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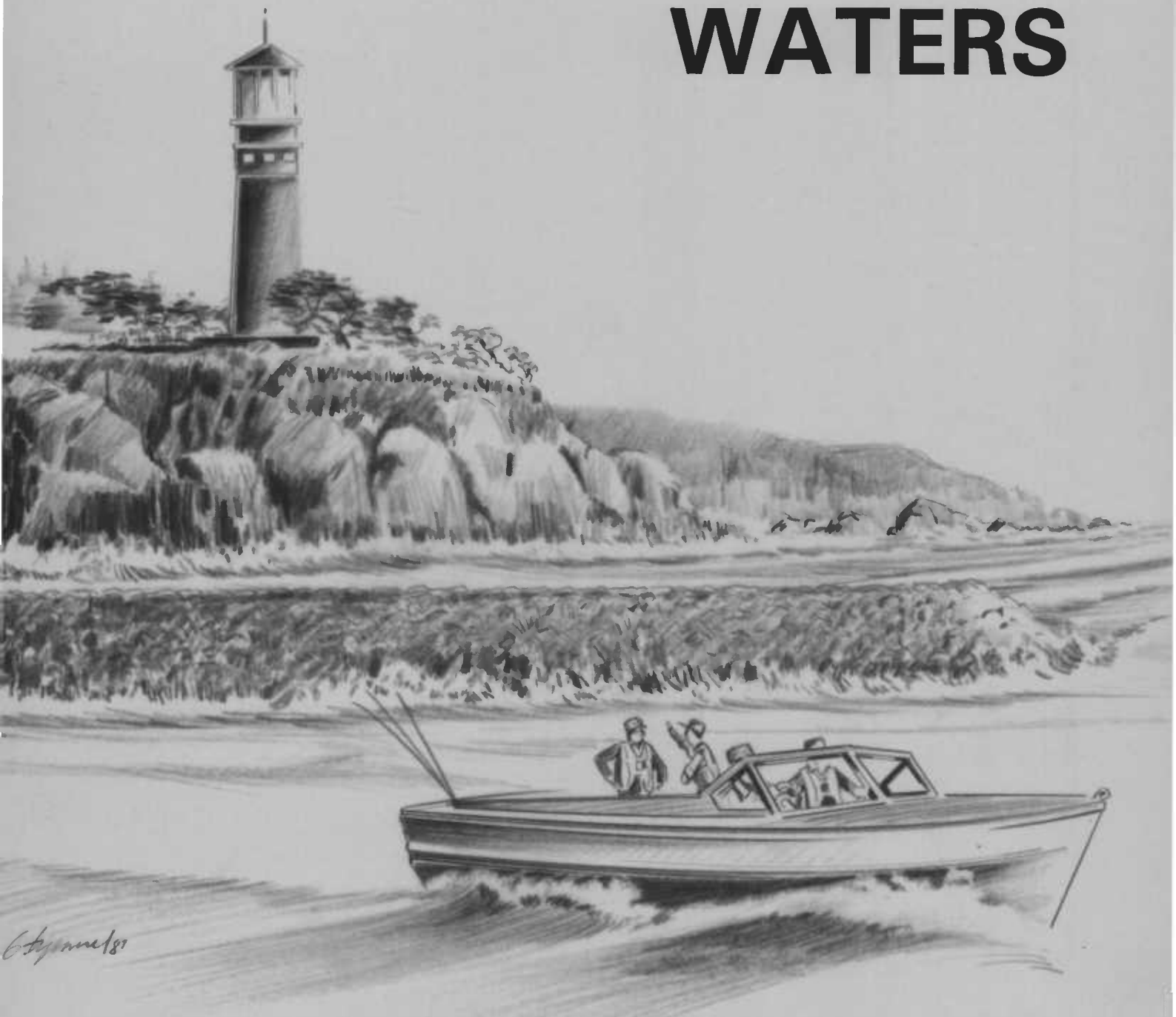
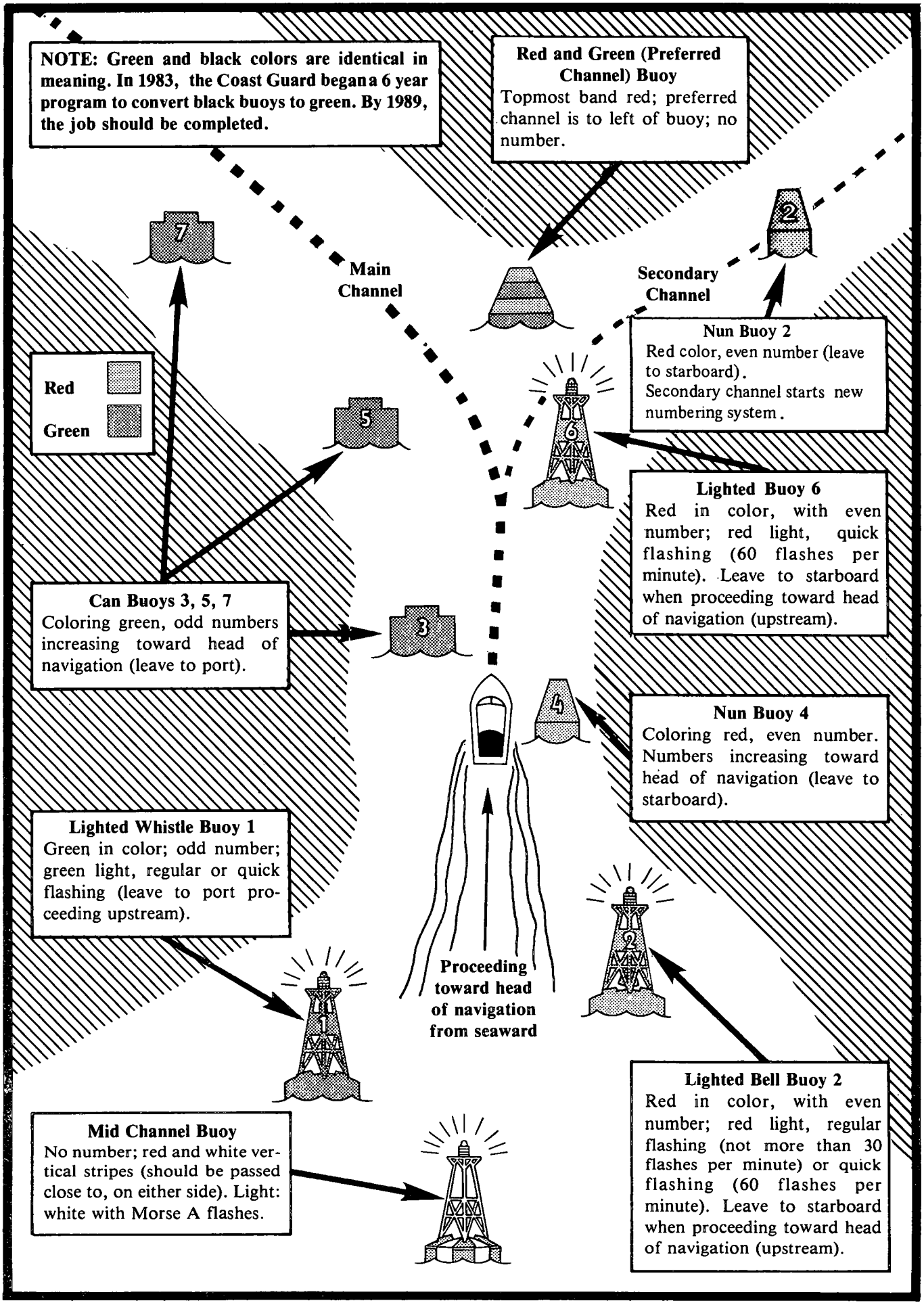
BOATING IN OREGON COASTAL WATERS



OREGON STATE MARINE BOARD
OREGON STATE UNIVERSITY EXTENSION/SEA GRANT PROGRAM

Revised Edition 1987

Extension Manual 3


NOTE: Green and black colors are identical in meaning. In 1983, the Coast Guard began a 6 year program to convert black buoys to green. By 1989, the job should be completed.
Red and Green (Preferred Channel) Buoy
Topmost band red; preferred channel is to left of buoy; no number.
Main Channel
Secondary Channel
Red
Green
Nun Buoy 2
Red color, even number (leave to starboard).
Secondary channel starts new numbering system.
Lighted Buoy 6
Red in color, with even number; red light, quick flashing (60 flashes per minute). Leave to starboard when proceeding toward head of navigation (upstream).
Can Buoys 3, 5, 7
Coloring green, odd numbers increasing toward head of navigation (leave to port).
Nun Buoy 4
Coloring red, even number. Numbers increasing toward head of navigation (leave to starboard).
Lighted Whistle Buoy 1
Green in color; odd number; green light, regular or quick flashing (leave to port proceeding upstream).
Proceeding toward head of navigation from seaward
Mid Channel Buoy
No number; red and white vertical stripes (should be passed close to, on either side). Light: white with Morse A flashes.
Lighted Bell Buoy 2
Red in color, with even number; red light, regular flashing (not more than 30 flashes per minute) or quick flashing (60 flashes per minute). Leave to starboard when proceeding toward head of navigation (upstream).

Boating in Oregon Coastal Waters

Fourth Revised Edition 1987

Oregon State Marine Board
Salem 97310

Oregon State University Extension/Sea Grant Program
Corvallis 97331

GOVERNOR NEIL GOLDSCHMIDT
STATE CAPITOL
SALEM, 97310

To Oregon Coastal Boaters:

Welcome to one of the most beautiful coastlines in the world.

Whether you're an experienced boater or a novice, remember that Oregon's coastal bars can be hazardous. River and tidal currents, ocean swells, and wind can create perilous conditions at coastal river entrances for vessels of all sizes. Remember, too, that weather and sea conditions can change quickly.

All these factors make good boat handling and knowledge of the local bar entrances a must for enjoying an ocean outing. You'll find Boating in Oregon Coastal Waters an excellent guide to safe coastal boating. It contains information on each of our coastal bars, including a photo and chart of the entrance. It also gives coastal boating information and references for more detailed study.

If you are a beginning boater, I strongly recommend that you take a boating course from the U.S. Coast Guard Auxiliary or the U.S. Power Squadron before venturing out to sea on your own. The State Marine Board also offers a fine introductory course, "Oregon Better Boating."

For detailed advice about local conditions, check with the experts at the Coast Guard stations. And taking one or two trips with a knowledgeable local boater will provide the practical experience and additional expertise necessary to boat the Oregon coast safely.

I hope you find this booklet helpful and good boating to you!

Best wishes,

Neil Goldschmidt
Governor

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Coastal Bars, Bays, and Rivers

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ACKNOWLEDGMENT

The publication of this manual has been made possible through the cooperation of the Thirteenth Coast Guard District, which provided information regarding hazardous areas and permitted reprinting of information from various *Bar Guides*.

GOING SOMEWHERE?

Leave a float plan with a friend or relative. If you make changes in it, let that person know before you go. Should disaster strike, a few minutes could mean a lifetime of difference. Here's a sample plan:

Name of boat operator _____
Home phone number _____ Business phone number _____

Boat type _____ Color of hull _____
Color of trim _____ Registration number _____
Name _____ Make _____ Length _____ Other _____

Engine: Type _____ Horsepower _____ Normal fuel (gallons) _____

Number of persons aboard (including operator) _____

Name	Age	Address/Phone Number

Survival Equipment:
Lifejackets (number) _____ flares _____ mirror _____
Flashlight _____ food _____ paddles _____
Water _____ cushions _____

Radio _____ Frequencies _____

Itinerary:
Depart _____ from _____ on _____ (time, date)
Going to _____ or _____
Expect to return by _____ (time, date) and in no event later than _____

Other Information _____

Auto license number _____ Trailer license number _____

If not returned by _____ call the Coast Guard or local authority at _____

- *Upon your return, notify the person to whom the float plan was given.*
- *If you were reported to the Coast Guard as overdue, notify them of your arrival.*

These forms are available from the State Marine Board.

Storm Signals

Certain locations along the Oregon Coast, such as Coast Guard Stations, marinas, public piers, and other points, display storm signals. These warning signals indicate a **prediction** of potentially dangerous wind or, in the case of small craft warnings, **winds and seas** dangerous to smaller vessels. Boaters should be familiar with these signals and heed their warnings. Remember, these warning signals are for forecasting wind, as it may be calm at the time signals are hoisted. On the other hand, the boater must realize the wind might be blowing or the seas rough enough to make boating dangerous even with no warnings up and blue skies overhead.

Safe boaters make it **an unbreakable rule** to stay ashore voluntarily when storm signals are up or high winds or rough seas are present. The Coast Guard is empowered to prevent small craft from leaving protected waters when sea conditions are dangerous or storm signals are displayed. This service can and does tow in boaters who refuse to heed their warnings.

Storm Warnings

These warnings cover a wide range of wind speeds and/or sea conditions. Also, "small craft" includes boats of many designs and sizes. Mariners should regard the storm warnings as signals that wind and/or sea conditions may be dangerous or as a forecast of potentially dangerous conditions. More detailed information may be obtained by telephone or by listening to local radio stations, Coast Guard radio, or the Weather Service VHF/FM broadcasts. The Weather Service broadcasts on frequencies of 162.400 and 162.550 MHz with transmitters at Astoria, Newport, Coos Bay, and Brookings.

Storm Warning Display Stations

Washington Stations	
Cape Disappointment (CG)	D
Oregon Stations	
Tillamook Bay STA (CG)	D
Tillamook Bay Lookout (CG)*	D
Depoe Bay STA (CG)	D
Yaquina Bay STA (CG)	D
Siuslaw River STA (CG)	D
Umpqua River STA (Winchester Bay) (CG)	D
Umpqua River Lookout	D
Coos Head Lookout	D
Coos Bay STA (CG)	D
Coquille River Patrol (CG)*	D
Rogue River Patrol (CG)*	D
Chetco River STA (CG)	D

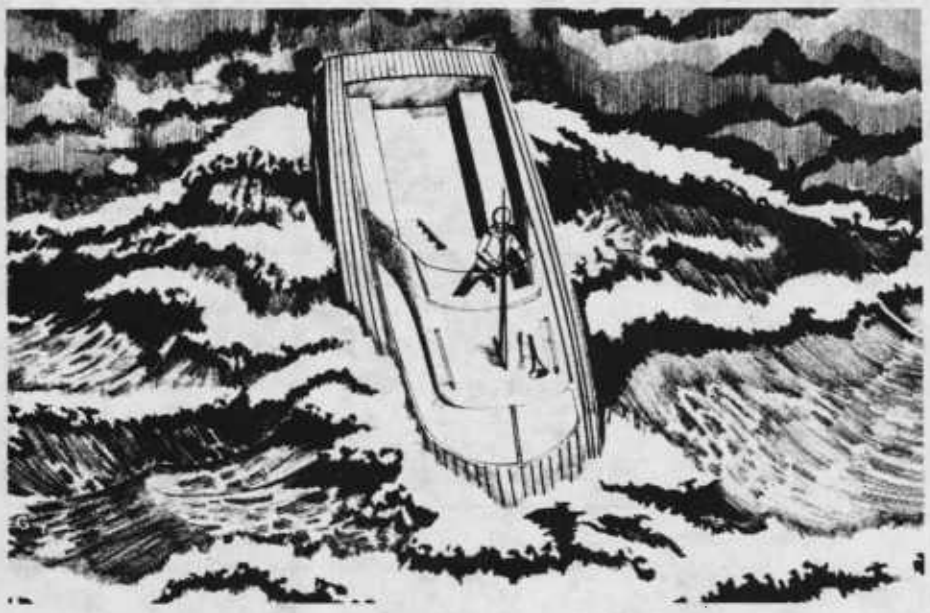
(D, day displays; CG, Coast Guard; STA, station; * seasonal displays only.)

Rough Bar Advisory Signs

The Coast Guard has established a standard rough bar advisory sign. Its position changes from port to port and is included in the bar descriptions that follow.

The sign is 6′ × 6′ white, diamond-shaped daymark with a bright orange border, carrying the words "ROUGH BAR" in black letters. Two alternate flashing amber lights will be turned on when observed seas on the bar exceed 4 feet in height and are considered dangerous.

If the lights are not flashing, **this is no guarantee** that sea conditions are favorable.



Marine Emergency and Distress Radio Procedures

Speak slowly and clearly

Call:

1. If you are in **distress** (that is, when threatened by grave and imminent danger), transmit the International Distress Call on channel 16: **"MAYDAY, MAYDAY, MAYDAY, This is** [your vessel's VHF call number and name repeated **three times**]."*
2. If you need **information or assistance from the Coast Guard** (other than in a distress, call the **Coast Guard** on channel 16 (the distress and calling frequencies). In this situation, you will normally be shifted to a common working frequency (channel 22A), allowing the **distress** frequency to remain open.

If you're aboard a vessel in trouble, state:

1. **Who** you are (your vessel's VHF call number and name).
2. **Where** you are (your vessel's position in latitude/longitude or true bearing and distance in nautical miles from a widely known geographical point; local names known only in the immediate vicinity are confusing).
3. If you require Coast Guard assistance, and whether or not you are in immediate danger
4. **What** is wrong (nature of distress — or difficulty, if you are not in distress).
5. Kind of assistance required.
6. Number of persons aboard and the condition of anyone injured.
7. Present seaworthiness of your vessel.
8. Description of your vessel — length, type, cabin, masts, power, color of hull, superstructure and trim.
9. Your listening frequency and schedule.

If you are observing another vessel in difficulty, give:

1. Your position and (if possible) the bearing and distance of the vessel in difficulty.
2. Nature of distress or difficulty.

* If you have the Radiotelephone Alarm Signal available, transmit it **before** the Distress Call, for approximately 1 minute. The Radiotelephone Alarm Signal consists of two audio tones, of different pitch, transmitted alternately. Its purpose is to attract the attention of persons on watch, and it shall only be used to announce that a distress call or message is about to follow.

3. Description of the vessel in distress or difficulty (see item 7, above).
4. Your intentions, course, and speed, etc.
5. Your radio call sign, name of your vessel, listening frequencies and schedule.

Note: The international signal for an aircraft that wants to direct a surface craft to a distress is:

Circling the surface craft, opening and closing the throttle or changing propeller pitch (noticeable by change in sound) while crossing ahead of the surface craft, and proceeding in the direction of the distress. If you receive such a signal, you should follow the aircraft. If you cannot do so, try to inform the aircraft by any available means.

If your assistance is no longer needed, the aircraft will cross your wake, opening and closing the throttle or changing the propeller pitch. If you are radio-equipped, you should attempt to communicate with the aircraft on 2182 kHz or 156.8 mKz when the aircraft makes the above signals or makes any obvious attempt to attract your attention. In the event you cannot communicate by radio, be alert for a message block dropped from the aircraft.

U.S. Coast Guard Search and Rescue Stations

In Oregon	**Summer Only**
Astoria	Coquille River
Chetco River	Rogue River
Coos Bay	
Depoe Bay	
Siuslaw Bay	**In Washington**
Tillamook	Cape Disappointment
Umpqua River	
Yaquina Bay	

CB channel 9 distress frequency is **not a reliable method** for reporting marine emergencies. VHF-FM channel 16 is more reliable.

Signalling for Assistance

Rendering assistance to mariners is one of the primary functions of the Coast Guard. The following signals are recognized as indicating a vessel in distress and requiring assistance. (These are in addition to the carriage of required visual distress signalling devices on coastal waters. See page 11.) A boat in distress can signal for assistance by:

1. Firing a gun or other explosive device into the air at about 1 minute intervals.
2. Continuous sounding of any fog-signal apparatus.
3. Shooting flares or rockets skyward.
4. Sending a message by radio-telephone.
5. Waving both arms from alongside the body to over the head in an up-and-down motion.
6. Waving side to side over the head any orange-red flag or any garment of any size that can be attached to a fishing pole or long rod.
7. Tying a 72-inch fluorescent, orange-red cloth inscribed with an 18-inch black circle and an 18-inch black square, 18 inches apart on the major axis of the flag. This type of signal is to be tied to a hatch or cabin top for ready spotting by aircraft.
8. SOS by spotlight.

All Coast Guard Stations are constantly on the alert for vessels that might be in distress. If a vessel is seen displaying or showing any unusual signal or acting in an unusual manner, the Coast Guard will always check to determine if help is needed.

When a boat operator arrives at a harbor where a Coast Guard Station is located and, after surveying the bar, notices it is too rough to make an attempt to cross into port, it is suggested that the operator contact a Coast Guard patrol vessel by using any of the standard distress signals to attract attention or by circling one of the buoys.

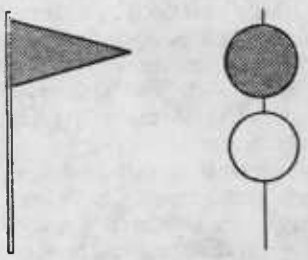
Aids to Navigation

Oregon Coastal waters are marked for safe navigation by the lateral system of buoyage. This system employs a simple arrangement of colors, shapes, numbers, and light characteristics to reveal the side on which a buoy should be passed when proceeding in a given direction. The expression "red right returning" has long been a saying of seafaring men to remind them that red buoys should be on the starboard (right) side when traveling from the open sea into bays (upstream). Likewise, black/green buoys are on the port (left) side.

Conversely, when proceeding toward the sea (downstream), red buoys are to port (left side) and black/green buoys are to starboard (right side). These buoys — their numbers, colors, and characteristics — are plotted on all nautical charts. (See the inside front cover.)

Buoys should not be considered as immovable objects. They are occasionally missing, adrift, or off the charted position due to heavy storms, unusual tides, or collisions. Also, many buoys are shown on charts but are in position only in the summer. The Coast Guard removes them in the fall because winter storms would move them out of position or carry them away. Off Newport, for example, buoys #2 and #3 are gone in winter.

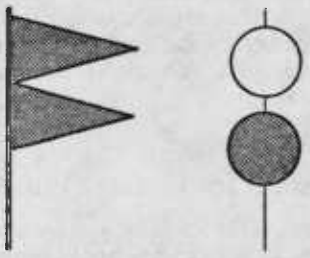
Small Craft



DAYTIME SIGNAL **NIGHT SIGNAL**

One RED pennant displayed by day and a RED light over a WHITE light at night to indicate winds as high as 33 knots (38 m.p.h.) and/or sea conditions considered dangerous to small craft operations are forecast for the area.

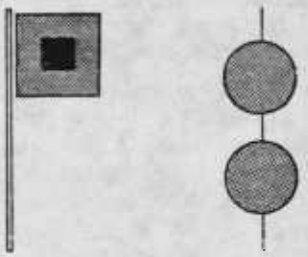
Gale



DAYTIME SIGNAL **NIGHT SIGNAL**

Two RED pennants displayed by day and a WHITE light above a RED light at night to indicate winds within the range 34 to 47 knots (39 to 54 m.p.h.) are forecast for the area.

Storm



DAYTIME SIGNAL **NIGHT SIGNAL**

A single square RED flag with a BLACK center displayed during daytime and two RED lights at night to indicate that winds 48 knots (55 m.p.h.) and above are forecast for the area. If the winds are associated with a tropical cyclone (hurricane), the "Storm Warning" display indicates winds 48 to 63 knots (55 to 73 m.p.h.) are forecast.

Whistles, bells, and gongs, which are attached to some buoys, are activated by the action of the sea, so when the sea is calm, they may sound irregularly.

Buoys are anchored by a scope of chain that allows the buoy to move with the wind and current for a considerable distance. Keep well clear when passing and never moor to them; it is a punishable Federal offense.

To help boat operators navigate within channels, range markers have been erected in many rivers and bays. These consist of widely separated, brightly painted pairs of targets, or markers. Usually range markers are international orange and white in color and rectangular or diamond-shaped. They are mounted on skeleton towers or on pilings, and may be in the water or onshore. Consult the appropriate navigation chart for locations of range markers. Steering a course that keeps the two range markers in line while operating within a channel marked by buoys will keep the boat within the channel.

For additional aids to navigation, a useful reference is Coast Guard publication **Light List,** Volume VI, Pacific Coast and Pacific Islands.

Charts for Coastal Waters

Charts of the Pacific Coast are available from the U.S. Department of Commerce's National Ocean Service. *Nautical Chart Catalog 2, United States Pacific Coast Including Hawaii, Guam and Samoa Islands,* lists all charts produced for the West Coast by the National Ocean Service. Copies of the catalog are available free from: Distribution Branch, N/CG 33, 6501 Lafayette Ave., Riverdale, MD 20737-1199.

Charts and related publications of the National Ocean Service can also be purchased in Oregon from the authorized National Chart Agents listed below:

Astoria:	* Englund Marine Supply Co., Foot of 15th St.
Brookings:	Lorings Lighthouse, Sporting Goods, 554 Chetco Ave.
Corvallis:	OSU Book Store, Jefferson Ave.
Eugene:	Wright Communications, 985 Conger St.
Florence:	Siuslaw Marine, 06516 Highway 126
Garibaldi:	Old Mill Marina, 3rd and American
Newport:	Oregon State University, Marine Science Center, Public Wing
South Beach Marina:	Schiewe Marine Supply, 103 SE Bay Blvd.
North Bend:	Oregon-Pacific Company, Inc., 1760 Sheridan St.
Portland:	Captain's Nautical Supplies, 817 SW Second Ave.
	Fisherman Marine Supply, 901 N. Columbia Ave.
	Progress Electronics Co. of Oregon, 5160 N. Lagoon Ave.
	Rodgers Marine Electronics, 3445 NE Marine Dr.
Winchester Bay:	Shannon's Sport Shop, Beach Blvd.

*Agent handles U.S. Coast Guard publications.

U.S. Coast Guard Stations

Location	*Telephone*
Tillamook Bay — Garibaldi	322-3531
Depoe Bay — Depoe Bay	765-2123
Yaquina Bay — Newport	265-5381
Siuslaw River — Florence	997-3631
Umpqua River — Winchester Bay	271-2137
Coos Bay — Charleston	888-3266
Coquille River — Bandon	347-3112
Chetco River — Harbor	469-2242
Cape Disappointment — Ilwaco, Washington	(206) 642-2381 or 642-2382

U.S. Coast Guard Auxiliary Patrols

A nationwide association of boaters, the United States Coast Guard Auxiliary is a nonmilitary organization administered by the Coast Guard, and its main purpose is the promotion of safe boating. Auxiliary members include yachtsmen, commercial fishermen, and others experienced in handling small vessels and knowledgeable in small boat safety.

During boating season auxiliary patrols supplement and assist the regular Coast Guard. Auxiliary vessels are readily identified by a blue and white flag or a large placard bearing the words "U.S. Coast Guard Auxiliary."

These vessels are in constant communication with the regular Coast Guard patrol boats and lookout towers. By hailing these vessels, boat operators may obtain information regarding bar conditions, tides, weather, etc. The regular Coast Guard often relies on auxiliary vessels to assist in the dissemination of weather reports, bar and sea conditions, and other vital reports. When hailed by a Coast Guard Auxiliary boat, a boater should heave to and heed the information. In the event of trouble, Coast Guard Auxiliary vessels will stand by to give assistance.

Crossing The Bar

The principal objective of recreational boating is pleasure. Boats provide safe, pleasurable recreation when operated within their limitations. Stability is a vital factor for boats cruising in coastal waters, and stability can be aided by proper loading. An improperly loaded or overloaded craft loses its stability, and is very susceptible to capsizing. Overloading increases the risk of seas breaking aboard. It is extremely important that boats operating along the coast have adequate freeboard.

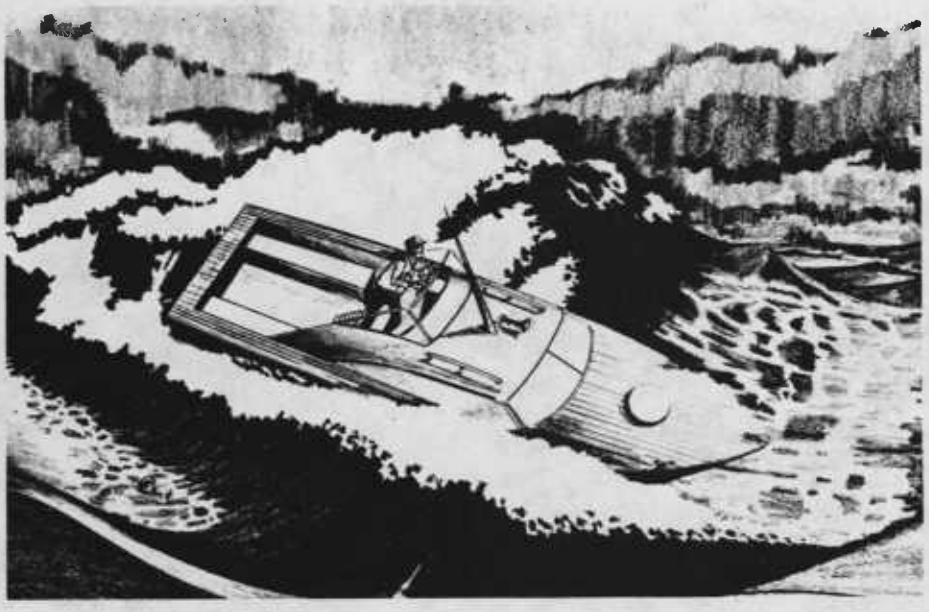
Most boating accidents and fatalities on the coastal bars result from capsizing. A boat is much more apt to capsize when crossing in as the seas are on the stern, when the operator does not have as much control of the steerage. When looking at the bar from seaward, one does not see the front of the seas or breakers; consequently, the bar may be much rougher than it appears.

When there is the least uncertainty about bar conditions, boaters should take every precaution to avoid trouble. Radio the Coast Guard or raise another boat operator who can tell what the bar condition is. If necessary, circle the sea buoy, but **make every effort to avoid difficulty.**

If one is unexpectedly caught on a rough bar when running in, **it is imperative to keep the boat square before the seas.** Keep the boat on the back of a swell. Ride the swell and keep clear of the following wave. Preservation of the boat's stability is most important at this time, and a sudden shift of the passengers' weight in a small boat could prove dangerous. In fact, in a small boat the stability will be vastly improved if the passengers lie down in the bottom of the boat as near the center line as possible. Make sure that everyone aboard is wearing a personal flotation device (PFD) before crossing.

Most boating accidents on the coastal bars are caused by the boat operators allowing seas to catch their boats from the side, a situation called "broaching," which can result in capsizing. To prevent broaching, the operator must keep the boat square before the seas. The illustration above shows a boat broaching.

A large number of logs and deadheads are adrift in the navigable waters of Oregon at all times, particularly after storms, spring freshets, and unusually high tides. Boaters should always be on the lookout for such logs and deadheads.



Tides

Along the coast of the Pacific Northwest there are roughly two tides each day. **Tides** are the **vertical** rise and fall of the water, and a **tidal current** is the **horizontal** flow.

The movement toward shore or upstream is the **flood** current, and movement away from shore or downstream is the **ebb** current. The period between these two is called **slack** water. Tidal currents may gain tremendous velocity, particularly when the **ebb** current is reinforced by a river runoff during a high-low series.

Considered one of the greatest risks a boater could encounter is the craft's being caught in a shallow river entrance to the Pacific Ocean, known as a bar, at the time a swift ebb current meets incoming westerly waves. Such conditions result in the two opposing forces meeting to pile up water and waves break with tremendous force. Even on days when the sea is relatively calm, a fast-moving ebb has the potential to create a bar situation that could be too rough for small craft.

Boaters must always be conscious of the stage of the tide. Except on some few days when there is unusual calm or unless observation shows that the bar is down, cross from harbor to ocean on the slack or the flood tide, when the sea is calmest.

Veteran seamen advise all boat operators, if they are still inside the bar when heavy sea conditions exist, to remain there. If a boater is trapped outside a rough bar on an ebb tide, it is wise to lay-to and wait until the flood current or inflowing current is the dominant factor. If trapped outside a rough bar with a southwester developing 40-knot or better winds, it becomes a matter of judgment and experience, deciding whether to stay at sea with a sea anchor or risk crossing the bar. If possible, run to another port having more favorable bar conditions.

In a number of the river entrances there are shallows called sands, shoals, spits, or floats, on which waves build to the point that they become extremely dangerous to small boats. These areas should always be avoided.

Capsizing

One of the most basic precautions for all boaters is to wear a Coast Guard-approved personal flotation device (PFD) in any time of danger. Without a PFD, chances for surviving a sinking or capsizing in the cold waters off the Oregon coast are greatly reduced. If the boat capsizes, keep all persons together in one group, to help one another and to improve chances for rescue. It is far easier and quicker to locate and rescue a group than to find scattered individuals. Also, in a group, each person can help others stay afloat longer.

A second, all-importatnt lifesaving rule is **stay with the boat** as long as it remains afloat. Most pleasure craft have built-in flotation that will keep them from sinking. Chances of being found and rescued are increased immensely by clinging to the easy-to-spot boat.

There is no substitute so effective as flares for signalling for aid at sea. If the boat is equipped with flares, use them to attract attention. If there is any warning that danger is imminent, before any emergency happens, get all passengers into PFD's and out of the cabin so that they will float free should the boat capsize. When a boat capsizes, anyone inside is thrown into total darkness. Anyone trapped inside the cabin of a capsized boat should remove his or her PFD and try to swim out the cabin door. Cutting a hole through the hull can sink a capsized boat. Unless the hull has built-in flotation, cutting a hole for escape will release any air trapped inside — and the boat will sink. Although this is a critical time, it is absolutely vital to keep calm. Above all, keep from panicking.

Termination of Use on Coastal Bars

Federal law designates certain "Regulated Boating Areas" in the following Oregon bars and channel entrances:

Columbia River	Siuslaw River
Nehalem River	Umpqua River
Tillamook Bay	Coos Bay Bar
Netarts Bay	Coquille River
Siletz Bay	Rogue River
Depoe Bay	Chetco River
Yaquina Bay	

These areas are within the limits of the shaded area on the bar charts in this manual. Check with local Coast Guard Stations for specific areas.

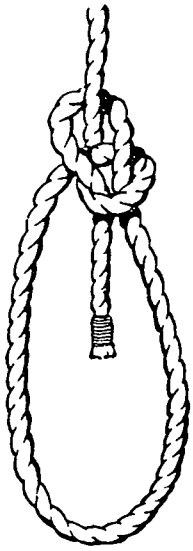
The regulation states: "The use of individual recreational boats can be terminated on the above-named bars or entrances when rough seas create a hazardous condition." The regulation will be enforced by specially trained Coast Guard boarding officers.

Fog

Fog is often encountered in coastal waters and is usually thick enough to hide all landmarks and other aids to navigation. When cruising or fishing along the coast or harbor entrance, make frequent observations of location, so at the first signs of fog, it will be possible to proceed to a sea buoy or, if practical, return to harbor.

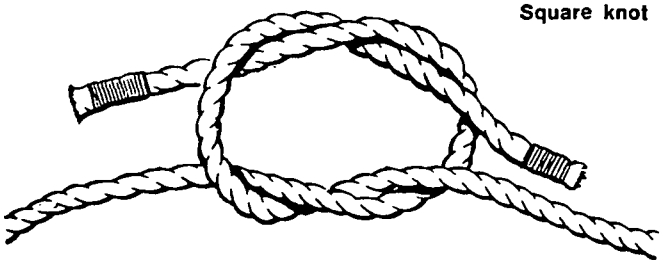
A good, properly aligned compass is one of the essential items for a vessel's operation along the coast. A vessel attempting to run in the fog without steering by a compass course would wander aimlessly. When departing and returning to the harbor, the compass course and the time required to run between buoys should be recorded for reference. One must remember that the area surrounding the compass should be clear of iron or other ferrous metal objects at all times, as they will cause compass errors.

In addition to the tidal currents, there are currents that run along the beaches north and south. These are sometimes



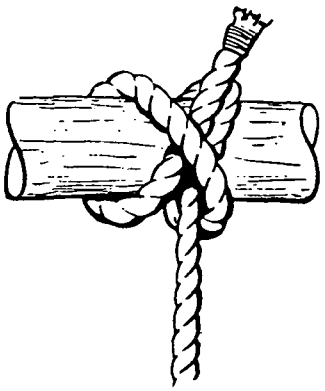
Bowline

Square knot

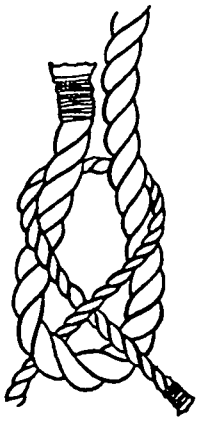


Knots to Know

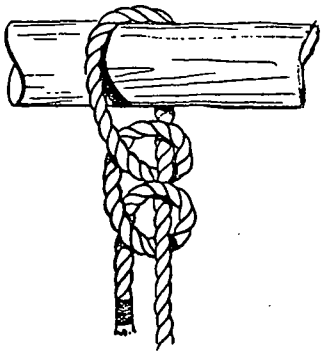
Knowing how and when to tie a few basic knots is indispensable for safe boating. Practice tying at least those shown here. The Coast Guard recommends knowing how to tie a **bowline** quickly in case the boater ever has to be towed to safety. It is a reliable knot for tying a line to any hardware eye or shackle. Use the **square knot** for tying together two lines of the same diameter. Beware of mistakes when tying the square knot; it is all too easy mistakenly to tie the treacherous granny knot when attempting a square knot. For connecting two lines of different size, use the **becket bend.** (The square knot will not hold with lines of different size.) A good knot — actually a hitch rather than a knot — for quickly securing a line to any vertical pole or post is the **clove hitch.** Use it only for a temporary tie-down. A second easy and reliable hitch for the same usage is the "turn" with **2 half hitches.** Finally, be able to **wrap a line about a cleat properly** so that the line will hold yet can be easily unfastened using the free end of the line.



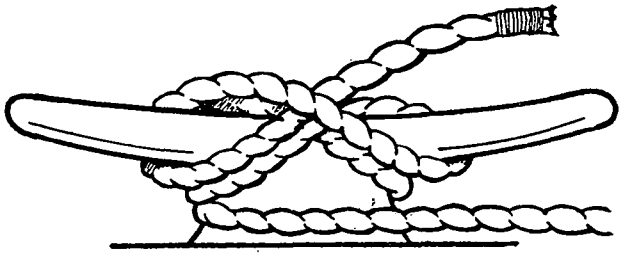
Clove hitch



Becket bend



Two half hitches



Correct method of making fast to a cleat

referred to as the "southerly set" or "northerly set." Careful operations are necessary to assure that these currents do not carry the boat off course or further from the harbor entrance than would normally be expected.

Boat operation during fog requires the boater to proceed at a slow speed and to keep a sharp lookout; stop occasionally and listen for other vessels, buoys, and the surf. If an operator is lost or is unsure of his or her whereabouts, it would be wise to anchor and wait for the fog to lift or help to arrive.

An inexpensive radar reflector or a metal object placed above the cabin on a light standard, or fixed as high as possible, will assist the Coast Guard in radar search — and help keep a boat from being run down!

As a reminder, International-Inland Navigational Rules require power boats operating under adverse conditions of reduced visibility to sound their whistles or horns: one prolonged blast of 4 to 6 seconds' duration at intervals of not more than 2 minutes. A ship at anchor must ring its bell rapidly for 5 seconds every minute. (Check the International-Inland Rules.)

Dangers Near Large Vessels

Large commercial ships frequently enter and leave the Columbia River, Yaquina Bay, and Coos Bay; and ocean-going tugs and barges make use of a number of the smaller ports. The size of these ships prevents their quick and easy maneuverability. Because of their deep draft, **they must stay** within the dredged ship channel.

Accordingly, within channels the Navigation Rules give deep-draft ships the right of way **under all circumstances.** When underway, such huge ships cannot stop readily, because of their tonnage. Their momentum through the water will carry them forward for a great distance despite engines being stopped or reversed. Common sense, courtesy, and the **law** (the Rules of the Road) require that small boaters let these vessels have a wide berth.

Boaters must realize there is a blind spot in the pilot's line of view from the bridge to the ship's bow. If a ship is bearing down on a smaller craft, the prudent boat operator will alter course promptly in order that the pilot will know his or her intentions. Remember: once the large vessel is on the bar or within the bay or river, it will have to remain in the confines of the channel or run aground.

Boaters should remember that if they are drifting off a harbor entrance and a large freighter or tanker is coming toward them, they should get underway immediately and clear the channel. In many ship-small boat collisions, it was found that the smaller craft's engine was slow to start, resulting in a disaster that could have been avoided.

From May through October, U.S. Army Corps of Engineers and contractor dredges are present in coastal harbor channels. Some dredges are held by anchor lines marked by buoys. Avoid both the lines and the dredge itself. Other dredges constantly maneuver. Do not pass in front of or cut in close to them. They cannot stop or turn easily.

Required Safety Equipment

Both Federal and Oregon law require that you have certain safety equipment aboard your boat at all times. For Oregon requirements, see the **Oregon Boaters Handbook,** latest edition, available from the Oregon State Marine Board.

Federal regulations are contained in **Federal Requirements for Recreational Boats,** available from your local Coast Guard Station.

Boats operating on coastal waters must be equipped with visual distress signals. The rules governing visual distress signals vary according to the size of your boat and its type of propulsion. For further information, ask for a copy of **Visual Distress Signals for Recreational Boaters** at your local Coast Guard Station.

Recommended Safety Equipment

In addition to equipment required by law, the prudent boater will carry the following extra gear:

1. Anchor with suitable line for anchoring.
2. Survival suits for all crew members.
3. Retroreflective tape on life jackets, vests, ring buoys, rafts and survival suits.
4. Emergency Position Indication Radio Beacon (EPIRB).
5. Flashlight with extra batteries.
6. First aid kit.
7. Local navigation charts by the National Ocean Survey.
8. Emergency rations and drinking water.
9. Reliable and accurate compass.
10. Spare engine parts and tools.
11. Bucket for bailing.

Any new line ½-inch in diameter will hold most small boats except in severe storms — provided there is a short length of chain ahead of the anchor. The length of the anchor line should be from 5 to 7 times the depth of the water in which the boat will be anchored. Ten to 12 feet of chain should be shackled to the anchor and fastened with a swivel to the anchor line. The long length of rope and the weight of the length of chain permit the anchor to lie flat on the bottom and the flukes to dig into the bottom to hold the boat. In severe storms, do not rely on any anchor and line to hold.

Another good practice of careful boaters is to equip their craft with a sturdy solid towing bitt located near the bow. Fastenings for the towing bitt should go through a metal plate attached to the inside of the hull to prevent the bitt from pulling out, in the event the craft is taken under tow during an emergency. Small bow rings, standard on many modern trailer boats, are not strong enough for towing at sea. They frequently break under stress, with disastrous results.

Coastal Bars, Bays, and Rivers

Each bar, bay, or river entrance on the Oregon coast presents its own set of challenges. The following pages present information on these waters that every boater should know before operating here. The descriptions are illustrated with aerial views of the channel entrances and annotated charts. Danger areas are represented on the charts by shading. In addition to buoys, aids to navigation in many of these channels include pairs of range markers. Steering a course to keep pairs of range markers in line will keep the boat within the channel.

Suggestions for Further Reading

Chapman, Charles F., *Piloting, Seamanship and Small Boat Handling,* latest edition (New York: Hearst Books, Motor Boating and Sailing Division).

Condon, Edward J., *Marine Fires: Preventing Them, Fighting Them,* Oregon State University Extension/Sea Grant Program Publication SG 44 (Corvallis, 1977). Single copies free from Agricultural Communictions, OSU, Corvallis, OR 97331-2119.

Condon, Edward J., *Six Ways to Sink Your Boat,* Oregon State University Extension/Sea Grant Program Publication SG 33 (Corvallis, revised 1980). Single copies free from Agricultural Communications, OSU, Corvallis, OR 97331-2119.

Condon, Edward J., and Edward Kolbe, *Radar Reflectors for Boats,* Oregon

State University Extension/Sea Grant Program Publication SG 41 (Corvallis, 1978). Single copies free from Agricultural Communications, OSU, Corvallis, OR 97331-2110.

Condon, Edward J., and Daniel A. Panshin, *Coastal Bars Can Be Dangerous: Tips for Crossing Safely,* Oregon State University Extension/Sea Grant Publication SG 57 (Corvallis, 1980). Single copies free from Agricultural Communications, OSU, Corvallis, OR 97331-2119.

Crawford, William P., *Mariner's Notebook: A Guide to Boating Fundamentals,* latest edition (San Francisco: Miller Freeman Publications, Book Division).

A Guide to Oregon Boating Facilities, latest edition (Salem, OR: Oregon State Marine Board).

Nautical Chart Catalog 2: United States Pacific Coast Including Hawaii, Guam and Samoa Islands, latest edition (Riverdale, MD: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey). Free from NOS and NOS agents; see page X.

Oregon Better Boating, correspondence course, latest edition (Salem, OR: Oregon State Marine Board).

Oregon Boaters Handbook, latest edition (Salem, OR: Oregon State Marine Board).

U.S. Coast Pilot 7: California, Oregon, Washington, and Hawaii, latest edition (Washington D.C.: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey). For sale by NOS and NOS agents: see page X.

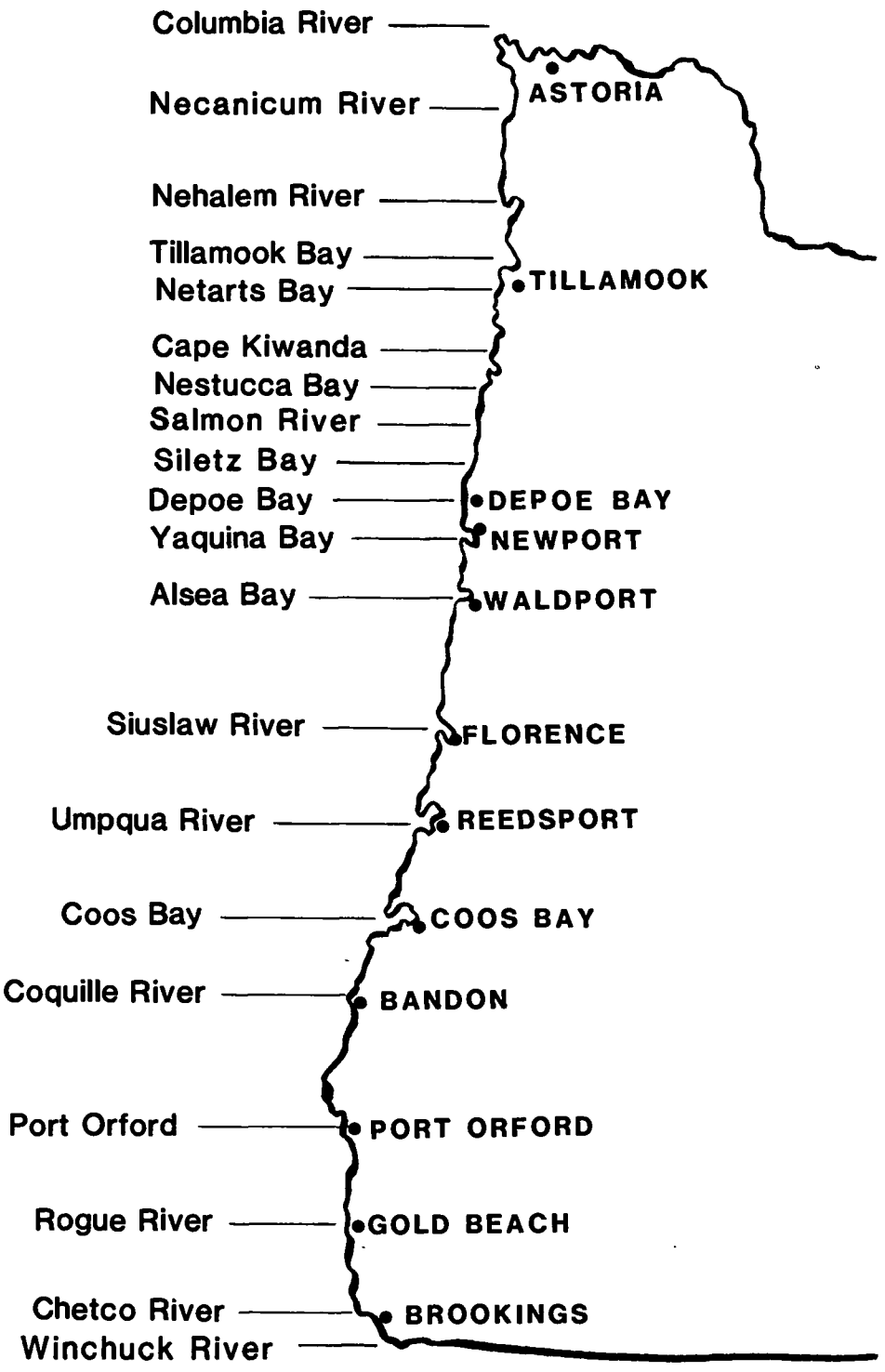


PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986

COLUMBIA RIVER **(See pages 14-15)**

Columbia River

Danger Areas

A. **Chinook Spur, Upper, Lower, and Middle Sand Island Spurs** are built on two rows of staggered pilings. Currents flowing through these pilings attain a velocity of up to 5 knots. A boat that becomes disabled or is maneuvered in such a way that it comes in contact with any of these spurs is almost sure to suffer damage. Even large boats have been capsized in these areas. Give these spurs a wide berth and never get close to them on the up-current side.

B. **Clatsop Spit** is the unpredictable area of the river entrance. During flood currents and slacks it may be relatively calm, with only a gentle swell breaking far in on the spit. Yet 5 or 10 minutes later, when the current has started to ebb, it can become extremely treacherous, with breakers extending far out toward the channel. Boaters should remain north of the red buoys in this area, particularly just before or during the ebb. The south jetty has a section broken away on the outer end. The broken section is under water, close to the surface. Boaters should use extra caution in the area from the visible tip of the jetty to buoy #2SJ.

C. **Jetty A,** which is southeast of Cape Disappointment, presents a particular danger when the current is ebbing. Water flowing out of the river is deflected by the jetty, and frequently the current reaches 8 knots. This often causes waves up to 8 feet high. Boats proceeding into Baker Bay west channel make very little speed against the swift current and are exposed to the rough water (or surf on rough days) for long periods of time. The shallow, sandy area should be avoided by small craft when heavy seas are running because of the surf that breaks on the beach.

D. **Peacock Spit.** Breakers are heavy in any type of current. Sports craft leaving the river should **never** be on the north side of the black buoys. When rounding Peacock Spit, even on a calm summer day, one should give the breakers at least a half-mile clearance. Many times on these same summer days "sneakers," unusually large swells coming in from the sea, suddenly commence breaking ¼ to ½ mile outside the usual break on the end of the north jetty.

E. **Middle Ground.** This is a shallower area between the north jetty and the main ship channel that is subject to breaking seas when swells as small as 4 feet are present. Conditions can change in minutes with tide current changes.

Bar Condition Reports

KVAS (1230 kHz) and KAST (1370 kHz): 15 minutes before and after the hour.

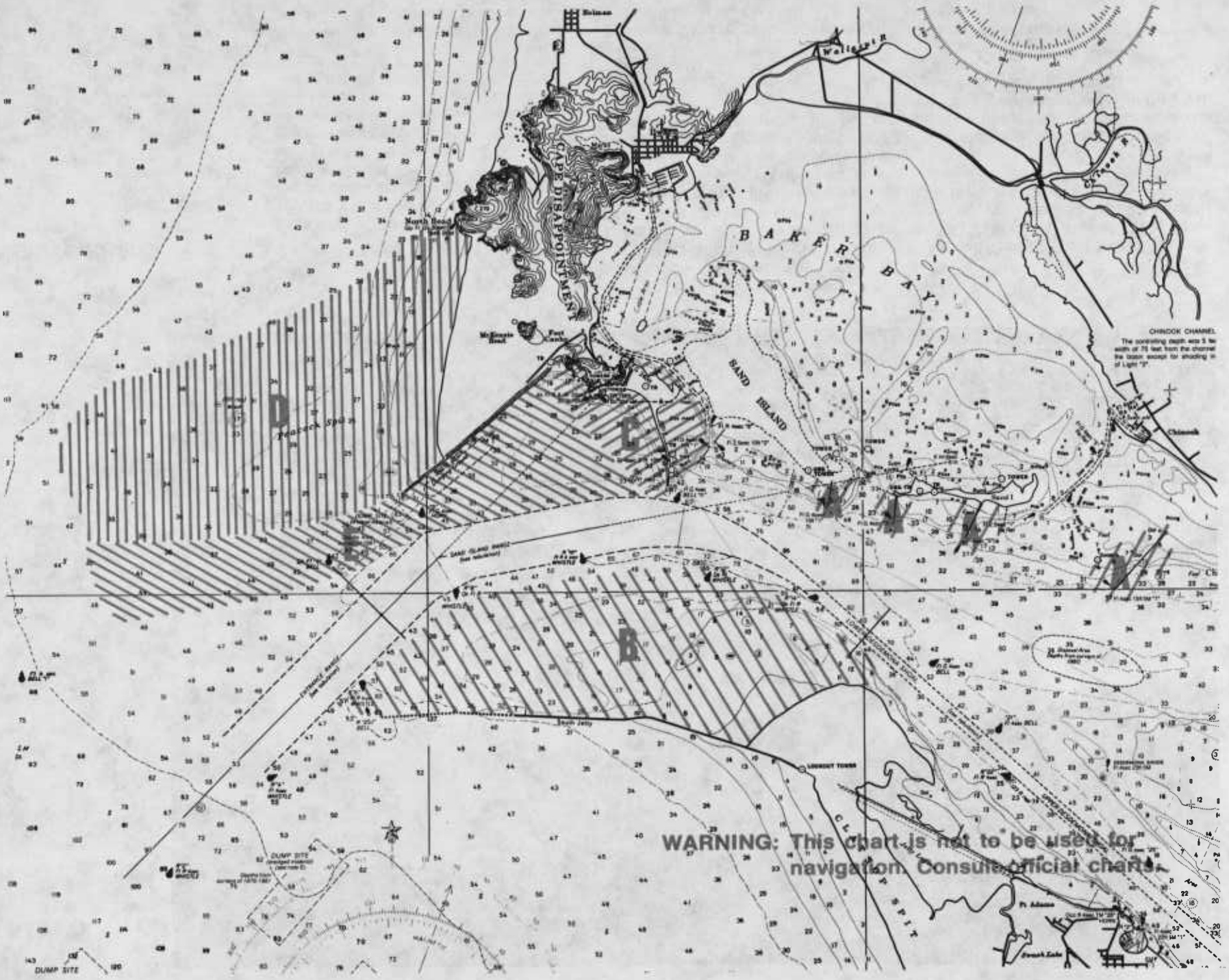

CAPE DISAPPOINTMENT
BAKER BAY
SAND ISLAND
Peacock Spit
CHINOOK CHANNEL
DUMP SITE
WARNING: This chart is not to be used for navigation. Consult official charts.

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, JULY 1984.

Nehalem River

Danger Areas

A. **Crab Rock.** Crab Rock is located about 150 years southwest of Jetty Fisheries Resort docks and is a hazard to small boats when it is covered by water. The hazard is sometimes marked by a privately maintained red buoy just westward of the rock. If the buoy is present, stay to the right of it when outbound and to the left when inbound.

B. **Bar area.** The entire area between the beach and the 30-foot curve is bar area and breaks on the ebbing current. The safest channel across the bar is subject to frequent change. Boats proceeding out should stop just inside the entrance and carefully evaluate the bar. If a decision is made to cross, pick the calmest area and proceed, but do not attempt to turn around if the bar is breaking.

Entrance

The best water is close to the south jetty. The channel seaward of the jetties is continually shifting, and local knowledge is needed to cross it safely. The range markers, therefore, do not necessarily show the exact channel.

Jetties

During the boating season, a red buoy is placed off the seaward end of the south jetty. You should always **stay to the north** of this buoy when traversing the area.

Bar Condition Reports

KTIL (1590 kHz): twice daily and when conditions change.

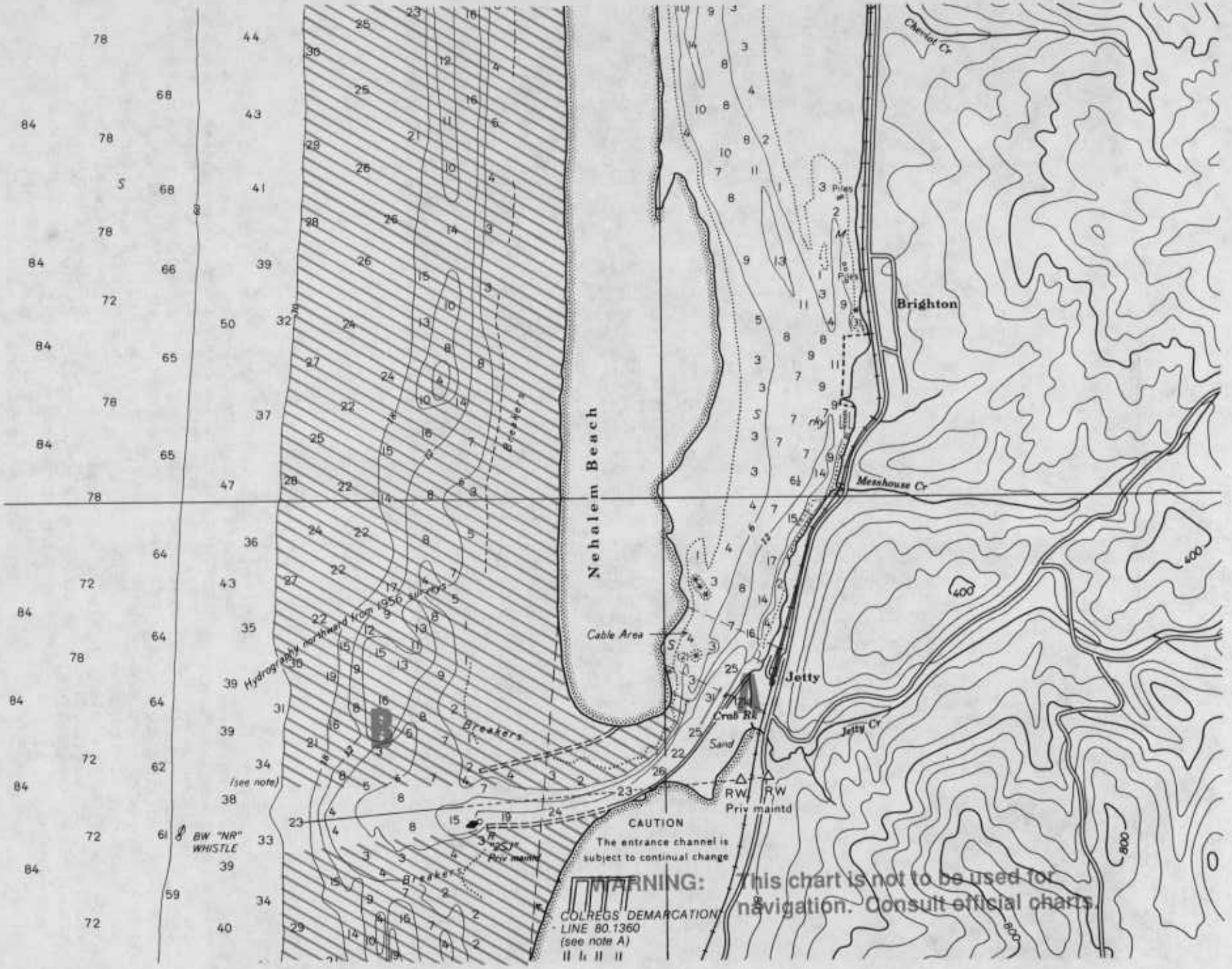

Nehalem Beach
Brighton
Chemlot Cr
Messhouse Cr
Jetty
Jetty Cr
Crab Rk
Cable Area
Breakers
Hydrography northward from 1950 survey
(see note)
BW "NR" WHISTLE
RW
RW
Priv maintd
CAUTION
The entrance channel is subject to continual change
COLREGS DEMARCATION LINE 80.1360 (see note A)
Sand
400
600
800
WARNING: This chart is not to be used for navigation. Consult official charts.

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, JULY 1984.

Tillamook Bay

Danger Areas

A. Bar area. The entire area between the beach and the 20-foot curve is **bar area** and breaks on the ebbing current. The water runs out from 4 to 6 knots on the average and is very strong. Boats proceeding out should stop in the channel east of the seaward end of the breakwater and carefully evaluate the bar. If a decision is made to cross, proceed out — but do not attempt to turn around if the bar is breaking.

B. North jetty. About 100 yards of the outer end of the north jetty is submerged. This area and the portion of the channel just south of it are extremely dangerous. Avoid the sunken jetty and use caution in the channel south of it.

Channel

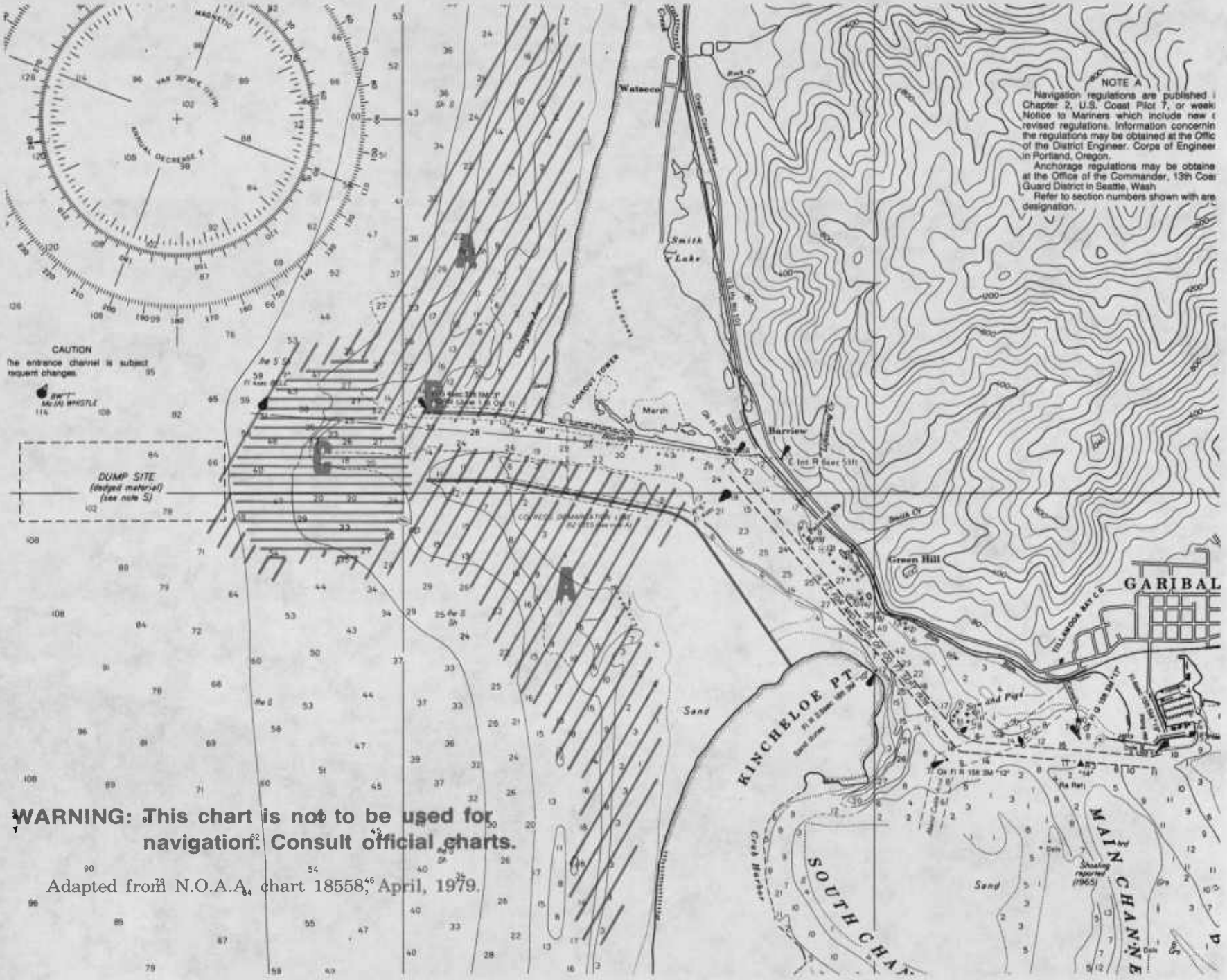
Tillamook Bay channel lies just south of the north jetty. Navigate with extreme caution. This channel changes constantly because of continual natural silting and scouring. Obtain up-to-date information on channel conditions from the Coast Guard or other autoritative local sources. Do not rely on the range markers without first inquiring whether they mark the present channel location.

Rough Bar Advisory Sign

Positioned on same structure as Tillamook Bay entrance range front light.

Bar Condition Reports

KTIL (1590 kHz): twice daily and when conditions change.



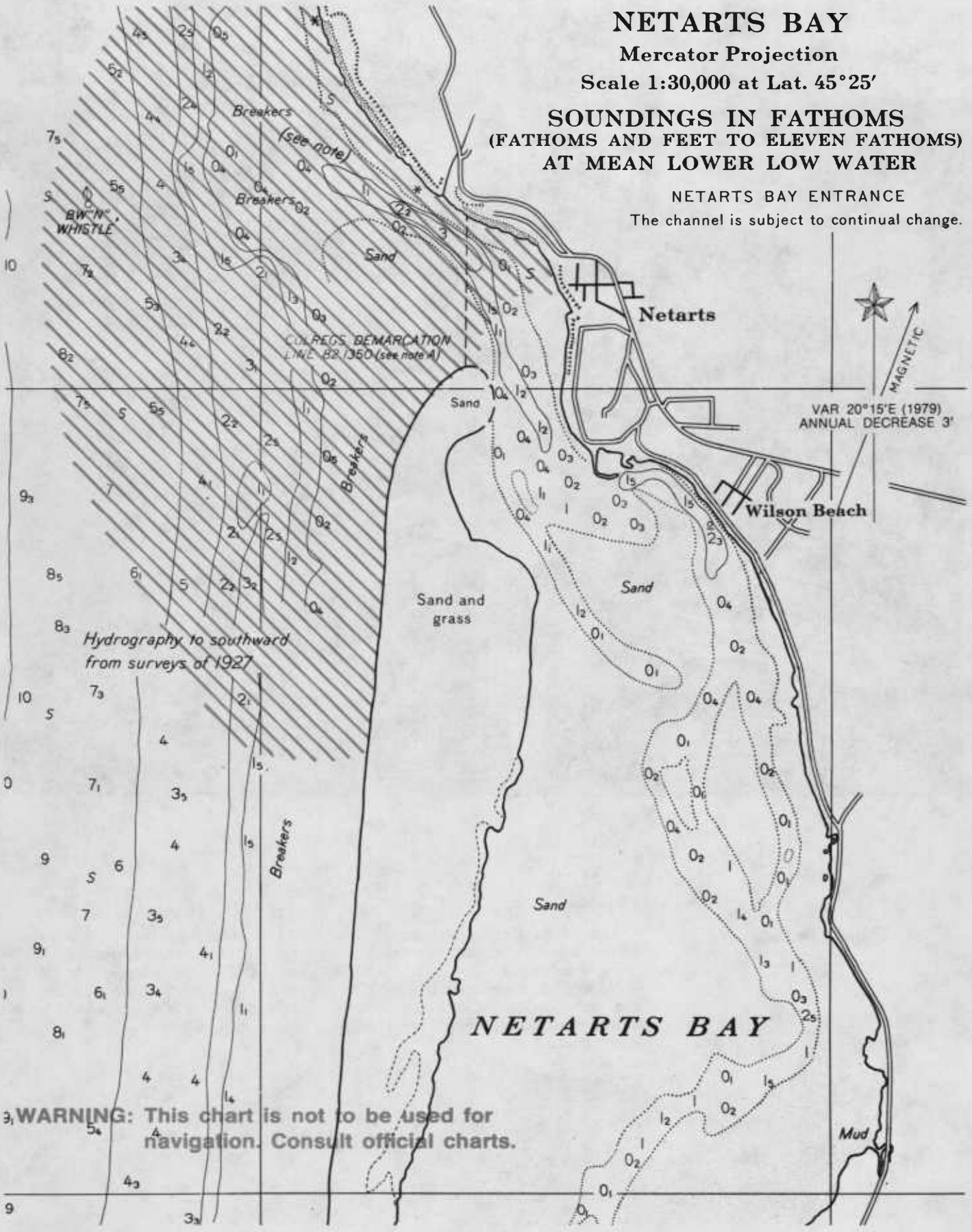
WARNING: This chart is not to be used for navigation. Consult official charts.

Adapted from N.O.A.A. chart 18558, April, 1979.

Netarts Bay

Netarts Bay is shallow with numerous sand bars that are exposed at low water. There are no jetties at this entrance. Very few boats cross the bar, and they cross only when the most favorable conditions exist.

There is considerable sport fishing and crabbing inside the bay. Boats fishing inside the bay should exercise caution on the ebb tide when near the bar, as the strong current can pull a small boat out over the bar and into the surf.


NETARTS BAY
Mercator Projection
Scale 1:30,000 at Lat. 45°25'
SOUNDINGS IN FATHOMS
(FATHOMS AND FEET TO ELEVEN FATHOMS)
AT MEAN LOWER LOW WATER
NETARTS BAY ENTRANCE
The channel is subject to continual change.
Netarts
Wilson Beach
MAGNETIC
VAR 20°15'E (1979)
ANNUAL DECREASE 3'
COLREGS DEMARCATION
LINE B2 350 (see note A)
Breakers
(see note)
Breakers
Breakers
Breakers
Sand
Sand
Sand and grass
Sand
Sand
Mud
Hydrography to southward from surveys of 1927
NETARTS BAY
WARNING: This chart is not to be used for navigation. Consult official charts.

Cape Kiwanda

One of the great attractions at Cape Kiwanda is dory fishing, with the dories being launched and landed through the surf. Dory fishermen report that spectators can create a serious problem, as they crowd around on the beach to watch the dories land.

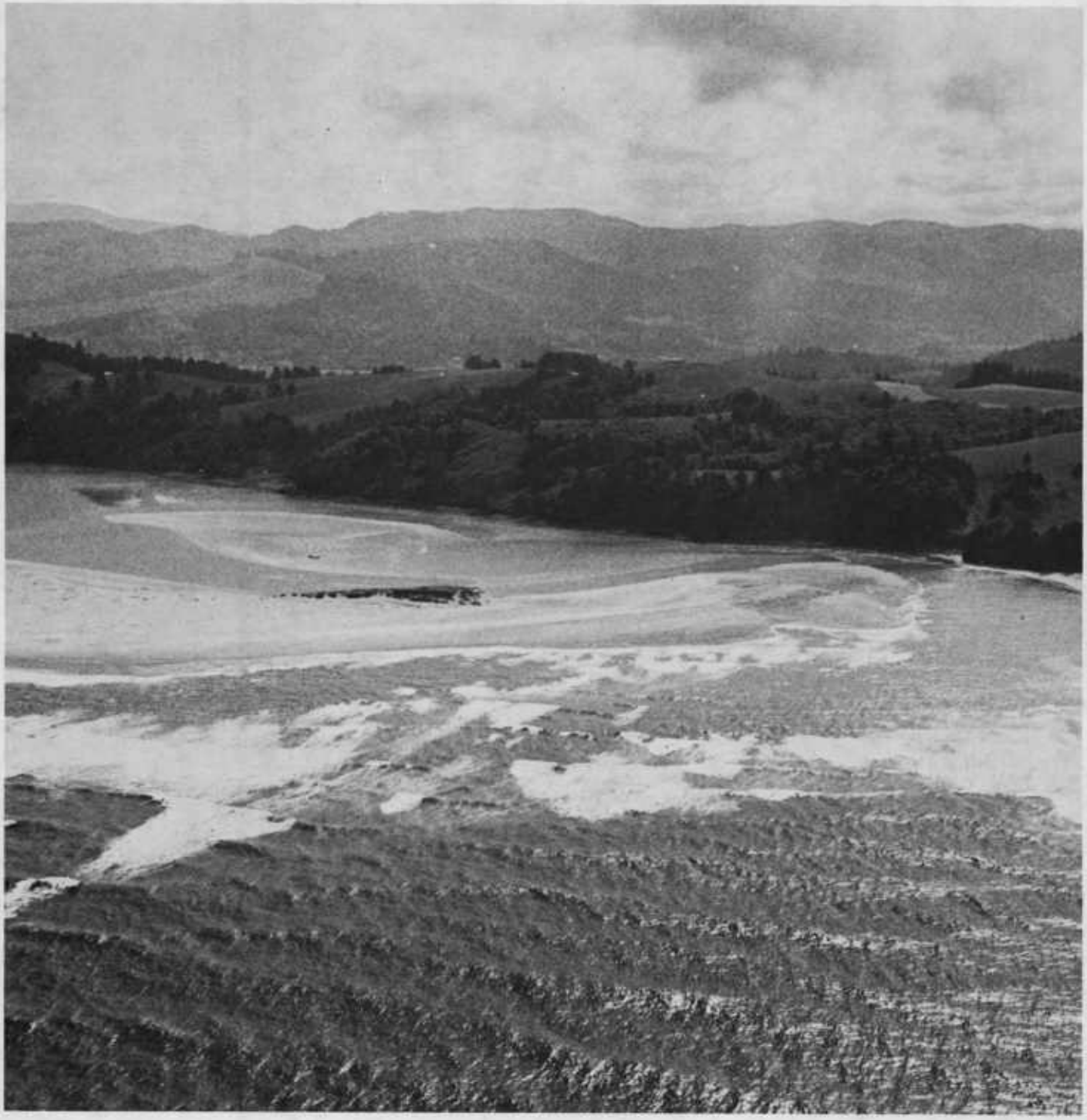
Spectators, for their own protection, are requested to allow the dories considerable amount of room for landing, as the surf moves the dories up on the beach, and it is at this point that dorymen have very little control over their craft.

NECANICUM RIVER

Dangerous—not suitable for bar crossings.

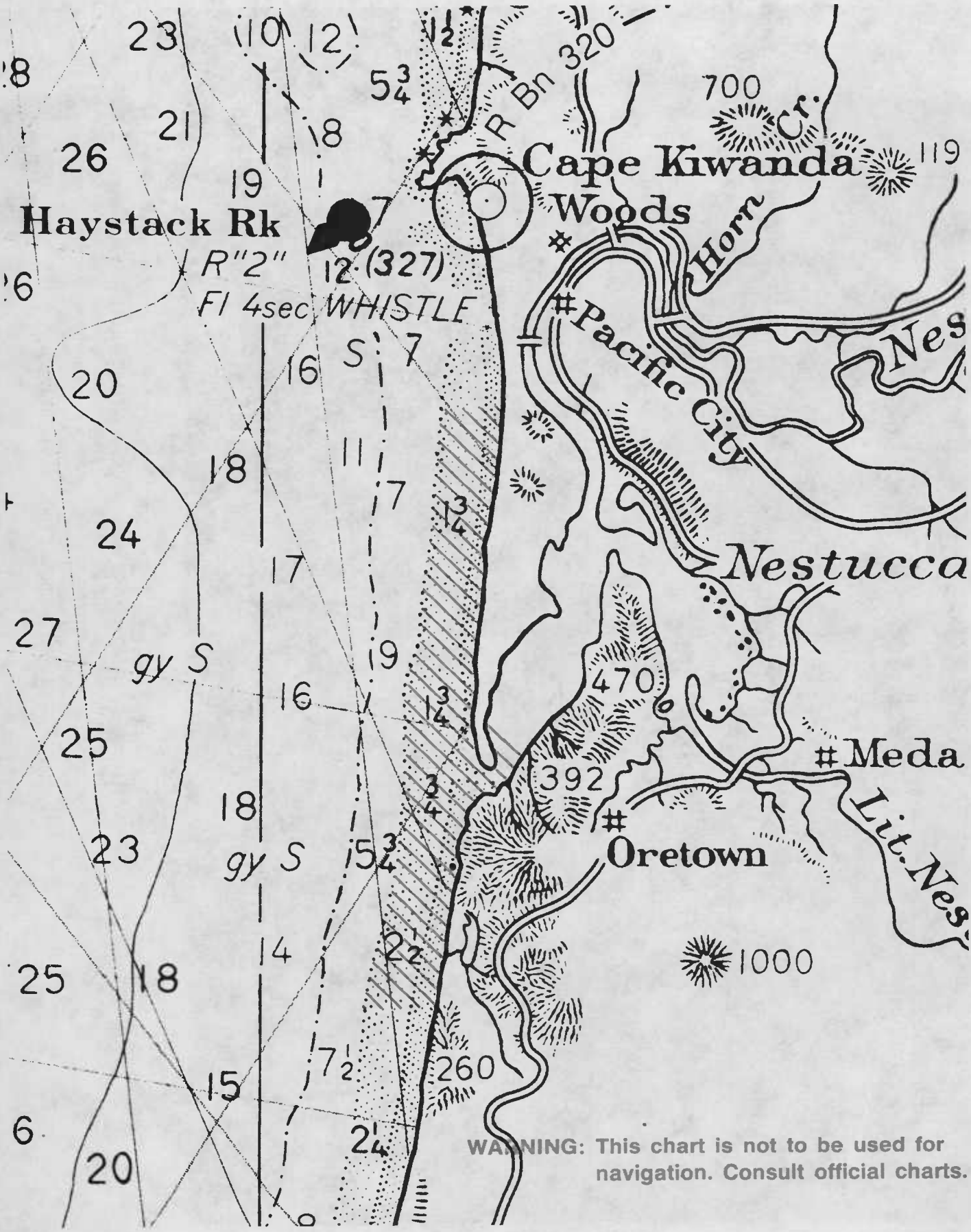
SALMON RIVER

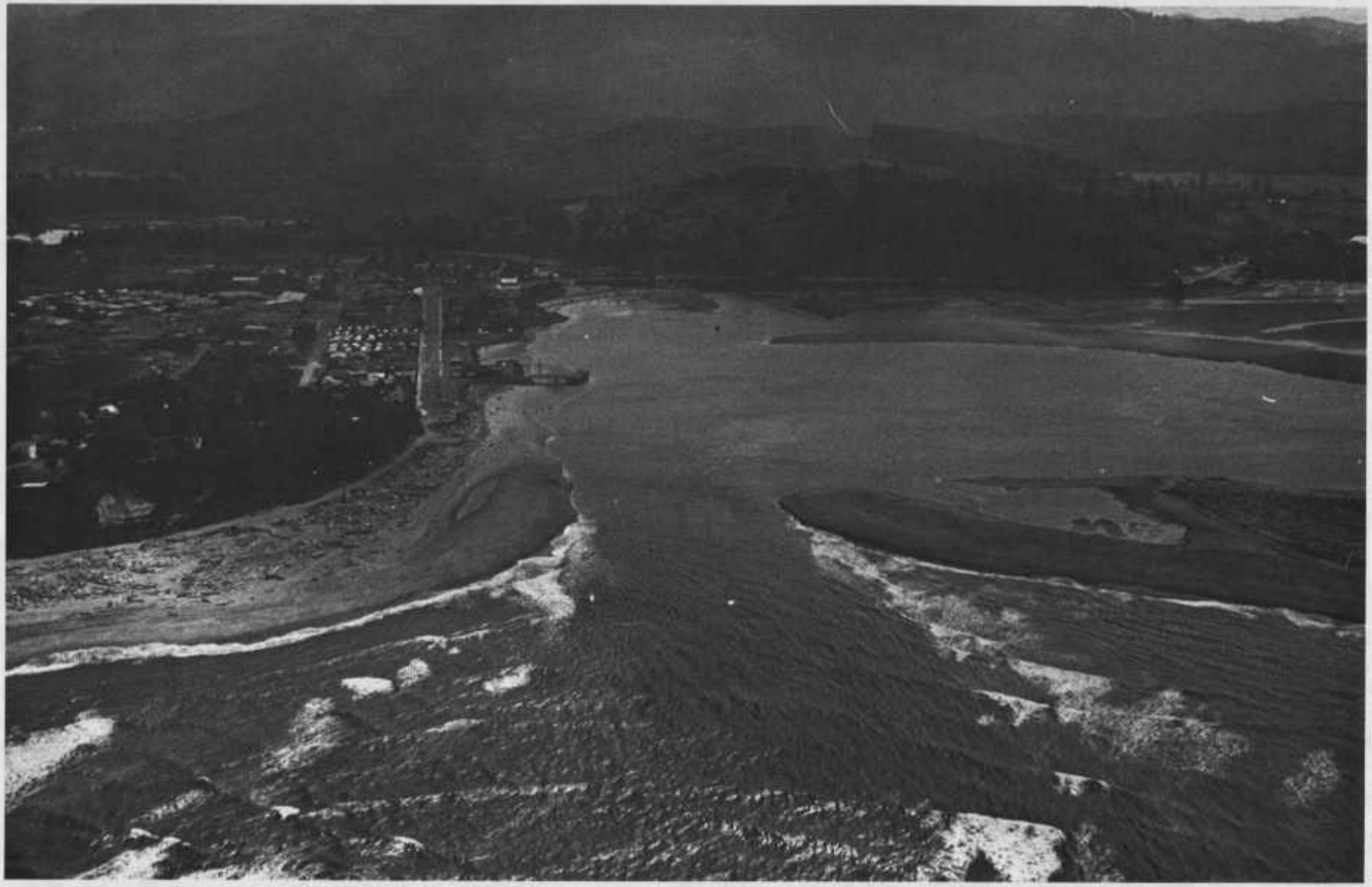
Dangerous—not suitable for bar crossings.



Nestucca Bay

Entrance to Nestucca Bay is used rather infrequently because of the continual shifting of sand bars and shoaling. To the north of the entrance is Cape Kiwanda, giving protection from northwesterly winds, which are predominant during the summer months.


Haystack Rk
R"2"
Fl 4sec WHISTLE
Cape Kiwanda
Woods
Pacific City
Horr Cr.
Nestucca
Meda
Oretown
Lit. Nes
700
119
470
392
1000
260
R Bn 320
gy S
gy S
WARNING: This chart is not to be used for navigation. Consult official charts.



Siletz Bay

The majority of the boat traffic is concentrated on the river or in the bay channels at Siletz Bay. Since there are no jetties at the bay's entrance, and because of the shallow channel, there is usually surf. On the strong ebb tide, the current reaches 5 to 7 knots at the entrance, which is force enough to pull an underpowered boat, or a vessel having engine failure, out over the bar into the ocean.

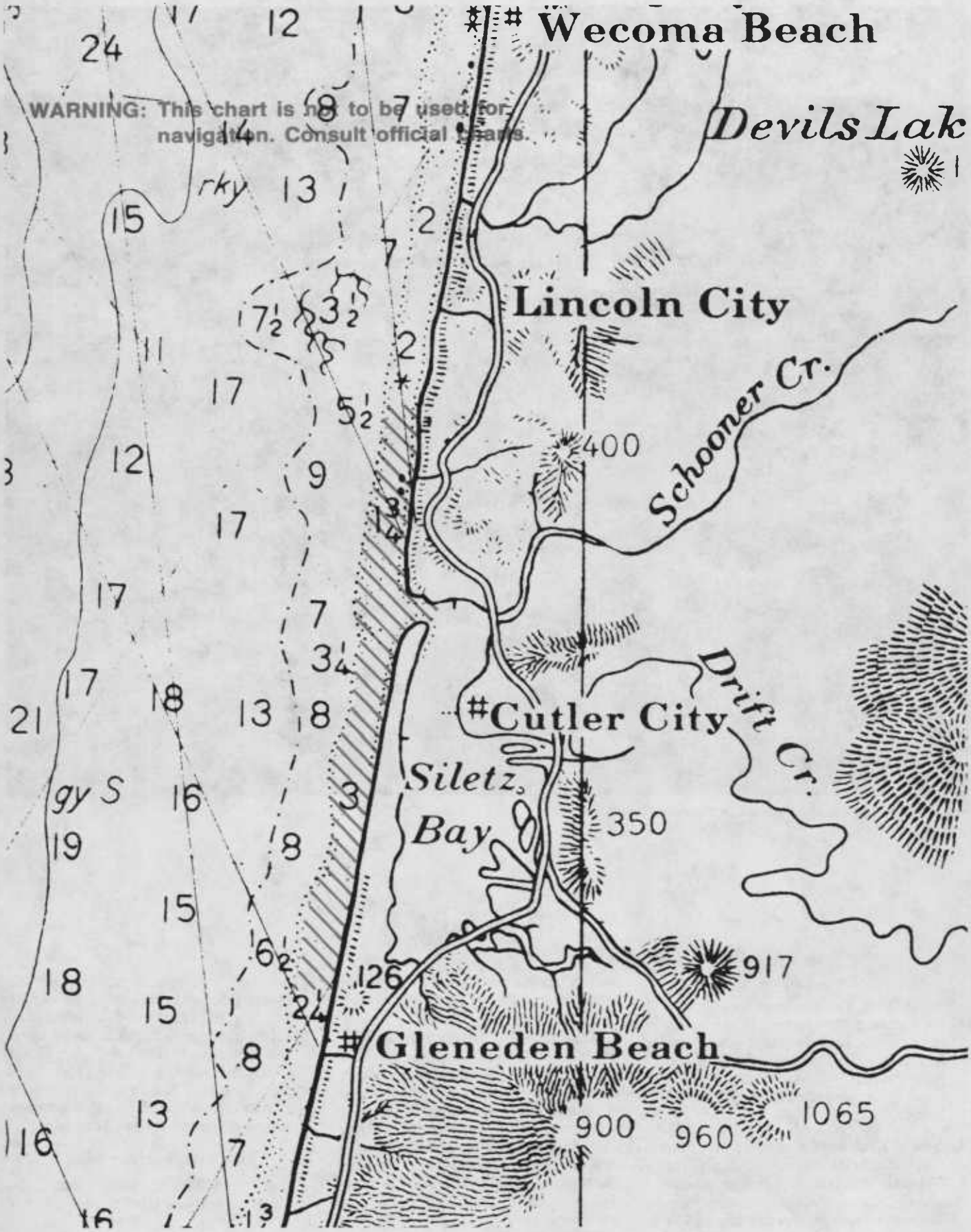

Wecoma Beach
WARNING: This chart is not to be used for navigation. Consult official charts.
Devils Lak
Lincoln City
Schooner Cr.
400
Drift Cr.
Cutler City
Siletz Bay
350
917
Gleneden Beach
900
960
1065

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Depoe Bay

Danger Areas

A. North Reef. Once a boat has cleared the entrance, any waters to the north are hazardous until the red gong buoy is reached. The seas break from the northwest and southwest at the same time, so this area must be avoided at all times.

B. South Reef. Better known as Flat Rock, this area lies just south of the channel. Breakers are almost always present in this area. Boats coming from the south should never use this area as a short cut to the channel. This area should be avoided by boats at all times.

C. Channel from red bell buoy in (approximately 1000 yards). The passage into and out of Depoe Bay is unusually short and difficult. The Coast Guard recommends studying it before attempting to operate a boat in it. They also recommend knowing what a drogue is and how to use one. Because the North and South Reefs are so close to the channel, this area sometimes becomes very hazardous. During adverse conditions, breakers from the North Reef will cross the channel and run into the entrance. When this condition exists, it is better to stand by at the entrance buoy until the Coast Guard advises it is safe to enter, or is there to escort boats in. An important rule at Depoe Bay: **Never fish between the entrance and the red gong buoy.**

Rough Bar Advisory Sign

Positioned 25 feet above water, on building on north side of entrance channel.

DEPOE BAY

Scale 1:10,000

SOUNDINGS IN FATHOMS

(FATHOMS AND FEET TO ELEVEN FATHOMS)

AT MEAN LOWER LOW WATER

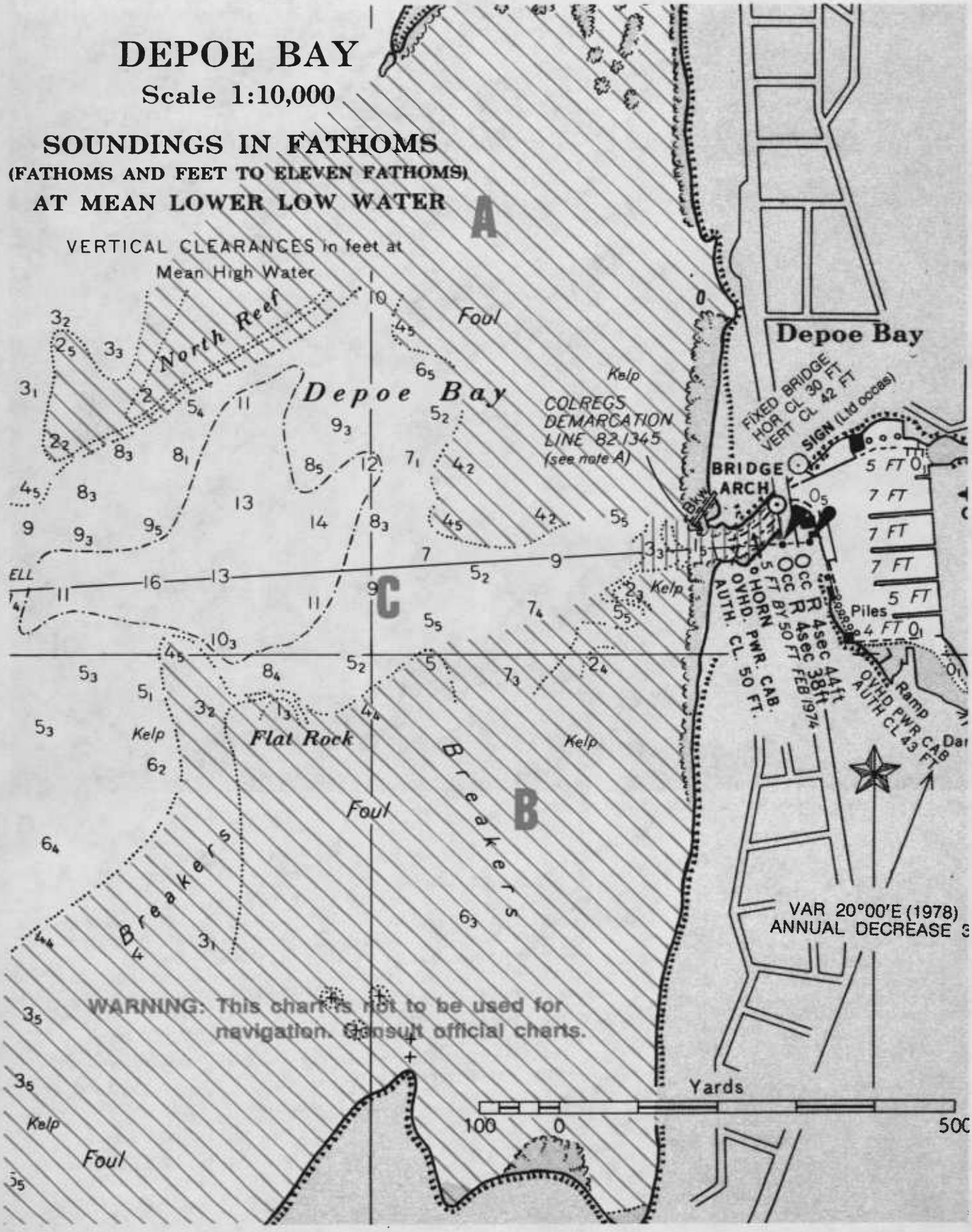


PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Yaquina Bay

Danger Areas

A. **South jetty.** There are submerged rocks along the length of the jetty; do not hug the jetty on either side. Boaters should remain in the channel entering and leaving the river so that if their engines should fail, they will have time to anchor before the current or wind sweeps them onto the rocks.

B. **North jetty.** This jetty affords excellent protection from northerly winds. However, the same caution should be exercised in running close to it as with the south jetty. On an ebb tide stay well clear, up to the end of the north jetty, as there is danger of being swept into the breakers at the extreme end. Remain in the channel outbound until buoy #3 has been passed, at the south end of Yaquina Reef. This apples to entering the river as well as leaving.

C. **South Reef.** This reef can be considered an extension of Yaquina Reef and is equally dangerous because of the same surf conditions that one encounters on Yaquina Reef. When going south, continue out the channel to the lighted bell buoy #1 before turning south.

D. **Yaquina Reef.** This reef is always extremely dangerous, even when the winds are light and few breakers are seen. A large swell coming from seaward can cause a tremendous breaker on this reef with little or no warning, even when the sea is otherwise calm. Never fish close to the reef, and do not turn north between the end of the north jetty and buoy #3.

Rough Bar Advisory Sign

Positioned on shore, west end of Coast Guard pier.

Bar Condition Reports

KNPT (1310 kHz): **summer,** three times daily and at Coast Guard request; **winter,** twice daily and at Coast Guard request.

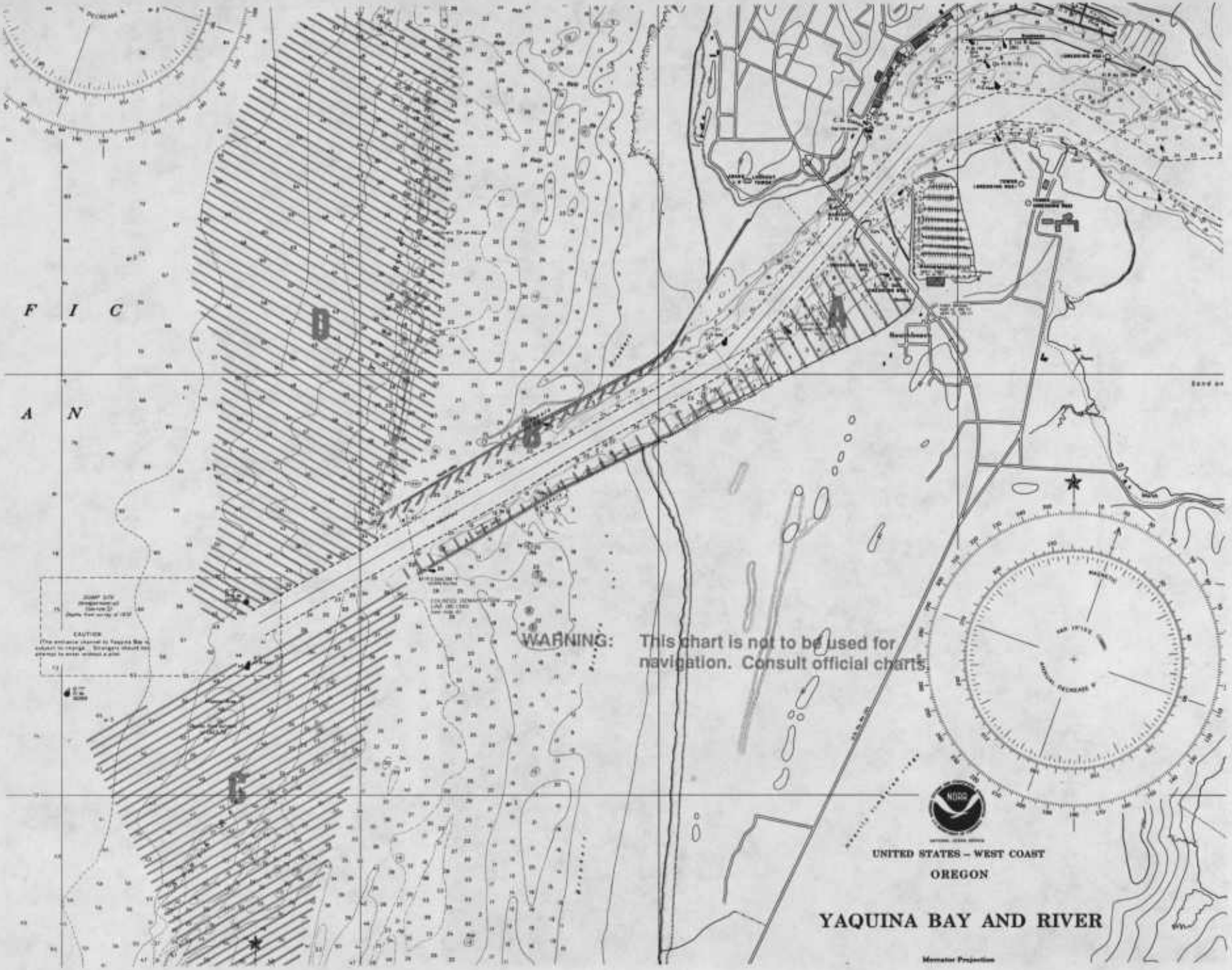

F I C
A N
WARNING: This chart is not to be used for navigation. Consult official charts.
UNITED STATES – WEST COAST
OREGON
YAQUINA BAY AND RIVER
Mercator Projection

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Alsea Bay

There are no jetties at Alsea Bay. With the bar shifting frequently, the entrance is not stable.

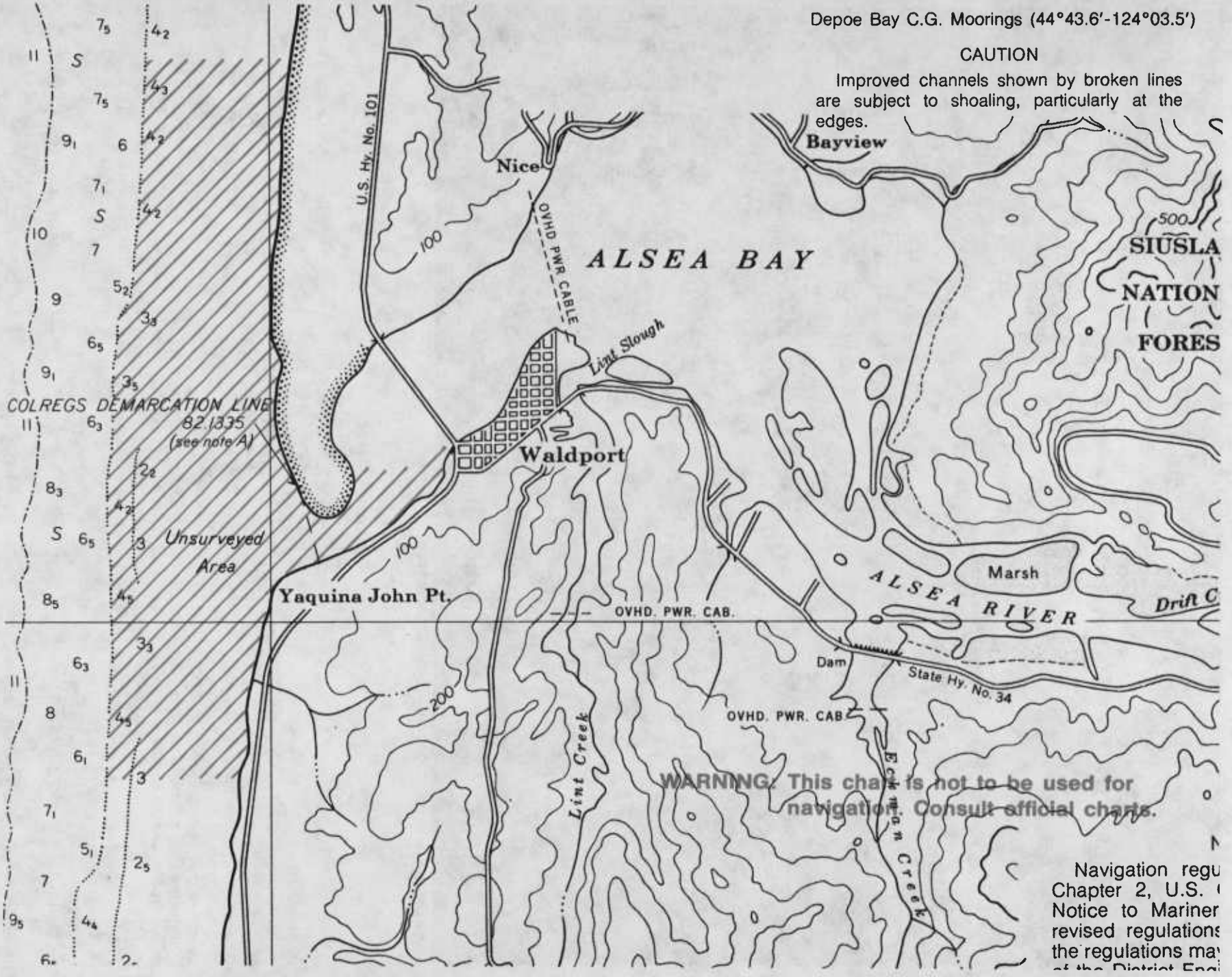

Depoe Bay C.G. Moorings (44°43.6'-124°03.5')
CAUTION
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.
Bayview
Nice
U.S. Hy. No. 101
OVHD. PWR. CABLE
ALSEA BAY
Lint Slough
SIUSLA
NATION
FORES
COLREGS DEMARCATION LINE
82.1335
(see note A)
Waldport
Unsurveyed Area
Yaquina John Pt.
OVHD. PWR. CAB.
Marsh
ALSEA RIVER
Dam
State Hy. No. 34
OVHD. PWR. CAB.
Lint Creek
Eckman Creek
100
200
500
WARNING: This chart is not to be used for navigation. Consult official charts.
Navigation regu
Chapter 2, U.S.
Notice to Mariner
revised regulations
the regulations ma

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Siuslaw River

Danger Areas

A. Shoal water, northeast side of channel, has a depth of 2½ to 3 feet of water at high tide.

B. Shoal water, south side of channel, extends from #7 buoy, well inside the bar, all the way out to the south of #5 buoy (gong). Breakers in this area are common, even with a small swell running.

C. Outer end of south jetty. Breakers are almost always present in this area. When the seas are from the southwest or west, breakers may extend out past the gong buoy.

D. Outer end of north jetty. Swells break over and just inside the north jetty when the seas are running 3-5 feet, especially on ebb tide. When the seas are from the west, the breakers may extend all the way out to the gong buoy.

Channel

Siuslaw River channel lies along the northern half of the river entrance. Water depth ranges from 6 to 20 feet. When crossing the entrance, boaters should stay in the middle of the channel rather than the northern edge, where breakers may be present.

Bar

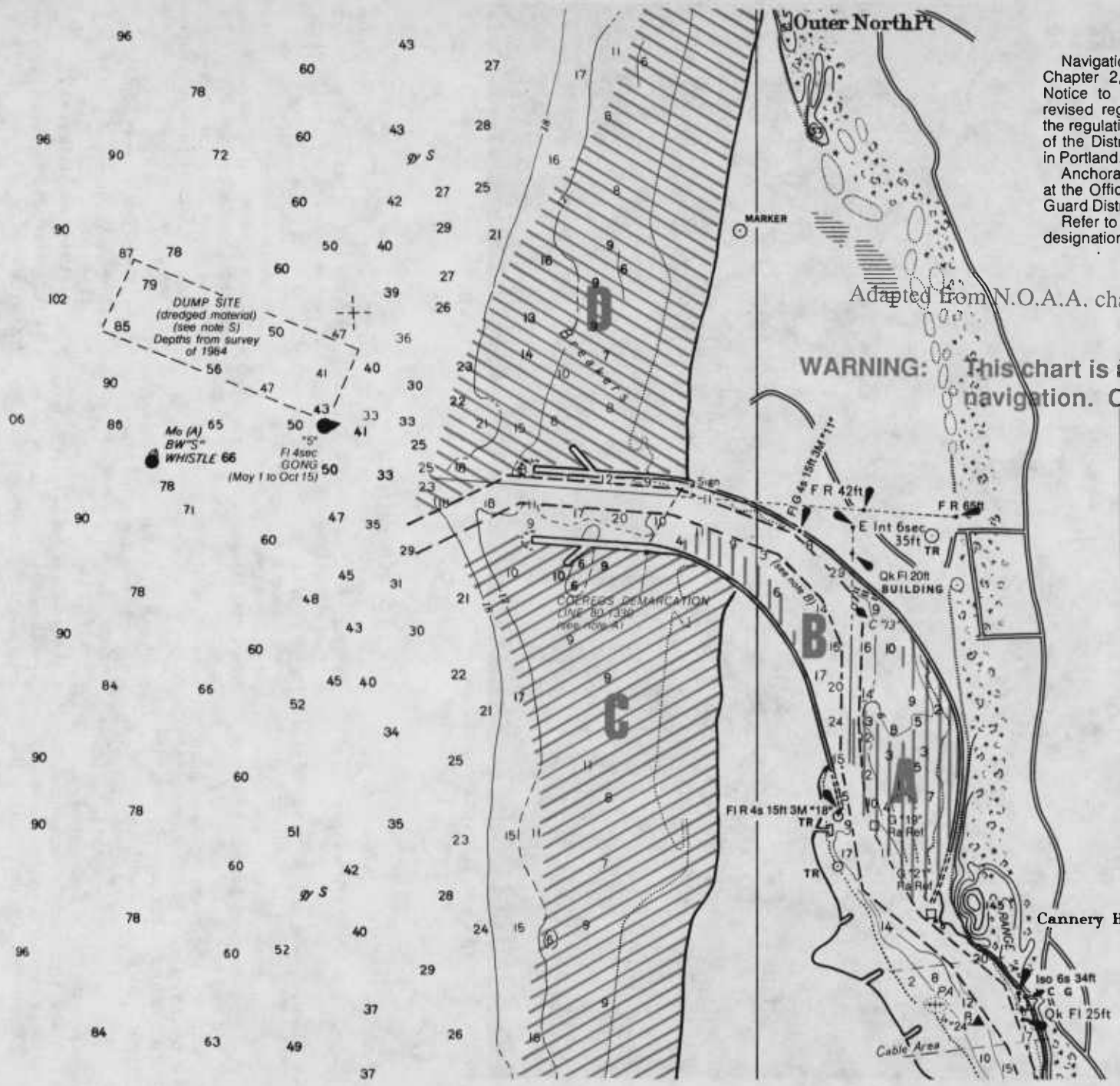
The Siuslaw River bar has a very narrow channel extending out past the jetties. Unlike larger bars on the Oregon coast, the Siuslaw River bar may be rendered impassable for small boats by a moderate swell, particularly at ebb tide. Boaters should use extreme caution when operating near this bar.

Bridge

Clearance beneath the Siuslaw River bridge is low. Use caution when crossing under the bridge on the flood tide, to avoid damaging superstructure such as antennas and troll poles.

Rough Bar Advisory Sign

Positioned on Coast Guard tower, facing 150° True.



Adapted from N.O.A.A. chart 18583, March 1985.

WARNING: This chart is not to be used for navigation. Consult official charts.

CONTROLLING DEPTHS FROM SEAWARD IN FEE	
NAME OF CHANNEL	LEF DUTS DUAR
ENTRANCE TO HIGHWAY BRIDGE	8
TURNING BASIN	12
TURNING BASIN TO CUSHMAN	9
NOTE-CONSULT THE CORPS OF ENGINEERS FOR	

PRODUCED BY COMPUTER ASSISTED METHODS

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7, or weekly Notice to Mariners which include new or revised regulations. Information concerning the regulations may be obtained at the Office of the District Engineer, Corps of Engineers in Portland, Oregon.

Anchorage regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, Wash

Refer to section numbers shown with area designation.

Regulations for ocean
220-229. Additional inf
quirements for use of the
Protection Agency (EPA)
of EPA offices.

NOTE B

CAUTION

The entrance to Siuslaw Riv
to frequent change. Buoys 10
not charted as they are frequ
in position.

RADAR REFLECTO

Radar reflectors have been pl
floating aids to navigation. In
reflector identification on these
omitted from this chart.

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, 1984.

Umpqua River

Danger Areas

A. **Middle Ground and North Spit.** The North Spit is to the right when proceeding down the Umpqua River, starting from the first rock spar jetty and long pier on the east side of the channel. The North Spit has small breakers when a swell is running, and gets rougher as one proceeds along the north jetty. The North Spit is very dangerous because large breakers may come into this area from the Middle Ground. The North Spit meets the Middle Ground at the outer end of the training jetty. The Middle Ground area extends from the north jetty to the black bell buoy. This area is dangerous because a litte swell can create large breakers which may capsize a vessel. Boaters should not linger near the mouth of the river during ebb tide, for if their power fails, their boats could be carried out to sea before an anchor would be effective or oars could be put to work.

B. **South jetty.** The area south of the south jetty can be very dangerous. Whenever breakers are observed, boaters should avoid this area.

C. **Leaving Salmon Harbor.** When leaving Salmon Harbor, boaters should remain in the main channel until clear of the end of the sea wall, which extends out to #2 fog signal and light.

Range Markers

The range marker consists of a red rectangular shape with a black vertical stripe mounted on a skeleton tower. By steering a course that keeps the two range markers in line, boaters will remain within the channel.

Rough Bar Advisory Sign

Positioned on shore.

Bar Condition Reports

KDUN (1470 kHz): **summer,** daily on the daylight hours.

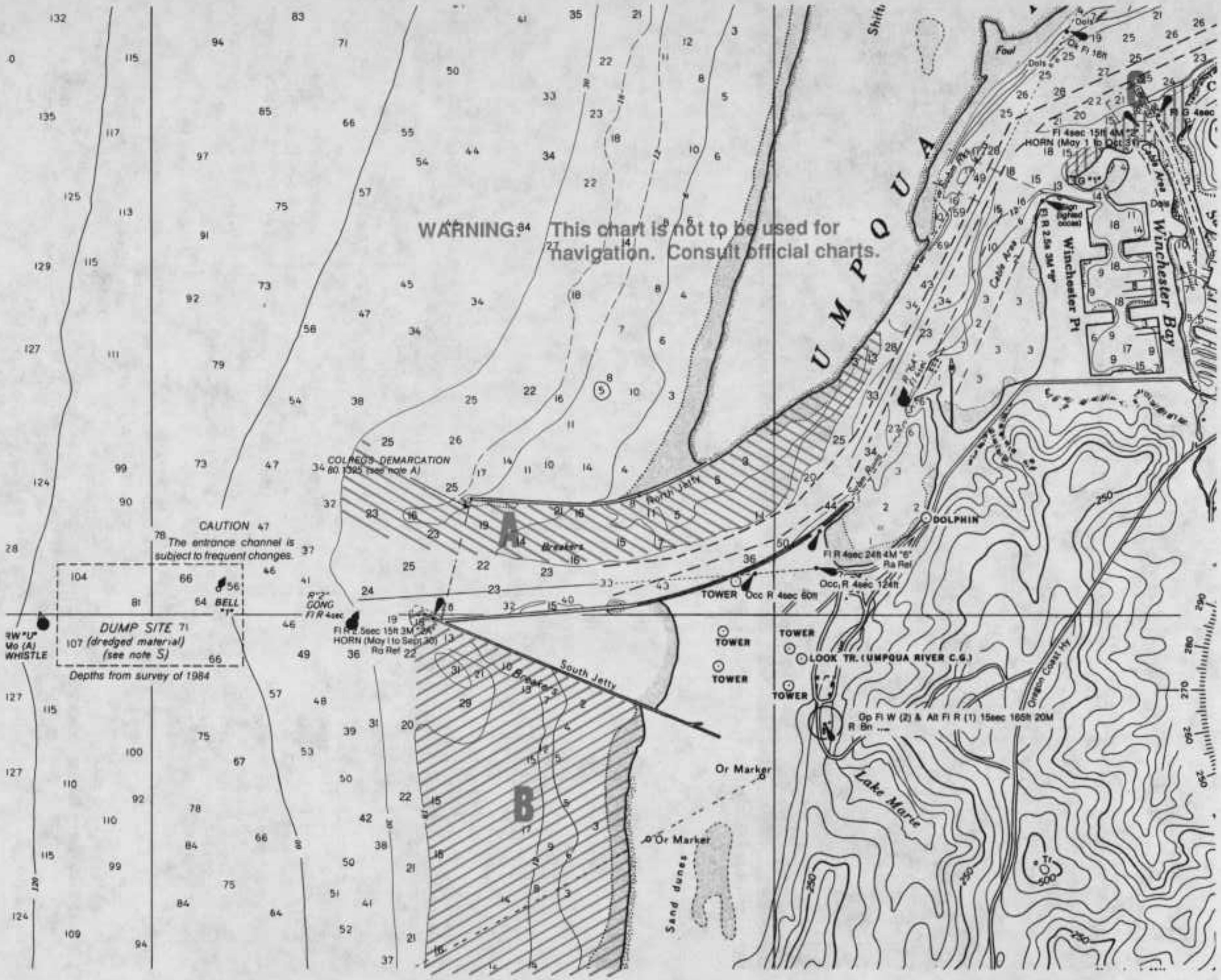

WARNING: This chart is not to be used for navigation. Consult official charts.
CAUTION
The entrance channel is subject to frequent changes.
DUMP SITE
107 (dredged material) (see note S)
Depths from survey of 1984
COLREGS DEMARCATION 80.1395 (see note A)
RW "U" Mo (A) WHISTLE
BELL
R "2" GONG Fl R 4sec
North Jetty
South Jetty
Breakers
A
B
TOWER
TOWER Occ R 4sec 60ft
Occ R 4sec 124ft
LOOK TR. (UMPQUA RIVER C.G.)
DOLPHIN
Gp Fl W (2) & Alt Fl R (1) 15sec 165ft 20M
Or Marker
Sand dunes
Lake Marie
Oregon Coast Hy
UMPQUA
Winchester Bay
Winchester Pt
Cable Area
Foul

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Coos Bay

Danger Areas

A. **Sand Spit, South Slough.** As you leave the Charleston Boat Basin, the South Slough Sand Spit is on your left. This area can be crossed by small craft at high water. It extends north, parallel to the channel from South Slough buoy #4, approximately 450 yards toward South Slough light #2. Presently, nun buoy #2T marks the north end of the sand spit. **Do not cross this area.**

B. **Submerged jetty.** Proceeding out from the Charleston Boat Basin in the South Slough Channel, when you are directly between South Slough light #2 and can buoy #3, directly ahead will be South Slough light #1, which marks the end of the submerged jetty. This jetty is visible only at low water. When departing the Charleston Boat Basin, stay to the left of light #1 at all times.

C. **Sand Spit, North Beach.** This area is dangerous because of shoal waters and submerged jetties. Occasionally, on a strong ebb, there will be breakers in this area. Avoid this area because of the possibility of going aground or striking submerged jetties and pilings. Note, too, that inbound and outbound tugs with tows, freighters, etc., pass close aboard this area and cannot stop for obstructions in the channel — including small vessels.

D. **South jetty, Guano Rock Area.** This is a very dangerous area because of shoals that extend out from the south jetty to the entrance channel. Breaks are frequently experienced from Coos Bay buoy #4 extending out to a little past the end of the south jetty. **Exercise care in this area at all times,** especially on ebb tides.

E. **North jetty, submerged.** The north jetty was approximately 200 yards to the west. The outward end of the jetty is submerged from the visible end of the jetty out toward buoy #3. **Never cross this area.** There are breakers in this area most of the time. When departing the bar northbound, be sure to pass buoy #3 before turning to the north.

F. **Area north of Buoy #5.** This area can be very dangerous when there are any large swells on the bar or during ebb tide. Freak breakers are common in this area. Many boats do transit this area on occasion, but there is a strong recommendation that you never cross it.

Rough Bar Advisory Sign

Positioned 8 feet above the water on jetty just north of the Charleston Boat Basin. This is a two-part sign, facing (1) toward the Charleston Boat Basin and (2) toward South Slough light #2.

Bar Condition Reports

The Charleston Coast Guard Station records weather and bar conditions twice daily; you can obtain this information by phoning 888-3102. KBBR (1340 kHz) broadcasts reports once each hour during summer months. The Charleston Coast Guard Station also posts current weather advisories.

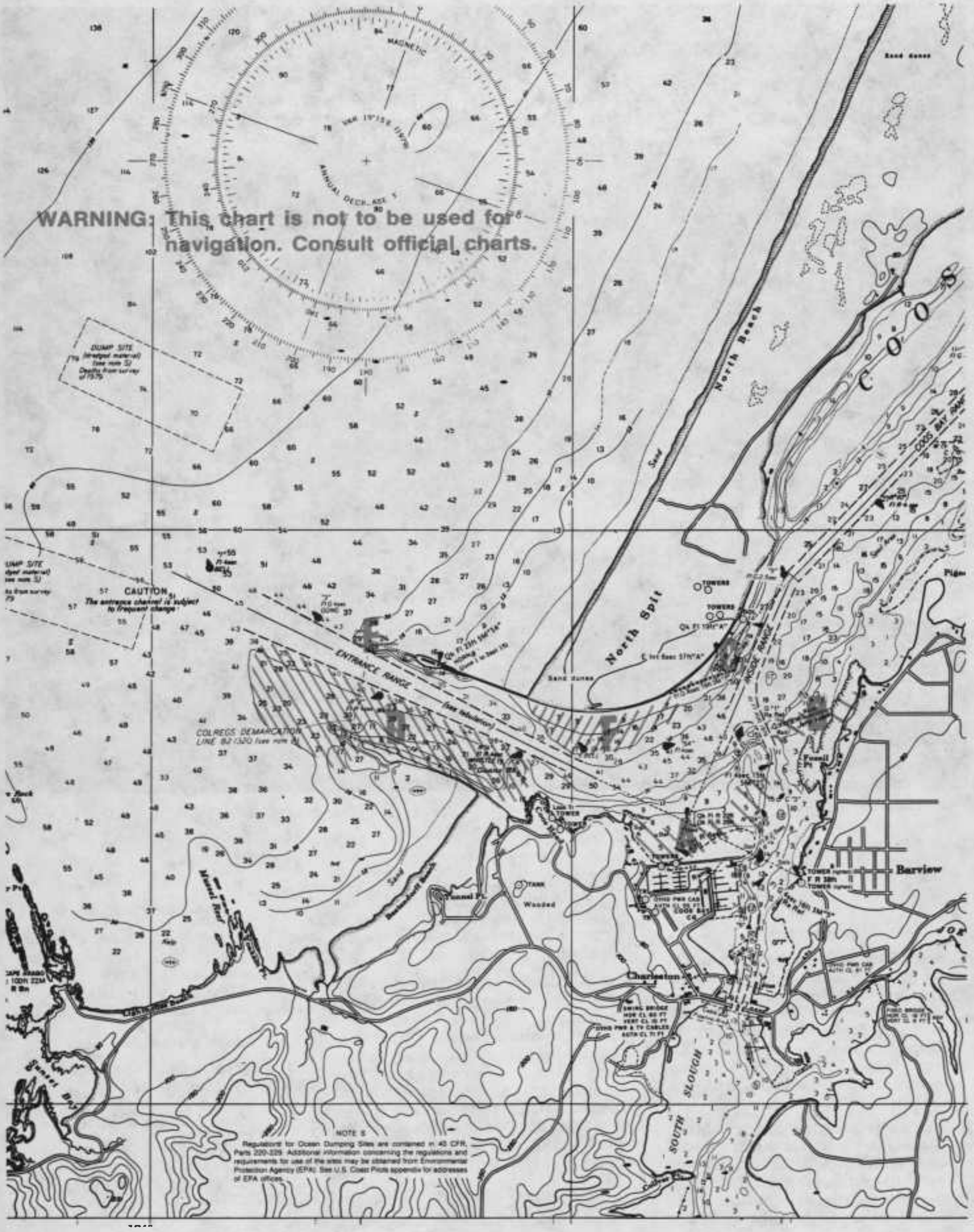

WARNING: This chart is not to be used for navigation. Consult official charts.
MAGNETIC
ANNUAL DECREASE 1'
DUMP SITE (dredged material) (see note 5)
CAUTION
The entrance channel is subject to frequent change
ENTRANCE RANGE
COLREGS DEMARCATION LINE 82.(320) (see note 8)
North Beach
North Spit
Sand Dunes
COOS
Barview
Charleston
SOUTH SLOUGH
Tunnel Pt.
Wooded
NOTE 5
Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices.

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Coquille River

Danger Areas

A. **South jetty.** It is always dangerous to get too close to the end of a jetty. An unexpected breaker could carry a small boat onto the end of the jetty with great force. The inside of the south jetty is a dangerous area, and boaters should remain clear. The prevailing northwest wind could set a powerless boat onto the jetty.

B. **North jetty.** Stay clear of the end of this jetty, as the sea breaks almost continuously in this area. A shallow area with partially submerged rocks extends from the abandoned lighthouse to the end of the jetty. The large swells that occur in this sea could put a boat onto these rocks.

C. **South side of Coquille River entrance.** The area to the south of the entrance can be very dangerous. There are several rocks just below the surface that cannot be seen except during heavy seas. There is a prevailing northwest wind during the summer months; also, the sea currents run to the south. These two conditions may cause a powerless boat in this area to drift onto these rocks.

Range Markers

Front and rear range markers are identical: a rectangular red daymark with a white stripe on a skeleton tower. By steering a course that keeps the two range markers in line, you will remain within the channel. See the latest CG-162, **Light List.**

Rough Bar Advisory Sign

Positioned on wharf on south jetty, just north of the Coast Guard Station.

Bar Condition Reports

Call the Coquille River Coast Guard Station when it is in operation (summer months only) or the Coos Bay Coast Guard Station.

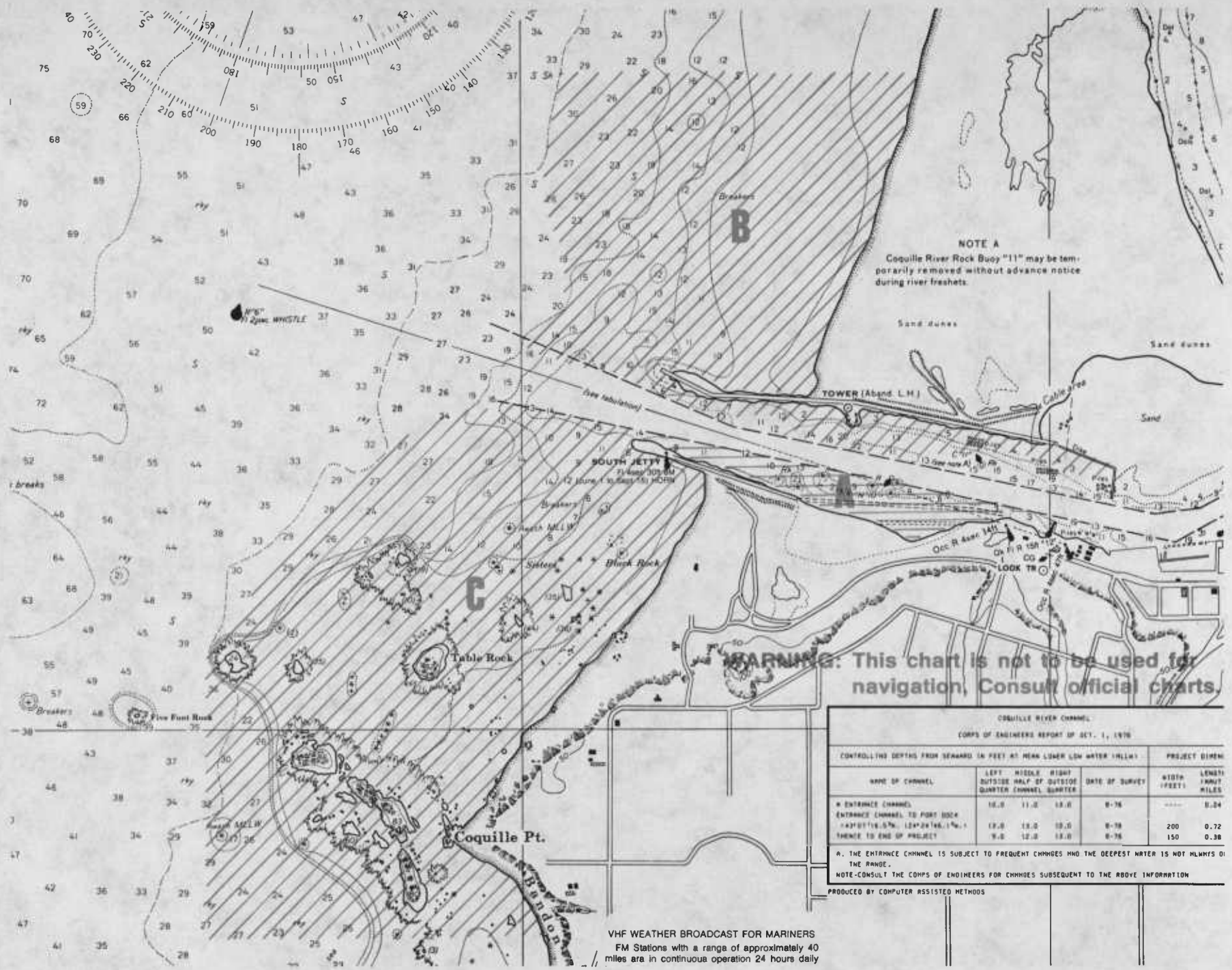
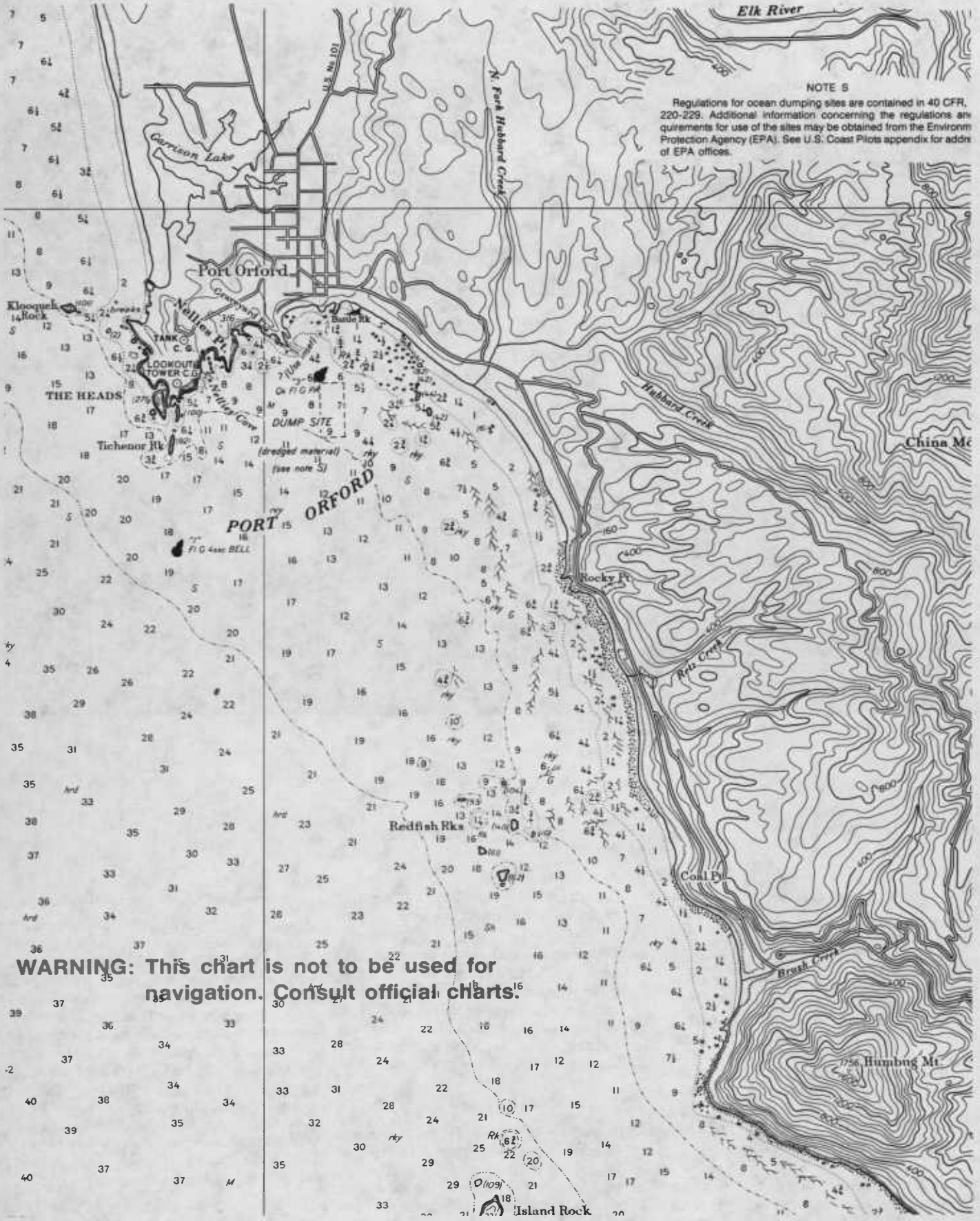

NOTE A
Coquille River Rock Buoy "11" may be temporarily removed without advance notice during river freshets.
TOWER (Aband. L.H.)
SOUTH JETTY
Sand dunes
Sand
Cable area
Breakers
Black Rock
Table Rock
Five Foot Rock
Coquille Pt.
LOCK TR
WARNING: This chart is not to be used for navigation. Consult official charts.
COQUILLE RIVER CHANNEL
CORPS OF ENGINEERS REPORT OF OCT. 1, 1976
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)
PROJECT DIMENS
NAME OF CHANNEL
LEFT OUTSIDE QUARTER
MIDDLE HALF OF CHANNEL
RIGHT OUTSIDE QUARTER
DATE OF SURVEY
WIDTH (FEET)
LENGTH (NAUT MILES)
A ENTRANCE CHANNEL
10.0
11.0
10.0
8-76
0.24
ENTRANCE CHANNEL TO PORT DOCK
12.0
13.0
12.0
8-76
200
0.72
THENCE TO END OF PROJECT
9.0
12.0
10.0
8-76
150
0.38
A. THE ENTRANCE CHANNEL IS SUBJECT TO FREQUENT CHANGES AND THE DEEPEST WATER IS NOT ALWAYS O
THE RANGE.
NOTE-CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION
PRODUCED BY COMPUTER ASSISTED METHODS
VHF WEATHER BROADCAST FOR MARINERS
FM Stations with a range of approximately 40 miles are in continuous operation 24 hours daily

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Port Orford

There is no bar at Port Orford: departure from and entrance to the harbor are direct with the ocean. The harbor is protected from the northwest winds that prevail during the summer months, but is exposed to southerly winds, which can cause unfavorable harbor conditions.



WARNING: This chart is not to be used for navigation. Consult official charts.

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Rogue River

Danger Areas

A. Shoal water, south side. Along the south side of the Rogue River channel are shoal water and gravel bars. This shoal water breaks to a height of 6 feet when a swell is running. Many boaters fishing inside the river, trolling between the jetties, find themselves set into this dangerous area by northwest winds. If a vessel breaks down in the channel and is not anchored, the northwest wind and ebb tide will set it into this dangerous area in a matter of a few minutes.

B. Outer end, north jetty. Breakers are almost always present in this area because of shoal water. When the sea is running from the west or southwest, it is particularly dangerous.

C. Outer end, south jetty. Breakers are almost always present in this area. Even when it appears to be calm, there may be occasional breakers, 1,000 feet outside the south jetty. When the sea is running from the west or southwest, this area is very dangerous.

Channel

Rogue River channel lies along the north jetty. Under existing conditions a channel 13 feet deep and 300 feet wide, extending from the ocean to the inner end of the north jetty, is provided. Boaters are urged to use and stay within this channel.

Fishing Inside the Channel

During recent years small boats, which do not usually go out into the ocean, fish just inside the bar and troll in an area between the north and south jetties. Frequently there are a great number of boats in this area, and these boats tend to crowd each other. Because trolling is the method of fishing most frequently used, lines are sometimes accidentally caught in boat propellers. Should this happen, the disabled boat should immediately anchor or call for aid. A northwest wind or ebb tide could set a boat into a dangerous area in a matter of minutes.

Rough Bar Advisory Sign

Positioned on building 42°25.6′ N., 124°25.4′ W.

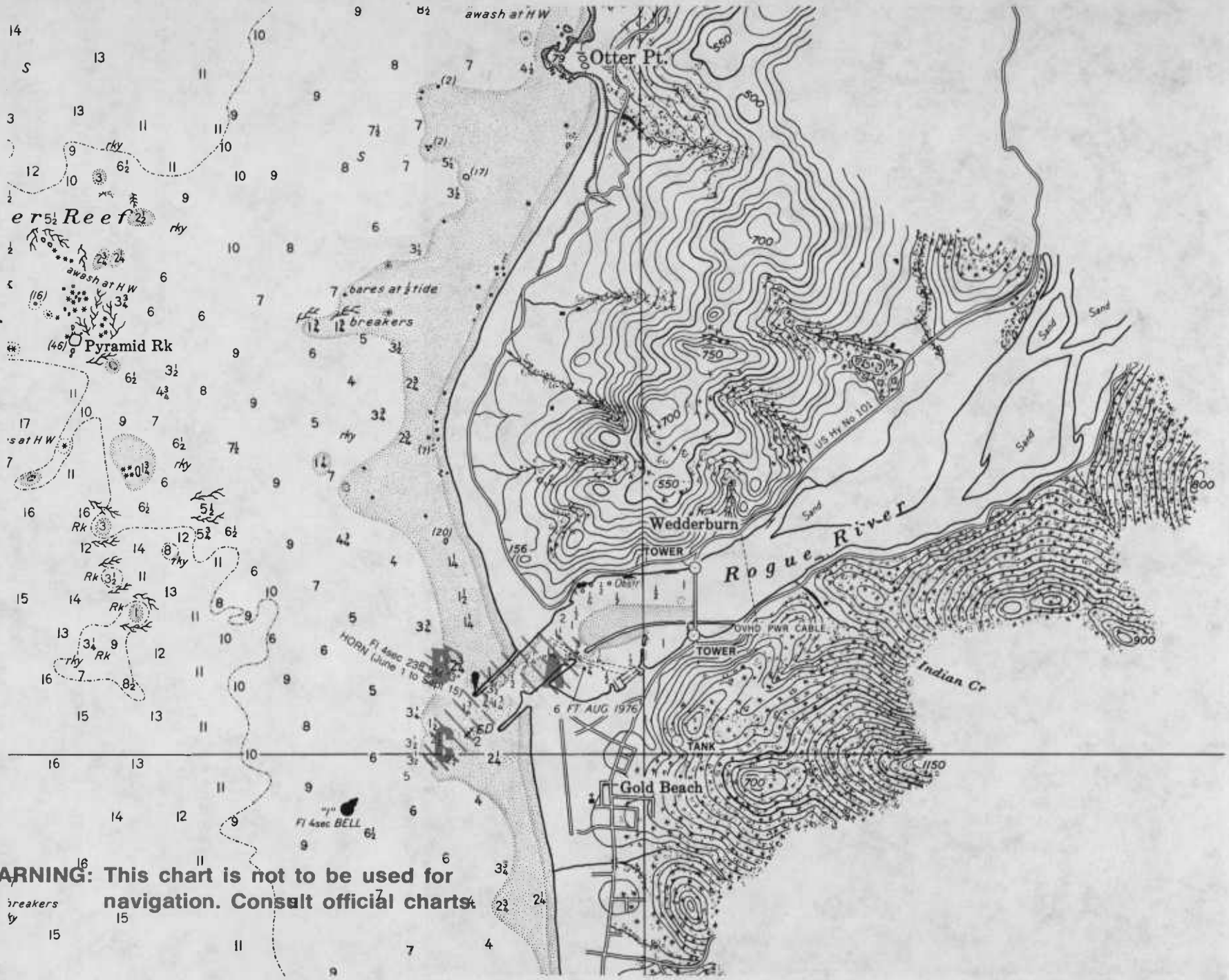

Otter Pt.
awash at HW
Pyramid Rk
breakers
bares at ½ tide
Wedderburn
TOWER
Rogue River
US Hy No 101
Sand
OVHD PWR CABLE
Indian Cr
6 FT AUG 1976
TANK
Gold Beach
HORN (June 1 to Sept 15)
Fl 4sec BELL
WARNING: This chart is not to be used for navigation. Consult official charts.

PHOTO COURTESY U.S. ARMY CORPS OF ENGINEERS, SUMMER 1986.

Chetco River

Danger Areas

A. **West jetty rock area.** This area is dangerous because of many rocks and shoaling. At high tide the rocks are covered by water, and the area appears to be navigable but is extremely dangerous. This area is to be avoided at all times.

B. **Jetty and shoal areas.** These areas are extremely dangerous at all times because of submerged rocks and breakers. Two rocks in this area may be seen at low tide. Avoid this area at all times.

Range Markers

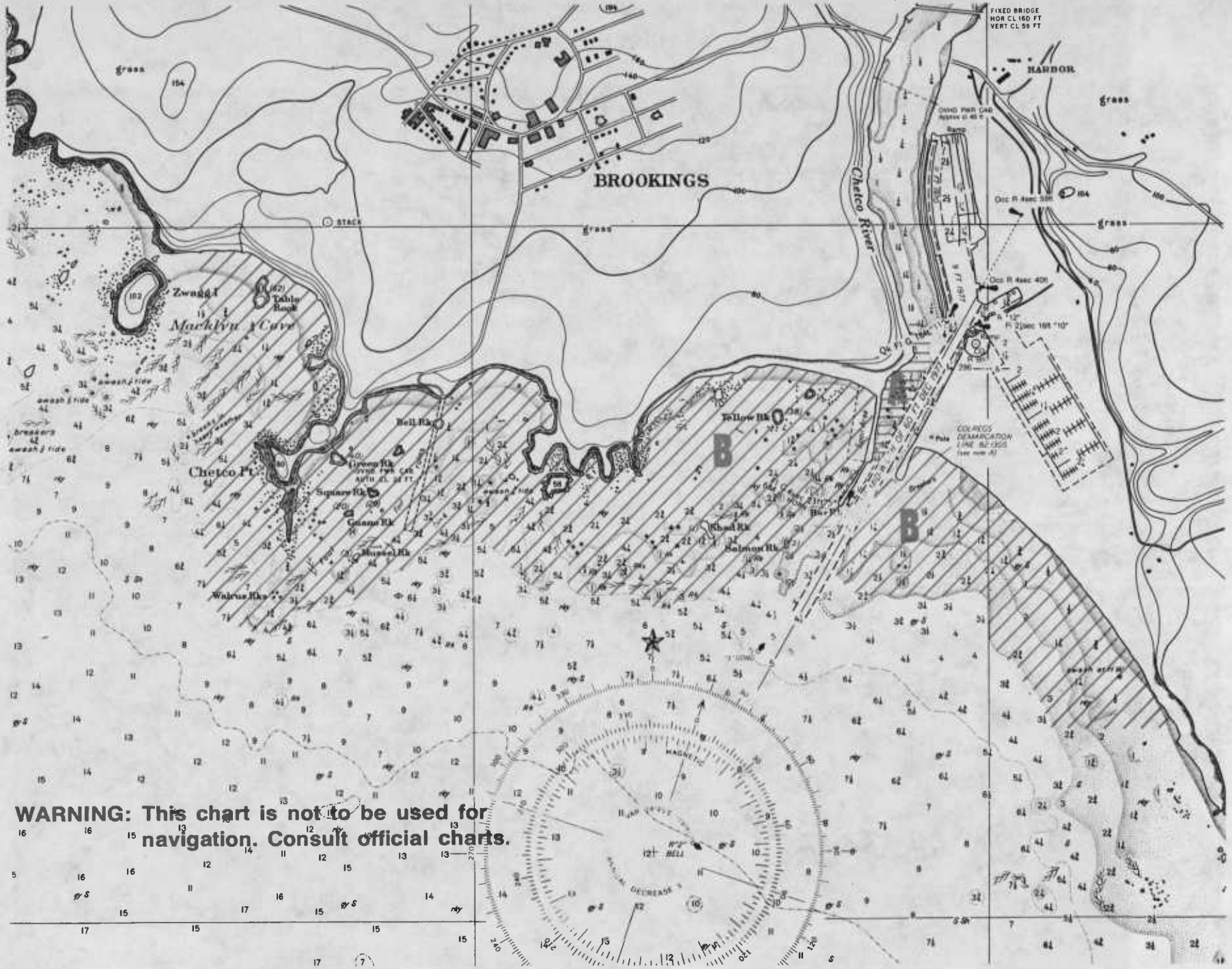
The range marker consists of a red rectangular shape with a white vertical stripe mounted on a skeleton tower. By steering a course that keeps the two range markers in line, you will remain within the channel.

Rough Bar Advisory Sign

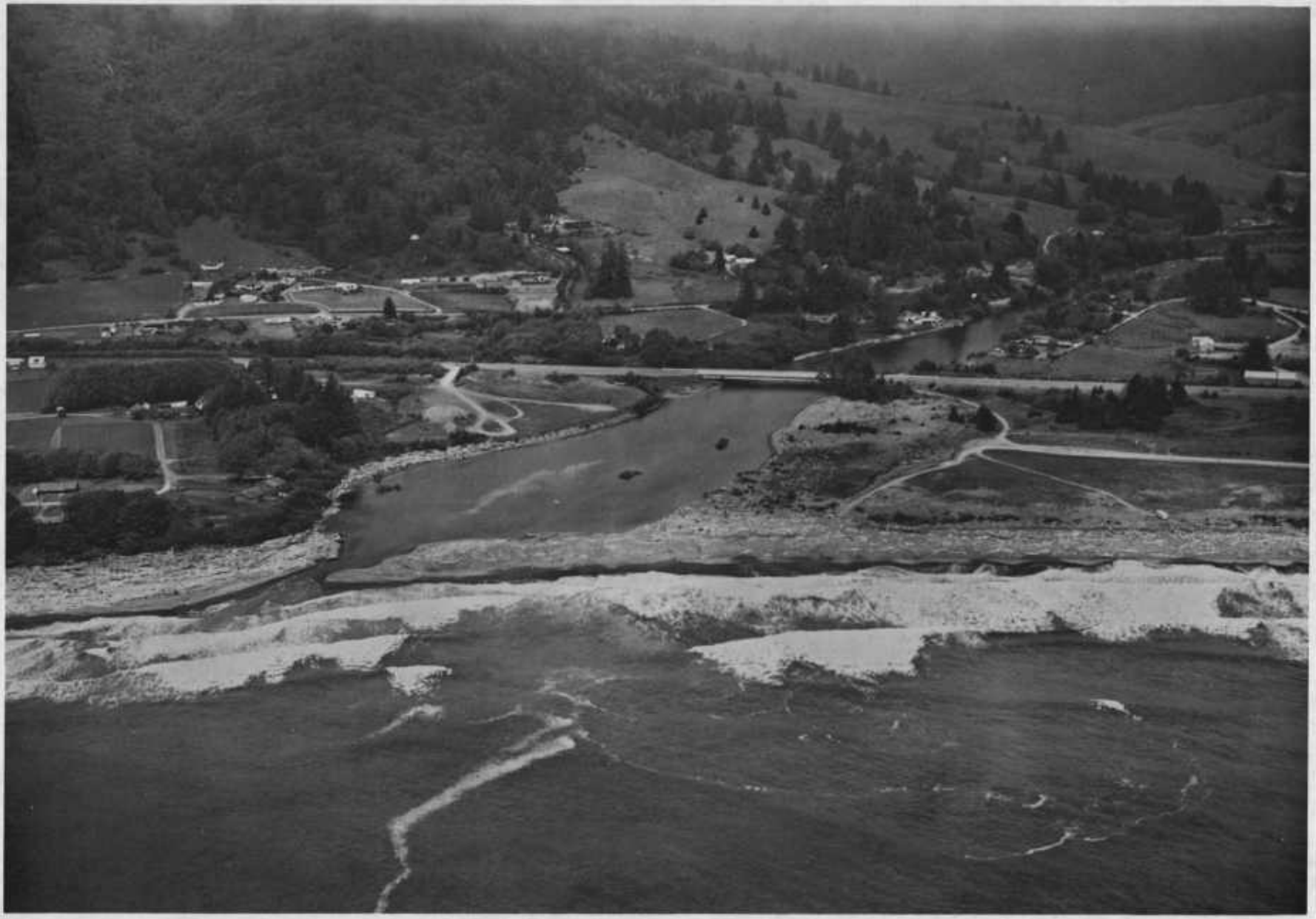
Positioned on Coast Guard fuel dock; faces NNW.

Bar Condition Reports

KURY (910 kHz): **summer,** every daylight hour.



WARNING: This chart is not to be used for navigation. Consult official charts.



WINCHUCK RIVER

Dangerous—not suitable for bar crossings.

Extension Service, Oregon State University, Corvallis, O. E. Smith, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties.

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