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Gear Overview

The WCGOP will provide you with the equipment you need to help safeguard your life and perform your job safely and efficiently. The following chapter includes

Figure 11-1: WCGOP Full Gear Set

a general overview of all gear, basic use and care instructions for many important pieces of equipment, addresses common problems observers encounter during their contract and provides some information on additional gear you may wish to obtain. Review this chapter carefully and use it as a reference to help deal with any concerns prior to contacting the program for assistance.

Once your gear is checked out, you will be responsible for the proper care and use of approximately $13,000 worth of scientific and safety equipment. Basic wear and tear and even the occasional accident is expected, but remember that you do not own the equipment. Should gear be lost, damaged, or stolen due to negligence, you may be required to pay to replace it. See "Figure 11-2:" on page 11-3 for a complete list of gear and replacement costs. You will not be charged for equipment damage or loss due to documented circumstances that were out of your control.

Gear List and Approximate Replacement Cost

Category	Item	Unit Cost	Quantity
Book	Beating the Odds	$ 15.00	1
Book	Guide to the Coastal Marine Fishes of CA, Miller, Lea; 1976	$ 35.00	1
Book	A Field Guide to Western Birds: Roger Tory Peterson; May 1998	$ 13.60	1
Book	Guide to Marine Mammals of Alaska, Second Edition, Wynne; 97	$ 25.00	1
Book	Pacific Coast Fishes, Eschmeyer	$ 13.60	1
EPIRB	EPIRB	$ 529.00	**Depending**
EPIRB	Personal Locator Beacon	$ 365.00	**1**
Forms	Various Forms	$ 0.45	200-400
Knife	Knife	$ 3.92	2
Manuals	Logbook	$ 20.00	4
Manuals	Manual	$ 70.00	1
Manuals	Field Manual	$ 60.00	1
Manuals	WCGOP Species ID Manual Waterproof	$ 125.00	1
Office Supplies	Calculator (10 Key)	$ 15.00	**1**
Office Supplies	Office Supply Kit (full kits based on check out form)	$ 5.00	**1**
Other	5 Gallon Bucket & Lid	$ 7.00	1
Other	Digital Camera and media possibly	$ 300.00	?
Other	Hand Cart	$ 70.00	**1**
Other	Rope, polyester 25ft.	$ 7.41	**1**
Safety Gear	Back Support Belt	$ 14.00	1
Safety Gear	Immersion Suit Zipper Wax (Check in Suit) (BEES WAX)	$ 2.76	1
Safety Gear	Ear plugs, pairs	$ 0.50	4
Safety Gear	Emergency Strobe-Hemilight	$ 20.00	1 to 2
Safety Gear	Emergency Strobe-C	$ 25.00	1
Safety Gear	Emergency strobe, Firefly	$ 61.46	2
Safety Gear	First Aid Kit	$ 16.58	1
Safety Gear	Hard Hat	$ 13.28	Option
Safety Gear	Immersion Suit:	$ 300.00	1
Safety Gear	Knee pads	$ 15.96	Option
Safety Gear	PFD - Inflatable	$ 270.00	1
Safety Gear	PFD - Non-inflatable	$ 64.00	Option
Safety Gear	PFD belt pouch	$ 32.00	1
Safety Gear	Rescue Streamer	$ 39.00	2
Safety Gear	Safety Glasses	$ 4.00	1
Safety Gear	Whistle	$ 2.21	3
Sampling Gear	Clipboard, Plastic	$ 18.05	1
Sampling Gear	crab calipers	$ 25.00	1
Sampling Gear	fish pick	$ 3.75	1
Sampling Gear	Forceps,4 1/2", Curved Tip	$ 2.45	2
Sampling Gear	Headlamp	$ 20.00	1
Sampling Gear	Length Frequency Board- Stainless Steel	$ 350.00	1
Sampling Gear	Meter Stick	$ 9.75	1
Sampling Gear	Plastic Deck Forms	$ 10.00	2
Sampling Gear	Plastic vials	$ 0.20	40
Sampling Gear	Sampling Basket	$ 5.00	6
Sampling Gear	Sampling Basket Lid	$ 7.18	1
Sampling Gear	Specimen Bags	$ 0.25	30
Sampling Gear	Tally Counter	$ 2.94	4
Sampling Gear	Tape Measure 15 M	$ 16.50	1
Sampling Gear	Platform Scale Marel	$ 7,000.00	1
Sampling Gear	Pelican Case for scale	$ 440.00	1
Sampling Gear	5 kg. Calibration Weights	$ 215.00	1
Laptop	Netbook	$ 533.00	1
Laptop	Laptop	$ 1,533.00	
Laptop	Pelican Case	$ 169.00	1
Sampling Gear	Handheld Scale, Chatillon 10lb.	$ 80.00	1
Sampling Gear	Handheld Scale, Chatillon 25 LB	$ 80.00	1
Sampling Gear	2 lb. Calibration Weight	$ 50.00	1
Sampling Gear	5 lb. Calibration weight	$ 75.00	1
		$ 13,206.80	

Figure 11-2: Approximate Gear Costs

Gear Assignments

Gear is assigned at various points during training, starting with the first day of class. A gear checkout sheet with staff and observer check fields is used to track what you receive and need. See "Figure 11-4:" on page 11-5.

During training you will have a chance to try on various immersion suits and get an idea for any additional gear you may need based on your port assignment. Your debriefer/coordinator can give you some suggestions as well. During the gear lecture you will be introduced to all the equipment that will be provided to you and begin the official process for gear assignment. You have until the end of training to figure out if you would like to request any optional equipment, but if you think you would like something please indicate that as soon as you can by filling out the Qty. column under the Check Out heading during classes you are going over gear.

Carefully go over everything in class, the gear you are looking at will most likely be yours. A gear sheet will be provided for you to review whenever you are assigned gear. Some items will only be assigned once you complete training to ensure proper fit so don't worry about missing items that you won't need during training.

Books, Manuals and ID Guides

The books, manuals and ID guides you have received are valuable reference tools and require special care to be used effectively in a marine environment. Paper books should be left inside or protected from wet conditions at all times. You have been given special waterproof ID guides to assist you in identifying species on deck. When you need to confirm or narrow down your ID's with a paper book, please do so only after removing gloves and moving to a location that ensures the book will not get wet or dirty. The paper books are not intended to be used as keys on deck. Put the organism to the side until you are done sampling and can clean up to perform a proper ID without ruining a book. Once a book gets wet it becomes very difficult to use. See the following list for reference.

Waterproof guides should be cleaned regularly. Simply wipe each page with a damp sponge and allow to dry. In extreme cases, fill a sink with a mild bleach and soap solution and swish the book around, refill the sink to rinse and dry thoroughly with a towel or fan.

Books By Type:

- Pacific Coast Fishes: Eschmeyer (Paper)
- Coastal Marine Fishes of California: Miller & Lea (Paper)
- Marine Mammals of Alaska: Wynne (Water proof plastic)
- A Field Guide to Western Birds: Peterson (Paper)
- WCGOP Species ID Manual (Water proof plastic)
- WCGOP Manual (Paper)
- Field Sampling Manual (Write in the rain)
- Observer Logbooks (Paper)

Please do not write in books or ID guides unless directed to do so. During the species ID lectures you may be asked to make specific changes (errata) to the manuals in specific locations and with exact wording. Please write as clearly as possible using only the writing tool directed to use. If you need to add personal notes please use the post

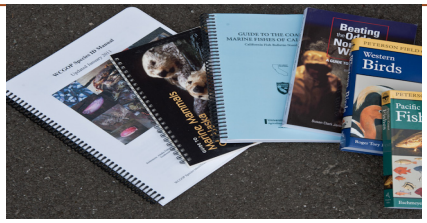


Figure 11-3: Species ID Guides

Data Entered Check-out____ Data Entered IN____

WCGOP CS Gear Sheet

End of contract/Gear check in

Name (print): | Provider: | Date Checked In:

Cell Phone: | Port Assignment: | Date Checked Out: | Checked in By:

Gear check out: Staff check mark in column 1, observer check mark in column 2, quantity in column 3. Fill out only the check out columns.

Check out Staff	Check out Obs.	Check out Qty	Item	Check in Qty	Check in Obs.	Check in Staff
		1	Immersion Suit Serial #:_____			
			Small(red) Universal(orange) Jumbo(green)			
			Stearns or Imperial			
		1	*Hemilight Strobe* *Exp.:*			
		1	*Whistle secured to Immersion suit*			
		1	*Rescue Streamer secured to suit*			
		1	Netbook PSMFC Prop #_____			
		1	Pelican Case for netbook			
		1	Power supply. Netbook			
		1	Mini USB Mouse			
		1	Flexible USB 10 Key			
		1	M. scale Faceplate Serial #_____			
		1	Pelican case with foam			
		1	Marel Scale Test form turned in			
		1	5 kg weight			
		6	D batteries			
		1	PLB Serial (S/N)#:			
			Beacon #: 2DCE			
			Battery Exp.:			
			Reg. Exp.:			
		1	PFD - mustang/Stearns Inflatable			
		1	*Rescue Streamer in PFD*			
		1	*Whistle in PFD*			
		1	*Emergency Strobe-C and Clip i n PFD*			
			Hydrostatic Replace by Date_____			
			Sample Gear			
		1	Sampling Basket			
		1	Sampling Basket Lid			
		1	Clipboard,Clear			
		1	crab calipers			
		1	First Aid Kit			
		1	Stainless S. Length Board			
		1	Rope, polyester 25ft.			
		1	fish pick			
		1	gear dolly			
		1	5 Gallon Bucket & Lid			
			Additional Sampling Baskets (2-10)			

Check out Staff	Check out Obs.	Check out Qty	Item	Check in Qty	Check in Obs.	Check in Staff
			Sample kit			
		1	Waterproof Box			
		10	Scale Envelopes			
		1	Meter Stick Folding			
		1	LED Headlamp			
		1	Bees Wax/ Zipper Wax			
		3	Ear plugs, pairs			
		2	Forceps,4 1/2"			
		1	Scissors			
		1	Knife			
		1	Knife Sheath			
		2	Pair Nitrile glove			
		2	Sponge			
		2	Tally Counter			
		1	Scale O-ring Grease			
		2	Large rubber bands			
		1	Tape Measure 10-15M			
		1	Belt			
		1	PLB belt pouch			
		20	Barcodes and plastic vials			
		1	Pack Specimen Bags S/M/L			
			Forms			
		1	Accordion File folder			
		1	All Paper Forms in 1-2 PKs			
		1	Species Composition PK 100			
		1	Catch Form PK of 100			
		20	Flatfish Species ID			
		10	Skate ID			
		25	Misc. Species ID			
		20	Rockfish Species ID			
		2	Spcm collection Sheet			
		6	UPS shipping labels			
		10	Tracking Forms & envelopes			
		5	sablefish forms			
		3	Additional Logbook(s)			

Check out Staff	Check out Obs.	Check out Qty	Item	Check in Qty	Check in Obs.	Check in Staff
			Office Supply Kit (Day 1)			
√		1	A Field Guide to Western Birds			
√		1	Beating the Odds			
√		1	Guide to Marine Mammals of AK			
√		1	Guide to Coastal Mar. Fishes of CA			
√		1	Pacific Coast Fishes, Eschmeyer			
√		1	WCGOP Species ID Manual full			
√		1	Manual			
√		1	Logbook			
√		1	Deck Sheet PHLB viab (Tan)			
√		1	Deck Sheet- Biosampling (Orange)			
√		1	Deck sheet Marel Scale (Orange)			
√		1	Field Manual			
√		1	Calculator (10 Key)			
√		1	Clipboard, Storage			
√		1	Mech. pencil lead			
√		2	Mechanical Pencils			
√		1	Paper clips (bunch)			
√		1	Sharpie			
√		1	Postit note pack			
√		1	Postit flags			
√		4	#2 Pencils			
√		1	Pen			
√		1	Eraser			
√		1	Pencil Sharpener			
			Optional Gear			
			PFD non-inflatable			
		1	Emergency strobe, Firefly			
		1	Whistle secured			
		1	Rescue Streamer			
			Back Support Belt			
			Hard Hat			
			Knee pads			
			Safety Glasses Clear			
			Safety Glasses Smoke			
			Mammal Saw			

Signature:

Figure 11-4: CS Gear Checkout Form

it notes provided. While the personal information you may add makes sense to you, it may not to someone else and has on occasion been found to be wrong.

Primary Sampling Gear

- Motion compensation scale
- Length frequency board, stainless steel
- 10-15m. measuring tape
- Tally counters (lubricate with WD-40 or the like by spraying through knob.)
- Meter stick
- Baskets
- 5-gallon bucket
- Fish pick
- Knife/scissors
- Crab caliper (lubricate and slide often)
- Forceps
- Waterproof storage box
- Specimen bags, otolith vials, envelopes
- Forms, clipboard, pencils, paperclips, etc
- Rope, gear dolly
- Netbook computer and carrying case

Above is a list of the basic gear you will need to do your job. Later in the chapter you will find detailed information on the scale and netbook. During lecture we will go over the specific care and use of each item. Your tools will need occasional lubrication and constant cleaning. Most vessels have some kind of spray lubricant on board that you can borrow from time to time. Some tools will only be used occasionally so it's important to check them periodically to ensure they will work when needed.

Keep all equipment as clean as possible. This will make it much easier for you to clean your equipment when returning it and keep it from stinking up your car and house. Use deck hoses to rinse slime, scales, and blood off your baskets, deck sheets, length boards, clipboards, and knife after each use. Many vessels have high pressure hoses which are excellent for cleaning equipment.

Whenever you get a metal tool wet or dirty be sure to clean and rinse it with fresh water at the end of your trip. Rust and corrosion will quickly inhibit gear that is not well maintained. If you store your tools in a basket you will need to rinse them after every trip regardless of use. Use the bucket or waterproof box to keep rarely used items dry and available when needed.

Trifold Stainless steel length board Use Care instructions: Your primary lengthing device is a custom made stainless steel, tri-folding, laser etched measuring board. This board was designed specifically to meet your needs and should measure 92% of all fish that you encounter that require a length, up to 136 CM. It will fit in your basket, allow you to measure smaller fish without unfolding it and stay in place on deck or the edge of your basket. It has been professionally welded and should not break. The surface allows for marking in pencil, which can be washed/rubbed off easily once the data has been recorded.

Figure 11-5: Stainless Steel Length Board

Figure 11-8: Standard Measuring Tools

Figure 11-7: Tally Counters

Figure 11-6: Tissue and Otolith Collection Tools

Note that you can also store the board in your scale case by making a slit in the foam to allow the short end to be pushed into the foam.

Use:

- Pull out, measure fish according to procedure.
- If taking individual weights, place the board on the scale, tare and measure fish on the scale while taking the weight.
- Place on short edge of basket when measuring many small fish for ease of discarding.
- The numbering will darken with time and oxidation.

Care:

- If abraded, the laser etching will fade over time, Please only wipe with sponge or cloth to clean.
- Use a deck hose to clean after use, high water pressure is fine.
- Always put the board away after use. Secure whatever you put it in (Scale case preferred).

Rain Gear

The WCGOP does not provide rain gear. You will need to acquire it on your own. The average cost for a new set of rain gear is $300-$400. Most gear in this price range will be fairly durable. Heavy duty PVC rain gear is recommended. High quality gortex is also an option but is much harder to keep clean. Check with your provider they may be able to get discounts.

At a minimum you will need:

- Rain gear: bib overalls and jacket with hood (1 set)
- Boots: Xtra-tuff brand highly recommended (1 pair)
- Boot insoles: wool or felt insoles made for Xtra-tuffs (2 pairs)
- Gloves: heavy rubber gloves- strong enough for work, but flexible enough to write (6-8 pairs)

Some other options are:

- Hood less or hooded lighter weight pull over rain coat.
- Neoprene cuffs to keep water out.
- Inner pockets on rain pants for knee pads

Safety Gear

- Immersion suit
- Personal Flotation Device (PFD) Inflatable assigned
- Strobes
- Whistle
- EPIRB

- Safety Glasses/Ear Plugs
- First Aid Kit

Optional Gear

- Hard hat
- Back brace
- Kneepads
- Non inflatable PFD

You will receive detailed instruction on the use and maintenance of most of your safety gear during training and later in this chapter. Please pay close attention and follow all procedures. WCGOP can provide you all the essentials, but when it comes down to it, it's all up to you. A basic first aid kit is included in your gear. You will be responsible for keeping it stocked and is yours to keep once opened.

In addition to automatically assigned gear, we have a selection of optional safety gear available should you desire it. Most observers find these items of little use and rarely actually wear them, which is why we do not require you to take them. Please only request gear you will actually use. Hard hats are generally available anyplace they are required.

By default we assign you an inflatable PFD. Most observers find them much more comfortable, cooler, and easier to keep clean. We have selected them because they are more likely to float you face up should you end up in the water unconscious. If you desire a non-inflatable PFD you may check one out as well. Whichever you use, you are required to wear it at all times while working on deck.

Cameras

You are required to take and submit images of certain species with your species ID forms to assist in confirming proper identification. Cameras are for species identification documentation only. Images of the vessel, crew or fishing activities should never be taken unless you have been specifically directed to do so (these are always noted in the log book). Having a camera on a vessel is always a controversial prospect. The crew may feel that you are trying to "catch them" at something and be very wary of your taking pictures. It is imperative that you follow instructions carefully and communicate clearly with the vessel if confronted. You may not publish images where a vessel or crew member may be identified. Misuse of images is grounds for decertification.

Camera options and rules

Catch Monitor Non waterproof camera

- Place camera in a zip lock bag and cut a hole for the lens to fit out.
- Write image numbers on the appropriate species ID sheet as you take them.
- Print images out or send to debriefer for printing.
- Attach printed image to Species ID Form.
- Always include date and time stamp on image.

Waterproof camera

- Watermarking capabilities turned on if available. The watermark should never be turned off.
- Write image numbers on the appropriate species ID form as you take them.
- Print images out or send to debriefer for printing.
- Attach printed image to Species ID Form.

- Always include date and time stamp on image.

Basic Rules

- All species images must be cataloged on the species ID forms. Just write the file name(s) on the top of the form.
- Special project images that have been requested must be logged (logbook page 108).
- All logs and images must be turned in.
- Only images of fish/samples to be taken unless otherwise specified.
- Misuse of images is grounds for decertification.
- A photo slip/specimen label should appear by each fish in the image which will identify the trip, haul, date and species as ID'ed. If necessary for image take one picture of form followed by the fish images.

Taking pictures

When photographing specimens, do not get too close and try to hold the camera at an angle to prevent glare or flash reflections. If digital, review each image and retake as needed. Wait to take pictures until the end of your sampling if possible. This will allow you to take time to take a good photo. Clear a spot and work slowly.

Document your pictures while you are taking them. Write up a species ID label or form and include it in the image next to the fish. The form should have the species name, trip number (or vessel name if not known yet), haul number, and date filled out prior to photographing the specimen. It is helpful to place the fish on a length strip for scale.

Take multiple pictures of each fish from different angles: top, side, front, and bottom (just roll the fish). Try to spread out fins and show special identifying characteristics. Close ups are helpful for small characteristics.

It is best to document each photo soon after taking the picture. Go through digital images and write the corresponding numbers/file names directly on the form. The form should match the one in your picture.

Satellite Phone

Observers covering the mothership catcher vessels will be issued satellite phones for communicating with the observer program. These phones are to be used for data transmission and/or emergencies only. Your provider should know if you need one and should contact:

Eric Brasseur
ebrasseur@psmfc.org
(757) 897-9651

You will need to either pick up a sat phone, or have it sent to you prior to boarding the vessel. For UPS delivery you must have a physical address.

To use the phone:

1. Go outside and find a clear space (no overhead obstructions)
2. Turn the phone on by pressing the red on/off button
3. Wait for a satellite connection
4. Dial 001-(area code)-phone number. 001 is the US country code.
5. Make your report as described in training.

Transporting and Securing Gear

More gear is lost or damaged while being transported or stored on deck then any other way. To mitigate this follow a few basic rules.

When hauling gear from car to boat use the most secure method possible. If the marina has carts with sides available these are the best option. They are usually designed to take the bumps often encountered on the docks. Be sure you can handle what you put in the cart. More trips are preferable to diving to recover your gear. When using the cart provided by WCGOP put the heaviest items on the bottom. Secure loose items to

Figure 11-9: Place gear on cart with heavy items on bottom. Tie a bowline to the scale handle.

Figure 11-10: Run line through cart handle.

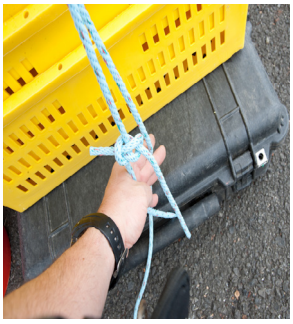


Figure 11-11: From handle bring the line back through the first bowline.

Figure 11-12: Pull line through.

Figure 11-13: Wrap line around stack and cart.

Figure 11-18: Gear set tied up with immersion suit out.

Figure 11-19: Immersion suit tied in the stack of gear.

Figure 11-16: Finish the clove hitch.

Figure 11-17: Add a stop twist to the clove hitch.

Figure 11-14: Complete wrap at the cart.

Figure 11-15: Begin tying a clove hitch.

prevent them from falling out when passed to the vessel. If necessary tie the items to the cart as in the example "Figure 11-19: Immersion suit tied in the stack of gear." on page 11-10.

When passing gear to the vessel try to find someone to help. If no one is available, toss what gear you can safely toss. Balance items on the rail and step into the vessel and lift them the rest of the way on. If the deck is higher or lower than the dock you may need to crane your gear on or tie and lift/lower it. When using a crane ask the vessel crew to operate the controls. You should stabilize the gear with a guide line to help keep it from swinging and direct the landing. Be sure that you balance the load properly to avoid tipping gear. Another option is to use an empty fish tote/crane tote to transfer the gear via the crane, a good option if boarding at the fish plant.

When transferring over water secure a line to your scale to assist with recovery should it fall in. Be sure the line is long enough to reach the water line and either secured to something or held in a way that will not pull you in. Gear dropped from any height can easily pull you off balance

Storing gear on deck

Best practice for gear that must be left on deck is to always assume there will be bad weather. Even on a calm day, the actions of the vessel can cause water to wash over the deck. Find a place to put your gear, packed in baskets, buckets, and cases, that does not have a scupper or open rail nearby if possible. Pack the gear as tight as you can. If your baskets can slide around in a bin, then a wave or

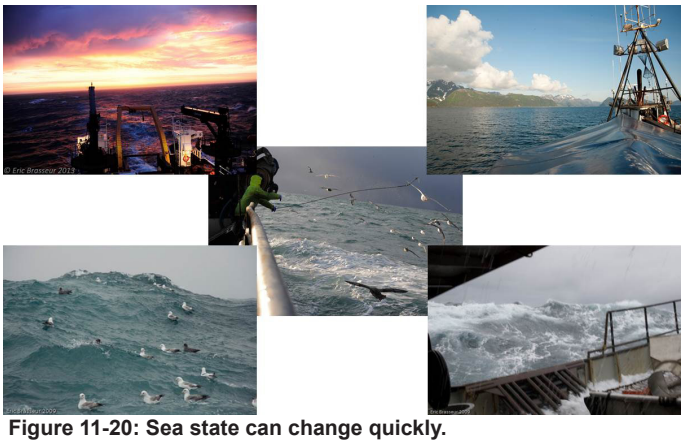


Figure 11-20: Sea state can change quickly.

sharp turn can knock it over and spill the contents. Gear that slides can easily end up overboard.

Always put away all your gear after each haul unless you will remain on deck to watch it. If you are going to sleep you should secure it first. Store the scale and the weight in the case at all times when not in use. Find a place to tie your gear down that is out of the way of the crew. If they have to move your gear it most likely will not be secured properly.

Always bring your pfd inside or under the shelter. There is usually a rain gear storage area for just that purpose. Even on the way in at the end of a trip you should keep items you want to be dry inside or hanging under the weather shelter. There has been more than one instance of water covering the deck as the vessel goes over a sand bar or through a bay or marina entrance. Storing your rain gear and pfd in a basket with holes and leaving it on deck is a sure way to end up with soaking wet rain gear and an inflated life vest.

Maintain Your Gear

Observer equipment is used in a very harsh environment and often subject to a great deal of abuse. Saltwater, dirt, fish slime, scales, moisture, transport, regular use, cold and heat will all have a deleterious effect on your sampling and safety equipment. To function properly, many items will need regular maintenance. You are responsible for keeping all of your gear clean and in good working order and safe while in the work environment. The WCGOP expects you to perform regular maintenance of the safety equipment on a monthly basis and record the details in your log book with the Observer Safety Equipment Checklist (“Figure 11-21:” on page 11-12 and “Figure 11-22:” on page 11-12.)

The Observer Safety Equipment Checklist is located in the Observer Logbook on page 55. Go through the checklist every month at a minimum (before every trip is recommended) with your gear in hand and check off each item on the list that passes inspection. Include in the comments expiration dates, any servicing you perform and general comments. If an item does not pass

Equipment Test Checklist

Observers should maintain program-issued safety equipment on a monthly basis to ensure its working properly. If any item does not pass the examination, notify your coordinator immediately so it may be replaced. Check your equipment at a minimum of once per month. ***Check off only those items that pass.***

Inspection date #1: _____ Inspection date #2: _____

Inspection date #3: _____ Inspection date #4: _____

406 EPIRBS

	1	2	Comments
No physical damage? (cracking corrosion, ect.)	☐	☐	_____
Tested PLB?	☐	☐	_____
Battery expiration date?	☐	☐	Exp. date 1: _____ Exp. Date 2: _____ Exp. date 3: _____ Exp. Date 4: _____
Registration expiration date?	☐	☐	Exp. date 1: _____ Exp. Date 2: _____ Exp. date 3: _____ Exp. Date 4: _____
No antennae damage? (cracks, washer at base)	☐	☐	_____

Beacon ID: _____

PLB

No physical damage? (cracking, corrosion, etc.)	☐	☐	_____
Tested PLB?	☐	☐	_____
Battery expiration date?	☐	☐	Exp. date 1: _____ Exp. Date 2: _____ Exp. date 3: _____ Exp. Date 4: _____
Registration expiration date?	☐	☐	Exp. date 1: _____ Exp. Date 2: _____ Exp. date 3: _____ Exp. Date 4: _____
No antennae damage? (bent, poor rotation, etc.)?	☐	☐	_____

Beacon ID: _____

Immersion Suit

No rips/tears/holes in Neoprene?	☐	☐	_____
Seam thread and inner seal glue intact?	☐	☐	_____
No grease/oil stains/ mildew?	☐	☐	_____
Zipper seams in good condition?	☐	☐	_____
Zipper waxed? (if necessary)	☐	☐	_____
Strobe attached securely?	☐	☐	_____
Strobe tested?	☐	☐	_____
Whistle securely attached?	☐	☐	_____
Whistle tested?	☐	☐	_____

Figure 11-21: Equipment Test Checklist-Logbook Page 33

Inflatable PFD

	1	2	Comments
No rips/tears/holes?	☐	☐	_____
Seams in good condition?	☐	☐	_____
Straps and clips in good condition?	☐	☐	_____
Strobe attached securely?	☐	☐	_____
Strobe tested?	☐	☐	_____
CO2 indicator green?	☐	☐	_____
CO2 cylinder seal intact?	☐	☐	_____
Complete manual inflation test?	☐	☐	Test. date 1: _____ Test. Date 2: _____

Workvest PFD

No mildew?	☐	☐	_____
No foam shrinkage?	☐	☐	_____
No foam water-logging?	☐	☐	_____
No rips/tears/holes?	☐	☐	_____
Seams in good condition?	☐	☐	_____
Straps and clips in good condition?	☐	☐	_____
Strobe attached securely?	☐	☐	_____
Strobe tested?	☐	☐	_____

Marel Scale Inspection

Check all parts of scale for cleanliness. All parts should be free of mud and scales. If dirt is dried on, soak scale in tub for 20 min and scrub with a brush or sponge. (Use on a sponge on face plate) Rinse with a garden hose or shower.

Scale serial number:

Clean and rinsed inside and out?	☐	☐	_____
Cables: no holes, appear secure?	☐	☐	_____
No debris under load cells?	☐	☐	_____
Weight pan straight?	☐	☐	_____
Battery tube threads cleaned and lubed?	☐	☐	_____
Buttons function correctly?	☐	☐	_____
Rust removed?	☐	☐	_____
Display lights all working?	☐	☐	_____
No condensation in face plate?	☐	☐	_____

Figure 11-22: Equipment Test Checklist-Logbook Page 34

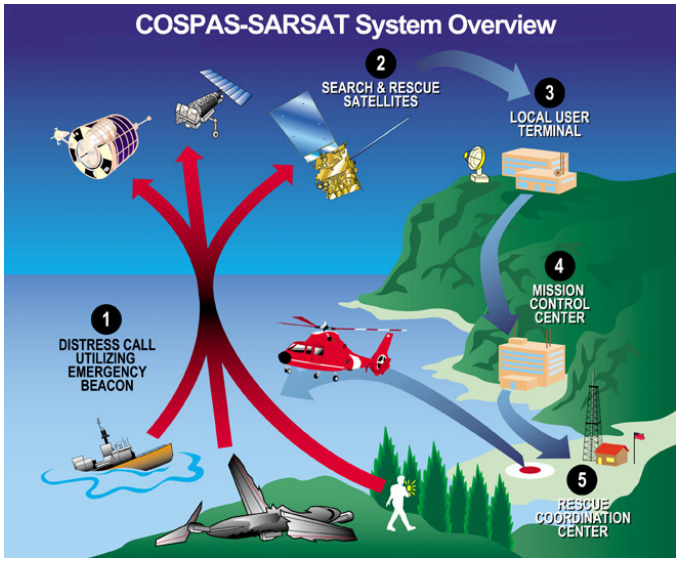
inspection bring it to the attention of your coordinator and the WCGOP gear technician immediately (see the section "Reporting a Problem" in this chapter). They will get you a replacement or assist you in repairing the item as quickly as possible. It is important to do timely inspections so that if replacement safety gear is needed it can be issued before your next trip. You should not board a vessel with malfunctioning equipment.

Again, it is very important to inspect your safety gear regularly as faulty gear may be of no help should you need it. Inspections are also a great time to practice using your safety gear, such as donning your immersion suit. It is your responsibility to carefully inspect the safety gear and ultimately to ensure your own safety. Use the following sections of this chapter to learn how to properly inspect each item.

EPIRB/PLB Basics

Distress beacons are your lifeline to rescue in the event of a life threatening emergency at sea. WCGOP will provide you with either a water activated EPIRB or a manually activated PLB. Be sure you are very familiar with the use and maintenance for the unit assigned to you by reviewing the appropriate section in this chapter. It's a valuable tool that you may never use but could save your life if you ever need it.

How it works.



1. Distress radio beacons transmit signals during distress situations.
2. Instruments on board satellites in geostationary and low-altitude Earth orbits detect the signals transmitted by distress radio beacons.
3. Ground receiving stations, referred to as Local Users Terminals (LUTs), receive and process the satellite downlink signal to generate distress alerts.
4. Mission Control Centers (MCCs) receive alerts produced by LUTs and forward them to Rescue Coordination Centers (RCCs), Search and Rescue Points Of Contacts (SPOCs) or other MCCs.
5. The points of contact for your beacon are:
   - The owner of all WCGOP beacons: Eric Brasseur
   - Your WCGOP Coordinator
   - Your providers primary contact.
   - You at the mobile number you gave to your employer and WCGOP.

EPIRB Care and Inspection

The satellite2 406 EPIRB is a buoyant water and manually activated emergency locator beacon. While on a vessel keep your EPIRB in a location that makes the most sense to you. Always realize the most important aspect is that it be available to you and work properly when you need it. Carefully inspect your EPIRB often. Store and transport it appropriately. Contact your coordinator and the WCGOP gear technician with any problems immediately.

Timing

The WCGOP suggest you visually inspect your EPIRB before and after every trip. This will ensure you have it and that it did not incur any damage or accidental activation while on the vessel or during transport. A physical inspection and communication test must be performed and logged every month.

Activation

The beacon can be activated by placing the beacon in water OR by lifting the thumb switch to a vertical position, sliding it toward the antenna and pushing down to the opposite side of the beacon. Activating the beacon in this manner breaks off the Activation Indicator Plastic Pin and allows the switch to properly seat, showing the "▌" symbol (ON).

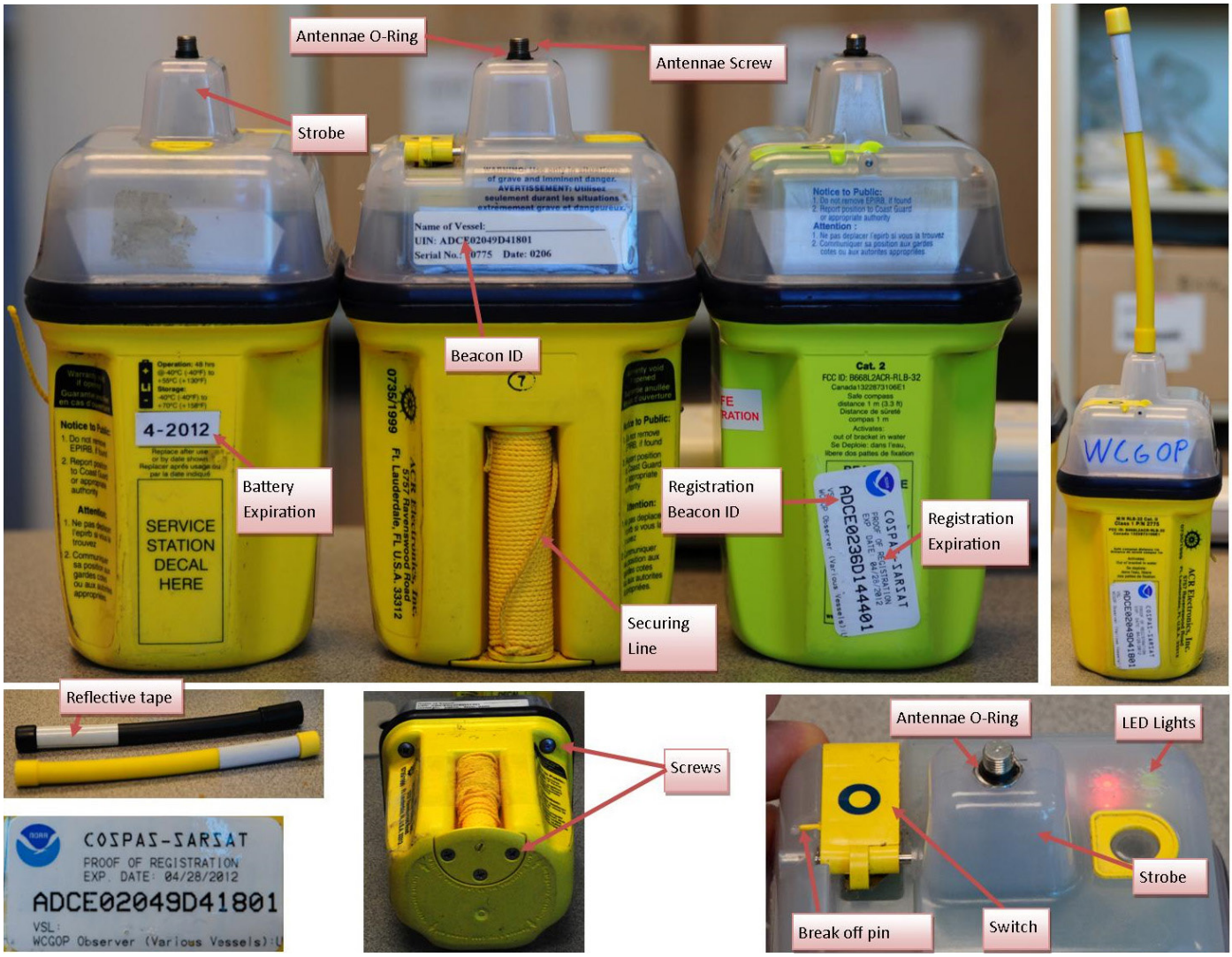


Figure 11-23: EPIRB 406 Parts and Information Locations

Inspection

406 EPIRBS

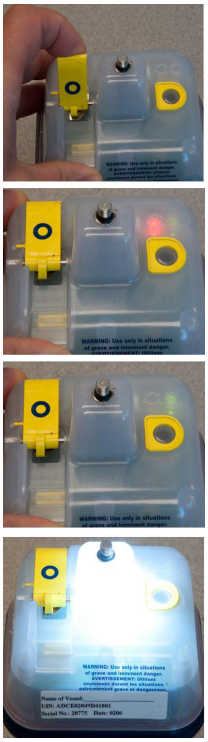
	1	2	Comments
No physical damage? (cracking corrosion, ect.)	☐	☐	_____
Tested PLB?	☐	☐	_____
Battery expiration date?	☐	☐	Exp. date 1:_____ Exp. Date 2:_____ Exp. date 3:_____ Exp. Date 4:_____
Registration expiration date?	☐	☐	Exp. date 1:_____ Exp. Date 2:_____ Exp. date 3:_____ Exp. Date 4:_____
No antennae damage? (cracks, washer at base)	☐	☐	_____

Beacon ID: _____

1. Physically inspect the body of the EPIRB for cracks. See “Figure 11-29:” on page 11-24 for an example.
2. Check for missing screws. If screws are missing the internal workings may be compromised.
3. Check the spool of line for tangles.
4. Verify the beacon number. There are two locations for the beacon number. They must match!
   - The white sticker with the serial number usually on the clear part of the beacon. This is the Unit Identification Number (UIN) assigned by the manufacturer.
   - The NOAA sticker on the Yellow part of the beacon. This number indicates which beacon is registered.
5. Check the Registration Expiration date (located on the NOAA Sticker)
6. Check the Battery Expiration date (usually on the thin side of the yellow body)
7. Check the rubber seal on the antenna base (see “Figure 11-23:” on page 11-15) for cracking. Apply silicon grease if needed.
8. Check the antenna for cracks, corrosion, reflective tape, and that it is screwed securely to the base after inspection.
9. If the unit fails inspection at any point, contact your coordinator and the WCGOP gear technician immediately.

Testing

Please read all instructions before performing any of the tests.



Passing Test

1. Lift the yellow tab on top of the EPIRB HALF WAY up. The tab cannot be flipped all the way over due to design. Do not force the tab. See Activation.
2. Release the tab to its original position The O side should be up.
3. A red xmit LED and green test LED light will flash and beep once simultaneously.
4. The red and green lights will blink three times with three accompanying beeps. The third is slightly late.
5. The green will stay lit one second on the third beep
6. Finally the strobe will flash while the green light remains lit.

Failed Test

1. The test stops at any point other than step six.
2. The green light and strobe do not fire.
3. Call your coordinator and the WCGOP gear technician immediately.

Accidental Activation

1. First deactivate by drying or returning switch to the off position
2. Reporting of False Alarms: Should there be, for any reason, an inadvertent activation or false alarm, it must be reported to the nearest search and rescue

TEST	SUCCESS	FAIL
Initial Test Start	Green, Red LED	
Check Data Integrity	Beep, Green, Red LED	Test stopped
Check 406 MHz Synthesizer	Beep, Green, Red LED	Test stopped
Check RF Power/Battery	Beep, Green, Red LED	Test stopped
Successful Test	Green LED, Strobe	

*NOTE: The “beeps” are a very high-pitched tone that many people may not be able to hear.

Figure 11-24: 406 EPIRB Test sequence

authorities. The information that should be reported includes the EPIRB 15-digit Unique Identifier Number (UIN), date, time, duration and cause of activation, as well as location of beacon at the time of activation. To Report False Alarms in the United States Contact any of the following:

- Pacific Ocean Area / USCG Area Command Center Tel: (510) 437-3700
- Atlantic Ocean/Gulf of Mexico USCG Atlantic Area Command Center Tel: (757) 398-6390
- USCG HQ Command Center Tel: (800) 323-7233

3. Immediately contact your coordinator.

Storage

Keep your EPIRB in a secure location when not in use. You are responsible for the unit and will be required to pay the full replacement cost should negligence on your part result in the loss, damage, or theft of the EPIRB. Many observers store the 406 with their immersion suit. This can lead to damage as suits are often tossed around when boarding and disembarking a vessel. If you store it with your immersion suit, ensure it is well padded and will not fall out of the bag if it unbuttons. Transport your suit as you would your own laptop. The beacon can be accidentally activated if stored in a wet environment. If your suit gets wet in its bag or you have worn it in the water, remove the EPIRB to ensure it does not activate.

Collect information to report a problem

Problems should be reported to your coordinator and the WCGOP gear technician so they can advise you how to proceed or reassign your vessels if required, and get your replacement to you as quickly as possible. See *Reporting a Problem* section for contact information and full procedures.

Figure 11-25: This unit was cracked while being kept in an immersion suit. The suit was tossed on deck from the dock resulting in the damage. This may be considered negligence on your part and the beacon will quickly malfunction in saltwater.

1. Record the beacon number from the UIN label.
2. Write down the specific problem.
3. Contact required personnel.
4. If the issue is registration related stop here.
5. Prepare the EPIRB for shipping by taping a note listing the issue to the unit. Tape down the activation switch.

PLB Care and Inspection

The WCGOP has several types of PLB's that may be issued to observers. Please review the section pertinent to the type of PLB you have been assigned. Personal Locator Beacons (PLB) are manually activated emergency locators, in an emergency situation you must trigger the PLB yourself. Keep your PLB readily accessible. You will be given a PLB pouch that attaches to a belt so can keep your PLB with you at all times. If you are in a situation requiring the donning of an immersion suit, remember to retrieve your PLB and bring it with you. Put it in the suit with you if necessary. The PLB needs a clear line of site. Once activated it must be kept in the correct orientation to function properly.

Timing

The WCGOP suggest you visually inspect your PLB before and after every trip. This will ensure you have it and that it did not incur any damage or accidental activation while on the vessel or during transport. A physical inspection and communication test must be performed and logged every month.

AquaFix™ 406 GPS PLB-200 (I and I/O)

Activation

To activate your PLB in an emergency situation, unfasten the antenna from the case or holster and move it into the upright position. Lift the holster cover revealing the keypad. Depress the "test" and "GPS I" or "GPS I/O" buttons simultaneously for at least 1/2 second and less than five seconds. Your PLB is now activated. While transmitting your emergency signal, the red LED will flash once every 2 seconds alerting you that your PLB is activated. If GPS data is present in the PLB via the GPS I or GPS O the red LED will turn off and the green LED will take over flashing once every two seconds.

Activation with GPS I/O (P/N 2797.4 Only)

The AquaFix™ 406 GPS I/O is also equipped with an Onboard GPS receiver. Once activated the AquaFix™ 406 GPS Onboard GPS engine will start up and search to find your LAT/LON and incorporate it into your 406 MHz signal.

When the AquaFix™ 406 GPS I/O is turned ON, the GPS Onboard receiver is also immediately turned ON and will immediately begin acquiring data. As soon as the GPS receiver acquires good positioning data the red LED will stop blinking and the green LED will begin flashing once every two seconds. Once good global positioning data has been obtained, the GPS receiver waits for 20 minutes before looking for new positioning data again. If for any reason a time period of four hours passes without the GPS receiver being able to update the last good set of GPS coordinates, the message transmitted by the AquaFix™ 406 GPS I/O will revert to default data. At this point the green LED will stop blinking and the red LED will flash once every two seconds. If at any time after this good

Figure 11-26: Keep your PLB in the pouch on a belt with cable attached and with you on deck and in your bunk.

GPS data is obtained, this data will be transmitted, the red LED will stop blinking and the green LED will begin flashing again.

Antenna position

For maximum performance you must deploy the beacon antenna into the proper position as shown. If at all possible, be sure the antenna is positioned facing the sky and avoid submerging in water. This device is intended to operate on or above the ground or while attached to your person above the water line.

Inspection

PLB

No physical damage? (cracking, corrosion, etc.)	☐	☐	_____
Tested PLB?	☐	☐	_____
Battery expiration date?	☐	☐	Exp. date 1: _____ Exp. Date 2: _____ Exp. date 3: _____ Exp. Date 4: _____
Registration expiration date?	☐	☐	Exp. date 1: _____ Exp. Date 2: _____ Exp. date 3: _____ Exp. Date 4: _____
No antennae damage? (bent, poor rotation, etc.)?	☐	☐	_____

Beacon ID: _____

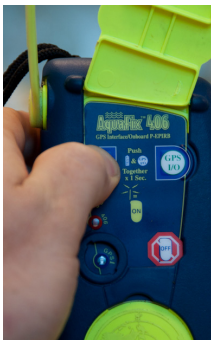
1. Remove the case completely to inspect the body.
   - To open the case release the antennae and then press the tabs on the bottom together while lifting up.
   - To remove completely gently lift up the front of the case and rotate it to the upper right or left while firmly grasping the unit.
2. Physically inspect the body and case of the PLB for cracks. If the case is cracked double check the unit.
3. Check for missing screws. If screws are missing the internal workings may be compromised.
4. Inspect the gasket that surrounds the body. It should feel soft and be unbroken.
5. Verify the beacon number. There are two locations for the beacon number. They must match!
   - The white sticker with the serial number is usually on the bottom of the back. This is the UIN or Unit Identification Number assigned by the manufacturer.
   - The NOAA sticker is usually on the upper part of the back of the beacon. This number indicates which beacon is registered.
6. Registration Expiration date (located on the NOAA Sticker)
7. Battery Expiration date (on back near the middle screws in a blue outlined box)
8. Check the antenna rotation joint to be sure the antennae moves freely and clicks in the appropriate spots. It should feel like it clicks at about 90 degrees to the unit.
9. Check the antenna for permanent bends, corrosion, cracked plastic and the plastic tip that locks it down.
10. Wipe with a damp cloth if cleaning is required.
11. Replace the case and ensure the closure clicks in completely.
12. If the unit fails inspection at any point, contact your coordinator and the WCGOP gear technician immediately.

Figure 11-27: PLB Parts, Information Locations, and Case Removal

Testing

Passing Test

Please read all instructions before performing any of the tests.



1. Hold the 406 test button for at least ½ second and less than five seconds.
2. Your PLB will sound an initial beep and green LED flash to signify the test has begun.
3. The green LED will flash a second time to indicate that the test was successful.

Note: During a self-test your PLB will send a 406 MHz signal coded as self-test to the satellite system. The homing signal at 121.5 MHz is inhibited during a self-test; this allows you to test your PLB any time during the day without causing any false alarms.

Failed Test

1. If you encounter only the initial green LED flash alone, your PLB has failed the test.
2. If your PLB flashes an initial Red LED at the beginning of the test, this indicates that your electronic battery witness seal life has been broken and you have used more than 1 hour of battery life.
3. Call your coordinator and the WCGOP gear technician immediately.

Aqualink™ 406 GPS PLB-350C and 350B & ResQfix 406 GPS PLB-300 with floatation pouch

Activation

1. Unfasten the antenna from the case.
2. Move it into the upright position
3. Depress the ON/OFF button for one full second.

You will hear a "beep" and your beacon is now activated. While transmitting your distress signal, the red LED will flash once every two seconds, alerting you that your beacon is active. An additional "beep" will sound every time your beacon transmits data to the satellites (roughly every 50 seconds).

If your unit is activated, the GPS receiver will start up, search to find your LAT/LON and incorporate it into your 406 MHz signal. As soon as the GPS receiver acquires valid positioning data, the red LED will stop blinking and the green LED will begin flashing once every two seconds.

The same GPS data will be sent with each 406 MHz signal for the next twenty minutes. At that time the internal GPS will start up again, search to find your LAT/LON and incorporate it into your next 406 MHz signal. If for any

reason the internal GPS cannot update your LAT/LON, your last position will be used for the next four hours. At that time the green LED will stop blinking and the red LED will flash once every two seconds until new GPS data is obtained.

Antenna position

For maximum performance you must deploy the beacon antenna into the proper position as shown in Figure 3. If at all possible, be sure the antenna is positioned facing the sky and avoid submerging in water. This device is intended to operate on or above the ground or while attached to your person above the water line.

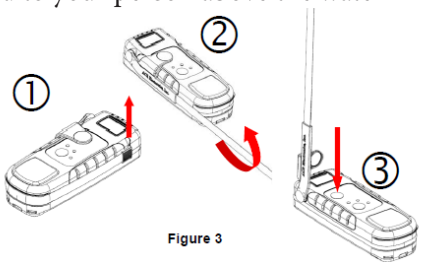
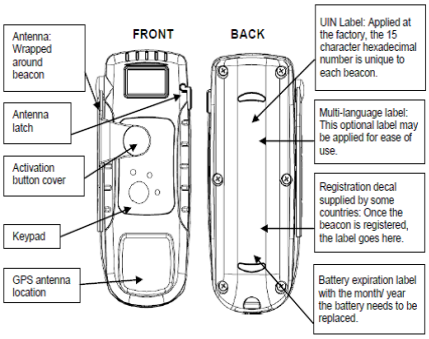


Figure 3

Inspection

1. Physically inspect the body of the PLB for cracks.
2. Check for missing screws. If screws are missing the internal workings may be compromised.
3. Inspect the gasket that surrounds the body. It should feel soft and be unbroken.
4. Verify the beacon number. There are two locations for the beacon number. They must match!
   - The white sticker with the serial number is usually on the bottom of the back. This is the UIN or Unit Identification Number assigned by the manufacturer.
   - The NOAA sticker is usually on the upper part of the back of the beacon. This number indicates which beacon is registered.
5. Registration Expiration date (located on the NOAA Sticker)
6. Battery Expiration date (on back near the bottom)
7. Check the antenna rotation joint to be sure the antennae moves freely and clicks in the appropriate spots.

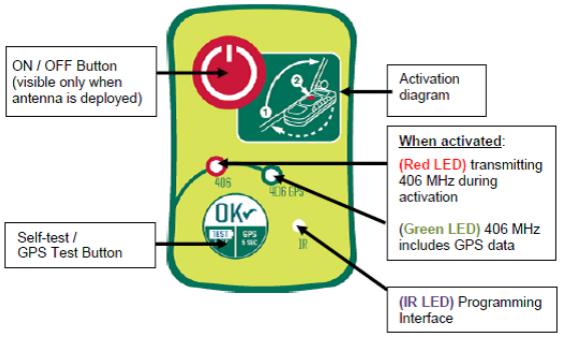


8. Check the antenna for permanent bends, corrosion, cracked plastic and the plastic tip that locks it down.
9. If the unit fails inspection at any point, contact your coordinator and the WCGOP gear technician immediately.

Testing

Passing Test

1. A Self-test is initiated by holding the Self-test button () for at least one second and less than five seconds.



2. Your beacon will sound an initial “beep” and flash the green LED to signify the test has begun.

3. Four more beeps will follow.
4. The green LED will flash a second time to indicate that the self-test was successful.

Self-Test Sequences	Self-Test Guide (Green LED Red LED)
Green LED with beep, 4 additional "beeps", Green LED, strobe flash	Successful Self-test
Green LED, Less than 4 "beeps", Red LED	Failed Self-test: Return unit to ACR for service
Red LED with beep, 4 additional "beeps", Green LED, strobe flash	Successful Self-test: Less than 24 hours of transmission life is left in the batteries.
Red LED with or without beep, Less than 4 additional "beeps", Red LED, strobe flash (PLB-350B only)	Failed Self-test: Return unit to ACR for service. Less than 24 hours of transmission life is left in the batteries.

Failed Test

1. If a red LED flashes at the completion of the Self-test, your beacon has failed. Repeat the Self-test.
2. If your PLB flashes an initial Red LED at the beginning of the test, this indicates that your electronic battery witness seal life has been broken and you have used more than 1 hour of battery life.
3. Call your coordinator and the WCGOP gear technician immediately.

Accidental Activation

1. First deactivate by pressing the ON/OFF button for one second.
2. Reporting of False Alarms: Should there be, for any reason, an inadvertent activation or false alarm, it must be reported to the nearest search and rescue authorities. The information that should be reported includes the EPIRB 15-digit Unique Identifier Number (UIN), date, time, duration and cause of activation, as well as location of beacon at the time of activation. To Report False Alarms in the United States Contact any of the following:
   - Atlantic Ocean/Gulf of Mexico USCG Atlantic Area Command Center Tel: (757) 398-6390
   - Pacific Ocean Area/USCG Area Command Center Tel: (510) 437-3700
   - USCG HQ Command Center Tel: (800) 323-7233
3. Additionally immediately contact your coordinator.

Storage

Keep your PLB in a secure location when not in use. You are responsible for the unit and will be required to pay the full replacement cost should negligence on your part result in the loss, damage, or theft of the PLB. If you store it with your immersion suit, ensure it is well padded and will not fall out of the bag if it unbuttons.

Collect Information to Report a Problem

Problems should be reported to your coordinator and the WCGOP gear technician so they can advise you how to proceed or reassign your vessels if required, and get your replacement to you as quickly as possible. See "Reporting a Problem" section for contact information and full procedures.

1. Record the beacon number from the UIN label.
2. Write down the specific problem.
3. Contact required personnel.
4. If the issue is registration related the problem stop here.
5. Prepare the PLB for shipping by attaching a note listing the issue to the unit. Tape down the cover over the activation switch.

Immersion Suit Care and Inspection

Select a suit that fits

A good fit is essential to the function of an immersion suit. You should have room to fit in a suit fully clothed as you would be on deck, with a secure seal around your face. If a suit does not seal around your face it will fill with water easily. Choose a suit that fits your frame best while providing a good seal. Try several suits on if more than one size/ brand is indicated to find what works best for you. Imperial suits tend to run a little larger than Stearns. See "Figure 11-28:" on page 11-24 to help determine the size suit you will need.

Figure 11-30: Red-Small

Figure 11-31: Orange-Universal

Figure 11-32: Green-Jumbo

Height in inches	Weight lbs.																											Height in Feet
	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	
58	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B													4'10"
59	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	BD	BD	BD	BD	BD	BD	BD	D	D	D	D	D	D	D	D					4'11"
60	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	BD	BD	BD	BD	BD	BD	BD	D	D	D	D	D	D	D	D					5'0"
61	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	BD	BD	BD	BD	BD	BD	BD	D	D	D	D	D	D	D	D					5'1"
62	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	BD	BD	BD	BD	BD	BD	BD	D	D	D	D	D	D	D	D					5'2"
63	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	BD	BD	BD	BD	BD	BD	BD	D	D	D	D	D	D	D	D					5'3"
64	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	BCD	BCD	BCD	BCD	BCD	BCD	BCD	CD	CD	CD	CD	CD	CD	CD	CD					5'4"
65	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	BCD	BCD	BCD	BCD	BCD	BCD	BCD	CD	CD	CD	CD	CD	CD	CD	CD					5'5"
66	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	BCD	BCD	BCD	BCD	BCD	BCD	BCD	CD	CD	CD	CD	CD	CD	CD	CD					5'6"
67	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	BCD	BCD	BCD	BCD	BCD	BCD	BCD	CD	CD	CD	CD	CD	CD	CD	CD					5'7"
68	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	BCD	BCD	BCD	BCD	BCD	BCD	BCD	CD	CD	CD	CD	CD	CD	CD	CD					5'8"
69	ACD	ACD	ACD	ACD	ACD	ACD	ACD	ACD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD					5'9"
70	ACD	ACD	ACD	ACD	ACD	ACD	ACD	ACD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD					5'10"
71	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD					5'11"
72	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD					6'0"
73	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD					6'1"
74	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD					6'2"
75	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD					6'3"
76												EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	6'4"
77												EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	6'5"
78												EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	6'6"
79												EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	6'7"
80												EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	6'8"
81												EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	6'9"
82												EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	EF	6'10"

Figure 11-28: Immesion suit sizing chart

Chart Code	Brand/Size	Height Range	Weight Range
A	Imperial Intermediate	59"-70"	110 to 180 lbs.
B	Stearns Small	58" to 68"	110 to 250 lbs.
C	Imperial Adult	64"-75"	110 - 330 lbs.
D	Stearns Universal	59" to 75"	110 to 330 lbs
E	Imperial Jumbo	Over 75"	Over 220
F	Stearns Oversized	over 75"	220 to 375 lbs.

Figure 11-29: Immersion suit size chart key

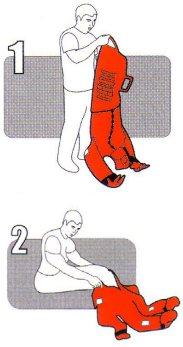
Timing

The WCGOP requires that you inspect your immersion suit on a monthly basis and record it in the equipment test checklist section of your logbook. WCGOP immersion suits are professionally inspected once every 18 months beginning one year after the suit is first assigned to an observer, regardless of use. The suit you receive should be in excellent condition at the time it is assigned to you. Moving your suit from vessel to vessel, storing it, tossing it and using it for drills or in an emergency may cause wear or damage. Your safety relies on your attention to detail. Immediately report any problems to your debriefer or coordinator so that a replacement may be issued.

Donning Instructions

Your life may depend on your ability to quickly don your immersion suit in an emergency. It makes sense to have practiced beforehand. Monthly practice should reduce your donning time from minutes to seconds

1. Remove suit from storage bag. Grasp handle on bottom of bag, give a quick tug up. Bag should release snaps and allow suit to slide out.
2. You should practice donning the suit, feet first, while lying or sitting on the deck. Vessel movement or list will often prevent donning the suit in a standing position.
3. Place your weaker arm into the sleeve of the immersion suit. Then using your free hand, reach up and place the immersion suit hood over your head. Then place your strong arm into the sleeve of the immersion suit.
4. Holding the zipper below the slider with one hand, fully close the zipper by firmly pulling straight up on the lanyard with the other hand. Secure the flap over the face/mouth.
5. Enter water feet first while protecting your airways with your hands.



Pull on as you would a pair of coveralls

Insert arm into suit and adjust hood over head

Insert other arm and close zipper and face flap. Adjust wrist and ankle bands to fit.

Enter water feet first covering your airways.

Warnings

- Do not inflate the air bladder until you are in the water to prevent damage or injury.
- There is a risk of entrapment in submerged vessel compartments due to suit buoyancy.
- Jumping into the water is a last resort. Ease/lower yourself into the water if possible.

Inspection

Immersion Suit

No rips/tears/holes in Neoprene?	☐	☐	_____
Seam thread and inner seal glue intact?	☐	☐	_____
No grease/oil stains/ mildew?	☐	☐	_____
Zipper seams in good condition?	☐	☐	_____
Zipper waxed? (if necessary)	☐	☐	_____
Strobe attached securely?	☐	☐	_____
Strobe tested?	☐	☐	_____
Whistle securely attached?	☐	☐	_____
Whistle tested?	☐	☐	_____

Careful inspection will ensure the suit functions properly should you ever need it. Never board a vessel with a suit that shows signs of damage.

1. The storage bag:
   - Check the closures on the storage bag as well as its

general condition.

- Wax closure snaps on bag for ease of opening.
- Ensure Donning Instructions are legible.
- Be sure bag, size and manufacturer of suit labeling are correct.
- Buttons often rip out of Stearns bags. If too many buttons are damaged to close the bag securely, request a new bag from the gear technician.

2. Lay suit on a flat clean surface. Visually check the suit's reflective tape, fabric and seams, inside and out, for damages.
   - Examine fabric for tears, rips, punctures, abrasions, grease, oil stains, mildew and burns.
   - Examine seams for ripped stitching on the outside and cracked glue seals on the inside.
   - Examine reflective tape. Is it yellowed, peeling, cracked or missing? There should be 16 square inches of reflective tape on the front and the back of every immersion suit.
   - Smell the suit. It should not smell like mold/mildew, gasoline or diesel fuel. If it does wash it as directed below.
   - Make a note of any defects found and their location on the suit. Follow cleaning instructions below if cleaning is needed.

3. The zipper used in an immersion suit is designed to provide a water tight seal. It is important that regular maintenance practices be performed.
   - Visually check zipper for wear, damage, corrosion (green color) and cleanliness. Debris and foreign matter can be removed by using a soft bristle brush and fresh water. Corrosion can be removed with baking soda and water. If zipper shows signs of wear or damage remove the immersion suit from service.

Figure 11-33: A manually activated firefly strobe properly attached, in off position.

Figure 11-34: Wax the zipper regularly.

Figure 11-35: Glued seams in good condition.

Figure 11-36: A water activated hemilight strobe properly attached.

Figure 11-38: Press down on valve.

Figure 11-37: Ensure valve pops back out.

Figure 11-39: A corroded valve, clean with baking soda and a toothbrush.

- Check zipper by sliding up and down with a steady straight pull to check for ease of operation. Watertight zippers take a good deal of pull to operate but if the zipper is non-functional or extremely difficult to close while wearing the suit, remove the immersion suit from service.
- Regular lubrication of the inner and outer zipper is essential. You will be issued a block or pencil of zipper wax for this purpose. This is the only lubricant to be used. Use of grease or non-approved lubricants can harm the zipper or suit. Lightly rub the wax along the zipper inside and out, and then work the zipper up and down to spread the wax evenly. Remove excess wax from the suit.

4. Check head support/buoyancy ring for obvious damage and ensure that it is properly attached. Check inflation hose for kinks, deterioration or leaks. See that the lock screw is in open position. Be sure the valve moves in and out freely. Head support/buoyancy ring should be inflated and tested for leaks using one of the following two methods.
   - Orally inflate the bladder until firm then immerse in water looking for air bubbles. If bubbles are present, remove immersion suit from service.

OR

   - Orally inflate until firm, let stand for 24 hours and check for firmness. If leaks are detected, remove immersion suit from service. A replacement air bladder can be ordered for an Imperial suit instead of replacing the suit.
   - Once testing is complete, deflate the pillow/air bladder by pushing in on the mouth piece. Ensure the locking ring is screwed away from the mouth piece of the inflator so you can blow air into the bladder.
5. Check whistle for audio function and ease of accessibility. The securing line should be long enough to reach your mouth easily when the suit is zipped up. The whistle may be attached to the zipper pull with heavy string as long as it will not interfere with the zippers operation.
6. Be sure an approved distress marker light with an unexpired battery is firmly attached to the suit. Test it if it is a manual strobe. Replace batteries or strobe if required. Be careful to position the manual strobe so that it will not turn on when the suit is rolled up.
7. If a rescue streamer is attached, be sure it is secured by the deployment hook and capable of being easily deployed with gloves on.
8. Make sure suit is dry inside and out before storing.

Cleaning

Washing: In no case should the suit be dry-cleaned or exposed to any chemical solvents or cleaners. The suit should be hand washed with mild detergent and rinsed thoroughly with plenty of fresh water. Stains can be cleaned by gently rubbing with a soft bristle brush. If odors are present, soak the suit in a mild soap or shampoo safe for neoprene. Dive shops usually sell neoprene shampoo. It is very rare that you will need to clean your suit. If you have worn the suit in water at any time it should be rinsed thoroughly.

Drying: Hang suit inside out on large wooden or plastic hanger in a cool (65-75 degrees Fahrenheit), dry and well-ventilated area. Do not expose to sunlight or direct heat. Following the drying of the interior of the suit, it should be reversed to completely dry the outside. When the suit has thoroughly dried, it can be returned to the bag by following steps 1 to 4 for Storage Instructions.

Storage

1. Lay suit out on flat, clean surface with arms out. Make sure zipper is almost fully open, leaving an inch or 2 to allow the zipper to be pulled down should it stick, initially. Make sure the lock screw on the inflatable tube is in the open position.
2. Using a folding roll, roll suit, feet first while keeping the footbed flat, start the fold at the ankle, up to the chin area making sure not to crease the head support/ buoyancy ring or inflatable tubes. Tuck face flap into neck area to prevent Velcro® from attaching to suit while in storage.
3. Fold arms over rolled up legs and across chest.
4. Tuck hood into the roll and place in storage bag. Secure the bag closures. Be sure suit is stored in clean, dry area and is immediately accessible in case of emergency. Do not compress the suit in storage as it may result in loss of buoyancy and thermal protection.

5. Store the suit in a secure location in your home when not in use. Heat from long term storage in a vehicle can damage the suit and leaving it in view in your vehicle increase the odds the suit could be stolen.

Collect information to report a problem

Problems should be reported to your coordinator and the WCGOP gear technician so they can advise you how to proceed or reassign your vessels if required, and get your replacement to you as quickly as possible. See "Reporting a Problem" section for contact information and full procedures.

1. Make a note of the serial number of the suit. This can be found in several locations on you immersion suit.
   - Written in large numbers on the back or floatation pillow.
   - Written on each shoulder.
   - On a small white tag near the Velcro on the face flap (Stearns)
   - Stamped on the inside of the back of the suit. (Imperials)
2. Write down what is wrong with the suit and the location of the problem. Use a diagram if needed.
3. Contact the required personnel.
4. Put a note in the bag with the suit describing any problems and their location on the suit.

Figure 11-41: Serial number written on back of suit.

Figure 11-40: Serial number located on inside of face flap.

Figure 11-42: Infalable PFD parts and accessory placement.

Inflatable PFD Care and Maintenance

Timing

The WCGOP suggest you visually inspect your inflatable PFD before and after every trip. This will ensure that it did not incur any damage while in use on the vessel or during transport. A physical inspection and inflation test must be performed and logged every month.

Donning Instructions

Inflatable PFD's are one size fits all. It is important that the Inflatable PFD is properly adjusted to fit the person wearing it. An incorrect fit or improper fastening of

attachments could impede its effectiveness. The belt should fit below your rib cage adjusted to a tight personal fit. Check your Inflatable PFD and ensure all of the checkpoints listed below are true before use. Put the Inflatable PFD on just like a jacket and fasten the front buckle. Adjust the waist belt using the side buckle on the belt and secure the belt's loose end is in the belt loop.

Warning: Do not wear Inflatable PFDs under clothing as the inflation could be restricted or you could be injured.

Checkpoints before donning

- All belts and straps are already threaded correctly and only need to be adjusted for fit.
- Hydrostatic release status indicator is green.
- All zippers, Velcro and waist buckle are securely fastened.
- Inflatable PFD is not twisted.
- Ensure the inflation pull-tab is hanging on the outside.
- No rips, tears, excessive abrasion or holes; all seams are securely sewn; and the cover, straps and hardware are still strong.

Inspection

Inflatable PFD

	1	2	Comments
No rips/tears/holes?	☐	☐	_____
Seams in good condition?	☐	☐	_____
Straps and clips in good condition?	☐	☐	_____
Strobe attached securely?	☐	☐	_____
Strobe tested?	☐	☐	_____
CO2 indicator green?	☐	☐	_____
CO2 cylinder seal intact?	☐	☐	_____
Complete manual inflation test?	☐	☐	Test. date 1:_____ Test. Date 2:_____

1. Examine the exterior for holes, abrasions, stains, and rips.
2. Examine the seams. They should be tight and in good condition.
3. Examine the straps and clips and their attachment points.
4. Open the PFD by pulling it apart. For zipper secured PFDs, grasp the flaps and pull apart. The zippers are designed to give.
5. Examine the zippers or Velcro. Zippers can become corroded and Velcro can be excessively dirty. Clean as required.
6. Examine the single point status indicator through the window panel. Ensure the indicator is green. If the indicator is red, the mechanism has been fired or is incorrectly fitted. Do not attempt to repair if triggered.
7. Ensure the current date is not past the date on the inflator
8. Examine the manual inflation tube. Ensure the oral-inflation dust cap is on the tube and secured.
9. Check the strobe attachment and test the strobe. Replace batteries if necessary.
10. Check whistle attachment and test whistle.
11. Verify the presence of the CO2 cylinder and feel for damage. The cylinder is not usually accessible on newer models.

Testing

1. Remove the dust cap from the oral inflator and manually inflate the PFD.
2. Let the PFD set overnight.
3. Test should be performed indoors.

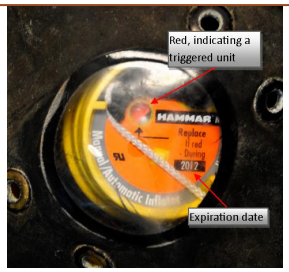
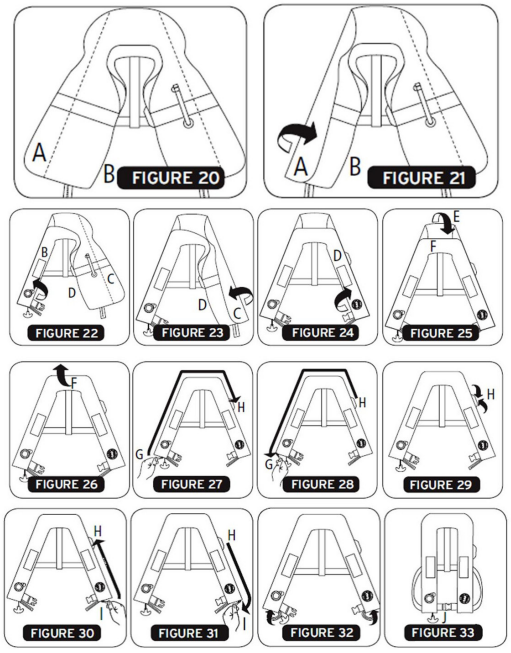


Figure 11-43: Triggered inflator.

Repacking

1. If there are no signs of deflation, use your finger, or reverse the dust cap and depress the valve in the oral inflator, while gently squeezing the Inflatable PFD until all air or gas has been expelled. To avoid damage, do not wring or twist the Inflatable PFD.
2. Put the inflation tube dust cap back in its stowed position on the oral inflation tube.
3. Lay out the Inflatable PFD flat on a clean surface (Figure 20).
4. Fold side (A) inward along the full length of the dotted line (Figure 21). Fold cover (B) over; covering side (A) (Figure 22).
5. Repeat step 17 with side (C) (Figure 23), cover (D) (Figure 24).
6. Ensure the inflator body is still located within its protective cap cover and that the single point status indicator is visible through the inflator cap cover's window.



7. Fold over the top side (E) (Figure 25) and cover (F) (Figure 26).
8. If PFD uses zippers: Reset the long zipper by pulling the slider (G) around the top to the Velcro™ tab (H).
9. Close by pulling the slider (G) in the opposite direction to the end of the zipper (Figure 28). Ensure that the Inflatable cell does not get caught by the zipper when closing.
10. Fasten the Velcro™ tab (H) (Figure 29) to keep zipper closed.
11. Reset the short 2-step zipper by pulling the slider (I) to the Velcro™ tab (H).
12. Close by pulling slider (I) in the opposite direction to the end of the zipper (Figure 31). Ensure that the inflatable cell does not get caught by the zipper when closing
13. 13. Use a finger to push the zipper ends into the openings at the bottom of the packed Inflatable PFD (Figure 32).
14. Ensure the pull-tab (J) is on the outside of the folded Inflatable PFD. Figure 33 depicts a correctly folded Inflatable PFD.

Cleaning

- To avoid inflation, do not submerge the Inflatable PFD or directly spray the inflator. Clean only while the PFD is closed as you would normally wear it.
- Hand wash or sponge down the Inflatable PFD with warm, soapy water.
- If your PFD is made of nylon, clean slimy spots with a soft scrub brush or sponge and dish soap.
- If it is made of water proof PVC clean with a wet cloth or sponge and dish soap.
- Rinse the PFD with clean water, using a clean rinse cloth. Do not submerge or pour water on it.

- Do not get inflator wet.
- Hang the Inflatable PFD to dry on a plastic coat hanger.
- Do not dry clean.
- Do not use chlorine bleach.
- Do not iron or dry with direct heat.

Storage

Always store your Inflatable PFD in a warm, dry place out of direct sunlight. Keep your equipment in a secure location. You may be responsible for the replacement cost should it be lost or stolen.

Collect Information to report a problem

Problems should be reported to your coordinator and the WCGOP gear technician so they can advise you how to proceed or reassign your vessels if required, and get your replacement to you as quickly as possible. See "Reporting a Problem" section for contact information and full procedures.

- If your PFD is triggered, request a replacement.
- Make a note of the specific problem with your PFD.
- Contact the required personnel.
- Attach the note to your PFD with a rubber band.

Work Vest PFD Care and Maintenance

Timing

The WCGOP suggest you visually inspect your PFD before every trip. This will ensure that it did not incur any damage while in use on the vessel or during transport. A physical inspection must be performed and logged every month.

Use

You will only be assigned a work vest style of PFD if you request it. You must select the appropriate size at gear check out. Take into account any additional clothing you will wear while on deck. Ensure the straps will buckle and your movement is not restricted.

WARNING: A work vest PFD may not float you face up if you are knocked unconscious.

Inspection

Workvest PFD

No mildew?	☐	☐	_____
No foam shrinkage?	☐	☐	_____
No foam water-logging?	☐	☐	_____
No rips/tears/holes?	☐	☐	_____
Seams in good condition?	☐	☐	_____
Straps and clips in good condition?	☐	☐	_____
Strobe attached securely?	☐	☐	_____
Strobe tested?	☐	☐	_____

1. Check for rips, tears, holes in fabric. These may be present and not cause the PFD to fail unless the floatation or fit is compromised.
2. Mold or mildew? Clean it.
3. Check the foam for water logging by squeezing it. If water comes out easily the PFD fails. The type of foam used should not retain water.
4. Ensure the foam is full and intact. Foam shrinkage may indicate heat damage and reduce floatation. This can happen if your PFD was left in a very hot place or hung on the wall next to the engine room.
5. Check the seams.
6. Check the straps and their attachment points.
7. Check the strobe attachment and test it.
8. Check the whistle attachment and test it.
9. Check the streamer attachment and assure the deployment hook is connected.

Cleaning

Use soap and water and a soft scrub brush to clean your PFD. PFD may be submersed or sprayed with a hose. If mold or mildew is present use a diluted bleach solution and rinse thoroughly. You may occasionally wash it in a front loading washing machine on gentle. Hang on a plastic hanger and dry before storing.

Storage

Keep your PFD in a cool dry place. Long term exposure to heat may cause foam to degrade or shrink.

Collect Information to Report a Problem

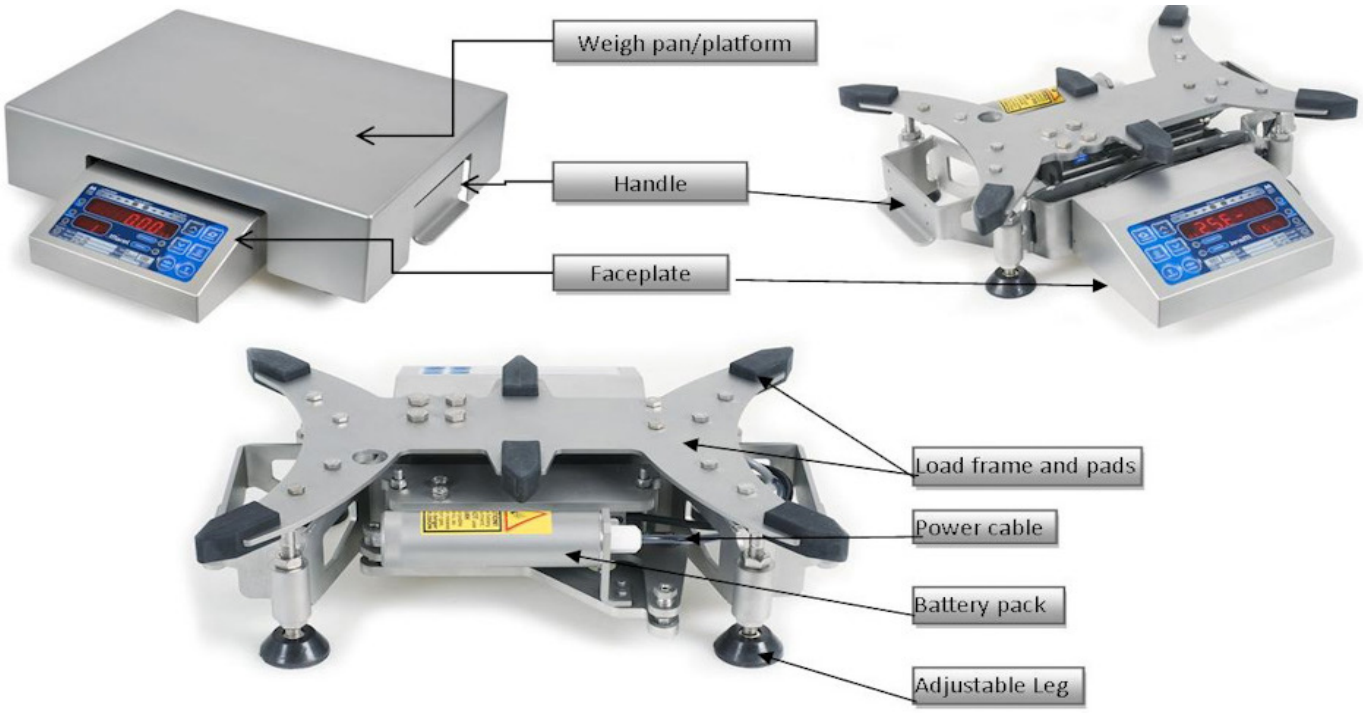
Problems should be reported to your coordinator and the WCGOP gear technician so they can advise you how to proceed or reassign your vessels if required, and get your replacement to you as quickly as possible. See “Reporting a Problem” section for contact information and full procedures.

- Make a note of the specific problem with your PFD.
- Contact the required personnel.
- Attach the note to your PFD with a rubber band or safety pin.

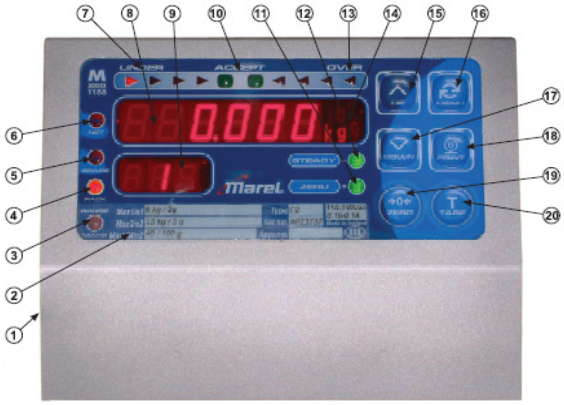
Marel M-1100 Marine Scale

About the Scale

The M1100 is an easy to operate, general-purpose packing and grading, motion compensated marine scale, designed especially for use on board fishing vessels. The stainless steel enclosure is water-resistant (IP67) and easy to clean. The scale has been specifically programed for scientific use, rendering all packing and grading memories identical. For use in the WCGOP CS program, the scale is programed with a 150 lb. capacity, reading in 0.05lb. increments.



Indicators and Controls



1. Top cover
2. Rating plate
3. Max2/Power-down indicator
4. Packing indicator
5. Grading indicator
6. Net indicator
7. Under indicator
8. Weight Display
9. Config Display
10. Accept indicator
11. Zero indicator
12. Steady indicator
13. Over indicator
14. Unit of weight indicator
15. UP arrow
16. MENU key
17. DOWN arrow
18. PRINT key
19. ZERO key
20. TARE key

Figure 2 The Weight Display

Weight display: The Weight Display shows the weight on the platform. If tare is in use, the net weight is shown. To the right on the display a lighted indicator shows the current unit of weight.

Figure 3 Indicators.

Zero and steady indicators: Below the Weight Display there are two indicators, Zero and Steady.

- The Zero indicator (green) lights up when the scale is at the zero point.
- The Steady indicator (green) lights up when the load indication is steady.

Figure 4 Config Display.

Config display: The Config Display is located below the Weight Display. This display shows which packing memory or grading memory is currently in use. Use the UP and DOWN arrow keys to select a memory. The Config Display is also used to display:

- configuration commands when the scale is in Setup Mode
- the blinking message, "marine calibration required".

Figure 5 Weight Target indicator.

Weight target: The Weight Target indicator is located above the Weight Display. This indicator consists of three parts, the Under, Accept, and Over indicators. There are no limits in the WCGOP CS settings so these lights will not be used.

Figure 6 Net indicator.

Net indicator: The Net indicator lights up whenever tare is in use.

Figure 7 Grading indicator.

Grading indicator: The Grading indicator lights up to show that the scale is in grading mode.

Figure 8 Packing indicator.

Packing indicator: The Packing indicator lights up to show that the scale is in packing mode.

Figure 9 Max2 indicator.

Max2 indicator: The Max2 indicator lights up on battery operated scales to show that the scale is in power down mode.

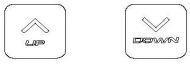


Figure 10 UP Arrow, DOWN Arrow.

Arrow keys: The arrow keys are used to select packing or grading memories. They are also used to enter numerical values and to select menu items when the scale is in Setup Mode.

Figure 11 MENU key.

Menu key: The MENU key is used to enter the menu where you set the packing weights and the grade limits. In Setup Mode the MENU key is used to return from submitting commands.

Figure 12 PRINT key.

Print key: The PRINT key is used for recording and printing weight results. It is also used for entering commands and for confirming new settings.

Figure 13 TARE key.

Tare key: The TARE key is used to set the tare. When you press this key with a weight on the platform, that weight is used as a tare, and the Weight Display will show a zero. The NET indicator lights up. The TARE key is also used to remove tare. Note: The TARE key cannot be used when Preset Tare is in operation.

Figure 14 ZERO key

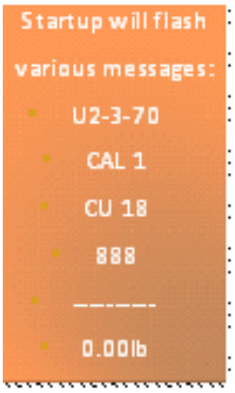
Zero key: The ZERO key is used to take a new operational zero point, provided the operating zero stays within ±2% of max weight from the initial zero point. The operating zero is the reference point for all weighing, and therefore a correct operating zero is necessary to ensure accurate weighing results.

Power

The M1100 scale can be used with alkaline batteries size D. Rechargeable batteries can also be used, but normally with reduced operating time. Using a set of two alkaline batteries provides operating power for approximately 85 hours of continuous usage, which equals 10 days if used eight hours a day. When the battery power gets low, a blinking warning, BAT, appears on the Config Display. The scale is still functional, until the power reaches its lowest operational point, which is when the scale will shut down.

Basic Operation

Applying Power to the Scale



To start the scale, simply attach the battery holder to the M1100 Indicator and press the up button within two seconds. If the battery pack is already installed, simply press any button followed by the up button within two seconds.

After power has been applied, the software version and the status of the Cal/Con event counters appear briefly on the Weight Display and a light test of the display is run. If the adjustment seal that prohibits modification of calibration and configuration parameters has been applied, the message appears briefly on the Config Display. The scale then sets the initial zero (the message appears on the Config Display), returns to Operating Mode, and is ready for use. Note: You can manually power down the scale by pressing the MENU

key and the DOWN arrow simultaneously.

Operation

The M1100 scale is very easy to use. The scale has been programmed for use to calibrate in kilograms and weigh in pounds. Once power has been applied to the scale and the start up sequence is complete it is ready for simple weighing. Before use in a WCGOP capacity a marine calibration should be completed.

Calibrating the M1100 marine scale's motion compensation feature ensures accurate and stable weighing results.

IMPORTANT! For optimum marine calibration results, always calibrate the scale in the physical environment where it will be used for weighing, that is at sea and not on land or in the shelter of harbor.

The scale must be calibrated at initial start-up. After that the message flashes in the Config Display at a fixed time interval (four to six hours), indicating that you should check the scale for stability and correct reading. The scale must also be calibrated:

- when the scale is unstable without the weighing platform being touched.
- when the displayed weight is inaccurate, even when the scale has a correct zero.
- when the scale is unable to assume the initial zero point, even with an empty platform.

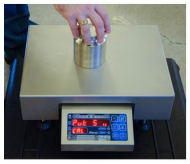
Marine Calibration:

To ensure your scale is functioning properly it is a good practice to calibrate when you first get on a boat, before you leave the dock, when you first get under way, and when you begin fishing. This will give you ample time to address any problems and give the scale a good reference point for calibrations at sea.

To Calibrate the Marel M-1100

1. Make sure the platform is clear and free of obstructions and the scale level as possible.

2. Turn on scale by pressing any button followed by the up button.
3. When the weight display shows 0.00 lb. the scale is ready.
   - If the scale will not come to a ready state, check that the weigh pan is seated correctly.
   - If the scale read-out gets stuck on a non-weigh screen, the batteries probably need to be replaced.



4. Press the Zero and Menu Keys simultaneously.
5. Wait for the readout to display: "Put 5 kg"

6. Place the 5kg weight on the scale
7. Press print

8. When "FIT_XXkg" is displayed calibration is complete (xx is a numerical value 00-99) Note "FIT_XXkg" is a land calibration and "FIT XXkg" is a motion compensated calibration. The difference is the underscore.
   - A value in the range of 00 to 25 is acceptable in calm conditions and a value <=70 is acceptable in

Fit Values

Calm Seas: Values between 0-25 preferred.

Rough Seas: Values up to 70 preferred.

Very Rough Seas: this is unsafe, don't work.

Figure 11-44: M-1100 Fit Value Expectations (These are preferred but any fit value will work as long as you get one.)

rougher conditions.

- Recalibrate if the value is above 25, rough seas may be difficult to calibrate in. Check that nothing is interfering with the scale top by removing and replacing the top and clearing under the scale. Try to block the wind from the scale. This can be done with a tote or your rain coat.
- If a fit value below 25 cannot be achieved after two calibrations continue with normal scale use. While not desirable high values are allowed

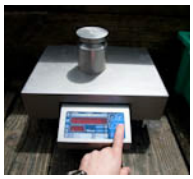
9. Record the fit on the appropriate species comp form in the upper right hand corner.
10. Remove the weight from the platform
11. When the weight display shows 0.00 place the weight on the scale again to verify the standard weighs 11.00 lbs. or 11.05 lbs. Record the weight on the deck form under the fit value. Repeat calibration if the value is not exact.
12. Remove and properly store the calibration weight.
13. The scale is now ready for use.

Field Use

Prior to taking the scale from training you should familiarize yourself with how to use it. Always transport the scale in its pelican case. Carry the scale by both handles when out of the case, or one handle with the pan against your leg if you need to support yourself on deck. Be careful of the weigh pan as it can fall off. Avoid dropping the sample basket on the scale or placing the basket on the scale in a harsh manner. Always carry 6 spare batteries in a dry location. Store batteries in a Ziploc bag in the scale case or in an alternate protected location.

1. Determine a good location to work that will allow the scale to be set up without being walked on or washed overboard. Tie it down if necessary using the holes in the handles.
2. Be sure there are no foreign objects that can interfere with the platforms movements.
3. The pelican case can be used as a scale platform or a seat. Just be sure it will not slide around.

4. Store the calibration weight safely (in the case is best). It's small and will roll when tipped.



5. Try to keep the scale out of direct wind (close to the deck or in a sheltered area) if possible.
6. Level the scale to the deck as best as possible, assuring the scale will not wobble.

Your scale must be calibrated before each and every haul and the fit number recorded.

7. **Calibrate the scale before each and every haul once you are ready to weigh your samples.** If you calibrate more than 25 minutes prior to sampling the scale will shut off and you must recalibrate. The fit value must be recorded on your deck sheet.
8. If weather conditions change during your sample collection, recalibrate scale. A good indicator that recalibration is required is the steady indicator does not light up for long or the word CAL is flashing in the configuration display.
9. To tare the scale simply place basket on scale and press the tare key while the scale reads stable. The weight value should be zero once the tare is accepted.
10. To clear a tare, clear the weigh pan and press the tare key or the zero key.
11. To weigh place item on scale and read the value in the weight display while the green stable indicator is lit.

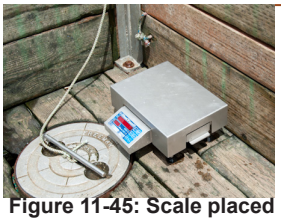


Figure 11-45: Scale placed in corner to reduce wind.

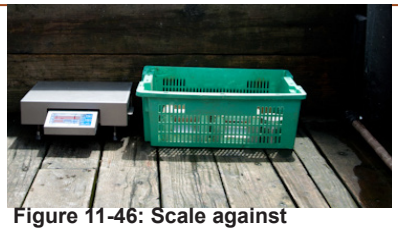


Figure 11-46: Scale against forward bin board.

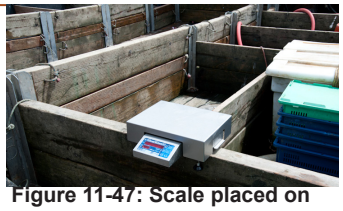


Figure 11-47: Scale placed on a 3 corner meeting point.

12. Remember to clear the tare when not using a basket, and to set it when using one.
13. When done, clean the scale as described later in this chapter.
14. Store the scale securely. Turn the scale off after you put it in the case to avoid accidently turning back on. The motion of the vessel can prevent a scale from turning off if it has only been put to sleep in the case.

> **Tip**: Work smarter. To weigh individual or small piles of fish in a series, start with a tared basket, weigh the fish, record the value, hit tare till you see a zero for weight and weigh the next fish. Continue process until done, then dump the basket and reset the tare.

Saving Battery Power

Battery operated M1100 scales are equipped with a power saving feature that puts the scale in "power down mode" and makes the batteries last up to one year. The power down mode feature works in two ways:

- **Light sleep**: when the scale has been inactive for five minutes it goes into power save mode for the next 25 minutes. The display shuts down, the decimal point scrolls slowly, and the Max2 indicator in the bottom left corner of the M1100 Indicator blinks while the scale is in this mode.
- **Deep sleep**: after 25 minutes in power save mode, the scales goes into deep sleep. The display shuts down and the Max2 indicator blinks.

The difference between the two sleep modes is that while in power save mode (light sleep) the scale returns directly to where it left off in weighing mode, but to return from a deep sleep the scale must go through regular start-up.

The power save feature helps preserve the batteries, but you should nevertheless remove the batteries if the scale is not to be used for an extended period of time (more than a couple of months).

> **Tip**: You can put the scale manually in power down mode (deep sleep) by pressing the MENU key and the DOWN arrow simultaneously.

To bring the scale back from power down mode:

- **Light sleep**: Press any key on the keyboard or lightly touch the platform.
- **Deep sleep**: Press any key on the keyboard followed by the up key within 2 seconds.

Dealing with Errors

You will encounter various errors while using the M-1100 due to the nature of the environment. Most common errors are caused by instability and/or wind and are easily resolved by pressing the menu key to escape. After pressing the key wait a moment for the error to clear. When clear the scale will display 0.00 lb in the main display. Once the error is clear, calibrate the scale.

At sea it may take a little time to escape an error or it may repeat several times until a valid calibration is achieved. Relax and keep trying. Take the scale inside to calibrate if wind issues cannot be overcome. It might be hard to get a good calibration in rough seas, but you will have less trouble once you do.

If you are unable to escape an error with the menu key, try removing the batteries and replacing them. Allow the scale to start up without the weigh pan. Once on, calibrate without the weight pan as well. If that is

Problems at sea?

Call Eric Brasseur 757-897-9651.
Email ericb@psmfc.org

If communication is spotty send a text and voicemail.

successful replace the weigh pan and recalibrate. If your scale sustained damage from a slide across the deck, resulting in an impact, or by being dropped while in the case, the reference weight located inside the scale may be displaced enough to cause an inescapable error. Call the gear tech and you may be able to fix it with phone supported assistance. Do not attempt to take a scale apart without authorization from staff. You may be liable for damage to the scale in that case.

Some errors indicate a problem with the electronics and may not be overcome. Reference the error chart ,"Figure 11-48:" on page 11-40 which is also provided as a waterproof field guide and contact the gear technician if encountered. Write down any error codes you encounter to assist in debugging.

When errors cannot be resolved and you are unable to take weights you must make visual estimates for the remainder of the sample and notify the captain of the equipment failure issue. Contact your debriefer by any means possible. The vessel must return to port within 36 hours if you are unable to sample. Other possible actions will be defined by your debriefer based upon current policy.

Remember to test your scale prior to deploying on each vessel. Replacing a scale is far simpler while you are still

Problem	Cause	Solution
Scale won't turn on	Weak batteries	Replace or insert batteries.
Screen is stuck during start up	Weak batteries	Replace batteries.
Keys no longer function	Bad Keypad	Call for a replacement
Keys misassigned (menu is print)	Bad Keypad	Call for a replacement
Weights off randomly and wildly even after several calibrations	Bad AD converter	Call for a replacement
Very difficult to calibrate, fails detailed weight test	Reference weight misaligned	Call for help with repair.
Random numbers in weight screen. Parts of numbers missing	Water in face plate.	Temporarily repair with phone support. Eventually replace.
Screen says U2-3-70	Start up	Nothing, just wait for it to start
Weigh pan looks crooked	Scale got dropped	If weights are fine use until you can come into an office to have it straightened.
Batteries never last	Scale might be coming on while in case	Turn scale off after putting it in the case. If continues to come on, take batteries out between trips. Bats last about 85 hours.
Fails detailed weight test repeatedly, but just barely	Load cell is stiff	Load with ~160 lbs. and let sit for 20 min. If you weigh less than 200lbs. Step on scale carefully and rock back and forth slightly.
Cannot calibrate at sea	Last calibration on land and it's probably windy and rough	Move inside to calibrate. Try calibrating when first leaving next trip.
My batteries are dead all the time	Discharging due to salt water or mixing up used batteries	Store batteries properly. Write dates on them when you put them in scale.
No power with fresh batteries	Loose power connection	Check spring in battery tube. Call for help with repair.
Fog in screen	Water in face plate.	Call for replacement.
Don't have any fresh batteries	You forgot them	Ask crew, check flashlights
Scale randomly turns off	Loose power connection, corrosion on battery contact, bad batteries, accidently hitting menu down, bad key pad	If battery case wiggles on post, tighted 2 bolts so it wont wiggle. Clean battery contact points with dry green scrubbie, replace batteries, Take head apart and look for loose cables, verify key make no sound
Scale wont turn on but battery light is on (Solid not blinking)	Something has locked up the keypad or the startup sequence.	New problem, so far removing the keypad and replacing it has worked once.
Code in main screed	Accidently brushing Zero and Tare	Be sure to only press one button.

Error code:	Description:	Action:
E-01	AD converter failure	Restart the scale, or else contact your Marel agent.
E-03	ADC over range	Reduce the weight on the platform
E-04	ADC under range	Increase the weight on the platform
E-05	Unstable weight (initial zero)	Stabilize the scale
E-06	Weight outside range (initial zero)	Make sure the platform is empty
E-08	Operation in progress (initial zero)	Wait until completed
E-11	Invalid initial zero	Remove or reduce the weight on the platform
E-13	Program failure (checksum)	Contact your Marel agent
E-14	ADC not responding	Contact your Marel agent
E-15	W&M setup checksum failure	Contact your Marel agent
E-23	24 V power voltage too high	Provide correct voltage
E-25	Low voltage to load cells	Check load cell
E-50	Parameter protection test failed	Restart the scale, or else contact your Marel agent.
E-81	Invalid static marine calibration. Fit value too high	Repeat calibration
E-82	Invalid static calibration. Calibration weight not detected	Repeat calibration
E-84	Marine static calibration not allowed	Scale requires motion
E-91	Invalid marine calibration. Fit value too high	Repeat calibration
E-92	Invalid marine calibration. Calibration weight not detected	Repeat calibration
E-93	Invalid initial zero	Make sure the platform is empty

Figure 11-48: Scale error/solution chart

in port. A vessel should not leave if your scale is not functioning.

Care and Maintenance

Maintenance should be performed upon return after every trip to keep the scale in the best possible condition. Always carry your scale in either the pelican case, or by the two handles.

On vessel

- When boarding or disembarking a vessel always transfer the scale in a securely closed pelican case. When transferring over water, tie a line to the case, long enough to retrieve it if dropped This is also useful when boarding a vessel lower or higher than the dock. You can make a lowering system by tying one end of the line to the dock or rail, passing it through the scale handle and slowly lowering the scale using the handle like a pulley, or tie it directly to the handle and lift/lower it hand over hand.
- Rinse scale with a low pressure fresh water hose between uses to remove the bulk of slime and scales between hauls. If a fresh water hose is not available use a deck hose. Direct deck hose stream to the weigh pan top only, avoiding the keypad
- If available, rinse with freshwater at the end of each day by pouring a bucket of water over scale or using a freshwater hose. Remove the weigh pan and rinse inside as well.
- Secure scale and calibration weight if you will not be on deck for a period of time and at all times during rough weather. Best practice is to put the scale and weight in the pelican case at the end of each haul.
- Always remove scale from line of traffic and keep away from scuppers. In bad weather place in pelican case and **TAKE THE SCALE INSIDE or TIE IT DOWN.**

After your trip

Marel Scale Inspection

Check all parts of scale for cleanliness. All parts should be free of mud and scales. If dirt is dried on, soak scale in tub for 20 min and scrub with a brush or sponge. (Use on a sponge on face plate) Rinse with a garden hose or shower.

Scale serial number:

Clean and rinsed inside and out?	☐	☐	_____
Cables: no holes, appear secure?	☐	☐	_____
No debris under load cells?	☐	☐	_____
Weight pan straight?	☐	☐	_____
Battery tube threads cleaned and lubed?	☐	☐	_____
Buttons function correctly?	☐	☐	_____
Rust removed?	☐	☐	_____
Display lights all working?	☐	☐	_____
No condensation in face plate?	☐	☐	_____

- Wash scale with fresh water and dish soap. Use a sponge or cloth on the screen and buttons. A green scouring pad can be used on the metal parts to remove any brown spots if necessary. A sponge is preferred.
- Remove the weight pan to clean and rinse. Rinse scale inside and out.
- Let scale dry.
- Inspect the cables for any damage.
- Clean the pelican case as needed and allow it to dry. The foam can be washed with a hose, sponge, and bleach. Remove everything from case except the foam. Fill with water and ¼ cup of bleach. Allow to soak for 20 minutes. Empty and rinse thoroughly with fresh water. Allow to air dry open for 24 hours or more.
- Store scale in Pelican case but leave the case open if possible so moisture can escape.
- If you notice any condensation in the scale screens or damage to cables please contact the gear technician as soon as possible.

It is a good maintenance rule to check the calibration routinely by placing a weight on the weighing platform to verify that the Weight Display shows a steady and accurate weight.

Saltwater is conductive. Store batteries in a dry location or they may be dead when you need them.

Replacing the batteries

1. If on vessel first remove your gloves and find a protected location. You must have clean dry batteries for the scale to operate properly.
2. Lift off the weigh platform.
3. Find the tube with the yellow warning label.
4. Twist to unscrew tube.
5. Shake out batteries.
6. Insert new batteries positive end towards open end of tube.
7. If needed, apply silicon grease to O-ring.
8. Hand-tighten battery pack.
9. Replace weigh pan.
10. Check scale performance.
11. For long periods of storage, remove the batteries from the pack.
12. Keep the battery pack, empty or full, connected to the scale at all times.
13. Store spare D-cell batteries in a dry Ziploc bag.

Testing

Your scale should be calibrated and tested for accuracy before each and every haul. Additionally a detailed weight test must be performed at check out, every 90 days and check in at one of the field offices using only the certified weights WCGOP provides.

Haul level testing

1. Make sure the platform is clear and free of obstructions and the scale level as possible.
2. Turn on scale by pressing any button followed by the up button.
3. When the weight display shows 0.0lb the scale is ready.
4. Press the Zero and Menu Keys simultaneously.
5. Wait for the readout to display: "Put 5 kg"
6. Place the 5kg weight on the scale
7. Press print
8. When "FIT_XXkg" is displayed calibration is complete (xx is a numerical value 00-99)
9. Record the fit on the appropriate deck form in the upper left hand corner.
10. Remove the weight from the platform
11. When the weight display shows 0.00 lb. place the weight on the scale again to verify the standard weighs 11.00 lbs. or 11.05 lbs. Record the weight on the deck form next to the fit value. Repeat calibration if the value is not exact.

Remove and properly store the calibration weight and the scale is ready for use.

Figure 11-51: The calibration weight should weigh 11.00 or 11.05 lbs.

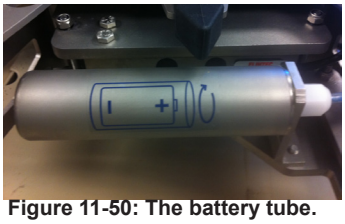


Figure 11-50: The battery tube.

Figure 11-49: The scale and case clean and ready to go.

Annual Detailed Weight test

Test must be performed at the closest field station at gear check out, check in and every 90 days. Testing forms are located at the testing sites. See "Figure 11-52:" on page 11-44

1. Turn on scale by pressing any button.
2. Clear the platform.
3. Calibrate scale as you did for the haul level test.
4. Record the fit value.
5. This test is done as an accumulating weight test up to capacity, overload and back to zero. Leave and remove each weight as indicated.
   - Record zero value (should be zero)0.00
   - Place 5lb standard on scale. Verify and record value. Total 5.00 lb.
   - Place 20lb standard on scale. Verify and record value. Total 25.00lb.
   - Place 50lb standard on scale. Verify and record value. Total 75.00 lb.
   - Place 50lb standard on scale. Verify and record value. Total 125.00 lb.
   - Press on the scale until the weight field blanks (overload the scale)
   - Release pressure on scale and record the value. Total 125.00 lb.
   - Remove 50lb standard from scale. Verify and record value. Total 75.00 lb.
   - Remove 50lb standard from scale. Verify and record value. Total 25.00 lb.
   - Remove 20lb standard from scale. Verify and record value. Total 5.00 lb.
   - Remove 5lb standard from scale. Verify and record value. Total 0.00 lb.
   - If weight values are off of known by more than the allowed variance for each weigh, repeat the test after placing all the weights on the scale and letting it sit for ~20 minutes.
   - If scale continues to fail contact the gear technician immediately for assistance.
   - Turn in scale test form to gear technician via fax or e-mail after test.

A scale must pass before being issued and upon return.

Collect information to report a problem

Problems should be reported to your coordinator and the WCGOP gear technician so they can advise you how to proceed or reassign your vessels if required, and get your replacement to you as quickly as possible. You can only go to sea with a properly functioning scale. See "Reporting a Problem" section for contact information and full procedures.

- Make a note of the serial number and the specific problem with your scale. Write the problem in marker on the scale platform.
- Contact the required personnel.

- Send a detailed e-mail to ericb@psmfc.org.

If you have been asked to return the scale, attach a note directly to it indicating the problem.

WCGOPCS
Marel Scale Min/Max/Overload Test

Marel M-1100 PL3260: 60 KG Single Resolution

Scale Serial # Blue Faceplate: **Left Handle:**

Date:

Observer:

Checkout **90 Day** **Check in** **Service Test**

Test #			1	2	3	4	5
Action			Calibrate	Recalibrate	Check Ref Weight, recal	Call Eric, then test	If it's not fixed stop after test
Standard	Expected Value (Lbs.)	Allowed variance	Actual Value	Actual Value	Actual Value	Actual Value	Actual Value
Calibrate (5kg)	Calibrate (5kg)	Calibrate (5kg)	Calibrate (5kg)	Calibrate (5kg)	Calibrate (5kg)	Calibrate (5kg)	Calibrate (5kg)
Fit	**0-4**	0-70					
Empty Platform	0.00	none	.	.	.	.	.
5lb	**5**	+\-.05lbs	.	.	.	.	.
5lb+20lb	25.00	+\-.05lbs	.	.	.	.	.
5lb+20lb+50lb	**75**	+\-.15lbs	.	.	.	.	.
5lb+20lb+50lb+50lb	125.00	+\-.20lbs	.	.	.	.	.
5lb+20lb+50lb+50lb + press on scale until screen blanks	**lines**	scale should overload					
5lb+20lb+50lb+50lb	125.00	+\-.20lbs	.	.	.	.	.
5lb+20lb+50lb	**75**	+\-.15lbs	.	.	.	.	.
5lb+20lb	25.00	+\-.10lbs	.	.	.	.	.
5lb	**5**	+\-.05lbs	.	.	.	.	.
Empty Platform	0.00	none	.	.	.	.	.

Notes if repairs were made	

If weight values are off of known by more the amount indicated in the chart, repeat the test after placing all the weights on the scale and letting it sit for ~20 minutes while on. If this does not correct the problem in one test please ask staff to inspect the scale. Widely off values indicates a severe problem.

Turn in completed forms on the same day as testing, either to your debriefer if testing in person or via fax or email.

Fax form to Eric Brasseur: 541-867-0505 Scan and email to ericb@psmfc.org

Signature:

Figure 11-52: Scale annual testing form

Scale Return Instructions

When you receive a replacement scale it will include a packet to use to return your old scale. Included

- 1 red zip tie
- 2 heavy duty zip ties
- 1 return ups label

Instructions

1. Remove the calibration weight from your old scale and keep it with the new scale, unless the new scale came with a weight. Be sure you have a weight!
2. Place the red zip tie on the handle of the case and scale you are returning.
3. Clean the returning scale and case if you have not already done so.
4. Stick the return address label on the old scale case
5. Use the two heavy duty zip ties to seal the case.
6. Take the scale to a UPS Station and drop it off.

Computers

ITQ Catch Share observers will be assigned an encrypted netbook with Verizon broadband network access. This will allow you continual internet access for communication and online data entry while you are in range of a signal. There are two accounts that you will use while performing your data entry duties. Each is specific to the task they should be used for.

Inventory

- 1 pelican case or laptop bag
- 1 shoulder carrying strap
- 1 Dell Inspiron Mini 1012 Netbook or laptop if available.
- 1 Dell Power cord
- 1 flexible number key pad
- 1 USB mini mouse

Computer Access

You will have two user accounts on the netbook. The first one called "CS-CM Observer" will be used to enter data and for access to web based e-mail for communication with WCGOP staff and affiliates. The second is "Recovery" and is used to debug the netbook in the event of a virus. Before you begin using the netbook to enter data, you need to configure it for your personal use by changing the account passwords. If you leave the settings as they are, anyone who reads this manual can gain access to your data and personal information.

User Accounts

Account: CS-CM Observer
Password: yelloweye

Account: Recovery
Password: lingcod

Account: PSMFC Administrator

First Use

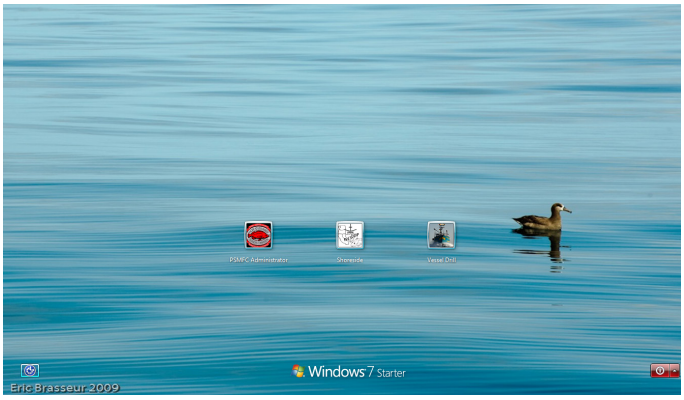
Once you have received your netbook and left training, change the passwords for all user accounts. You will need to use a different password for each account due to the encryption software. Please note that a computer is only encrypted when you turn it off completely. Once you log on the encryption is released. Simply logging out does not protect your data. Remember to turn off the computer when not in use.

When you first turn on the netbook the main encryption screen will come up. To log into the computer enter the password for the account you wish to open.

Log on to the recovery account using the password "lingcod". Once you have successfully logged onto the computer, change the password to something only you know and will remember (See: Changing your password in this chapter). Once the password has been changed, Logout of the "recovery account" and repeat the process

for the “CS-CM Observer” account.

Since the computer has been logged onto already the screen will be different. The windows logon screen will be visible instead of the PGP encryption screen.



Click on the user CS-CM Observer

- Password: yelloweye

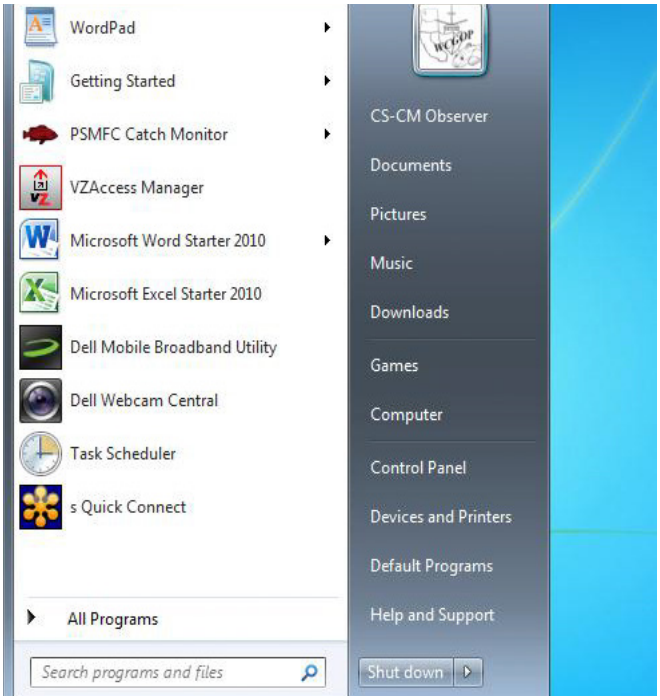
Once logged in proceed to change the password for this account as well.

Note: The computer is set to automatically log off the recovery account after 20 minutes of idle time to prevent others from tampering with the computer.

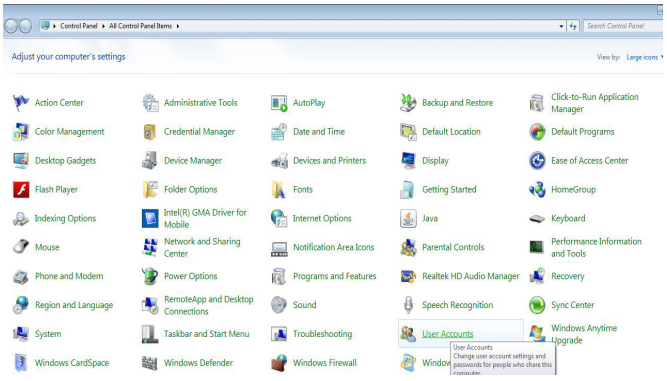
Changing your password

- Start
- Control panel
- User accounts
- Choose your account
- Create a password

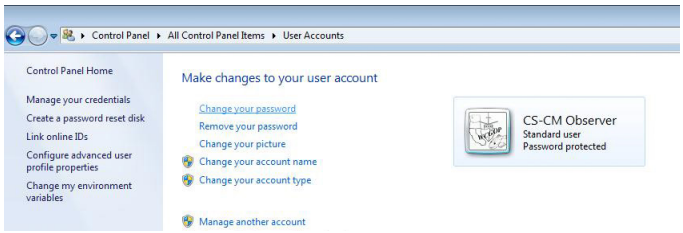
Click Start: Control panel



Select User Accounts.



Select Change your password.



Enter the current password.

Enter your new password.

Enter your new password again.

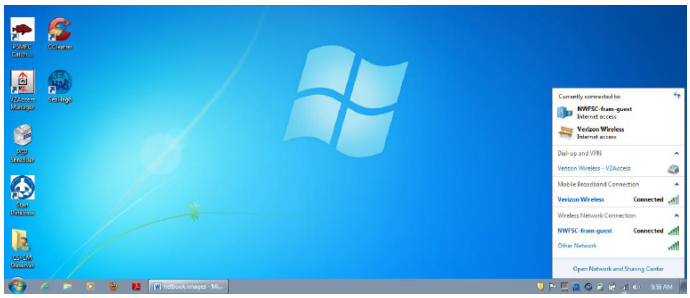
Type a hint to help you remember it.

Click Change password.

- Keep your password secret.
- Your netbook is wiped and reset upon return so even staff does not need to know your password.

Activating your Broadband card

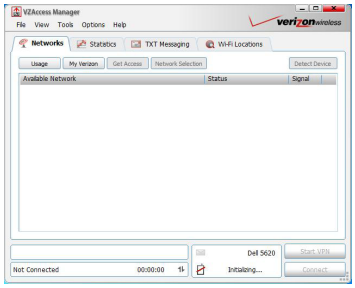
You may need to activate the broadband network service to have internet access. Check to see if your card is activated by left clicking on the windows wireless network icon in the lower right hand corner of the desktop. If you

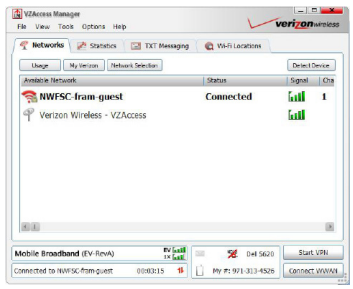


see Verizon Wireless under Mobile Broadband connection your card is already activated. (The Verizon wireless in the dial-up section is not the right one.) If your card is not activated follow these procedures.

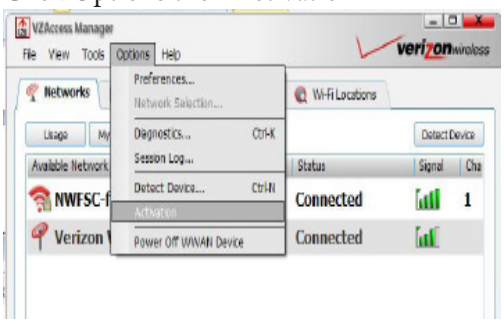
To begin, open the VZaccess manager from programs or on the desktop.

Once open VZAccess Manger will initialize the broadband card and look for a signal. If Verizon Wireless is gray your card is either not connected or not activated yet.





Click Options then Activation



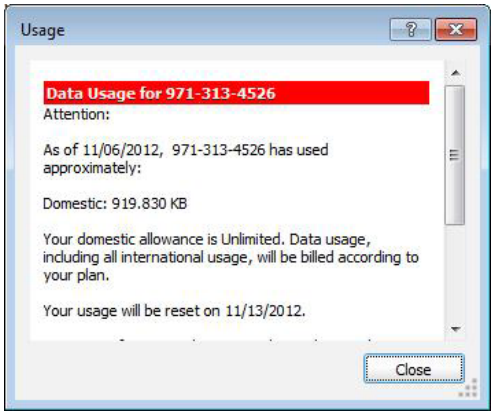
The software will begin the activation sequence. Occasionally, the netbook needs to be restarted if activation will not work. If activation is successful, you are finished and can close the VZ access manager. If

not, try again and then contact the gear technician for assistance if unsuccessful.

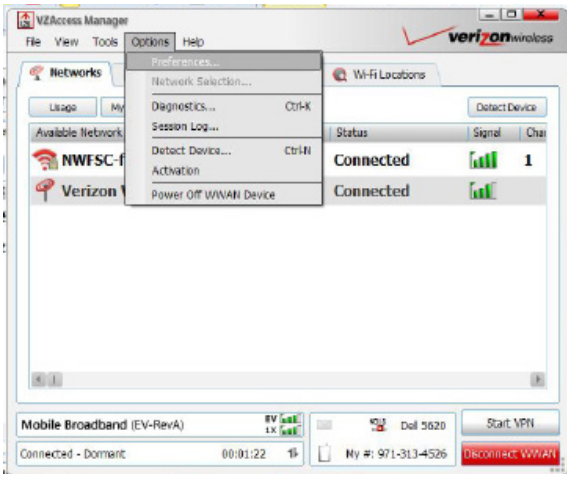
The VZaccess Manager

When you login the Verizon network should already be on, regardless of if the Verizon Access Manager is running. On occasion this setting gets altered and you may not be able to connect to the internet. To verify that the Verizon card is functioning properly open the Verizon access manager .

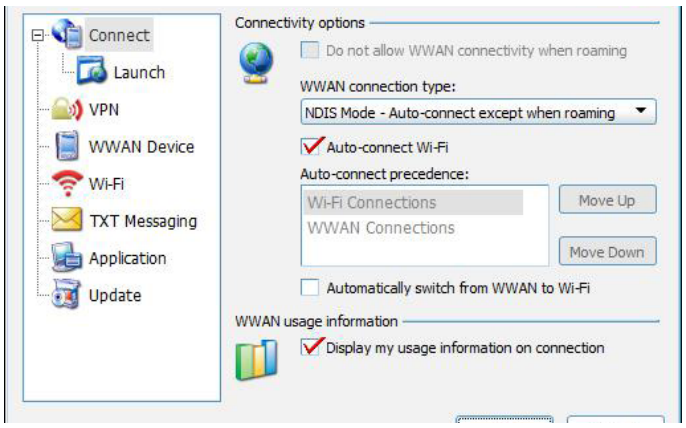
- The initial screen will display the current usage.
- It's OK to close the usage screen.



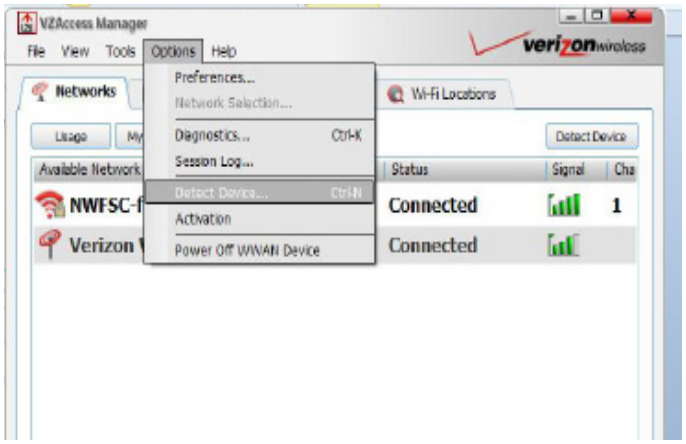
Click Options then preferences.



Verify that the WWAN connection type is NDIS Mode-Auto connect except when roaming. If not select it and change it accordingly. Click OK.

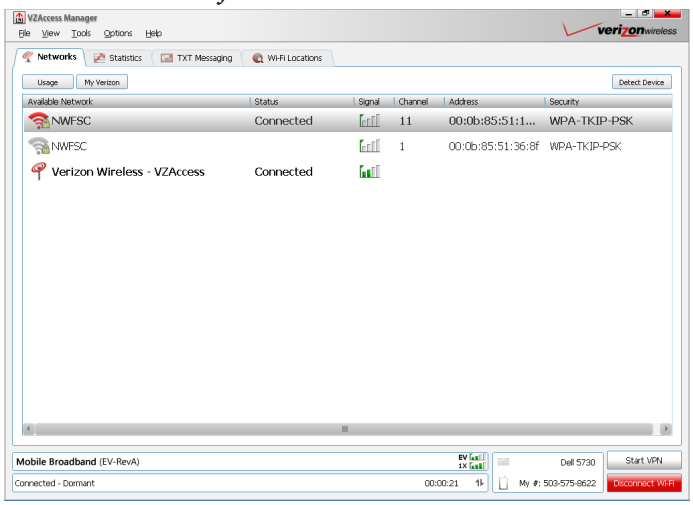


If the network does not connect after that, return to options preferences and click detect device.



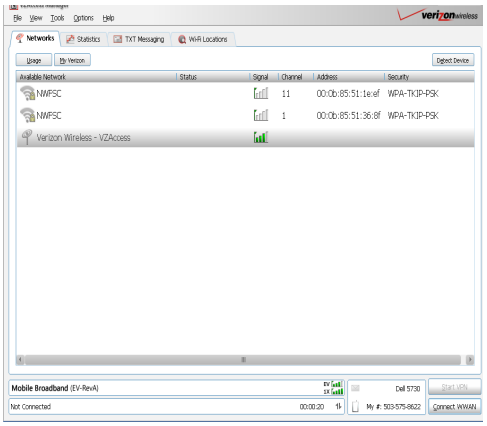
If no device is found contact the gear technician. Try to get to a wi-fi signal to enable remote access to your netbook.

General network info



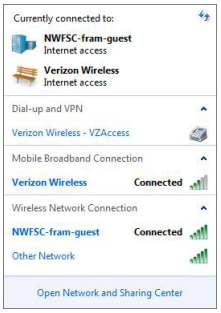
In this image, the laptop is connected to both a secure Wi-Fi signal and the Verizon Wireless signal.

For data entry you should only use a secure Wi-Fi connection or the Verizon wireless connection. These can be managed by the windows wireless network or through Verizon access manager. If you are connected to a free public Wi-Fi account, you will need to disconnect from it prior to entering data. Double click an item to connect or disconnect from it or by highlighting the connection and clicking the Disconnect (red)/Connect (Gray) button. To access a secure Wi-Fi account you must know the password. If you have a home wireless network that is secure please use it.



You must highlight the Verizon Wireless connection by clicking on it once before the Connect WWAN button will work. In this image no networks are connected but 3 are available. The Wi-Fi Connections are both secure.

- Connected networks have red icons on the left and a status of connected.
- Non connected networks have gray icons and a blank status.
- If the radar symbol has a lock on it, the Wi-Fi is secure and you will not be able to use it unless you know the password. At some fish houses or docks, we might be able to acquire the login. Just ask them.
- If Verizon in not visible, it is not available in your current location. Move somewhere else.
- If the Wi-Fi signal is free (radar symbol only), it might be the first one in the list and automatically connected as the default is set to use Wi-Fi first when available. Do not use it for data entry.
- If you are connected to an unsecured Wi-Fi instead of Verizon broadband or a secure Wi-Fi, disconnect from the unsecured Wi-Fi signal by double clicking on it, or highlighting the connection and clicking the disconnect Wi-Fi button then connect to Verizon Wireless instead.
- If you are connected to both an unsecured Wi-Fi and Verizon Wireless you will still need to close the Wi-Fi connection. Disconnect from the Wi-Fi signal by double clicking on it, or highlighting the connection and clicking the disconnect Wi-Fi button in the bottom right corner.



- If Verizon is visible and not connected hit the Connect WWAN button in the bottom right of the program, or double click the Verizon Wireless connection to connect.

When you try to connect to a secure Wi-Fi connection, a profile box will pop up. If you know the password, enter it. If not, click cancel and connect to a different network.

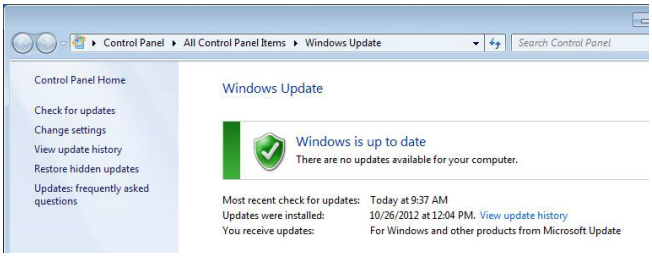
Transporting and Storage

Your computer is a valuable piece of equipment that contains sensitive information and should be treated as such. To protect the computer and the data it contains, please use the following procedures.

- When not in use, turn the computer off.
- Use the power supply whenever possible to conserve the battery and keep the unit charged for time when you may not have access to power.
- Carry the computer in the case.
- While on the vessel, put the computer back in the case when not in use. Close it up to help protect it from damage and moisture. Turn it off.
- Do not leave the computer in your car. Laptops are common targets of theft. Keep it out of view in the trunk if left temporarily for any reason.
- Do not let anyone else use your computer.

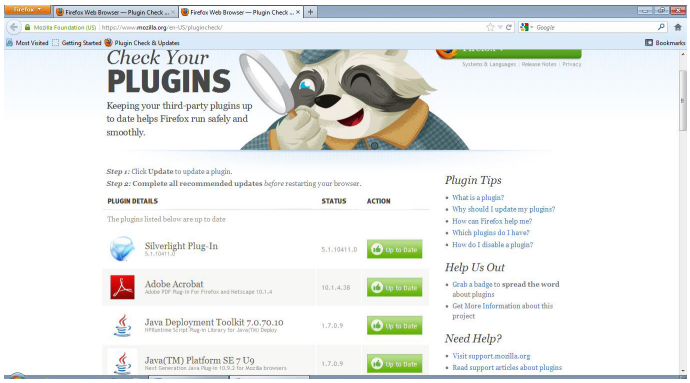
Care and Maintenance

The computer you are using is configured to automatically apply windows and antivirus updates. For these to take effect, you must be connected to the internet long enough for the updates to be installed. You must regularly log on and allow updates to run. They will run in the background while you check your e-mail or do data entry. Follow the prompts restart the system when requested.



- Use the "CS-CM Observer" account to access the web and check your e-mail and any other WCGOP tasks that require a computer.
- Do not download or install programs on your computer. The only allowed software is already installed.
- Do not store personal files on the computer. Use a thumb drive instead.
- Do not visit porn sites or other potential virus distributing sites.
- Occasionally run Symantec antivirus and click live update.

- Check your browser plug-ins. Open Firefox and click on the mozilla plug-in check link in favorites. If updates are required, contact the gear administrator to have them applied.



Administrator Access

The PSMFC administrator account is for staff use only. Special software called LogMeIn has been installed on your computer and should never be turned off. The software will allow us to make changes to your computer, assist with problems, or install software remotely. You must have an internet connection for it to work.

Collect information to report a problem

Problems should be reported to your coordinator and the WCGOP gear technician so they can advise you how to proceed or reassign your vessels if required, and get your replacement to you as quickly as possible. See "Reporting a Problem" section for contact information and full procedures.

- Make a note of the PSMFC property number and the specific problem with your netbook.
- Contact the required personnel.

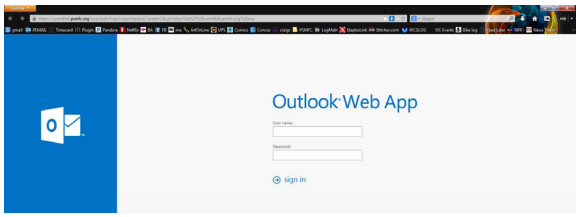
If you have been asked to return the netbook, attach a note directly to it indicating the problem.

PSMFC E-mail Account

All WCGOP observers (Catch Share and NON Catch Share) will be assigned a PSMFC e-mail account to use to communicate with WCGOP. This e-mail should be checked for messages daily if possible. Your default user name is your first initialLastName@psmfc.org (JDoe@psmfc.org). The default password is Welcome1. Please change the password after you complete training.

How to Access PSMFC e-mail on the internet

1. Go to http://webmail.psmfc.org
2. Enter your PSMFC e-mail address for the user name (i.e. jdoe@psmfc.org)



3. Enter your PSMFC password (if this is your first login use Welcome1 for a password)
4. After you have entered your User Name and Password, click "Log On".
5. Upon initial login you will be prompted to choose the appropriate time zone for your area.
6. Make changes if needed and then click "OK".
7. You have successfully logged into the PSMFC web mail.

Password Policy Rules

Password length: Password must be at least 8 characters in length.

Password complexity

- CM Portal requirements are 8-20 characters with at least one upper case, one lower case and one number
- PSMFC E-mail requirements: password must contain characters from three of the following four categories:

1. English uppercase characters (A through Z)
2. English lowercase characters (a through z)
3. Base 10 digits (0 through 9)
4. Non-alphabetic characters (for example, !, $, #, %)

Password expires: User password will expire 90 days from the last change.

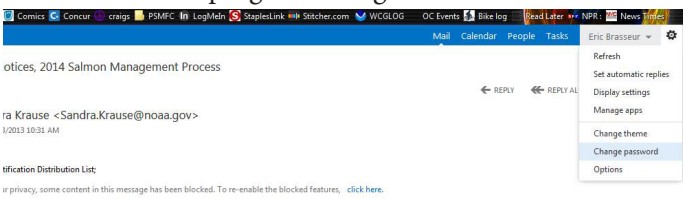
Password reuse: The last four passwords cannot be reused.

Passwords cannot contain: The user's account name or parts of the user's full name that exceed two consecutive characters

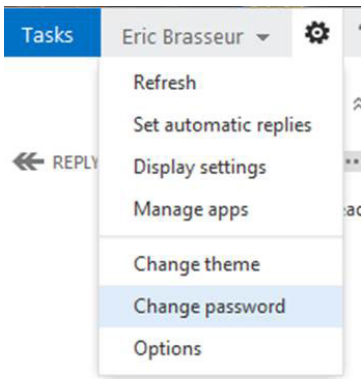
Complexity requirements are enforced when passwords are changed or created.

Changing your password using web mail

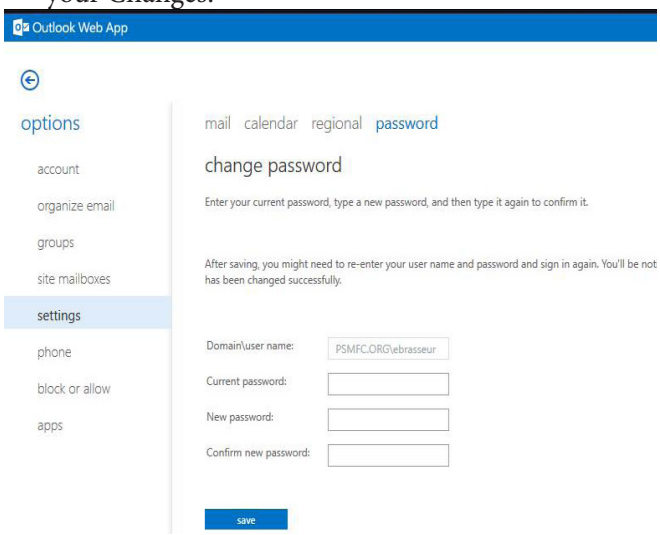
1. After logging into the webmail, click the small gear icon in the top right "Settings".



2. Click "Change Password" in the drop down navigation pane.



3. Enter your existing "old" password. Then enter your new password in both the "New Password" and "Confirm New Password" fields. Then Click "Save" your Changes.



4. You should then see the confirmation dialog, confirming the password change, you will then have to login using your new password. Simply Click "OK" to proceed.

The "I Can't Get Into My PSMFC E-mail" Essentials

E-mail passwords expire every 90 days, just like the WCGOP database passwords.

- Your initial password is Welcome1
- Your user name is almost always First initial last name (Ebrasseur).You will be told if it's not.
- You will need to change your PSMFC e-mail password every 90 days.
- There is no emailed reminder.
- If you log in using the web site you will be prompted to change the password as the time gets close.
- If you use Outlook, Gmail, Thunderbird or your

phone you will not receive a notice.

- If your password has expired when you log into the website you will be prompted to change your password before completely logging in.
- The user name is preceded by a domain when changing your password before logging in. The domain is **PSMFC.ORG\USERNAME AND MUST BE ENTERED CORRECTLY.**
- Set a calendar reminder the next time you change your password to remind you to change it again in 80 days.

Good practice: If the database wants you to change your password, go change your e-mail password.

If you do not remember your password, you will be locked out. If you get locked out only one person can help you. Contact Chris Mathews at PSMFC to reset your password.: E-mail: cmatthews@psmfc.org
Phone: 503-595-3100

Gear Pick Up: I'm An Observer Now!

The last day of training you will receive your gear. Gear assignment usually starts in the Barry Fisher Building loading dock and is finalized at Lincoln Storage, an off site facility located at 4809 S Coast Hwy. South Beach, OR 97366, 1.5 miles south of Hatfield.

Gear check out will be divided into two parts. Some gear will be given to you at BFB the rest at the storage site. Check in with the staff before beginning at either location

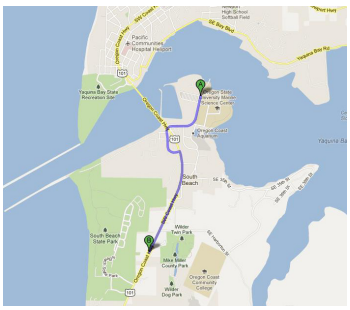
After you finish your final exam you may/should come over to BFB 146 to begin gear check out. The tech will give you your gear sheet and instructions so you can check out your scale, netbook and PLB up until 12:00. If you arrive late and the gear tech is not around, please go test your assigned scale up until 1:00 pm. Be sure to put your name on your scale so no one else takes it. Keep the scale test form with you until asked for it.

Everyone will meet in BFB 101 at 1:00 for "What happens next". You will be assigned a gear pick up time during that class. If you did not manage to see the gear tech prior to this time you will do so now before heading over to the storage facility for complete gear check out. Bring everything to the check out site.

To check out your gear you will need to bring the following:

- A vehicle to transport your gear (make room before you get there)
- Your logbook
- Your clipboard
- The gear chapter from the manual, or the whole manual.
- A pencil

A staff member will show you where your gear is and explain how to start. Only take the gear you have been assigned. Many items have serial numbers and will be tracked for safety, reporting, or legal reasons. It is imperative that you take only those items assigned to you and that you verify all information on the gear sheet. Tables will be provided for you to go through the gear and carefully check everything off.



Gear Checkout

The quickest way to check out is to remove all the gear from the baskets and systematically check and place everything back in the baskets as you proceed. This will help keep your gear separate.

All safety equipment must be reviewed by a staff member after you have completed your inspections and set up. After you have set it up correctly, filled out all applicable information on the gear form and check it off, ask a staff member to verify everything before you put it away. For speed, wait until you have several things ready before calling staff over. If the information is not complete on the gear check out sheet you are not ready to call a staff member. Fill everything out that applies to what you need checked. If you requested a non inflatable PFD in addition to the inflatable one provided by default you will need to get it and set it up as well. Staff will show you where everything is.

You will need to decide how many baskets you would prefer at this time. The minimum recommended is 3 however it is often useful to have 6 or more when working on trawlers. Ultimately your ability to transport your equipment may be the ruling factor. Note the number desired next to sampling baskets in the Qty. column under the Check Out heading. WCGOP recommends 10 if you have room as you can always leave some at home if you find you use less.

Staff will show you where any equipment you need is in the storage facility. Make sure you have everything on the list that you check off and that the quantities match. You will be given a list of "need to do" items. Be sure you complete all the tasks listed. Please remember to check with staff before putting things away. We will ask you to unpack it all if a staff member did not verify what you have received.

You must transport your gear yourself, or make arrangements with your provider to ship or store your gear. Please be prepared prior to leaving training.

Verify all information and add any missing information on the gear sheet.

EPIRB/PLB (page 11-18)

- Beacon number
- Battery expiration month and year
- Registration expiration month and year
- Test it

Immersion Suit (page 11-24)

- Serial number matches bag and form
- Size (try it on if it doesn't fit request a new suit)
- Inspect the suit
- Check the whistle and its attachment.
- Check the strobe date and switch position (should be to the right). Hemilight Only!
- Check the attachment of the rescue streamer

Inflatable PFD (page 11-29)

- Check the whistle
- Check the strobe and it's batteries, use only a C-strobe (Round)
- Check rescue streamer attachment

Computer (page 11-45)

- PSMFC #

Gear Pick-up

- Finish and pass exam before noon.
- Go to BFB Room 146.
- Get forms.
- Test a scale.
- Test a Netbook.
- Check EPIRB.
- At 1300, go to Room 101.
- Get gear check-out time.
- If still necessary, test a scale.
- At assigned time, go to storage site. Bring everything.

- Power cord # matches
- Passwords
- Turns on, and you can log in (Check all user options)

Marel Scale(page 11-34)
- Inspect for damage (report if found)
- Record Serial number on faceplate
- Turn on
- Calibrate
- Perform detailed weight test at the test station and record on scale test sheet

Tally Counters
- Make sure they work.

Optional gear
- Do you have it
- Does it fit
- PFD work vest with attached safety equipment
- Attach or check whistle
- Attach or check strobe and it's batteries (Firefly, Square strobe)
- Attach or check rescue streamer attachment.

Headlamp
- Check batteries
- Make sure it works

Once you have completed your inspection notify a staff member of any problems, correct them and take your check out form to Eric Brasseur the gear technician. Sign the form, turn it in, load up your gear and head out. Request a copy if you desire it. When you finish your contract the same form will be used to check in your gear. BE SAFE!

Getting Replacement Consumables

The program will provide replacements for items you will consume while doing your job. Each of the satellite WCGOP offices has a supply of goods to keep you stocked up. When visiting your debriefer make a list of what you need and notify them in advance so they can have it ready for you. You should copy paper forms as needed yourself. This can be done in the office as well. Ask for assistance if an access code is needed for the copier.

Consumables include:
- D Batteries
- Sample bags
- Otolith vials
- Waterproof forms
- Pens and Pencils
- Species ID labels

Always call your debriefer first for these items even if you need them shipped to you. If they are out, then contact the gear technician in Newport.

Whenever you visit an office, take your scale and do a detailed scale test. We can use the extra data to see how they are performing.

Reporting a Problem

It is very important that any equipment problems be reported right away so that if replacement gear is needed it can be issued before your next trip. Problems should be reported by e-mail to your coordinator and the WCGOP

gear technician so they can communicate your request to the proper personnel and advise you how to proceed and reassign your vessels if required.

You should contact the gear technician if:

- Your gear malfunctions.
- You set off an EPIRB, PLB, non-serviceable strobe, or inflatable PFD.
- You are having a problem with a piece of gear.
- Something is missing, lost, washed overboard or stolen.
- Something breaks.
- You are having a computer problem.

For each item see the corresponding section in the Gear Chapter for specific details needed for reporting such as serial number. Have that information recorded and ready.

1. E-mail/call the gear technician and tell them what is wrong. They will advise you if you need to stop working while you await a replacement.
2. Send an e-mail to your coordinator, debriefer and the gear technician with all details .
3. Label the equipment as noted in each section. Included specific notes as required.
4. Be sure your physical address is listed in the WCGOP database. We must have a physical address to ship to, a PO Box is not sufficient for Fed-Ex or UPS overnight deliveries.
5. Once reported a replacement will be shipped directly to you.
6. Use the box your replacement came in and ship the damaged/malfunctioning item back to:
   Eric Brasseur
   Fisheries Technician
   Hatfield Marine Science Center
   Barry Fisher Building
   2032 SE OSU Drive
   Newport, OR 97365

In many cases a return label will be included in the package. Simply remove the previous shipping label and barcodes on the box and put the new prepaid shipping label on the package. Seal the box and take the package to the nearest drop off center based on shipping company. If no centers are nearby you can call for a pickup.

Contacts

Gear Technician	Eric Brasseur O: 541-867-0509 C: 757-897-9651 E:ericb@psmfc.org
PSMFC E-mail	Chris Matthews O: 503-595-3100 E: cmatthews@psmfc.org

Non-Trawl Catch Share Coordinators

Washington & Oregon	B. Scott Leach
	O: 541-351-8250
	C: 541- 366-8080
	E: Scott.Leach@noaa.gov
California	John LaFargue
	O: (707) 443-3228
	C: (530) 604-7386
	E: John.Lafargue@noaa.gov

Gear Check-In Procedure

All gear must be returned to the Newport office.

When you have:

- Finished your contract and have no more trips,
- Entered all your trip and data,
- Scheduled your final debrief,

Contact Eric Brasseur via e-mail at ericb@psmfc.org to schedule a gear check-in. Gear check-in hours are generally 9-3 M-F. Be sure to allow 30-60 minutes to complete your check-in.

Before you leave your port:

1. Request a check-out sheet if one has not been sent to you.
2. Review the check-out sheet to verify you have all your gear. Please USE IT to check everything off as you may be required to pay for missing or damaged gear.
   - If you received replacement or additional gear it may not be noted with the correct ID number; that is OK.
   - You are responsible for everything on the list and any additional items you may have received during your deployment such as a GPS or Satellite phone.
3. Perform all required maintenance and log book duties related to gear.
4. Thoroughly clean your gear as described below. See the gear chapter in the manual for additional tips and methods.
   - **Baskets**: Clean/scrub thoroughly with bleach and a scrub brush/scrubby. A car wash is a good place to power wash baskets.
   - **Non-inflatable PFD**: Hand scrub with a mild bleach solution, rinse and air dry completely. Or wash in a front loading washing machine, gentle cycle and air dry.
   - **Inflatable PFD**: Hand scrub with dish soap and rinse with a damp rag. Hand wash only to avoid accidental inflation.
   - **PLB**: If it's dirty, remove the case from your PLB if it has one and wash it and the case with soap. Rinse and let dry.

Note: Yellow epirbs are water activated please do not wash them.

   - **Marel M1100 scale**: Clean with fresh water and soap. Scrub brown spots with a green scrubby. Rinse and dry completely.
   - **Pelican scale case**: Scrub the outside of the case. Remove everything from case except the foam. Fill with water and ¼ cup of bleach. Allow to soak for 20 minutes. Wipe as required. Empty and rinse thoroughly with fresh water. Allow to air dry open and upside down for 24 hours. Once dry return all items to the case for transport. Batteries should be in a zip lock bag. You will need to turn on the scale in Newport for testing.
   - **Laptop/netbook**: Remove any personal files you

need from the laptop. Empty the laptop bag/case of everything personal and be sure the power cords, mouse, 10 key printer and cables are in the case.

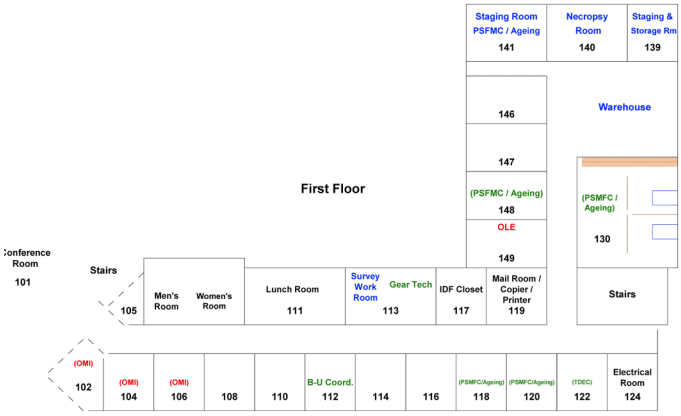
- **Immersion suit**: Leave the whistles and strobe lights attached. Remove personal gear from bag.
- Report any malfunctioning or damaged equipment. (You should have already filed the appropriate reports.)
- **Paper books**: Clean as best as you can. Let dry and air out.
- **Water-proof species guides**: Wash with bleach if needed. Fill a sink with bleach water and soap and swish the book around. Sponge pages clean as needed. Repeat with clean water to rinse. Dry thoroughly.
- Keep your manual, pens and pencils.

5. Pack everything up after it is dry using the check off sheet to assure you have all gear. Put it in your vehicle and double check for items you may have left behind.
6. The most common items people "forget" and end up paying for are:
   - Head lamps
   - Beating the odds
   - Calculator
   - The cart
7. Consumables supplies are exactly that and you will not be charged for them (pencils, bags, vials, etc.)

Note: You will be asked to clean or dry gear on the spot if it has not been properly done.

When you arrive in Newport

Bring gear to the loading bay/warehouse in the Barry Fisher Building and notify Eric Brasseur in Room 146 that you have arrived.



Tip: Call Eric Brasseur at 757-897-9651 when you are approximately 30 minutes from the Newport facility.

Then:

Unload your gear and arrange all the small gear on the red folding table in the loading bay near the freezers (first bay door). The table may be folded up, just find it and set it up.

1. Perform a detailed weight test (90-day) at the scale testing station. It must pass the test. Please see the Gear Technician if it does not. Scale test forms are on the blue clipboard.
2. Unroll your immersion suit and leave it out.
3. Double check you have everything.
4. Once ready, go get the gear technician.

Missing gear

Though rare, you may be required to pay for missing/damaged gear. See page 3 of the gear chapter for expected replacement fees. Consult the gear technician in advance if you know you are missing items. We will not clear you

with a provider until everything is accounted for. Your final paycheck may be held until all accounts are settled, but that is up to your provider. You may pay for missing gear by writing a check payable to PSMFC. If gear is found at a later date and returned, your payment will be refunded.

Shipping gear

WCGOP prefers that all gear be returned in person, in Newport. Observers are not authorized to ship gear without an e-mail confirmation from the WCGOP gear technician and their provider. If your provider has requested you ship your gear, please ask them to contact the gear technician for approval. Until you receive approval from the gear technician DO NOT PROCEED.

Before shipping gear

Test the scale: The observer must bring the scale in to a satellite office for a final scale test, or if the debriefer is travelling to them, request the test weights be brought so the test can be performed at that time. This will be a confirmation that the scale was working properly prior to being shipped.

Perform Maintenance, clean, and inspect all gear

1. Review the check-out sheet to verify you have all your gear. Please USE IT to check everything off as you may be required to pay for missing or damaged gear.
   - If you received replacement or additional gear it may not be noted with the correct ID number; that is OK.
   - You are responsible for everything on the list and any additional items you may have received during your deployment such as a GPS or Satellite phone.
2. Perform all required maintenance and log book duties related to gear.
3. Thoroughly clean your gear as described below. See the gear chapter in the manual for additional tips and methods.
   - **Baskets**: Clean/scrub thoroughly with bleach and a scrub brush/scrubby. A car wash is a good place to power wash baskets.
   - **Non-inflatable PFD**: Hand scrub with a mild bleach solution, rinse and air dry completely. Or wash in a front loading washing machine, gentle cycle and air dry.
   - **Inflatable PFD**: Hand scrub with dish soap and rinse with a damp rag. **DO NOT IMMERSE OR SPRAY**
   - **PLB** If it's dirty, remove the case from your PLB if it has one and wash it and the case with soap. Rinse and let dry.

Note: Yellow EPIRBS are water activated please do not wash them.

- **Marel M1100 scale**: Clean with fresh water and soap. Scrub brown spots with a green scrubby. Rinse and dry completely.
- **Pelican scale case**: Scrub the outside of the case. If the inside is dirty, remove everything from case except the foam. Fill with water and ¼ cup of bleach. Allow to soak for 20 minutes. Wipe as required. Empty and rinse thoroughly with fresh water. Allow to air dry open and upside down for 24 hours. Once dry return all items to the case

for transport. Batteries should be in a Ziploc bag. You will need to turn on the scale in Newport for testing.

- **Laptop/netbook**: Remove any personal files you need from the laptop. Empty the laptop bag/case of everything personal and be sure the power cord, mouse and 10 key are in the bag. Check CD **tray.**
- **Immersion suit**: Leave the whistles and strobe lights attached. Remove personal gear from bag.
- Report any malfunctioning or damaged equipment via e-mail. (You should have already filed the appropriate reports.)
- **Paper books**: Clean as best as you can. Let dry and air out.
- **Water-proof species guides**: Wash with bleach if needed. Fill a sink with bleach water and soap and swish the book around. Sponge pages clean as needed. Repeat with clean water to rinse. Dry thoroughly.
- If is October or later, recycle the paper from your observer manual and turn in just the binder, if the binder is ripped, dispose of it. You may keep the manual if desired.
- Clean and dry the clear plano waterproof box and all small tools. Dispose of wet gloves.

Pack everything up after it is dry using the check off sheet to assure you have all gear.

The most common items people "forget" and end up paying for are:

- Headlamps
- Beating the odds
- Calculator
- The cart

Consumables supplies are exactly that and you will not be charged for them (pencils, bags, vials, etc.)

Gear check (optional)

It is recommended that observers with questions about the condition of their gear bring it to the location of final debriefing for a courtesy inspection. This is only a courtesy inspection to help the observer identify any issues that may need to be addressed. Debriefers assume no role in shipping or verifying the final condition or presence/absence of gear. It is the sole responsibility of the observer to assure that all gear is properly cleaned, accounted for and shipped to the Newport office. The gear should be fully ready to ship prior to courtesy inspections.

Missing gear: Lost/damaged gear should have been reported prior to this time. Gear reported missing at the final debrief may result in replacement fees being assessed.

Dirty gear: A $100 cleaning fee will be charged to the observer provider for all gear received unreasonably dirty. The provider may choose to have a local observer come in and clean the gear instead of accepting the fee. Gear may not be issued to new observers until dirty gear issues have been addressed.

Preparing the shipment: All items should be clean and dry. Use the check off sheet to verify all gear as it is packed. Place a copy of the check off sheet in the netbook case. Every item should be checked off in the observer

check mark column or an explanation given as to why the item is missing. Missing items will be assumed lost due to negligence or shipping and billed for appropriately.

Scale

- Write in sharpie on the scale pan any problems with the scale.
- Remove batteries from scale.
- Pack any remaining batteries in a dry zip lock bag
- Put all items in case appropriately
- Close case securely
- Seal case using only Heavy duty zip ties. Reusable zip ties will not work.
- The scale in case weighs ~ 69 lbs.
- Put a shipping label directly on the case No further packing is necessary. Tape label on securely.

Small gear: Place all small gear in the Clear Plano box. Use the gear sheet to check everything off.

Netbook

- Pack in pelican case/bag with mouse, power cords, 10 key. Add filler if items are moving around.
- Ensure latch is tightly closed.

Immersion suit

- Remove any personal items.
- Button the bag
- Place in a basket or box to protect from puncture damages during shipping.

PLB

- Wrap a rubber band around the antennae/trigger protector to keep if from opening during shipping.
- Place in Clear Plano box (Sample kit).

EPIRB

- Remove antennae
- Tape or rubber band down the trigger button
- Place in Ziploc bag to prevent water activation.

WCGOP Camera

- Submit all pictures
- Format card
- Pack in Clear Plano box

Recommended packing method

Packed correctly, it is not necessary to use boxes, however you may do so to add additional protection if you wish. Please try to avoid using packing peanuts. The static build up sometimes damages the electronics and may set off an EPRIB. The method described below works well when distributing new gear. You may need to pack things slightly differently depending on the size of your immersion suit.

- Seal the scale in its pelican case with zip ties. Any paper work placed with the scale should be in a ziplock bag to keep it dry.
- Pack the following in one basket with the lid. Zip tie lid at ends and wrap lid and basket around middle with tape. You may place the sealed basket in a box if desired, but it should not be necessary if packed correctly.
- Clear water proof box with all small gear, tape measure and folding meter stick.
    - Form folder
    - Fish pick
    - Calipers
    - Inflatable pfd

- Netbook in pelican case
- Measuring board
- Add paper filler if things are loose.
- Attach the folded cart to the top of the basket with rope or tape. Be sure it cannot move.

- Pack books in the bucket; add filler to prevent movement if needed.
- Turtle two baskets together zip tying shut at all points with holes with the following items inside.
- Bucket with books,
- Immersion suit (This may not work with a jumbo suit.)
- Zip ties must be placed in every hole and baskets must be aligned properly. Tighten zip ties and trim.
- Place non inflatable PFD in bottom of one basket.

Stack remaining baskets together on top of PFD. Using small rope, tie all the baskets together securely through the holes at the corners.

When all packed you should have 4 separate items to ship

- The scale
- 1 basket with lid
- 1 set of turtled baskets
- 1 stack of baskets

Shipping

Attach shipping labels to all packages. Add tape if you feel they may come loose.

Insure for $10,000 total. If asked to insure packages separately, be sure to calculate the approximate value of the items you packed in each container. If packed as indicated: the scale should be insured for $7000, the cart/basket of gear for $2000 and the turtled basket set for $1000.

Add Ericb@psmfc.org to the tracking confirmation

Add 757-897-9651 as the contact phone number for receiver.

Ship to: Eric Brasseur
West Coast Groundfish Observer Program
Hatfield Marine Science Center Room 146
2032 SE OSU Drive
Newport, OR 97365

Post shipping

Send an e-mail to the gear technician and your provider confirming the shipment. Include the expected arrival date and tracking numbers. Observers should continue to monitor their PSMFC e-mail until they are given the all clear. Please leave additional contact information if unable to do so.

Resolving gear issues

The provider and observer will be contacted via e-mail to confirm the receipt of all gear, and to notify them of any problems. Problems will first be presented to the observer to resolve. If the observer does not communicate with the program the issue will be turned over to the provider for

resolution. Missing gear must be returned within 14 days. Gear lost or damaged due to negligence or shipping must be replaced/repaired or paid for within 30 days.

Payment

The provider will be officially billed after 14 days for any unresolved gear issues.

Payment should be made out to: Pacific States Marine Fisheries Commission.

And send to:

Eric Brasseur
West Coast Groundfish Observer Program
Hatfield Marine Science Center Room 146
2032 SE OSU Drive
Newport, OR 97365