

U.S. Department of
Homeland Security

United States
Coast Guard



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CORTEZINST M5215.1AUX
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CORTEZINST M3530.1AUX

SUBJ: STATION CORTEZ NAVIGATION STANDARDS

- Ref: (a) U. S. Coast Guard Regulations, COMDTINST M5000.3 (series)
(b) Coast Guard Navigation Standards, COMDTINST M3530.2(series)
(c) Auxiliary Manual, COMDTINST M 16790.1G
(d) Auxiliary Operations Policy Manual, COMDTINST M16798.3E.
(e) USCG Boat Crew Seamanship Manual, COMDTINST M16114.5C
(f) Navigation Rules International-Inland, COMDTINST 16672.2 (series)
(g) USCG Boat Operations and Training (BOAT) Manual, Volume I, COMDTINST M16114.32 (series)
(h) USCG Boat Operations and Training (BOAT) Manual, Volume II, COMDTINST M16114.33(series)
(i) USCG Boat Operations and Training (BOAT) Manual, Volume III, COMDTINST M16114.42(series)
(j) USCG Maritime Law Enforcement Manual, COMDTINST M16247.1(series)
(k) Operational Risk Management, COMDTINST 3500.3 (series)
(l) COMDT COGARD Washington DC 161814Z JUL 10 (ALCOAST 382/10)
(m) Information and Life Cycle Management Manual, COMDTINST M5212.12 (series)
(n) Coast Pilot
(o) Code of Federal Regulations, Title 33
(p) Light List (s) and List of Lights
(q) Tidal Current Tables
(r) Defender Class Operator's Handbook, COMDTINST 16114.37 (series)
(s) Response Boat Medium Operators Handbook, COMDTINST 16114.41 (series)
(t) Maritime Security and Response Operations, COMDTINST M16600.6 (series)

1. PURPOSE. This Instruction promulgates navigational policies and procedures to be followed by all Auxiliary boat crews to include coxswains, engineers, and crewmembers. Application applies to active duty and reservists on IDT/ADT orders.
2. ACTION. All Command Duty Officers (CDO), Officers of the Day (OOD), and coxswains shall become intimately familiar with the navigation standards herein and shall read, understand and comply with these orders.
3. DIRECTIVES AFFECTED. N/A.
4. DISCUSSION AND BACKGROUND. Station Cortez Navigation Standards are designed to expound on information and requirements as set forth in refs (a thru t).
5. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is intended to provide operational guidance for Coast Guard personnel and is not intended to nor does it impose legally-binding requirements on any party outside the Coast Guard.
6. MAJOR CHANGES. N/A.
7. IMPACT ASSESSMENT. Not Applicable.
8. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.
 - a. The development of this directive and the general policies contained within it have been thoroughly reviewed by the originating office and are categorically excluded under current USCG categorical exclusion (CE) [*#1, 33, 34(b)-(c)*] from further environmental analysis, in accordance with Section 2.B.2. and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series).
 - b. This directive will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this Manual must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), Council on Environmental Policy NEPA regulations at 40 CFR Parts 1500-1508, DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.
9. DISTRIBUTION. Distribution of this Instruction will be limited to one copy which will be maintained by the Officer in Charge.

10. PROCEDURES. Many sections of this manual have been modified to apply to USCG Station Cortez. Sections may be modified by the Officer in Charge; however the Navigation Standards format shall not be changed.
11. RECORDS MANAGEMENT CONSIDERATIONS. This Instruction has been thoroughly reviewed during the directives clearance process, and it has been determined there are no further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., NARA requirements, and Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not have any significant or substantial change to existing records management requirements.
12. REMAINING PARAGRAPHS. Nothing in this manual shall be considered as contradicting or superseding any part of reference (a) through (r), or other directives issued by higher authority.
13. FORMS / REPORTS. None.
14. REQUEST FOR CHANGES. All personnel are encouraged to submit recommended changes to this manual through their supervisor.

D. J. Benoit /s/
BMCS, U. S. Coast Guard
Officer in Charge

- Encl: (1) Plotting Symbols
(2) Line Handling Commands
(3) Command Standard Waypoint List
(4) Command Approved Routes
(5) G.A.R. Risk Assessment
(6) Station Cortez Navigation Report

A. Responsibility of the Coxswain: In addition to those responsibilities listed in reference (a), Station Cortez Small Boat Coxswains are responsible for:

1. Responsibility for Wake: In **ALL** circumstances, the coxswain is responsible for any damage caused by the boat's wake. Urgent SAR, L/E, etc. does not alleviate him/her of this responsibility.
2. The coxswain shall have an in depth knowledge of the operational and navigational limitations of *their auxiliary facility*.
3. The coxswain shall operate unit boats prudently and within established parameters and guidelines contained in written and/or verbal directives and instructions.
4. It is the inherent responsibility of every coxswain attached to his unit to be thoroughly familiar with the knowledge of the station's area of responsibility and the hazards associated with operating within this area. Factors such as shifting bars, usually low and high tides, strong tidal currents and /or eddies, submerged obstacles, etc, are ever-present dangers, which may cause serious injury to personnel and damage to resources.

B. Definitions/Unit Required Information:

1. Safety: Pursuant to 29 CFR 1910 of the Occupational Safety & Health Administration (OSHA), safety is defined as the “**elimination or control of a hazard to obtain an acceptable level of risk**”. In addition, mitigation of said risk can be accomplished by one of three ways:
 - a. Establish or improve administrative policies for Auxiliary Facilities and crew.
 - b. Install engineering control measures and
 - c. Personal Protection Equipment (PPE).
2. Shoal Water: Waters less than the navigational draft of all small boats. An indication of shoal water would be the presence of turbulent water.

METHOD TO INDICATE SHOAL WATER	NAV SYSTEMS	PAPER CHARTS
Safety Depth	Twelve (12) Feet	Twelve (12) Feet
Safety Contour	20ft (Light blue areas)	20 ft (Light blue areas)
Depth Below Keel/Shoal Water	Six (06) Feet	Six (06) Feet

**Figure 1-1
Shoal Water**

- a. On your navigation systems, shoal water will not always be able to be identified due to system limitations which make using “all available means” essential for safety. On paper chart 11425, shoal water is outlined with a blue marker.
 - b. During daylight hours, coxswains will usually be able to detect shoal water visually by water color; Blue will indicate adequate depth, Green will be found over shallower areas and grass flats, Brown indicates very shallow grass flats or mud bottom.
 - c. Wave Action: The building and breaking of running seas may indicate shallow waters.
3. Depth sounder offset: Aux facility depth sounders shall be set-up to display the water depth beneath the transducer (actual working depth). Depth sounder alarms shall be set according to the table below:

ASSET	NAVIGATIONAL DRAFT	DEPTH SOUNDER OFFSET	DEPTH SOUNDER ALARM
>25'	Four (04) Feet	-1.4	Four (04) Feet
<25'	Three (03) Feet	-1.0	Three (03) Feet

**Figure 1-2
Navigational Draft**

4. Area of Responsibility (AOR):
 - a. Station Cortez’s AOR covers more than 500 Square miles both inland and off shore:
 - (1) Northern boundary (AOR1 North): From the South End of the Sunshine Skyway Bridge, Tampa Bay, Pinellas County 27° 35.00N / 082° 37.00W. Within 3 NM

from shoreline.

(2) Southern boundary (AOR2 South): Boca Grande Channel in Charlotte County 26° 43.00N / 082° 16.00W extending 30 Nautical Miles West into the Gulf of Mexico. Within 3 NM from shoreline.

(3) Cortez's AOR also includes portions of the ICW, the Manatee River, Longboat Pass, New Pass, Big Pass, Venice Inlet, and Boca Grande. Navigation in these areas requires the utmost care, precision and vigilance. Within 3 NM from shoreline.

5. Navigational Zones: The following navigational zones are used for shore based boat operations:
- a. Restricted Waters - All waters up to 1 nautical mile from shore, including inlets, passes, harbors, and harbor approaches where additional risk assessment is contemplated before a vessel transits into a particular area due to increased traffic density, shoal water, known hazards, or the vulnerability of a vessel to cause wake damage.
 - b. Coastal: All waters seaward of the territorial sea line/baseline up to the 3-nautical mile line identified on chart 11425.
 - c. Open Ocean: All waters 3-nautical miles or more from any known hazard. The maximum time frame for establishing a position shall be no longer than every 30 minutes.
6. Navigation Zone Fix Intervals: The requirements below shall remain uniform for all Station Cortez platforms:
- a. Restricted Waters: The maximum time frame for establishing a position shall be no longer than every 6 minutes.
 - b. Coastal Waters: The maximum time frame for establishing a position shall be no longer than every 15 minutes.
 - c. Open Ocean: The maximum time frame for establishing a position shall be no longer than every 30 minutes.
 - d. Shoal Waters: As defined in this instruction shall be 3 minutes.
 - e. Restricted Visibility: Any visibility less than 1000 yards in all directions. Speed will be immediately reduced to 1000 RPM's for all vessels and fix intervals shall be 3 minutes.

- f. Failure to Meet Requirements: If in any case the coxswain is unable to meet the fix intervals as required above, he/she shall take all way off as appropriate for the prevailing conditions to review the navigational picture and ascertain the boat's position.
7. Positioning Comparisons: When using GPS as the primary positioning source for positioning information, the position shall be compared to an unrelated positioning source at intervals prescribed i.e. chart matching, Radar LOP, Depth LOP, ATON verification. This shall be done once a day in Open Ocean and every third fix in Restricted Waters.
8. Plotting Symbols: See Enclosure (1).
9. Alarm Management: Modern Coast Guard small boats are equipped with several audible alarms (fathometer, loss of DGPS, Crosstrack error, etc.). These alarms shall not be turned off or silenced while the boat is U/W without direct acknowledgement of the Coxswain. Engineering alarms may only be silenced following a casualty at the Coxswain's discretion.
10. Line Handling Commands: See Enclosure (2).
11. High Speed: In accordance with ref (g), High Speed is defined as speeds of 30-knots or greater. High speed maneuvers and rapid acceleration/deceleration are stressful to the crew and boat and should only be used when absolutely necessary for training and operations. All coxswains shall operate their boats in a professional manner in accordance with Rule-6, NAVRULES.
12. Waypoint and Trackline Verification: The NAVPO shall maintain two corrected "Master Charts" in the event that SECTOR St. Petersburg requires a copy or in the event of a natural disaster where it becomes necessary to relocate. In addition, the NAVPO shall be the sole person to verify all standard waypoints in the navigation system for all small boats. At a minimum, he/she shall verify all waypoints against the master listing monthly and log their findings in the station's radio log; "A monthly verification and or update has been conducted pursuant to Cortez's Navigation Standards". Once approved, electronic tracklines will be in "ALL CAPS". *Waypoint and Trackline Verification is highly recommended for all Auxiliary Facilities monthly or as necessary to maintain accuracy.*
13. Semi Annual Verification of Standard Tracklines: Due to the shifting shoal/bottom contour of several Passages within our AOR, the use of approved tracklines is imperative. The NAVPO shall ensure the following standard tracklines are verified with the use of the 29 RBS II on a semiannual basis. Soundings checks shall be conducted with concurrence of the Officer in Charge in calm seas and wind conditions only! Additionally, soundings shall be conducted after major storms, after abnormal depth readings by any coxswain, or when

deemed necessary by the Officer in Charge to ensure correct charted depth and safety of navigation. After verification of standards tracklines in the below passes, the NAVPO shall log their findings in the station’s radio log; “A semi-annual verification of Station Cortez’s Passages has been completed pursuant to Cortez’s Navigation Standards. Updates required/not required. OIC notified”. *Waypoint and Trackline Verification for Passages is highly recommended for all Auxiliary Facilities semi-annually or as necessary to maintain accuracy.*

- a. Passage Key Inlet
- b. Longboat Pass
- c. Big Sarasota Pass

14. Electronic Chart Display Settings: The following establishes guidelines for cross-track error filter settings and chart settings.

- a. Cross-Track error: To be programmed on all vessels with the Navigation System packages and on the GPS at .05 nm (100 yards on each side).
- b. Electronic Chart Display: If able, all facilities at a minimum will have a split screen w/Radar on the right and chart plotter on the left (or vice versa). The Radar and chart plotter shall be matched in scale, orientation, and projection.
- c. Filter Settings: SINS does not have traditional filter setting as equipped on the NAVNET 3D system however, personnel are not authorized to change system configuration settings for any reason on any navigational system.
- d. Scaling: In addition, SINS is capable of scaling down to .125 nm and the NAVNET 3D is capable of scaling down to .0625 nm on the Radar and Chart plotter. Station Cortez’s minimum scaling will be .125 nm on both systems. Coxswains shall use all available scaling to determine if risk of collision exists or to obtain a better informed Navigational Picture.

C. Additional Shore-based Boat Force Unit Items:

- 1. List of Required Paper Charts: The following up-to-date paper charts will be carried on each assigned boat and in the communications center. In addition, the NAVPO shall ensure all charts are updated weekly utilizing the latest Local Notice to Mariners (LNM) in accordance with ref (b).

Geographical Area	Chart Number
Tampa Bay to Port Richey	11411
Tampa Bay and St. Joseph Sound	11412

Tampa Bay Entrance	11415
Tampa Bay	11416
Havana to Tampa Bay	11420
Lemon Bay to Passage Key Inlet	11424
Charlotte Harbor to Tampa Bay	11425
Estero Bay to Lemon Bay	11426

**Figure 1-3
Ready Charts**

It is required for all Auxiliary Facilities to have the most current Chart Number 11425 on board to operate in Station Cortez's AOR.

2. Coxswain Navigation Kits:
Coxswains are not required to have their own personal coxswain kit however, if they do, all command Required Paper Charts (**Figure 1-3**) shall be included and up-to-date. Additionally, all equipment shall be maintained to include the following:

Case/Bag	Dividers	Compass w/spare lead
Speed wheel	Stopwatch	Weems parallel ruler
Grease pencils	Flashlight	Search pattern slide rule
Calculator	Memo book	Mechanical pencils
TCT check sheet	Towing aid	Navigational Rules of the Road Book
BECCE checklist	Search Planning	Flight crew checklist book
Correcting/Un-correcting sheet		Compass card for ICW

3. Key Operating Areas: The following areas are frequented during by all Station Cortez assets during the course of normal unit operations. All break in and certified coxswains shall be intrusively familiar with every aspect of navigation and operations in the following areas:
- a. Waters within the ICW from Red Marker 68 (Anna Maria Sound) south to Siesta Key Bridge.
 - b. Longboat Pass
 - c. *All Auxiliary Coxswain's shall be intrusively familiar with every aspect of navigation and operations in areas frequently patrolled by their Flotilla's and to include local passes giving access to Gulf of Mexico.*
4. Navigating outside Key Operating Areas. Navigation in these areas requires the utmost care, precision and vigilance. Coxswain and Crew shall continually use Visual Estimated Positions (EP's) with the assistance of ATON and Charted depth as validation of the pre-planned / Command Approved tracklines. The Coxswain must execute the proper level of

team coordination to ensure safety and mission success.

5. Principle Navigational Routes, Tracklines, and Standard Waypoints: See Enclosure (3) and Enclosure (4).
6. Area Familiarization Training and Frequency: Area familiarization training in key areas shall be conducted at a frequency of at least one day and one night sortie every 6-months to maintain currency. Increased trips are not required. This AOR shall be tracked in ALMIS/AOPS in the following manner:
 - a. **AOR North**: A Northern Operation area familiarization trip shall be deemed completed by a successful transit of all bays, rivers, the ICW and the Gulf of Mexico, north of the Station Cortez to Sunshine Skyway Bridge.
 - b. **AOR South**: A Southern Operation area familiarization trip shall be deemed completed by a successful transit of all bays, rivers, the ICW and the Gulf of Mexico, south of the Station Cortez to Venice Inlet.
 - c. *Area familiarization Training for Auxiliary is key for training and safety. It is recommended that coxswains and crew conduct at least one day, day/night or night mission of your appropriate AOR (as defined as 6a, 6b above) every 6 months. It is also recommended that coxswains and crew conduct at least one day, day/night or night mission of the other AOR (as defined as 6a, 6b above) every 12 months.*
7. Significant Navigational or Environmental Risks. Cortez's AOR encompasses rivers, shallow waters, and harbors with unusual tides and currents coupled with uncharted navigational hazards and shifting shoals.
 - a. Passage Key – Passage Key poses significant hazards to the boat crew regardless of the time of operations, or environmental conditions. Constantly shifting shoals make all charted information unreliable in the vicinity of Passage Key. Before any operation in the vicinity of Passage Key a conference call shall be held between the Coxswain and the Officer in Charge or XPO when acting.
 - b. Entrance Anna Maria Sound from Tampa Bay – The Anna Maria Sound entrance IVO Marker 67 and Marker 68 when transiting from Tampa Bay south is an extremely complex evolution when coupled with tides, current, reduced visibility, and proximity to shoal water. During any lowlight conditions (reduced visibility, dawn, dusk, night time) boat crews shall come down to all stop upon approach to Marker 67 and 68 to fix their position, and verify their position in relation to the channel.
 - c. Restricted waters in the Southern AOR south of Stickney Point Bridge.

- d. All inlets and passes within the unit's AOR are considered to be hazardous due to shifting shoal, narrow entrances limited depth, and strong tidal currents. The Station Cortez AOR is extremely unique in that unit defined "Shoal Water" will be encountered in EVERY PASSAGE we transit. Depending on the state of the tide, Coxswains should expect the sounder alarm to sound when operating in these areas even when following standards tracklines.
 - e. Operating in any bay outside the ICW.
 - f. Any area designated as a Manatee Zone, No Wake Zone, Slow Speed Zone and;
 - g. Any/all areas in restricted waters outside the ICW.
8. Navigation Safe Operating Distances. With the exception of ICW operations, all stations assets shall maintain a distance of greater than 50 yards from known hazards.
9. Prohibited/Restricted Operating Areas: Do to limited Charted Water depth, unpredictable shoaling, and narrow entrances the operation of Station Cortez small boats is **STRICTLY PROHIBITED** in the following passes:
- a. Stump Pass.
 - b. Midnight Pass.
 - c. Gasparilla Pass.
 - d. New Pass.
 - e. Big Pass (45 RBM only)
 - f. Greater than 3NM from shoreline. ***Contact Station for guidance.***
 - g. *Auxiliary Facilities should follow Stations guidelines for listed Prohibited/Restricted Operating Areas, but due some Auxiliary Facility capabilities and Coxswains local knowledge, with permission from Station and due care, transiting of Prohibited/Restricted Operating areas may be allowed. **Contact Station for guidance.***
10. Wake/Speed Restrictions: All Coxswains shall become thoroughly familiar with Rule-6, Navigational Rules of the Road. And unless emergency SAR or significant law enforcement operations necessitate, the following maximum allowable RPM's have been established;
- a. 45' Response Boat-Medium (RB-M): 1950 RPM's

- b. 29' Response Boat-Small II (RB-S II): 4500 RPM's
- c. In the event that the depth sounder sounds in any passage, coxswains shall operate at speeds below 1000 RPM's, and take actions to mitigate possible groundings (trim engines up, use spotters on the bow, etc.)
- d. *All Auxiliary Facilities shall follow all Wake and Speed Restrictions unless specifically authorized by Station Cortez.*

NOTE-1: Urgent SAR, Law Enforcement Cases such as "Hot-Pursuit", and MEDEVAC's by their very nature induce high speeds. Therefore, when in restricted waters, congested traffic (more than four boats), at night or in restricted visibility, the coxswain shall be extremely cognizant of their actions and reduce speed to a minimum for safe operations.

- 11. Surf: In the Coast Guard, surf is determined to exist when breaking seas exceed 8 feet and/or when, in the judgment of the CO/OIC, rough bar/surf conditions exist, and/or whenever there is doubt in the mind of the coxswain as to the present conditions. Station Cortez is not authorized to operate in surf conditions.
- 12. Small Craft Advisory: No Auxiliary Facility orders will be approved in the case of a Small Craft Advisory.
- 13. Dead Reckoning: As discussed, electronic navigation systems are the primary means of navigation if functioning properly however, in the event boat crews shift to paper charts as a primary means of navigation, the following dead reckoning requirements apply:
 - a. Maintain at least one DR plot ahead of every fix, when SINS is not primary means of navigation. Frequently check the chart for dangers near your track line.
 - b. Plot a DR position at least every hour on the hour in Open Ocean.
 - c. Plot a DR position at every course change.
 - d. Plot a DR position at every speed change.
 - e. Plot a DR position when obtaining a fix or running fix.

D. Specific Operating Guidance:

- 1. Small boats shall not get U/W without an up-to-date chart card (published within 9 months) and chart of the area to be transited. *Auxiliary Facilities must have most current Chart available to Coxswain.*

2. **PRIOR** to any sortie, for **ANY** mission, an operational risk assessment shall be completed (GAR); See Enclosure (5).
3. Prior to getting U/W and if necessary, waypoints or routes **shall** be entered.
 - a. The **only exception** to this rule will be operating in the ICW between Siesta Key Bridge south to Boca Grande Causeway due to limited capabilities of electronic navigation packages (i.e. small boat will run aground before cross track alarm is heard). When operating in this area, the charted channel will act as the trackline.
4. Waivers: All waivers (Restricted) or otherwise to deviate from operating parameters shall be routed through the Officer in Charge/XPO if acting and if necessary, the Sector Commander. This action will not be delegated.
5. Master Chart: When underway all coxswains shall have the Master Chart out which encompasses standard waypoints to avoid extremis situations. Reference (b) requires the master chart to be used in conjunction with navigation packages when temporary or permanent chart corrections have not been manually entered. Charts shall remain in view and be readily available at all times when underway. *For Auxiliary facilities the Master Chart is defined as Chart 11425.*
 - a. The navigation systems aboard, if utilized properly, offer boat crews many options to safely and accurately fix the boats position, route plan, monitor route and generally stand clear of danger.
 - b. All available navigation tools and all electronics shall be energized and utilized at all times the vessel is underway. AOR operations shall be tracked in ALMIS/AOPS.
6. Navigational Briefs:
Coxswains shall conduct a navigation brief at the beginning of their duty day with their perspective boat crews, and prior to getting underway. The following topics shall be covered;
 - a. Weather Forecast (i.e. visibility, fog, rain, day/night, chance of rain, etc.)
 - b. Sea State (i.e. swell, surf conditions, light chop, etc.)
 - c. Tides (i.e. ebb, flood, Slackwater, current direction and speed in kts, etc.)
 - d. Wind (i.e. direction, and speed)
 - e. Temperature/Barometer readings

- f. Sunrise/Sunset
- g. Sea surface water temperature

NOTE-1: During daily boat checks and prior to getting U/W as well as entering restricted waters from Open Ocean, boat crews shall conduct a “steering test” and “propulsion check”.

7. Boat Crew Briefs: At a minimum, boat crew briefs shall be conducted prior to getting underway and prior to entering restricted waters from Open Ocean. Crew briefs shall be tailored to meet the requirements of the specific mission and shall include the following information;

- a. Conduct risk assessment (i.e. GAR) Enclosure (3).
 - (1) **Green** (0-23): U/W without restriction.
 - (2) **Amber** (24-38): U/W after thorough discussion of all categories of 05 or higher.
 - (3) **Amber** (39-44): Brief OIC and attempt to mitigate the risk.
 - (4) **Red** (45>): Brief OIC and reevaluate mission; “Risk v. Gain”.
- b. Crew position assignments.
- c. Review of charts and intended track/patrol area.
- d. Safe speed for mission and/or conditions.
- e. Hazards to navigation (i.e. Aton Discrepancies, BNM/LNM, anticipated traffic, etc.)
- f. Environmental considerations including tides, currents, weather, etc.

8. Debriefs: A debrief shall be conducted post mission/ENG Casualties to evaluate and recognize performance and corrective action.

9. Command Notification of Boat Movements: All unscheduled boat movements shall be briefed to the CDO/OIC as appropriate. In cases where urgent SAR, and/or significant law enforcement preclude timely notification, the OOD shall act accordingly and notify CDO when appropriate. Notifications shall include the following minimum information:

- a. Boat type, mission, crew, and Risk assessment
 - b. Situation (i.e. disabled, flare, fire, PIW, MEDEVAC, etc.)
 - c. Action Taken (i.e. PRECOMS, launched 29 RBS II, 45-RBM, etc)
 - d. Future plans, recommendations, and case status (i.e. As directed by SMC, first light search, etc)
 - e. *Auxiliary Boat Movements shall be approved by Station Cortez.*
10. Command Notification of Shoal Water/Water less than Navigational Draft Operations: Conducting any operations through an inlet that is deemed questionable by the OOD or coxswain because of water depth, seas, shoaling, other adverse conditions or in waters listed in **Figure 1-1** and **Figure 1-2**, the OOD or Coxswain shall notify the Officer in Charge/XPO if acting and consult them on the situation. Upon approval to operate in these areas, the OOD shall log the time and circumstances surrounding the request and approval in the Radio Log. The following areas are exempt from notification requirements:
- a. Area immediately adjacent to the Station's dock to the Cortez Bridge.
 - b. Area adjacent to New Coquina Boat Ramp
 - c. Operations within the ICW channel
 - d. Operations in Command approved passages when using Command Approved Tracklines listed in Enclosure (4).
11. Boat Forces Cell Phone/Texting Device Policy: In accordance with ref (j), any member aboard any CG asset under the OPCON of STA Cortez regardless of rate/rank or status is prohibited from using cell phones, TREO's, PDA's, Blackberry's, hand held electronics devices, etc unless specifically approved by the coxswain. In these approved instances, the use of cell phones or electronics shall be **For Official Use Only**. If a cell phone is brought aboard, Coxswains shall notify the Communications Watchstander what phone will be onboard the small boat. At no time will the coxswain/operator use these devices.
12. Operating Parameters: The following tables define operating parameters for all boats assigned.

45' Response Boat Medium	
Max Personnel (including crew)	24 (210 LBS each)
Max Seas	8'

Max Winds	30 kts
Max Offshore Distance	50NM
Cruising RPM	1950/30 KTS
Towing Capacity 2-3/4" Line	100 Tons
Navigational Draft	6'
No operation in breaking surf or bar conditions	

**Figure 1-4
Operating Parameters (RB-M)**

29' Response Boat - Small Gen II	
Max Personnel (including crew)	10
Max Seas	4' (6' w/waiver)
Max Winds	25 kts
Max Offshore Distance	10NM
Cruising Speed	3250/25 kts
Towing Capacity	10 Tons / 25' LOA
Navigational Draft	4'
No operation in breaking surf or bar conditions	

**Figure 1-6
Operating Parameters (RB-S II)**

Operating Parameters (Auxiliary Facilities)

*Auxiliary Coxswains and Facility owners must have specific knowledge of their Facility's operation parameters and must be able to identify parameters upon request of Station. Those Parameters are listed as followed:
Maximum Personnel (including crew), Maximum Seas, Maximum Winds, Maximum Offshore Distance, Cruising Speed, Towing Capacity, and Navigational Draft.*

- a. With exception of those instances listed in Paragraph D.10., Operating in depths less than the prescribed navigational draft is prohibited unless urgent SAR dictates that the "Gain outweighs the Risk" and/or approved by the Command Duty Officer.

13. Coast Guard Electronic System:

- a. The 45' RBM and 29 RB-S II are equipped with electronic navigation systems that,

- under normal operating conditions, preclude the use of traditional navigation practices. SINS and NAVNET 3D provide an accurate real time position of the boat on an Electronic Navigational Chart (ENC). This shall be the primary means used to fix the vessel's position. When utilizing SINS or NAVNET 3D, standard routes shall be utilized. If, at any time there is doubt concerning the accuracy of the SINS or NAVNET 3D, the coxswain shall immediately fix the boats position on a paper chart and use it for navigation.
- b. All coxswains and crewmembers shall maintain navigational proficiencies in the event of electronics failure. When navigating using conventional means, the hierarchy of positioning is a GPS/DGPS plot compared with your DR position first followed by piloting compared with your DR position. If these methods are not available, other tools including the DF transceiver, triangulation from Coast Guard shore units or information from vessels operating in close proximity may be used.
 - c. SINS and NAVNET 3D are the primary positioning source to be used while underway. The electronic chart is considered to be up-to-date if it has been corrected or replaced within nine months of a permanent change. **The chart cards are required to be replaced every nine months.** If a known chart correction within the station's AOR is needed, continue to use SINS as the primary positioning source with a corrected and up-to-date paper chart out and readily available.
 - d. SINS and NAVNET 3D has many functions and displays available for boat crews to utilize. The Chart/ Radar overlay function offers two screens to be combined into one affording the other half for waypoint and XTE data to be displayed.
 - e. Although the Chart/ Radar overlay has benefits, it also has limitations. Due to background coloring of the chart display, small contacts are hard to recognize and can be missed. Therefore, the Chart/ Radar overlay function is not authorized to be in use while underway. During nighttime and other periods of reduced visibility, a split-screen displaying Radar, Electronic Chart, and XTE shall be displayed with waypoint info displayed in data boxes.
 - f. The "Tracks and Marks" function on the Chart Plotter shall be used at all times while the vessel is underway. Once the boat has returned to the pier, coxswains can erase all "Tracks and Marks" from that sortie. If at any time, a MISHAP occurs, e.g., grounding, allision, collision, MOB, etc. the "Tracks and Marks" shall not be erased.
 - g. Keep well clear of all shoal areas even if they are marked with buoys. If the mission requires you to transit closer, do so cautiously.
 - h. While U/W on the 45 RBM and 29 RBS-II personnel shall be inside the cabin (seated) while the boat is on plane. Crewmen are authorized to use the aft seat on the 29 RBS-II. If personnel are required to be outside of the cabin they are to be

seated on the step boxes and holding onto the aft handrails and tow bit.

- i. *Auxiliary Crew and Coxswains must have operational knowledge of the Electronic Navigation systems on their Facility.*

14. Communication Checks: Communication checks with the Station shall be completed every 30 minutes giving operational status and position.

****NOTE**: Maintain 15 minute communication checks during periods of reduced visibility (< 1,000 YDS), and when the water temperature falls below 60 degrees.

15. Positioning Sources and Methods: One of the following criteria must be met in order to constitute a fix on a paper chart or on an electronic navigation system:

- a. Electronically provided position when displayed on a chart from an adequate positioning source, as defined in reference (b). The RB-M and 29 RBS-II use the GPS SPS system with the Selected Availability (SA) set to zero. When intentional GPS signal degradation such as SA is being used, SPS shall be considered a **Category II** source, not adequate for navigation in Harbor, Harbor Approach, Near Coastal and other restricted waters.

16. Mode III Navigation: If all GPS positioning inputs are lost, crews shall shift to a Mode III navigational plot. Mode III navigation can only be accomplished in the 45 RBM do to plotting constraints on the RBS-II. Cortez's Standard navigation report is included as enclosure (6) of this instruction. Crews will fix the boats positioning in accordance with the fix intervals listed in paragraph B.6.. A Fix shall not be erased or deleted because it appears in error; rather, another fix shall be taken immediately to ascertain the vessel's position. The following methods constitute a fix on Station Cortez assets:

- a. The intersection of RADAR ranges from at least three prominent points of land or fixed aids with a separation of 15 degrees or greater.
- b. When using relative bearings via the RADAR, a minimum of two RADAR LOPs and one RADAR range.
- c. If only able to use two RADAR relative bearings / ranges, crews may also use the depth of water to constitute an estimated position (EP) which is an acceptable fix on station assets.

17. Fixing Small Boats Position: Fixes shall be verified by all available means including:

- a. Soundings.

- b. Aids to Navigation (ATON)
 - c. Radar or other electronic means.
 - d. Seaman's Eye.
18. Standard Navigation Plotting Symbols: Enclosure (4) illustrates proper chart symbols as required per ref (b).
19. National Environmental policy Act (NEPA): NEPA is a United States Environmental Law that established a U.S. national policy promoting the enhancement of the environment. Throughout Cortez's AOR, the West Indian Manatee, and Sea Turtle are protected under the Endangered Species Act and are known to be present in our AOR. Extreme care must be exercised when impacting the ocean floor such as anchoring, and transiting in shallow water.
- E. Conditions for Operations, High-Speed and Specialized Tactics: *High Speed Tactics training not authorized for Auxiliary Facilities.*
- F. Safety Equipment Policy:
- 1. Helmets: Boat crew personnel shall wear head protection during hazardous conditions described in Chapter 4.B.1, Rescue and Survival Systems Manual, COMDTINST M10470.10 (series) for the following:
 - a. As each crewmember deems appropriate
 - 2. PFD's: An approved PFD shall be worn by all personnel in accordance with Chapter 4.A, Rescue and Survival Systems Manual, COMDTINST M10470.10 (series).
 - 3. MOB/Kill Switch (if equipped) shall be worn by the coxswain/operator at all times. *All Auxiliary Facilities shall be equipped with a secondary kill switch (if equipped) stored in a safe location for crewmembers to use in the case of a Coxswain ejection.*
- G. Laser Hazard Guidance: Lasers pose a serious threat to the safety of all CG first responders and has a direct impact on their mission effectiveness. The purpose of this guidance is to provide boat crews a course of action when missions require operations in Laser High Threat Areas (LHTA). A LHTA is an area which is determined to have a high probability of incidents. When a new LHTA is identified, it shall be noted in the unit navigation standards and Sector St Petersburg and D7 (dre) shall be notified. Coast Guard crews operating in areas of LASER activity should exercise sound Operational Risk Management to ensure the safety of their crew during mission execution. When a member receives a direct eye-strike from a LASER, the crew shall act to ensure the safety of the vessel and minimize further

exposure to LASERs. Crewmembers should not look for the source of the LASER using binoculars or other magnifying optics since this could lead to significant eye injury. After an incident, crew members receiving a direct eye strike from a LASER should be assessed using the AMSLER Grid Eye Chart and the coxswain shall determine if the crew can safely continue the mission. Upon return to base, anyone receiving a direct eye strike from a LASER shall be assessed by medical personnel in accordance with the Coast Guard Light Amplification by Stimulated Emission of Radiation (LASER) Hazard Control Policy, COMDTINST 5100.27.

1. Mission Planning:

- a. All night operations into a LHTA shall be considered high risk due to the potential for loss of night vision, distraction, flash blindness, blurring, blind spots, or even permanent vision loss. In addition, consideration should be given to reduced search effectiveness and the potential for the crew to be medically Not Fit For Full Duty (NFFFD).
- b. All events conducted in a LHTA require an ORM brief between the Mission Commander, the unit OIC, and SMC. If the mission is delayed due to the ORM process, D7 (drmc) shall be notified and the delay documented in MISLE. In the event of a delay, consideration should be given to options that mitigate the LASER threat, including on-scene arrival times, use of alternate assets, remaining up to 3nm from a known threat, and the use of local law enforcement presence before and during the operation.
- c. SMCs should notify local law enforcement with the approximate on-scene time of an asset and request a police presence in the LHTA to minimize LASER threats and/or aid in the possible apprehension of people lasing a CG asset.
- d. During the planning phase, all parties should be aware that the possibility of a LASER incident could result in subsequent sorties being delayed or cancelled.

2. Laser Incident During Operations:

- a. If involved in a lasing incident resulting in direct eye-strike to any crew member, it is important to be aware that each exposure will be different and crews must use their best judgment when dealing with a LASER event. This guidance is intended to be utilized with sound professional judgment and is not intended to cover every contingency that may arise, nor every rule of safety and good practice. The overriding consideration must be for maintaining control of the vessel, the safety of the crew, and then mitigating the threat. At the discretion of the coxswain, consideration can be given to reducing the vessel profile or appearance (minimize use of external lighting, facing away from the shoreline during critical phases of operations, orienting search patterns to creep from offshore toward the

shoreline, etc), however this must be carefully balanced against other safety concerns as well as the overarching mission objectives (overt searching to draw a flare, etc).

3. LASER Exposure: In the event of LASER exposure and illumination of a CG asset or crewmember:

a. **MANEUVER:**

- (1) Announce the LASER and position.
- (2) Shield eyes and/or avert gaze away from the source, and transfer controls as required.

b. **NAVIGATE:**

- (1) If possible, changes to course and speed will be at the discretion of the coxswain based upon current operations, weather conditions, and risk of exposure.
- (2) If possible, move the vessel away from LASER source to prevent further exposure.
- (3) Mark position and azimuth of source from CG asset (if able).
- (4) Taking into consideration that the probability of saving human lives warrants a maximum effort, crews may continue mission as appropriate and as permitted.
- (5) Depart the area when able. Crews should consider returning to Station as soon as practicable.

c. **COMMUNICATE:**

- (1) Report the event to the CDO/OIC and Sector St. Petersburg /scc/.
- (2) The coxswain shall report the incident status of the impacted crewmember to the OOD. If feasible, the OOD shall notify local authorities to assist in the possible search of the laser. Reassess Risk vs. Gain for existing mission using ORM practices.
- (3) Conduct a self assessment using Amsler Grid Chart (only required for personnel directly illuminated or if vision impairment is suspected). The coxswain shall consider the condition of the crew, ongoing LASER activity in the area, assigned mission, weather conditions, and other relevant factors in determining whether to continue current operations.

- (4) If the event occurs during a critical evolution, the crew should consider aborting the evolution and departing the area.
- (5) In the event a LASER incident occurs during a SAR case, port security patrol or escort, or other force protection scenario, the crew may elect to continue with the mission as appropriate. If any member experiences eye discomfort, or has prolonged (greater than 20 sec) visual alteration or distortion of vision, that member should avoid rubbing his or her eyes and seek medical attention as soon as possible.

4. After Action Requirements:





- a. Boat crew who received a direct eye strike from a LASER shall be evaluated by medical personnel within 24 hours following exposure. Any crewmember experiencing persistent effects to vision or other symptoms of laser exposure shall report to the clinic for evaluation as soon as possible after the lasing incident. Contact the duty HS for further guidance.
- b. Upon the completion of a sortie that encountered a LASER incident, the crew shall document pertinent information including location, the number of crew members exposed, type of exposure, and any residual effects. If warranted, this information may be forwarded to CGIS or local law enforcement officials to support potential investigations or prosecution. Additionally, this information should be forwarded to the Sector Intel Officer and D7 Intel Staff.
- c. Each crew shall ensure that all amplifying information regarding any delay to launch or specific LASER incident is input into MISLE (i.e. location, azimuth, altitude, and distance from source).
- d. In accordance with ALCOAST 506/12, the unit Safety Officer shall be notified of the event to generate an E-Mishap Message for the incident.

5. Laser High Threat Area (LHTA):

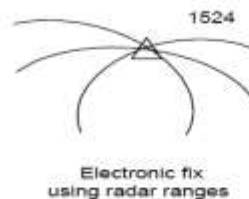
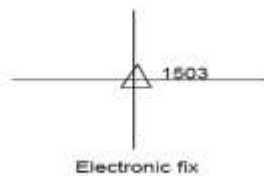
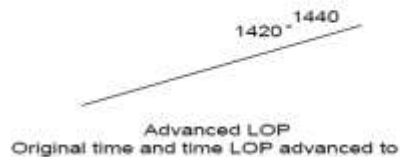
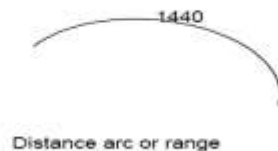
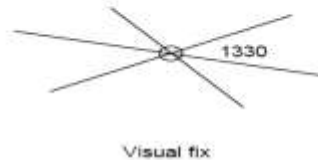
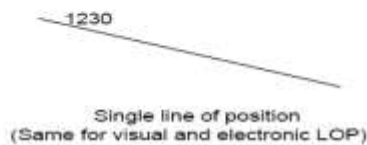
- a. There are no Known LHTA's in Cortez's AOR.

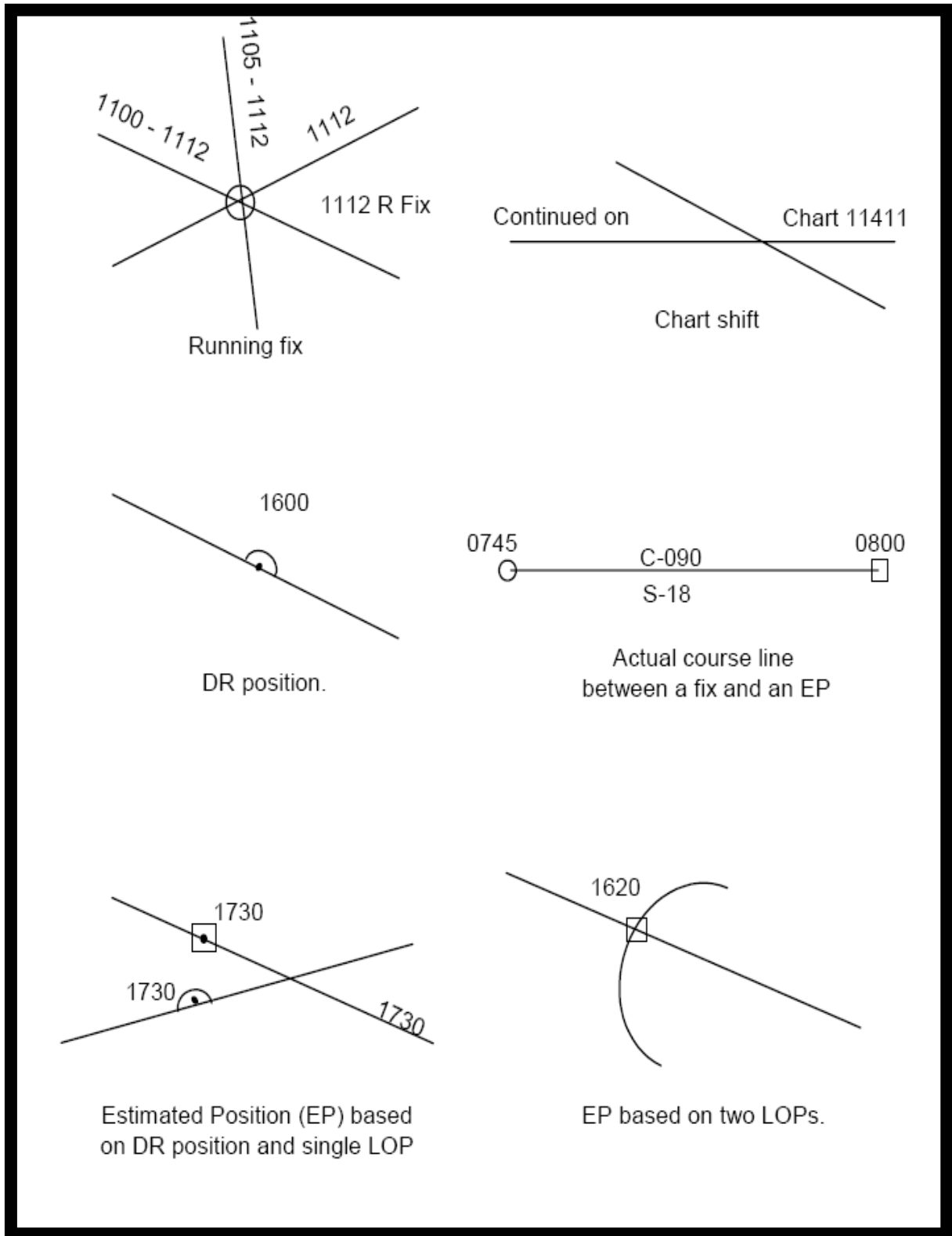
Charting Symbology

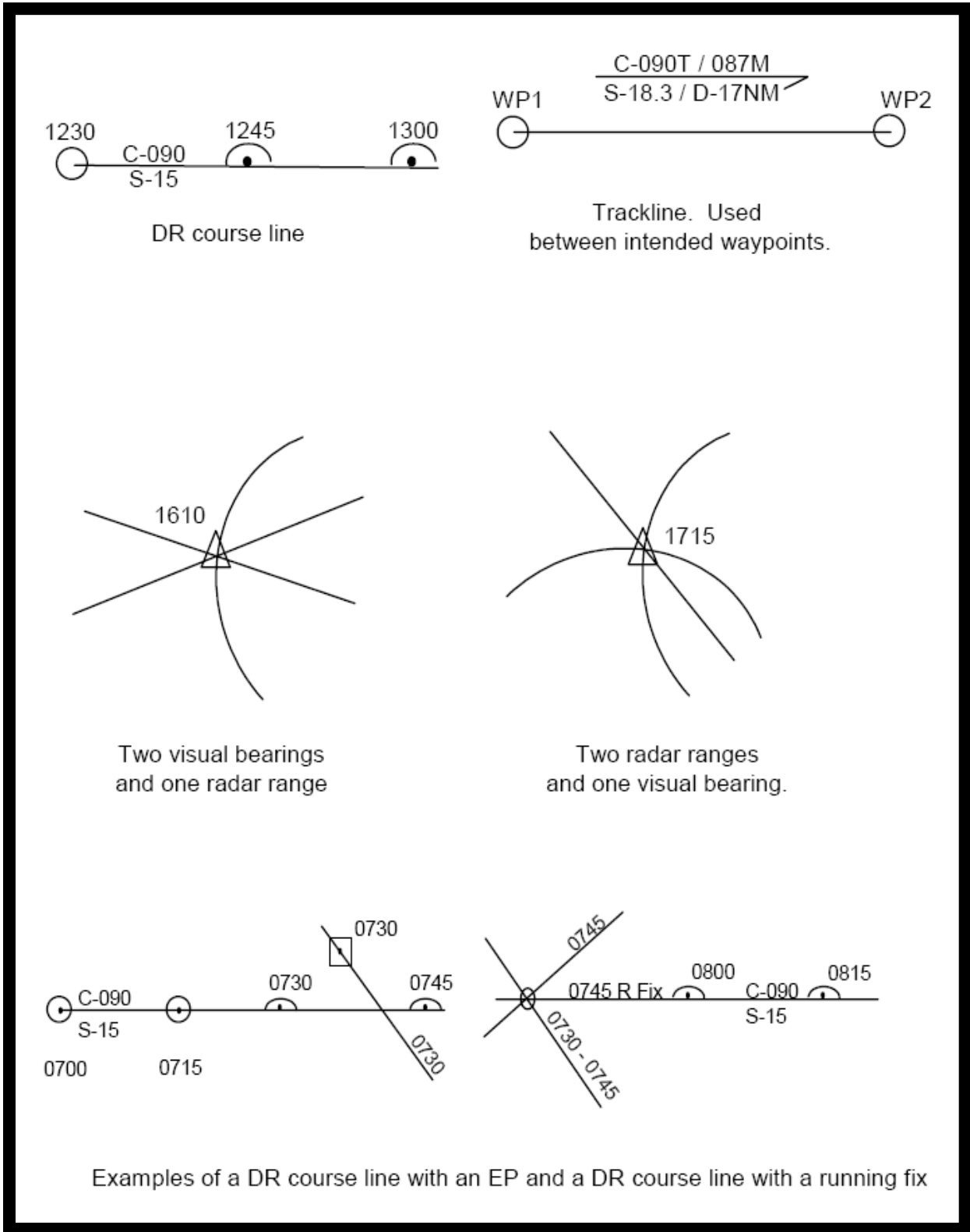
After a fix is obtained, it must be marked using standard symbols and the time the fix was taken. The chart below shows the symbols, type of fix, and definition of the fix used in piloting.

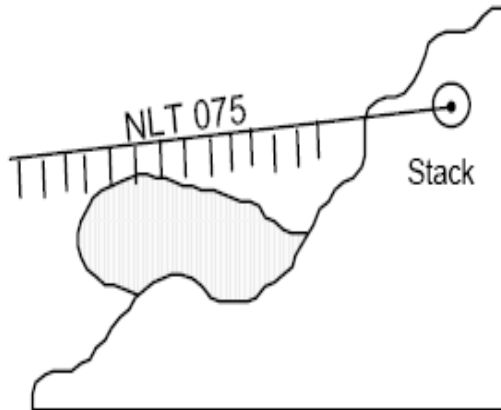
Symbol	Type	Description
	DR Position	Used to estimate the future position of a vessel by adding to the last fix, the vessels ordered course and speed for the next two fix intervals.
	Estimated Position	The most probable position of a ship determined from the available data.
	Electronic fix	An accurate position determined by electronic means or a combination of visual and electronic means.
	Visual fix	An accurate position determined by <u>visual</u> or celestial observations.

Navigation Plotting Symbols

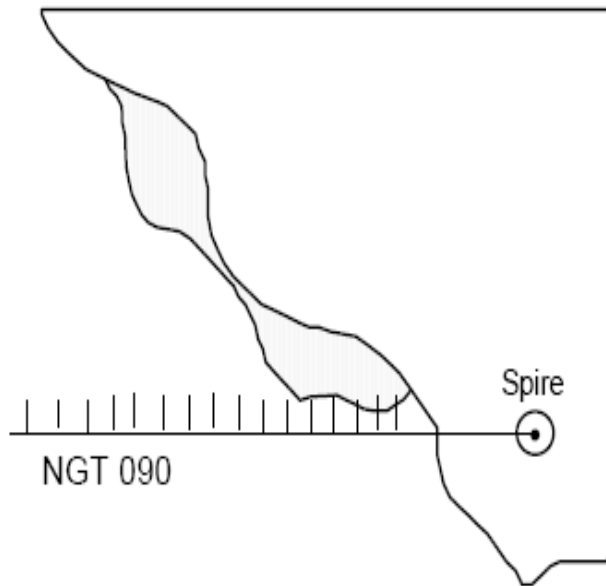








Danger bearing No Less Than 075 Deg T



Danger bearing No Greater Than 090 Deg T

COMMAND	DEFINITION
PUT OVER/PASS (line number)	Pass the specified line to the pier and provide enough slack to allow line handlers to place the line over the bitt, cleat or bollard.
HOLD (line number)	Do not let any more line out even though the risk of parting may exist.
CHECK (line number)	Hold heavy tension on the specified line but render it as necessary to prevent parting the line.
SURGE (line number)	Hold moderate tension on a line but render it enough to permit movement of
EASE (line number)	Let a line out until it is under less tension, but not slacked.
SLACK (line number)	Take all tension off a line.
TAKE THE SLACK OUT OF (line number)	Take all the slack out of a line, but do not take a strain.
SHIFT (line number)	Move a line to the specified location.
HEAVE AROUND ON (line number)	Take a strain on a line.
TAKE (line number) TO POWER	Take the specified line to the capstan or gypsy head.
SINGLE UP (line number)	Take in all but one bight so there remains a single part to the line. May also be
DOUBLE UP (line number)	Pass an additional bight on the specified line so there are three parts to the line. This may also be used to double up all normal mooring lines. Cutters without sufficient mooring line for three parts should just pass the bitter end of the single up to the pier.

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WPT#	POSITION		AID	WPT#	POSITION		AID
MKR_68	27°32.1890N	082°42.0660W	RED MKR 68	MAN 2	27°32.6480N	082°40.7020W	MAN RVR MKR 2
MKR_66	27°32.0590N	082°42.1000W	RED MKR 66	MAN 3	27°32.1400N	082°40.1520W	MAN RVR MKR 3
63_64A	27°31.8380N	082°42.1660W	MKR 63 & 64A	MAN 4	27°32.0080N	082°39.9520W	MAN RVR MKR 4
62A_63	27°31.7770N	082°42.1660W	MKR 62A & 63	MAN 7	27°31.8180N	082°39.0460W	MAN RVR MKR7
MKR_61	27°31.2300N	082°41.8530W	GREEN MKR 61	MAN 9	27°31.7500N	082°38.9080W	MAN RVR MKR 9
MKR_60	27°31.0110N	082°41.6660W	RED MKR 60	MAN 10	27°31.6280N	082°38.6030W	MAN RVR MKR 10
MKR_59	27°30.7480N	082°41.4640W	GREEN MKR 59	MAN 12	27°31.5500N	082°38.4350W	MAN RVR MKR 12
57_58	27°30.5710N	082°41.3750W	MKR 57 & 58	MAN 14	27°31.0770N	082°37.1440W	MAN RVR MKR 14
55_56	27°30.4170N	082°41.3800W	MKR 55 & 56	MAN 15	27°30.7210N	082°36.5260W	MAN RVR MKR 15
MKR_54	27°30.0700N	082°41.5670W	RED MKR 54	MAN 16	27°30.5900N	082°34.9570W	MAN RVR MKR 16
MAN AVE	27°29.8000N	082°41.6900W	MANATEE AVE. BRG	MAN 19	27°30.5350N	082°34.7010W	MAN RVR MKR 19
51_52	27°29.3200N	082°41.8930W	MKR 51& 52	MAN 22	27°30.2310N	082°34.4930W	MAN RVR MKR 22
MKR_50	27°28.7870N	082°41.7930W	RED MKR 50	GREEN	27°30.1540N	082°34.2840W	GREEN BRIDGE
MKR49A	27°28.3970N	082°41.6260W	GREEN MKR 49A	CSXBRG	27°30.1420N	082°34.0840W	CSX BRIDGE
CORTEZ BR	27°28.1175N	082°41.5530W	CORTEZ BRIDGE	DESOTO	27°30.2110N	082°33.7860W	DESOTO BRIDGE
STA NW	27°28.0410N	082°41.4800W		MAN 23	27°30.2770N	082°33.5100W	MAN RVR MKR 23
STA	27°27.9450N	082°41.2220W	STA CORTEZ	MAN 24A	27°30.3550N	082°33.2750W	MAN RVR MKR 24A
MKR 48	27°27.8410N	082°41.4050W	RED MKR 48	MAN 25	27°30.4020N	082°32.6520W	MA RVR MKR 25
MKR 47 48	27°27.3440N	082°41.0500W	GREEN MKR 47	MAN 26	27°30.6020N	082°31.8210W	MAN RVR MKR 26
MKR 45 46	27°27.2140N	082°40.9540W	MKR 46 & 45	MAN 28	27°30.7420N	082°31.5360W	MAN RVR MKR 28
SS	27°26.9940N	082°40.8610W		MAN 29	27°30.8030N	082°30.9300W	MAN RVR MKR 29
MKR 44	27°26.7870N	082°40.7340W	RED MKR 44	MAN 31	27°30.9680N	082°30.8270W	MAN RVR MKR 31
MKR 41 42	27°26.6370N	082°40.6780W	MKR 42 & 41	I75BRG	27°31.4780N	082°30.5910W	I 75 BRIDGE
MKR 40	27°26.3850N	082°40.5570W	RED MKR 40	VENICE	27°06.7110N	082°28.3400W	VENICE INLET
MKR 37 38	27°26.0850N	082°40.4100W	MKR 38 & 37	VEN 1	27°06.7450N	082°28.2090W	VENICE MKR 1
MKR 36	27°25.9820N	082°40.2990W	RED MKR 36	VEN 2A	27°06.7690N	082°28.0530W	VENICE MKR 2A
MKR 23 24	27°24.4210N	082°38.1790W	MKR 24 & 23	VEN 5	27°06.7400N	082°27.8900W	VENICE MKR 5
MKR 20 21	27°24.4380N	082°37.7660W	MKR 20 & 21	VEN 7	27°06.7360N	082°27.7850W	VENICE MKR 7
MKR 18 19	27°24.5290N	082°37.3850W	MKR 19 & 18	VEN ICW	27°06.7910N	082°27.6900W	VENICE ICW
MKR 17	27°24.5940N	082°36.7570W	GREEN MKR 17	BOCA 2	26°39.8560N	082°19.5840W	BOCA MKR 2
MKR 13	27°20.8280N	082°33.7430W	GREEN MKR 13	BOCA 6	26°41.1350N	082°18.4760W	BOCA MKR 6
MKR 12	27°20.1610N	082°33.7290W	RED MKR 12	BOCA 10	26°41.9100N	082°17.9180W	BOCA MKR 10
MKR 10	27°19.7050N	082°33.2650W	RED MKR 10	CHARLT	26°43.0010N	082°15.1140W	CHARLOTTE HBR
MKR 8A	27°19.5050N	082°33.2910W	RED MKR 8A	GASS 8	26°46.5170N	082°14.6390W	GASS SOUND MKR 8
MKR 7	27°19.0300N	082°33.0730W	GREN MKR 7	GASS 20	26°49.4960N	082°15.8790W	GASS SOUND MKR

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							20
MKR 6	27°18.9300N	082°32.9500W	RED MKR 6	BGCBRG	26°49.6100N	082°16.2040W	BOCA CAUSWAY BRG
MKR 2	27°18.4630N	082°32.7370W	RED MKR 2	BSP 1	27°15.9030N	082°34.4720W	
SIESTA	27°18.1580N	082°32.7220W	SIESTA KEY BRG	BSP 3	27°16.2300N	082°34.3330W	BSP MKR 3
LP JM	27°27.2500N	082°41.0570W	LP JUNCTION MKR	BSP 8	27°16.6750N	082°34.3130W	BSP MKR 8
LP 8	27°27.1200N	082°41.0990W	LP RED MKR 8	BSP 9	27°16.7920N	082°34.2510W	BSP MKR 8
LP 6	27°26.8490N	082°41.2220W	LP RED MKR 6	BSP 10	27°16.9530N	082°34.0330W	
LP 4	27°26.6730N	082°41.2380W	LP RED MKR 4	BSP 11	27°17.2680N	082°33.8030W	BSP MKR 11
LP BRIDGE	27°26.6460N	082°41.3090W	LONGBOAT BRG	BSP 13	27°17.5500N	082°33.6900W	BSP MKR 13
LP 3	27°26.3325N	082°41.6667W	LP GREEN MKR 3	BSP 15	27°18.0960N	082°33.6320W	BSP MKR 15
LP 2	27°26.1286N	082°41.7440W	LP RED MKR 2	BSP 16	27°18.3348N	082°33.6632W	BSP MKR 16
LP 1	27°25.9544N	082°41.7185W	LP GREEN MKR 1	BSP 17	27°18.5340N	082°33.3840W	BSP MKR17
LP	27°25.7690N	082°41.6990W	LP SAFE WTR MKR	SW CH1	27°32.4030N	082°48.6880W	SW CHANNEL MKR 1
				SW CH3	27°34.3150N	082°44.0920W	SW CHANNEL MKR 3

NP ALPHA	27°18.4380N	082°35.7459W	NP MORSE ALPHA				
NEW PASS	27°19.7649N	082°35.1006W					
NP 2	27°19.1870N	082°35.3460W	NP MKR 2				
NP 3A	27°19.2910N	082°35.4020W	NP MKR 3A				
NP 5A	27°19.4540N	082°35.3920W	NP MKR 5A				
NP 7A	27°19.5850N	082°35.3270W					
NP 7	27°19.6700N	082°35.2700W	NP MKR 7				
NP 8	27°19.7530N	082°35.1840W	NP MKR 8				
NP BRIDGE	27°19.9810N	082°34.9130W	NEW PASS BRIDGE				
NP 13	27°20.2990N	082°34.4360W	NP MKR 13				
NP JM	27°20.5160N	082°33.7270W	NP JUNCTION MKR				
VENOFF	27°06.0000N	082°30.0000W	VENICE OFFSHORE				
GASOFF	26°48.0000N	082°18.0000W	GASSPRILLA OFFSH				
BOCA CT	26°42.7680N	082°15.7250W	BOCA CUT				
FORT D	27°36.8370N	082°43.4690W	FORT DESOTO				

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<u>BOCA</u>	<u>WPT</u>	<u>LAT</u>	<u>LONG</u>	<u>LEG</u>	
1	BOCA02	26-39.856N	082-19.584W		
				042°	1.62NM
2	BOCA06	26-41.135N	082-18.476W		
				037°	0.92NM
3	BOCA10	26-41.910N	082-17.918W		
				071°	2.74NM
4	CHARLT	26-43.001N	082-15.114W		
				011°	3.55NM
5	GASS08	26-46.517N	082-14.639W		
				344°	3.18NM
6	GASS20	26-49.496N	082-15.879W		
				296°	0.31NM
7	BGCBRG	26-49.610N	082-16.204W		

<u>BOCA</u>	<u>WPT</u>	<u>LAT</u>	<u>LONG</u>	<u>LEG</u>	
7	BGCBRG	26-49.610N	082-16.204W		
				116°	0.31NM
6	GASS20	26-49.496N	082-15.879W		
				164°	3.18NM
5	GASS08	26-46.517N	082-14.639W		
				191°	3.55NM
4	CHARLT	26-43.001N	082-15.114W		
				251°	2.74NM
3	BOCA10	26-41.910N	082-17.918W		
				217°	0.92NM
2	BOCA06	26-41.135N	082-18.476W		
				222°	1.62NM
1	BOCA02	26-39.856N	082-19.584W		

<u>BSPASS</u>	<u>WPT</u>	<u>LAT</u>	<u>LONG</u>	<u>LEG</u>	
1	BSP_01	27-15.903N	082-34.472W		
				077°	1.07NM
2	BSP_03	27-16.230N	082-34.333W		
				007°	0.45NM
3	BSP_08	27-16.675N	082-34.313W		
				030°	0.13NM
4	BSP_09	27-16.792N	082-34.251W		
				055°	0.25NM
5	BSP_10	27-16.953N	082-34.033W		
				038°	0.38NM
6	BSP_11	27-17.268N	082-33.803W		
				024°	0.03NM
7	BSP_13	27-17.550N	082-33.690W		
				010°	0.55NM
8	BSP_15	27-18.096N	082-33.632W		
				358°	0.24NM
9	BSP_16	27-18.3348N	082-33.6632W		
				056°	0.32NM
10	BSP_17	27-18.534N	082-33.384W		
				034°	0.57NM

<u>BSPASS</u>	<u>WPT</u>	<u>LAT</u>	<u>LONG</u>	<u>LEG</u>	
11	MKR_07	27-19.030N	082-33.073W		
				214°	0.57NM
10	BSP_17	27-18.534N	082-33.384W		
				236°	0.32NM
9	BSP_16	27-18.3348N	082-33.6632W		
				178°	0.24NM
8	BSP_15	27-18.096N	082-33.632W		
				190°	0.55NM
7	BSP_13	27-17.550N	082-33.690W		
				204°	0.03NM
6	BSP_11	27-17.268N	082-33.803W		
				218°	0.38NM
5	BSP_10	27-16.953N	082-34.033W		
				235°	0.25NM
4	BSP_09	27-16.792N	082-34.251W		
				210°	0.13NM
3	BSP_08	27-16.675N	082-34.313W		
				187°	0.45NM
2	BSP_03	27-16.230N	082-34.333W		
				257°	1.07NM

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11	MKR_07	27-19.030N	082-33.073W		

1	BSP_01	27-15.903N	082-34.472W		

<u>VENICE</u>	WPT	LAT	LONG	LEG	
1	VENICE	27-06.711N	082-28.340W		
				078°	0.12NM
2	VEN_01	27-06.745N	082-28.209W		
				085°	0.14NM
3	VEN_2A	27-06.769N	082-28.053W		
				106°	0.15NM
4	VEN_05	27-06.740N	082-27.890W		
				097°	0.09NM
5	VEN_07	27-06.736N	082-27.785W		
				061°	0.10NM
6	VENICW	27-06.791N	082-27.690W		

<u>VENICE</u>	WPT	LAT	LONG	LEG	
6	VENICW	27-06.791N	082-27.690W		
				241°	0.10NM
5	VEN_07	27-06.736N	082-27.785W		
				277°	0.09NM
4	VEN_05	27-06.740N	082-27.890W		
				286°	0.15NM
3	VEN_2A	27-06.769N	082-28.053W		
				265°	0.14NM
2	VEN_01	27-06.745N	082-28.209W		
				258°	0.12NM
1	VENICE	27-06.711N	082-28.340W		

<u>SWPASS</u>	WPT	LAT	LONG	LEG	
1	SW_CH1	27-32.403N	082-48.688W		
				069°	4.51NM
2	SW_CH3	27-34.315N	082-44.092W		

<u>SWPASS</u>	WPT	LAT	LONG	LEG	
2	SW_CH3	27-34.315N	082-44.092W		
				249°	4.51NM
1	SW_CH1	27-32.403N	082-48.688W		

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MANRVR	WPT	LAT	LONG	LEG	
1	MAN_02	27-32.648N	082-40.702W		
				141°	0.71NM
2	MAN_03	27-32.140N	082-40.152W		
				131°	0.22NM
3	MAN_04	27-32.008N	082-39.952W		
				108°	0.83NM
4	MAN_07	27-31.818N	082-39.046W		
				124°	0.14NM
5	MAN_09	27-31.750N	082-38.908W		
				119°	0.30NM
6	MAN_10	27-31.628N	082-38.603W		
				122°	0.17NM
7	MAN_12	27-31.550N	082-38.435W		
				117°	1.24NM
8	MAN_14	27-31.077N	082-37.144W		
				128°	0.66NM
9	MAN_15	27-30.721N	082-36.526W		
				100°	1.40NM
10	MAN_16	27-30.590N	082-34.957W		
				108°	0.24NM
11	MAN_19	27-30.535N	082-34.701W		
				153°	0.36NM
12	MAN_22	27-30.231N	082-34.493W		
				117°	0.20NM

MANRVR	WPT	LAT	LONG	LEG	
23	I75BRG	27-31.478N	082-30.591W		
				207°	0.55NM
22	MAN_31	27-30.968N	082-30.827W		
				214°	0.19NM
21	MAN_29	27-30.803N	082-30.930W		
				268°	0.54NM
20	MAN_28	27-30.742N	082-31.536W		
				246°	0.29NM
19	MAN_26	27-30.602N	082-31.821W		
				259°	0.76NM
18	MAN_25	27-30.402N	082-32.652W		
				270°	0.56NM
17	MAN24A	27-30.355N	082-33.275W		
				254°	0.22NM
16	MAN_23	27-30.277N	082-33.510W		
				259°	0.25NM
15	DESOTO	27-30.211N	082-33.786W		
				260°	0.27NM
14	CSXBRG	27-30.142N	082-34.084W		
				278°	0.18NM
13	GREEN	27-30.154N	082-34.284W		
				297°	0.20NM
12	MAN_22	27-30.231N	082-34.493W		
				333°	0.36NM

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13	GREEN	27-30.154N	082-34.284W		
				098°	0.18NM
14	CSXBRG	27-30.142N	082-34.084W		
				080°	0.27NM
15	DESOTO	27-30.211N	082-33.786W		
				079°	0.25NM
16	MAN_23	27-30.277N	082-33.510W		
				074°	0.22NM
17	MAN24A	27-30.355N	082-33.275W		
				090°	0.56NM
18	MAN_25	27-30.402N	082-32.652W		
				079°	0.76NM
19	MAN_26	27-30.602N	082-31.821W		
				066°	0.29NM
20	MAN_28	27-30.742N	082-31.536W		
				088°	0.54NM
21	MAN_29	27-30.803N	082-30.930W		
				034°	0.19NM
22	MAN_31	27-30.968N	082-30.827W		
				027°	0.55NM
23	I75BRG	27-31.478N	082-30.591W		

11	MAN_19	27-30.535N	082-34.701W		
				288°	0.24NM
10	MAN_16	27-30.590N	082-34.957W		
				280°	1.40NM
9	MAN_15	27-30.721N	082-36.526W		
				308°	0.66NM
8	MAN_14	27-31.077N	082-37.144W		
				297°	1.24NM
7	MAN_12	27-31.550N	082-38.435W		
				302°	0.17NM
6	MAN_10	27-31.628N	082-38.603W		
				299°	0.30NM
5	MAN_09	27-31.750N	082-38.908W		
				304°	0.14NM
4	MAN_07	27-31.818N	082-39.046W		
				288°	0.83NM
3	MAN_04	27-32.008N	082-39.952W		
				311°	0.22NM
2	MAN_03	27-32.140N	082-40.152W		
				321°	0.71NM
1	MAN_02	27-32.648N	082-40.702W		

OFFSHO	WPT	LAT	LONG	LEG	
1	LP	27-25.769N	082-41.699W		
				157°	22.38NM
2	VENOFF	27-06.000N	082-30.000W		
				154°	20.98NM
3	GASOFF	26-48.000N	082-18.000W		
				163°	5.62NM
4	BOCA CT	26-42.768N	082-15.725W		

OFFSHO	WPT	LAT	LONG	LEG	
4	BOCA CT	26-42.768N	082-15.725W		
				343°	5.62NM
3	GASOFF	26-48.000N	082-18.000W		
				334°	20.98NM
2	VENOFF	27-06.000N	082-30.000W		
				337°	22.38NM
1	LP	27-25.769N	082-41.699W		

NEWPAS	WPT	LAT	LONG	LEG	
1	NP	27-	082-		

NEWPAS	WPT	LAT	LONG	LEG	
11	NP_JM	27-20.516N	082-33.727W		

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	ALPHA	18.4380N	35.7459W		
				065°	0.66NM
2	NEWPAS	27-18.7649N	082-35.1006W		
				338°	0.48NM
3	NP_02	27-19.187N	082-35.346W		
				339°	0.12NM
4	NP_3A	27-19.291W	082-35.402W		
				008°	0.16NM
5	NP_5A	27-19.454N	082-35.392W		
				028°	0.14NM
6	NP_7A	27-19.585N	082-35.327W		
				035°	0.10NM
7	NP_07	27-19.670N	082-35.270W		
				047°	0.11NM
8	NP_08	27-19.753N	082-35.184W		
				051°	0.33NM
9	NP_BRG	27-19.981N	082-34.913W		
				058°	0.53NM
10	NP_13	27-20.299N	082-34.436W		
				076°	0.67NM
11	NP_JM	27-20.516N	082-33.727W		

				256°	0.67NM
10	NP_13	27-20.299N	082-34.436W		
				238°	0.53NM
9	NP_BRG	27-19.981N	082-34.913W		
				231°	0.33NM
8	NP_08	27-19.753N	082-35.184W		
				227°	0.11NM
7	NP_07	27-19.670N	082-35.270W		
				215°	0.10NM
6	NP_7A	27-19.585N	082-35.327W		
				208°	0.14NM
5	NP_5A	27-19.454N	082-35.392W		
				188°	0.16NM
4	NP_3A	27-19.291W	082-35.402W		
				159°	0.12NM
3	NP_02	27-19.187N	082-35.346W		
				158°	0.48NM
2	NEWPAS	27-18.7649N	082-35.1006W		
				245°	0.66NM
1	NP ALPHA	27-18.4380N	082-35.7459W		

STA LP	WPT	LAT	LONG	LEG	
1	STA	27-27.945N	082-41.222W		
				297°	0.25NM
2	STA_NW	27-28.041N	082-41.480W		
				166°	0.21NM
3	MKR_48	27-27.841N	082-41.405W		
				152°	0.59NM
4	48_47	27-27.344N	082-41.050W		
				189°	0.09NM
5	LP_JM	27-27.250N	082-41.057W		

STA LP	WPT	LAT	LONG	LEG	
13	LP	27-25.769N	082-41.699W		
				359°	0.19NM
12	LP_MK1	27-25.954N	082-41.719W		
				357°	0.18NM
11	LP_MK2	27-26.129N	082-41.744W		
				023°	0.22NM
10	LP_MK3	27-26.385N	082-41.679W		
				050°	0.45NM
9	LP_BRG	27-26.646N	082-41.309W		

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				201°	0.14NM
6	LP_MK8	27-27.120N	082-41.099W		
				207°	0.29NM
7	LP_MK6	27-26.849N	082-41.122W		
				190°	0.18NM
8	LP_MK4	27-26.673N	082-41.238W		
				251°	0.07NM
9	LP_BRG	27-26.646N	082-41.309W		
				230°	0.45NM
10	LP_MK3	27-26.333N	082-41.667W		
				203°	0.22NM
11	LP_MK2	27-26.129N	082-41.744W		
				177°	0.18NM
12	LP_MK1	27-25.954N	082-41.719W		
				179°	0.19NM
13	LP	27-25.769N	082-41.699W		

				071°	0.07NM
8	LP_MK4	27-26.673N	082-41.238W		
				014°	0.21NM
7	LP_MK6	27-26.879N	082-41.238W		
				025°	0.26NM
6	LP_MK8	27-27.120N	082-41.099W		
				026°	0.14NM
5	LP_JM	27-27.248N	082-41.042W		
				000°	0.10NM
4	48_47	27-27.344N	082-41.050W		
				332°	0.59NM
3	MKR_48	27-27.841N	082-41.405W		
				346°	0.21NM
2	STA_NW	27-28.041N	082-41.480W		
				117°	0.25NM
1	STA	27-27.945N	082-41.222W		

STA SK	WPT	LAT	LONG	LEG	
1	STA	27-27.945N	082-41.222W		
				298°	0.25NM
2	STA_NW	27-28.041N	082-41.480W		
				167°	0.21NM

STA SK	WPT	LAT	LONG	LEG	
23	SIESTA	27-18.158N	082-32.722W		
				003°	0.31NM
22	MKR_02	27-18.463N	082-32.737W		
				343°	0.51NM

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3	MKR_48	27-27.841N	082-41.405W		
				153°	0.59NM
4	48_47	27-27.344N	082-41.050W		
				152°	0.16NM
5	46_45	27-27.214N	082-40.954W		
				165°	0.24NM
6	SS	27-26.994N	082-40.861W		
				156°	0.24NM
7	MKR_44	27-26.787N	082-40.734W		
				167°	0.24NM
8	42_41	27-26.637N	082-40.678W		
				162°	0.27NM
9	MKR_40	27-26.385N	082-40.557W		
				162°	0.33NM
10	38_37	27-26.085N	082.40.410W		
				141°	0.14NM
11	MKR_36	27-25.982N	082-40.299W		
				135°	2.45NM
12	24_23	27-24.421N	082-38.179W		
				092°	0.37NM
13	20_21	27-24.438N	082-37.766W		
				080°	0.35NM
14	19_18	27-24.529N	082-37.385W		
				088°	0.56NM
15	MKR_17	27-24.594N	082-36.757W		
				150°	4.63NM
16	MKR_13	27-20.828N	082-33.743W		
				184°	0.67NM
17	MKR_12	27-20.161N	082-33.729W		
				143°	0.62NM
18	MKR_10	27-19.705N	082-33.265W		
				192°	0.20NM
19	MKR_8A	27-19.505N	082-33.291W		
				163°	0.51NM
20	MKR_07	27-19.030N	082-33.073W		
				138°	0.15NM

21	MKR_06	27-18.930N	082-32.950W		
				318°	0.15NM
20	MKR_07	27-19.030N	082-33.073W		
				343°	0.51NM
19	MKR_8A	27-19.505N	082-33.291W		
				012°	0.20NM
18	MKR_10	27-19.705N	082-33.265W		
				323°	0.62NM
17	MKR_12	27-20.161N	082-33.729W		
				004°	0.67NM
16	MKR_13	27-20.828N	082-33.743W		
				330°	4.63NM
15	MKR_17	27-24.594N	082-36.757W		
				268°	0.56NM
14	19_18	27-24.529N	082-37.385W		
				260°	0.35NM
13	20_21	27-24.438N	082-37.766W		
				272°	0.37NM
12	24_23	27-24.421N	082-38.179W		
				315°	2.45NM
11	MKR_36	27-25.982N	082-40.299W		
				321°	0.14NM
10	38_37	27-26.085N	082.40.410W		
				342°	0.33NM
9	MKR_40	27-26.385N	082-40.557W		
				342°	0.27NM
8	42_41	27-26.637N	082-40.678W		
				347°	0.16NM
7	MKR_44	27-26.787N	082-40.734W		
				336°	0.24NM
6	SS	27-26.994N	082-40.861W		
				345°	0.24NM
5	46_45	27-27.214N	082-40.954W		
				332°	0.16NM
4	48_47	27-27.344N	082-41.050W		
				333°	0.59NM

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21	MKR_06	27- 18.930N	082-32.950W		
				163°	0.51NM
22	MKR_02	27- 18.463N	082-32.737W		
				183°	0.31NM
23	SIESTA	27- 18.158N	082-32.722W		

3	MKR_48	27-27.841N	082-41.405W		
				347°	0.21NM
2	STA_NW	27-28.041N	082-41.480W		
				118°	0.25NM
1	STA	27-27.945N	082-41.222W		

Surface Operations Risk Calculation Worksheet

Calculating Risk Using the GAR Model (**GREEN-AMBER- RED**)

This Worksheet should be used for all surface operations unless other GAR forms have been mandated.

**GAR IS BASED ON A TEAM DISCUSSION TO UNDERSTAND AND EVALUATE
THE RISKS ATTENDANT TO A MISSION AND HOW THEY WILL BE
MANAGED.**

**RISK MANAGEMENT IS WHAT IS IMPORTANT; NOT THE ABILITY TO
ASSIGN NUMERICAL VALUES OR COLORS TO RISK ELEMENTS.**

Assign a risk code of 0 (For No Risk) through 10 (For Maximum Risk) to each of the six elements below. The discussion should start with the junior (least experienced) members first on each category.

Supervision -qualifications / experience / communications	
Planning – details / clarity / vessel selection and condition	
Team Selection – qualifications / experience	
Team Fitness – physical / mental state	
Environment - seas / visibility / wind / current / temperatures	
Event/Evolution Complexity –details / tasks	

Total Risk
Score

GAR Evaluation Scale - Color Coding the Level of Risk

0	23	44	60
10	20	30	40
GREEN (Low Risk)	AMBER (Caution)	5 RED (High Risk)	

If the total falls in the green zone, risk is at a minimum. If the total falls in the amber zone, risk is moderate and you should consider adopting procedures to minimize risk.

IF THE TOTAL FALLS IN THE RED ZONE, YOU NEED TO IMPLEMENT MEASURES TO REDUCE THE RISK PRIOR TO STARTING THE EVENT/EVOLUTION.

Afloat Risk Assessment and Management Instructions

- A. It is vital to the safety of the crew and to the success of the mission that the coxswain and crew understand and evaluate the full impact of risk versus gain for each tasking. This must be a continuous, systematic process of identifying and detecting hazards, assessing risk, and implementing and monitoring risk controls.
- B. Consider the effects of environment on the ability to maintain communications throughout mission, both internal w/crew and external w/unit. Consider the condition of the vessel and associated equipment as factors in the mission environment.
- C. If Risk Assessment is determined to be excessive, review the Control Options and determine if the risks can be reduced or controlled. Below are Control Options to assist in risk control or reduction. Review the options and reassess the risks as appropriate.
 1. **Spread-out** – Disperse the risk by increasing the time between events or using additional assets.
 2. **Transfer** – If practical, locate a better-suited asset to conduct the mission (i.e. different type of asset or crew).
 3. **Avoid** – Circumvent hazard: Wait for risk to subside (i.e. wait until daylight or weather passes).
 4. **Accept** – In some cases the benefit might justify the assumption of risk. In these cases a decision to accept risk may be made with the stipulation that risk is reevaluated as the mission progress.
(No adjustment to Risk Assessment).
 5. **Reduce** – Reduce or limit risk exposure, use of PPE, additional training or rest, stress reduction.
- D. Although one could selectively evaluate Risk Factors with a mind toward achieving an acceptable Risk Factor score, doing that would subvert the intent of this tool. This is

intended to help everyone on the crew shift their thinking from a land based mindset, to the hazards of the maritime environment. All members of the crew should participate in the Risk Assessment scoring. This Risk Assessment process should continue throughout the mission as conditions evolve.

USCG Station Cortez Navigation Report

Coxswain, I currently hold you on a course of _____ Magnetic, at a speed of _____. Based on a GOOD / FAIR / POOR / EP fix at minute _____ I hold you _____ ON/RIGHT/LEFT of track recommend you COME RIGHT / COME LEFT / MAINTAIN.

Your nearest hazard to navigation is _____ bearing _____ at a distance of _____. Your next aid to navigation is _____ bearing _____ at a distance of _____. Your time to turn is _____ and your next course is _____ degrees magnetic. Set is _____ degrees at _____ knots. Depth of water MATCHES / DOES NOT MATCH depth the keel.