DRAFT

OBSERVER PROGRAM

FOR SAMPLING OF

CENTRAL BERING SEA POLLOCK FISHERIES

This Compilation Contains:

A. Suggested Standards for Observer Training and Certification, and
B. Observer Program Manual drafted in December 1992

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A. Suggested Standards for Observer Training and Certification

CENTRAL BERING SEA OBSERVER PROGRAM

Standards for Observer Certification
Elements of Observer Training

Prepared by:
Alaska Fisheries Science Center
North Pacific Groundfish Observer Program

The documents cited above are submitted for review and discussion by experts representing parties of the Central Bering Sea Observer Program. The documents form a basis upon which to build these critical portions of an observer program, and to provide for consistency between programs of participant nations. The information contained herein is provisional.

A draft observer manual was distributed and agreed upon in 1992. This manual can be edited to reflect any changes in sampling protocols or data forms decided upon during group discussions.

CENTRAL BERING SEA OBSERVER PROGRAM

STANDARDS FOR OBSERVER CERTIFICATION

Standards for observer certification can be applied in three arenas: (1) selection criteria to decide on who will participate in training, (2) minimum standards to maintain during training to determine who will receive certification, and (3) performance standards to maintain certification. A comprehensive observer certification process might be:

I. Choose candidate based on selection criteria.
   A. List of priorities within each criteria.
   B. Establish weighted criteria and minimum standards.
II. Candidate participates in training.
   A. Means of evaluating candidates during training utilized (exercises, quizzes, lab practicals, exams).
   B. Assistance provided where needed.
   C. Minimum standards established for each evaluation.
      1. Candidate given specified number of chances or amount of time to meet these standards.
      2. If not met, candidate dismissed, not certified.
      3. If standards met, candidate certified.
III. Certified observer deployed to fishery.
   A. Upon return, data reviewed during debriefing, corrected, and evaluated.
      1. If data meet minimum quality and quantity standards, observer retains certification.
         a. Observer must recertify if time-lapse between deployments too long.
         b. Observer maintains certification by participating in briefing sessions prior to each cruise.
      2. If data do not meet minimum standards, program managers must decide whether to revoke certification and:
         a. allow observer to retrain, or
         b. permanently decertify.
IV. Observer conduct.
   A. Conduct during training.
   B. Conduct while deployed to vessel.
   C. Decertification process.

Selection Criteria

Criteria used to assess an applicants suitability include:

- Education; level attained and primary course of study.
- Experience; relevant to the fishery, general experience at sea, biological field sampling experience, and other applicable work.
- Skills and abilities.
- References.

Ideally, observers deployed to the central Bering Sea pollock fishery will have finished a four-year degree (or higher standing) in fisheries or wildlife biology and have at-sea experience monitoring groundfish trawl fishing operations, with excellent references on their work-performance evaluations. There may, however, be few if any such observers available. Each program will need to determine what level of criteria will be used to select candidates for training. To achieve the goal of program compatibility and consistency among observers, the nations may want to establish some minimum standards. A provisional list of selection criteria is provided as attachment 1.

Standards for Observer Training

Observers arrive in training with a wide variety of experience and qualifications. Because of this disparity, a means of evaluating their understanding must be employed. Trainees experiencing difficulty with some of the material can be given special assistance. Successful completion of the training course will ensure that all observers are capable of completing their at-sea duties and collecting accurate and reliable data.

There may be instances in which the trainee simply cannot comprehend the sampling regime, cannot do the math required to complete their duties, or is unwilling to do the work required to gain an understanding of the tasks. The trainer must then make the difficult decision of asking the candidate to withdraw from training and withhold certification. These measures are important if programs are to achieve consistency between observers and compatibility of the data collected through separate programs.

To aid the trainers in making these decisions, and to establish a minimum quality standard for certification, the types of training

evaluations and the level of competence for each should be established. Following are some suggestions.

Math test.

- Delivered early in the training session, or as part of the selection process.
- Tests on math abilities directly related to sampling, data computations, and data extrapolations.
- Identifies those observers which may need extra assistance, in one or more areas.
- Mistakes identified and candidate's weaknesses corrected.
- Retest administered using different problems but testing same skills.
- If fails to achieve a certain percent correct by the third (suggested) retest, the candidate cannot continue in the training course.

Class exercises on sampling techniques and filling out forms properly.

- One exercise (at least) given for each form, and another large exercise which ties all forms together administered.
- Instructions and text provided which describe data elements, the trainee fills out example forms from these descriptions.
- Active participation in mock sampling.
- Exercises can be administered several times, until the trainee is able to fill out the form correctly or until it is obvious the candidate should not receive certification.
- Development of exercises can begin upon finalization of data forms and observer duties.

Species Identification test.

- Preceded by identification lectures and labs using slides and pickled and fresh or frozen specimens.
- One retest is suggested.
- Possibilities include designating some species the trainee must identify correctly, and others in which the trainee must attain a certain percent correct.
- Candidates to be able to use identification materials they would have at sea.

Quizzes - verbal and written.

- Administered at appropriate times during training.
- Can either be given retest chances, or must attain a certain overall percent correct.

Final Exam

- A final test which incorporates all aspects of training.
- Candidates should attain a certain percent correct to be certified.

Performance Standards to Maintain Certification

Performance standards include how well observers carry out their duties, and what their conduct is during their tour of duty. These are two separate issues. Regarding conduct, each program should decide on what their standards will be, with a group of experts convened to discuss some program-wide minimum standards. In general, observers are expected to conduct themselves in a manner which will reflect favorably upon the program. This means acting in a professional, business-like manner in all situations. Programs may want to have a well-defined list of standards of conduct, a decertification official, and a forum through which an observer can air their side of the story.

Even with the best of training sessions, some observers go to sea and simply do not collect adequate data. Deploying these same people on a second trip without review of their performance and possibly retraining is a waste of valuable time and money, and possibly excludes another person with better qualifications. Some performance-based standards should be developed by program experts, especially data managers and debriefers, upon finalization of observer sampling duties and data forms. This would include addressing means of evaluating the quality and quantity of returned data through debriefing and computer data checks, and deciding on criteria that indicate (1) the observer maintains certification and can redeploy with only a briefing session, (2) certification is revoked, but the observer is allowed to retrain and try again, or (3) certification is permanently revoked.

Attachment 1. Partial suggested list of observer selection criteria for discussion by program experts.

Preferred	High	Moderate	Acceptable	Minimum
EDUCATION				
Four-year degree or higher with fisheries or wildlife background	4-year degree or higher in related field (biological sciences)	Enrolled with senior standing in natural sciences program	Completed 2-year degree in biology field.	
EXPERIENCE - AT SEA				
Prior observer in groundfish fishery.	Prior observer in another fishery, distant water preferred	At-sea experience as a biologist, non-fisheries.	Commercial fishing	No at-sea experience
EXPERIENCE - OTHER				
Biologist, involved in field research.	Commercial fisherman	Working unsupervised in isolated conditions		
PERSONAL ATTRIBUTES				
SKILLS AND ABILITIES				
REFERENCES				

Central Bering Sea Observer Program

Elements of Observer Training

The success of the Central Bering Sea Observer program depends upon how successfully a collection of individual observers can complete their at-sea sampling duties. Observer success depends heavily upon the training session. The elements to be considered in developing a viable observer training class include:

Goals and objectives
Observer duties
Training topics
Course outline
Presentation
Resources and materials
Means of ensuring understanding by trainees
Consistency
Maintaining data collection standards
Instructors and Guest speakers
Training of the trainers

When more than one group or nation are coordinating to conduct training, important additions to this list include:

Compatibility among programs
Individual program versus overall program goals
Topics which are mandatory versus optional.

Goals and Objectives. The goals of observer training are to make sure that:

- the best possible people are deployed to monitor fishing operations,
- these people are well-informed and trained on what is expected of them, what they will face, how the data are to be collected and in what format they should be in, how the data will be used, what their mission is, and
- the overall objective of collecting accurate and reliable data upon which to base fisheries management decisions is clarified.

If these goals are achieved, the post-cruise processes of observer debriefing, data checking, data entry, data editing, and data quality assurance will be achieved much more efficiently.

If these goals are not attained through training, the data will perhaps be unusable, meaning valuable funds have been wasted and perhaps a minimum critical coverage is not attained, making statistical use of the data tenuous.

Observer duties. Care should be taken not to overburden observers with excess duties, or all sampling might suffer and the data from even an excellent candidate be rendered useless due to observer fatigue. Standard data elements to be collected by all observers were decided on during the February 26-28, 1992, Central Bering Sea Pollock Fishery Observer Program Workshop. The general observer duties fall into three primary categories:

- Collecting data on haul characteristics.
- Sampling for catch composition.
- Biological sampling

Aspects pertinent to each would be explained in detail during the training process.

Training Topics and course outline. Training primarily consists of learning the fishing operations, sampling procedures, how to complete mathematical computations and fill out forms, how to identify the species expected to be found in the Central Bering Sea pollock fishery, and at-sea safety and living conditions. The following outline lists the activities and topics to cover during the training period, and are suggested as general guidelines.

1. Introductory and general topics.

   Description of fisheries and vessels.
   Description of Central Bering Sea Observer Program, Goals and Objectives.
   Introduction to duties: objectives and priorities, workload.
   Seasickness, medical advice, living accommodations, and clothing and other items to bring.
   Hardships, deportment, and conduct.

2. Monitoring fishing operations; primary observer duties.

   Fishing operations and sampling duties - emphasis on terminology, visual orientation, and safety on board.
   General instructions on data forms, ratio and proportion.
   Estimation of catch size - by the observer and by the ship.
   Obtaining haul information: Haul Summary Form.
   Catch Composition Sampling: determining a sample weight.

Methods for unbiased sampling.
Species Identification: terminology and methodology for identification of Bering Sea species.
Data entry on Species Composition Form.

3. Biological sampling duties; secondary observer duties.

Collecting biological information from salmon in samples: weights and lengths, sex, and scale sampling.
Collecting data on tagged fish.
Length frequency sampling, Length Frequency Form.
Otolith and scale sampling, Biological Sample Form.

4. Other important items.

Obtaining vessel production information and product recovery sampling.
Gear issue: familiarization and care of equipment, gear check-out, and calibration of scales.
Recording information on marine mammals as incidental take.
Discussion on hypothermia, medical emergencies at sea, fire control, and sea and shore survival.
Observer's logbook entries, methods of documentation.

Presentation Each topic can be taught as a "module". Ideally, lesson plans would be developed for each module to help guide the observer instructors. Many types of lesson plans exist. One such plan would include:

- a title,
- method of presentation,
- time allotted,
- statement of lesson goals and objectives,
- plan of presentation,
- resources and equipment,
- learning objectives—what the student needs to know,
- outline of the lesson, and
- review questions, exercises, and exams.

Resources and materials. Trainers would use a variety of resources as instructional aides, including slide presentations, overhead projectors, models of fishing gear, specimens, and others. The most important resources are a well-organized, clearly written field manual and appropriate species identification materials and specimens. Please refer to the draft field manual provided.

Means of ensuring understanding by trainees; maintaining data-collection standards. Ensuring materials are clearly understood and observers meet program standards are extremely important. Instructors must have means of quantifying a trainees level of understanding at each stage of training. Extra help in the form of tutoring may be provided to assist individuals understand topics with which they experience difficulty.

However, the instructor must also decide whether the candidate is simply not capable of fulfilling the program data-collection and performance standards. If not, the candidate should be released from training (please refer to "Standards for Observer Certification"). Most observers who serve in the US groundfish program originally participated in training under a "probationary" status, i.e., they could not participate in the fishery until certified in training and were in a temporary hire status until training was successfully completed. To these ends, the following would be included in a training course:

- Math test.
- Classroom practice of sampling methods and data entry.
- Classroom practice of haul weight estimation.
- Species identification of salmonids and lab practice review.
- In-class and take-home exercises dealing with filling out forms correctly: sampling methods, haul weight estimation, species composition, and other forms.
- Fish sexing and maturity and collecting otoliths: lab practice.
- Species identification exam.
- Final Exam.

Consistency. The above will also facilitate maintaining consistency between classes and between programs. In addition, consistency between trainers is extremely important (see below).

Instructors and Guest speakers. The best use of qualified and talented trainers needs to be made. Special topics, such as marine mammal or salmonid identification, can be taught by experts. However, trainers need to also learn these materials to act as a "back-up" for those times when the guest speaker is not available.

Compatibility between and among programs; Topics which are mandatory versus optional. Once all data forms and required observer duties have been finalized, a panel composed of observer

trainer experts from each country should perhaps convene or decide through communication the precise topics each nation must include to ensure compatibility. Each nation could also include other topics of interest in training, such as special projects which can be fulfilled without taking away from the observers primary duties.

Training of the trainers. The skills and abilities of individual trainers greatly affect the success of training. Ensuring that trainers have the same skills and abilities, as much as possible, becomes increasingly important to ensure consistency and compatibility between observers, and data, of different nations. Typically, in the U.S. North Pacific Groundfish Program, trainers are certified through a process which includes:

- Having worked as an observer in the fishery (or similar fishery).
- Familiarity with processing the data as a program staff member.
- Predilection to being a trainer, including public speaking training and experience (if possible), possessing skills in presenting materials, having enthusiasm for the job, and being a good listener (i.e., perceptive or sensitive to all kinds of people).
- Participation in a class in the position of a trainee.
- Developing lesson plans.
- Co-teaching of an observer training course.
- Teaching a full course, while being evaluated by a certified trainer.

This full scope of ensuring consistency may not be feasible for all trainers of all nations. Minimum certification standards should be decided upon by Central Bering Sea Observer Program participants. The candidate trainers should be trained in a single location. We offer the U.S. North Pacific Groundfish Observer Program at the Alaska Fisheries Science Center.

B. Observer Program Manual drafted in December 1992

OBSERVER PROGRAM MANUAL

FOR SAMPLING OF

CENTRAL BERING SEA POLLOCK FISHERIES

DECEMBER 1992

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CENTRAL BERING SEA OBSERVER MANUAL

This manual has been prepared to assist you in your duties as an observer aboard fishing vessels operating in the Central Bering Sea pollock fishery. This manual, in addition to training sessions, should adequately prepare you for your observer experience. It must be remembered, however, that conditions can change and that no set of instructions can ever be complete. It is therefore the responsibility of the observer to evaluate each situation on the vessel before deciding on a course of action. Study the manual carefully, refer to it often and consider ways in which it may be improved as a guide for future observers.

ROLE OF THE OBSERVER IN THE CENTRAL BERING SEA POLLOCK FISHERY

The international area of the Bering Sea has an important fishery resource. In order to maintain the resource, biological information must be collected from the region. Biological observers will be placed on board vessels fishing in this area to collect the information needed to assess the resource.

The primary objectives of the observers are to record fishing effort, obtain daily catch rates, determine species composition of the catches, determine the incidental takes of salmon and marine mammals, and to gather data on pollock sizes and ages. The estimates of catch rates obtained by the observers may be compared with data reported by vessels to enable scientists to estimate total daily landings of pollock.

Data collected by observers will be used in helping to assess the status of the pollock stock, estimating the bycatch rates of species other than pollock, and investigating population interrelationships.

Data obtained by the observers on catch size and species composition will give fishery scientists an idea of the catch per unit effort of pollock, an important factor in determining the status of the stock. Length frequencies and otolith collections are also vital in determining the condition of the fishery resource, and hence, of determining how much is available to be caught without causing fishery deterioration. Mathematical models used to assess the pollock population are dependent upon a measure of the current age composition of the commercial catch. Without these data and models, the ability of fishery scientists to determine the condition of the pollock stock would be diminished.

Data obtained by observers should be useful in studying particular fisheries questions, such as the stock relationships between pollock caught in the Central Bering Sea and those caught in the Eastern or Western Bering Sea. In addition to planned uses, there are many other uses of data which are not always

anticipated.

Because scientists depend on the data obtained by observers in order to assess the impact of fisheries upon the stocks, the necessity for accuracy in data collections, accurate determinations of species, and complete fulfillment of the sampling plan cannot be over stressed. Data forms must be carefully completed and checked. Sample forms in this manual serve as guidelines.

This manual, along with the training sessions, should adequately prepare you for an observer trip. Because of the variations in fish handling by different ships, observers may be confronted with sampling problems not fully covered in the training sessions. You will need to adapt the sampling methods covered in this manual and in your training to the situation experienced aboard your ship.

OBSERVER DUTIES AND PRIORITIES

Primarily, the observer's duties and priorities consist of collecting catch information, determining catch weight estimates, sampling for species composition of the catch, and collecting biological data on pollock. A list of the observer's main duties is given below.

1. Record daily fishing effort and catch weight information. This manual contains instructions describing methods of obtaining these estimates and how your estimates of catch should be used.

2. Record species, numbers, and viability of incidentally caught marine mammals and salmon.

3. Determine the species composition of the catch according to instructions in this manual.

4. Obtain biological data and samples from pollock as directed. This may include length frequencies, sexes, otoliths for determining age, stomach content samples, or other information as requested.

5. Prepare a final report for the vessel which includes all information that is pertinent.

CONFIDENTIALITY OF OBSERVER DATA

Fishermen are concerned that information you are collecting can be obtained by anyone who may be interested in finding out where they caught fish. If this is brought up to you, reassure them that the information you are collecting is handled under strict

rules of confidentiality and that you (the observer) are bound by the confidentiality rules as well. If you are asked by vessel personnel about another vessel you were on, explain that just as you can't talk about this vessel after you get off it, so you can't tell them about a previously observed vessel.

Observers must know that all data collected are the property of their government. No observer can retain or copy any data or reports following their return unless granted express permission from their government.

STANDARDS OF OBSERVER CONDUCT

Observers are expected to conduct themselves in a manner which will reflect favorably upon the observer program. This means acting in an honest, professional, business-like manner in all situations. Observers should try to abide by these basic standards of conduct:

1. Observers must diligently perform their assigned duties.

2. Observers must accurately record their sampling data, write reports, and report honestly on the fishing activities of their observed vessel.

3. Observers must keep all collected data and observations made on board the vessel confidential.

4. Observers must refrain from engaging in any activities that would reflect negatively on their image as professional scientists, on other observers, or on the observer program as a whole.

SPECIAL CAUTION ON DEPORTMENT

1. When conflicts or sampling problems occur which affect your attempts to get unbiased samples of the catch (pre-sorting of fish for example), you can usually work it out by talking with the crewmen, factory foreman or fishing master. If this doesn't help, talk to the captain and ask him to help you but don't be demanding in your attitude. Present a case which shows you have thought about both sides. Listen and consider their objections. Negotiate compromises as long as they don't interfere with your ability to get good data. If talking fails, try to get the best data possible anyway, and make notes on the problems to discuss when you return home.

2. Maintain a friendly but professional demeanor to vessel personnel. Your behavior should be governed by remembering that you are highly visible. Before acting in any given

situation, be mindful of the sensitivity of your position. Tactful, mature handling of problems is expected. Remember, you are on the job 24 hours per day.

3. Observers should never accept gifts as this may appear to compromise your impartiality. You may not accept payment for any work you perform for the vessel during your employment as an observer.

4. As an observer you should abide by the rules and regulations relating to conduct on your host vessel. Do not accept or transport any item violating laws relating to endangered or protected species.

5. Once you are aboard your sampling ship, avoid making visits to other vessels. Sometimes other ships, tenders, or catcher boats may tie up to your vessel. Consider going aboard only if your transfer there and back can be made under safe conditions and if your work performance is not affected. Do not make social visits to other vessels if they are not tied up to your vessel. Do not stay away from your vessel overnight.

6. Consider safety first in everything you do.

THE TRAINING PERIOD

Training will consist of learning how to identify the species of fish expected to be found in the Central Bering Sea pollock fishery, explanations of the sampling procedures, and information on safety and living conditions at sea. The following outline lists some of the activities covered during the training period. The outline is not necessarily complete and the items are not necessarily given in the order that they will be presented.

Observer Training Topics

Observer sampling duties - emphasis on terminology, visual orientation and safety on board.
Seasickness, medical advice, living accommodations, clothing and other items to bring.
Hardships, deportment, and conduct.
Duties: objectives and priorities, workload.
Species Identification: a general review of identification terminology of various Bering Sea species.
General instructions on data forms, ratio and proportion.
Obtaining haul information: Haul Summary Form.
Estimation of catch size - by the observer and by the ship.
Catch Composition Sampling: determining a sample weight.
Data entry on Species Composition Form.

Methods for random, representative and unbiased sampling.
Classroom practice of sampling methods and data entry.
Classroom practice of haul weight estimation.
Collecting biological information from salmon in samples: weights and lengths, sex, and scale sampling.
Collecting data on tagged fish.
Obtaining vessel production information and product recovery sampling.
Length frequency sampling, Length Frequency Form.
Otolith and scale sampling, Biological Sample Form.
Fish dissection and otolith removal: lab practice.
Discussion on hypothermia, medical emergencies at sea, fire control and sea and shore survival.
Recording information on marine mammals as incidental take.
Species identification of salmonids and lab practice review
Species identification exam.
Gear issue: familiarization and care of equipment, gear check-out and calibration of scales.
Final Exam.
Observer's logbook entries, methods of documentation.
Preparation for first day aboard.

OBSERVER CLOTHING AND EQUIPMENT

Observers will be supplied with the equipment necessary for the collection of biological data at sea. The observer is responsible for the transport and return of the sampling gear issued. The observer must make an effort not to lose and to prevent theft of the gear issued to him.

Observers will provide their own personal clothing, warm work clothes for wearing under rain gear, toilet articles including a towel, and other items of a personal nature. The vessel upon which the observer is to be stationed will be expected to provide adequate quarters and meals. It is expected that the vessel captain will allow the observer an adequate and safe space in which to carry out the sampling duties.

The following pages are lists covering the clothing and equipment necessary to perform 60 - 90 days sampling.

Suggested Sampling Equipment

Observer sampling manual
pencils and pens
eraser
calculator
sampling baskets
rope for hanging scale and securing baskets
cleaning powder for baskets and equipment

lubricating oil for scales
50 kg scale
5 kg scale
2 kg scale
large hooks for hanging scales
fish gaff
measuring tape, 30 meter or 50 meter length
measuring tape, 2 meter
sponges for cleaning equipment
scale envelopes
otolith containers
alcohol for preserving otoliths
plastic bags
clipboard
plastic sheets for recording data
data forms
binder for holding data forms
forceps
knife
scalpel
whet stone
rain pants and jacket
rubber gloves
hard hat
rubber boots

Personal Items Supplied by Observer

The following is a recommended list of personal clothing. The amount and type of heavy clothing depends on personal preference. Weather in the Bering Sea is generally cold and storms are common.

Work clothes--minimum number and type

Shirts, wool - 2 (1 light, 1 heavy)
Shirts, cotton - 2
Shirts, cotton sweat - 1
T-shirts - 3
Trousers, wool work - 1
Trousers, cotton - 2
Wool knit cap
Slippers or sandals
Handkerchiefs, large - 3
Underwear, long-thermal - 2 pairs
Underwear - 5 pairs
Socks, wool work - 2 pairs
Socks, cotton - 5 pairs
Jacket, medium wool or synthetic - 1

Other items or articles

Towel, medium cotton - 2
Pillowcase - 1
Toilet articles
Duffel bag - sturdy, medium size, old or inexpensive - 1
Small day pack or knapsack - 1
If corrective lenses are used for eyesight - a spare pair

Optional/Recommended Items

Felt/wool boot insoles (not liners) - 2 pair
Needle and thread, safety pins, and duct tape for repairs
Camera and film
Watch and alarm clock
Medication for seasickness
Athlete's foot cream
Vitamins
Hand cream
Books and magazines
Water bottle - to keep drinking water in your cabin

Vessel Data Forms for 3 months:

Haul Summary Form	20
Species Composition Form	150
Species Description Forms	20
Length Frequency Form	45
Biological Sample Form	30
Gear Diagrams	3

Preparation and Care of Sampling Equipment

1. Protect your gear from loss overboard and from theft. Do not leave gear items such as baskets and scales on the weather deck unless there is no alternative and they are well secured. Stow all sampling gear when you are finished using it and inform the skipper and crew not to borrow or use your equipment without your permission.

2. Keep all paper products and small, loose equipment (pencils, pens, thumb tacks, scissors, counters, etc.) protected from moisture throughout your trip.

3. Most important: Every day before use, the weighing scales must be checked over. Keep them cleaned and oiled. Adjusting screws must be kept coated with grease. The scales have steel springs inside which will rust - oil must be squirted up inside the scales.

4. Tape measures, calipers, and thumb counters must also be cleaned (and oiled if necessary) each day when used. (Be

careful to keep oil away from plastic data forms, since pencil marks tend to wipe off a slick surface).

Calibrate your scales when you get them. Then prepare a known weight by selecting items which may be easily assembled later. (i.e. a basket, wheels, and books). List the items weighed and their total weight. This known weight may then be used later to check your scale adjustment or to check the accuracy of shipboard scales.

Prior to using your baskets or other containers for weighing, weigh the empty containers so you will know how much to subtract from each weight figure to reflect the weight of the contents only.

Accurate weights are sometimes hard to obtain when the ship is rolling. When possible, secure the top of the scale directly to a fixed structure, such as a ceiling brace. If the top of the scale has to be attached to the ceiling by a length of rope, use three ropes attached to widely separated points on the ceiling to minimize the swing of the scale. Keeping the length of the ropes to the basket short also helps. Scales located close to the center of the ship tend to swing less. If a shipboard scale is available for your use, you should use it, but check it for accuracy first.

ARRIVAL ABOARD THE SHIP

Observers must be aware that fishing schedules are often changed by weather, mishap, break-down or fishing success and these events often change observer schedules.

Vessel conditions vary widely depending on the ship type and size, company and skipper's policies, and the fishing success. "Conditions" include cleanliness and upkeep, safety, comfort of quarters, quality of food, general attitude, and good personnel management. Observers must be flexible as only a few generalities on what to expect can be made. Personal quarters are usually small. The most personal luggage one should ever carry on is a duffle bag.

Your work on board your fishing vessel will be very different than the work of the rest of the crew. In order for you to be able to do your job with the fewest problems, there are some guidelines which have been developed from experience. Show respect to others and it will be returned to you. One way to accomplish this is to make a conscious effort to remain clean and neat. Clean up after yourself and help where you can, as you will need their help in return. Do your best to maintain a good attitude. Adaptable observers with a good attitude are apt to receive more consideration than those who criticize and make demands.

Illness and Accidents Aboard

Seasickness often hampers observers at the beginning of a cruise, but give it time - most of the effects of seasickness disappear after a few days. Indigestible stomach contents, unpleasant fumes or cooking smells, and anticipatory fear will trigger seasickness. The symptoms are nausea, headache, drowsiness, and depression. This is normal, it is just difficult to live with. Remember, no one ever dies of seasickness, but weakness and dehydration can be dangerous. You must make yourself drink water or some non-acidic juice, not coffee, tea or alcohol, and try to eat some mild food such as rice or bread to keep up your strength. Take some seasickness medication along even if you don't plan on using it.

These actions may help you overcome seasickness and adapt to your vessel:

Try not to think about seasickness, put it out of your mind, force yourself to think of other things.
Practice releasing the tension in your muscles; as soon as you begin to feel apprehensive try and relax.
Avoid unpleasant smells (especially tobacco, damp clothing, and vomit). Stay away from the galley
Below deck: lie down, keep your eyes closed.
In the saloon: fix your eyes on a freely suspended object.
Seek out cool, fresh air and take calm, deep breaths.
Where possible, keep away from enclosed spaces, go out on deck.
Reduce the amplitude of the motion stimuli: keep amidships or astern, avoid the forward end of the ship.
Try not to sit and let yourself be rocked passively back and forth with the motion of the boat.
When standing, avoid leaning against anything, stand erect and make active compensatory movements to keep your balance.
Try to move your head as little as possible.
Focus on the horizon; watch the swell and anticipate the movement of the waves
Participate in the normal duties on board.
At all events see a job through to the end, do not give up on it.

Determine that you will persevere through the mental and physical discomfort due to seasickness, do not dwell on fear. It is simply a matter of adjustment. If severe discomfort persists for more than five days let the captain know. He may not be able to help you, but he will be aware of your condition in case your health gets much worse.