------------|-----------------|-----|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 6/25/2007 | TIME OF DAY: | 7:55 | RIVER MILE: _ | 733.0 | |
| LOCALITY:Critten | den AR | SITE NAME: | Engine | er Bar Dikes | |
| County/F | Parish State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitu | ide: 35.12323 | | Adults: | 27 | |
| | itude: 90.10361 | | Juveniles: | V. | |
| Approximate Distance to V | Vater: 50 | Feet | Eggs: | | |
| Approximate distance to v | vater. 00 | | | 0 | |
| IN FLIGHT Over Sandbar | V ON ODGUND O | | Chicks: | No | |
| Over Water | ON ONCOME | n Nest Area 🔽 esting Area 🖂 | SUBSTRATE: | | |
| M. C | -4-4-1 | / / | | ✓ | |
| Calm Water | · • • • • • • • • • • • • • • • • • • • | \sim /I \sim | Dahata | | |
| Land Side | د نــر | ~ | Debits. | | |
| Channel Side | MID-CHANNE | | VEGETATION: | | |
| · | Rapid Currents | → | Type: Willo | ows | |
| MID-CHANNEL SANDBAR | / | | Distance: | 800 Feet | |
| ا مہر ﴿ | River Side ANNEL SANDBAR Center | | FIELD CONDITI | ION | |
| River Side 🖳 | Land Side | | FIELD CONDITI | re: 78 °F | |
| -/ | Calm Water | <u> </u> | | | |
| | "TTT | | Rain: No | | |
| | 7 . 7 7 | | Wind: SE | 3-5 mph | |
| | | | % Cloud: | 80 | |
| OTHER NOTES: | | | | | |
| Right Bank. High (10 ft.), scrapes but birds carrying | | | st terns resting a | t waterline. Em | pty |
| 5 | | | | | |
| <i>5</i> | | | | AR side |) |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas | , Thron | |
| RIVER GAGE READING: | Me | mphis | | 1.3 F | |
| | (Gage | Location) | | (Elevation) | |

| | | | FLY [| BOAT ✓ |
|----------------------------|--------------------------------|-------------------------|--|------------------|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 8:32 | RIVER MILE: | 730.0 |
| LOCALITY: Shell | | SITE NAME: | Vice Presiden | ts Island #46 |
| County/F | Parish State | | NUMBERS SIGHT | ED: |
| WHERE OITED: 1 -4:4. | 25 4252 | | Adults: | |
| WHERE SITED: Latitu | | <u>2</u> 8 | 20 | |
| Long | itude: 90.1614 | | | 1(2) 1(3) |
| Approximate Distance to V | Vater: 600 | Feet | Nests: | 2 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area | SUBSTRATE: | |
| Over Water | ☑ / / On R | lesting Area | Sand: | |
| Calm Water ✓ | <u></u> | ۷/.l | Gravel: | |
| Land Side 🗆 | > | | Debris: | |
| | | _] | VEGETATION: | |
| Channel Side 🗹 | # MID-CHANNE | ≛ | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents 🗌 | * | | |
| 1 / | River Side | | Distance: | reet |
| SIDE CH/ | ANNEL SANDBAR Center Land Side | | FIELD CONDITION | ٧: |
| River Side 🔲 | Calm Water | · · | Temperature: | 79 °F |
| 77777 | +7+74 | | Rain: No | |
| | 1179 | ` ~~~ | Wind: SE 3 | -5 mph |
| | | | % Cloud: 10 | 0 |
| OTHER NOTES: | | | AND STREET, ST | |
| Left Bank. Medium high (6 | 6 ft) sand and gravel wi | th lianite dehris field | attached Two nes | ts with eags and |
| empty scrapes. Canine ar | | ar agrate debits neld, | addica. I wo nes | to mur eggs and |
| | | | | |
| 57 57 | | | | TN side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, T | hron |
| RIVER GAGE READING: | Me | emphis | | 1.3 F |
| | (Gage | Location) | (E | Elevation) |

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/25/2007 TIME OF DAY: 8:48 RIVER MILE: 725.0 AR LOCALITY: Crittenden SITE NAME: Dismal Point Dikes Upper County/Parish State NUMBERS SIGHTED: 22 ____ Adults: WHERE SITED: Latitude: 35.0691 Juveniles: Longitude: 90.1838 Eggs: Approximate Distance to Water: 200 Feet 4 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: On Resting Area Over Water · 🗸 Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side V Temperature: ___80 °F River Side [Calm Water Rain: No Wind: SE 3-5 mph % Cloud: 100 OTHER NOTES: Right Bank. Medium-high, unattached sand bar with undulations. Four terns sitting on scrapes. No signs of disturbance. AR side OBSERVERS: _____ Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 1.3 F Memphis (Gage Location) (Elevation)

| | | | FLY [| BOAT ✓ |
|-----------------------------------|---|---------------------------------|-----------------------|-------------|
| SPECIES: Interior Least Te | ern (Sterna antillarum | athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 8:57 | RIVER MILE: | 720.8 |
| LOCALITY: Critten | den AR | SITE NAME: | Dismal Point | Dikes Lower |
| County/l | Parish State | | NUMBERS SIGHTI | ED: |
| WHERE SITED: Latitu | ide: 35 02695 | | Adults: | 60 |
| | itude: 90.21297 | -: | Juveniles: | |
| Approximate Distance to V | | Foot | Eggs: | |
| Approximate distance to v | valer. | reet | | 0 |
| Over Condher | 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 1911 1921 19 | Chicks: | No |
| IN FLIGHT Over Sandbar Over Water | <u>ON ORCOND</u> | n Nest Area ☐ lesting Area ✓ | SUBSTRATE: | |
| | <u>-</u> | / / | Sand: ☑ | |
| Calm Water | | \checkmark / \Box | Gravel: | |
| Land Side | حظز | \sim | Debris: | |
| Channel Side | A MID-CHANNE | a | VEGETATION: | |
| | | " " → | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | | Distance: | Feet |
| ا شہر | River Side ANNEL SANDBAR Center | | FIELD COMPLETION | ve |
| / River Side | Land Side | | FIELD CONDITION | 111 |
| ├ ─ / ── | Calm Water | _ ~~ | Temperature: | 00 F |
| | ''/77 | | Rain: No | |
| | / / / 7 | | Wind: S5m | nph |
| | | | % Cloud: 100 | 0 |
| OTHER NOTES: | | | | |
| Right Bank. Small (15 x 5 | 0 vds.), barely emergen | t (1/2 foot), unattache | ed, sand bar. Some | courting |
| behavior, with falling river | | | | 750.2 |
| 5 | | | | |
| | 0 | O | | AR side |
| OBSERVERS: | Campen, Carpenter, | orubaugn, Jones, Ru | ımancık, i homas, I l | |
| RIVER GAGE READING: | No. | mphis | | 1.3 F |
| | (Gage | Location) | (E | levation) |

| | | | FLY [| BOAT ✓ |
|--|--|--|---------------------|-----------------|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 9:24 | RIVER MILE: | 715.0 |
| LOCALITY: Desc | oto MS | SITE NAME: | Cow Isla | and Bend |
| County/F | Parish State | | NUMBERS SIGHT | TED: |
| WHERE OITER | 05.00404 | | Adults: | |
| WHERE SITED: Latitu | | 28 | 26 | |
| Long | itude: 90.29861 | | | 5(1) 1(3) |
| Approximate Distance to V | Vater: 120 | Feet | Nests: | 6 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area 🗸 | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: | |
| Calm Water | | ۷/.l | Gravel: | |
| Land Side | > | | Debris: | |
| Channel Side | A MID-CHANNI | | VEGETATION: | |
| 1 | | → | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Distance: | Feet |
| SIDE CH/ | ANNEL SANDBAR Center Land Side | ¦∕ \ | FIELD CONDITIO | N: |
| River Side | Calm Water | | Temperature | :79 |
| 7777 | | | Rain: No | |
| | 1 1 7 | | Wind: SW | 5 mph |
| is a second of the second of t | | | % Cloud: 90 |) |
| OTHER NOTES: | | | | |
| Left Bank. Large, 2 mile k Coyote tracks within colon | ong sand bar with colon y and 1 Caspian Tern, | y on downstream, un 1 juvenile Bald Eagle | attached portion. T | Ferns courting. |
| 8 | | | | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas. 1 | CAUTE II |
| RIVER GAGE READING: | 111 | emphis | 16. | 1.3 F |
| | 3.0 | Location) | | Elevation) |

| | | | FLY | BOAT 🗸 |
|--|--------------------------------|---------------------|--|----------|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 10:04 | RIVER MILE: | 705.0 |
| LOCALITY:Critten | den AR | SITE NAME: | Seyppel [| Dikes |
| County/F | Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitu | ide: 34.88831 | | Adults: | 32 |
| | itude: 90.2876 | | Juveniles: | |
| Approximate Distance to V | Vater: 75 | Feet | Eggs: | |
| | 32 | | | 5 No |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area ✓ | SUBSTRATE: | .,, |
| Over Water | ☑ , , On F | Resting Area | Sand: 🔽 | |
| Calm Water | ~~ <i>_</i> | | Gravel: | |
| Land Side 🗆 | > | \sim | Debris: | |
| C | | _ | VEGETATION: | |
| Channel Side | A MID-CHANNI | [┺] ╵→┃ | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: | Feet |
| SIDE CH/ | ANNEL SANDBAR Center Land Side | | FIELD CONDITION: | |
| River Side □ | Calm Water | | Temperature: _ | 83 °F |
| 77777 | 4747 | | Rain: No | |
| | 1179 | | Wind: calm | |
| | | | % Cloud: <u>50</u> | |
| OTHER NOTES: | | | | |
| Right Bank. Huge, high, fl series of smaller, low spits | | | | |
| | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Thr | |
| RIVER GAGE READING: | Me | emphis | 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 1.3 F |
| | Stories - | Location) | | evation) |

FLY BOAT 🗹

| SPECIES: Interior Least Ter | n <i>(Sterna antillarum</i> | athalassos) | | |
|--|-------------------------------|---------------------|-----------------|----------------------|
| DATE: 6/25/2007 | TIME OF DAY: | 10:19 | RIVER MILE: _ | 703.0 |
| LOCALITY: Crittend | | SITE NAME: | Picl | kett Dikes |
| County | arisii Otate | | NUMBERS SIG | HTED: |
| WHERE SITED: Latitud | de: 34 87582 | | Adults: | 200 |
| | rude: 90.30779 | - | Juveniles: | |
| | | F | Eggs: | 5(1) 7(2) 14(3) 1(4) |
| Approximate Distance to W | ater: 800 | Feet | Nests: | 25 |
| | | | Chicks: | Yes |
| IN FLIGHT Over Sandbar | - M | n Nest Area 🗸 | SUBSTRATE: | |
| Over Water | ☑ / / On R | esting Area | Sand: | ✓ |
| Calm Water | | ۷/.l | Gravel: | ✓ |
| Land Side | <u>~</u> | \sim | Debris: | ✓ |
| Land Side Center | | 7 | VECETATION | |
| Channel Side | MID-CHANNE | <u> </u> | VEGETATION: | |
| MID-CHANNEL SANDBAR | apid Currents River Side | | | Feet |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDIT | ION: |
| River Side 🔲 | Calm Water | - · · | Temperatu | ıre: 86 °F |
| 77777 | +7+7+~ | | Rain: No | |
| | ///7 | | Wind: ca | alm |
| | | | % Cloud: | 60 |
| OTHER NOTES: | | | | |
| Left Bank. Unattached, me | | | | |
| mobbing, fishing both sides Threadfin Shad, White Bas | | | | nick in scrape. |
| 50 50 | 200 19 19 | | 7509 | MS side |
| OBSERVERS: | Campen, Carpenter, 0 | Grubaugh, Jones, Ru | ımancik, Thomas | **** |
| RIVER GAGE READING: | Me | emphis | | 1.3 F |
| an area and the section of the company of the section of the secti | Month of the second | Location) | = = | (Elevation) |

FLY BOAT 🗹

| SPECIES: Interior Least Ter | n (Sterna antillarun | n athalassos) | | |
|-----------------------------|-------------------------------|---------------------|-------------------|-----------------------|
| DATE: 6/25/2007 | TIME OF DAY: | 11:04 | RIVER MILE: | 699.0 |
| LOCALITY: Crittend | | | Porter | Lake Dikes |
| | | | NUMBERS SIGH | HTED: |
| WHERE SITED: Latitud | | <u>_</u> 20 | , | 65 |
| Longi | tude: 90.36764 | | : CONTROL | |
| Approximate Distance to W | /ater: 300 | Feet | | 4 |
| | | | W ORDER & SECURIO | No . |
| IN FLIGHT Over Sandbar | ON ONCOME | On Nest Area ✓ | SUBSTRATE: | |
| Over Water | <u>✓</u> /// On! | Resting Area | Sand: | ~ |
| Calm Water | | ≺/ . | Gravel: | ✓ |
| Land Side | <u> </u> | | Debris: | ✓ |
| Center . □ | | _ 1 | VEGETATION: | |
| Channel Side | MID-CHANN | ≞ ⊔ → | | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | | Feet |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITI | ON: |
| River Side □ | Calm Water | | Temperatur | re: 84 ⁰ F |
| 77777 | +7+7+7- | | Rain: No | |
| | /// | | Wind: <u>cal</u> | lm |
| er. | | | % Cloud: | 20 |
| OTHER NOTES: | | | | |
| Right Bank. Medium size s | do | ong, between dikes. | 0303 | on scrapes, others |
| £ | | | | |
| ST. | 1000 | | Logic policina | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, | Thron |
| RIVER GAGE READING: | M | emphis | | 1.3 F |
| | (Gage | e Location) | | (Elevation) |

FLY \square

(Elevation)

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/25/2007 TIME OF DAY: 12:43 RIVER MILE: 693.0 MS SITE NAME: Commerce Dikes LOCALITY: Tunica County/Parish State NUMBERS SIGHTED: Adults: 112 WHERE SITED: Latitude: 34.8152 Juveniles: Longitude: 90.4563 Eggs: Approximate Distance to Water: Feet 1 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: On Resting Area Over Water · 🗸 Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: MID-CHANNEL V Channel Side Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side Temperature: 84 °F River Side Calm Water Rain: No Wind: calm % Cloud: 20 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. Most birds counted along the waterline during perimeter count. One nest assumed from tern sitting inland. No tracks or other notable disturbance. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron 7.8 F RIVER GAGE READING: Helena (Gage Location)

FLY BOAT 🗹

| SPECIES: Interior L | east Tern (Sterna a | ntillarum atha | lassos) | | |
|--|---|-----------------|-------------------|-------------------|--|
| DATE: 6/25/200 | 7 TIME OF D |)AY:13 | 3:10 | RIVER MILE: | 687.0 |
| LOCALITY: | Lee | AR | SITE NAME: | Mho | on Bend |
| C | county/Parish | State | | NUMBERS SIGI | UTED: |
| | | | | | 81 |
| WHERE SITED: | Latitude: 34. | 73875 | | | 01 |
| | Longitude: 90. | 45414 | | | |
| Approximate Distar | nce to Water: | 150 Fee | <u>et</u> | | 2 |
| W-000-1 | | | | - | No |
| IN FLIGHT Over S | andbar 🗸 🔾 | OUND On Nest | Area - | | 140 |
| | r Water · ✓ | On Resting | 29 - 30 | SUBSTRATE: | |
| | | 4// | , | Sand: | ✓ |
| Calm Water | ~ | | [] | Assert our branch | ✓ |
| Land Side | | | \sim | Debris: | ✓ |
| Center | .2' | | | VEGETATION: | |
| Channel Side | 'U A M | IID-CHANNEL | - → | | |
| MID-CHANNEL SAND | BAR Rapid Currents | / | | | |
| A | \top -/ \uparrow - \uparrow - \uparrow - \uparrow | River Side 🔲 🔪 | | Distance: | Feet |
| يب سر | SIDE CHANNEL SANDBAI | Center 🗸 . | <i>></i> | FIELD CONDITI | ON: |
| / River Side _ | | Land Side | ~ `` | | re: 84 °F |
| - / | <u> </u> | Calm Water | \sim | | |
| | / /'/ ' | | | Rain: No | |
| | / / | 4 | | Wind: ca | lm |
| | | | | % Cloud: | 20 |
| OTHER NOTES: | | | | | |
| OTHER NOTES: | | \ _44==l==dd | .dation recording | | lance stand of |
| | er very large (3 miles Perimeter count with | | | | |
| Heron downstream | , Mississippi Kites 2 r | niles upstream | but no other si | gns of disturbanc | e. |
| | | | | | AR side |
| OBSERVERS: | Campen, Ca | arpenter, Gruba | augh, Jones, Ru | ımancik, Thomas | tara managaran m |
| RIVER GAGE READ | ING: | Helena | | | 7.8 F |
| and the second s | 31 | (Gage Loca | | = = | (Elevation) |

FLY BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/25/2007 TIME OF DAY: 13:30 RIVER MILE: 680.0 SITE NAME: Bordeaux Point Dikes LOCALITY: Tunica MS County/Parish State NUMBERS SIGHTED: ____21 Adults: WHERE SITED: Latitude: 34.73383 Juveniles: Longitude: 90.56013 Eggs: Approximate Distance to Water: 300 Feet 0 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side 🗸 SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side V Temperature: 89 °F Calm Water Rain: No Wind: calm % Cloud: 50 OTHER NOTES: Left Bank. Large, sloping, attached point bar of sand, gravel and mud. One egg shell, but no active nests. Two sets of deer tracks but no other signs of disturbance. MS side OBSERVERS: _____ Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 7.8 F Helena (Gage Location) (Elevation)

| | | | FLY 🗆 | BOAT 🗸 |
|-----------------------------|--------------------------------|----------------------|------------------------|-----------|
| SPECIES: Interior Least Te | ern (Sterna antillarun | n athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 13:59 | RIVER MILE: | 676.7 |
| LOCALITY: Lee | e AR | SITE NAME: | Hardin C | ut-Off |
| County/l | Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitu | .do: 34 69533 | | Adults: | |
| | | _% | Juveniles: | |
| Long | itude: 90.56622 | | Eggs: | 3(1) 1(3) |
| Approximate Distance to V | Vater: 60 | Feet | Nests: | 75 |
| | | 1 | Chicks: | Yes |
| IN FLIGHT Over Sandbar | ON GROUND C | on Nest Area ✓ | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: | |
| Calm Water ✓ | | ∠ / .l = | Gravel: | |
| Land Side 🗹 | > | | Debris: | |
| | | _ 1 | VEGETATION: | |
| Channel Side | A MID-CHANN | [≞] ╵→│ | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | * | | |
| 1 10 | River Side | | Distance: | Feet |
| SIDE CH | ANNEL SANDBAR Center Land Side | | FIELD CONDITION: | |
| River Side □ | Calm Water | - · · | Temperature: | 90 °F |
| 7777 | / | | Rain: No | |
| | ///~ | ~~~ | Wind: calm | |
| | | | % Cloud: 50 | |
| OTHER NOTES: | | | | |
| Left Bank. Small, low, flat | mid-channel har with | scattered dehris Fou | r chicks 1-3 days old | heavy |
| mobbing, 1 abandoned eg | | | i onicks i o days old, | ncuvy |
| | | | | |
| 53 | | | | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Th | ron |
| RIVER GAGE READING: | , <u>F</u> | lelena | | 7.8 F |
| | (Gage | Location) | (Ele | evation) |

| | | | FLY [| BOAT |
|--|------------------------------|------------------------|------------------------------|--------------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillarur</i> | n athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 14:07 | RIVER MILE: | 676.5 |
| LOCALITY: Lee | e AR | SITE NAME: | Below Walnut | Bend Dikes |
| County/F | Parish State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitu | ide: 3/1.67685 | | Adults: | 29 |
| | itude: 90.57188 | <u></u> | Juveniles: | |
| Long | itude. 90.57 166 | | Eggs: | |
| Approximate Distance to V | Vater: 100 | Feet | Nests: | 2 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | ON GROUND | On Nest Area ✓ | SUBSTRATE: | |
| Over Water | ☑ / / On! | Resting Area | Sand: | |
| Calm Water | ~ | Z / | Gravel: | |
| Land Side | > | \sim | Debris: | |
| . Center . □ | | _ 1 | VEGETATION: | |
| Channel Side | A MID-CHANN | ╚┖╙╶┪ | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents 🗸 | • | 1000 | |
| بع 🔻 | River Side | To l | Distance: | Feet |
| SIDE CH | ANNEL SANDBAR Center | ☑ ∵ . | FIELD CONDITION | |
| / River Side □ | Land Side | | Temperature: | 1 221 |
| ├ ─ / | Calm Wate | <u> </u> | | |
| | 177 | | Rain: No | |
| | / / / 7 | | Wind: calm | |
| | | | % Cloud: 50 | |
| OTHER NOTES | | | State Appropriate property | |
| OTHER NOTES: | o sentrebed second become | | T | Paradiana arta tar |
| Right Bank. Gently slopin disturbance or tracks. | g, aπacned sand bar w | ith patches of gravel. | I wo sitting inland. In | no apparent |
| 5 | | | | |
| s- | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Th | ron |
| RIVER GAGE READING: | <u>F</u> | Helena | | 7.8 F |
| | (Gage | Location) | _ (EI | evation) |

| | | | FLY [| BOAT 🗸 |
|---|--------------------------------|--------------------------------|-----------------------|-----------|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 14:29 | RIVER MILE: | 672.0 |
| LOCALITY:Tunio | a MS | SITE NAME: | St. Franci | s Bend |
| County/P | Parish State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitu | de: 34.6241 | | Adults: | 97 |
| | tude: 90.5835 | | Juveniles: | |
| Approximate Distance to W | /ater: 800 | Feet | Eggs: | 1997.0 |
| Approximate Biotainee to Vi | | | | 8 N- |
| <u>IN FLIGHT</u> Over Sandbar | V ON CROUND O | N - 40 - 5 | \ | No |
| Over Water | 92-92 W | n Nest Area ✓ esting Area □ | SUBSTRATE: | |
| Calm Water ✓ | -4-4-4 | / /] | Sand: ☑ | |
| Califi Water | *>~ | \sim / $ $ | Gravel: ☐ Debris: ☐ | |
| Land Side | _ | \sim | Debris: | |
| Channel Side ✓ | A MID-CHANNE | L 🗆 📗 | VEGETATION: | |
| | Rapid Currents | → | Туре: | |
| MID-CHANNEL SANDBAR | ╱╬╌┼╌┼╌┼╌ | <u> </u> | Distance: | Feet |
| SIDE CHA | River Side NNEL SANDBAR Center | <u> </u> | FIELD CONDITION | Į. |
| River Side _ | Land Side | - · · | Temperature: | 11 |
| ├ ─ / ─────────────────────────────────── | Calm Water | | | |
| 1 / / / / / | | | Rain: No | |
| | 1179 | //// | Wind: calm | |
| | | | % Cloud: <u>50</u> | |
| OTHER NOTES: | | | | |
| Left Bank. Very large, flat, | | | | |
| with nests widely scattered | I. Mobbing heron in bac | k chute. No tracks o | r other disturbance s | igns. |
| | | | | MS side |
| OBSERVERS: | Campen, Carpenter, 0 | Grubaugh, Jones, Ru | ımancik, Thomas, Th | |
| RIVER GAGE READING: | Н | elena | | 7.8 F |
| | Stores | Location) | (E | levation) |

| DATE: 6/25/2007 TIME OF DAY: 15:05 RIVER MILE: 668.0 LOCALITY: Phillips AR SITE NAME: Prairie Point Dikes County/Parish State NUMBERS SIGHTED: Adults: 39 Juveniles: Longitude: 90.5536 Approximate Distance to Water: 300 Feet Nests: 3 Chicks: No INFLIGHT Over Sandbar ON GROUND ON Nest Area On Resting Area On Gravel: On Resting Area On Gravel: On Resting Area On Calm Water On Resting Area On Calm Water On Cannot Side On Cannot Side On Cannot Side On Cannot Side On Calm Water On Resting Area On Cannot Side On Cannot Side On Calm Water On Resting Area On Calm Water On Resting Area On Cannot Side On Cannot Si |
|--|
| County/Parish State NUMBERS SIGHTED: |
| County/Parish State NUMBERS SIGHTED: |
| WHERE SITED: Latitude: 34.5625 |
| Approximate Distance to Water: 300 Feet |
| Approximate Distance to Water: 300 Feet |
| Approximate Distance to Water: 300 Feet Nests: 3 Nests: 3 |
| Nests: 3 Chicks: No No Nest Area Chicks: No SUBSTRATE: Sand: Gravel: Debris: Debris: VEGETATION: Type: Distance: Feet FIELD CONDITION: Temperature: 89 |
| NFLIGHT Over Sandbar |
| Over Water On Resting Area Substract Sand: Sand: Sand: Debris: Debris: Substract Sand: San |
| Sand: Gravel: Debris: Debris: Sand: Sand: Gravel: Debris: Debris: Debris: Debris: Sand: Sand: Gravel: Debris: Debris: Debris: Debris: Debris: Sand: Sand: Gravel: Debris: Sand: Sand |
| Debris: Debris: September 1 |
| Land Side |
| Channel Side |
| Type: |
| River Side |
| River Side SIDE CHANNEL SANDBAR Center Land Side Calm Water River Side Ri |
| River Side Calm Water Rain: No |
| Calm Water Rain: No |
| |
| |
| Wind: <u>W 10 mph</u> |
| % Cloud: <u>60</u> |
| OTHER NOTES: |
| Right Bank. Large, high, undulating, gravel bar attached to heavily wooded island. Terns were breasting, fishing and carrying fish. Perimeter count yields 3 nests in gravel. Four fishing opposite bank. No disturbance noted. |
| |
| OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron |
| |
| RIVER GAGE READING: Helena = 7.8 F (Gage Location) (Elevation) |

| | | | FLY | BOAT 🗸 |
|---|---------------------------|--|---------------------------------------|----------|
| SPECIES: Interior Least 7 | Tern (Sterna antillarun | n athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 15:15 | RIVER MILE: | 666.5 |
| LOCALITY: Phi | Ilips AR | SITE NAME: | Prairie Point | Towhead |
| County | //Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Lat | itude: 34.54669 | | Adults: | 92 |
| | gitude: 90.54383 | | Juveniles: | |
| Annuavimeta Diatanas ta | \\/otom | Foot | Eggs: | |
| Approximate Distance to | water | <u>reel</u> | Nests: | 20 |
| | _ | | Chicks: | No |
| IN FLIGHT Over Sandba | ON OROGNE | On Nest Area ✓ | SUBSTRATE: | |
| Over Wate | r. ☑ / On F ← / / / | Resting Area | Sand: ✓ | |
| Calm Water | | ≺/. | Gravel: | |
| | <u> </u> | ~ (| Debris: | |
| Land Side | | 7 | VEGETATION | |
| Channel Side | MID-CHANN | | VEGETATION: | |
| MID-CHANNEL SANDBAR | Rapid Currents 🗸 | | Type: | |
| MID-CHANNEL SANDBAR | River Side | | Distance: | Feet |
| SIDE C | HANNEL SANDBAR Center | <u> </u> | FIELD CONDITION | |
| / River Side | Land Side | | FIELD CONDITION: | 1 221 |
| - / | Calm Water | <u>, </u> | Temperature: _ | 09 F |
| / / / 7 | | | Rain: No | |
| | ///~ | | Wind: <u>W 10 r</u> | nph |
| | | | % Cloud: 60 | |
| OTHER NOTES. | | | Andrew States Control Control Control | |
| OTHER NOTES: | har of gravel (attached i | upper and) and cand (| unattached lower one | I) No |
| Right Bank. Large point disturbance noted. Thre | e Ruddy Turnstones and | | unattached lower end | I). INO |
| 47 | | | | |
| 5 | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Thi | ron |
| RIVER GAGE READING: | <u> </u> | lelena | | 7.8 F |
| | (Gage | Location) | _ (Ele | evation) |

| | | | FLY [| □ BOAT ✓ |
|-----------------------------------|--|--|---------------------------------------|-----------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillarun</i> | athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 15:52 | RIVER MILE: | 662.5 |
| LOCALITY:Coaho | | SITE NAME: | Helena Re | each Upper |
| County/F | Parish State | | NUMBERS SIGHT | ΓED: |
| WHERE SITED: Latitu | ıde: 34 51256 | | Adults: | 35 |
| | itude: 90.58333 | | Juveniles: | |
| - | | Fast | Eggs: | |
| Approximate Distance to V | valer. 100 | | | 1 |
| 00 | 200 | AND THE PERSON | Chicks: | No |
| IN FLIGHT Over Sandbar Over Water | 22.52. W | n Nest Area ✓ Resting Area □ | SUBSTRATE: | |
| | <u> </u> | Kesung Area | Sand: ☑ | |
| Calm Water ☐ | | \leq | Gravel: | |
| Land Side | <u>; </u> | \sim | Debris: | |
| Channel Side | A MID-CHANN | | VEGETATION: | |
| | | [™] → | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents 🔽 | <u> </u> | Distance: | Feet |
| SIDE CH | River Side ANNEL SANDBAR Center | 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | |
| River Side | Land Side | | FIELD CONDITIO | 1111 |
| INVELSIDE | Calm Water | | Temperature: | : 89 °F |
| 1 / / 7 7 / | 777 | | Rain: No | |
| | /// | ~ ~~~ | Wind: W 5 | mph |
| | | | % Cloud: 60 |) |
| OTHER NOTES: | | | ener erroranteriale de a a | |
| Left Bank. New colony sit | e last vear still in use v | with solid flat low (3 | ft) unattached mid | L-channel sand |
| bar. Courting and breasting | | | | - Onlamici Sana |
| 5 | | | | |
| 13 | 1900 | | 1,000 stanto | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, T | hron |
| RIVER GAGE READING: | Street or all the | lelena | | 7.8F |
| | (Gage | Location) | (1 | Elevation) |

| | | | FLY [| BOAT 🗸 |
|---|--------------------------------|---------------------|---------------------|-----------------|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | |
| DATE: 6/25/2007 | TIME OF DAY: | 15:46 | RIVER MILE: | 660.0 |
| LOCALITY:Coaho | oma MS | SITE NAME: | Helena Rea | ach Lower |
| County/F | Parish State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitu | ide: 34 4602 | | Adults: | 49 |
| | itude: 90.5827 | ±: | Juveniles: | |
| - | | File | Eggs: | |
| Approximate Distance to V | vater. 100 | <u>reet</u> | Nests: | 1 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | 2000 V | n Nest Area ✓ | SUBSTRATE: | |
| Over Water | <u>✓</u> /_// On R | esting Area | Sand: ☑ | |
| Calm Water | | <u> </u> | Gravel: | |
| Land Side | > | \sim | Debris: | |
| Channel Side | # MID-CHANNE | | VEGETATION: | |
| | | → | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: | Feet |
| SIDE CH/ | ANNEL SANDBAR Center Land Side | | FIELD CONDITION | l: |
| River Side 🔽 | Calm Water | | Temperature: | 88 °F |
| 7777 | 4747 | | Rain: No | |
| | / / / 7 | | Wind: <u>W 10</u> | mph |
| | | | % Cloud: 40 | |
| OTHER NOTES: | | | | |
| Left Bank. Attached sand waterline with one observe | | | | Most resting at |
| 0 | | | | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Th | and the same of |
| RIVER GAGE READING: | Н | elena | | 7.8 F |
| | 3.0 | Location) | <u>=</u> (E | levation) |

| | | | FLY [| BOAT ✓ |
|--------------------------------|----------------------|------------------------|----------------------|----------------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 | TIME OF DAY: | 8:01 | RIVER MILE: | 658.5 |
| LOCALITY: Coahoma | a MS | SITE NAME: | Montezuma | a Bar Dikes |
| County/Par | rish State | | NUMBERS SIGHT | ED: |
| WHERE SITED: Latitude | 34 4601 | | Adults: | 40 |
| | de: 90.58348 | | Juveniles: | |
| · ··· | | | Eggs: | |
| Approximate Distance to Wat | ter: <u>50</u> | Feet | Nests: | 9 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar ✓ | <u>ON ONOONB</u> | n Nest Area ✓ | SUBSTRATE: | |
| Over Water · |] | esting Area | Sand: | |
| Calm Water | <u></u> | 47.l | Gravel: | |
| Land Side | 2 | | Debris: 🗸 | |
| | MID CHANNE | | VEGETATION: | |
| Channel Side | MID-CHANNE | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR Rap | oid Currents | | Market on the second | |
| | River Side | | Distance: | ou reet |
| SIDE CHAN | NEL SANDBAR Center | | FIELD CONDITION | V: |
| River Side ☑ | Land Side Calm Water | - · · | Temperature: | 111 |
| 7777 | 7+7+ | | Rain: No | |
| | 1179 | | Wind: S5n | nph |
| | | | % Cloud: 75 | |
| OTHER NOTES: | | | | |
| Left Bank. Attached, undulat | ing cand har with mo | et hirde reeting at wa | tarlina Cama sour | ring activity with 0 |
| sitting on nests. No tracks of | | st bilds resting at wa | iteriine. Some couri | ing activity with 9 |
| 8 | 2011 | | | |
| | | | | MS aisw |
| OBSERVERS: | Campen, Carper | ter, Grubaugh, Jone | s, Rumancik,Thron | |
| RIVER GAGE READING: _ | Н | elena | | 7.4 F |
| | (Gage | Location) | (E | Elevation) |

| | | | FLY [| □ BOAT ✓ | |
|--|--------------------|----------------------|---------------------------------------|---------------|--|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | | |
| DATE: 6/26/2007 | TIME OF DAY: | 8:27 | RIVER MILE: | 655.0 | |
| LOCALITY: Phillips | AR | SITE NAME: | Montezuma 1 | Towhead Dikes | |
| County/Pa | rish State | | NUMBERS SIGH | TED: | |
| WHERE SITED: Letitude | 24 40905 | | Adults: | | |
| WHERE SITED: Latitude | de: 90.59296 | 29 | 70 | | |
| | | | | 1(2) 1(3) | |
| Approximate Distance to Wa | ter: 500 | Feet | Nests: | 2 | |
| | | 1 | Chicks: | No | |
| <u>IN FLIGHT</u> Over Sandbar ✓ | ON GROUND O | n Nest Area ✓ | SUBSTRATE: | | |
| Over Water | On R | esting Area | Sand: | | |
| Calm Water | | ۷/.l | Gravel: 🗸 |] | |
| | 5 | \sim | Debris: |] | |
| Land Side | | ٦ | VECETATIONS | | |
| Channel Side | MID-CHANNE | <u>.</u> ∠ → | VEGETATION: Type: | | |
| MID-CHANNEL SANDBAR | oid Currents | \$**** | | | |
| | River Side | | Distance: | Feet | |
| SIDE CHANNEL SANDBAR Center ☐ Land Side ✓ Calm Water ✓ | | | FIELD CONDITION: Temperature: 83 ° F | | |
| | | | | | |
| | 1179 | ~~~ | Wind: S5 | mph | |
| | | | % Cloud: 80 | 0 cirrus | |
| OTHER NOTES: | | | 357923 | | |
| Right Bank. Attached mediu behavior, mobbing, and coyo | | patches of gravel. N | lests in wrackline w | vith courting | |
| zonarior, mossing, and obje | and property. | | | | |
| - | | | | AR side | |
| OBSERVERS: | Campen, Carper | nter, Grubaugh, Jone | es, Rumancik,Thror | 1 | |
| RIVER GAGE READING: _ | Н | elena | | 7.4 F | |
| | (Gage | Location) | (| (Elevation) | |

| | | | FLY [| BOAT ✓ |
|--|---|--|------------------------------------|-------------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 | TIME OF DAY: | 9:02 | RIVER MILE: | 651.5 |
| LOCALITY:Coahoma | MS | SITE NAME: | Friars Poi | nt Dikes |
| County/Pari | sh State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitude: | 34.37308 | | Adults: | 65 |
| | e: 90.67082 | | Juveniles: | |
| | | | Eggs: | 1(3) |
| Approximate Distance to Water | er: <u>150</u> | Feet | Nests: | 1 |
| | | | Chicks: | Yes |
| <u>IN FLIGHT</u> Over Sandbar ✓ | | Nest Area 🗸 | SUBSTRATE: | |
| Over Water · 🗸 | / / / On Re | esting Area | Sand: | |
| Calm Water | - | 47.1 | Gravel: | |
| Land Side 🗆 | 1 | \sim | Debris: | |
| Channel Side | MID-CHANNE | | VEGETATION: | |
| | | [►] → | Type: | |
| MID-CHANNEL SANDBAR Rap | d Currents 🗸 | | Distance: | Feet |
| SIDE CHANN | EL SANDBAR Center | ⋥ ∵े∕ | FIELD CONDITION | |
| River Side | Land Side Calm Water | - · · | Temperature: | 11 221 |
| 7777 | 717 | | Rain: No | |
| | /// | | Wind: S5m | ph |
| | | | % Cloud: 90 | cirrus |
| OTHER NOTES: | | | | |
| Left Bank. Clean, medium hig and 4 days old. One fishing of | gh (8 ft.), flat sand ba opposite bank. Coyo | r, attached upstream te, goose, and ATV t | n. Terns utilizing all s racks. | sides, 2 chicks 1 |
| | | | | MS side |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | s, Rumancik,Thron | INIO SIUC |
| RIVER GAGE READING: | He | elena | | 7.4 F |
| | Strong Co. | Location) | <u>=</u> (E | levation) |

| | | | FLY [| BOAT | ~ |
|--|--------------------------|----------------------|------------------------|---------------------|----|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | | |
| DATE: 6/26/2007 | TIME OF DAY: | 9:39 | RIVER MILE: | 647.0 | |
| LOCALITY: Phillips | AR | _ SITE NAME: | Kangaroo | Point Dikes | |
| County/Paris | sh State | | NUMBERS SIGHT | ΓED: | |
| WHERE SITED: Latitude: | 34.3661 | | Adults: | 13 | |
| | e: 90.7297 | | Juveniles: | | |
| 12 3 | | Foot | Eggs: | | |
| Approximate Distance to Water | er: | reet | Nests: | 0 | |
| | | | Chicks: | No | |
| IN FLIGHT Over Sandbar ✓ | | Nest Area | SUBSTRATE: | | |
| Over Water · 🔽 | / / / On Re | esting Area 🔽 | Sand: | | |
| Calm Water | | 47.1 | Gravel: | | |
| Land Side 🗆 | <u>s</u> | \sim | Debris: | | |
| Channel Side MID-CHANNEL | | | VEGETATION: | | |
| · / | N | " → | Type: | | |
| MID-CHANNEL SANDBAR Rapid | d Currents River Side [| | Distance: | Feet | |
| SIDE CHANNEL SANDBAR Center Land Side L | | | FIELD CONDITION: | | |
| River Side 📑 | Calm Water | | Temperature: | : 84 ⁰ F | |
| 17777 | 7 7 7 | | Rain: No | | |
| | // 74 | | Wind: S5r | mph | |
| | | | % Cloud: 90 |) | |
| OTHER NOTES: | | | | | |
| Right Bank. Long, attached so reproductive behavior, resting | | erns resting at wate | rline, 4 flying upstre | am, no signs o | of |
| | | | | AR side | |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | s, Rumancik,Thron | | |
| RIVER GAGE READING: | He | elena | | 7.4 F | |
| | (Gage I | Location) | (1 | Elevation) | |

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/26/2007 TIME OF DAY: 9:55 RIVER MILE: 643.4 MS SITE NAME: Old Town Bend LOCALITY: Coahoma County/Parish State NUMBERS SIGHTED: 39 Adults: WHERE SITED: Latitude: 34.3485 Juveniles: Longitude: 90.7658 Eggs: Approximate Distance to Water: 500 Feet 10 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: On Resting Area Over Water · 🗸 Sand: Calm Water Gravel: ~ Debris: Land Side . Center VEGETATION: Channel Side MID-CHANNEL Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side V Temperature: 83 F Calm Water Rain: No Wind: S 5 mph % Cloud: 80 OTHER NOTES: Left Bank. Attached, convoluted bar of sand, mud and gravel, with large back chute. Most birds resting or fishing along waterline, 10 sitting inland on scrapes. No signs of disturbance. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 7.4 F Helena (Gage Location) (Elevation)

| | | | FLY [| BOAT ✓ | |
|--|----------------------|----------------------|-----------------------|------------|--|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | | |
| DATE: 6/26/2007 | TIME OF DAY: | 10:26 | RIVER MILE: | 640.0 | |
| LOCALITY: Phillips | AR | SITE NAME: | Island #6 | 62 Dikes | |
| County/Par | rish State | | NUMBERS SIGHT | ΓED: | |
| WHERE SITED: Latitude | 24 20251 | | Adults: | | |
| | - | 28 | Juveniles: | | |
| Longitu | de: 90.73866 | | Eggs: | | |
| Approximate Distance to Wa | ter: | Feet | Nests: | 0 | |
| | | 1 | Chicks: | No | |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area | SUBSTRATE: | | |
| Over Water |] / / On R | esting Area 🗸 | Sand: | | |
| Calm Water | | | Gravel: | | |
| land Side | 5 | | Debris: | | |
| Land Side | | ٦ | VECETATION | | |
| Channel Side | MID-CHANNE | <u> </u> | VEGETATION: Type: | | |
| MID-CHANNEL SANDBAR Rai | oid Currents : | * | | | |
| 1 1 | River Side | | Distance: | Feet | |
| SIDE CHANNEL SANDBAR Center | | | FIELD CONDITION: | | |
| / River Side □ | Land Side Calm Water | | Temperature: | 1111 | |
| 77777 | 7+74 | | Rain: No | | |
| | /// | | Wind: S5r | mph | |
| | | | % Cloud: 80 |) | |
| OTHER NOTES: | | | | | |
| Right Bank. High (12 ft.), ge courting, a few scrapes. Car | | sand bar. Most Ten | ns resting at waterli | ne, some | |
| 5 | | | | | |
| a | | | | AR side | |
| OBSERVERS: | Campen, Carper | nter, Grubaugh, Jone | s, Rumancik,Thron | i e | |
| RIVER GAGE READING: _ | Н | elena | | 7.4 F | |
| | (Gage | Location) | (1 | Elevation) | |

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/26/2007 TIME OF DAY: 10:49 RIVER MILE: 633.0 MS SITE NAME: Robson Towhead LOCALITY: Coahoma County/Parish State NUMBERS SIGHTED: Adults: 18 WHERE SITED: Latitude: 34.26166 Juveniles: Longitude: 90.83301 Eggs: Approximate Distance to Water: 200 Feet 4 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center . VEGETATION: MID-CHANNEL 🗸 Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side V. Temperature: 85 F Calm Water Rain: No Wind: S 5 mph % Cloud: 80 OTHER NOTES: Left Bank. Low (3 ft.), attached riverside bar of sand and pea gravel. All birds resting at waterline except 4 sitting inland on scrapes. No tracks, Great Blue Heron at colony perimeter. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 7.4 F Helena (Gage Location) (Elevation)

FLY □ BOAT ✓

SPECIES: Interior Least Tern (Sterna antillarum athalassos) TIME OF DAY: _____ 11:00 ____ RIVER MILE: _____ 629.0 DATE: 6/26/2007 LOCALITY: Phillips AR SITE NAME: Island #64 Dikes County/Parish State NUMBERS SIGHTED: ____6 Adults: WHERE SITED: Latitude: 34.2203 Juveniles: Longitude: 90.8483 Eggs: Approximate Distance to Water: Feet 0 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side V. Temperature: 85 °F Calm Water Rain: No Wind: S 5 mph % Cloud: 90 OTHER NOTES: Right Bank. Large, attached, riverside sandbar. All resting at waterline. AR side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 7.4 F Helena (Gage Location) (Elevation)

| | | | FLY | ✓ □ BOAT ✓ | |
|--|--------------------|---------------------|-------------------|------------------------|--|
| SPECIES: Interior Least Tern (S | terna antillarum a | athalassos) | | | |
| DATE: 6/26/2007 TIM | E OF DAY: | 11:20 | RIVER MILE: _ | 625.0 | |
| LOCALITY: Phillips | | SITE NAME: | Sunflo | ower Cut-Off | |
| County/Parish | State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitude: | 34.16950 | | Adults: | 350 | |
| | 90.90257 | | Juveniles: | <u> </u> | |
| Approximate Distance to Water: | 10 | Foot | Eggs: | 3(1) 11(2) 37(3) | |
| Approximate distance to water. | 10 | <u></u> | Nests: | 50 | |
| | | | Chicks: | Yes | |
| IN FLIGHT Over Sandbar ✓ | | Nest Area | SUBSTRATE: | | |
| Over Water · 🗸 | / / On Re | sting Area | Sand: | ✓ | |
| Calm Water 🗸 | | 47.J | Gravel: | | |
| Land Side 🗹 | | \sim | Debris: | | |
| Channel Side MID-CHANNEL | | | VEGETATION: | | |
| | | ` | Type: Will | ows/Cottonwoods | |
| MID-CHANNEL SANDBAR | urrents ☑ ┴ └ | | Distance: | 100 Feet | |
| 7 | River Side [| | #15000At.E1 | | |
| SIDE CHANNEL SANDBAR Center Land Side Land | | | FIELD CONDITION: | | |
| River Side 🔲 | Calm Water | □ ~~~ | Temperatu | ıre: 85 ⁰ F | |
| 77777 | 7 | | Rain: No | | |
| | / / / 7 | 7-7- | Wind: S | 3 mph | |
| | | | % Cloud: | 70 | |
| OTHER NOTES: | | | | | |
| Left Bank. Medium size (1/2 mile unattached at entrance to Desoto fishing both sides. Twenty-six chof disturbance. | Lake. GPS from | lower chute side. N | No signs of preda | ation. Courting and | |
| or distainance. | | | | MS side | |
| OBSERVERS: | Campen, Carpent | er, Grubaugh, Jone | s, Rumancik,Thi | ron | |
| RIVER GAGE READING: | Не | lena | | 7.4 F | |
| | (Gage I | ocation) | | (Elevation) | |

| | | | FLY | □ BOAT ✓ |
|--|-----------------------|---------------------|--------------------|-----------------|
| SPECIES: Interior Least Tern (| Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 TII | ME OF DAY: | 11:55 | RIVER MILE: | 623.0 |
| LOCALITY: Phillips | AR | SITE NAME: | Below Lu | dlow Dikes |
| County/Parish | State State | | NUMBERS SIGH | TED: |
| WHERE SITED: Latitude: | 34 1583 | | Adults: | 12 |
| | 90.9303 | | Juveniles: _ | |
| | | | Eggs: _ | |
| Approximate Distance to Water: | · · | Feet | Nests: | 0 |
| | | | Chicks: _ | No |
| IN FLIGHT Over Sandbar | | Nest Area □ | SUBSTRATE: | |
| Over Water · 🗆 / | On Re | esting Area | Sand: |] |
| Calm Water | | 47.1 | Gravel: |] |
| Land Side | | | Debris: |] |
| C | | 1 | VEGETATION: | |
| Channel Side | MID-CHANNE | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR Rapid (| Currents | | | |
| 1 1 | River Side | ₹ \ | Distance: | Feet |
| SIDE CHANNEL | SANDBAR Center | | FIELD CONDITIO |)N· |
| River Side 🕍 | Land Side { | | | e: <u>85</u> °F |
| 777777 | +74 | | Rain: No | |
| | /// | 7-7-7 | Wind: S3 | mph |
| | | | % Cloud: 9 | 0 |
| OTHER NOTES: | | | | |
| Right Bank. Terns resting at wardisturbance. | aterline along with (| Great Blue Heron bu | t no mobbing. No | signs of |
| о С | | | | AD -: |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | es, Rumancik,Thror | AR side |
| RIVER GAGE READING: | | elena | | 7.4 F |
| | bloom of the same | Location) | = 1 | (Elevation) |

FLY □ BOAT ☑

| SPECIES: Interior Least Tern (Si | terna antillarum | athalassos) | | |
|--|---|----------------------|--|----------------------|
| DATE: 6/26/2007 TIME | E OF DAY: | 12:20 | RIVER MILE: | 620.0 |
| LOCALITY: <u>Coahoma</u> County/Parish | | SITE NAME: | Island a | #67 Dikes |
| WHERE SITED: Latitude:Longitude: Approximate Distance to Water: IN FLIGHT Over Sandbar Over Water Over Water | 34.1150 90.9490 200 ON GROUND On | | Juveniles: _ Eggs: _ Nests: _ Chicks: _ SUBSTRATE: | 11 No |
| Calm Water Land Side Center . Channel Side Rapid Cu | MID-CHANNE | 44 | NAME OF | j |
| SIDE CHANNEL S River Side | River Side ANDBAR Center Land Side Calm Water | ₹ | FIELD CONDITION Temperature Rain: No Wind: S 5 | e: 84 ⁰ F |
| OTHER NOTES: Left Bank. Long, large, high (15 f along wrack line. No disturbance | t.), attached, ripp or tracks. | led sand bar with ne | | |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | s, Rumancik,Thro | |
| RIVER GAGE READING: | Salarana da Maria | elena Location) | =- | 7.4 F (Elevation) |

| | | | FLY | □ BOAT ✓ |
|---------------------------------|----------------------------|-----------------------|---------------------|-----------------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 TI | ME OF DAY: | 12:30 | RIVER MILE: _ | 616.0 |
| LOCALITY: Desha | | _ SITE NAME: | Below Know | /Iton Dikes Upper |
| County/Parisl | h State | | NUMBERS SIG | HTED: |
| WHERE SITED: Latitude: | 34.0811 | | Adults: | 34 |
| | 90.9081 | | Juveniles: | <u> </u> |
| Approximate Distance to Water | 300 | Feet | Eggs: | 402 |
| , pproximate Biotanee to Trater | | | | 2 |
| IN FLIGHT Over Sandbar ✓ | ON GROUND On | Nest Area ✓ | | No |
| / Over Water · ✓ | W. | esting Area | SUBSTRATE: | _ |
| Calm Water | <u></u> | 11 | | |
| | | \sim | Dahaia | |
| Land Side | | 7 | | Ш |
| Channel Side | MID-CHANNE | └ □ ⊸ │ | VEGETATION: | |
| MID-CHANNEL SANDBAR Rapid | Currents | | Type: | |
| 1 | River Side | <u>`</u> | Distance: | Feet |
| SIDE CHANNE | L SANDBAR Center Land Side | ₹ | FIELD CONDIT | ION: |
| River Side 🚆 | Calm Water | | Temperatu | re: 91 ⁰ F |
| 77777 | 7+74 | | Rain: No | |
| | 117 | 7-7-7 | Wind: S | 5 mph |
| | | | % Cloud: | 90 |
| OTHER NOTES: | | | | |
| Right Bank. Small, unattached | sand bar (6 ft.) belo | ow first dike. Perime | eter count yields 2 | 2 possible nests. |
| 5 | ** ** | | X | |
| 5 | | | | AR side |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | s, Rumancik,Thr | |
| RIVER GAGE READING: | Не | elena | | 7.4 F |
| | (Gage | Location) | - | (Elevation) |

| SPECIES: Interior Least Tern (Sterna antillarum athalassos) | |
|--|----|
| (| |
| DATE: 6/26/2007 TIME OF DAY: 13:20 RIVER MILE: 612.0 | |
| LOCALITY: Desha AR SITE NAME: Below Knowlton Dikes Lov | er |
| County/Parish State NUMBERS SIGHTED: | |
| WHERE SITED: Latitude: 34.04383 Adults: 25 | |
| Longitude: 90.89169 Juveniles: | |
| Eggs: | |
| Approximate Distance to Water: 60 Feet Nests: 15 | |
| Chicks: No | |
| <u>IN FLIGHT</u> Over Sandbar ✓ <u>ON GROUND</u> On Nest Area ✓ SUBSTRATE: | |
| Over Water · ☑ / On Resting Area ☐ Sand: ☑ | |
| Calm Water ☐ Gravel: ☐ | |
| Debris: | |
| Land Side | |
| Channel Side WID-CHANNEL VEGETATION: | |
| Type: MID-CHANNEL SANDBAR Rapid Currents ✓ | |
| Distance: Feet | |
| SIDE CHANNEL SANDBAR Center | |
| River Side | |
| Rain: No | |
| Wind: <u>S 3-5 mph</u> | |
| % Cloud: 50 | |
| OTHER NOTES: | |
| Right Bank. Attached, riverside, sand bar, scattered debris and hatched egg shells. No signs of disturbance. | |
| | |
| OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik,Thron | le |
| | |
| RIVER GAGE READING: Helena = 7.4 F (Gage Location) (Elevation) | |

| | | | FLY [| BOAT 🗹 |
|---|--------------------------|------------------------|--|-----------|
| SPECIES: Interior Least Tern (St | erna antillarum a | athalassos) | | |
| DATE: 6/26/2007 TIME | OF DAY: | 13:33 | RIVER MILE: | 608.0 |
| LOCALITY: Bolivar | MS | SITE NAME: | Island #7 | 0 Dikes |
| County/Parish | State | | NUMBERS SIGHTI | FD: |
| WILEDE CITED: Latitude: | 24.01077 | | Adults: | |
| WHERE SITED: Latitude: | | | Juveniles: | |
| Longitude: | 90.9859 | | Eggs: | |
| Approximate Distance to Water: | 600 | Feet | Nests: | 48 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar ✓ | ON GROUND On | Nest Area ✓ | SUBSTRATE: | |
| ✓ / Over Water · 🗹 / | On Re | sting Area | Sand: | |
| Calm Water | | 4 / T | Gravel: ✓ | |
| | | \sim | Debris: | |
| Land Side | | 7 | | |
| Channel Side | MID-CHANNEL | . 🗷 🔒 | VEGETATION: | |
| Rapid Cur | rents 🗸 | 7 | Type: | |
| MID-CHANNEL SANDBAR | | <u> </u> | Distance: | Feet |
| SIDE CHANNEL SA | River Side NUDBAR Center | | FIELD CONDITION | 100 |
| River Side | Land Side | ار بسنه | FIELD CONDITION | 111 |
| | Calm Water [| ≥ ~~ | Temperature: | 92 F |
| <i> </i> | 7 | | Rain: No | |
| § | | 7-7- | Wind: S5 m | ph |
| | | | % Cloud: 50 | |
| OTHER NOTES: | | | 2019 (1) 1988 (2000) (2000) (2000) (1) | |
| A TO SECRETAL A DESCRIPTION OF THE SECRETARY | d and gravel bary | with hirds at waterlin | o and 40.2 citting in | land on |
| Left Bank. Long, high (10 ft.) sand scrapes. Most likely attached but | | with birds at wateriir | ie and 46 3 silling in | iand on |
| | | | | |
| 5 5 | | | | MS side |
| OBSERVERS: | Campen, Carpent | er, Grubaugh, Jone | es, Rumancik,Thron | |
| RIVER GAGE READING: | | lena | | 7.4 F |
| | (Gage L | ocation) | (E | levation) |

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/26/2007 TIME OF DAY: 13:56 RIVER MILE: 603.0 MS SITE NAME: Henrico Dikes LOCALITY: Bolivar County/Parish State NUMBERS SIGHTED: _____70 Adults: WHERE SITED: Latitude: 33.9898 Juveniles: Longitude: 91.0500 Eggs: Approximate Distance to Water: 300 Feet 7 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: Channel Side MID-CHANNEL Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side V. Temperature: 86 °F Calm Water Rain: No Wind: NW 5 mph % Cloud: 60 OTHER NOTES: Right Bank. Long, low, flat, attached river-side sand bar with some debris. Perimeter count yields 70 birds, 7 on scrapes, one flying opposite bank. No disturbance factors noted. Storm approaching. AR side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 7.4 F Helena (Gage Location) (Elevation)

FLY \square

BOAT V

SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/26/2007 TIME OF DAY: 14:23 RIVER MILE: 599.5 MS SITE NAME: Smith Point Dikes LOCALITY: Bolivar County/Parish State NUMBERS SIGHTED: _____15 Adults: WHERE SITED: Latitude: 33.9571 Juveniles: Longitude: 91.0798 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side V. Temperature: 88 °F Calm Water Rain: No Wind: NW 5 mph % Cloud: 90 OTHER NOTES: Left Bank. Large, attached point bar with undulating and dissected mud and sand. ATVs and 15 day campers at waterline. Storm approaching. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thron RIVER GAGE READING: 13.3 F Arkansas City (Gage Location) (Elevation)

| | | | FLY | BOAT | ~ |
|--|------------------------------|-----------------------|--|-----------------------|---|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | | |
| DATE: 6/26/2007 | TIME OF DAY: | 14:36 | RIVER MILE: | 595.0 | |
| LOCALITY: Desha | | SITE NAME: | Victoria | Bend Dikes | |
| County/Par | ish State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitude | . 33 0205 | | Adults: | 130 | |
| | de: 91.0186 | | Juveniles: | | |
| (2 3 | | | Eggs: | | |
| Approximate Distance to Wat | er: | Feet | Nests: | 0 | |
| | | 1 | Chicks: | No | |
| <u>IN FLIGHT</u> Over Sandbar ✓ | N | Nest Area ✓ | SUBSTRATE: | | |
| Over Water · 🗸 | / / / On Re | esting Area | Sand: | ✓ | |
| Calm Water | | 47.1 | Gravel: | ✓ | |
| Land Side 🔲 | 5 | \sim | Debris: | | |
| Channel Side | MID-CHANNE | | VEGETATION: | | |
| | NA | [™] → | Type: | | |
| MID-CHANNEL SANDBAR Rap | id Currents River Side | | Distance: | Feet | |
| SIDE CHANN | IEL SANDBAR Center Land Side | 2 | FIELD CONDITI | ON: | |
| River Side ☐ | Calm Water | | Temperatur | re: 81 ⁰ F | |
| 1777 | 777 | | Rain: No | | |
| | ′ ′ ′ ′ ′ | /// | Wind: NE | 30 mph | |
| | | | % Cloud: | 100 | |
| OTHER NOTES: | | | | | |
| Right Bank. Large, broad, ro progress due to approaching | storm. Poor visibility | prevents identificati | on of terns sitting | | |
| Colony identified based on nu | unibers seen in the all | with Storms onsiau | gni. | | |
| ST S | 12000 | 4.00 | S SERVICE STATE OF THE SERVICE | AR side | |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | s, Rumancik,Thro | on | |
| RIVER GAGE READING: | Arkan | sas City | | 13.3 F | |
| | (Gage | Location) | | (Elevation) | |

| | | | FLY | BOAT 🗸 |
|--|-----------------------|----------------------|-------------------------|-------------|
| SPECIES: Interior Least Terr | n (Sterna antillarun | athalassos) | | |
| DATE: 6/26/2007 | TIME OF DAY: | 15:26 | RIVER MILE: | 589.0 |
| LOCALITY:Boliva | r MS | SITE NAME: | Terrene I | Dikes |
| County/Pa | arish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitud | le: 33.8415 | _ | Adults: | 88 |
| Longitu | ude: 91.0632 | | Juveniles: | |
| (2 3 | | F-2004 | Eggs: | |
| Approximate Distance to Wa | ater: 200 | reet | Nests: | 30 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>on oncone</u> | n Nest Area 🔽 | SUBSTRATE: | |
| Over Water |] / On F | Resting Area | Sand: | |
| Calm Water | - | | Gravel: | |
| Land Side | <u> </u> | \sim | Debris: | |
| | = Lun autum | | VEGETATION: | |
| Channel Side | MID-CHANN | ≝ U → I | Type: | |
| MID-CHANNEL SANDBAR R | apid Currents | * | 1000 | |
| 1 / | River Side | | Distance: | Feet |
| SIDE CHAN | NEL SANDBAR Center | | FIELD CONDITION: | |
| River Side 🔽 | Land Side Calm Water | | Temperature: | 1 221 |
| 77777 | +7+7+7 | | Rain: Yes | |
| | 1179 | | Wind: NE 5 n | nph |
| | | | % Cloud: 100 | |
| OTHER NOTES: | | | | |
| | undulating and barv | ith some ground and | 20 torns sitting inland | |
| Left Bank. Long, attached, | undulating sand bal w | illi some graver and | so terns sitting inland | on scrapes. |
| 5 | | | | MS side |
| OBSERVERS: | Campen, Carpe | nter, Grubaugh, Jone | es, Rumancik,Thron | IVIO SIUE |
| RIVER GAGE READING: | Arka | nsas City | 1 | 3.3 F |
| The second second residence of the second se | | Location) | | evation) |

FLY BOAT 🗹

| SPECIES: Interior Lea | st Tern (Sterna antillar | um athalassos) | | |
|-----------------------|-------------------------------|-------------------------|----------------------------|----------------|
| DATE: 6/26/2007 | TIME OF DAY: _ | 15:43 | RIVER MILE: | 583.5 |
| | Desha AF unty/Parish Sta | | Malone | Field Dikes |
| | and, and | | NUMBERS SIGN | HTED: |
| WHERE SITED: | Latitude: 33.7860 | | Adults: | 42 |
| | Longitude: 91.0517 | | Juveniles: | |
| | - 173 | | Eggs: | |
| Approximate Distance | e to Water: 600 | Feet | Nests: | 4 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over San | 20 St. | 2 4-31 | SUBSTRATE: | |
| Over V | Vater · ☑ / / O | n Resting Area | Sand: | ✓ |
| Calm Water | _ | - | Gravel: | ✓ |
| | | \sim | Debris: | ✓ |
| Land Side Center . [| | 7 | VEGETATION | |
| Channel Side | A MID-CHAI | NNEL 🗆 🛶 | VEGETATION: | |
| MID-CHANNEL SANDBA | Rapid Currents 🔽 | | Type: Willo | ows |
| MID-CHANNEL SANDBA | River Si | | Distance: | 1000 Feet |
| H 7 T | E CHANNEL SANDBAR Cente | | FIELD CONDITI | ON: |
| River Side ✓ | Calm Wa | iter 🗆 | Temperatur | re: 75 °F |
| 7777 | 7+7+7 | | Rain: No | |
| | / / / | | Wind: NE | 5 mph |
| | | | % Cloud: | 100 |
| OTHER NOTES: | | | Tarabagan saraha an Alia (| |
| | vide, high (6 ft.), attached, | flat topped har of sand | and gravel and v | wrack lines on |
| | dispersed for 1 mile alon | | | |
| | | | | |
| 57 57 | | | | AR side |
| OBSERVERS: | Campen, Car | penter, Grubaugh, Jone | s, Rumancik,Thro | on |
| RIVER GAGE READIN | lG: Ar | kansas City | | 13.3 F |
| | (Ga | ge Location) | - | (Elevation) |

| | | | FLY | BOAT | ~ |
|--|----------------------------|---------------------|------------------|---------------|----------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | | |
| DATE: 6/26/2007 T | IME OF DAY: | 16:01 | RIVER MILE: _ | 578.0 | |
| LOCALITY: Bolivar | MS | SITE NAME: | Below P | rentiss Dikes | |
| County/Paris | sh State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitude: | 33.7502 | | Adults: | 54 | |
| | 91.1336 | | | | |
| Approximate Distance to Wate | r:1000 | Feet | Eggs: | 0 | |
| | - 25 | | | 9 No | |
| <u>IN FLIGHT</u> Over Sandbar ✓ | ON GROUND On | Nest Area ✓ | SUBSTRATE: | | |
| Over Water · | / / On Re | esting Area | 221 1112 | ✓ | |
| Calm Water | | 47.1 | Gravel: | | |
| Land Side | | | Debris: | | |
| C Center . 📈 | MID-CHANNE | | VEGETATION: | | |
| | • 100 NA | • | Type: | | |
| MID-CHANNEL SANDBAR | Currents 🔽 | | Distance: | Feet | |
| ا کہا جا | River Side SANDBAR Center | ⊉ ∵. ∑ | FIELD CONDITI | ION: | |
| River Side 🖳 | Land Side (| | | re: 76 °F | |
| 7777 | 7 | | Rain: No | | |
| | | - | Wind: NE | E 5 mph | |
| | | ()) | % Cloud: | | |
| OTHER NOTES: | | | | | |
| Left Bank. Long, flat, unattach terns with 9 sitting on scrapes. | | | | | |
| orang on ourapeo. | | | - In the latest | | |
| - | | | | MS side | e |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | s, Rumancik,Thro | on | |
| RIVER GAGE READING: | Money II II | sas City | = | 13.3 F | |
| | (Gage | Location) | | (Elevation) | |

| | | | FLY | BOAT | ~ |
|---|---|---|---|--------------------------------|---|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | | |
| DATE: 6/26/2007 | TIME OF DAY: | 16:10 | RIVER MILE: _ | 573.5 | |
| LOCALITY: Desha | AR | SITE NAME: | Caulk N | Neck Cut-Off | |
| County/Pari | sh State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitude: | 33 7087 | | Adults: | 3 | |
| | e: 91.1706 | | Juveniles: | X | |
| | | | Eggs: | | |
| Approximate Distance to Water | er: | Feet | Nests: | 0 | |
| | | 1 | Chicks: | No | |
| IN FLIGHT Over Sandbar | | Nest Area | SUBSTRATE: | | |
| Over Water · | / / / On Re | esting Area 🗸 | Sand: | ✓ | |
| Calm Water | | 47.1 | Gravel: | ✓ | |
| Land Side 🗆 | S | \sim | Debris: | | |
| Channel Side | # MID-CHANNE | | VEGETATION: | | |
| | × × | > | Type: | | |
| MID-CHANNEL SANDBAR Rapi | d Currents 🔽 | <u> </u> | Distance: | Feet | |
| SIDE CHANN | EL SANDBAR Center | | FIELD CONDITI | ION: | |
| River Side ☑ | Land Side { Calm Water | | | re: 77 ° F | |
| 7777 | 777 | | Rain: No | | |
| | 1174 | //// | Wind: NE | E 5 mph | |
| ar. | | | % Cloud: | 100 | |
| OTHER NOTES: | | | | | |
| Right Bank. Attached, mediumote: Many trees (with green Arkansas river watershed. | m size point bar, no a foilage) and driftwoo | activity, 3 terns restir d are in main chann | ng at waterline. In el possibly due to | nteresting side flooding in | |
| | | | | AR side | , |
| OBSERVERS: | Campen, Carpen | ter, Grubaugh, Jone | s, Rumancik,Thro | | |
| RIVER GAGE READING: | Arkan | sas City | | 13.3 F | |
| | (Gage | Location) | | (Elevation) | |

| | | | FLY | Y 🗆 | BOAT | ~ |
|--|----------------------|--------------------|-------------------|---|---------|---|
| SPECIES: Interior Least Tern (| Sterna antillarum a | athalassos) | | | | |
| DATE: 6/26/2007 TII | ME OF DAY: | 16:25 | RIVER MILE: | | 568.6 | |
| LOCALITY: Bolivar | MS | SITE NAME: | Catfis | h Point | Dikes | |
| County/Parish | State | | NUMBERS SIG | SHTED: | • | |
| WHERE SITED: Latitude: | 22 6701 | | Adults: | | | |
| | 91.2242 | | Juveniles: | 14 14 14 14 14 14 14 14 14 14 14 14 14 1 | | |
| (70) | | | Eggs: | - | | |
| Approximate Distance to Water: | 500 | Feet | Nests: | ξ <u>γ</u> - | 9 | |
| | | 1 | Chicks: | Q | No | |
| <u>IN FLIGHT</u> Over Sandbar ✓ | W. | Nest Area | SUBSTRATE: | | | |
| Over Water 🗸 | On Re | sting Area | Sand: | ✓ | | |
| Calm Water | | 47.1 | Gravel: | ✓ | | |
| Land Side | | \sim | Debris: | ✓ | | |
| Channel Side | MID-CHANNEL | | VEGETATION: | | | |
| | 3/5 | ` " → | Type: | | | |
| MID-CHANNEL SANDBAR | Currents River Side | <u> </u> | Distance: | <u> </u> | Feet | |
| SIDE CHANNEL | SANDBAR Center L | | FIELD CONDIT | TION: | | |
| River Side | Calm Water [| | Temperate | ure: | 77 °F | |
| 777777 | + | | Rain: Ye | s | | |
| | 1174 | 7-7-7 | Wind: N | IE 5 mp | h | |
| er ev | | | % Cloud: | 100 | | |
| OTHER NOTES: | | | | | | |
| Left Bank. Wide, attached, sansitting indicated nests in gravel disturbance. | | | | | |) |
| | | | | | MS side | e |
| OBSERVERS: | Campen, Carpent | er, Grubaugh, Jone | s, Rumancik,Th | ron | | |
| RIVER GAGE READING: | Arkans | sas City | | 13. | 3 F | |
| | (Gage L | ocation) | (200) | (Elev | ation) | |

| | | | FLY [| BOAT ✓ |
|---|-------------------------|--|---------------------|---------------------------------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 | TIME OF DAY: | 16:52 | RIVER MILE: | 564.0 |
| LOCALITY: Desha | AR | SITE NAME: | Choctaw E | Bar Island |
| County/Pa | rish State | | NUMBERS SIGHT | ED: |
| WHERE SITED: Latitude | 22 62022 | | Adults: | 21 |
| | | 29 | Juveniles: | |
| Longitu | de: 91.14918 | | Eggs: | |
| Approximate Distance to Wa | ter: | Feet | G.J.T.A | 0 |
| | | | | No |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area | SUBSTRATE: | |
| Over Water · V | 0 / / On R | esting Area | Sand: | |
| Calm Water | - | Z / | Gravel: | |
| Land Side | 5 | | Debris: | |
| | | _ 1 | VEGETATION: | |
| Channel Side | A MID-CHANNE | ^{≛ ⊔} -> | Type: | |
| MID-CHANNEL SANDBAR Ra | pid Currents | * | | |
| 1 / | River Side | <u>```</u> | Distance: | Feet |
| SIDE CHAN | NEL SANDBAR Center | | FIELD CONDITION | V - |
| / River Side ✓ | Land Side | | Temperature: | 111 |
| ├ / | Calm Water | <u>, </u> | Rain: No | · · · · · · · · · · · · · · · · · · · |
| | 1/77 | | Italii. IVO | |
| | . , , | /// | Wind: NE 5 | mph |
| | | | % Cloud: 10 | 0 |
| OTHER NOTES: | | | | |
| Right Bank. Large sand and | l gravel har attached t | o large wooded Cho | ctaw Bar Island Bir | ds restin along |
| waterline, some mobbing a c | | | | |
| £ | | | | |
| OBSEDVEDS: | Campen Carper | nter, Grubaugh, Jone | s Rumancik Thron | AR side |
| OBSERVERS: | | | o, ramanon, mon | |
| RIVER GAGE READING: _ | Monte | nsas City | | 13.3F |
| | (Gage | Location) | (E | Elevation) |

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/26/2007 TIME OF DAY: 17:04 RIVER MILE: 558.5 AR LOCALITY: Desha SITE NAME: Choctaw Bend County/Parish State NUMBERS SIGHTED: ____11 Adults: WHERE SITED: Latitude: NA Juveniles: Longitude: NA Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center VEGETATION: MID-CHANNEL Channel Side 1 Type: Willows Rapid Currents MID-CHANNEL SANDBAR Distance: 500 Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side . River Side V Temperature: 79 °F Calm Water Rain: No Wind: NE 5-8 mph % Cloud: 100 OTHER NOTES: Right Bank. Back chute behind Choctaw Bar Island, attached, river side bar. All birds resting at waterline, no visible disturbance factors. AR side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thron 13.3 F RIVER GAGE READING: Arkansas City (Gage Location) (Elevation)

| | | | FLY | □ BOAT ✓ |
|-------------------------------------|--------------------------|----------------------|--------------------|--------------------|
| SPECIES: Interior Least Tern (5 | Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 TIM | ME OF DAY: | 17:18 | RIVER MILE: _ | 554.0 |
| LOCALITY: Bolivar | | SITE NAME: | Huntir | ngton Point |
| County/Parish | State | | NUMBERS SIG | HTED: |
| | | | | 18 |
| WHERE SITED: Latitude: | | | | |
| Longitude: | NA | | Eggs: | |
| Approximate Distance to Water: | 20 | Feet | Nests: | 4 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar ✓ | ON GROUND Or | n Nest Area ✓ | SUBSTRATE: | |
| Over Water · 🗆 / | / On Ro | esting Area | Sand: | ✓ |
| Calm Water | | 47.1 | Gravel: | ✓ |
| Land Side | | \sim | Debris: | |
| . Center . □ | | 1 | VEGETATION: | |
| Channel Side | MID-CHANNE | [⊥] □ → | Type: | |
| MID-CHANNEL SANDBAR Rapid C | currents | * | 1481. | |
| 1 | River Side | | Distance: | Feet |
| SIDE CHANNEL | SANDBAR Center Land Side | | FIELD CONDITI | ON: |
| River Side ☑ | Calm Water | - · · | Temperatu | re: 80 °F |
| 77777 | | | Rain: No | |
| | 1 / 74 | | Wind: NE | E 3 mph |
| | | | % Cloud: | 100 |
| OTHER NOTES: | | | ANTA HELLOWELERS . | |
| Left Bank. Low, flat, unattached | riverside har of s | and gravel and muc | on lower and M | last hirds resting |
| waterline with four sitting on scra | pes. No disturba | nce signs. | off lower cha. IV | lost birds resting |
| 5 | | | | Mossils |
| OBSERVERS: | Campen, Carpen | iter, Grubaugh, Jone | s, Rumancik,Thro | MS side |
| RIVER GAGE READING: | | nsas City | 835 160 | 13.3 F |
| | Strongs II II | Location) | = | (Elevation) |

| | | | FLY | □ BOAT ✓ |
|-------------------------------|------------------------------|-----------------------|------------------|----------------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 | TIME OF DAY: | 17:30 | RIVER MILE: _ | 551.0 |
| LOCALITY: Bolivar | | SITE NAME: | George | etown Bend |
| County/Pa | rish State | | NUMBERS SIG | HTED: |
| WHERE SITED: Latitude | a· 33 51858 | | Adults: | 153 |
| | ide: 91.19123 | <u> </u> | Juveniles: | <u>v</u> |
| (7 3) | | | Eggs: | 19(3) 6(2) 2(1) |
| Approximate Distance to Wa | iter: 20 | Feet | Nests: | 25 |
| | | | Chicks: | Yes |
| IN FLIGHT Over Sandbar | <u> </u> | n Nest Area 🗸 | SUBSTRATE: | |
| Over Water | On F | Resting Area | Sand: | ✓ |
| Calm Water ✓ | | ∠/ | Gravel: | |
| Land Side 🗹 | 5 | \sim | Debris: | |
| | | 1 | VEGETATION: | |
| Channel Side ✓ | A MID-CHANNI | [≞] → | | onwoods/willows |
| MID-CHANNEL SANDBAR | pid Currents | * | NAME OF | |
| 1 1 | River Side | | Distance: | 50 Feet |
| SIDE CHAN | NEL SANDBAR Center Land Side | | FIELD CONDIT | ION: |
| / River Side □ | Calm Water | | Temperatu | re: 80 °F |
| 77777 | 7-7- | | Rain: No | |
| | 1179 | | Wind: NE | 5 mph |
| | | | % Cloud: | 100 |
| OTHER NOTES: | | | | |
| Left Bank. Mid-channel san | d bar new colony un | attached low flat cle | ean sand with ve | netation less than 3 |
| feet tall. Many chicks hatchi | ng and up to 4 days o | old. No disturbance | factors | |
| 5 | | | | |
| 5 | | | | MS side |
| OBSERVERS: | Campen, Carpe | nter, Grubaugh, Jone | s, Rumancik, Thr | on |
| RIVER GAGE READING: | Stories Stories | nsas City | | 13.3 F |
| | (Gage | Location) | | (Elevation) |

| | | | FLY [| BOAT ✓ |
|--|-----------------------------|----------------------|--|---------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 | TIME OF DAY: | 18:06 | RIVER MILE: | 544.5 |
| LOCALITY: Chicot | | SITE NAME: | Island #82 Mill | er Bend Dikes |
| County/Pari | sh State | | NUMBERS SIGHT | ED: |
| WHERE SITED: Latitude: | 33 42406 | | Adults: | 239 |
| | e: 91.11989 | | Juveniles: | |
| (2 8 | | | Eggs: | 18(2) |
| Approximate Distance to Water | er: <u>100</u> | Feet | Nests: | 18 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar ✓ | | n Nest Area 🗸 | SUBSTRATE: | |
| Over Water 🗸 | / / / On F | Resting Area | Sand: ✓ | |
| Calm Water | | ∠/ | Gravel: | |
| Land Side 🗆 | 1 | \sim | Debris: | |
| C | | 1 | VEGETATION: | |
| Channel Side | | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR Rapi | d Currents | , , | | |
| 1 | River Side | | Distance: | Feet |
| SIDE CHANN | EL SANDBAR Center Land Side | | FIELD CONDITION | N: |
| River Side 🖳 | Calm Water | | Temperature: | 82 °F |
| 77777 | 7+7- | | Rain: No | |
| | /// | ~~~ | Wind: NE 5 | mph |
| | | | % Cloud: 10 | 0 |
| OTHER NOTES: | | | 6-18-1 (SPA) (SA) (SA) (SA) (SA) (SA) (SA) (SA) (S | |
| Right Bank. Low (3 ft.), flat, a mobbing by terns. No tracks | | | te Pelicans near col | ony but no |
| 5 - H 200 - 0 - 1 | | | | |
| 57 57 | | | | AR side |
| OBSERVERS: | Campen, Carpe | nter, Grubaugh, Jone | es, Rumancik,Thron | |
| RIVER GAGE READING: | Gre | eenville | | 24.7 F |
| | (Gage | Location) | (E | Elevation) |

| | | | FLY [| BOAT ✓ |
|---|---------------------|----------------------|-----------------------|---------------|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | |
| DATE: 6/26/2007 TI | ME OF DAY: | 18:27 | RIVER MILE: | 540.0 |
| LOCALITY: Washington | MS | SITE NAME: | Leland Ne | eck Dikes |
| County/Parisl | n State | | NUMBERS SIGHT | ED: |
| | | | Adults: | |
| WHERE SITED: Latitude: | | | , | |
| Longitude | 91.10870 | | Eggs: | |
| Approximate Distance to Water | 150 | Feet | 6.7.4 | 130 |
| | | | Chicks: | |
| IN FLIGHT Over Sandbar ✓ | ON GROUND Or | n Nest Area ✓ | SUBSTRATE: | |
| ✓ / Over Water · 🗹 | / / On Ri | esting Area | Sand: ✓ | |
| Calm Water | | Z / | Gravel: | |
| Land Side | | \sim | Debris: | |
| (| | ٦ | VEGETATION: | |
| Channel Side | MID-CHANNE | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR Rapid | Currents 🔽 | | | |
| 1 | River Side | | Distance: | Feet |
| SIDE CHANNEI | SANDBAR Center | ☑ ` | FIELD CONDITION | ۷٠ |
| River Side 🚆 | Land Side | - · · | Temperature: | 111 |
| | - | | Rain: No | |
| | 1 / 74 | -7-7-7 | Wind: NE 5 | mph |
| | | S 480 601 | % Cloud: 10 | 0 |
| OTHER NOTES. | | | Mari Antonomica and C | |
| OTHER NOTES: | school cond has 2 m | ilaa unatraam fram s | entranas ta Craanvil | la harbar Day |
| Left Bank. Medium size, unatta campers just downstream on sa | | | | |
| . | | | | MS side |
| OBSERVERS: | Campen, Carper | iter, Grubaugh, Jone | s, Rumancik,Thron | ino sido |
| RIVER GAGE READING: | | enville | 5006 | 24.7 F |
| and the second section of the second | Money I I I I I | Location) | <u>=</u> (E | Elevation) |

FLY BOAT 🗹

| SPECIES: Interior Least Te | ern (Sterna antillarum | athalassos) | | |
|--|--------------------------------|---------------------|-------------------|----------------------|
| DATE: 6/27/2007 | TIME OF DAY: | 8:55 | RIVER MILE: | 529.0 |
| LOCALITY: Washin | ngton MS | SITE NAME: | Refu | ge Dikes |
| County/I | Parish State | | NUMBERS SIGH | ITED: |
| AND LOCALISTICS MINISTERS TO THE PARTY OF TH | | | | 125 |
| WHERE SITED: Latitu | | <u>78</u> | 2.00 | 120 |
| Long | itude: 91.12264 | | | 1(1) 1(2) 3(3) |
| Approximate Distance to V | Vater: <u>500</u> | Feet | | 8 |
| | | 1 | Chicks: | Yes |
| IN FLIGHT Over Sandbar | <u>ON ONCOMB</u> | 28-35 | SUBSTRATE: | |
| Over Water | On R | Resting Area | Sand: | Z |
| Calm Water | | | Gravel: | |
| Land Side | > | | Debris: | |
| | | _] | VEGETATION: | |
| Channel Side | MID-CHANNE | ≛ | Type: Willo | ws/Grass |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | | 80 Feet |
| SiDE CH. | ANNEL SANDBAR Center Land Side | | FIELD CONDITION | ON: |
| / River Side □ | Calm Water | | Temperatur | e: 78 ^O F |
| 7777 | ///// / | | Rain: No | |
| | 1/74 | 777 | Wind: <u>Ca</u> | lm |
| | | | % Cloud: 2 | 20 |
| OTHER NOTES: | | | | |
| Left Bank. Small, high, cle | | | | |
| with upper end of mud flat displaced from scrapes (p White Pelicans backside. | | | | |
| | | | | MS side |
| OBSERVERS: | Campen, Carpenter, (| Grubaugh, Jones, Ru | ımancik, Thomas, | Thron |
| RIVER GAGE READING: | Gre | eenville | | 24.5 F |
| | (Gage | Location) | (200) | (Elevation) |

| | | | FLY | □ BOAT ✓ |
|-----------------------------|-------------------------------|----------------------|-----------------|--------------------|
| SPECIES: Interior Least Tel | rn (Sterna antillarum | athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 9:42 | RIVER MILE: | 523.0 |
| LOCALITY:Chic | o AR | SITE NAME: | Seven C | Daks Dikes |
| County/F | Parish State | | NUMBERS SIGH | ITED: |
| WHERE SITED: Latitu | de: 33 18262 | | Adults: _ | 75 |
| | tude: 91.09313 | 2% | Juveniles: | |
| | | | Eggs: _ | 1(2) 6(3) |
| Approximate Distance to W | /ater: 40 | Feet | Nests: | 7 |
| | | 1 | Chicks: _ | Yes |
| IN FLIGHT Over Sandbar | <u>ON ONCOND</u> | n Nest Area | SUBSTRATE: | |
| Over Water | ☑ / / On R | testing Area | Sand: | 2 |
| Calm Water | | | Gravel: | |
| Land Side 🗆 | <u>~</u> | | Debris: |] |
| (| | | VEGETATION: | |
| Channel Side | MID-CHANNI | | | ws/CW/grass/forbs |
| MID-CHANNEL SANDBAR | Rapid Currents | | | |
| 1 1 | River Side | | Distance: | 0 Feet |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITIO | ON: |
| River Side □ | Calm Water | · · | Temperature | e: 82 °F |
| 77777 | +7+7+7 | | Rain: No | |
| | /// | 7-7-7 | Wind: Cal | m |
| | | | % Cloud: 1 | 0 |
| OTHER NOTES: | | | | |
| Right Bank. Small, unattag | shool cond and mud ha | r holow notabod dika | Eggs and shieks | un to 1 wook old |
| Nests in sand and mud, so | | | | sup to 1 week old. |
| - | | | | |
| <i>3</i> | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | mancik, Thomas, | Thron |
| RIVER GAGE READING: | Gre | eenville | | 24.5 F |
| | (Gage | Location) | | (Elevation) |

| | | | FLY | BOAT 🗸 |
|----------------------------|-------------------------------|----------------------|--|------------|
| SPECIES: Interior Least To | ern <i>(Sterna antillarun</i> | athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 9:54 | RIVER MILE: | 521.0 |
| LOCALITY: Chic | | SITE NAME: | Island #86 Dil | kes Upper |
| County/ | Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latit | ude: 33 15795 | | Adults: | 148 |
| | gitude: 91.08720 | ⊒ 8 | Juveniles: | |
| • | | _ | Eggs: | |
| Approximate Distance to | Water: 50 | Feet | Nests: | 50 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | ON ORCOND | n Nest Area 🔽 | SUBSTRATE: | |
| Over Water | . ☑ / / On F | Resting Area | Sand: ✓ | |
| Calm Water | | ∠/. | Gravel: | |
| Land Side | <u> </u> | | Debris: | |
| | | 1 | VEGETATION: | |
| Channel Side | MID-CHANN | EL 🗆 | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | | 1100 | |
| 7 0 | River Side | | Distance: | Feet |
| SIDE CH | ANNEL SANDBAR Center | ☑ `.` | FIELD CONDITION: | |
| River Side 🖳 | Land Side Calm Water | - · · | Temperature: | 1 221 |
| 7777 | 7+7+7 | | Rain: No | |
| | /// | ~~~ | Wind: Calm | |
| | | | % Cloud: 10 | |
| OTHER NOTES: | | | Array - Service Company Control of Company | |
| Right Bank. Small, low, fl | at unattached sand har | bolow 1st diko Drift | t count violds highost | count No |
| tracks, but Snowy Egrets | | | t count yields highest | COUNT. INO |
| | | | | |
| 8 | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | umancik, Thomas, Thi | on |
| RIVER GAGE READING: | Gre | eenville | 2 | 4.5 F |
| | (Gage | Location) | _ (Ele | evation) |

| | | | FLY | BOAT 🗸 |
|------------------------------|--------------------------------|------------------------|----------------------|---------------|
| SPECIES: Interior Least Te | ern (Sterna antillarun | n athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 10:13 | RIVER MILE: | 518.5 |
| LOCALITY:Chic | o AR | SITE NAME: | Island #86 Di | ikes Lower |
| County/F | Parish State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitu | ide: 33 12910 | | Adults: | 42 |
| | itude: 91.10169 | | Juveniles: | |
| _ | | | Eggs: | |
| Approximate Distance to V | Vater: 100 | Feet | Nests: | 7 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | 22.32 | On Nest Area ✓ | SUBSTRATE: | |
| Over Water | ☑ / / On! | Resting Area | Sand: | |
| Calm Water | | ∠ / .l = | Gravel: | |
| Land Side | > | | Debris: | |
| . Center . □ | = 1,00 0,000 | | VEGETATION: | |
| Channel Side | A MID-CHANN | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | | | |
| 1 1 | River Side | | Distance: | reet |
| SIDE CH | ANNEL SANDBAR Center Land Side | | FIELD CONDITION | |
| River Side | Calm Water | | Temperature: | 82 °F |
| 7777 | ++>+> | | Rain: No | |
| | /// | | Wind: Calm | |
| | | | % Cloud: 10 | |
| OTHER NOTES: | | | | |
| Right Bank. Small, unatta | ahad law flat cand ha | r Pirds sitting inland | on corange others fi | ishing back |
| chute, courting or resting a | | | | STILLING DACK |
| | | | | |
| 57 63 | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Th | iron |
| RIVER GAGE READING: | Gr | eenville | | 24.5 F |
| | (Gage | e Location) | (El | levation) |

| | | | FLY | BOAT 🗸 |
|------------------------------|-----------------------|--|--------------------------|---------------|
| SPECIES: Interior Least Te | rn (Sterna antillarun | n athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 10:27 | RIVER MILE: | 514.0 |
| LOCALITY: Washin | gton MS | SITE NAME: | Leota D | ikes |
| County/F | Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitu | de: 33.09132 | | Adults: | 62 |
| | tude: 91.16353 | | Juveniles: | |
| · · | | Fina | Eggs: | |
| Approximate Distance to V | vater: 150 | reet | Nests: | 25 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>ON ONCOMB</u> | On Nest Area ✓ | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: ✓ | |
| Calm Water | | ∠ /.l | Gravel: | |
| بمر | <u>></u> | ~< | Debris: | |
| Land Side | | ٦ | VECETATION | |
| Channel Side | MID-CHANN | EL 🗆 🛶 | VEGETATION: | |
| MID-CHANNEL SANDBAR | Rapid Currents . | | Type: | |
| <u>السام- در المرا</u> | River Side | | Distance: | Feet |
| SIDE CH/ | ANNEL SANDBAR Center | ☑ `.` | FIELD CONDITION: | |
| / River Side □ | Land Side | - · · | Temperature: | 1 221 |
| ├ ─ / | Calm Water | <u>, </u> | | 00 1 |
| | 177 | | Rain: No | |
| | 1 1 7 | | Wind: Calm | |
| | | | % Cloud: 60 | |
| OTHER NOTES: | | | | |
| Left Bank. Long, clean, sa | and har unattached do | wnstream nt with hird | le citting on corange | courting and |
| resting at waterline. No tra | | wiistieam pt. with bird | is sitting on scrapes, t | Journing, and |
| 5 | | | | |
| S | | | | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Thr | on |
| RIVER GAGE READING: | Gr | <u>eenville</u> | 2 | 4.5 F |
| | (Gage | Location) | _ (Ele | evation) |

| | | | FLY | □ BOAT ✓ |
|--|-------------------------------|---------------------|------------------|----------------|
| SPECIES: Interior Least Tel | n (Sterna antillarun | n athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 10:48 | RIVER MILE: | 510.0 |
| LOCALITY: Chico | | SITE NAME: | Cracraft Low | er Dikes Upper |
| County/P | arish State | | NUMBERS SIGH | ITED: |
| WHERE SITED: Latitu | de: 33.03810 | | Adults: _ | 32 |
| | tude: 91.15770 | _ | Juveniles: | |
| | | F | Eggs: | 1(2) 4(3) |
| Approximate Distance to W | rater: 100 | reet | Nests: | 6 |
| | _ | | Chicks: _ | Yes |
| IN FLIGHT Over Sandbar | <u>ON CROONE</u> | n Nest Area | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: ⊌ | • |
| Calm Water | | ∠/. | Gravel: | |
| Land Side | <u>~</u> | | Debris: | |
| | |] | VEGETATION: | |
| Channel Side | MID-CHANN | [℡] → | | ws/Cottonwoods |
| MID-CHANNEL SANDBAR | Rapid Currents | *** | NAME OF | |
| بے 🗷 | River Side | | Distance: _ | 15 Feet |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITIO | ON: |
| River Side 🖳 | Calm Water | | Temperature | e: 83 °F |
| | +>+>+ | | Rain: No | |
| | 1/79 | ~~~ | Wind: Cal | m |
| | | | % Cloud: 6 | 60 |
| OTHER NOTES. | | | 2018 | |
| OTHER NOTES: | - | dilld | - 1 | - H |
| Right Bank. Upstream poil willows. Terns mobbing h | | | | |
| | | | | |
| 8 | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, | Thron |
| RIVER GAGE READING: | Gre | eenville | <u>&</u> ~ | 24.5 F |
| | (Gage | Location) | | (Elevation) |

| | | | FLY | BOAT 🗸 |
|-----------------------------|--------------------------------|------------------------|------------------------|----------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillarun</i> | n athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 11:05 | RIVER MILE: | 509.2 |
| LOCALITY: Chic | | | Cracraft Lower | Dikes Lower |
| County/F | Parish State | | NUMBERS SIGHTE | ED: |
| WHERE SITED: Latitu | ide: 33 02516 | | Adults: | 32 |
| | itude: 91.15446 | _ : | Juveniles: | |
| _ | | Fire | Eggs: | |
| Approximate Distance to V | vater: 200 | reet | Nests: | 7 |
| | _ | | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>on oncome</u> | On Nest Area ✓ | SUBSTRATE: | |
| Over Water | <u>✓</u> /// On I | Resting Area | Sand: ☑ | |
| Calm Water | | ≺/ . | Gravel: | |
| Land Side | <u> </u> | | Debris: | |
| C Center . □ | | | VEGETATION: | |
| Channel Side | MID-CHANN | ≞♥ _→ │ | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | 8 | 100 200 00000 | |
| 1 1 | River Side | | Distance: | Feet |
| SIDE CH/ | ANNEL SANDBAR Center Land Side | | FIELD CONDITION | • |
| River Side 🔽 | Calm Water | - · · | Temperature: | 83 °F |
| 7777 | ++>+> | | Rain: No | |
| | /// | | Wind: Calm | |
| | | • | % Cloud: 60 | |
| OTHER NOTES: | | | | |
| Right Bank. Long, 1.5 mile | e riverside sand har(| Colony thinly spread e | entire length Sevens | sitting inland |
| others resting at waterline | | | Than o longar. Governo | orang mana, |
| <u> </u> | | | | |
| 57 57 | | | | AR side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Th | ron |
| RIVER GAGE READING: | Gr | eenville | =2 | 24.5 F |
| | (Gage | Location) | (EI | evation) |

| | | | FLY | BOAT 🗸 |
|----------------------------|-------------------------------|----------------------------------|----------------------|---------------|
| SPECIES: Interior Least Te | rn (Sterna antillarun | n athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 11:33 | RIVER MILE: | 504.0 |
| LOCALITY: Issaqu | ena MS | SITE NAME: | Corregidor | r Dikes |
| County/F | Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitu | de: 32 95736 | | Adults: | 667 |
| | tude: 91.14347 | _ | Juveniles: | |
| ~ | | | Eggs: | |
| Approximate Distance to V | /ater:100 | Feet | Nests: | 300 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar | 10 N | on Nest Area ✓ | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: | |
| Calm Water | | /</td <td>Gravel:</td> <td></td> | Gravel: | |
| Land Side 🗆 | <u>~</u> | \sim | Debris: | |
| | | | VEGETATION: | |
| Channel Side | A MID-CHANN | [≞] □ → │ | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents | | 1000 | |
| 71 | River Side | | Distance: | Feet |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITION: | |
| River Side | Calm Water | - · · | Temperature: | 84 °F |
| 77777 | +7+74 | | Rain: No | |
| | /// | ~~~ | Wind: Calm | |
| | | | % Cloud: 60 | |
| OTHER NOTES: | | | | |
| Left Bank. Long (3/4 mile) | narrow unattached o | rescent shaped sand | and mud bar in bend | of Sarah Cut- |
| Off (attached in 2006). Hu | | | | |
| | | | | |
| | | | | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, Thi | ron |
| RIVER GAGE READING: | titorium in Electrical | eenville | =2 | 24.5 F |
| | (Gage | Location) | (Ele | evation) |

| | | | FLY | BOAT | ~ |
|--|-------------------------------|------------------|------------------|-------------------|-----|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 6/27/2007 | TIME OF DAY: | 11:47 | RIVER MILE: | 499.0 | |
| LOCALITY:East Ca | arroll LA | SITE NAME: | Wilson | Point Dikes | |
| County/F | Parish State | | NUMBERS SIGI | HTED: | |
| WHERE SITED: Latitu | do: 32.0435 | | | 37 | |
| | tude: 91.0833 | 28 | Juveniles: | · | |
| ~ | | | Eggs: | | |
| Approximate Distance to V | /ater: 100 | Feet | Nests: | 8 | |
| | | | Chicks: | No | |
| IN FLIGHT Over Sandbar | A7 | n Nest Area ✓ | SUBSTRATE: | | |
| Over Water | ☑ / / On F ~ / / / | Resting Area | Sand: | ✓ | |
| Calm Water | | | Gravel: | | |
| Land Side | <u>~</u> | | Debris: | ✓ | |
| Channel Side | A MID-CHANNI | = - | VEGETATION: | | |
| \ | <i>'</i> | | Type: | | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | <u>-</u> | Distance: | Feet | |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITI | ION: | |
| River Side □ | Calm Water | | Temperatur | re: 84 °F | |
| 77777 | +7+7 | | Rain: No | | |
| | / / / 7 | | Wind: S | 5-10 mph | |
| er. | | | % Cloud: | 65 | |
| OTHER NOTES: | | | | | |
| Right Bank. Attached, san during perimeter count, bu | | | | waterline or fish | ing |
| - | | | | | |
| ODOEDVEDO | Campan Carnantar | Crubough Jones D | manaik Thomas | LA side | |
| OBSERVERS: | Campen, Carpenter, | | imancik, i nomas | | |
| RIVER GAGE READING: | Monte and a second | eenville | | 24.5 F | |
| | (Gage | Location) | | (Elevation) | |

| | | | FLY | □ BOAT ✓ |
|-----------------------------|-------------------------------|--------------------|----------------------|------------------|
| SPECIES: Interior Least Ter | n (Sterna antillarum | athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 12:05 | RIVER MILE: | 491.5 |
| LOCALITY:Issaque | ena MS | SITE NAME: | Baleshed L | anding Dikes |
| County/Pa | arish State | | NUMBERS SIGH | TED: |
| WHERE SITED: Latitud | lo: 22 9417 | | Adults: | |
| | ude: 91.1278 | | Juveniles: | |
| (- 3) | | | Eggs: _ | |
| Approximate Distance to W | ater: 60 | Feet | Nests: | 36 |
| | | | Chicks: _ | No |
| IN FLIGHT Over Sandbar | <u>ON OROGIND</u> OF | Nest Area | SUBSTRATE: | |
| Over Water | ☑ / / On R | esting Area | Sand: ✓ | 2 |
| Calm Water | | 47.1 | Gravel: | |
| Land Side | <u> ~</u> | | Debris: |] |
| C | | ו | VEGETATION: | |
| Channel Side | # MID-CHANNE | └ ☑ -→ │ | Type: | |
| MID-CHANNEL SANDBAR | apid Currents | * | | |
| 1 | River Side | | Distance: | Feet |
| SIDE CHAI | NNEL SANDBAR Center Land Side | | FIELD CONDITIO | ON: |
| River Side ☐ ≅ | Calm Water | | Temperature | e: 84 °F |
| 77777 | +7+74 | | Rain: No | |
| | 1174 | - | Wind: S5 | mph |
| | | | % Cloud: 4 | 0 |
| OTHER NOTES: | | | | |
| Left Bank. Small, barely ex | nosed clean sand bar | unstream from Stac | ek Island. No tracks | s or disturbance |
| 27 Canada Geese at water | | | | , |
| | | | | |
| OBSEDVEDS: | Campen, Carpenter, C | Pruhaugh Jones Di | mancik Thomas | MS side |
| OBSERVERS: | | | manon, momas, | |
| RIVER GAGE READING: | Street and a second | enville | | 24.5 F |
| | (Gage | Location) | 1.0 | (Elevation) |

| | | | FLY | BOAT | ~ |
|--|-------------------------------|---------------------|------------------|--|---|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 6/27/2007 | TIME OF DAY: | 13:14 | RIVER MILE: | 488.0 | |
| LOCALITY: Issaqu | | SITE NAME: | Ben Lom | mond Dikes | |
| County/P | arish State | | NUMBERS SIGH | ITED: | |
| WHERE SITED: Latitu | de: 32.80477 | | Adults: _ | 65 | |
| | tude: 91.14308 | | Juveniles: _ | | |
| Approximate Distance to W | /ater: 50 | Feet | Eggs: _ | | |
| | % | | | 17 No | |
| IN FLIGHT Over Sandbar | ON GROUND Or | n Nest Area ✓ | SUBSTRATE: | 110 | |
| Over Water | 900 St. | esting Area | Sand: | ā | |
| Calm Water | ~~~ <u>~</u> | Z / | Gravel: | 7 0. Sec | |
| | <u> </u> | \sim | Debris: |] | |
| Land Side | | | VEGETATION: | | |
| Channel Side | MID-CHANNE | [┺] → │ | | ws/CW/grass | |
| MID-CHANNEL SANDBAR | Rapid Currents | _ | | 0 Feet | |
| 7 | River Side | | Distance. | U TCCI | |
| River Side T | NNEL SANDBAR Center Land Side | Ž., ``. | FIELD CONDITIO | 111111 | |
| | Calm Water | <u> </u> | Temperature | e: 86 °F | |
| / / / / | - L-L-L | | Rain: No | | |
| | 1177 | 7-7-7 | Wind: S 5 | mph | |
| | | | % Cloud: 4 | 10 | |
| OTHER NOTES: | | | | | |
| Left Bank. Low, very smal amongst sparse grass with tracks or disturbance. | | | | | |
| | | | | MS side | |
| OBSERVERS: | Campen, Carpenter, C | Grubaugh, Jones, Ru | ımancik, Thomas, | ACCRECATE TO SECURITY OF THE S | |
| RIVER GAGE READING: | Vic | ksburg | | 18.6 F | |
| | (Gage | Location) | . . | (Elevation) | |

FLY BOAT 🗹

| SPECIES: Interior Least Te | rn <i>(Sterna antillarum</i> | athalassos) | | |
|-----------------------------|-------------------------------|------------------------|----------------------|--------------|
| DATE: 6/27/2007 | TIME OF DAY: | 13:36 | RIVER MILE: | 484.0 |
| LOCALITY: Issaqu | | SITE NAME: | Ajax Bar Dil | kes Upper |
| County/F | Parish State | | NUMBERS SIGHTE | ED: |
| WILEDE CITED. | da 22.74550 | | Adults: | |
| WHERE SITED: Latitu | tude: 91.14376 | 28 | Juveniles: | |
| Longi | iude. 91.14376 | | Eggs: | |
| Approximate Distance to W | /ater: 500 | Feet | Nests: | 12 |
| | | 1 | Chicks: | No |
| IN FLIGHT Over Sandbar | <u>on onconb</u> | 26-35 | SUBSTRATE: | |
| Over Water | ✓ / _ / _ / On F | Resting Area | Sand: ☑ | |
| Calm Water | | ∠ / , | Gravel: | |
| Land Side 🗆 | <u>~</u> | | Debris: | |
| | | _ 1 | VEGETATION: | |
| Channel Side | A MID-CHANNI | [≞] → │ | Type: | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: | |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITION | : |
| River Side □ | Calm Water | | Temperature: | 86 °F |
| 77777 | +7+7+7- | | Rain: No | |
| | | | Wind: S5m | ph |
| | | | % Cloud: 40 | |
| OTHER NOTES: | | | | |
| Left Bank. Broad, high, un | dulating, attached, san | d bar. Terns sitting i | nland on scrapes and | d resting at |
| waterline. No tracks or dis | | | | |
| . | | | | |
| 53 | | | | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | mancik, Thomas, Th | nron |
| RIVER GAGE READING: | Vio | ksburg | | 18.6 F |
| | (Gage | Location) | (E | levation) |

| | | | FLY | □ BOAT ✓ |
|-----------------------------|------------------------------|-------------------------|----------------------|------------------|
| SPECIES: Interior Least Te | rn <i>(Sterna antillarun</i> | athalassos) | | |
| DATE: 6/27/2007 | TIME OF DAY: | 13:46 | RIVER MILE: | 481.6 |
| LOCALITY:Issaqu | iena MS | SITE NAME: | Ajax B | Bar Dikes |
| County/F | Parish State | | NUMBERS SIGH | ITED: |
| WHERE SITED: Latitu | ude: 32 737//6 | | Adults: | 28 |
| | itude: 91.11895 | <u> </u> | Juveniles: _ | |
| | | | Eggs: _ | 1(2) 2(3) |
| Approximate Distance to V | Vater: 100 | Feet | Nests: | 4 |
| | | | Chicks: _ | No |
| IN FLIGHT Over Sandbar | <u>ON ONCOME</u> | n Nest Area 🗸 | SUBSTRATE: | |
| Over Water | ☑ / / On F | Resting Area | Sand: 💆 | |
| Calm Water | | ∠ /.l | Gravel: | |
| Land Side | > | | Debris: | |
| Channel Side | A MID-CHANN | | VEGETATION: | |
| \ | | [™] → | Type: Cotto | nwoods/grass |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: _ | 200 Feet |
| SIDE CH/ | ANNEL SANDBAR Center | ☑ `.` | FIELD CONDITION | ON. |
| River Side | Land Side Calm Water | | | e: 86 °F |
| 77777 | +7+7+ | | Rain: No | |
| | 1179 | ` | Wind: S5 | mph |
| | | | % Cloud: 4 | 10 |
| OTHER NOTES: | | | | |
| Left Bank. Higher, larger s | sand har than last year' | s Terns breasting fi | shing and courting | No tracks or |
| disturbance factors. | sand bai than last year | s. Terris breasting, ii | Silling and Courting | y. 140 tracks of |
| - | | | | |
| 5 | | | | MS side |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, | Thron |
| RIVER GAGE READING: | Vio | cksburg | <u>e</u> ~ | 18.6 F |
| | (Gage | Location) | | (Elevation) |

| DATE: 6/27/2007 TIME OF DAY: 14:00 RIVER MILE: 480.0 LOCALITY: Issaquena MS SITE NAME: Ajax Bar Dikes Lower County/Parish State NUMBERS SIGHTED: Adults: 95 Juveniles: 95 Juveniles: 22 Chicks: Yes INFLICHI Over Sandbar On Resting Area On Resting Area Or Center Or Channel Side Or Center Or Cente | | | | FLY [| □ BOAT ✓ |
|--|----------------------------|--------------------------------|-----------------------|-----------------------|--------------------|
| County/Parish State NUMBERS SIGHTED: | SPECIES: Interior Least Te | ern (Sterna antillarun | n athalassos) | | |
| County/Parish State WHERE SITED: Latitude: 32.73697 | DATE: 6/27/2007 | TIME OF DAY: | 14:00 | RIVER MILE: | 480.0 |
| NUMBERS SIGHTED: Adults: 95 Juveniles: Eggs: 2(1) 11(2) 6(3) Approximate Distance to Water: 30 Feet Nests: 22 Chicks: Yes INFLIGHT Over Sandbar Over Water: On GROUND On Nest Area Over Water: On Resting Area Over Water: Sand: Over Water: On Resting Area Over Water: On Resting | LOCALITY:Issaqu | iena MS | SITE NAME: | Ajax Bar D | Dikes Lower |
| WHERE SITED: Latitude: 32.73697 | County/I | Parish State | | NUMBERS SIGH | TED: |
| Longitude: 91.10903 Approximate Distance to Water: 30 Feet | WILEDE OLTED | | | | |
| Approximate Distance to Water: 30 Feet Nests: 22 Chicks: Yes Nests: 22 Chicks: Yes SUBSTRATE: Sand: Gravel: Debris: Debris: Debris: Distance: Feet MID-CHANNEL SANDBAR Rapid Currents MID-CHANNEL SANDBAR Center River Side Calm Water Calm Water Maker Side Calm Water Mid-Calm Water Mid-Ca | | | <u></u> | / | |
| Calm Water Over Sandbar Power Mid-Channel Side Over Mid-Side O | Long | itude: 91.10903 | | | BOOK STORE LABOUR. |
| NFLIGHT Over Sandbar ON GROUND On Nest Area SUBSTRATE: Over Water On Resting Area Sand: Gravel: Debris: Debris: VEGETATION: Calm Water On Resting Area VEGETATION: Type: Distance: Feet River Side On Resting Area Nest Nes | Approximate Distance to V | Vater: 30 | Feet | Nests: | 22 |
| Over Water On Resting Area Substitution | | | 1 | Chicks: | Yes |
| Calm Water Garvel: Gravel: Debris: Wegetation: Center Gravel: Debris: Debris: Debris: Debris: Center Gravel: Center Gravel: Debris: De | IN FLIGHT Over Sandbar | ON GROUND C | on Nest Area ✓ | SUBSTRATE: | |
| Debris: Center Channel Side VEGETATION: Type: Distance: Feet | Over Water | ☑ / / On F | Resting Area | Sand: | |
| Land Side | Calm Water | | ∠/. | Gravel: |] |
| Center Channel Side MID-CHANNEL VEGETATION: Type: Distance: Feet River Side FileLD CONDITION: Temperature: 86 ° F Rain: No Wind: \$5 mph % Cloud: 40 OTHER NOTES: Left Bank. Medium size (800 x 150 yds.), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: Vicksburg 18.6 F | Land Side | > | \sim | Debris: |] |
| Type: Distance: Feet | Center . | and the second | | VEGETATION: | |
| MID-CHANNEL SANDBAR Rapid Currents River Side | Channel Side | A MID-CHANN | [≞] → | | |
| River Side FIELD CONDITION: SIDE CHANNEL SANDBAR | MID-CHANNEL SANDBAR | Rapid Currents | | Dietanee: | Foot |
| River Side River Side Rain: No Calm Water Rain: No Wind: S 5 mph % Cloud: 40 OTHER NOTES: Left Bank. Medium size (800 x 150 yds,), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: Vicksburg 18.6 F | | | 25 S 107 C | Distance. | i eet |
| Calm Water Rain: No Rain: No Wind: S 5 mph % Cloud: 40 OTHER NOTES: Left Bank. Medium size (800 x 150 yds,), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: Vicksburg 18.6 F | | ANNEL SANDBAR Center Land Side | ⊘ , | FIELD CONDITIO | N: |
| Wind: S5 mph % Cloud: 40 OTHER NOTES: Left Bank. Medium size (800 x 150 yds,), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: Vicksburg 18.6 F | River Side | Calm Water | | Temperature | : 86 °F |
| Wind: S 5 mph % Cloud: 40 OTHER NOTES: Left Bank. Medium size (800 x 150 yds,), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: Vicksburg 18.6 F | 77777 | 7+7+7 | | Rain: No | |
| OTHER NOTES: Left Bank. Medium size (800 x 150 yds,), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: Vicksburg 18.6 F | | /// | ~~~ | Wind: S5 | mph |
| Left Bank. Medium size (800 x 150 yds,), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 18.6 F | | | | % Cloud: 40 | 0 |
| Left Bank. Medium size (800 x 150 yds,), high isolated sand bar below last dike with scattered debris. Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 18.6 F | OTHER NOTES: | | | | |
| Chicks observed less than 1 week of age. No tracks or disturbance factors. MS side OBSERVERS: Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 18.6 F | | 800 x 150 vds) high isc | plated sand har below | / last dike with scat | tered debris |
| OBSERVERS:Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 18.6 F | | | | | |
| OBSERVERS:Campen, Carpenter, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 18.6 F | <i>5</i> | | | | |
| RIVER GAGE READING: Vicksburg = 18.6 F | OBSERVERS: | Campen Carpenter | Gruhaugh Jones Pi | ımancik Thomas | |
| ###################################### | | | | amanoik, momas, | |
| | RIVER GAGE READING: | | | = | Control Collins |

| | | | FLY 🗆 | BOAT | ~ |
|-----------------------------|-------------------------------|--|----------------------|---------------|----|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 6/27/2007 | TIME OF DAY: | 14:16 | RIVER MILE: | 476.6 | |
| LOCALITY:East Ca | irroll LA | SITE NAME: | Point Look | out Dike | |
| County/F | Parish State | | NUMBERS SIGHTE | ED: | |
| WHERE SITED: Latitu | do: 32.71695 | | Adults: | | |
| | tude: 91.05885 | <u> </u> | Juveniles: | | |
| | | | Eggs: | | |
| Approximate Distance to W | /ater: 300 | <u>Feet</u> | Nests: | 34 | |
| | | | Chicks: | No | |
| IN FLIGHT Over Sandbar | 70-50 M | n Nest Area 🗸 | SUBSTRATE: | | |
| Over Water | ☑ / / On F ~ / / / | Resting Area | Sand: 🔽 | | |
| Calm Water | - <u></u> - | | Gravel: | | |
| Land Side 🔲 | <u>~</u> | | Debris: | | |
| (| |] | VEGETATION: | | |
| Channel Side | A MID-CHANNI | [≞] □ → │ | Type: | | |
| MID-CHANNEL SANDBAR | Rapid Currents | * | | | |
| | River Side | 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Distance: | reet | |
| SIDE CHA | NNEL SANDBAR Center Land Side | | FIELD CONDITION | l: | |
| River Side 🔲 | Calm Water | | Temperature: | 86 °F | |
| 77777 | +7+74, | | Rain: No | | |
| | /// | `~~~ | Wind: S5m | ph | |
| | | | % Cloud: 40 | | |
| OTHER NOTES: | | | | | |
| Right Bank. Low, flat, wet, | unattached sand bar i | n Filter Bend No tra | cks or disturbance F | Farets presen | it |
| | | | | J p. 33311 | |
| | | | | | |
| | 20 2022 1 201022 2010 | | | LA side | |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancık, Thomas, Th | iron | |
| RIVER GAGE READING: | | ksburg | | 18.6 F | |
| | (Gage | Location) | (E | levation) | |

| | | | FLY [| BOAT | ~ |
|---|--------------------------------|---------------------|--------------------|----------------|-----|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 6/27/2007 | TIME OF DAY: | 14:40 | RIVER MILE: | 469.0 | |
| LOCALITY: Issaqu | ena MS | SITE NAME: | Arcadia Pe | oint Dikes | |
| County/P | Parish State | | NUMBERS SIGHT | ED: | |
| WHERE SITED: Latitu | de: 32.65489 | 28 | Adults: | 29 | |
| | tude: 91.14060 | | Juveniles: | | |
| Approximate Distance to W | /ater: 200 | Feet | Eggs: Nests: | 5 | |
| NO. | | | | No | |
| IN FLIGHT Over Sandbar | ON GROUND O | n Nest Area | SUBSTRATE: | | |
| Over Water | ☑ / / On R | Resting Area | Sand: | | |
| Calm Water | | ≺ / , | Gravel: | | |
| Land Side | <u> </u> | \sim | Debris: | | |
| Channel Side | A MID-CHANNE | <u>.</u> | VEGETATION: | | |
| | Rapid Currents ✓ | - → | Type: | | |
| MID-CHANNEL SANDBAR | ╱╬╌┼╌┼╌╬╌ | <u> </u> | Distance: | Feet | |
| SIDE CHA | River Side NNEL SANDBAR Center | ☑ ∵.` ☑ | FIELD CONDITION | V- | |
| River Side 🔲 | Land Side Calm Water | | Temperature: | 1111 | |
| 7777 | +>+> | | Rain: No | | |
| | 1/74 | ·> | Wind: <u>W 10</u> |)-12 mph | |
| | | | % Cloud: 60 | ĺ | |
| OTHER NOTES: | | | | | |
| Left Bank. Large, sand ba Perimeter count indicates 5 Great Egrets. | | | | | ed. |
| 8 | | | | MS side | |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, T | A SHEET COLUMN | |
| RIVER GAGE READING: | Vio | ksburg | | 18.6 F | |
| | (Gage | Location) | (E | Elevation) | |

| | | | FLY | BOAT | ~ |
|--|--|---------------------------|---------------------|--------------|---|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 6/27/2007 | TIME OF DAY: | 14:55 | RIVER MILE: _ | 460.4 | |
| LOCALITY:East Ca | arroll LA | SITE NAME: | Willow | Cutoff Dikes | |
| County/F | Parish State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitu | ıde: 32 5361 | | | 112 | |
| | itude: 91.1006 | <u>2</u> % | Juveniles: | <u>X</u> - | |
| _ | | | Eggs: | | |
| Approximate Distance to V | Vater: | Feet | Nests: | 0 | |
| | | | Chicks: | No | |
| IN FLIGHT Over Sandbar | Array V | n Nest Area | SUBSTRATE: | | |
| Over Water | ☑ / / On F | Resting Area | Sand: | ✓ | |
| Calm Water | | | Gravel: | ✓ | |
| Land Side 🔲 | > | | Debris: | | |
| Channel Side | A MID-CHANNI | | VEGETATION: | | |
| \ | <i>*</i> | → | Type: | | |
| MID-CHANNEL SANDBAR | Rapid Currents River Side | | Distance: | Feet | |
| SIDE CH/ | ANNEL SANDBAR Center Land Side | | FIELD CONDITI | ION: | |
| / River Side ☐ | Calm Water | | Temperatu | re: 86 °F | |
| 1777 | TT-7-7- | | Rain: No | | |
| | 1 1 7 | | Wind: W | 5 mph | |
| | | | % Cloud: | 60 | |
| OTHER NOTES: | | | | | |
| Right Bank. Large, long, ledisturbance, 9 Fish Crows | ow, flat, sand and grave over back chute. | el bar. All terns in flig | ht or resting at wa | aterline. No | |
| \$0 | | | | | |
| 5 5 | | | | LA side | 9 |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas | , Thron | |
| RIVER GAGE READING: | Vio | ksburg | | 18.6 F | |
| | (Gage | Location) | | (Elevation) | |

FLY □ BOAT ☑

| SPECIES: Interior | Least Tern <i>(Sterr</i> | na antillarum | athalassos) | | |
|-------------------|--------------------------|----------------------|-------------------------|-------------------|-----------------|
| DATE: 6/27/20 | 07 TIME O | F DAY: | 15:10 | RIVER MILE: | 456.0 |
| | | | SITE NAME: | Millik | ken Bend |
| | County/Parish | State | | NUMBERS SIGI | HTED: |
| WHERE SITED: | l etitude. | 22 47570 | | | 37 |
| WHERE SITED: | Langitude: | | | Juveniles: | |
| | 3 5 | | | Eggs: | |
| Approximate Dista | ance to Water: _ | 80 | Feet | Nests: | 4 |
| | | | | Chicks: | No |
| | | GROUND Or | 26-30 | SUBSTRATE: | |
| 4.4.4.° | ver Water · ✓ | On Ro | esting Area | Sand: | ✓ |
| Calm Wat | er 🗌 | | 4/ / | Gravel: | ✓ |
| Land Side | | | | Debris: | ✓ |
| Cente | er . 🗹 | | _ 1 | VEGETATION: | |
| Channel Sid | le 🖰 🧳 | MID-CHANNE | └┕─── > │ | | |
| MID-CHANNEL SAN | DBAR Rapid Curren | ts 🗹 River Side | | Distance: | 20 May 200 |
| سر | SIDE CHANNEL SAND | BAR Center Land Side | | FIELD CONDITI | ON: |
| River Side [| | Calm Water | - · · | Temperatur | re: 86 °F |
| 777 | 7 -7+7+7 | 1 | | Rain: No | |
| 5.5 | / | 177 | 7-7-7 | Wind: S | 3 mph |
| <u>.</u> | | | - | % Cloud: | 50 |
| OTHER NOTES: | | | | | |
| | ed point bar of grav | el, sand and | debris with nests in | gravel. No tracks | or disturbance. |
| 5 | - 10 XX10 | 50 | | ÷ | |
| - | | | | | |
| OBCEDVEDO: | Campon | Carnenter (| Grubaugh, Jones, Ru | mancik Thomas | MS side |
| OBSERVERS: | | | | manon, monas | |
| RIVER GAGE REA | DING: | | (sburg | | 18.6 F |
| | | (Gage | Location) | | (Elevation) |

| | | | FLY [| BOAT | ~ |
|----------------------------|--------------------------------|--|---------------------|---|---|
| SPECIES: Interior Least Te | rn (Sterna antillarum | athalassos) | | | |
| DATE: 6/27/2007 | TIME OF DAY: | 15:30 | RIVER MILE: | 447.5 | |
| LOCALITY:Madis | on LA | SITE NAME: | Marshall C | Cutoff Dikes | |
| County/F | Parish State | | NUMBERS SIGHT | TED: | |
| WHERE SITED: Latitu | de: 32.40516 | | Adults: | 260 | |
| | tude: 91.00311 | | Juveniles: | | |
| Approximate Distance to V | | Feet | Eggs: | | |
| Approximate distance to v | valer. 40 | reet | | 120 | |
| | 2 0000000 000000 | | Chicks: | No | — |
| IN FLIGHT Over Sandbar | 40-50. | n Nest Area | SUBSTRATE: | | |
| Over Water | <u> </u> | Resting Area | Sand: 🗹 | | |
| Calm Water 🗌 | | ⟨ / | Gravel: | | |
| Land Side 🗆 | <u> </u> | \sim | Debris: | f : | |
| Center Channel Side | # MID-CHANNI | = 2 | VEGETATION: | | |
| | · · | - | Type: | | |
| MID-CHANNEL SANDBAR | Rapid Currents ☑ | _ | Distance: | Feet | |
| | River Side | 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | |
| | ANNEL SANDBAR Center Land Side | | FIELD CONDITIO | 1 | |
| River Side ☐ | Calm Water | ☑ ~~~ | Temperature | : 85 °F | |
| 7777 | 4747 | | Rain: No | | |
| | /// | | Wind: SW | 12-15 mph | |
| | | | % Cloud: 50 | 0 | |
| OTHER NOTES: | | | | | |
| Right Bank. Unattached, s | small low sand har (3 ff | elevation) Nests o | lensely nacked with | n terns mobbina | 1 |
| heron at water's edge. No | | | ionocij paokoa wia | Tterrie messing | |
| £ | | | | | |
| 8 | | | | LA side | |
| OBSERVERS: | Campen, Carpenter, | Grubaugh, Jones, Ru | ımancik, Thomas, T | Thron | |
| RIVER GAGE READING: | Vic | ksburg | | 18.6 F | |
| | (Gage | Location) | (| Elevation) | |

| | | FLY | BOAT 🗸 |
|---|--------------------------------------|-------------------------|----------------|
| SPECIES: Interior Least Tern (Ste | erna antillarum athalassos) | | |
| DATE: 6/28/2007 TIME | OF DAY: 9:05 | RIVER MILE: | 428.5 |
| LOCALITY: Warren | MS SITE NAME: | Below Racetra | ack Dikes |
| County/Parish | State | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitude: | 32 23550 | Adults: | 109 |
| Longitude: | | Juveniles: | |
| - | | Eggs:7(| 1) 13(2) 27(3) |
| Approximate Distance to Water: | 60 Feet | Nests: | 34 |
| | | Chicks: | No |
| 2525 CONTRACTOR OF THE PROPERTY AND ADDRESS OF THE PARTY | ON GROUND On Nest Area ✓ | SUBSTRATE: | |
| Over Water · 🗸 | On Resting Area | Sand: ☑ | |
| Calm Water | | Gravel: | |
| Land Side | \sim | Debris: ✓ | |
| Channel Side | MID-CHANNEL ✓ | VEGETATION: | |
| · / | → | Type: Cottonwo | oods/willows |
| MID-CHANNEL SANDBAR Rapid Cun | River Side 🗹 | Distance: 100 | 0 Feet |
| SIDE CHANNEL SA | NDBAR Center ✓ Land Side ✓ | FIELD CONDITION: | |
| River Side 🕍 | Calm Water ✓ | Temperature: | 81 °F |
| 77777 | | Rain: No | |
| 3 | | Wind: Calm | |
| 7 | | % Cloud: 0 | |
| OTHER NOTES: | | | |
| TOTAL STREET, DESTROYED FOR | tached, incised sand bars (max. elev | , 5 ft) above and held | w last dike |
| | g sparse grass. Canine tracks sugg | | |
| 5 | | | MS side |
| OBSERVERS:Campen, C | Carpenter, Dubowy, Grubaugh, Jone | s, Rumancik, Thomas | |
| RIVER GAGE READING: | Vicksburg | | 8.4 F |
| | (Gage Location) | E | evation) |

| | | | FLY | BOAT 🗸 |
|------------------------|----------------------------------|---------------------|--------------------------|------------|
| SPECIES: Interior Leas | t Tern <i>(Sterna antillarun</i> | n athalassos) | | |
| DATE: 6/28/2007 | TIME OF DAY: | 9:28 | RIVER MILE: | 419.0 |
| LOCALITY: M | adison LA | SITE NAME: | Newton Ber | nd Dikes |
| Cour | nty/Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: La | atitude: 32.1367 | | Adults: | 52 |
| | ongitude: 91.0100 | _ | Juveniles: | |
| | | Foot | Eggs: | |
| Approximate Distance | to Water: 300 | <u>reet</u> | Nests: | 22 |
| | | | Chicks: | No |
| IN FLIGHT Over Sand | ON ONCOME | n Nest Area | SUBSTRATE: | |
| Over Wa | iter · 🗹 / On F | Resting Area | Sand: ☑ | |
| Calm Water | | ≺ ./ ./ . | Gravel: | |
| Land Side | | | Debris: | |
| | | _ 1 | VEGETATION: | |
| Channel Side _ | A MID-CHANN | [≞] ╵→┃ | Type: Cottonw | oods |
| MID-CHANNEL SANDBAR | Rapid Currents | * | | |
| 1 | River Side | <u></u> | Distance: 80 | reet |
| SIDE | CHANNEL SANDBAR Center Land Side | | FIELD CONDITION: | |
| / River Side □ | Calm Water | - · · | Temperature: | 82 °F |
| 7777 | 71717 | | Rain: No | |
| ~ # # | 1/74 | ~ ~ ~ | Wind: Calm | |
| | | | % Cloud: 0 | |
| OTHER NOTES. | | | The sections of | |
| OTHER NOTES: | sized, attached sand bar wi | th mud. Torns mobbi | ing carete with 22 citt | ing inland |
| | g but no signs of disturband | | ing egreis with 22 sittl | ng iniand. |
| | | | | |
| <i>5</i> | | | | LA side |
| OBSERVERS: | Campen, Carpenter, Dubo | owy, Grubaugh, Jone | s, Rumancik, Thomas | s, Thron |
| RIVER GAGE READING | S: Vic | cksburg | 1 | 18.4 F |
| | (Gage | Location) | _ (El | evation) |

| | | | FLY [| BOAT ✓ |
|-----------------------------------|--|---------------------|---------------------|-----------------|
| SPECIES: Interior Least Tern (S | terna antillarum a | thalassos) | | |
| DATE: 6/28/2007 TIM | E OF DAY: | 10:05 | RIVER MILE: | 414.0 |
| LOCALITY:Tensas | LA | SITE NAME: | Togo Isla | and Dikes |
| County/Parish | State | | NUMBERS SIGHT | ΓED· |
| WILEDE OITED | 00.40040 | | Adults: | |
| WHERE SITED: Latitude: _ | | | 10 | |
| Longitude: | 91.10172 | | | 13(1) 7(2) 3(3) |
| Approximate Distance to Water: | 20 | Feet | Nests: | 35 |
| | | 1 | Chicks: | No |
| <u>IN FLIGHT</u> Over Sandbar ✓ | ON GROUND On N | est Area 🗸 | SUBSTRATE: | |
| ✓ / Over Water · ✓ | On Rest | ing Area 🔲 | Sand: | |
| Calm Water | | (/ | Gravel: | |
| Land Side 🗆 | | \sim | Debris: | |
| Center . | The day of the first war standing a section of | _ 1 | VEGETATION: | |
| Channel Side | MID-CHANNEL | □ → | Type: | |
| MID-CHANNEL SANDBAR Rapid Cu | urrents 🔽 | ~ | | |
| | River Side ✓ | | Distance: | reet |
| SIDE CHANNEL S | SANDBAR Center Land Side | | FIELD CONDITIO | N: |
| River Side 🚆 | Calm Water | | Temperature | : 83 °F |
| 77777 | | | Rain: No | |
| | | 7-7-7 | Wind: SE 5 | 5 mph |
| | | | % Cloud: 0 | |
| OTHER NOTES: | | | | |
| Left Bank. Small, low, unattached | sand har (2 ft ele | v) much reduced | in size from previo | us year Lots of |
| human tracks and their debris wit | th some eggs scatte | ered. Birds courtin | g and resting water | rline. |
| | | | | |
| 0 | | | | MS side |
| OBSERVERS: Campen, | Carpenter, Dubowy | , Grubaugh, Jone | s, Rumancik, Thom | as, Thron |
| RIVER GAGE READING: | Vicks | burg | | 18.4 F |
| | (Gage Lo | ocation) | (| Elevation) |

| | | | FLY [| BOAT ✓ |
|--|--|-------------------|--------------------|------------|
| SPECIES: Interior Least Tern (St | erna antillarum a | thalassos) | | |
| DATE: 6/28/2007 TIME | OF DAY: | 10:29 | RIVER MILE: | 410.0 |
| LOCALITY: Claiborne | MS | SITE NAME: | Yucatar | n Dikes |
| County/Parish | State | | NUMBERS SIGHT | ED: |
| WHERE SITED: Latitude: | 32.07094 | | Adults: | 40 |
| Longitude: | | | Juveniles: | |
| | | -410 t : | Eggs: | 1(1) 1(2) |
| Approximate Distance to Water: | 100 | reet | Nests: | 2 |
| | | 7 | Chicks: | No |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | lest Area 🗸 | SUBSTRATE: | |
| Over Water · 🗸 | / On Res | ting Area | Sand: | |
| Calm Water | | ⟨./ .l | Gravel: | |
| Land Side | | \sim | Debris: | |
| Channel Side | MID-CHANNEL | | VEGETATION: | |
| | | <u> </u> | Type: | |
| MID-CHANNEL SANDBAR Rapid Cur | rrents 🗸 River Side 🗸 | ī. | Distance: | Feet |
| ان بالمراب المراب ا | ANDBAR Center | 1.5 | FIELD CONDITION | 1. |
| River Side ☐ | Land Side ✓ Calm Water ✓ | | Temperature: | 111 |
| 77777 | | | Rain: No | |
| | | 7-7-7 | Wind: L&V | 1 |
| gr. | | | % Cloud: 50 | |
| OTHER NOTES: | | | | |
| Right Bank. Upstream attached p predation, egg fragments and coy Shrike. | | | | |
| <u>s</u> | | | | LA side |
| OBSERVERS: Campen, (| Carpenter, Dubow | y, Grubaugh, Jone | s, Rumancik, Thoma | |
| RIVER GAGE READING: | Vicks | burg | 424 | 18.4 F |
| | (Gage L | | | Elevation) |

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/28/2007 TIME OF DAY: 11:00 RIVER MILE: 408.5 SITE NAME: Big Black River LOCALITY: Claiborne MS County/Parish State NUMBERS SIGHTED: 38 ____ Adults: WHERE SITED: Latitude: NA Juveniles: Longitude: NA Eggs: Approximate Distance to Water: Feet Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · 🗸 On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center VEGETATION: MID-CHANNEL 🗸 Channel Side 1 Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side Temperature: ___83 °F River Side [Calm Water Rain: No Wind: Calm % Cloud: 50 OTHER NOTES: Left Bank. Mouth of Big Black River, 38 terns fishing with one Red-Bellied Woodpecker, 1 Kingbird, 1 Phoebe, 3 egrets, 4 Tree Swallows, and 5 Snowy Egrets. MS side OBSERVERS: _____ Campen, Carpenter, Dubowy, Grubaugh, Jones, Rumancik, Thomas, Thron 18.4 F RIVER GAGE READING: Vicksburg (Gage Location) (Elevation)

| | | | FLY [| BOAT ✓ |
|--|--|----------------------|-----------------------|-----------------|
| SPECIES: Interior Least Tern (| Sterna antillarum | athalassos) | | |
| DATE: 6/28/2007 TII | ME OF DAY: | 11:25 | RIVER MILE: | 398.0 |
| LOCALITY: Claiborne | MS | SITE NAME: | Below Grand | d Gulf Dikes |
| County/Parish | State | | NUMBERS SIGHT | ED: |
| WHERE SITED: Latitude: | 31 95363 | | Adults: | 15 |
| | 91.18744 | | Juveniles: | |
| <u>-</u> . | | | Eggs: | |
| Approximate Distance to Water | 25 | Feet | Nests: | -1 |
| | | | Chicks: | No |
| IN FLIGHT Over Sandbar ✓ | | Nest Area ✓ | SUBSTRATE: | |
| Over Water · 🗸 | On R | esting Area | Sand: ✓ | |
| Calm Water | - | 47.1 | Gravel: | |
| Land Side 🔲 | | \sim | Debris: | |
| Channel Side | MID-CHANNE | | VEGETATION: | |
| | | | Type: | |
| MID-CHANNEL SANDBAR Rapid | Currents River Side | | Distance: | Feet |
| SIDE CHANNEL | SANDBAR Center Land Side | | FIELD CONDITION | N: |
| River Side 🔲 | Calm Water | | Temperature: | 83 °F |
| 177777 | +7+ | | Rain: No | |
| | 1174 | | Wind: Calm | |
| | | | % Cloud: 50 | |
| OTHER NOTES: | | | | |
| Left Bank. Small, barely emerg or other disturbance. | ent, unattached, fla | it, sand bar. One ob | oserved sitting on sc | rape. No tracks |
| . | | | | MS side |
| OBSERVERS: Camper | n, Carpenter, Dubo | wy, Grubaugh, Jone | s, Rumancik, Thoma | |
| RIVER GAGE READING: | Vicl | sburg | 42/4 | 18.4 F |
| The second section of the sect | to become a control of the control o | Location) | | Elevation) |

| | | FLY □ BOAT ✓ |
|--|-------------------------------------|-----------------------------|
| SPECIES: Interior Least Tern (Ste | erna antillarum athalassos) | |
| DATE: 6/28/2007 TIME | OF DAY: 12:09 | RIVER MILE: 384.2 |
| LOCALITY: | MS SITE NAME: | Spithead Towhead Dikes |
| County/Parish | State | NUMBERS SIGHTED: |
| WILEDE CITED: Latitude: | 24 02742 | Adults: 200 |
| WHERE SITED: Latitude: Longitude: | | Juveniles: |
| ~ | | Eggs: 1(1) 9(2) 19(3) |
| Approximate Distance to Water: | 200 Feet | Nests: 68 |
| | | Chicks: Yes |
| | ON GROUND On Nest Area ✓ | SUBSTRATE: |
| Over Water · 🗸 | On Resting Area | Sand: ☑ |
| Calm Water | | Gravel: ✓ |
| Land Side | | Debris: ✓ |
| Channel Side | MID-CHANNEL | VEGETATION: |
| | → | Туре: |
| MID-CHANNEL SANDBAR Rapid Curr | River Side 🗹 | Distance: Feet |
| SIDE CHANNEL SAI | NDBAR Center ✓ | FIELD CONDITION: |
| River Side | Calm Water 🗹 | Temperature: 85 F |
| 7777171 | | Rain: No |
| | , ,) | Wind: Calm |
| er | | % Cloud: 50 |
| OTHER NOTES: | | |
| Left Bank. Huge, long, high (6-12 f Colony dispersed along central high hatching and up to 1 week old. For | h ridge of bar. Perimeter count = 1 | |
| Ω Ω | | MS side |
| OBSERVERS: Campen, C | arpenter, Dubowy, Grubaugh, Jone | es, Rumancik, Thomas, Thron |
| RIVER GAGE READING: | Natchez | ₌ 26.5 F |
| | (Gage Location) | (Elevation) |

| | | | | FLY | ′ 🗆 | BOAT | ~ |
|--|---|---|------------------|-----------------|--------------|---------|---|
| SPECIES: Interior Le | ast Tern <i>(Sterna ai</i> | ntillarum atha | lassos) | | | | |
| DATE: 6/28/2007 | TIME OF DA | AY:12 | 2:40 | RIVER MILE: _ | 3 | 380.0 | |
| LOCALITY: | Tensas | LA | SITE NAME: | Water | rproof D | ikes | |
| Co | ounty/Parish | State | | NUMBERS SIG | HTED: | | |
| | | | | Adults: | | | |
| WHERE SITED: | | | | Juveniles: | 285 | | |
| | Longitude: 91.3 | 3708 | | Eggs: | | | |
| Approximate Distance | ce to Water: | Fee | <u>et</u> | Nests: | <u> </u> | 0 | |
| | | | | Chicks: | | No | |
| IN FLIGHT Over Sa | ndbar ON GRO | OUND On Nest | Area | SUBSTRATE: | | | |
| / / / Over | Water · 🗆 / / | On Resting | Area ✓ | Sand: | ~ | | |
| Calm Water | | 4 | / | | | | |
| | | ` | \leq | Debris: | ✓ | | |
| Land Side Center . | | | | VEGETATION | | | |
| Channel Side | | D-CHANNEL | | VEGETATION: | | | |
| MID-CHANNEL SANDB | Rapid Currents |] | | Type: | | | |
| A A | · / / / / / / / / / / / / / / / / / / / | River Side 🗸 | | Distance: | (e) | Feet | |
| <u>المبرب سمير</u> <u>SI</u> | DE CHANNEL SANDBAR | Center . | · / | FIELD CONDIT | ION. | | |
| / River Side □ | | Land Side | | Temperatu | | 85 °F | |
| ├ ─ / ` ──────────────────────────────────── | | Calm Water | 7 | | | | |
| ′ ′ ′ ′ | ' / ' / ' / ' 7 | | | Rain: No | | | |
| | 5 | 1 /7 | 7 7 | Wind: C | alm | | |
| | | | | % Cloud: | 50 | | |
| OTHER NOTES: | | | | | | | |
| Right Bank. Attache | ed sand bar (6 ft. ele | v.) with all bird | s resting at wat | erline. | | | |
| 5 TO | | 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | 1000 | | | | |
| | | | | | | | |
| 5.140 (2011 PM: PENO) | | are the to the transfer | 28 (48) | | 7 Jan 180 F. | LA side | 9 |
| OBSERVERS: | Campen, Carpen | ter, Dubowy, C | rubaugh, Jone | s, Rumancik, Th | omas, T | nron | |
| RIVER GAGE READII | NG: | Natche | | | 26.5 | 25 | |
| | | (Gage Loca | ition) | | (Eleva | tion) | |

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/29/2007 TIME OF DAY: 9:06 RIVER MILE: 357.0 MS SITE NAME: Carthage Point Dikes LOCALITY: Adams County/Parish State NUMBERS SIGHTED: 7 Adults: WHERE SITED: Latitude: 31.51529 Juveniles: _____ Longitude: 91,49569 Eggs: Approximate Distance to Water: Feet 0 Nests: No Chicks: Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: ~ Debris: Land Side . Center . VEGETATION: Channel Side MID-CHANNEL Type: Rapid Currents V MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side River Side V Temperature: 80 F Calm Water Rain: No Wind: Calm % Cloud: 20 OTHER NOTES: Left Bank. Attached sand and gravel bar with birds resting at waterline or courting and carrying fish. Oyster bed deposits on bar with Great Blue Herons, Great and Snowy Egrets. Lone Red Wolf observed retreating from bar as we approached. MS side OBSERVERS: _____ Campen, Carpenter, Davin, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 26.1 F Natchez (Gage Location) (Elevation)

| | | FLY | BOAT 🗸 |
|--|-----------------------|-----------------------|---------------|
| SPECIES: Interior Least Tern (Sterna antillarum | n athalassos) | | |
| DATE: 6/29/2007 TIME OF DAY: | 9:45 | RIVER MILE: | 352.0 |
| LOCALITY: Adams MS | | Opposite Warnicott | Landing Dikes |
| County/Parish State | | NUMBERS SIGHTE | D: |
| WHERE SITED: Latitude: 31.4208 | | Adults: | 17 |
| Longitude: 91.4950 | <u></u> | Juveniles: | |
| (2) 90 (2000) | - Parisa | Eggs: | |
| Approximate Distance to Water: | Feet | Nests: | 0 |
| | 1 | Chicks: | No |
| and distribution in the second | On Nest Area | SUBSTRATE: | |
| Over Water · ☑ On I | Resting Area | Sand: ☑ | |
| Calm Water | ≺ / . _ | Gravel: | |
| Land Side | | Debris: | |
| Channel Side MID-CHANN | EL 🗆 | VEGETATION: | |
| · / / | <u> </u> | Туре: | |
| MID-CHANNEL SANDBAR Rapid Currents River Side | | Distance: | Feet |
| SIDE CHANNEL SANDBAR Center | | FIELD CONDITION: | |
| River Side Calm Wate | | Temperature: _ | 83 °F |
| 1 / 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | | Rain: No | |
| | | Wind: Calm | |
| | | % Cloud: 10 | |
| OTHER NOTES: | | | |
| Left Bank. Large, attached sand bar with all birds | resting at waterline. | No signs of disturbar | nce |
| | | | |
| | | | |
| | | | MS side |
| OBSERVERS: Campen, Carpenter, Da | vin, Grubaugh, Jones, | , Rumancik, Thomas, | Thron |
| RIVER GAGE READING: N | atchez | =2 | 6.1 F |
| (Gage | Location) | (Ele | evation) |

| | | | FLY | ′ □ BOAT 🗹 |
|---|--------------------|-----------------|-------------------|--|
| SPECIES: Interior Least Tern (Ste | rna antillarum ati | halassos) | | |
| DATE: 6/29/2007 TIME | OF DAY: | 9:57 | RIVER MILE: _ | 347.5 |
| LOCALITY: Concordia | LA LA | SITE NAME: | Espe | rance Point |
| County/Parish | State | | NUMBERS SIG | SHTED: |
| WHERE SITED: Latitude: | 31 39534 | | Adults: | 125 |
| Longitude: | | | Juveniles: | - <u> </u> |
| | | | Eggs: | 3(1) 10(2) 3(3) |
| Approximate Distance to Water: | 100 F | eet | Nests: | 22 |
| | | 1 | Chicks: | Yes |
| 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | | est Area 🗸 | SUBSTRATE: | |
| Over Water · 🗸 | / / On Restir | ng Area | Sand: | ✓ |
| Calm Water | | ./ . | Gravel: | ✓ |
| Land Side | | \sim | Debris: | |
| Channel Side | MID-CHANNEL | i i | VEGETATION: | |
| | | ⁻ → | Type: Cot | tonwoods/grass |
| MID-CHANNEL SANDBAR Rapid Curre | | n | Distance: | 0 Feet |
| SIDE CHANNEL SAN | River Side V | | AND THE PERSON | |
| / River Side | Land Side . | | FIELD CONDIT | COURT OF THE PARTY |
| | Calm Water | ~~· | Temperatu | ıre: 82 °F |
| / / / 7 / / / / / / / / / / / / / / / / | 77 | <u> </u> | Rain: No | |
| , | 17 | | Wind: C | alm |
| | | | % Cloud: | 45 |
| OTHER NOTES: | | | | |
| Right Bank. Unattached, small granew colony, chicks up to 1 week old scrapes. Nests in sparse grass and | d, abandoned and | damaged eggs w | ith goose or peli | can tracks around |
| 5 | | | | LA side |
| OBSERVERS: Campen, C | Carpenter, Davin, | Grubaugh, Jones | , Rumancik, Tho | mas, Thron |
| RIVER GAGE READING: | Natch | ez | | 26.1 F |
| | (Gage Lo | cation) | Sand . | (Elevation) |

| | | | FLY | □ BOAT ✓ |
|--|----------------------|------------------|-------------------|-----------------|
| SPECIES: Interior Least Tern (Ste | erna antillarum atha | lassos) | | |
| DATE: 6/29/2007 TIME | OF DAY:10 |):42 | RIVER MILE: | 336.5 |
| LOCALITY: Concordia | | SITE NAME: | Fritz Isla | and Dikes |
| County/Parish | State | | NUMBERS SIGH | TED: |
| WHERE SITED: Latitude: | 31 26170 | | Adults: | 150 |
| Longitude: | | | Juveniles: _ | |
| (F) | | 9 .0 | Eggs: _ | 5(1) 12(2) 7(3) |
| Approximate Distance to Water: | 20 Fee | <u>et</u> | Nests: | 32 |
| | | | Chicks: _ | Yes |
| 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ON GROUND On Nest | 200 | SUBSTRATE: | |
| Over Water · 🗸 | On Resting | Area | Sand: | • |
| Calm Water | | 7 . | Gravel: |] |
| Land Side | • • | \sim | Debris: |] |
| Channel Side | MID-CHANNEL 🗸 | | VEGETATION: | |
| | | → | Type: | |
| MID-CHANNEL SANDBAR Rapid Curr | River Side 🗹 | | Distance: _ | Feet |
| SIDE CHANNEL SA | NDBAR Center . | | FIELD CONDITIO | ON: |
| River Side ☐ | Calm Water | ~~i) | Temperature | e: 83 °F |
| / / / | 77~~ \ | - | Rain: No | |
| <u> </u> | | 7 - / | Wind: <u>Calı</u> | m |
| | | | % Cloud: 4 | 0 |
| OTHER NOTES: | | | | |
| Right Bank. Unattached, small (70 old. No signs of disturbance, Bald | | | | |
| 5 | | | | LA side |
| OBSERVERS: Campen, | Carpenter, Davin, G | ubaugh, Jones. | Rumancik, Thom | |
| RIVER GAGE READING: | Natche | | 11 11 11 | 26.1 F |
| recoverance of the Proposition and Art Market 1 | (Gage Loca | | = | (Elevation) |

| | | | FLY | □ BOAT ✓ | |
|---|---------------------|-------------------|--------------------|-----------------------|--|
| SPECIES: Interior Least Tern (Stern | a antillarum at | thalassos) | | | |
| DATE: 6/29/2007 TIME O | F DAY: | 10:53 | RIVER MILE: _ | 329.0 | |
| LOCALITY: Adams | MS | SITE NAME: | Jack | son Point | |
| County/Parish | State | | NUMBERS SIG | HTED: | |
| WHERE SITED: Latitude: | 31.24683 | | Adults: | 225 | |
| Longitude: | | | Juveniles: | Σ | |
| ~~ | | | Eggs: | 1(1) 10(2) 3(3) | |
| Approximate Distance to Water: | 20 F | -eet | Nests: | 16 | |
| _ | | | Chicks: | Yes | |
| 22-22 October 1981 | | est Area 🗸 | SUBSTRATE: | | |
| Over Water • On Resting Area | | | Sand: | ✓ | |
| Calm Water | | 、 / | Gravel: | | |
| Land Side | | \sim | Debris: | | |
| Channel Side | MID-CHANNEL | | VEGETATION: | | |
| | | ⁻ → | Type: | | |
| MID-CHANNEL SANDBAR Rapid Current | S ✓ River Side ✓ | | Distance: | Feet | |
| SIDE CHANNEL SANDBAR Center ✓ Land Side ✓ Calm Water ✓ | | | FIELD CONDIT | ION: | |
| | | | Temperature: 84 °F | | |
| 777777 | | Rain: No | | | |
| 1 | 17 | 7 -7-/ | Wind: Ca | alm | |
| | | | % Cloud: | 40 | |
| OTHER NOTES: | | | | | |
| Left Bank. Mid-channel, isolated poir across the whole bar up to 1 week of bass, sunfish. Seven White Ibis just | age. No signs | | | | |
| 8 | | | | MS side | |
| OBSERVERS: Campen, Carpenter, Davin, Grubaugh, Jones, Rumancik, Thomas, Thron | | | | | |
| | | | | | |
| RIVER GAGE READING: | (Gage Lo | | = | 26.1 F (Elevation) | |

| | | | FLY [| BOAT 🗸 | |
|---|--------------------------|-----------------------|--------------------|-----------------|--|
| SPECIES: Interior Least Tern | (Sterna antillarum | athalassos) | | | |
| DATE: 6/29/2007 | TIME OF DAY: | 11:21 | RIVER MILE: | 322.0 | |
| LOCALITY:Concordia | LA_ | SITE NAME: | Homochite | o Cuttoff | |
| County/Pari | sh State | | NUMBERS SIGHTE | ED: | |
| WHERE SITED: Latitude: | 31 17/12 | | Adults: | 35 | |
| | e: 91.5947 | THE | Juveniles: | | |
| Lorigitud | e. 91.594 <i>1</i> | | Eggs: | | |
| Approximate Distance to Water: 50 Feet | | Nests: | 9 | | |
| | | | Chicks: | No | |
| IN FLIGHT Over Sandbar ✓ | ON GROUND OR | n Nest Area ✓ | SUBSTRATE: | | |
| Over Water On Resting Area | | | Sand: 🗸 | | |
| Calm Water | Gravel: | | | | |
| Land Side | Y | \sim | Debris: | | |
| Channel Side | - MID CHANNE | | VEGETATION: | | |
| Channel Side | MID-CHANNE | " " → | Type: | | |
| MID-CHANNEL SANDBAR Rapi | d Currents | | | | |
| | River Side | | Distance: | reet | |
| SIDE CHANNEL SANDBAR Center ☐ Land Side ☐ Calm Water ☑ | | | FIELD CONDITION | l: | |
| | | | Temperature: 82 °F | | |
| | | | Rain: No | | |
| | /// | | Wind: Calm | | |
| | | | % Cloud: 65 | | |
| OTHER NOTES: | | | | | |
| OTHER NOTES: | or (F. ft. alov.) babina | I laland in Uamaahita | Cuttoff Nine torne | sitting inland | |
| Right Bank. Riverside sand b No tracks or disturbance. | al (5 it. elev.) beninc | i Island in Homochild | Cutton. Nine terns | Sitting iniand. | |
| W | | | | | |
| s | | | | LA side | |
| OBSERVERS: Cam | pen, Carpenter, Dav | in, Grubaugh, Jones | , Rumancik, Thomas | s, Thron | |
| RIVER GAGE READING: | Na | Natchez | | 26.1 F | |
| | (Gage | (Gage Location) | | (Elevation) | |

FLY \square BOAT V SPECIES: Interior Least Tern (Sterna antillarum athalassos) DATE: 6/29/2007 TIME OF DAY: 11:53 RIVER MILE: 305.0 LA LOCALITY: West Feliciana SITE NAME: Shreves Bar County/Parish State NUMBERS SIGHTED: 2 Adults: WHERE SITED: Latitude: 30.9960 Juveniles: _____ Longitude: 91.6441 Eggs: Approximate Distance to Water: Feet 2 Nests: Chicks: No Over Sandbar IN FLIGHT ON GROUND On Nest Area SUBSTRATE: Over Water · On Resting Area Sand: Calm Water Gravel: Debris: Land Side . Center . VEGETATION: MID-CHANNEL Channel Side 'V Type: Rapid Currents MID-CHANNEL SANDBAR Distance: Feet River Side SIDE CHANNEL SANDBAR Center FIELD CONDITION: Land Side Temperature: ___85 °F River Side [Calm Water Rain: No Wind: Calm % Cloud: 50 OTHER NOTES: Left Bank. Attached, upstream point of large island. Medium high bar with 2 birds resting at waterline. No tracks or signs of predation. OBSERVERS: _____ Campen, Carpenter, Davin, Grubaugh, Jones, Rumancik, Thomas, Thron RIVER GAGE READING: 26.1 F Natchez (Gage Location) (Elevation)

| | | FLY □ BOAT ✓ | | | |
|---|--|---|--|--|--|
| SPECIES: Interior Least Tern (Sterna | antillarum athalassos) | | | | |
| DATE: 6/29/2007 TIME OF I | DAY:12:15 | RIVER MILE: 300.5 | | | |
| LOCALITY: West Feliciana | LA SITE NAM | 1E: Hog Point Dikes | | | |
| County/Parish | State | NUMBERS SIGHTED: | | | |
| WHERE SITED: Latitude: 30 | 93540 | Adults:138 | | | |
| Longitude: 91 | | Juveniles: | | | |
| | | Eggs: | | | |
| Approximate Distance to Water: | 150 Feet | Nests: 32 | | | |
| | | Chicks: No | | | |
| 2 4 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ROUND On Nest Area ✓ On Resting Area | SUBSTRATE: | | | |
| Over Water · 🗹 | Sand: ☑ | | | | |
| Calm Water | / / , | Gravel: | | | |
| Land Side | \sim | Debris: | | | |
| Channel Side MID-CHANNEL | VEGETATION: | | | | |
| | Type: Willows/grass | | | | |
| MID-CHANNEL SANDBAR Rapid Currents | Distance: 200 Feet | | | | |
| : SIDE CHANNEL SANDBA | FIELD CONDITION: | | | | |
| River Side | Temperature: 85 °F | | | | |
| 777777 | Rain: No | | | | |
| | 77777 | Wind: <u>Calm</u> | | | |
| | | % Cloud: 30 | | | |
| OTHER NOTES: | | | | | |
| Left Bank. Attached, upstream point of fish, breasting, some resting in shade o observed. | wooded island with large, of willows. Nests all across b | pen back chute. Birds courting, carrying bar, utilizing all sides of bar. No tracks | | | |
| a | | | | | |
| OBSERVERS: Campen, Carpenter, Davin, Grubaugh, Jones, Rumancik, Thomas, Thron | | | | | |
| RIVER GAGE READING: Natchez (Gage Location) | | =26.1 F | | | |
| | | (Elevation) | | | |