# INTERCEPT INTERVIEWER PROCEDURES MANUAL 

## MARINE RECREATIONAL FISHERIES STATISTICS SURVEY <br> GULF COAST

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## 1. ROLES AND RESPONSIBILITIES

### 1.1 Introduction

This Intercept Interviewer Procedures Manual is designed for use in conducting the MRFSS Intercept Survey in the Gulf. Any questions or problems not covered in this manual should be directed to Gulf States Marine Fisheries Commission (GSMFC). Interviewers may call Gregg Bray or Doug Snyder between 8:00 a.m. and 5:00 p.m., Central time, Monday through Friday. The voice mail is accessible 24 hours a day at: 1-228-875-5912.

This manual is the Field Intercept Interviewer's "Job Description." If the manual appears more comprehensive than most job descriptions, the reason is that field interviewers must perform a complicated job. It is recognized that difficulties are encountered by our field staff. This manual (as well as the other materials provided) is one product of our commitment to assist our interviewers in doing the best job possible.

All the information an interviewer needs to conduct the survey is included in this manual. Please recognize it as the primary tool to assist you in your efforts to do a good job. Don't just read it. Study it! You are expected to know and understand its contents. If you find anything confusing, please ask us and we will clarify it. We are always receptive to suggestions on providing a more useful manual.

We expect the interviewers who choose to be part of the survey team to share our high level of commitment to scientific excellence. Let us never forget that we are involved in collection of scientific data, and it is up to each of us to recognize the responsibilities inherent in providing the most accurate and valid information possible. We do not take these responsibilities lightly, and neither should field interviewers. We greatly appreciate your willingness to accept this challenge.

### 1.2 The Interviewer

The interviewer will play a vital role in this project since the key to accurate data is high quality interviewing. While interviewers have been selected primarily for their skills in fish identification, these are not the only skills required to be a successful interviewer. A good interviewer is one who can approach strangers with little reluctance, who can diplomatically handle touchy situations, who can follow procedures and complete forms with almost compulsive exactitude, and who can identify fish accurately at the species level. The intercept interview involves both a face-to-face interview and a creel census and a unique set of skills is required for each.

The specific tasks of an interviewer are many. He/she will be expected to complete site assignments, to have all necessary equipment available and in proper working order (i.e., calibrated scales) while interviewing, to conduct interviews in a professional manner, to complete all forms accurately and to meet all submission deadlines.

In addition to obtaining interviews, the interviewer is responsible for submitting site description information to be used in the site sampling process. Accurate completion and timely submission of the site description information are of vital importance to the project. Also, participation in at least two quality control visits per year is required. Quality control visits will be arranged and conducted by the State Supervisor (SS) for your area. During the quality control visit the SS will assess your interviewing skills and assist you in improving your performance.

As state employees, interviewers are representatives of your respective state. At no time should an interviewer claim he/she is an employee of the National Marine Fisheries Service (NMFS). Interviewers should always say that they represent their respective state on a study sponsored by NMFS.

### 1.3 The State Supervisors

Each interviewer will work with a State Supervisor. The SS in charge of an interviewer's area (possibly the whole state) will be introduced at training. SS's will be involved in interviewer training, supervision and quality control and use the site information provided by the interviewers in updating the Site Register in their regions. Interviewers should call their SS if they have procedural questions, questions about a fish, or about a site.

SS's are required to conduct at least two quality control visits per year with each interviewer. During these visits, the SS will observe work done by the interviewer and provide feedback on his/her performance. On assignments designated for quality control visits, the interviewer must coordinate the time of the assignment with the SS.

SS's will also schedule local meetings during the year. Adequate advance notice must be given before these meetings, and all interviewers must attend these regional review meetings.

The SS's are project staff for your respective state. Interviewers work with their respective SS on issues concerning availability, scheduling and coding errors. The SS's monitor the intercept quotas and thus should be contacted as soon as possible for rescheduling weathered out assignments (the next day at the latest) and assignments that will be missed for personal reasons (two days prior to the assignment date).

### 1.4 Interviewer Responsibilities for Assignment Completion

After an assignment is completed in the field, the interviewer must mail or deliver the package to their SS within 48 hours and call their SS every Monday morning to report the outcome of all assignments in the previous week (Monday through Sunday). The SS will then report to the GSMFC on Monday afternoon the total number of completed intercepts in each mode. With this information the SS's and GSMFC can take the necessary actions to meet the quotas.

Reporting the weekly results of assignments is extremely important. Incomplete weekly call-in tallies can cause us to cancel assignments when it is unnecessary and delay scheduling a sufficient number of additional assignments. For this reason, even an assignment in which zero intercepts were obtained must be reported.

The SS's have answering machines to pick up intercept tallies. The following information must be provided when reporting the weekly assignment results:

- Your name and I.D. number;
- Control number (a number given to each assignment);
- Date the assignment was completed;
- Total (by mode) of "good" interviews obtained

Ex: 3 shore mode interviews
5 private mode interviews; and

- A telephone number and time at which the interviewer can be reached.

If an assignment is missed because of weather, illness, car trouble, or any other reason that cannot be anticipated, the interviewer must call their SS with an explanation. Obviously, there will be other occasions when an interviewer may need to call. Interviewers should call if a change in an assignment schedule is needed. It is certainly appropriate to call whenever questions arise about an assignment, a site, species identification or any procedural problems that the SS is unable to answer. Interviewers are encouraged to keep conversations brief and to-the-point. It is the interviewer's responsibility to call to request field supplies.

## 2. MRFSS BACKGROUND, HISTORY AND DESIGN

### 2.1 Background

The National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) has a requirement for the conduct of a survey of marine recreational anglers, to gather information on: (1) catch, participation, and effort in marine recreational fishing, and (2) selected demographic characteristics.

Until recent years it was thought that commercial fisheries took the greater part of the total marine fishery catch in the territorial seas of the United States. However, most species of fish in estuarine and inshore areas, as well as in open waters, are harvested jointly by recreational anglers and commercial fishers. Recent data indicate that catches by the marine recreational fishery are a significant portion of the total landings of many marine species. The need for commercial catch statistics has been satisfied in the past with routinely collected catch and effort data for most commercial fisheries. Comparable data for marine recreational fisheries have become available only since 1979. Added management responsibilities were imposed by Public Law 94-265 and the Magnuson Fishery Conservation and Management Act of 1976.

Catch and effort statistics are fundamental for assessing the influence of fishing on any stock of fish. The quantities taken, the fishing effort, and the seasonal and geographical distribution of the catch and effort are required for the development of rational management policies and plans. Accurate and up-to-date catch statistics, collected over the range of species, with associated biological studies, provide conservation agencies with the information necessary to plan for management for optimum yield from fishery resources. These data are essential for state conservation agencies, recreational fishing industries, NOAA fisheries, the Regional Fishery Management Councils, and others responsible for or interested in the management and productivity of marine fisheries. The allocation of many fishery resources depends on the results of these surveys.

NMFS is charged with administering a program of research and services relating to the ocean and inland waters of the United States (Title 16, Chapter 9, U.S. Code). Collecting statistics on marine recreational fisheries is authorized by:

- $\quad$ Section 5(a)(4) of the Fish and Wildlife Act of 1956, which provides for the collection and dissemination of statistics on commercial and sport fishing;
- Migratory Game and Fish Study Act of 1959 (Title 16, Chapter 9A, U.S. Code), which provides for continuing study of migratory marine fishes, including the effects of fishing on the species; and
- $\quad$ Sections 303 and 304(e) of the Magnuson Fishery Conservation and Management Act of 1976 (MFCMA), Public Law 94-265, which require the collection of statistics for fishery conservation and management.


### 2.2 History

Comprehensive collection of catch statistics on marine recreational fisheries has been attempted only in recent years, largely because collecting such statistics is difficult and expensive. Recreational anglers are dispersed along the coast, fishing from boats, piers, jetties, docks, and the open beach. They fish day or night, anytime throughout the year. The few coastal states collecting catch statistics use a variety of methods, but usually cover only a part of the state or selected segments of a fishery. NOAA Fisheries conducted Salt Water Angling Surveys (SWAS) through the Bureau of Census in 1960, 1965, and 1970. These surveys supplemented the Bureau of Sports Fisheries and Wildlife's National Survey of Hunting and Fishing. Prior to 1979, the SWAS were the only surveys that collected marine recreational catch and participation statistics by species for the entire United States.

The data collected in the SWAS were inadequate to satisfy the information requirements on recreational harvests of finfish, however. They did not provide sufficient information on areas of capture which is necessary for effective management of fishery stocks. More important, there were substantial response errors associated with the one year recall period required of anglers. Respondents were unable to correctly remember information requested on their fishing activity for a full year. In addition, data collected every five years was insufficient because of rapid changes in the recreational harvest. More detailed and reliable catch, participation, and economic statistics were needed on marine recreational fishing to provide comprehensive estimates of the domestic harvest of finfish and shellfish in U.S. waters. Information would be used for evaluating future demands on the fish stocks and for planning recreational facilities for anglers.

Regional surveys were conducted by NOAA Fisheries in the Northeastern coastal states in 1974 and the South Atlantic and Gulf of Mexico states in 1975. The data collection approach involved a multi-stage sampling procedure. A basic assumption of the regional surveys was that the target population of recreational fishing households could be considered as a subset of the households with telephones. Random-digit-dialing methods were used to produce a sample frame of residential households with recreational fishing experience during the previous 12 months. A stratified (by population and distance from shore) random sample of these households was mailed a questionnaire that requested detailed information on marine fishing activity during the previous 12 months. Numerous procedural weaknesses such as a low response rate to the initial screening phase and a very low response rate to the mailed questionnaire (approximately 25 percent) were identified.

Subsequently, a new methodology was initiated during the late 1970's and pre-tested on the Pacific coast. Several data collection approaches were compared, and one was chosen as the most cost-effective. The result was the current survey design, a complemented survey approach involving a combined household telephone and on-site intercept survey. A random-digit-dialing Household Telephone Survey is used to obtain participation and effort (number of fishing trips) data, and information on the proportion of fishing households in each county of the survey area. An on-site Intercept Survey (creel survey) is used to obtain information on catch (number and weight) by species and area of fishing. The Intercept Survey also supplies information on the number of anglers, the number of anglers with and without phones, the number of anglers by state and county of residence, the length of fishing trips, disposition of catch, and other data of interest to fishery managers.

The two-component survey methodology was further tested on the Atlantic and Gulf coasts to ensure that information used in developing the Pacific coast sample frame was available for other parts of the country, and that the approach was appropriate in areas with different geographic and demographic characteristics. The Atlantic and Gulf Coasts study was completed in January 1978.

Full scale implementation of the MRFSS began in 1979 and has been conducted in the following areas and years:

| - | Atlantic and Gulf Coasts | 1979-Present; |
| :--- | :--- | :--- |
| - $\quad$ Pacific Coast | 1979-1989, 1993-Present; |  |
| - Western Pacific area | $1979-1981 ;$ and |  |
| - Caribbean area | $1979,1981$. |  |

### 2.3 General Survey Design

As stated above, the current MRFSS consists of two independent surveys -- a Telephone Survey of households and an Intercept Survey. Data obtained from the Telephone Survey of Households is used to estimate the total number of marine recreational fishing trips taken by residents of coastal areas. This survey is generally limited to households in counties that are within 25 miles of the coastline because the majority of the recreational fishing trips are taken by persons living in households in those counties.

The Intercept Survey is needed in addition to the Telephone Survey because certain data cannot be reliably collected over the telephone in a cost-effective manner. These data include: exact species, total number of each species, and length and weight measurements. Data obtained from the Intercept Survey is used to estimate average catch per trip, the species composition of that catch, and the weight by species of that catch. This survey is also used to develop estimates of the number of trips taken by non-coastal private residences, which are not covered by the telephone survey. It is called the Intercept Survey because anglers are intercepted at fishing sites as they complete their fishing trips.

Data from the Telephone Survey of Households and the Intercept Survey are combined to provide an estimate of the total catch of marine recreational anglers. Total catch is reported by species and area both by quantity and weight. The MRFSS also provides an estimate of the number of marine recreational anglers in the U.S.

The basic design of the MRFSS is shown below.


## 3. INTERCEPT SURVEY DEFINITIONS

### 3.1 State, Subregion and Region

In the MRFSS, separate estimates of catch are developed for each state, with East and West Florida treated as two separate states. (East Florida includes the Atlantic Coast counties through Dade County; West Florida includes the Gulf coast counties through Monroe County.)

Because the number of intercept interviews allocated to individual states is not sufficiently large, the state estimates of catch are subject to high variability. To provide more precise estimates of catch at the subregional level, the individual state estimates are combined in the development of the subregional estimates. On the Atlantic and Gulf Coasts, the breakdown of Regions, subregions and states is as follows:

## Region II - Northeast

Subregion 4 North Atlantic (Maine, New Hampshire, Massachusetts, Rhode Island and Connecticut)

Subregion 5 Mid-Atlantic (New York, New Jersey, Delaware, Maryland, and Virginia)
Region III - Southeast
Subregion 6 South Atlantic (North Carolina, South Carolina, Georgia and East Florida)
Subregion 7 Gulf of Mexico (West Florida, Alabama, Mississippi, and Louisiana)

### 3.2 Wave

The MRFSS is structured around two-month periods called "waves." January and February are Wave 1, March and April are Wave 2, etc. NMFS funds the MRFSS in Waves 1 through 6 in East Florida, West Florida, Alabama, Mississippi, Louisiana; Waves 2 through 6 in Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia; and in Waves 2 through 5 in Maine and New Hampshire.

### 3.3 Mode

The MRFSS is also structured around types or "modes" of fishing. While there are many types of fishing, three major mode groups are considered: shore fishing (SH); party boat (headboat) and charter boat fishing (PC); and private and rental boat fishing (PR). More detailed definitions for these are as follows:

## Shore (SH)

- Pier, Dock - A structure built out over water and supported by pillars.
- Jetty - A wall, usually made of rocks, built out into the water to restrain currents or protect the harbor.
- Breakwater - An offshore structure used to protect a harbor or beach from the forces of waves.
- Breachway - A connecting channel.
- Bridge - A structure, supported by pillars, carrying a pathway or roadway over a body of water.
- Causeway - A raised path or road across wet ground or water, usually not supported by a structure.
- Beach - A level stretch of pebbles or sand beside a body of water, often washed by high water.
- Bank - A stretch of rising land at the edge of a body of water not washed by high water, which could be rocks or any overhanging cliff.
- Any other non-boat fishing (e.g., a physical boat ramp).

Headboats (party boats) and Charter Boats (PC)

- Headboat - A boat on which fishing space and privileges are provided for a fee. The vessel is operated by a licensed captain (guide or skipper) and crew. In some areas of the country headboats are called partyboats or open boats. These boats are usually not launched until a specified number of anglers have paid and boarded. Anglers on these full or half day trips usually do not know the other anglers on the boat.

NOTE: In the Gulf this survey does not sample headboat anglers. (Other NMFS-SPONSORED programs are currently collecting these data.)

- Charter Boat - A boat operating under charter for a specific price, time, etc. It is operated by a licensed captain and crew, and the participants
are part of a preformed group of anglers. Thus, charters are usually closed parties, as opposed to the open status of headboats.


## Private and Rental Boats (PR)

- $\quad$ Private Boat - A boat belonging to an individual.
- Rental Boat - A boat that is rented. No crew is provided -- the renter operates the boat him/herself.


### 3.4 Fishing Sites

It is the responsibility of field interviewers to identify new sites. The following criteria will be used in defining a fishing area as a new site.

Sites are discrete geographical areas from which saltwater recreational finfishing takes place. With the possible exception of some beach/bank sites, a fishing site should include not more than approximately 100 yards of coastline area. That is, one interviewer should be able to cover an entire site on foot in a reasonable amount of time. Some beach/bank sites are larger than 100 yards, but boundaries should be clearly delineated in the description. Wherever appropriate, a site can have boundaries smaller than 100 yards.

A fishing site can have more than one mode of fishing. A docking area with both charter boats and private boats would be one site with both PC and PR fishing. If people occasionally fish from the dock, the site register would also show shore fishing activity for that site.

### 3.5 Site Description Form

The Site Description Form is used to update site description information, including fishing pressure for the current wave and the next wave. The guidelines provided below for completing the form are keyed to the section numbers of the redesigned form (Appendix A). When completing the form during an assignment, please fill in all sections of the form and write clearly.
(1) General Information-- Fill in your Name, Date, Interviewer ID number and the State, County, Site Number (if it is an existing site) of the assignment. Also indicate whether this was the Assigned Site for the assignment.
(2) Upon Arrival-- Write down the Time, the number of Shore Anglers and Boat Trailers in the parking lot at the time you arrive at the site. While at the site, gather or verify information about the site itself, including:

- Site Name If there is no proper name, use a brief
description.
- Site Street Address- (e.g., 100 4th Street) If there is no address, choose the closest building with a street address and write it down. If an address is not available, a location is needed (e.g., 4th Street at Pine) If descriptive information must be used instead of an exact address, indicate this on the form.
- Site City/town, State and Zip code.
- Directions from recognizable landmark- (e.g., on 4th Street, 2.2 miles south of Pine Street/4th Street intersection). If this is a new site and it is near or adjacent to an existing site on the Site Register, you may indicate directions from that existing site.
- Contact Person and Phone Number- Make an effort to obtain this information; verify even if this is an existing site.
(3) Upon Departure-- Fill in the Time, number of Shore Anglers and Boat Trailers present at the site when you complete the assignment. Also check the appropriate box to indicate the Weather conditions while you were at the site.
(4) Modes Present at Site-- For each mode indicate whether the mode is present, not present, or cannot determine. Do not leave any mode unchecked.
- Night Fishing- Note that there are separate categories to indicate if night fishing is present for SH or PR. If so, also check whether there is adequate lighting available to safely conduct interviews after dark.
- Private Access - Check the appropriate box to indicate whether the site is not open to the general public, even for a fee. In addition, check whether we have permission to interview at the site if it is private. There may be instances where a privately owned (but publicly accessible) site may not welcome our interviewers. If this is the case, please indicate this on the form.

If the fishing pressure would be affected greatly by the tidal cycle, please check yes and explain in the comments section at the bottom of the site description form (e.g., a pier left exposed at low tide affecting SH mode; a boat ramp inaccessible at low tide affecting PR mode).
(5) Pressure Estimates - The definition of site pressure is:

The weekend or weekday "fishing pressure" in a given fishing mode (shore, charter, party/charter, private/rental) at a given fishing site is the average number of eligible anglers that a given interviewer would encounter during an eight-hour reference interval on an

## average good-weather weekend day or weekday.

Using the numerical codes provided on the Site Description Form, estimate the fishing pressure for each mode for both months of the current wave and the next wave. Fill in the calendar month in the space provided (e.g., Month 1, 03/05 is March 2005). According to the definition, the pressure should be an estimate of the average number of eligible anglers expected during an eight-hour period (including the peak) of weekend/weekday activity for that month. If this is an existing site and your estimate is different from that on the current site register, explain in the comments section.
(6) Comments - Use this section to clarify the information recorded earlier and to provide additional information of interest to future interviewers at the site.

### 3.6 Site Register

The unit of analysis in the Intercept Survey is the saltwater recreational fishing trip. Since anglers are not required to "register" their fishing trips, it is not possible to sample from a list of fishing trips -- no such list exists. Instead, the sample frame for the Intercept Survey is the list of fishing sites from which recreational fishing trips take place.

For each state, GSMFC maintains a master list of all known saltwater recreational fishing sites. This is known as the Site Register. Originally developed from secondary sources, the Site Register is continuously updated using feedback from intercept interviewers. The computerized Site Register contains fishing pressure information, that is, information concerning the relative use of the site in each of the three modes. This information is used in the selection process so that the more heavily used sites have a higher probability of selection.

Information provided about each site in the Site Register includes, a three-digit county code, and a unique four-digit site code. These are followed by a description of the site and its location. If the site has any type of shore fishing, one of the following indicators is listed within the description for that site:

- $\quad \mathrm{MM}$ - for manmade shore only (i.e., pier, jetty, bridge);
- BB - Beach Bank only (natural beach or bank);
- $\quad \mathrm{SH}$ - Both MM and BB; and
- NA - not applicable (no shore fishing at that site).

Certain sites at which interviewers are not welcome by the site management are indicated as "hostile sites." Hostile sites are not assigned but may be used as alternate sites if the interviewer chooses. However, these "hostile sites" do not have to be used as alternates. Finally, the Site Register indicates the pressure in each mode for each month. (A key to the pressure information is found at the top of each page.) Sites are listed in numerical order by county but are not in any other geographical order. Each interviewer will be given an updated

Site Register for his/her state(s) at the beginning of each wave.

### 3.7 Adding Sites to the Site Register

When a new site is encountered that is not presently included in the Site Register, the interviewer should complete a Site Description Form with the best estimate of pressure for all of the months indicated. If possible, interviewers should talk to the site personnel and also include monthly pressure estimates for the remainder of the year. The boxes for inclusion of the site number should be left blank, and the form should provide an explanation for why the site should be added. The interviewer CANNOT collect interviews at a new site until after the next wave starts. The Site Description Form must be sent to GSMFC and only then can NMFS issue a new site number.

### 3.8 Deactivating Sites from the Site Register

If an interviewer visits a site presently on the Site Register, which they feel should be removed (e.g., "Establishment gone out of business") he/she should fill out a Site Description Form including any pertinent information, with the label "INACTIVE SITE" at the top of the form.

### 3.9 Allocation/Contract Requirements

More than 54,000 intercept interviews are conducted every year in the Atlantic and Gulf Coasts for NMFS. A base of 30 intercept interviews is allocated to each state/wave/mode cell. This was done to ensure that sufficient data were available to produce an estimate of catch for each state/wave/mode. The remainder of the interviews is allocated to cells proportionate to a "fishing effort index" developed by NMFS using historical estimates of fishing trips. By contract, then, a prescribed number of interviews are needed in each state in each wave and mode. Based on the NMFS allocation, individual states develop goals for each month within the wave and for the weekend/holiday and weekday strata. Thus, your state has a target number of intercept interviews to be obtained in each mode and month for weekends and holidays and weekdays.

### 3.10 Official Holidays

For purposes of this survey, holidays are defined only as the dates on which the federal government celebrates the following: New Year's Day; Martin Luther King, Jr. Day; President's Day; Memorial Day; Independence Day; Labor Day; Columbus Day; Veteran's Day;
Thanksgiving Day; Christmas Day. Interviewers with assignments scheduled for completion on any of these holidays should double-check the control number for those assignments (found on your assignment listing) to make sure they begin with a "1" (i.e., 1001, 1028). This "1" is an indication that the assignment is to be completed on a weekend or official holiday. If an assignment's control number does not correspond to the scheduled date call your SS immediately and they will contact GSMFC.

## 4. SITE ASSIGNMENT PROCEDURES

### 4.1 The Interviewing Assignment

An interviewing "assignment" consists of a target mode, a fishing site with activity in that target mode, and the date on which the site is to be visited.

### 4.2 How Assignments are Created, Distributed and Confirmed

GSMFC uses historical productivity data (average number of interviews per assignment) to estimate the number of assignments needed to achieve the quota of interviews in each state/wave/mode/weekend vs. weekday combination. A computer program is then used to randomly sample the required number of assignments. Sites with higher pressures have a higher probability of selection in the sampling process.

Once the assignments are selected, SS's begins the process of issuing assignments to interviewers. SS's matches each assignment with the interviewer closest to the assigned site who is available to work on the date of the assignment, giving preference to those who demonstrate the highest level of competence in all of the procedural and administrative aspects of their position.

Approximately one week prior to the beginning of a month/wave each interviewer will be sent his/her Assignment List for the month/wave. A unique form will be developed for each interviewer, and assignments will be listed in order of date within the wave. Interviewers who are unclear about any information listed, should call their SS immediately.

### 4.3 Interviewer Responsibilities for Assignment Confirmation and Completion

Upon receipt of the Assignment Form each interviewer should review the form in detail. If an interviewer feels that he/she will not be able to complete an assignment as listed due to personal conflicts or mileage constraints, helshe should call their SS as soon as possible to discuss any desired changes. Unless notified otherwise, SS's will assume that the interviewer will be conducting all assignments as given. If an unexpected schedule conflict arises, the interviewer must notify the SS as soon as possible, but no later than two days prior to the assignment date. If an assignment cannot be completed because of bad weather, the interviewer must call no later than the next day to reschedule the weathered out assignment. Assignments should be rescheduled on the same day of the week in a later week.

NOTE: Repeated failure to keep SS's informed of assignment schedule
conflicts will be sufficient grounds to discontinue an interviewer's services.

## 5. ON-SITE PROCEDURES

### 5.1 Interviewing Goal

In the Gulf (Region III), the "maximum" number of "good interviews" is 30 for Private/Rental, Shore, and Party/Charter mode assignments. "Good" interviews are interviews in which all key data are obtained (Interview Status "1" or "2" at Item 10 in the Intercept questionnaire).

### 5.2 Advance Work

Each assignment specifies an assigned mode, an assigned starting site, and an assigned date. However, a starting time will not be specified on the Assignment Form, so it is up to each interviewer to select the most appropriate time. This should be done with the understanding that an assignment can last up to eight hours and that anglers must be interviewed at the completion of their fishing trips.

The time of day selected for interviewing should reflect daily fishing activity. For example, if anglers typically use a shore fishing site at high tide only, then that should be the time of day for conducting intercepts. Also, if night fishing pressure is high (i.e., on a lighted pier), then some interviewing should be done at night. Most anglers return to boat launching and mooring areas in mid to late afternoon, so this is generally the best time to sample these sites. Interviewers must visit assigned sites at the time of peak fishing activity or the assignment should be rescheduled.

Interviewers should gather information on fishing activity to enhance their productivity. Newspaper and weekly magazine fishing reports are useful in monitoring fishing activity and the seasonal opening and closing of fishing piers, marinas, party/charter operations, etc. Obtaining this kind of information in advance of conducting interviews is particularly useful during the winter waves when fishing pressure is low and such information can be helpful in the selection of alternate sites.

The interviewer must start his/her assignment at the assigned site and give priority to obtaining interviews at the assigned site in the assigned mode. Whenever possible the interviewer should do some advance checking with the person in charge at the site before going on an assignment. This is especially true for assignments at private marinas, boat rental locations, headboat docks, etc., where it is important to know the hours of operation. A phone number will be provided on the Site Register whenever possible. When phone numbers are not provided, the interviewer should use a local phone directory to find a listing for the site and record the number on the Site Description Form for that site. Any revisions or additions should be noted on the Site Description Form and on the interviewer's own copy of the Site Register.

### 5.3 Arrival at the Site

Upon arriving at the site the interviewer should first check in with the person in charge (or the person previously contacted). Many sites, especially public beaches, will have no such person, but privately-owned or closely supervised public operations will have a manager or captain in charge. Both for permission and as a courtesy, the interviewer should introduce himself/herself and give a summary of the purpose of the survey. Copies of the introductory letter from NMFS, show in Appendix A, and the MRFSS brochure, are provided to substantiate the legitimacy of the survey and encourage cooperation. These should be given out as needed.

NOTE: The importance of these letters cannot be over-stressed. They are a direct link from NMFS to the anglers and should be distributed freely. All business facilities, privately-owned or monitored public facilities should be given a copy for their files. Interviewers should always have some copies available when on assignment.

### 5.4 Time Limits

For this survey, an interviewer may spend up to eight (8) hours on-site in an attempt to obtain the maximum number of "good" interviews. On-site time is defined as the time spent between arriving at the assigned site and leaving the last site to return home. Travel time from home to the first site and from the last site back home is not included; similarly on-site time does not include the time spent traveling between alternate sites.

Selecting an appropriate time of arrival at a site is essential to determine the likelihood of obtaining one (1) interview per hour. During the first two hours of on-site time the interviewer must determine whether he/she will be able to obtain at least one interview per on-site hour. In these two hours, the interviewer should be able to visit his/her assigned site and two alternate sites. Understandably, there will be occasions when an interviewer misjudges the potential for interviews and falls short for the assignment. This will only be a problem if it occurs frequently.

### 5.5 Mode-Specific On-Site Procedures

The on-site procedures differ for each mode of fishing. The following subsections describe the typical procedures for each mode.

### 5.5.1 Shore (SH)

If the assigned mode is a pier, jetty, or bridge, the interviewer should station himself/herself at a point of access (entry-exit) to the site. The station should be such that all anglers leaving the site can be easily seen and approached. It should not be next to a fish cleaning stand, since only anglers with fish will stop at the stand. If all anglers are actively engaged in fishing, the interviewer should canvass the area to inform them about the survey, solicit their cooperation, and point out where he/she will be stationed.

When a beach or bank site is assigned, the interviewer will typically have to cover a
rather extensive stretch of coastline with anglers scattered along the fishing area. If there is a predominant exit point from the site (e.g., a central parking facility), the interviewer should position himself/herself there. If no such point exists, the interviewer should position himself/herself such that the majority of anglers are within sight and easily accessible. Close observation of the fishing activity is required since the interviewer must be alert to those anglers leaving the site.

A preliminary canvass to determine the number and location of anglers on-site and a rough approximation of the duration of their trips is recommended. With this information the interviewer can maximize intercept coverage by planning his/her movements around those of the respondents. The preliminary canvass should also be used to inform the anglers about the study and gain consent to conduct the interview later.

If no suitable observation spot can be found and the angler's completion times are undetermined, a drifting method is acceptable, with concentration on the locations where the most anglers are present.
(See related information 6.1)

### 5.5.2 Headboats and Charter Boats (PC)

NOTE: In North Carolina, South Carolina, Georgia, East Florida, West Florida, Alabama, Mississippi, and Louisiana, headboat anglers are not eligible to be interviewed! (Another survey is used in these states to obtain information on headboat activity.)

## Charter Boat-Only Sites

Interviewers should never board a charter boat. Intercept procedures for charter boats resemble those for private and rental boats (described below). With charter boat sites, however, it is well worth the effort to call the site in advance to find out the boats' schedules. With this information, the interviewer can plan to arrive at the dock just prior to the scheduled returns. In Waves 1, 2, and 6, specifically, the interviewer may check charter boat schedules by telephone for the assigned site as well as two alternate sites and reschedule the assignment if there are no charter boats going out from any of the three sites due to bad weather. If no charter boats are going out because there is little fishing activity the interviewer should treat the assignment as resulting in zero intercepts.

Interviewers should strive to complete individual interviews and catch records for each member of the charter group. However, this may be difficult for charter boats, since anglers often have little control over the handling of their fish, which are often stored together. Under no circumstances can interviews be conducted with charter captains or mates. They are not considered "recreational anglers" even though they might have fished.

### 5.5.3 Private and Rental Boats (PR)

Because there are large differences between one boat landing/docking facility and another, the best procedure for a particular site must be determined by the interviewer. PR interviews might be conducted while the anglers are waiting for a boat hoist or while cleaning the boat at a dock. Other anglers might be interviewed in the parking lot while waiting for access to a ramp to remove the boat from the water. Often, offering to assist the boat operator in handling the boat or bringing it ashore is a good way to obtain cooperation for the interview. The interviewer will have to use discretion in determining the best approach.

Ideally, all anglers in all boats at a site will be interviewed. However, time pressures may be such that this is not possible. If there are many boats returning at once, a method of sub-sampling may be used whereby every second or third boat is approached. Once an interviewer approaches a boat, he/she should attempt to interview each angler in the boat. If time does not allow interviewing all anglers on a boat, the interviewer should randomly select a subset of anglers to interview. Samplers should attempt to get interviews from one angler from each boat if possible. Anglers with catch should be given the same chance of being interviewed as those without catch. Interviewers should not ignore unsuccessful anglers in order to interview only those with fish.

As with the shore (SH) mode, an interviewer should never station himself/herself next to a fish cleaning stand. Only anglers catching fish will stop at the stand, and the sample will be biased toward anglers with catch. An angler does not have to have caught fish to be eligible for an interview.

### 5.6 Alternate Site Selection Procedures

The interviewer must use his/her own judgment to decide when alternate sites should be visited. In general, on any occasion when it is not feasible to obtain 30 interviews at the assigned site in the assigned mode, alternate site visitation is allowed. Suitable alternate sites can be identified by checking the Site Register and finding nearby sites with pressures ranging from 0-7. Some specific examples of when it would be appropriate to search for alternate sites are:

- If there is no fishing activity in the assigned mode at the assigned site.
- If fishing activity at the assigned site is low and a preliminary canvass shows that it will be quite awhile before those who are fishing will be finished.
- If the interviewer has reason to believe that he/she cannot obtain at least one interview per remaining on-site hour.

The following rules apply when selecting alternate sites:

- Only two alternate sites may be visited on one assignment [a total of three sites (1 assigned site +2 alternates)]. The only exceptions to this rule are if an alternate site is an official tournament weigh station, or if another interviewer is
already present at the site. In these particular cases that site does not have to be counted or recorded as a visited site.
- Any alternate site selected must be in the same state and be the next closest site to the assigned site where fishing occurs in the assigned mode. It cannot be further than a one-hour drive from the assigned site. This requirement is meant to prevent interviewers from continually visiting the same highly productive sites as alternates ("Hot Spotting"). The closest site that is expected to have one or more anglers in the mode on a typical weekend day during the wave (i.e., a "pressure" estimate of "0" to "7") should always be chosen as the first alternate site.

Hostile sites may be visited but do not have to be used as alternate sites even though it may be the next closest site.

- If the assigned or starting site for a shore (SH) assignment only has beach, bank, or natural shoreline fishing, then any alternate site(s) visited must also have beach, bank, or natural shoreline fishing, and all interviews obtained on the assignment must be beach/bank interviews (Mode = 5 at Question 11).
- If the assigned site for a shore (SH) assignment has one of the man-made structure modes (pier, dock, jetty, etc.) or a combination of shore modes (pier and beach, jetty and beach, etc.) an alternate site can be one that has any of these shore modes.
- Exception: After visiting the assigned site and the first alternate site, if an interviewer determines that the assigned mode fishing is not occurring, say because of high winds, interviewing may be attempted in an alternate mode. Samplers have the option of getting alternate mode interviews at the first two sites they visited or the option of going to a third site and getting alternate mode interviews.

Any time an alternate site is visited, a reason code must be given for leaving the assigned site!

An interviewer must always visit his/her assigned site FIRST. The only situations in which skipping the assigned site is allowed are as follows:

- If the interviewer is unable to locate the assigned site and is unable to reach the SS for assistance in locating the site.
- If the interviewer is assigned a party/charter boat only site, calls ahead of time and learns that there are no boats scheduled at that site for the day of the assignment, then he/she may start interviewing at the first appropriate alternate site. The assigned site still counts as the first site visited for the assignment and must be listed as the first site visited on the Assignment Summary Form (ASF).

Interviewers should record start and stop times approximating the time of the telephone call to the primary site.

- If the interviewer is assigned a private marina or boat launch site, calls ahead of time and learns that the site is closed to all activity, then he/she may begin interviewing at the first appropriate alternate site. The assigned site still counts as the first site visited on the assignment and must be listed as the first site visited on the ASF. Interviewers should record start and stop times approximating the time of the telephone call to the primary site.

When any of these situations arise, the interviewer should select an alternate site as close as possible to the assigned site, using the previously mentioned alternate site procedures. On these occasions, the interviewer can only visit the two alternate sites, but should record the site number of the assigned site on the ASF along with a "reason code" for visiting an alternate site. Such occurrences are rare.

The assigned or starting site will always be on the Site Register, but interviewers can select alternate sites that are recently identified (new) sites. An alternate site must be the nearest site to the assigned site with similar fishing modes available. Interviews conducted at new sites must be sent in without site codes, but with the name of the site written out in the white space on the form near the coding boxes. The site will be added to the Site Register during the site register update process.

It is not necessary to obtain all of the interviews at one site. If three sites are visited, interviews may be conducted at any or all of these sites. Furthermore, interviewers may return to previously visited sites at any time if they have information from local anglers or marina operators that a later time would be better. It is important, however, that the site code recorded on the interview form be for the site where the interview was actually conducted (not necessarily the code for the assigned site).

### 5.7 Interviewing in Other Modes

When the assigned site for a SH assignment has only beach, bank, or natural shoreline fishing, interviewing in other modes is not allowed! All interviews obtained on that assignment have to be in the beach/bank mode (Mode $=5$ at Question 11). In other unusual situations, however, it is possible to conduct interviews in modes other than the assigned mode.

During non-productive time spent while attempting to interview in the assigned mode, an interviewer might interview those fishing in an alternate mode. For example, if the assigned mode is private/rental boat (PR) and the interviewer is between interviews waiting for boats to return, he/she should interview any dock anglers (SH) who might have completed their trips. Also, if an interviewer obtains the maximum number of "good" interviews in his/her assigned mode, he/she should focus on alternate modes for the remainder of the on-site time if alternate mode interviews are needed. This is provided, of course, that the time can be spent productively. Interviews should check the Site Register to make sure that alternate mode has valid pressure estimates at that site. If the alternate mode does not have valid pressure estimates (i.e., 0-7) then the interviewer should avoid getting interviews at that site unless a Site

Description Form is completed updating the pressures.
Finally, an interviewer can interview in a mode other than the assigned mode, when alternate mode interviews are needed, if he/she has already started an assignment and determines that the assigned mode is not present within a one-hour drive of the assigned site. Such a determination should be made only after visiting the assigned site and at least one alternate site for the assigned mode.

When switching to alternate mode interviews use your best judgment as to which mode to pursue. In other words, if quota has been exceeded in the PR mode for the wave, obtain SH or PC interviews as alternate modes. Contact your SS with any questions concerning quotas.

### 5.8 Tournaments

For the purposes of this survey, a tournament is defined as a fishing contest lasting seven or fewer days for which participants have to register. Prizes are given according to the rules of the contest -- most, biggest, etc. Informal "pools," such as those arranged on headboats, are not considered tournaments since the anglers would have ridden the headboat whether or not there was a pool.

The assigned sites and the days the sites are to be visited are randomly selected without prior knowledge of tournament activity at the site. If a selected site turns out to be the official weigh station for a tournament, the interviewer should not interview at the site. On the ASF for that day, the interviewer should note that a tournament was taking place at his/her assigned site and that he/she moved to an alternate site. The same goes for alternate sites. If the "tournament site" is the assigned site, it does have to be counted as a site visited in terms of the maximum of three sites for an assignment. If the "tournament site" is an alternate site, it does not have to be counted as a site visited. In other words, an interviewer can attempt more than three sites only if one or more of the alternate sites is an official weigh station for a tournament.

### 5.9 Weather

Interviewers should not attempt an assignment if the weather is such that there will be no anglers fishing. Similarly, if there are small craft warnings, interviewers should not go out on a boat assignment. If an assignment is "weathered out" the interviewer must call your SS immediately so that the assignment can be rescheduled.

### 5.10 Rover Assignments

NOTE: $\quad$ Rover assignments as well as Two-A-Day assignments (See 5.11) are special procedures allowed to meet the quota at the end of a

wave. They are given out as-needed to interviewers who have shown exemplary performance. They are only given through direct contact with SS's, when circumstances warrant. Never should an interviewer attempt these types of assignments without prior contact and consultation with the SS.

Occasionally an interviewer will be asked to complete a "Rover" assignment. Rover assignments are typically given out during the second month of a wave when no interviews have been obtained with residents of coastal counties. The design of the MRFSS requires that at least two interviews be obtained with coastal residents in each cell (state/wave/mode). This is because intercept data are used to expand the estimate of trips obtained in the Household Telephone Survey to account for trips taken by non-coastal and out-of-state anglers. (The Household Telephone Survey provides only an estimate of trips taken by persons living in coastal counties, i.e., counties that are located within a certain distance of the saltwater coastline.) This expansion requires calculation of a variable which divides the total number of intercept interviews obtained by the number of intercept interviews obtained with coastal residents. Since no number can be divided by zero, some coastal resident interviews are needed. While one would do, two allow for a measure of variability.

Each Rover assignment will be mode-specific. That is, an interviewer might be asked to do a SH, a PC, or a PR Rover. On a Rover assignment, the objective is to obtain interviews in the target mode from coastal anglers. Coastal anglers are those whose state and county of residence are the state of intercept and a county located within 25 miles of saltwater in that state. (In certain states and waves, the "coastal" line is drawn at a distance greater than 25 miles.) SS's will either designate a starting site or ask the interviewer to suggest a starting site -- a site known to be active. While that site must be visited first, other "standard" on-site procedures do not have to be followed. Instead, these special Rover assignment procedures should be followed:

- If the interviewer cannot obtain interviews with coastal residents at the assigned site, he/she can visit any alternate site in the state with the assigned mode. The alternate site(s) do not have to be the next nearest or within a one-hour drive of the starting site. If the starting site has only beach, bank, or natural shoreline fishing, the interviewer is not restricted to beach/bank (Mode $=5$ at Question 11) interviews.
- There is no three-site limit. The interviewer can visit as many sites as he/she wishes so long as there is a possibility of meeting the Rover objective.

On a Rover assignment it is permissible to interview non-coastal and out-of-state anglers. It is also permissible to interview anglers from other modes. However, the main objective is to get interviews with coastal residents in the target mode! If two interviews with coastal residents are obtained before the maximum of 30 "good" interviews are obtained in the mode, then the interviewer must stop at 30 . However, the interviewer can keep interviewing beyond the 30 person maximum until such time as two interviews are obtained with coastal residents.

Rover assignments are given out one at a time in a specific mode. Therefore, the outcome of each Rover must be known as soon as possible. Interviewers who are asked to take a Rover assignment must call their SS the business day following the Rover. The interviewer should be prepared to report on the number of "good" interviews obtained in each mode and the state and county of residence of all anglers intercepted.

Since an unlimited number of sites may be visited during a Rover assignment there will not be room to code all sites visited on the original ASF. Interviewers should record alternate sites (in excess of 2) on additional blank ASF's in the order they are visited and staple them to the original ASF.

### 5.11 Two Assignments in One-Day

Occasionally an interviewer will be asked to take two assignments on the same day. The interviewer should use his/her best judgment to determine which assignment should be worked first. Once that determination is made, the interviewer must completely work that assignment before the second assignment is attempted. In other words, before beginning the second assignment, the interviewer must either obtain 30 "good" interviews in the target mode or visit the maximum of three sites to determine that one interview per hour in the target mode is no longer possible on the first assignment. An interviewer cannot just visit the starting site and call it "quits" on the first assignment before 30 "good" interviews are obtained in the target mode.

If time permits after the first assignment is completely worked, the second assignment should be attempted. If the second assignment happens to be in the same assigned mode as the first assignment, the interviewer should not repeat any of the sites used on the first assignment. If needed, different alternate site(s) should be selected. If the second assignment happens to be in a different mode and no interviews were obtained in that mode on the first assignment, then it is permissible to use the same sites as alternates if those are the next nearest with the target mode.

If it is not possible to work both assignments on the same day, the interviewer should call their SS to reschedule the incomplete assignment.

Both assignments should be treated as separate assignments. Each should have its own ASF and Site Description and should be sent to their SS in separate envelopes. In addition, the assignment should be labeled as a second assignment on the ASF.

## 6. INTRODUCING THE INTERCEPT INTERVIEW

### 6.1 Eligibility Requirements

To be eligible for an interview, a respondent must be a marine recreational finfish angler who has fished primarily in U.S. waters and who has finished fishing in his/her mode for the day. All such persons, five years of age or older, are eligible.

All sites assigned will be known saltwater fishing sites, so in most cases all anglers encountered will be marine anglers. In estuarine areas, however, a definition of saltwater is often difficult. Inland saltwater bodies include sounds, passes, inlets, bays, estuaries, tidal portions of rivers, and other areas of salt or brackish water like bayous and canals. Some coastal water bodies are called lakes but should still be considered saltwater (e.g., Lake Pontchartrain, LA). The interviewer must ask each angler in what type of water was he/she fishing. A person who considers himself/herself to be a freshwater angler is not eligible for the survey and should not be interviewed. A response of "brackish" or "estuarine" would be considered saltwater.

For this survey, a recreational fishing trip is one that is taken for fun or relaxation as opposed to one taken to provide income from the sale of fish. If, by this definition, the trip is a recreational trip, the angler is eligible to be interviewed about his/her trip. Anglers who sell their catch to cover the expense of their fishing trips are not necessarily fishing to provide income. These anglers would be eligible. The purpose of the trip at the beginning of the day defines the trip. A commercial angler might have a bad day and change the purpose of the trip. If the trip was started with the purpose of providing income from the sale of fish, the individual is not a recreational angler and should not be interviewed.

An angler's actual catch has no effect at all on his/her eligibility. If an angler has thrown his/her fish back or did not catch anything at all, the angler would still be eligible for an interview as long as the individual intended to catch finfish. As a rule, persons pursuing crabs, shrimp, lobster, clams, oysters and other invertebrates for recreation are not eligible to participate in the survey. The only exception is if the individual happened to land a finfish (whether he/she kept it or not) during the fishing trip.

At some boat sites, interviewers may encounter anglers who spent the majority of their fishing effort in foreign waters, e.g., in Canadian or Cuban waters. These anglers are not eligible to be interviewed.

For the most part, interviewers will be interviewing anglers who have completed their fishing trips. An angler has completed his/her fishing trip if he/she is finished fishing in a particular mode for the day. If an angler is moving from one site to another site in the same mode (e.g., from a dock to a bridge), he/she has not completed the trip for that day and is not eligible for an interview. If an angler is moving from one mode to another mode (e.g., from a dock to a boat) at either the same site or a different site, the first trip is considered completed and the individual is eligible to be interviewed about that trip. In the rare case where the intercepted angler has completed two trips, having finished fishing in two different modes at the
site of the intercept, the interviewer should first ask questions pertaining to the most recently finished trip. Although an individual angler is technically eligible to be interviewed more than once on a particular day (provided the trips are each completed in separate modes at the original site of the intercept), the interviewer must be sure that the angler separates his catch by mode fished. If the angler is unable to separate his/her catch by mode of trip the interviewer should not interview the angler.

It is permissible to obtain some interviews from anglers who have not yet completed their trips, but only in the beach/bank mode (Mode = 5 at Question 11). These are called "incomplete trip" interviews. To be eligible for an incomplete trip interview, however, the angler must have completed at least one-third of the fishing trip. Also, incomplete trip interviews may never exceed 50 percent of the interviews obtained in the beach/bank mode. After half of an interviewer's on-site time has elapsed, he/she may get one incomplete trip beach/bank interview for every complete trip beach/bank interview that is obtained. Incomplete trip interviews should never be taken during the first half of an interviewer's on-site time, but only as a last resort during the latter half of the interviewing day.

The one-day portion of the eligibility requirement refers to the anglers' waking day, as opposed to a calendar day. A trip beginning in the evening but ending past midnight would be considered one trip. Problems arise when an interviewer comes across an angler who has been on a trip, most likely a boat trip, lasting several days. In this instance, each of the angler's waking days would be considered a separate trip. The interview should be conducted considering only the most recent waking day of fishing. If the angler's waking day was more than 24 hours, consider only the most recent 24 hours.

In summary, to be eligible for an interview an angler must:

- be a marine recreational angler who intended to catch finfish, or a shellfisherman who has landed finfish;
- have fished in U.S. waters; and
- have completed his/her fishing trip, defined as one waking day of fishing in one mode.

As indicated above, incomplete trip interviews are acceptable only if the angler is a beach/bank marine recreational finfish angler (or shellfisherman who landed finfish) who has finished at least one-third of his/her beach/bank fishing for the day. Again, no more than 50 percent of the beach/bank interviews submitted for an assignment can come from beach/bank anglers who have not yet completed their fishing trips.
(See related information 5.5)

### 6.2 Canvassing Introduction

At some sites it is possible and advisable to build a rapport with the anglers fishing prior to conducting any interviews. Those anglers who have had the opportunity to meet the interviewer and discuss the survey tend to be more cooperative when asked for an interview at
the end of a fishing trip. A key factor in gaining the respondent's initial cooperation and confidence in the study lies in assuring him/her of the non-enforcement, basic research nature of the survey. When explicitly given the true purpose and scope of the survey very early in the introduction, the initial reluctance and misgivings dissolve and the interviewer can proceed in an atmosphere of confidence.

The canvassing introduction is a useful tool for the interviewer to determine the most productive time and place to conduct interviews. By determining in advance the estimated times the individual fishing trips will be completed, the interviewer can decide whether or when it will be necessary to visit alternate sites.

The canvassing process should be very informal and as unobtrusive as possible. The conversation might begin with "Catch anything?" or "How's the fishing?" The interviewer must avoid any actions or statements which would disrupt the angler's normal fishing habits.

While canvassing, the interviewer might mention that he/she will want to identify, weigh, and measure the fish caught. This alone may provide an incentive for the interview. Also, the interviewer might begin to look at the fish being caught so that identification time is kept to a minimum during the interview. If deemed appropriate, the interviewer might also suggest that each angler keep their catch separated.

### 6.3 Screening Introduction

The Screening Introduction, shown in Appendix A, serves two major purposes: 1) to introduce the interviewer, their state and GSMFC's involvement, and the survey, and 2) to determine if the angler is eligible for an interview. While each interviewer will be given several copies of the Screening Introduction, it will not be necessary to complete a form with each angler if the interviewer fully understands the eligibility requirements.

As stated in an earlier section, each interviewer is working as a state employee on a study sponsored by the National Marine Fisheries Service (NMFS). At no time should an interviewer claim that he/she is an employee of NOAA or NMFS.

All approached should be told the interviewer's name, that he/she represents the state with which they are employed, and that the study is sponsored by the National Marine Fisheries Service. If the angler is willing to cooperate, the interviewer would then ask the eligibility questions.

Interviewers are required to tally the number of anglers in the target mode of the assignment that are deemed ineligible under each of the screening criteria. Thus, on the Screening Introduction are the words "TERMINATE AND TALLY." The tally is submitted on the ASF which is described in Section 9.1 of this manual.

The item-by-item instructions for the Screening Introduction are as follows:
Item 1 The purpose of this question is to verify that the angler is a saltwater angler. Only saltwater anglers are eligible for the survey. A person is considered a saltwater angler if he/she perceives himself/herself as a saltwater angler. A response such as "estuarine" or "brackish" would be considered saltwater.

Item 2 This question is necessary to determine whether the angler meets the "recreational" criteria. A "to provide income" response to the question would end the screening -- the angler is not a recreational angler. A "recreational" response to Item 2 would lead to Item 3.

NOTE: In some states an angler may be "commercial" or "recreational" on any given day. Interviewers must ask about the particular trip taken that day, regardless of the type of fishing license possessed.

Item 3 This question is formally asked only in East and West Florida of boat anglers (Modes PC and PR). In other states, if an interviewer has reason to believe that an angler may have spent time fishing outside of United States waters, Item 3 should also be asked. For example, it might be appropriate to ask Item 3 of a boat angler in Maine if the interviewer has reason to believe that an angler may have fished in Canadian waters.

Item 3 is worded to address the majority of the angler's fishing effort. If the majority of his/her effort was not in United States' waters, the angler is not eligible for an interview and the screening should be terminated. A "yes" response to Item 3 would lead to Item 4. Once the "majority" has been determined to be in United States' waters, all of the angler's fishing time, catch, etc., should be included on the Intercept questionnaire -- even time spent and fish caught in foreign waters.

Item 4 The purpose of this question is to verify that the person is a finfish angler, that is, the fishing trip is directed at fish with fins. A "yes" response to Item 4 would lead to Item 6. Note that a person does not have to have caught a finfish to participate; he/she must only have been fishing for finfish. A "no" response to Item 4 would lead to Item 5.

Item 5 The purpose of this item is to identify shell fishermen who might have landed finfish. The only way a shell fisherman can be eligible is for him/her to have caught one or more finfish. A "no" at this item would lead to termination of the screening. A "yes" would lead to Item 6.

Item 6 All marine recreational anglers who intended to catch or landed a finfish are asked whether they have completed their fishing for the day. If the response is "yes," the interviewer would move right to the Finfish Intercept questionnaire. If the response is "no," the interviewer would continue by asking Item 7.


#### Abstract

NOTE: If the interviewer is going for an incomplete trip interview with a beach/bank angler (Mode = 5 at Question 11), Item 6 would not be asked. The angler would most likely be actively fishing. Instead, the interviewer should ask: "How long have you been beach/bank fishing?" and "How much longer do you intend to continue beach/bank fishing?" These questions are necessary to determine whether the angler has completed at least one-third of the fishing trip, the eligibility requirement for an "incomplete trip" interview.


Item 7 All who have not completed their fishing for the day are asked where they plan to fish next. If the angler plans to return to the site and continue fishing in the same mode, he/she has not finished in the mode for the day and is also not eligible for an interview at that point in time. In this case, the interviewer would terminate the screening and tally. If there is more than one mode of fishing at the site, the interviewer should verify that the angler is returning to fish in the same mode. If the angler is going somewhere else to fish in the same mode, the interviewer should also terminate and tally the interview. If the angler is changing modes upon return, he/she would be eligible to be interviewed about the fishing in the mode just completed.

### 6.4 Presentation of the Privacy Act Statement

As soon as the angler's eligibility is established, the interviewer should read the Privacy Act statement, as indicated on the Intercept questionnaire just above Item 11. This statement is provided on a laminated card or on the questionnaire. While this rather short statement will be read to all, each interviewer will be given and should carry several copies of a longer Privacy Act Statement giving more complete information about the survey. A copy of this is shown on the following page.

## PRIVACY ACT STATEMENT

Information collected in the Marine Recreational Fishery Statistics Survey is authorized under the Fish and Wildlife Act of 1956, the Migratory Marine Fish Act of 1959, and the Fishery Conservation and Management Act of 1976. This information will be used in assessing the influence of fishing on any fish stock and in determining future recreational fishing needs.

All information collected will be combined with information provided by other recreational fishermen and used only for statistical purposes. Any information which would permit identification of the individual will be held in the strictest confidence and will be used only by persons engaged in and for the purposes of the survey.

Participation in this survey is voluntary and there are no penalties for refusing to answer any question. However, your cooperation in obtaining this much needed information is extremely important in order to insure the completeness and accuracy of the statistical results.

All surveys conducted by the federal government are regulated by the Privacy Act of 1974. This Act stipulates that each person interviewed must be informed of the following: the auspices under which the survey is being conducted; whether participation is voluntary or mandatory; what will happen if they choose not to participate; and how the information will be used. The Privacy Act also stipulates that this information must be available to each survey respondent in written form. While this information does appear on the longer, written Privacy Act Statement, most anglers are satisfied with the reading of the abbreviated statement.

## 7. THE FINFISH INTERCEPT INTERVIEW

### 7.1 General Instructions

The actual interview begins after eligibility is established and the Privacy Act statement is read. A copy of the questionnaire is included in Appendix A. Check-boxes should be marked with a dark " $X$ " within the red borders. The questionnaire conventions and some general instructions concerning the interview are presented below.

- Wording - The questions to be put to the angler are written out in full for a purpose. Methodological studies have shown that even slight changes in wording, for example, "should" versus "could," drastically influence item response. The interviewer should always read each item on the Intercept questionnaire exactly as it is written.
- Provide Definitions, Not Answers - If the angler asks for the interviewer's opinion about an item, the interviewer should provide a definition or clarification, rather than supply the actual response. For example, if the angler is unsure about whether he was fishing from a headboat or a charter boat (Item 11), the interviewer should explain the difference and let the angler decide.
- $\quad$ Codes for "Not Applicable" Questions - As a general rule, items on the Intercept questionnaire that are not applicable to a particular angler (i.e., items "skipped") having coding boxes provided for a "not applicable" response.
- $\quad$ Codes for Refused Questions - If the angler refuses a key item (any item marked with an asterisk on the Intercept questionnaire), the interviewer should make a note that the question was refused and terminate the interview. DO NOT include the interview in the assignment for that day. If the angler refuses a non-key item (an item not marked with an asterisk on the Intercept questionnaire), the interviewer should check the refused box or make a note and continue with the next question. In the case of fish lengths and weights, if the interviewer cannot get lengths or weights the boxes should be filled in with " 9 's."
- $\quad$ Right Justify and Adding Leading Zeros - If a numerical data item does not require use of all boxes provided on the coding form, the interviewer should rightjustify the entry. For example, if a fish measures 262 mm and the entry has four coding boxes, it should be entered as "0262." Alphanumeric fields, like Name, should be left-justified. Fish codes should NOT have a leading zero.
- $\quad$ "Other (Specify)" - At some items there are codes designated "Other (Specify)." If an angler gives a response not covered by the pre-coded responses, the interviewer should enter the "Other" code and write out the angler's exact response in the space provided next to the coding boxes.
- $\quad$ Notes/Footnotes - Footnotes will be required at some items under certain
circumstances. Examples: if weight and/or length measurements are missing; if a site code is needed for a new site; if a state and/or county code is needed; or if a species code is needed. In such cases the interviewer should place an asterisk (*) by the item and provide a footnote explaining the situation near the bottom of the coding form.
- Best Use of Time - There will be times at the site when the interviewer will have little to do. This time can be used to fill in the identifying information on forms that will be used later at the site. This time can also be spent reviewing, editing and "cleaning up" completed forms.
- Be Professional - Interviewers must be professional in appearance. Proper dress must be worn (i.e., no bathing suits, undershirts or bare feet), and interviewers must not eat, drink, smoke, or chew gum while conducting interviews.


### 7.2 Definitions of Interview Status

The definition for status codes to be used in recording the result of an interview are listed below.
"Questionnaire Complete = 1" - This code should be marked if the angler responds to all items asked in the interview. That is, if the angler does not refuse to answer any applicable question and provides the information on his/her fish, the form has an interview status of "1." Interviews with status "1" should be reviewed by the SS and sent to GSMFC.
"Refused Non-Key Items = 2" - This code should be marked if the angler refuses one or more non-key items, but answers all key items (identified with an asterisk). If an angler does not provide an answer a non-key item, the interviewer should mark the "refused" box at that item and continue with the next item. Interviews with status "2" should be reviewed by the SS and sent to GSMFC.
"Initial Refusal = 3" - This code should be tallied if an eligible angler refuses to be interviewed. An angler refusing to be interviewed will usually claim that he/she does not have time to participate. A form should not be started for an angler who gives an initial refusal. Initial refusals do not count toward the goal of 30 interviews. The interviewer should always attempt to determine eligibility. If the angler is not eligible (e.g., has not completed his/her fishing in the mode for the day), the refusal is not tallied in the ASF.
"Language Barrier, etc. $=4$ " - This code should be tallied if the angler approached for an interview cannot respond to the interview and no other person with the angler is willing or able to respond for him/her. Such anglers would include non-English speaking anglers and deaf anglers. Conducting the interview in a language other than English is allowed as is using an interpreter for the interview. As with initial refusals, the interviewer should assume that "language barrier" anglers are eligible, unless information to the contrary is obtained. Status "4" intercepts should be tallied on the

ASF but not included in the assignment packet sent to SS. Status "4" forms do not count toward the goal of 30 interviews.
"Refused Key Item = 5" - This code should be marked if the angler refuses to answer a key item. Key items are those with item numbers marked with an asterisk on the Questionnaire. If a key item is refused, the interviewer should mark the "refused box" and terminate the interview. Status "5" forms do not count toward the goal of 30 interviews. Note: Status " 5 " intercepts should NOT be included in the assignment packet that is sent to GSMFC. Status " 5 " intercept forms can be sent for the SS to review.

In summary: Status "1" and "2" interviews count toward the interviewing goal of "good" interviews, while interviews with a status of " 3, " "4," and " 5 " do not count toward the interviewing goal of 30 interviews. However, all interview attempts with status 1, 2, and 5 will be reviewed by the SS and sent to GSMFC. Interview attempts with status 3 and 4 need to be tallied on the assignment summary form.

## Item-by-Item Instructions

Items 2-10 are not questions to be asked of the angler. They are identifying information filled in by the interviewer.


Item 2 Assignment Number -It is possible for one interviewer to do two assignments in the same day. If an interviewer does two assignments in the same day, he/she should write a "2" on all Intercept forms submitted for the second assignment.

Item 3 Interviewer Code - Each intercept interviewer will be given a unique four-digit identification number. This number should be used on all forms submitted to reviewed by the SS and sent to GSMFC.

Item 4 Yr/MoIDay - The interviewer should record the date of intercept. Two-digits for both the month and date should be used. For example 03/13 for March 13th.

Item 5 Intercept Number - Throughout an assignment the interviewer should consecutively number forms completed for the assignment. The first form used should be coded "01," the second "02," etc.

Item 6 Hour - Using military time, the interviewer should record the time the interview was completed. Military time runs on a 24 -hour clock starting at 0001 hours (one minute past midnight) and ending at 2400 hours (midnight). For example, 4:45 p.m. should be coded " 1645 " hours.

Item 7 State - The interviewer should enter the two-digit numerical code for the state of intercept. State codes can be found in the Intercept Coding Manual.

Item 8 County - The interviewer should enter the three-digit numerical code for the county of intercept. County codes can also be found in the Intercept Coding Manual.

Item 9 Site - The interviewer should enter the four-digit numerical code for the site where the interview takes place. This will not necessarily be the assigned site. Site codes and names are unique and can be found in the Site Register. If the
interview takes place at a site not listed on the Site Register, the interviewer should write the name of the site next to the coding boxes, indicate it is a new site, and leave the boxes blank.

Item 10 Interview status - This item must be completed at the end of the interview. It serves as an indicator of the "completeness" of the interview. Interviews of status "1" or "2" are "good" interviews in that all key items have been obtained. Key items in the questionnaire are indicated with an asterisk (*) next to the item number. Key items are critical to the data expansion routines. If a response to any of the key items is missing, then the interview is not considered complete. Key items include: mode and area of fishing (Questions 11 and 12), distance from shore (Question 13), state and county of residence (Question 20), catch related questions (Questions 25 through 31) and if vessel is present on the charter boat frame (Question 32 on PC forms). The status codes are listed below.
"Questionnaire Complete =1" - Angler responds to all applicable items asked in the interview. Completed form sent to reviewed by the SS and sent to GSMFC.
"Refused Non-Key Items = 2" - Angler refuses one or more non-key items, but answers all key items. Completed form sent to reviewed by the SS and sent to GSMFC
"Initial Refusal = 3" - Angler refuses to be interviewed. A form should not be started for any angler who gives an initial refusal.
"Language Barrier, etc. = 4" - Angler cannot respond to the interview and no other person with the angler is willing or able to respond for him/her. Such anglers include non-English speaking anglers and deaf anglers. Status "4" intercepts should be tallied on the ASF but not included in the assignment packet reviewed by the SS and sent to GSMFC. Status "4" forms do not count toward the goal of 30 interviews.
"Refused Key Item = 5" - Angler refuses to answer a key item. Key items are those with item numbers marked with an asterisk on the questionnaire. Note: Status " 5 " intercepts should be included in the assignment packet that is reviewed by the SS, but do not count toward the goal of 30 "good" intercepts.

### 7.3 Item-by-Item Instructions

Beginning with Item 11 are the questions to be asked of the anglers. As indicated on the form, before these questions can be administered it is mandatory to READ THE PRIVACY ACT STATEMENT!


Item 11* Mode - Interviewers must use discretion in the wording of this question for shore (SH) anglers. Obviously, if an angler is leaving a pier, from which no boat fishing was possible, it would be inappropriate to ask whether an individual was fishing from a charter boat. A pier angler should be asked: "Would you say you were fishing from a pier, a jetty, or what?" When asking this question to shore anglers, the interviewer should offer at least two of the five coding options under SH.

All headboat/charter boat (PC) and private/rental boat (PR) anglers must be offered all four boat alternatives: "Would you say you were fishing from a headboat, a charter boat, a private boat, or a rental boat?" In all instances the interviewer should code the angler's actual response, whether it is technically right or wrong. If the angler has difficulty with the definition of a particular mode, the interviewer should provide definitions and let the angler decide. Definitions can be found in Section 3.3.

On occasion, the angler will be unable to give a short answer to Item 11. That is, there might be extenuating circumstances that require a more detailed response. The following examples are illustrative of how these "detailed" responses should be handled.

| IF THE ANGLER SAYS: | CODE: |
| :--- | :--- |
| "Bulkhead" | Mark "2" - Jetty, Breakwater, Breachway |
| "This used to be a bridge but it is now <br> used as a fishing pier." | Mark "1"- Pier |
| "I hired and fished from a guide boat." | Mark "7"- Charter boat |
| "I boated to a pier/dock/jetty/breakwater/breachway <br> /bridge/causeway, got out of the boat and fished <br> from the pier/dock/jetty/breakwater /breachway <br> /bridge/causeway." | Mark "1", "2", "3" or "4" <br> Other man-made structure |
| "I boated to a small island, got out of the boat <br> and fished while standing on the island." | Mark "5" - Beach or bank |
| "I boated to a barge, got out of the boat and paid <br> to fish from the barge." | Mark "6"- Headboat |



Item 11a*
Is Vessel On Good List - If the intercept is a charter interview, this question must be completed. Samplers should have a copy of the charter boat survey directory with them and should be able to identify if the boat that the anglers chartered is located in the directory. If the response is "no," then NO vessel ID should be entered.


Item 12* Water fished - Anglers are asked the type of "water body" in which they did most of their fishing. If an angler gives an obviously incorrect response the technically correct response should be marked instead. For shore (SH) anglers, it may not be necessary to ask the question. This would be true if the interviewer has observed the fishing and can mark the correct "water body." Similarly, if an interviewer has ridden on a headboat, he/she should mark the correct response without asking the question. All other boat anglers will be asked the question, since boats can travel great distances.
"Open bays" are included with "ocean/gulf" in the "open water" category ("1"). Open bays are not true bays but stretches of ocean that are called "Such-n-such" bay by local residents. Examples would be "Long Bay" at the North Carolina and South Carolina border and "Cape Cod Bay."

The response list also contains estuaries that have been recognized by NOAA Fisheries and EPA (Environmental Protection Agency) as "National Estuaries." Region-specific lists appear on the Region II, Region III and West Florida forms. If the named sound,
river, bay or inlet is part of one of the estuaries on the list, the interviewer should mark the appropriate estuary. Maps showing the boundaries of each estuary are provided in the Intercept Coding Manual. If the named sound, river, or bay is not part of a listed estuary, the interviewer should mark "2" for Sound (other than those specified), "3" for River (other than those specified), "4" for Bay (other than those specified). If the "Other = 5 " was marked at Item 12 then the "water fished" should be written in the space provided. For example: "Jones Inlet." If the angler fished in more than one "water body," he/she should be asked in which "water body" most of their time was spent.

BOX A. Refer to q. 12. If response is NOT " 1 " code q. 13 as " 8 ", Not applicable
BOX A Since anglers fishing in inland bays, sounds, or specific estuaries, there is no need to ask Item 13. The interviewer should automatically mark Item 13 with an " 8 " (not applicable). If any angler is fishing in fishing in gulf/ocean/open bay (response " 1 " to Item 12), the interviewer should ask Item 13, mark the appropriate response, and continue with Item 14.


Item 13* Three mile - This item is pertinent only to anglers fishing in "open water" coded " 1 " at Item 12). If a boat angler ( PC or PR ) reports that the trip was more than three miles from the continental coastline, but within three miles of a U.S. island coastline, the interviewer should code "1," three miles or less. Note that in West Florida the answer categories are "Ten miles or less " ("3") and "More than ten miles" ("4").


Item 14 Gear - This question is asked of all anglers. If more than one type of gear was used, the interviewer should ask which type the angler spent more time using, mark this gear at Item 14 and use it as reference in Item 15.

Definitions for fishing gears are:

Hook and Line - Traditional rod and reel or hand lines. Trolling, surf fishing, bottom fishing, chum fishing and fishing with floats are all examples of uses of this gear.

Dip Net - A small hand net consisting of a handle attached to a metal ring with mesh attached, often used to land large fish, but also used to catch schools of smaller fish. Examples of the use of this gear are to catch baitfish in tide pools or to catch herring during spawning runs upstream.

Cast Net - A large net, weighted around the edges, which is cast out and falls over the fish, thereby entrapping them. This gear is typically used to catch baitfish or shrimp.

Gill Net - A flat net suspended vertically in the water with meshes that allow the fish's head to enter the net but which catches on the fish's gills as it attempts to withdraw. This is not legal recreational gear in many states.

Seine - A large net with weights on the bottom and floats on the top used to enclose fish after dragging along the bottom near shore by hand. This gear is typically used to catch baitfish or shrimp.

Trawl - A large cone-shaped net which is dragged along the bottom from a boat. This is not legal recreational gear in many states.

Trap - Usually a metal screen box, attached to a rope, which has bait inside and a small hole which fish can swim into but not escape. Examples are fish pots and crab traps.

Spear - A sharp, barbed pole that is projected or thrown into the fish. Examples are flounder gigs and SCUBA diving spears.

Hand - Catching fish by hand without the aid of any implements. Examples are picking up fish trapped in tide pools or chased up onto the beach by predators.


Item 15 Wet Gear Hours - All anglers are asked how many hours they spent fishing (with gear in the water) in the mode of intercept on the day of intercept. If multiple gears were used, this should include time spent fishing with all gear. If the angler fished at more than one site in the mode of intercept, he/she should be reminded to include all hours spent fishing in the mode at all sites. If the angler fished at a site in a different mode, you should not include time spent fishing in the non-intercept mode.

Since a trip is defined as fishing in one mode in one waking day, it is waking day hours
that should be entered. Item 15 should never exceed 24.0.
Interviewers should note that a box with a precoded decimal has been provided and that the question requires recording to the nearest half hour. That is, only " 0 " or " 5 " should appear in the box to the right of the decimal. If the angler "refuses", the response should be noted next to the question and the boxes should be left blank.


BOX B Refer to Item 11. If response to Item 11 is any other mode than $B B$, " 5, " then check Other and skip to Item 17. If response to Item 11 is BB and the incomplete trip method is being used then proceed to Item 16.
16. How many additional hours do you expect to fish from shore today? That is, how many more hours will you actually have your gear in the water?


Item 16 Additional Beach-Bank Hours - This question is pertinent only to beach/bank anglers (Mode = 5 at Item 11). Otherwise it should be left blank.

To be eligible for an incomplete trip interview, the beach/bank angler must have completed at least one-third of the fishing trip. Therefore, the hours entered at Item 16 should never be more than twice those entered at Item 15. If the angler is in beach/bank mode and has completed their trip, 00.0 should be entered.
17. Were you fishing for any particular kinds of fish today? If

Yes, what kinds?
$\square$ No. Particular Species/Anything
$1^{\text {st }}$ Target


Item 17 Target species - The interviewer should ask all anglers to name the kinds of fish they were fishing for. If the angler answers "no," "anything," or "nothing in particular," etc. to this question, the interviewer should mark the box that corresponds to "No Particular Species/Anything" and skip to Item 18.

If the respondent gives family, genus, or species names for target species, the interviewer should enter the name(s) of the fish on the line(s) provided above the coding boxes and look up the code(s) after the interview is completed.

If the angler mentions only one species, the interviewer should not probe for two. The species mentioned would be coded in the first set of boxes and the second set would be left blank. If the angler names more than two species, the interviewer should code only the first two mentioned.

The interviewer should note that the goal is to obtain information on a species. If the angler names a family of fish, the interviewer should probe to determine whether a particular species in that family was preferred. For example, "Any particular kind of drum?" If the angler does not identify specific species within the family of fish and several species are possible within that family, the interviewer should enter the family code. If, however, the interviewer knows that the angler could only be going after one species within that family, then that species code should be entered. For completing this item, a knowledge of how local names translate to exact species is very important. If the angler uses a local name, the interviewer should also enter the accepted common name for the species or family so that editors can mark the species code entered.

Interviewers should only record reasonable responses to this item. If an angler responds that he/she was fishing for a species not found in the area, and the interviewer cannot clarify the response then the response should not be coded. For example, it is not reasonable that anyone would fish for oceanic pelagic species like blue marlin from an inland pier.


Item 18 Days--12 months - All anglers are asked how many days they have been saltwater sport finfishing in the state of intercept or from a boat launched in the state of intercept, not counting the day of intercept, in the past 12 months.

The wording of this item is important because it defines the time frame and type of fishing of interest. The angler should think back to the same date in the previous year. $\mathrm{He} /$ she should not include freshwater fishing days, commercial fishing days, shellfishing days, or days fishing in other states.

The interviewer may have to work with an angler to come up with one number. Anglers are likely to say something like "every week" or "once a month." In these instances the interviewer should probe the respondent to obtain a number.

Since the question requires days and the day of intercept should not be included, the maximum acceptable entry would be "364." Boxes are provided for "don't know" and "refused."
19. Not counting today, within the past 2 months, how many days?


Item 19 Days--2 months - All anglers are asked the question at Item 19. While not written out, the interviewer should encourage the angler to think back to the same date, two months ago (i.e., if you are interviewing on the 16th of June then the time frame given to the angler would be "since the 16th of April"). The angler must also be instructed to think in terms of saltwater, sport, finfishing days in the state of intercept or from a boat launched in the state of intercept.

Since the question requires days and the day of intercept should not be included, the maximum acceptable entry would be "60." Boxes for "don't know" and "refused" are provided. Also, the entry at Item 19 should never exceed the entry at Item 18.
*20. What is your state and county of residence? If county unknown ask: What city or town do you live in?


Item 20* Residence - All anglers are asked their state and county of residence. If the angler does not know his/her county of residence, the interviewer should enter the city name and write "city" on the questionnaire. In that instance, the coding boxes for county would be left blank.

If the angler should inquire, it is their legal residence that they should be reporting. Since "legal residence" is not specifically stated in the question interviewers should only provide this information if the respondent asks for clarification.

The Intercept Coding Manual contains all U.S. state and county codes. If the angler lives in a county not included in the manual or in a foreign country, the interviewer should write out the necessary information and leave the coding boxes blank. Someone at GSMFC will fill in the appropriate codes.
21. What is the zip code of your residence?


Item 21 ZIP Code - All anglers are asked the ZIP Code of their residence. The ZIP Code given should be the ZIP Code of the residence corresponding to the state and county given in Item 20. As before, if the angler should ask, it is the legal residence that is desired. If an angler is a resident of some country other than the United States, " 99997 " should be checked for ZIP Code at Item 21.
22. Do you live in a private residence, or in some type of housing such as a dorm, barracks, nursing home or rooming house?

| 1 | Private Residence |
| :---: | :---: |
| 2 | Institutional Housing - Skip to q. 25 |
| 8 | Don't know |
| 9 | Refused |

Item 22 Type of Residence - All anglers are asked what type of residence they live in. Single family homes and apartments are considered "private residences." Dorms, barracks, nursing homes, and rooming houses are considered "institutional housing units."

If the angler lives in a private residence, the interviewer should mark the box that corresponds to "private residence" and proceed to Item 23. If the angler lives in institutional housing, the interviewer should follow the skip pattern to item 25.
23. Does your home have a landline telephone?


Item 23 Has phone - This question is pertinent only to anglers living in private residences (refer to Item 22). If Item 23 is not pertinent, the interviewer should check ' 8 ', Don't know and continue to item 24. The question is a "yes/no" question concerning home telephone ownership (not cell phones.) You are not asking for a phone number here. The interviewer should mark the angler's response and continue with Item 24.
24. In the event that my supervisor wishes to verify that $I$ have been conducting interviews here today, may $I$ have your name and a phone number?


Item 24 Validation Name and Phone - All anglers are asked to give their full name and a telephone number for survey verification. Approximately ten percent of all anglers interviewed by each interviewer will be contacted for survey verification purposes.

The name and phone number should be written in the boxes provided in Item 24. If the angler is a child, accompanied by an adult, the interviewer should not record a name and/or a phone number for the child. (Children are not called for validation purposes.)

It is not necessary to obtain the angler's home telephone number. Any number at which he/she can be reached is acceptable. If a daytime number is obtained, the interviewer should circle D, a daytime number, so that validation attempts will be made during daytime hours; the N should be circled for nighttime numbers. The interviewer should make sure that an area code is obtained with every phone number and that the number is clearly recorded.
*25. UNAVAILABLE CATCH. Did you land any fish that are not here for me to look at? For example, any that you may have thrown back or used for bait? IF YES, COMPLETE TYPE 2 RECORD FOR THIS INDIVIDUAL ANGLER, NOT GROUP CATCH. NOTE: FILLETS ARE UNAVAILABLE.

| DISPOSITION CODES FOR Q. 25 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Thrown back alive/legal | 3 | Eaten/plan to eat | 5 | Sold/plan to sell | 7 | Other purpose |
|  | Thrown back alive/not legal/legality refused | 4 | Used for bait/plan to use for bait | 6 | Thrown back de |  |  |

TYPE 2 RECORDS: (INDIVIDUAL CATCH UNAVAILABLE IN WHOLE FORM)


Item 25* Unavailable Catch "Type 2" Records - All anglers are asked to report on fish caught in the intercept mode that are not available for inspection. Each angler must report on his/her own unavailable catch in the mode of intercept, in other words, unavailable catch cannot be reported grouped with another angler's unavailable catch. If the angler was at a different site in the same mode, unavailable fish from the other site should be included.

Unavailable fish should be entered at Item 25 on the questionnaire with a unique line for each species/disposition. Each line of information is called a "Type 2". Each Type 2 record should contain the exact species name, a 6-digit species code, the number of fish of that species and the disposition of the fish. The extra ( $7^{\text {th }}$ digit) space for a digit should be left blank.

If one species is disposed of in two or more ways, it will be necessary to complete two or more Type 2 records for the species. For example, if the angler caught a total of eight Bluefish, five of which he/she threw back alive three of which he/she plans to eat, the interviewer should complete two Type 2 records.

## "Number of Fish" and "Disposition" are key items. Never leave number or disposition blank! Always obtain a response. Not getting a count by species or disposition will render the Type 2 record unusable and the intercept cannot be counted as complete.

All fillets of fish should be considered "unavailable catch" and entered at Item 25 (If enough of the carcass is left to allow for species identification and an accurate count, the fish can be entered as "available catch" at Item 31).

Anglers may think that fillets are available catch and not report them in response to question 25. If an interviewer should look at an angler's catch and discover that all of the
fish have been filleted, it will be necessary to change the angler's response to Items 2531. The fillets would be entered as Type 2 records, and there would be no Type 3 records.

If anglers in a group report a group catch consisting totally of fillets, the interviewer should strive to determine how many fish were caught by each angler. If the group of anglers cannot separate their filleted catch, the interviewer should divide the total number of fish by the total number of anglers contributing to the catch and give each angler his/her appropriate number of filleted fish. Remember that each angler's own unavailable catch should be entered on his/her own form.

The question to ask concerning disposition is "What did you do or do you plan to do with the
$\qquad$ ?" The interviewer may have to probe to determine the ultimate disposition of the fish.

The disposition codes for Type 2 records can be found above Item 25 on the questionnaire. They include: thrown back alive/legal (Code "1"); thrown back alive/not legal (Code "2"); eaten/plan to eat (Code "3"); used for bait/plan to use for bait (Code "4"); sold/plan to sell (Code "5"); thrown back dead/plan to throw away (Code "6"); and plan to use for some other purpose (Code "7"). Dispositions "don't know/didn't ask" or "refused" cannot be used for unavailable fish.

NOTE: There is no code for "given away." If the fish have been given away, the interviewer should ask what the recipient intends to do with the fish and code accordingly. If fish were given away to be eaten the correct disposition code would be "3."

Interviewers should not assume that all fillets will be eaten. Even with fillets it is important to ask the question concerning disposition.

Interviewers should strive, to obtain species level information for Type 2 records. Because unavailable catch cannot be inspected by the interviewer, it is recognized that the species and numbers reported may not be exact. It is appropriate to show pictures in the field guide to help determine species level. If necessary, one of the "unidentified fish" codes may be used as a last resort.

Since Item 25 is a key item, there are no "don't know" or "refused" codes reserved for "No. of fish." A number must be entered! (A 998 will be read as nine hundred ninetyeight!.) If an angler has more than 999 unavailable fish of one species/disposition, the interviewer should write out the actual number in any available white space.

Spaces for five Type 2 records have been provided on the questionnaire. If more than five are needed, the interviewer should continue recording fish records on the Extra Fish Form; fill in the top portion (Items 2-10) of the Extra form and place behind the original form.


Item 26* Fish Caught To Look At - All anglers are asked whether they caught any fish that the interviewer might examine. If the angler caught some fish that are available for inspection, the interviewer should mark Item 26 as "yes" and continue with Item 27. This angler should have some data entered at available catch (Item 31).

If the angler did not catch any fish available for inspection, the interviewer should mark Item 26 with a "no." This angler should have no data entered in available catch (Item 31).

If the angler caught some fish that are available for inspection, but they have already been entered on another angler's form because they could not be separated, the interviewer should mark "Fish on another anglers form", (3). The interviewer is then instructed to enter the interview \# where fish are listed. This angler should have no data entered at available catch (Item 31). Also, questions 27, 28, and 29 should be checked "not applicable" in this scenario.

The interviewer should note that Item 26 includes the words "to look at." Fish that have been filleted are not considered available "to look at" and should be entered at unavailable catch (Item 25).


Item 27* Catch Mixed - This question is asked only of those anglers who caught fish available for inspection and whose fish have not been entered on another angler's form [ Q.26=1, "Yes"].

If the angler caught all of the available fish himself/herself, the interviewer should mark Item 27 with an " $X$ " next to \#1. If other anglers have contributed to the available catch, the interviewer should mark Item 27 with an " X " next to \#2, (Other Contributors) and continue with Item 28. If anglers did not have fish available for inspection or their fish were on another anglers form, samplers should mark "8" (not applicable).


Item 28* Separate Catch - This question is asked only of those interviewed who report that several anglers have contributed to their available catch [Q.27=2, "No"].

If the angler can separate out his/her own available catch, the interviewer should mark Item 28 with an " $X$ " by \#1 (Yes). Only the angler's own available catch should be entered at "Available Catch" (Item 31).

If the angler cannot separate out his/her own available catch, the interviewer should mark Item 28 with an " X " by \#2 (No) and continue with Item 29. All of the available catch should then be entered on this angler's form at "Available Catch" (Item 31).
*29. How many anglers including yourself have their catch here? Please do not include anyone who did not catch fish. Only count those anglers who have their catch here.


Item 29* Number Who Caught Fish - This question is asked only of those anglers who cannot separate their available catch from the available fish caught by other anglers with whom they fished ("2" at Item 28). In such cases, all of the available fish caught by the group of anglers should be reported on one angler's form as "Available Catch" (Item 31).

The angler who reports a mixed group catch of available fish is asked to indicate the number of "contributors" to the mixed group catch. The count of contributors should include the following: All anglers who fished with the interviewed angler and caught available fish reported as part of his "mixed group" catch.

The count of contributors should not include the following:

1. Any anglers who fished with the interviewed angler and caught available fish which were not included in his mixed group catch.
2. Any interviewed anglers who fished with the interviewed angler and have no available catch.

EXAMPLE: Suppose six anglers fished together from a charter boat and only four of them caught fish. The interviewer completes interviews with only three of them before they leave the site.

- The first interviewed angler caught available fish which he is able to separate from the available catch of the other three successful anglers. The available catch that he personally caught are then counted, measured and recorded on his interview form.
- The second interviewed angler did not catch available fish.
- The third interviewed angler caught available fish which he is unable to separate from the available catch of the other two successful anglers who were not interviewed.

All of the available fish caught by those three anglers are then counted, measured and recorded on the third interviewed angler's form. The number of "contributors" to this mixed group catch would be counted and reported as "03." Examples of appropriate coding for the three anglers interviewed are shown at the bottom of this page.


Item 30* Party Size - This question is asked to determine whether or not the angler participated as a member of a "fishing party," and if so, how many people (including himself) were fishing together from the same boat. This question is only asked in the PC or PR modes. If the angler fished alone, code "001" at Item 30. If the angler fished from shore, mark "888", shore mode.

## Example: Angler 1

'26. Did you catch any fish while you were fishing that I might be able to look at?


Code q. 27, 28, 29 as " 8 's,", Not applicable
Yes, BUT fish are on another angler's form - Fill in interview \# where fish are listed *

*27. Did you catch these yourself or did someone else catch some of them?


All caught by Angler - Code q. 28, 29, as " 8 's," Not applicable
Other Contributors $\square$ Not applicable
*28. Can you separate out your individual catch?
1 $\square$
Yes - Code q. 29 as " 88 "
$\square$ No $\square$ Not applicable
*29. How many anglers including yourself have their catch here? Please do not include anyone who did not catch fish. Only count those anglers who have their catch here.

No. of Contributors
$8 8 \longdiv { \mathbf { X } }$ Not applicable

## Example: Angler 2

*26. Did you catch any fish while you were fishing that I might be able to look at?

1 $\square$ Yes
$2 \longdiv { \mathrm { X } }$ No
Code q. 27, 28, 29 as " 8 's,", Not applicable
Yes, BUT fish are on another angler's form - Fill in interview \# where fish are listed *

| $\square$ | Code q. 27, 28, 29 as " 8 's,", Not applicable |
| :--- | :--- |

*27. Did you catch these yourself or did someone else catch some of them?


All caught by Angler - Code q. 28, 29, as " 8 's," Not applicable


Other Contributors $8 \longdiv { \mathrm { X } }$ Not applicable
*28. Can you separate out your individual catch?


Yes - Code q. 29 as " 88 "


No

29. How many anglers including yourself have their catch here? Please do not include anyone who did not catch fish. Only count those anglers who have their catch here.

## Example: Angler 3

*26. Did you catch any fish while you were fishing that I might be able to look at?

Code q. 27, 28, 29 as "8's,", Not applicable
*27. Did you catch these yourself or did someone else catch some of them?


All caught by Angler - Code q. 28, 29, as " 8 's," Not applicable
Other Contributors 8 $\square$ Not applicable
*28. Can you separate out your individual catch?
$\square$ Yes - Code q. 29 as " 88 "
2 X
No $\square$ Not applicable
29. How many anglers including yourself have their catch here? Please do not include anyone who did not catch fish. Only count those anglers who have their catch here.
No. of Contributors
88 $\square$ Not applicable

For the purpose of this survey, a "fishing party" is defined as a group of anglers who fished on the same day from the same boat. Therefore, all anglers fishing from the same headboat are considered members of the same "fishing party" regardless of whether they traveled together to the site. In addition, all anglers fishing from the same charter boat should be considered members of the same fishing party.

Example: There are fourteen (14) anglers fishing at a given site on a given day.

- $\quad$ Three (3) friends are fishing together on a 30-person headboat;
- $\quad$ Six (6) anglers are fishing on a charter boat;
- Three (3) anglers are fishing on a private boat;
- Two (2) anglers are fishing on another private boat.

Each of these 4 groups of anglers represents a different fishing party.


BOX D First Person - If the angler indicated in Item 30 that he/she was indeed a member of a fishing party, then the interviewer must decide "Is this the first angler from this boat that I have interviewed?" If the answer is "yes" then mark "1," (Yes). If the answer is "no" then mark "2" (No) and record the interview number of the first angler in the fishing party.
*31. AVAILABLE CATCH. COMPLETE TYPE 3 RECORD BY ASKING: May I look at your fish? What do you plan to do with the MAJORITY of the (species)?

|  |  | DISPOSITION CODES FOR Q. 31 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 3 | Eaten/plan to eat | 5 | Sold/plan to sell | 7 | Some other purpose |
| 4 | Used for bait/plan to use for bait | 6 | Thrown back dead/plan to throw away | 9 | Refused |



T (kg)

|  |  |
| :--- | :--- |
|  |  |
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|  |  |
|  |  |
|  |  |
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DIS


Item 31* Available Catch "Type 3" Records - The angler's available catch from the mode of intercept should be entered at Item 31 on the questionnaire. Each line of information recorded at Item 31 is called a "Type 3" record because of the " 3 " precoded on the questionnaire. Each Type 3 record should have an exact species name, a 6 -digit species code, the total number of that species available for inspection, the length of one fish of the species and the weight of that fish, and the disposition of the majority of that species.

When several fish of one species are available, the interviewer need not repeat the species code or the total number of fish on each line. Instead, list sequentially all fish of the same species and draw arrows down, indicating which boxes are the same as the ones above. However, If weights and lengths are the same, they must be written out.

If fifteen or fewer fish of one species are available, all fish of that species are to be weighed and measured. If more than fifteen fish of one species are available, the interviewer should randomly select fifteen fish for each species to be weighed and measured. Unless instructed otherwise, no more than fifteen fish of one species should ever be weighed and measured!

Item 31 is a key item and requires a significant amount of information. The minimum acceptable data needed for a usable Type 3 record is a count by species and a disposition code. If the angler is in a hurry, the interviewer should strive to sort the fish by species and obtain a count of each species. This will render the interview acceptable. Without a count by species and a disposition code, the Type 3 record cannot be used. Fish in Type 3 records must be identified the species level.

Three boxes have been provided to record "Number of Fish" in Item 31. As stated in the discussion of Item 25, no codes have been reserved for "don't know" and "refused." A "999" will be read as nine hundred ninety-nine. Numbers above three-digits, that is, above 999, are indicated through use of an alphabetic character in the first position.

Next in order of priority is weight. If the angler is in somewhat of a hurry, the interviewer should strive to get weight measurements from a random sample of the catch. Last in order of priority, is length. If length or weight is missing, the interviewer should complete the records as required, but fill in the boxes for the missing data with "9's." Missing data should be footnoted with an explanation. Common reasons for missing data are:

- angler refused to allow weighing;
- angler refused to allow measuring;
- weight missing because fish was gutted; or
- weight missing because weight exceeded capacity of scale.

If length and weight information are missing on some fish of a species (i.e., the angler refused to have the appropriate number weighed and measured), the interviewer should fill in the available weights and lengths using separate Type 3 records and then proceed to the next available species. The first type 3 record would reflect the total count of all fish landed of that species, along with the length and weight of the first fish. This type 3 record would be followed with another line that contains the weight and length of then next fish. This would continue up to the last fish the sampler was allowed or able to measure and weigh. The total number does not need to be repeated for each line, it only needs to be recorded in the first type 3 record for that particular species (See example last example questionnaire). The interviewer should footnote a
reason why the appropriate number of fish was not weighed or measured. If length and weight information are missing on all fish of a species, the interviewer should fill out only one Type 3 record for the species. That record would have " 9 's" in the length and weight boxes. Again, a reason for the missing data should be given in a footnote.

The disposition codes for the Type 3 record are provided in Item 31. As shown in the list of codes, interviewers should not use a disposition "1" or "2" for Type 3 (available) fish. The expansion program assumes that all Type 3 fish are harvested! Disposition codes "8" (don't know/didn't ask") and "9" (refused) can be used with Type 3 (available) fish.

The question to be asked to obtain disposition is: "What do you plan to do with the majority of the __?" For example, if an angler has caught three (3) fish of the same species and intends to sell the largest one (1) and eat the two (2) smaller ones, then the interviewer should code disposition as "3" (eaten/plan to eat) since more fish will be eaten than sold. Weight should be used to determine disposition only when the fish are split evenly by number into two or more dispositions. For example, if there are exactly two (2) fish of one species, one (1) of which will be sold and one (1) of which will be eaten, the interviewer should code the disposition of the heavier fish.

The interviewer should never skip a Type 3 record line and entries for fish of the same species should be listed sequentially. Fifteen Type 3 records can be entered on each questionnaire. If more than fifteen are needed, the interviewer should use the Extra Fish Form and mark the top portion (Items 210) of the second form and place it behind the original form. In some instances, several "Extra Fish Forms" may be needed.


Item 32 \& 33* These questions are key questions. You must ask the angler if they bought a license in order to harvest saltwater fish in the state. If they reply "yes" then ask q. 33, when did you purchase your current license. Mark "don't know" if they do not know. In some cases the angler will not need a license because of either being underage or a senior citizen.

## 8. CONDUCTING THE CREEL CENSUS

### 8.1 Fish Identification

Interviewers must strive to identify all available fish to the species level. In the interest of professionalism, the interviewer should never ask the angler to identify his/her own catch. The interviewer must identify the fish without exception.

The Intercept Coding Manual contains a species list ordered by species code number within family.

Accepted common names are not necessarily those used by local anglers, and interviewers should know how to translate local names to accepted common names. The Intercept Coding Manual also contains a list of local names and how they often translate to accepted common names. Do not neglect this as a valuable tool to aid in achieving correct identifications.

Each species of fish listed in the Intercept Coding Manual has been given a unique 6digit identification code derived from the 1990 list of ITIS codes. Lower levels of identification are only appropriate for Type 2 records. Fish identified and listed as Type 3 records MUST be identified to species level!

All acceptable order, family, and genus level codes are included in the species list. Use a genus level code only if sufficient information is available to exclude species in other genera of the same family. Use only genus codes provided in the species list. If you cannot make a species level identification and the appropriate genus code is not on the list, use the appropriate family level code.

The species code lists are not exhaustive. Interviewers may occasionally identify a species that does not appear on the list. When this situation occurs, the interviewer should write out the scientific and accepted common name of the species and leave the coding boxes blank. A biologist at GSMFC will then obtain and enter the correct species code.

The Intercept Coding Manual also contains codes to be used when the species of a fish is unknown. While these cannot be used when inspecting available fish, they may be needed for fish unavailable for inspection (Item 25). These codes are the following:

| - Unidentified Fish | 161030; and |  |
| :--- | :--- | :--- |
| - | Unidentified Sharks | $159785 ;$ |

NOTE: Use these only as a last resort. Do everything that is possible to get as accurate an identification as possible. Include any descriptive notes on the form that may aid our biologists in

## later stages of identification.

### 8.2 Length Measurement

Fish lengths must be taken using a measuring board and recorded to the nearest millimeter. For example, a fish that measures to the first line past " 23 " would be "231" millimeters. Since four coding boxes are provided for the length measurement, this should be coded as "0231." Interviewers should never round lengths and weights to the nearest centimeter or half centimeter. Rounding fish measurements will introduce a "digit bias." An example of proper use of a measuring board is provided in Figure 8.1.

Figure 8.1 Length Measurements

## Proper Use of the Standard 1 Meter Measuring Board

1) Place the measuring board on a hard level surface. You will need both hands free.
2) Place the fish with the anterior-most portion of the head (nose) flush against the upright bracket on the left end of the board. The specimen should be centered over the metric scale.

3) Keeping the nose of the fish against the bracket, press the caudal fin (tail) with the forefinger
 of the right hand down to the surface of the board.
4) Read the length to the nearest millimeter (mm) at the fork of the caudal fin.


Species with tails that are not forked are to be measured in accordance with the instructions in the "Length Measurement" section of the "Intercept Interviewer Training Manual."

All interviewers will also be issued a tape measure to be used only on specimens that exceed the length of the measuring board. To use the tape measure, interviewers should lay the tape measure down on a hard surface and place the fish on top of the tape measure. At no time should an interviewer hold the tape measure above a fish. This might result in the tape measure's bending to the contour of the fish's body and a higher measurement.

Interviewers must measure up to 15 fish of each available species unless refused by the angler. If an angler has caught more than 15 of a particular species, then 15 must be selected at random for measurement. Sub-sampling procedures are described in Section 8.5.

The correct procedures for measuring the various types of fish, as shown in Figure 8.2, are as follows:

Sharks and Sturgeons are measured from the tip of the snout to the center of the fork of the tail.

Skates and Rays are measured from the tip of the snout to the base of the tail.

Billfish and Swordfish are measured from the tip of the lower jaw to the center of the fork of the tail.

All other species are measured from the most anterior tip of the longest jaw (mouth closed) or end of snout, whichever is terminal, to the posterior tip of the tail at its center line. This procedure is the same whether the tail forks in (e.g., Mackerels) or protrudes out (e.g., Flounders). The resulting length is therefore a fork length.

Figure 8.2 Measuring Various Fish
The correct procedures for measuring the various types of fish are as follows:
Sharks and Sturgeons are measured from the tip of the snout to the center of the fork of the tail.


Skates and Rays are measured from the tip of the snout to the base of the tail.


Billfish and
Swordfish are measured from the tip of the lower jaw to the center of the fork of the tail.

All Other species are measured from the most anterior tip of the longest jaw (mouth closed) or end of snout, whichever is terminal, to the posterior tip of the tail at its center line. This procedure is the same whether the tail forks (e.g., Mackerels) or protrudes out (e.g., Flounders). The resulting length is therefore fork length.


### 8.3 Weight Measurement

Fish weights are to be recorded to the nearest hundredth of a kilogram.
Pounds should never be recorded in Type 3 records. Two scales are provided to each interviewer, the 25 lb . scale is labeled in pounds and kilograms. Tenths of a kilogram, while not labeled, are marked on the 25 lb . scale. The 4 lb . scale is labeled in pounds and kilograms. Hundredths of kilograms, while not labeled, are marked. Six boxes are provided for the coding of weight: three to the left of the decimal, one containing a decimal, and two to the right of the decimal. A fish weighing 2.40 kilograms, then, should be coded as "002.40."

Interviewers must weigh up to 15 fish of each available species unless refused by the angler. If an angler has caught more than 15 fish of a particular species, then 15 must be selected at random for weight measurement. Sub-sampling procedures are described in Section 8.5.

Weight measurements should be given priority over length measurements when time is limited. Procedures for proper zeroing scales are shown in Figure 8.3.
Scales must be zeroed before each assignment.

### 8.4 Baggy Technique

Occasionally, an interviewer may come across fish that do not register 0.05 of a kilogram. If several fish of the species have been caught, the interviewer should place up to 15 of them in a plastic bag, taking care that no water accumulates inside. Weigh the entire bag and distribute the weight among the fish in increments of 0.05 kg and 0.0 kg . For example, if 10 fish weigh a total of 0.25 kg , five fish would be recorded as weighing 0.05 kg , and the remaining five fish would be recorded as weighing 0.00 kg . The fish of longer length should be given the 0.05 kg weight, while the fish of the shorter length should be given the 0.00 kg length. This procedure will result in the correct average weight of the 15 fish.

In a situation where fish are weighed (alone or using the baggy technique) and the weight is less than the first mark on the scale, a weight of 0.00 should be recorded next to the length of each fish.

### 8.5 Sub-Sampling Procedure

On occasions when an angler has more than 15 fish of the same species available for inspection, a sub-sample of 15 fish must be selected for weight and length measurements. Ideally, the interviewer would line up the fish from largest to smallest, divide the total number by 15 , and select every nth fish for length and weight measurement. For example, if there are 30 fish of one species, the
interviewer should line them up by size and select every 2nd fish.
If, due to time and space limitations, it is impossible to line up the fish, the interviewer should blindly reach into the container and randomly select the 15 fish to be weighed and measured. At no time should the interviewer visually select 15 fish of "average" size to weigh and measure -- this is not random selection! NEVER weigh only the largest fish; this creates a size bias.

REMEMBER: All missing length and weight measurements should be footnoted and explained on the questionnaire.

### 8.6 Calibration and Zeroing of Chatillon Scales

An extremely important aspect of obtaining accurate weight measurements is one which, all too often, is neglected by field personnel. Scales should be calibrated at least once or twice a year using a set of certified standard weights. Interviews should also ensure on every assignment that the Chatillon scale is zeroed properly. Most instances of improper zeroing result in rather small errors of from $0.1-0.2 \mathrm{kgs}$. This amount may seem insignificant, but when catch estimates are expanded from raw data these "small" errors can cause an undesirable weight bias. For example, suppose you frequently encountered a small species of fish which rarely exceeds weights of 0.2 kgs . If a scale is not set properly, and is reading 0.1 kgs light, then you would be under reporting the biomass of that particular fish by as much as one-half its actual value! Of course, the more out of adjustment the scale, the more significant the error becomes. Realize, that even apparently minute maladjustments can cause bias.

Study the diagrams in Figure 8.3 and check the zeroing of the scale before every assignment. Holding the scale vertically by the handle, adjust the calibration screw so that it reads 'zero'. Over time, the spring inside the scale may stretch and measure inaccurately. If you feel a scale is weighing improperly, find an object of known weight (preferable a standard weight) and test it on the instrument to see if it conforms to your expectation. If it does not, then do not use that scale. Contact GSMFC or your SS and we will supply you with a new, verified unit.

- Always carry both scales (4 and 25 lb ) with you since you never know the size of the fish you will encounter.
- $\quad$ The $\mathbf{2} \mathbf{~ k g}$ scales have graduations of 50 grams or 0.05 kilograms. Readings should be taken to 2 decimal places (e.g., 0.25, 0.30, 0.35, etc.).
- Always make sure scale reading is set at zero before
weighing any fish. If scale is not zeroed, do so by adjusting the calibration screw at top of scale. If you cannot adequately zero your scale it may be defective.
- When weighing fish always remind yourself to take your reading from the metric side not in pounds. We suggest that your SS should cover or obstruct the pounds side of the scale to prevent any errors. If the pounds side has been covered on your scale, DO NOT REMOVE THE COVERING TO READ WEIGHTS IN POUNDS. Often anglers will want to know how much their fish weigh in pounds. I would suggest recording the weights of your randomly chosen fish (in kilograms) on your data sheets first. After you have completed the interview, you can then multiply the kilogram weight by 2 to give them a rough idea.
- If at any time you have reason to believe that your spring scale is not functioning properly contact the home office immediately.

Always keep in mind: Accuracy is the key to our scientific integrity!

### 8.7 Care of the Chatillon Scales

To keep scales working properly, it is important to use them and maintain them as described below:



LRPROPER: +0.1 c. 8 TURN SCREW: CLOCKUISE

TO: RAISE INDICŕ:OP

Figure 8.3 Chatillon Scale

- When you receive your scales you should spray them with any all-purpose anticorrosive grease (e.g., WD-40) for extra protection. This could be repeated every 6-12 months depending on use. It's a cheap investment but it may prolong the life of your scales.
- Keep spring scales protected in sealed, dry, clean zip-lock baggies when not in use.
- $\quad$ Never store your spring scale by hanging it from the weighing hook as this will stretch the spring.
- Avoid contact with water if possible and never leave scales lying in a puddle or bucket of water.


## 9. ADMINISTRATIVE FORMS

In addition to the questionnaires completed for an assignment, the interviewer must submit two other administrative forms. These are the Assignment Summary Form and the Site Description Form for the assignment.

### 9.1 Assignment Summary Form/Time and Expense Report

The Assignment Summary Form should be completed for every assignment whether or not the interviews are obtained.

NAME - Write or print your name in the rectangular box provided at the top of the page.

ASSIGNMENT NUMBER - This entry will always be a "1," unless you complete two assignments on the same day. In that case you should cross out the "1" and replace it with a "2" for the second assignment of the day. Second assignments are made on an individual basis through your SS. These assignments are only given to our most efficient and qualified interviewers. This type of assignment is extremely rare.

INTERVIEWER CODE - Here you enter your four-digit identification code number.
YRIMOIDAY COMPLETED - The current year will be hard-coded on the form. You should enter a two-digit number for the month followed by a two-digit number for the day of the month when you completed the assignment. Do not use any forms with a date other than the current year -- the forms may look similar, but changes have been made.

STATE - Enter the two-digit state code for the assignment.
MODE - Enter the appropriate one-digit number for the ASSIGNED mode.
CONTROL NUMBER - Enter the appropriate four-digit control number for the assignment. This number is provided on the list of assignments that you receive from your SS and it is specific to each assignment.

ON-SITE HOURS - Enter the calculated total on-site hours for the assignment. If you calculate your total on-site hours in the "On-Site Record" section of the form, be sure to enter your result in the four coding boxes provided here. Remember to round to the nearest .25 hours ( 15 minutes $=0.25$ ).

EDITING HOURS - Enter the total editing hours for the assignment.
TOTAL MILES - Enter the total miles traveled associated with completing the assignment. You can calculate total miles in the "travel section" on the right side of the form, but also be sure to enter it in the three boxes provided. Remember to round to the nearest mile.

REASON FOR FIRST ALTERNATE SITE - Leave these boxes blank if you don't leave your assigned site for that assignment. If you leave your assigned site to visit an alternate site, enter the appropriate code number that best describes the reason for leaving your assigned site to visit your FIRST alternate site. The list of two-digit "Reason Codes" is located on the bottom of the form.

SUMMARY SECTION - We have specifically labeled the first row of this section as "ASG.," which is an abbreviation for "Assigned Site." You should always record the county code and site code for the assigned site in the first row of coding boxes. When applicable, the county codes and site codes for the first and second alternate sites visited should be recorded respectively in the second and third rows of coding boxes. The second area is to tally the number of "good" (status $1 \& 2$ ) interviews obtained, by mode, for the assignment. The third section is for a tally of status 3 (initial refusal), 4 (language barrier) and 5 (refused key item) conducted for the target mode. For status $3,4 \& 5$ interviews obtained in modes other than the target mode, a tally should be indicated in the Other Modes Status section.

MISSED \& INELIGIBLE ANGLER - The interviewer must enter his/her tally of "missed" and "ineligible" anglers encountered in the target mode at all sites visited. "Missed" anglers are those in the target mode who were probably eligible, but who were not approached because the interviewer was actively interviewing other anglers. Under "Not Finished" the interviewer should enter his/her estimate of the number of anglers actively fishing at the site in the target mode when he/she leaves the site. If the interviewer returns to a site later in the assignment, the estimate should cover the number of anglers actively fishing in the target mode when he/she leaves the site for the last time. The other "ineligible" categories include those approached but found to be ineligible because of responses to questions in the screening introduction. They include: "Not U.S." (trips primarily outside of United States' waters); "Not Rec" (trips taken for reasons other than recreation); "Not Salt" (trips not in salt or brackish waters); "Not Fin" (trips not for finfish); and "Not 5 Yrs" (trips taken by persons less than 5 years of age).

ON-SITE RECORD - This section of the form is provided for the purpose of recording the "Start" and "Stop" time for visits to each of 1-3 sites during the course of the assignment. You should always identify each site by entering the appropriate code number in the boxes under the "site" heading. Leave the "site" blank if the site visited is a "new" site. Do not record travel time between sites. If you called the site, record the start and stop time of the telephone call. List the sites in the order that you visited them, including any return trips to sites previously visited. No more than two alternate sites may be visited per assignment.

EDITING - This section is provided for the calculation of total editing hours. Record both the "Start" time and the "Stop" time for editing, calculate the difference to the nearest 00.25 hours and record that difference in the space labeled "Ed. Hrs." Be sure to also enter this result in the coding boxes labeled "EDITING HOURS." GSMFC requires a thorough and accurate job (i.e., all skip patterns correctly followed,

## correct coding, correct species codes)!

TRAVEL - This section is provided for calculation of total miles traveled. Record both "Beginning" and "Ending" odometer readings, calculate the difference, and record that difference in the space labeled "Total Miles." Be sure to also record this result rounded to the nearest mile in the coding boxes labeled "Total Miles."

TRAVEL - Enter the number of miles traveled on the assignment, also taken from the front of the ASF.

### 9.2 Site Description Form

A Site Description Form must be completed for every site visited during the assignment. Additional Site Description Forms may also be submitted any time the interviewer feels that he/she has additional information about a site that should be included in the Site Register. The Site Description Form is printed on green paper and the information provided is used to update the Site Register. Item-specific instructions can be found in Section 3.5 of this manual.

Modes Present at Site. The interviewer should then answer the question "Is there ever fishing in this mode at this site?" for each of the five mode groups. In the box provided, the interviewer should enter a " 1 " if there is fishing in the mode at the site, and a " 9 " if there is never fishing in the mode at the site. While there may not be fishing in the mode during the interviewer's visit, if there is ever fishing in a particular mode at the site, the interviewer should enter a "1."

In the next section of the form, the interviewer should use the Activity or Pressure Level Scale to indicate the average number of saltwater recreational anglers who might be present in the mode at the site at time of peak activity on:

- a typical weekend day during the month; or
- a typical weekday (Wednesday) during the month.

Interviewers must provide this information for all months indicated: the months of the wave for the intercept assignment and the next two waves following the present wave. It is imperative that the interviewer writes the number which corresponds to the month next to the appropriate coding box. To fill out this section of the form the interviewer may need to talk with either the person in charge or an angler who is a "regular" at the site. For all the months covered, every box must have an entry. If there is never any fishing in a particular mode at the site, all boxes for that mode should contain a "9." Additional information that may be helpful in the overall analysis of the site (i.e., seasonal expectations, unusual circumstances encountered, etc.) should be provided in the comments section of the form.

In North Carolina, South Carolina, Georgia, East Florida, West Florida, Alabama,

Mississippi, and Louisiana, the activity estimates for the headboat/charter boat (PC) mode should not include party/head boat anglers. They should include only charter boat anglers.

## 10. INTERVIEWING MATERIALS AND SUPPLIES

For use during training and throughout the survey each interviewer will receive a copy of this manual, The Intercept Interviewer Procedures Manual.

Upon successful completion of training, each interviewer will receive the following materials:

- Chatillon brass spring scales (Small \& Large);
- Tape measure;
- Measuring board; and
- Peterson's A Field Guide to Atlantic Coast Fishes of North America, a dichotomous fish identification key (appropriate to your region).

Each interviewer will also receive a "Starter Package." It will contain the following supplies:

- $\quad$ Screening Introduction -- a series of questions used to determine an angler's eligibility for the survey.
- Letter from NMFS -- a letter on NMFS letterhead giving a brief description of the survey and a point of contact at NMFS.
- MRFSS Fact Sheet -- a brochure which elaborates on the MRFSS project. These should be made available to all survey respondents.
- Privacy Act Statement/Income Categories Card -- a laminated card with a statement concerning the survey which, according to the Privacy Act of 1974, must be available to all survey respondents.

Prior to each wave of interviewing, each interviewer given an assignment will be sent the following:

Site Assignment List -- a listing of assignments.
Site Register -- a list of all known saltwater fishing sites in the state.

In addition to the items listed above, certain items not provided should be obtained by the interviewer. These include a legal-size clipboard, a plastic bag
(food-storage size) for weighing small fish and a cloth for wiping hands between fish handling and form handling. Interviewers should also purchase plastic bags used to protect both scales when they are not in use. This is very
IMPORTANT!
NOTE: It is each individual interviewer's responsibility to maintain an adequate supply of all necessary forms. When supplies are low, the interviewer should notify their state supervisor. DON'T WAIT UNTIL THE LAST MINUTE!

## 11. ADMINISTRATIVE MATTERS READ CAREFULLY

### 11.1 Shipping Procedures

At the end of each week, the interviewer should mail or deliver the forms for that week's assignments to his/her SS or regional representative. (DO NOT STAPLE THE FORMS!) SS and regional representatives should take 1 to 2 days to review all of the forms and then send them to GSMFC. Packages should include:

- Assignment Summary Form (place the ASF face up on top of the packet).
- $\quad$ Site Description Form(s).
- All Intercept questionnaires completed for the assignment, arranged in numerical order by Interview Number (Item 5).

At the end of each month, all remaining assignments are due to GSMFC by the $3^{\text {rd }}$ of the next month. Interviewers are often required to Federal Express packages directly to GSMFC. GSMFC has to deliver the data and provide reports monthly; therefore, the established deadlines are particularly critical.

## APPENDIX A

## SCREENING INTRODUCTION

NMFS "TO WHOM IT MAY CONCERN" LETTER

ASSIGNMENT SUMMARY FORM
SITE DESCRIPTION FORM
INTERCEPT QUESTIONNAIRE
INTERCEPT EXTRA FISH FORM

