



## OPERATOR'S MANUAL

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# OPERATOR'S MANUAL FAA TSO APPROVED LIFE RAFTS

## PART NUMBERS

**RAF1104-XXX 4 PERSON LIFE RAFT**  
**RAF1108-XXX 8 PERSON LIFE RAFT**  
**RAF1206-XXX 6 PERSON LIFE RAFT**  
**RAF1210-XXX 10 PERSON LIFE RAFT**  
**RAF1212-XXX 12 PERSON LIFE RAFT**

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**RECORD OF REVISIONS**

Retain this record in front of the manual. When in receipt of a revision, insert the revised pages in the manual and enter the date inserted and initial.

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### DESCRIPTION AND OPERATION

#### 1. DESCRIPTION

These rafts are intended for use by aircraft crew members/passengers during water emergencies. The 4 and 8-person rafts are each comprised of a square shaped buoyancy tube with two equal buoyancy chambers divided by floating bulkheads. If one chamber is damaged, the deflated chamber can be secured to the inflated chamber by tying the canopy attachment loops at the corners of the raft tube to the tie cords provided at the lifeline /boarding aids.

The 6, 10 and 12-person life rafts are each comprised of two pneumatically independent, square shaped buoyancy tubes, structurally joined one on top the other. Each raft has two boarding stations. In addition, each raft is fitted with a fabric deck cemented to the bottom tube, life lines, boarding handles, CO<sub>2</sub> inflation system, retaining lines, hand pump, bailing bucket, sea anchor, ballast bag (one for Type II rafts and two for Type I rafts), water activated light, heaving line (35 ft for Type II rafts and 75ft for Type I rafts) and valise. The raft valise is stenciled with the part number, serial number, weight, occupant capacity, and operating instructions. This valise also serves as a sea anchor after raft inflation.

Raft materials and components have been carefully selected to provide for reliability, extended life, and reduced service cost. Buoyancy tubes and decks are constructed of neoprene coated nylon or urethane coated nylon fabric conforming to FAA TSO specifications. Canopies are fabricated from high visibility orange compound coated nylon Velcro closures. The inflation gas release valve is of the most reliable design, puncture disc type, and the cylinder is manufactured of lightweight, corrosion resistant aluminum.

Survival equipment is fitted into its own valise, externally separate from the raft valise. The equipment and raft valises are externally attached to each other utilizing fasteners and a plastic cable tie. These separate valises provided the ultimate in flexibility for raft and equipment combinations. Survival equipment includes; signal flares, flashlight, first aid kit, raft repair kit, sea dye marker, signal mirror, food/water rations, and signal whistle.

More extensive survival equipment include: magnetic compass, a watermaker in lieu of water rations, fishing kit, utility knife, 75 foot retaining line, survival manual, paddles, radar reflector/thermal blanket, sponge and optional ELT.

The equipment valise is stenciled with the equipment part number, serial number, and weight. It is also stenciled with corresponding Raft/Equipment assembly number and FAA TSO data. This equipment valise is attached to the raft valise with fastener strips and a plastic cable tie. The equipment is easily obtained after raft inflation by pulling in the sea anchor (raft valise) and detaching the equipment valise.

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### B. STANDARD EQUIPMENT

#### (1) Inflation System

Each life raft has a single carbon dioxide inflation system consisting of an aluminum cylinder, inflation valve, pull cable assembly, and two inlet check valves with flexible hoses. These valves are screwed into molded neoprene flanges that are cemented to each of the buoyancy chambers/tubes.

The gas is released by pulling on the inflation/retaining line handle until the gas release valve has been activated. The gas release cable pulls free of the valve and remains attached to the retaining line. The activated valve allows the gas to flow evenly into each of the single tube raft chambers or each of the twin tube raft tubes.

The inflation system is "Closed" and the raft pressure is dependent on the ambient temperature. The quantity of gas provided to produce a useable raft at low temperature (10° F) will produce a higher pressure at normal conditions (70° F or higher). The raft is equipped with two inflate/deflate/pressure relief valves, which automatically adjust a high-pressure condition to 2.0 psig.

#### (2) Inflation/Retaining Line

The inflation/retaining line is attached to a high strength patch on the raft. This line is secured to the aircraft to prevent the raft from drifting away when in the water and is used for positioning the inflated raft for boarding. Pulling the lanyard will actuate the inflation system and begin raft deployment.

#### (3) Raft Knife

A knife features a recessed blade to minimize the possibility of damage to the raft. The raft knife is intended for use by raft occupants to cut the retaining line attaching the raft to the aircraft when the decision to cast off has been made.

#### (4) Life line

A lifeline located around the exterior perimeter of the raft for use by survivors in the water.

#### (5) Canopy

The raft is equipped with a canopy that can be erected after the raft has been boarded. Rafts with optional survival equipment have the canopy packed in the equipment valise. Rafts without the optional equipment, have the canopy packed with and attached to the raft ready for easy erection by only inflating the canopy mast. The canopy has toggles for securing to the attachment loops located on the lifeline and at each boarding station around the raft periphery. An inflatable mast is

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attached to the top of the canopy and to the raft floor with the mast tie cords.

The mast has an oral tube with inlet check valve that is utilized for oral inflation or hand pump inflation. The canopy has two openings at which the door flaps are attached to the raft with a common toggle. The door flap toggles are attached to special canopy loop patch at each boarding station on the side of the raft tube. The door flaps utilize hook and loop fasteners for closure protection from wind and rain.

### (6) Heaving Line and Ring

The floatable heaving line is made of a 75 ft long black webbing line and a grasping ring. The ring is made of a yellow nylon pack cloth filled with a special water absorbing expandable pellets which gives the device its shape, buoyancy, and weight for throwability after exposure to water. this line is attached to the side of the raft at a high strength retaining patch.

### (7) Sea Anchor/Raft Valise

The sea anchor/raft valise is a specially designed dual-purpose raft valise that can be launched after the optional equipment valise has been removed. The sea anchor is attached to the raft with its own retaining line which is tied off to a high strength lifeline patch assembly on the outside corner of the raft. The sea anchor retaining line is stowed in a fabric holder attached to the outside lifeline to prevent entanglement during raft inflation.

### (8) Boarding Aids

Boarding aids are provided on opposing sides of the rafts and are positioned to align with the canopy openings. Bowed boarding handles at each entrance are provided to assist survivors boarding the raft.

### (9) Hand Pump Assembly

A bellow type hand pump is provided for topping off the flotation tubes as needed. A special adaptor is tethered to the pump for use with the raft topping off valves.

### (10) Equipment Kit

The equipment kit contains emergency rations and items to aid raft occupants for survival at sea. Available items include food and water rations, first aid kits, and emergency flares. Equipment kits vary in contents according to specific configuration requirements.

### (11) Water Activated Survivor Locator Lights

A water activated locator light is attached to the raft tube to help survivors in the water or rescuers to find the raft at night. The lamp and battery are attached to the raft with hook and loop fasteners, so the system can be easily deactivated by removal from the water during daylight hours.



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### (12) Inflation/Pressure Relief Valves

The inflation/pressure relief valves are used for topping-off the buoyancy tubes via the supplied hand pump. The valves also provide over pressure protection of the buoyancy tube. The valves are also for servicing and testing using shop air.

### (13) Ballast Bag

One large capacity (2.0 ft cu) ballast bag is attached to the underside of the center of the floor of the 4 and 8-person rafts to stabilize an empty raft during boarding in heavy seas and reduce drift.

Two bags are attached to the underside of the floor at the boarding stations on the 6, 10 and 12-person rafts.

### (14) Optional Radio Beacon Transmitter (ELT)

An emergency locator transmitter, ELT, is available as optional equipment.



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<u>ITEM</u>	<u>4 PERSON</u>	<u>8 PERSON</u>	<u>6 PERSON</u>	<u>10 PERSON</u>	<u>12 PERSON</u>
FAA TSO C70a	TYPE II	TYPE II	TYPE I	TYPE I	TYPE I
Rated Capacity (Persons)	4	8	6	10	12
Overload Capacity	6	12	9	15	18
Raft Tube Material	Neo/Nylon or Urethane/Nylon				
Valise Material	Vinyl/Nylon	Vinyl/Nylon	Vinyl/Nylon	Vinyl/Nylon	Vinyl/Nylon
Pack Weight (w/o kit)	16.0 LBS	20.0 LBS	27.0 LBS	31.0 LBS	34.0 LBS
Pack Size (in) (w/o Kit)	6 x 14 x 17*	7 x 14 x 17*	7 X 15 X 20*	7 X 15 X 20*	7 X 17 X 20*
Max Pack Weight (lbs.)					
W/91 Equip	23.0	31.0	36.5	45.0	47.0
W/121 Equip.	24.0	32.0	40.5	46.0	48.0
W/135 Equip.	28.0	38.0	41.5	50.0	53.0
Pack Size W/Equip (in)					
91, 121 and 135 Equip.	8 x 14 x 17*	9 x 14 x 17*	9 x 15 x 20*	9 x 15 x 20*	10 X 17 X 20*
Alt. Packages W/Equip.	5 x 14 x 21	7 x 14 x 18*	7 x 14 x 29*	7.3 x 15.5 x 28*	7.3 x 16 x 28*
Min. Oper. Pres. (PSI)	1.0	1.0	1.0	1.0	1.0
Normal Oper. Pres. (PSI)	2.0	2.0	2.0	2.0	2.0

\*Packaged dimensions and weights are nominal and may vary. Add 1" to raft pack dimensions. Raft weight +/-1.0.

## 2. OPERATION

**NOTE:** The following operational procedure illustrates one possible ditching method since individual operators may develop procedures tailored to their specific modes of operation.

### A. RAFT

After the aircraft has been ditched, position the raft outside the exit with valise handle facing you. Take care to ensure that no sharp objects that could puncture the inflating raft are in the area. Peel the webbing handle (identified by valise stencil "TO INFLATE PULL HANDLE") from its Velcro retaining strip.

It is recommended that at this time you loop the handle around your wrist so that after the raft inflates it will not get away from you with wind or wave action. Grasp the retaining/raft activation line firmly and pull out approximately 3 feet of slack lanyard until taught, then pull firmly until inflation occurs. The valise will open, and the buoyancy tube will inflate in approximately 15 to 20 seconds (in low temperatures inflation will be under 1 minute).

Hold onto the inflation handle since it is part of the retaining line, which is utilized to prevent the raft from drifting away. In the unlikely event that the raft does not inflate upon pulling the lanyard and inflation cable free from the inflation cylinder valve, or for any other reason, unfold the raft and inflate utilizing the hand pump and the inflate/pressure relief valve provided on each raft chamber/tube.

After the raft is inflated, utilize the retaining line to position the raft for boarding. After boarding, the survival equipment (if installed) can be retrieved. The equipment is attached to one side of the raft, identified by a two-inch high character stencil "EQUIPMENT" on the inside surface the raft. Bring the equipment on board by hauling in the sea anchor (raft valise) with the line that is attached to the raft corner patch marked "SEA ANCHOR/EQUIPMENT".

The equipment valise is attached to the raft /sea anchor valise with Velcro strips and a plastic tie-wrap. Remove the equipment valise and plastic tie-wrap from the raft valise by peeling open the fastener and then pulling on the valise handles to break the tie-wrap. Secure the equipment valise to the canopy mast tie down patch loop located on the raft floor with the tie line provided on the equipment valise. Re-deploy the raft valise/sea anchor by peeling the sea anchor retaining line cover open and deploying the 25-foot line as necessary.



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If the packaged raft is inadvertently launched before inflation, it will float, and inflation can be initiated as described above after its retrieval.

If the aircraft remains floating, the raft can be secured to it using the retaining/activation line to temporarily anchor the raft and prevent drifting until the survivors have boarded the raft. If the raft begins to sink before the retaining line has been untied, the line can be cut with a knife provided on the line at the point of attachment to the raft. The retaining line is attached to a high strength patch that is considerably stronger than the line and therefore the line will break before the patch or raft is damaged.

Have a crew member take command of each raft and immediately accomplish the following:

- 1) Check for other survivors in the water and get them into the raft.
- 2) Administer urgent first aid.
- 3) Open up the survival equipment (if installed) and get the signaling equipment ready.
- 4) Check the raft condition.
- 5) Assign tasks to all raft occupants (lookout/signaling, first aid, raft maintenance and water making and/or collection, etc.).
- 6) erect canopy as discussed in equipment section.

Keep the raft balanced by distributing occupants evenly. No one should stand up in the raft. Keep life vests on (if available) in case of capsizing. In rough water, keep at least one occupant tied to the raft with a minimum of ten feet of line (if available) so that in the event of capsizing at least one person can easily retrieve and right the raft, then retrieve the other persons. Children should always be tied to an adult.

Use the bailing bucket and sponge (if available) to keep the raft dry and clean since sitting in water soon creates water sores that are painful and can infect easily. Dry your clothes off as best as possible by wringing and airing since wet clothing will detrimentally reduce body heat in cold weather. Be sure to restore and secure equipment immediately after use since items are easily lost overboard, especially in rough water. Be especially careful with items that could puncture or tear the raft. Do not throw anything away since you may find a need for used items somewhere down the line. For example, plastic bags can hold rain water.

Maintain protection from the elements as much as possible. Keep your clothing on even if it's hot. Rest as much as you can, especially in the hot

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part of the day. Exercise daily in your limited space by isotonic ally flexing muscles and wiggling fingers and toes. Be optimistic and keep a sense of humor.

Water is the key to survival at sea. Body water loss through sweating, urinating, and vomiting is as important as drinking water. Therefore, do as little as possible during hot hours, work at a slow pace when necessary, and take immediate action against seasickness by stretching out on the raft deck and being as still as possible. DO NOT RATION WATER. Drink as much as you need when you're thirsty, then RATION YOUR SWEAT. You need enough water to remain at a good energy level to help yourself, and sipping water weakens you much faster through dehydration.

The pressure in the raft flotation tube will fluctuate with the temperature. In hot weather, extra pressure can be relieved by just barely opening the manual deflation valve and closing immediately upon obtaining the proper raft pressure (no tube wrinkles which would allow the raft to abrade against itself.) In cool weather and at night the raft pressure can be increased by utilizing the hand pump at the inflation valve. Normally, sharks may investigate your raft and go away without bothering you. Do not dangle hands and/or feet in the water or dispose of raw vomit or body wastes in the water since these may attract and excite sharks. Plastic bag (if possible) vomit and/or body wastes and throw them away from the raft.

Search and rescue teams are looking for you. Normally rescue teams will locate you within 12 to 24 hours. When they do arrive, do what they tell you and let them take care of you. They know what to do and will be more aware of your condition than you will.

### B. RAFT EQUIPMENT

#### (1) SEA ANCHOR

The raft valise is designed to act as a sea anchor and is automatically deployed upon raft inflation of a basic raft. When the raft has survival equipment the equipment must be removed and then the sea anchor is manually deployed to help keep an empty raft from being capsized by wind. Although you want to be far enough away from the aircraft or boat so that neither will damage the raft, you want to remain in the immediate area in order that rescue searchers can find you sooner. If you must speed up drift to get to a survivor or an object in the water, pull in the sea anchor, then throw it back out after you have drifted the necessary distance.

#### (2) BAILING BUCKET

The bailing bucket is used to scoop up the water in the raft and dump it



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overboard. It is advisable to keep the raft as dry as possible.

### (3) HAND PUMP

The hand pump is used by screwing the tethered plastic adapter onto the pump then inserting it into the inflate/deflate/pr valve located on each raft chamber/tube. After the tube is topped off remove the pump and install the rubber dust cap that is attached to the valve.

### (4) HEAVING LINE

The heaving line with a weighted ring can be retrieved from the sleeve on the cylinder holder on the outside of the raft and can be thrown to survivor to pull the closer to the raft. It can also be used to tie rafts together.

### (5) BOARDING AIDS

On the 4 and 8-person rafts there are two boarding handles, which are part of the outside life line and are located at the two boarding stations stenciled "⇧ENTER⇧". There is also a boarding handle on the raft deck. Use the boarding handles by reaching over the raft buoyancy tube, grasping the boarding handles and pulling yourself into the raft.

On the 6, 10 and 12-person rafts there is a boarding handle located on the top of the top tube at each of the two boarding stations stenciled "⇧ENTER⇧". There are also two boarding handles on the deck of the raft. The grasping line located on the inside of the bottom tube and is also available for boarding. In addition, each boarding station has a webbing boarding stirrup. To board the raft, place your foot in the stirrup and grab the top tube boarding handle and pull yourself up out of the water. Then reach over and grab the inside grasping line and deck boarding handle and pull yourself into the raft. After the first-person boards, he/she should help the other survivors board the raft.

### (6) LOCATOR LIGHT

The water activated locator light will start as soon as the raft is deployed on the water. To turn it off in the daytime, remove the battery, which is attached to the bottom of the raft. Shake the water from the battery and keep it out of the water.

## C. SURVIVAL EQUIPMENT

### (1) CANOPY AND INFLATABLE MAST (W/SURVIVAL EQUIPMENT)

Remove the canopy with attached mast(s) from the equipment kit. Spread the canopy over the floor of the raft with the flap openings

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adjacent to the boarding station stenciled “⇧ENTER⇧” on the raft tube and the mast to-canopy-tie facing the raft floor. Secure the four canopy corners to the white webbing loops on the external lifeline at the raft corners and also at the mid-points on the sides of the raft with the white plastic toggles. Orally inflate the mast(s) through the oral inflation tube with approximately ten breaths of air. Inflation through the oral inflation tube requires that the metal safety nut be screwed down (clockwise) and the valve inlet be depressed. After inflation, unscrew (counter clockwise) the safety nut to the valve inlet to prevent inadvertent depression and consequent mast deflation. Tie the bottom of the mast to the raft floor tie loop. The canopy opening flap ends can then be secured to the raft lifeline mid-point of the boarding station with toggles and the Velcro seal closed as required.

### (2) SIGNAL FLARE (W/ALL KITS)

Three red aerial flares are of the self-contained/launcher type. Operation is accomplished as follows: 1) Unscrew cap which exposes pull chain. 2) Hold barrel in one hand with chain end down. 3) Keep fingers clear of both ends of barrel. 4) Hold unit vertically with muzzle above eye level. 5) Pull chain straight down with other hand. These flares are waterproof and provide a signal up to 600 feet high with visibility up to 20 miles.

### (3) SIGNAL FLAG (W/ALL KITS)

The bright orange signal flag can be used to help rescue searchers zero in on you after they have detected your flare, mirror, sea dye marker, or ELT/EPIRB signals.

### (4) SIGNAL MIRROR (W/ALL KITS)

Use the signal mirror when you are in doubt about a craft's ability to see your signal flare. It can be used indefinitely. Mirror flashes can be seen about 20 miles, so the mirror should be in constant use during daylight, sunny hours. Sweep the horizon, flashing the mirror. Each person should take a turn at this. Keep the mirror surface as clean and fingerprint free as possible.

### (5) SEA DYE MARKER (W/ALL KITS)

The sea dye marker is used when you sight a rescue aircraft by removing the capsule cap and emptying the contents into the water. It will color the surrounding water a bright yellow/green which pilots will recognize as a distress signal.



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### (6) SIGNAL WHISTLE (W/ALL KITS)

The whistle is used to signal other rafts, survivors, and assist rescue searchers in locating you at night or in the fog. Use it to signal SOS (3 short, 3 long, 3 short) when visibility is limited. Rotate this responsibility among the raft occupants.

### (7) SIGNAL FLASHLIGHT (W/ALL KITS)

The flashlight can be seen about eight miles on an open sea. During the first night flash SOS (3 short, 3 long, 3 short), sweeping the sky. For nights after the first, use the flashlight signal only when you hear an aircraft or see a ship's lights.

### (8) RAFT REPAIR KIT (W/ALL KITS)

Two 3-inch repair plugs are used to repair buoyancy tube leaks that may occur. Inspect your raft for damage as soon as your primary duties are accomplished. Look for leaks especially at seams and valve fittings and repair quickly as follows: 1) Loop plug cord around wrist to prevent loss. 2) Dig plug in water for insertion lubrication. 3) Push bottom plate (rubber edge seal) through pushed through. 4) Pull bottom plate up against inner fabric and slide top of plate over screw against outer fabric. 5) Locate plug to cover hole completely and screw down wing nut firmly.

### (9) FOOD RATIONS (W/ALL KITS)

Food rations consist of fortified, high calorie, compact, baked bars specifically formulated to provide a balanced diet with limited drinking water availability. The contents of each food packet are designed to feed four persons for one day or one person for four days.

### (10) WATER RATIONS (W/91 AND 121 EQUIPMENT)

Some survival equipment kits include water rations packaged in durable foil bags.

### (11) FIRST AID KIT (W/91 AND 121 EQUIPMENT)

The first aid kit should be used to treat injuries as required and consists of the following;

One-inch adhesive bandage (16 each)

Two-inch bandage compress (2 each)



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Four-inch bandage compress

Antiseptic swab (10 each - Povidone/Iodine)

Burn Compound (10 each)

Ammonia inhalant (10 each)

### (12) UTILITY KNIFE (W/121 AND 135 EQUIPMENT)

This knife is a stainless steel/plastic outer casing, fifteen function SWISS ARMY TYPE KNIFE and will prove invaluable. It includes a bradawl, corkscrew, nail file, knife blade, giant needle, bottle opener, can opener, hook remover, fish scaler, saw blade, scissors, Philips screwdriver, slot screwdriver, toothpick, and tweezers.

### (13) COMPRESSED SPONGE (W/121 AND 135 EQUIPMENT)

The dehydrated/compressed sponge takes up very little space in the equipment kit and can be used along with the bailing bucket to keep the raft floor dry.

### (14) SURVIVAL MANUAL (W/121 AND 135 EQUIPMENT)

The AIR FORCE SURVIVAL MANUAL is a guide to survival practices in all climates and terrain, including sea, with a section on first aid. Review this manual during your first spare moments.

### (15) MAGNETIC COMPASS (W/135 EQUIPMENT)

The compass can be used to check your paddling course in the event you know your original position and where there is land, marine shipping lanes, or commercial aircraft flyover routes.

### (16) WATERMAKER (135 EQUIPMENT)

The SURVIVOR-06 WATERMAKER, installed in the equipment kit is a USCG APPROVED reserve osmosis hand pump type and can produce one pint of fresh water from seawater in about thirty minutes. It is compact (2.5"x5"x8"), lightweight (2.5 LBS), rugged in design, and easy to operate. Survivors at sea have been known to live over sixty days on water alone.

### (17) FISHING KIT (W/135 EQUIPMENT)

This kit is USCG APPROVED, packaged in a tough waterproof flexible pouch and includes monofilament/Dacron/nylon/wire lines and leaders,



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and an assortment of spoons, lures, jigs, hooks, weights, swivels, snaps, pork rind baits, cloths, foil, razor blades, line holders, knot illustration card, and instructions.

(18) 75 FOOT RETAINING LINE (W/135 EQUIPMENT)

This retaining line can be used to tie occupants and equipment together or to the raft. It can also be used along with a weighted object as a heaving line to retrieve persons from the water.

(19) HAND PADDLES (W/135 EQUIPMENT)

The hand paddles can be used to paddle the raft close to retrievable persons in the water or to paddle toward land or rescue craft.

(20) RADAR RELECTOR (W/135 EQUIPMENT)

This metalized 69"x72" blanket can be used as a radar reflector and thermal insulator by spreading it over the floor or as a thermal blanket which will retain up to 90% of radiated body heat. It can also be useful in collecting rain water.

(21) EMERGENCY LOCATOR TRANSMITTER (OPTIONAL EXTRA)

The FAA approved ELT is packed with the survival equipment when provided. After retrieving the survival equipment, the transmitter should be removed from the equipment valise and be secured to the floor of the raft with the provided lanyard. It can then be manually turned on when desired. The antenna, which is bent for packaging should be straightened and the transmitter should be held upright. When turned on it will transmit simultaneously on 121.5 MHZ and 406 MHZ the civilian and military search and rescue homing frequencies respectively. It is waterproof and will transmit for approximately 48 hours.

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3. MAINTENANCE INSPECTION SCHEDULE

- A. Survival Products recommended life raft maintenance inspection will depend on the life raft assembly. Maintenance schedule is shown in Table 2

Assemblies	-1XX	-3XX
Maintenance Inspection	12 months	36 months

Table 2 – Maintenance Interval

- B. Scheduled Maintenance Inspections recommendations are defined as follows:

- (1) First Maintenance Inspection – 1XX Assemblies

Perform the first maintenance inspection within 12 months from the date of manufacture.

- (2) Subsequent Maintenance Inspections -1XX Assemblies

Perform all subsequent raft maintenance inspections within 12 months from the date of the last maintenance inspection regardless of whether a raft has been returned to service or removed from service and placed in storage.

- (3) Nonscheduled Maintenance Inspections – 1XX Assemblies

(a) Life rafts removed from their valise carrying cases, functionally tested, inflated or deployed for demonstration purposes, must undergo a maintenance inspection before being returned to service regardless of the date of the last maintenance inspection.

(b) Life rafts subjected to severe handling or adverse conditions may require more frequent maintenance inspections to ensure no damage has occurred to the raft.

- (4) First Maintenance Inspection – 3XX Assemblies

Perform the first maintenance inspection within 36 months from the date of manufacture.

- (5) Subsequent Maintenance Inspections – 3XX Assemblies

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Perform all subsequent raft maintenance inspections within 36 months from the date of the last maintenance inspection regardless of whether a raft has been returned to service or removed from service and placed in storage.

- (6) Nonscheduled Maintenance Inspections – 3XX Assemblies
  - (a) Life rafts removed from their valise carrying cases, functionally tested, inflated or deployed for demonstration purposes, must undergo a maintenance inspection before being returned to service regardless of the date of the last maintenance inspection.
  - (b) Life rafts subjected to severe handling or adverse conditions may require more frequent maintenance inspections to ensure no damage has occurred to the raft.

#### 4. HYDROSTATIC INSPECTION

A hydrostatic inspection of the compressed gas cylinders is required at regular intervals in compliance with the governing authority regulating inspection and certification of vessels holding contents under pressure.

In the USA, hydrostatic inspection is required every 60 months from the date of the previous hydrostatic inspection, per DOT Section 49 of the Code of Federal Regulations.

Note the date of the next hydrostatic inspection, if due before the next scheduled maintenance inspection, perform the hydrostatic inspection concurrent with the maintenance inspection.

#### 5. CERTIFICATION

The Life Raft is manufactured and approved for certification in compliance with the Federal Aviation Administration (FAA) requirements for Technical Standard Order (TSO) C70a, Type I or II.

#### 6. OPERATIONAL LIMITATIONS

All rafts shall be stowed in a clean dry, contaminant free area away from any heat source. Contaminants such as petroleum solvents, fuel, grease, oil, or hydraulic fluids may have a detrimental effect on the fabrics and consequently on the life and performance of the life raft. The stowage area should be at least equal in size to the complete raft assembly.

Storage and Operational temperature limits are:

10<sup>o</sup> F to 130<sup>o</sup> F (-12.2<sup>o</sup> C to 54.4<sup>o</sup> C)