

BookletChart™



Lake Mead

NOAA Chart 18687

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker

Approximate Page Index					
4	5	6	7	8	9
10	11	12	13	14	15
16	17	18	19	20	21
22	23	24	25	26	27

**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

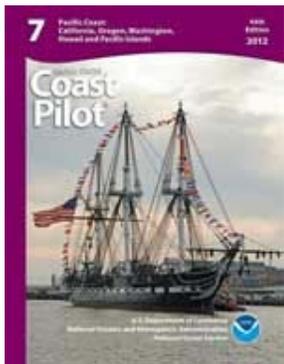
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18687>.



(Selected Excerpts from Coast Pilot)

Lake Mead, Arizona-Nevada, is a National Recreation Area on the **Colorado River** impounded by **Hoover Dam** (36°01.0'N., 114°44.2'W.).

Anchorage areas.—Restricted and anchorage areas established by Federal regulations are in Lake Mead.

(See **110.1, 110.127, and 162.220**, chapter 2, for limits and regulations.) Additional information may be obtained from the local office of the National Park Service, U.S. Department of the Interior,

601 Nevada Highway, Boulder City, NV 89005.

Eleventh Coast Guard District Local Notice to Mariners contains information concerning boating events, boating safety, bridge construction and lighting, aids to navigation, and anchorages on the Colorado River, Lake Mead National Recreation Area, and Glen Canyon National Recreation Area. These notices may be obtained, free of charge, by making application to Commander, Eleventh Coast Guard District. (See Appendix A for address.)

This chapter describes the eight **Channel Islands** that extend for 130 miles in a NW direction off the coast of southern California from San Diego to Point Conception. They include the four islands of the southern group—San Clemente, Santa Catalina, San Nicolas, and Santa Barbara; and the four islands of the northern group also referred to as the **Santa Barbara Islands**—Anacapa, Santa Cruz, Santa Rosa, and San Miguel. Also described are the passages and channels between these islands including Outer Santa Barbara Passage, San Pedro Channel, Anacapa Passage, Santa Cruz Channel, San Miguel Passage, and Santa Barbara Passage, and Avalon Bay, the most active harbor in the area, as well as many smaller harbors and landings.

COLREGS Demarcation Lines.—The lines established for this part of the coast are described in **80.1102**, chapter 2.

**U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies**

RCC Alameda Commander
11th CG District (510) 437-3700
Alameda, CA

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community. They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

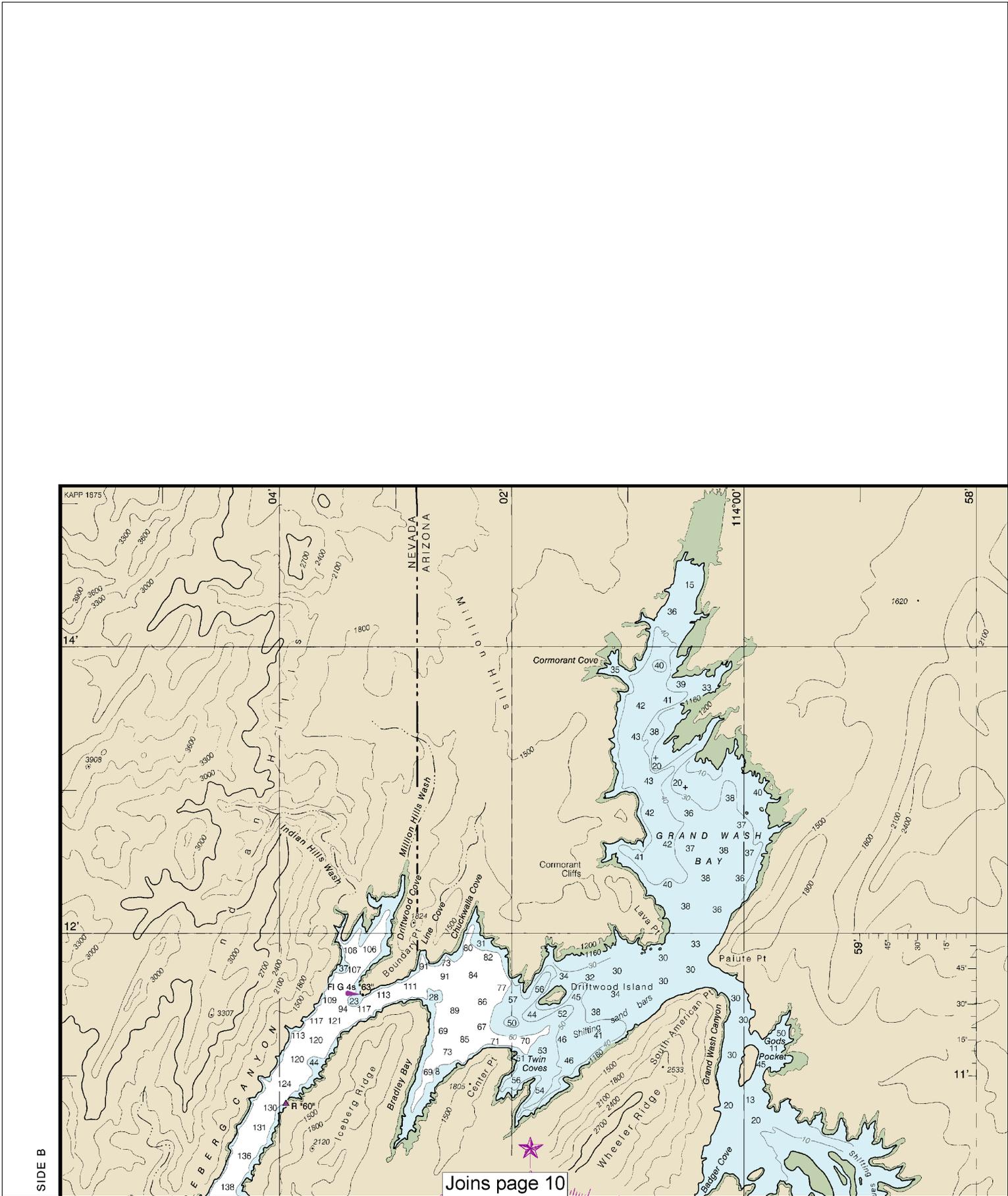
To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.
To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area. These volumes are available online at <http://www.navcen.uscg.gov>



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Note: Chart grid lines are aligned with true north.

POLLUTION REPORTS

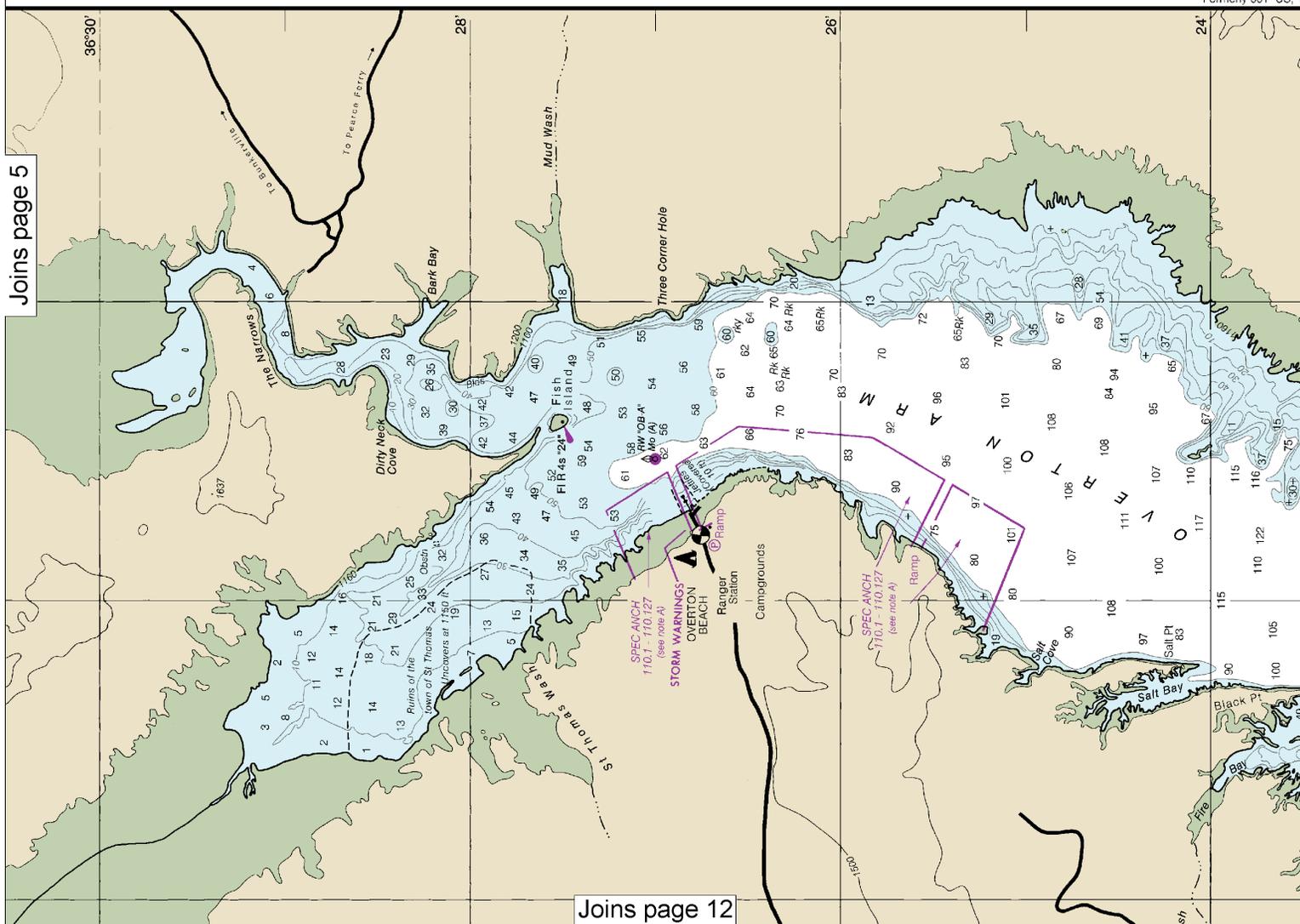
Report all spills of oil and hazardous substances to the National Park Service (702) 293-8932.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>.

Formerly 661- SC. 1



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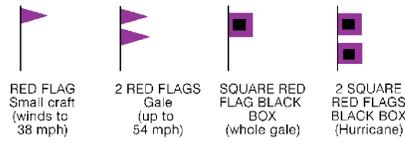


Note: Chart grid lines are aligned with true north.

MARINE WEATHER INFORMATION

The National Park Service communications center makes twice daily weather broadcasts of weather conditions in the Lake Mead area. The broadcasts are on marine VHF station KOJ 719 channel 22A (157.1 MHz) located at 35°58'40"N., 114°50'15"W. with prior notice of the broadcasts being made on marine safety and emergency channel 16 (156.8 MHz) so that vessels may switch to channel 22A and listen to the broadcasts.

STORM WARNINGS

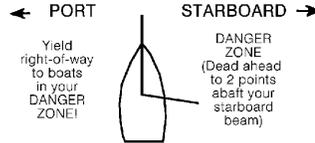


RULES OF THE ROAD (ABRIDGED)

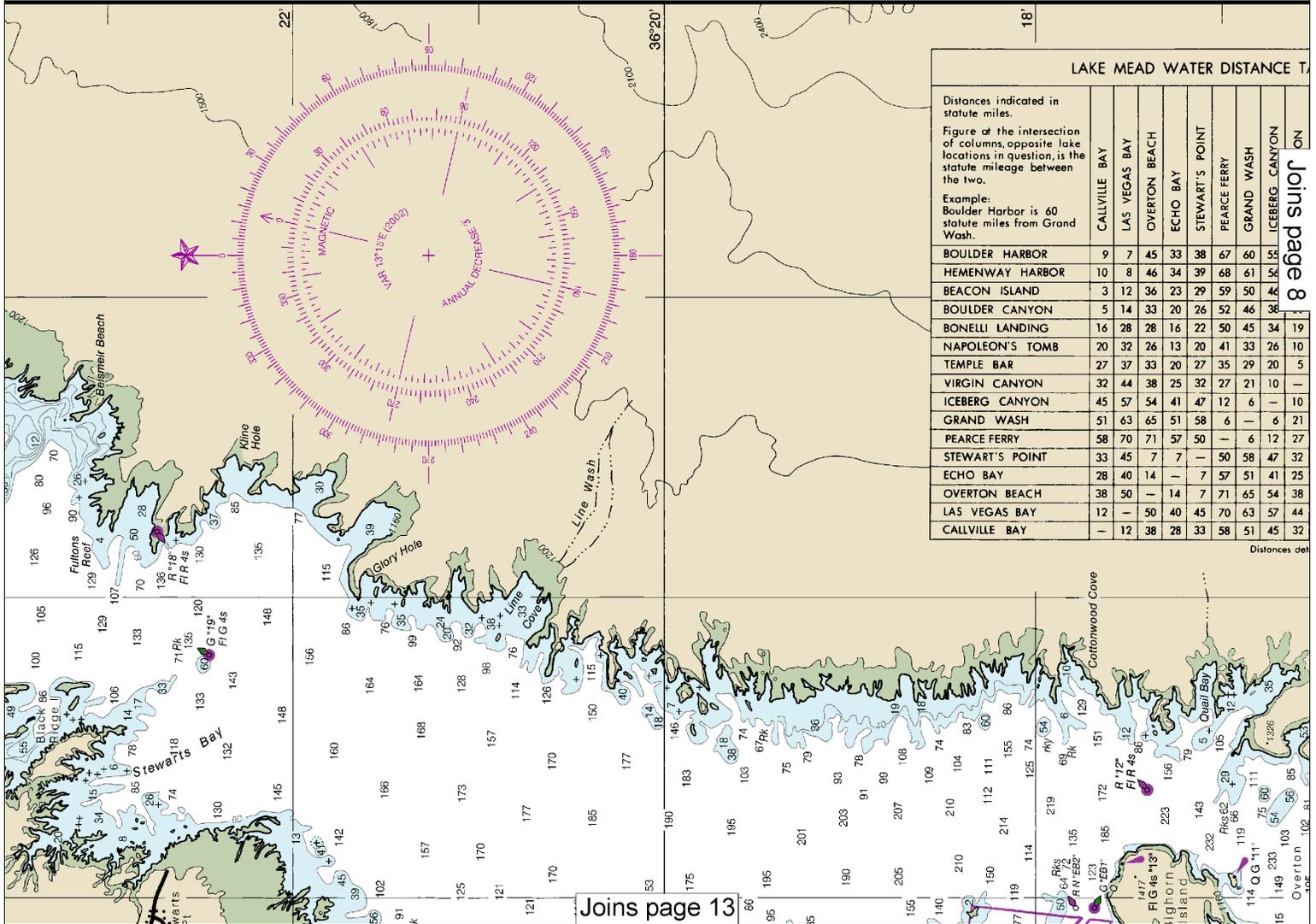
Motorless craft have the right-of-way in almost all cases. Sailing vessels and motorboats less than sixty-five feet in length, shall not hamper, in a narrow channel, the safe passage of a vessel which can navigate only inside that channel.
 A motorboat being overtaken has the right-of-way.
 Motorboats approaching head to head or nearly so should pass port to port.
 When motorboats approach each other at right angles or obliquely, the boat on the right has the right-of-way in most cases.
 Motorboats must keep to the right in narrow channels, when safe and practicable.
 Manners are urged to become familiar with the complete text of the Rules of the Road in U.S. Coast Guard publication "Navigation Rules".
 For emergencies call KOJ719 (National Park Service) on marine band channel 16.

REMEMBER THESE RULES

1. OVERTAKING - PASSING: Boat being passed has the right-of-way. KEEP CLEAR.
2. MEETING HEAD ON: Keep to the right.
3. CROSSING: Boat on right has the right-of-way. Slow down and permit him to pass.



1st Ed., 1967 KAPP 1874



13th Ed., Nov. 2002. Last Correction: 6/7/2016. Cleared through:
 LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016)



REGULATORY MARKERS



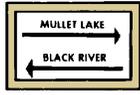
SWIM AREA
DIAMOND SHAPE with cross means BOATS KEEP OUT



ROCK
DIAMOND SHAPE warns of Danger



5 MPH
CIRCLE marks AREA CONTROLLED 'as indicated'



FOR DISPLAYING INFORMATION SUCH AS DIRECTIONS, DISTANCES, LOCATIONS, ETC.



INFORMATION BUOY USED TO DISPLAY REGULATORY MARKERS



DIVER'S FLAG
Indicates presence of a diver.

CHANNEL BUOY GUIDE

Entering port or going upstream

PORT SIDE
Color: Green
odd numbers



MID-CHANNEL
Color: Red & White
no numbers



STARBOARD
Color: Red
even numbers



NOTE

Aids to Navigation on Lake Mead are maintained by the National Park Service. Lights are two types, fixed and movable. Fixed lights are permanently located above any probable lake level. Movable lights are relocated when the lake height requires.

REEF MARKERS

(CAUTION! All reefs are not marked)

Numerous reefs, many of which are submerged, are marked by spar buoys. These are painted white with orange bands at top and bottom and an orange diamond. Buoys mark the edges of reefs.
NOTE: Reef markers are not charted.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for general information, and Superintendent, Lake Mead National Recreational Area, National Park Service, for specific details.

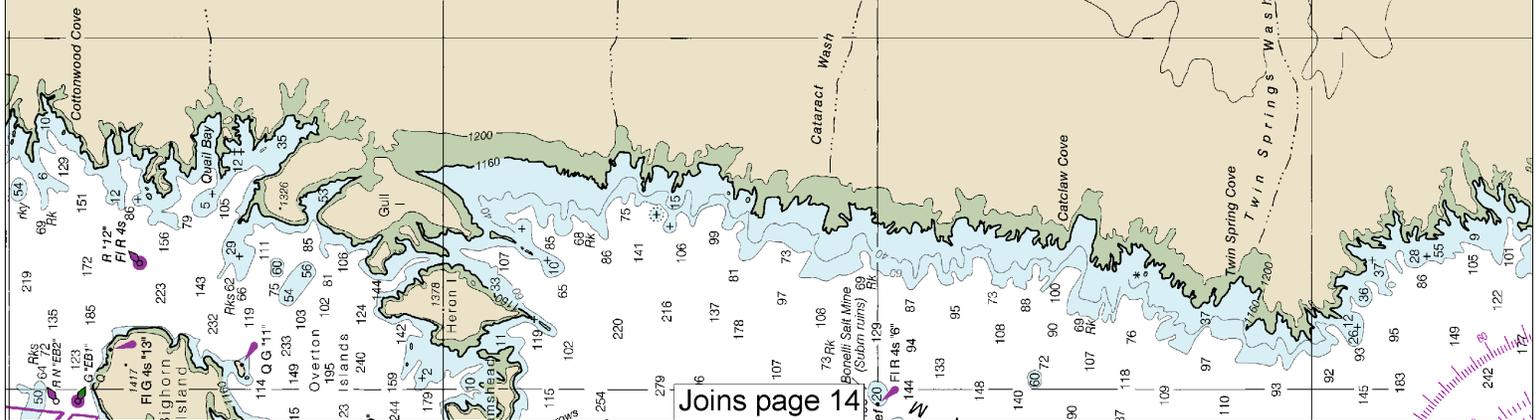
CAUTION

Frequent changes in aids to navigation can be expected because of fluctuation in lake level. Current information may be obtained at the Park Headquarters or Area Ranger Office.

LAKE MEAD WATER DISTANCE TABLE

	CALLVILLE BAY	LAS VEGAS BAY	OVERTON BEACH	ECHO BAY	STEWART'S POINT	PEARCE FERRY	GRAND WASH	ICEBERG CANYON	VIRGIN CANYON	TEMPLE BAR	NAPOLEON'S TOMB	BONELLI LANDING	BOULDER CANYON	BEACON ISLAND	HEMENWAY HARBOR	BOULDER HARBOR
9	7	45	33	38	67	60	55	37	35	27	22	12	9	2	1	
10	8	46	34	39	68	61	56	38	36	28	23	13	10	1	2	
3	12	36	23	29	59	50	46	28	26	18	13	3	1	10	9	
5	14	33	20	26	52	46	38	20	18	13	6	1	3	13	12	
16	16	28	16	22	50	45	34	19	16	9	1	6	13	23	22	
OMB	20	32	26	13	20	41	33	26	10	7	1	9	13	18	28	27
27	37	33	20	27	35	29	20	5	1	7	16	18	26	36	35	
32	44	38	25	32	27	21	10	1	5	10	19	20	28	38	37	
ON	45	57	54	41	47	12	6	1	10	20	26	34	38	46	56	55
51	63	65	51	58	6	1	6	21	29	33	45	46	50	61	60	
58	70	71	57	50	1	6	12	27	35	41	50	52	59	68	67	
NT	33	45	7	7	50	58	47	32	27	20	22	26	29	39	38	
28	40	14	1	7	57	51	41	25	20	13	16	20	23	34	33	
H	38	50	1	14	7	71	65	54	38	33	26	28	33	36	46	45
12	1	50	40	45	70	63	57	44	37	32	28	14	12	8	7	
1	12	38	28	33	58	51	45	32	27	20	16	5	3	10	9	

Distances determined by the National Park Service



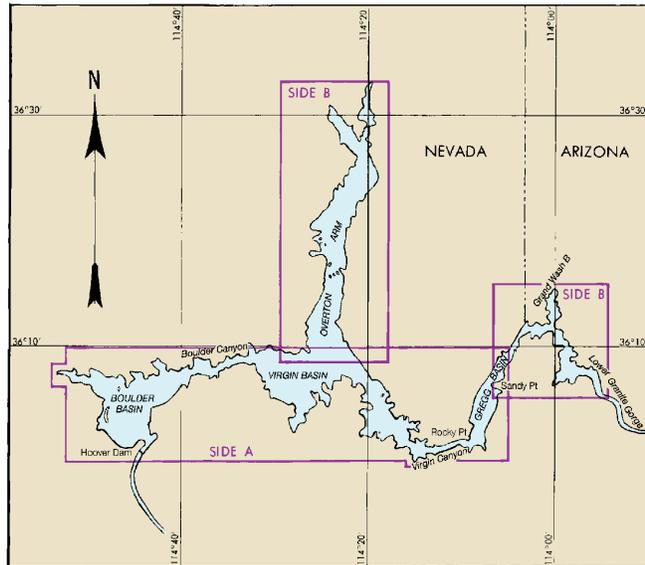
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Note: Chart grid lines are aligned with true north.

NAUTICAL CHART DIAGRAM

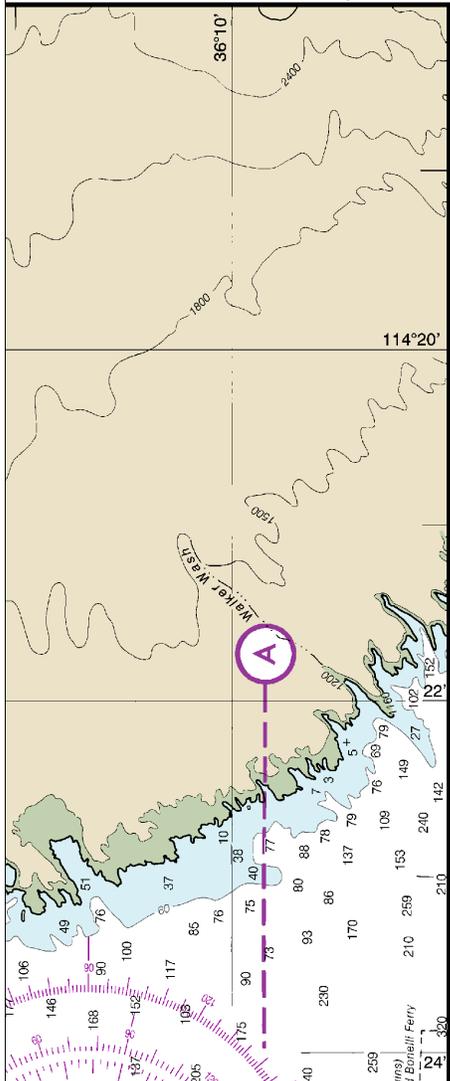


NAUTICAL CHART 18687

ARIZONA - NEVADA
LAKE MEAD



Nautical Chart Catalog No. 2, Panel R



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Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

MERCATOR PROJECTION AT SCALE 1:48,000
SOUNDINGS IN FEET
NORTH AMERICAN DATUM OF 1983
(WORLD GEODETIC SYSTEM 1984)

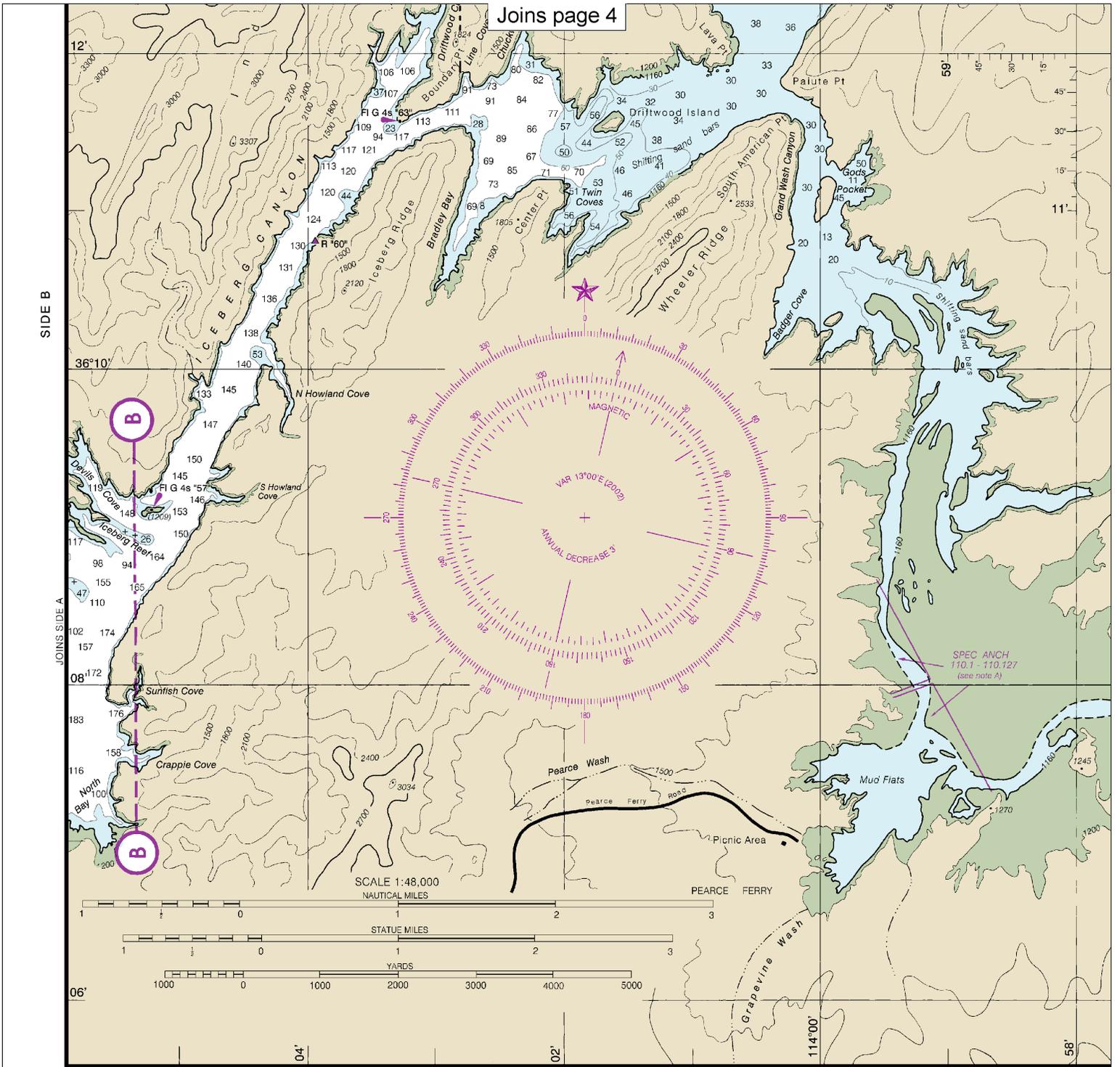
Soundings refer to a normal lake level elevation which is 1160 feet above Mean Sea Level.

LAKE LEVELS, WATER DEPTHS AND ELEVATIONS

The 1100 foot elevation (60 foot depth curve) is indicated by the dotted contour and represents a low lake level. The 1160 foot contour represents the normal lake level. The 1200 foot contour represents a high lake level. The blue tint indicates areas with elevations between 1100 and 1160 feet above Mean Sea Level. The green tint indicates areas with elevations between 1160 and 1200 feet above Mean Sea Level. Contour values indicate elevations in feet above Mean Sea Level.

AUTHORITIES
Surveys by the Geological Survey, Soil Conservation, and the

SIDE B



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ADMINISTRATION

Lake Mead National Recreation Area, established October 8, 1964, is administered by the National Park Service, U.S. Department of Interior.

The National Park System, of which this area is a unit, is dedicated to conserving the scenic, scientific, historic, and recreational heritage of the United States for the benefit and enjoyment of its people.

A Superintendent, whose address is 601 Nevada Highway, Boulder City, Nevada 89005, is in immediate charge.

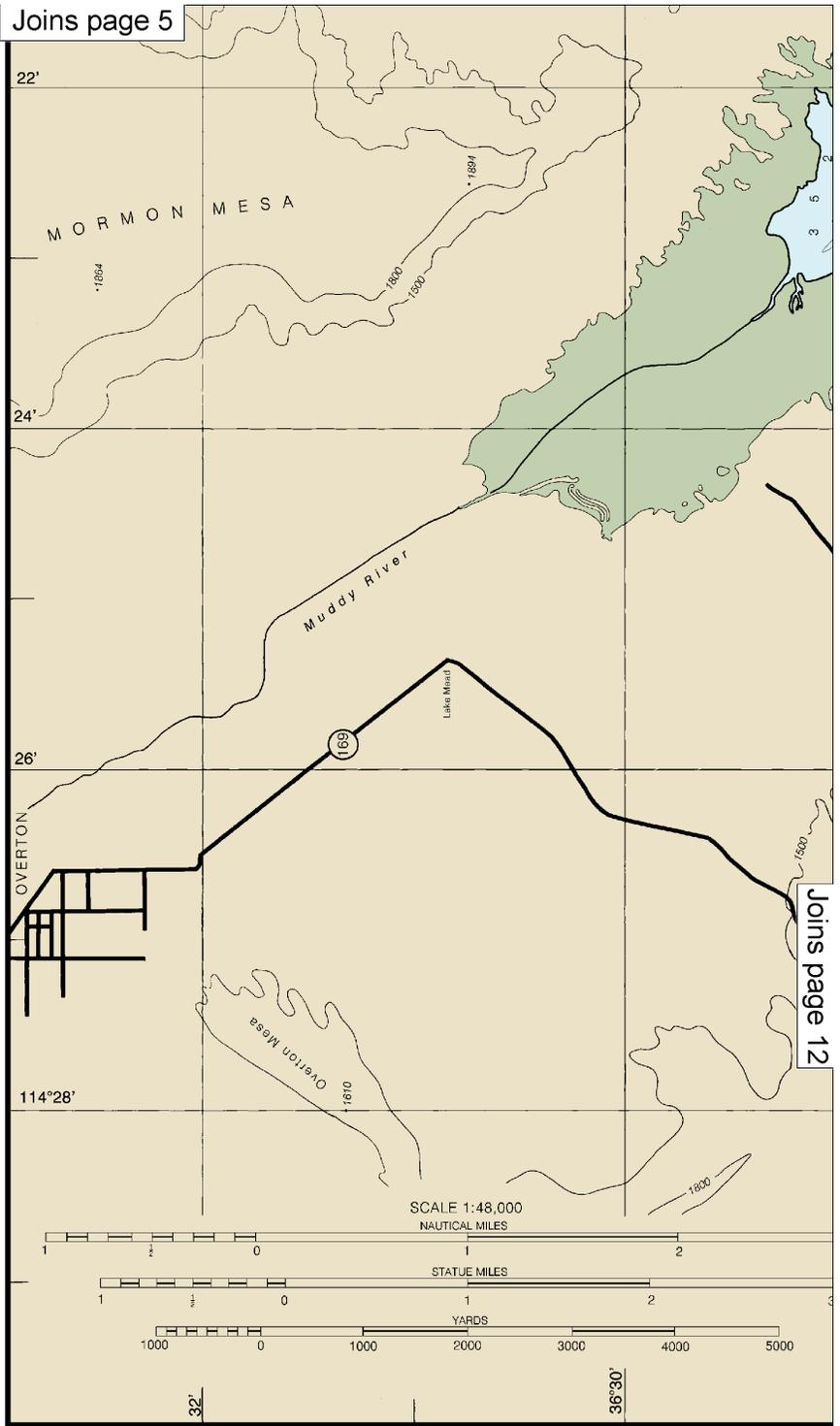
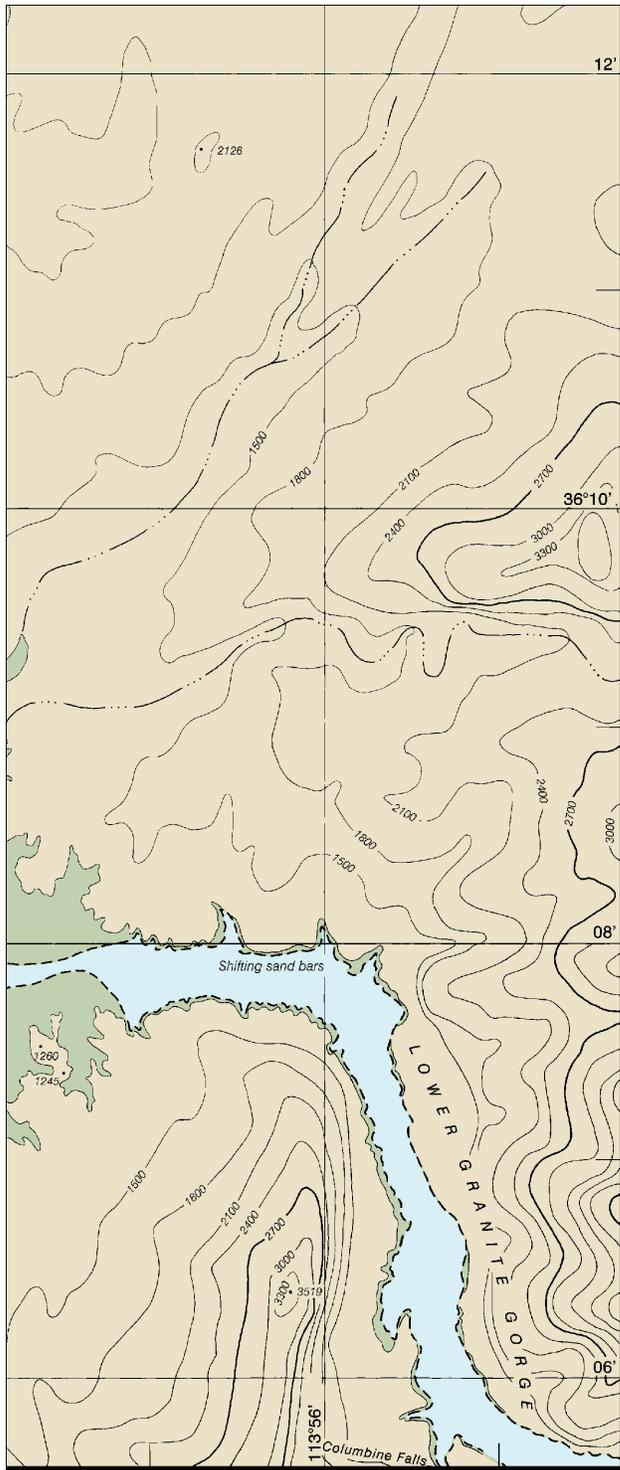
WHEN TO VISIT THE AREA

Lake Mead National Recreation Area is open all year with maximum visitor use occurring during the three summer months. Even during July and August when daytime temperatures may rise above 110 degrees, the heat is not oppressive due to the prevailing low humidity. Nights are usually comfortable. However, the weather is most delightful from late September through early December and from early April to June.



Note: Chart grid lines are aligned with true north.

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HISTORICAL HAPPENINGS

The Grand Canyon of the Colorado was first seen by white men in 1540 when Francisco Vasquez de Coronado, one of Coronado's captains, led a party to the rim in northern Arizona. In 1776, a party led by Father Silvestre de Escalante made the first successful crossing of the Colorado River in the canyon. This occurred at a point now known as "Crossing of the Fathers" north of Lee's

In 1871, on another Government expedition, Capt. George Wheeler ventured upstream into the lower part of the Grand Canyon, as far as Diamond Creek.

On March 11, 1931, construction was started on Hoover Dam in an attempt to control the waters of the Colorado River. By 1935, water was beginning to be impounded behind the dam. The last concrete was placed on May

PREHISTORIC MAN LIVED HERE

Man has inhabited this region almost continuously for thousands of years. In such an arid region, the pre-Columbian Indian inhabitants naturally centered their activities around dependable water supplies afforded by rivers and prehistoric lakes. Many of their

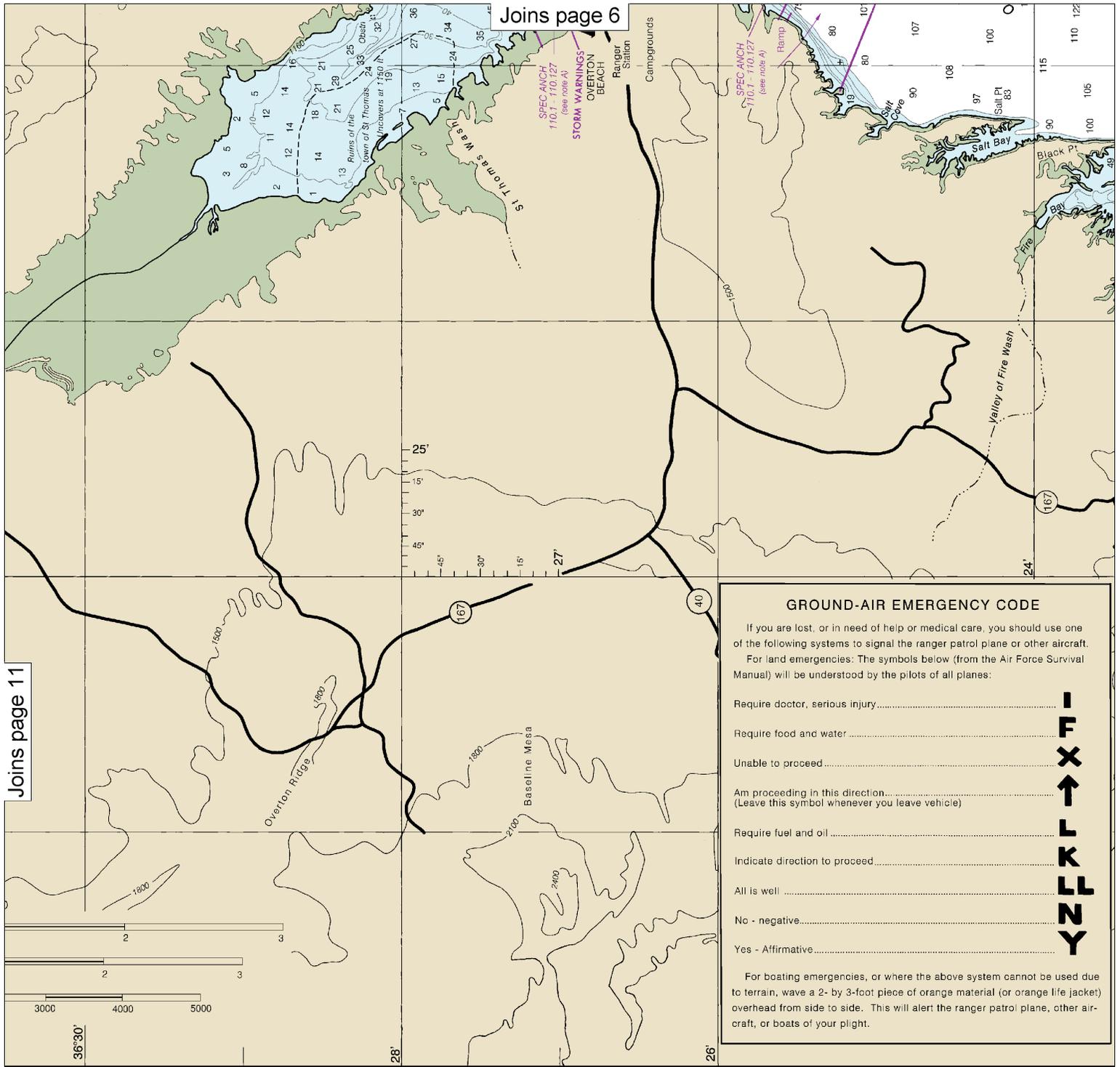
The more recent Paiute, Hualpai, and Mohave Indians, some of whom still inhabit outlying sections of this region, also left evidences of their cultures.

Your are welcome to look at the various Indian sites within the area. However, digging or disturbing any site, or collecting items found on the surface, is not permitted. They

Lake Mead National Recreation Area
 VISIT HOOVER DAM from 8 a.m. to 5 p.m. daily. You are able to see some of the prehistoric LAKE MEAD. The maximum capacity is 26,200,000 acre

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h Moapa Valley.



SOME THINGS TO SEE AND DO

Lake Mead National Recreation Area offers you a variety of activities. Listed below are a few suggestions of things to do and places to see.

VISIT HOOVER DAM. Bureau of Reclamation guides conduct tours daily through Hoover Dam from 8 a.m. to 5 p.m. (time subject to seasonal changes). On these tours, you will be able to see some of the interior operations of one of the engineering wonders of the world.

LAKE MEAD. This large manmade reservoir is named after Dr. Elwood Mead, who was Commissioner of Reclamation from 1924 to 1936, it has an area of 229 square miles at maximum capacity, a length of 110 miles, and a depth of 589 feet. Storage of 26,200,000 acre feet of water - an amount equal to more than 2 years

CRUISES ON LAKE MEAD. Leaving Lake Mead Marina daily, these cruises give you an opportunity to become better acquainted with Lake Mead. In summer, a Park Interpreter goes along on many of the trips. Ask about current schedules and rates.

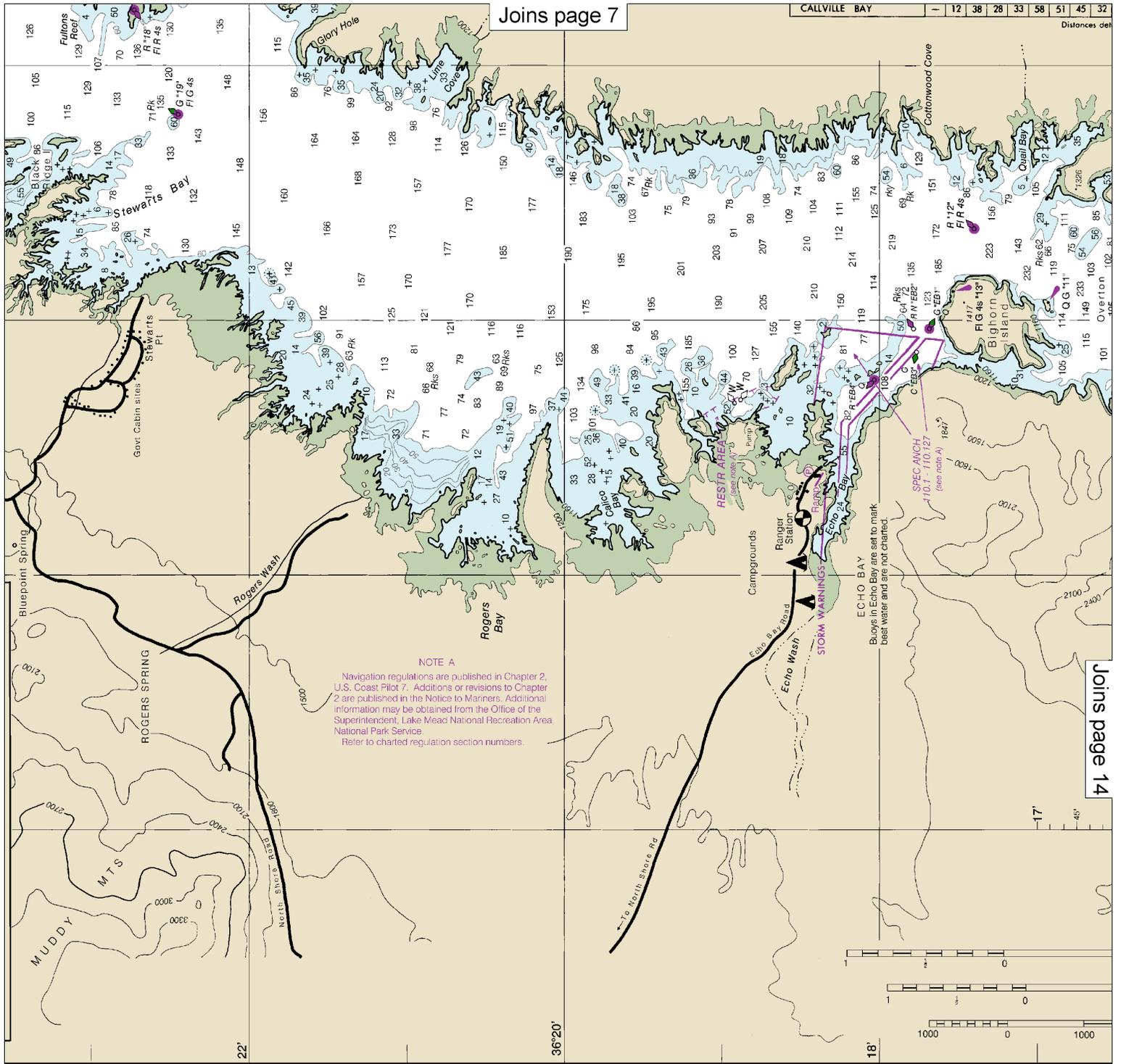
HIKING AND EXPLORING are excellent in the region, except during the warmer summer months. However, water is scarce so take an adequate supply with you.

MOTORING. There are hundreds of miles of roads; many are paved, others are graded, and some are unmaintained 4-wheeled vehicle trails. If you travel off-road in your vehicle, check first at a Ranger station. A map of backcountry roads, approved for vehicle travel, is there for your reference. **CAUTION:** These roads are not recommended for 2-wheel drive

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e, Hualpai, and whom still inhabit region, also left

at the various In- However, digging collecting items permitted. They



Joins page 7

CALLVILLE BAY — 12 38 28 33 58 51 45 32 Distances det

NOTE A
 Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Additional information may be obtained from the Office of the Superintendent, Lake Mead National Recreation Area National Park Service. Refer to charted regulation section numbers.

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SAFETY TIPS

1. Always use care in navigation. The fluctuating surface level of the lake may be hazardous to navigation in that reefs may become exposed or submerged depending upon the water elevation. Boating is hazardous on the lake during periods of high wind. If you are caught in open water, head for the nearest sheltered spot and wait it out.
2. Always instruct at least one other person on how to operate your boat.
3. Know your boat's fuel capacity and cruising radius.
4. Read the information posted at Ranger stations, launching ramps, and on campground bulletin boards.
5. National Park Service Rangers are at Lake Mead National Recreation Area

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MERCATOR PROJECTION AT SCALE 1:48,000
 SOUNDINGS IN FEET
 NORTH AMERICAN DATUM OF 1983
 (WORLD GEODETIC SYSTEM 1984)

Soundings refer to a normal lake level elevation which is 1160 feet above Mean Sea Level.

LAKE LEVELS, WATER DEPTHS AND ELEVATIONS

The 1100 foot elevation (60 foot depth curve) is indicated by the dotted contour and represents a low lake level. The 1160 foot contour represents the normal lake level. The 1200 foot contour represents a high lake level. The blue tint indicates areas with elevations between 1100 and 1160 feet above Mean Sea Level. The green tint indicates areas with elevations between 1160 and 1200 feet above Mean Sea Level. Contour values indicate elevations in feet above Mean Sea Level.

AUTHORITIES

Surveys by the Geological Survey, Soil Conservation, and the National Ocean Service, Coast Survey.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) and for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.081" southward and 2.938" westward to agree with this chart.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1)

Aids to Navigation (lights are white unless otherwise indicated).

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	iso isochase	OBSC obscured	s seconds
Bn beacon	LI HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
D/A diaphone	m minutes	Q quick	VO very quick
F fixed	M/CRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R En radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Gre grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
 (2) Rocks that cover and uncover, with heights in feet above datum of soundings.

The following symbols were designed especially for this Lake Mead chart. They are not standard nautical chart symbols and are not indicated in Chart No. 1, "Nautical Chart Symbols and Abbreviations."



Ranger Station

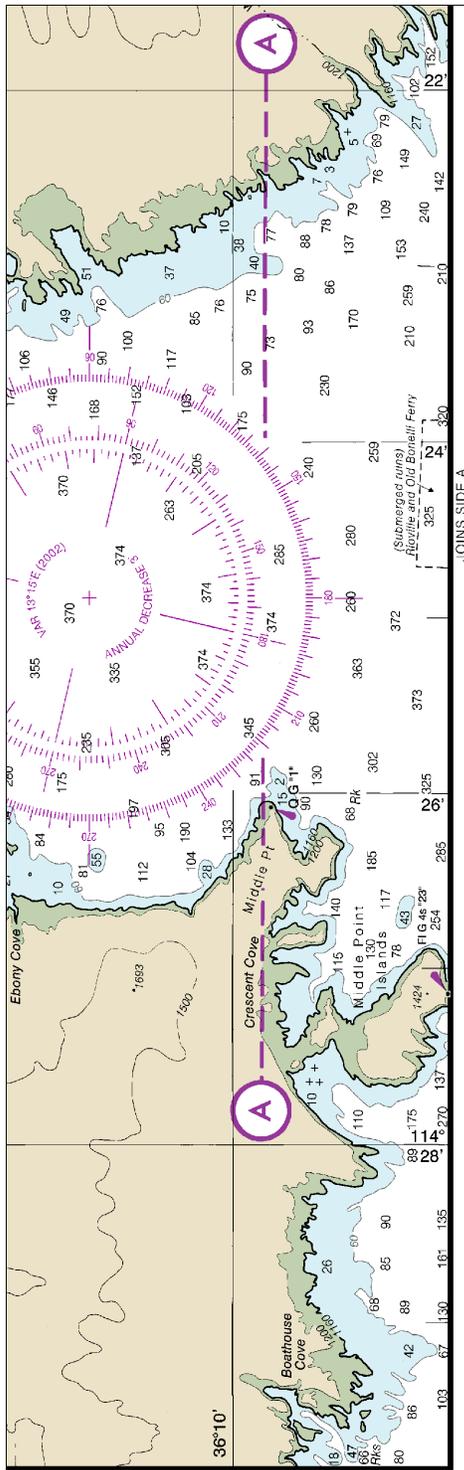


Camping Area

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

(P) Pump out facilities



SIDE B

18687

ADMINISTRATION

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A Superintendent, whose address is 601 Nevada Highway, Boulder City, Nevada 89005, is in immediate charge.

HOOVER DAM. The Boulder Canyon Project Act, passed in 1928, authorized the Bureau of Reclamation, U.S. Department of the Interior, to construct Hoover Dam. Work began in 1931, and the structure was dedicated in 1935. It is the tallest dam in the Western Hemisphere, rising 726.4 feet from the base rock to the roadway on top. Its crest is 1,244 feet long.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Park Service (702) 293-8932.

WHEN TO VISIT THE AREA

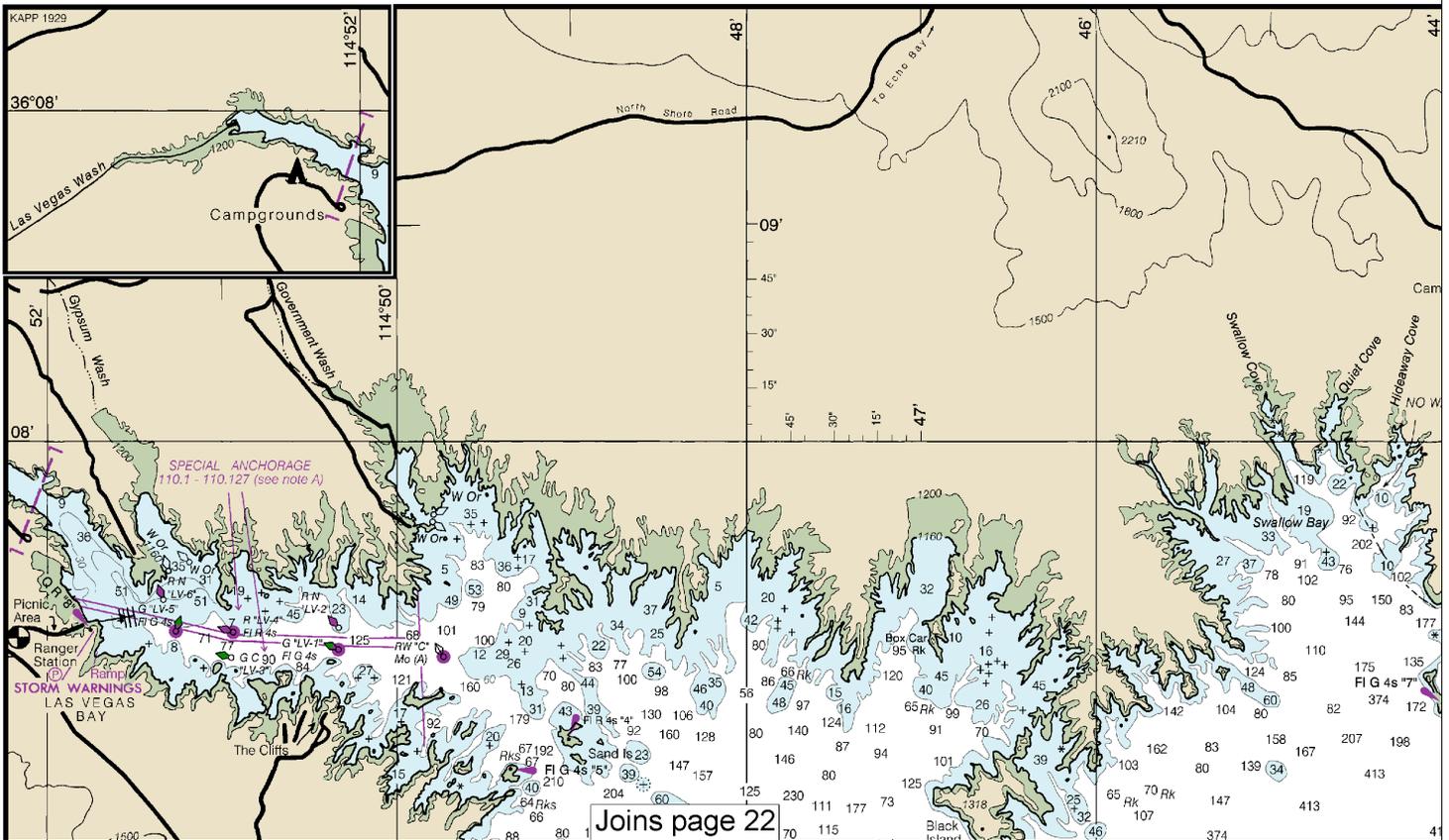
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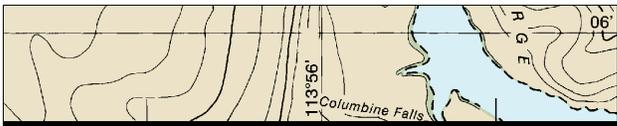
WEATHER. Listed below are the average minimum and maximum temperatures throughout the year at Boulder City.

	Jan.	Feb.	Mar.	Apr.	May	June
Avg. Temp.	44	48	55	65	74	82
Max.	57	62	69	80	89	98
Min.	30	35	40	50	58	66

	July	Aug.	Sept.	Oct.	Nov.	Dec.
Avg. Temp.	89	87	80	67	53	46
Max.	105	103	97	83	68	59
Min.	72	71	63	50	37	32

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HISTORICAL HAPPENINGS

Grand Canyon of the Colorado was first seen by white men in 1540 when, as one of Coronado's captains, led a party to the rim in northern Arizona. In 1776, a party led by Father Silvester de Escalante made the first successful crossing of the Colorado River in the canyon. This occurred at a point now known as "Crossing of the Fathers" north of Lee's Ferry in Glen Canyon. In 1825, fur trader and trapper Jedediah Smith led the area now occupied by Lake Mead in 1826-27, when he went down the Virgin River to the Colorado River on his way to the

er, other parties pushed their way through the region along the Mormon Trail to the Colorado River. In 1846, J. C. Ives, attempting to determine the navigability of the Colorado River for the Federal Government, brought the steamboat "Enterprise" upriver into the lower end of the Grand Canyon in 1857-58. A decade later, in 1869, Maj. John Wesley Powell conducted the first expedition down the Colorado River through the Grand Canyon by raft.

In 1871, on another Government expedition, Capt. George Wheeler ventured upstream into the lower part of the Grand Canyon, as far as Diamond Creek.

On March 11, 1931, construction was started on Hoover Dam in an attempt to control the waters of the Colorado River. By 1935, water was beginning to be impounded behind the dam. The last concrete was placed on May 29, and the structure was dedicated September 30, 1935.

Other exciting phases of the area's history deal with settlements along the river, river expeditions, and mining.

History is still being made on the waters of Lake Mead and the Colorado River. As late as 1960, the Colorado River had not been completely conquered by boats running upstream. In the summer of that year, a nine-man expedition successfully piloted three boats, propelled by jets of water, up through the rapids of the Grand Canyon from Lake Mead to Lee's Ferry in Arizona. The last barriers of the Colorado River—its rapids—had been conquered!

PREHISTORIC MAN LIVED HERE

Man has inhabited this region almost continuously for thousands of years. In such an arid region, the pre-Columbian Indian inhabitants naturally centered their activities around dependable water supplies afforded by rivers and prehistoric lakes. Many of their campsites have been located.

Along the Muddy River in Moapa Valley, ruins of extensive aboriginal dwellings have been discovered. The popular name, "The Lost City" has been given to this group of Pueblo ruins.

The rising waters of Lake Mead covered many archeological sites, including parts of The Lost City. Careful surveys were conducted to salvage and study this irreplaceable prehistoric evidence before it became lost for all time beneath the water.

Lost City Museum, operated by the State of Nevada, is located at Overton, near the site of The Lost City. Here you may learn more of the fascinating story of the early Basketmaker and Pueblo Indians who lived, farmed, mined, fished, and hunted in this valley hundreds of years ago.

The more recent Paiute, Hualpai, and Mohave Indians, some of whom still inhabit outlying sections of this region, also left evidences of their cultures.

You are welcome to look at the various Indian sites within the area. However, digging or disturbing any site, or collecting items found on the surface, is not permitted. They are protected by the Antiquities Act of 1906 so that these irreplaceable remains may not be damaged or lost. Only by piecing together the undisturbed cultural materials can skilled archeologists tell us the story of these ancient peoples. Nothing can be learned from material that has been disturbed.

Lake Mead National Recreation Area

few suggestions
VISIT HOOVER DAM from 8 a.m. to 5 p.m. daily. You are able to see some of the dam's interior.

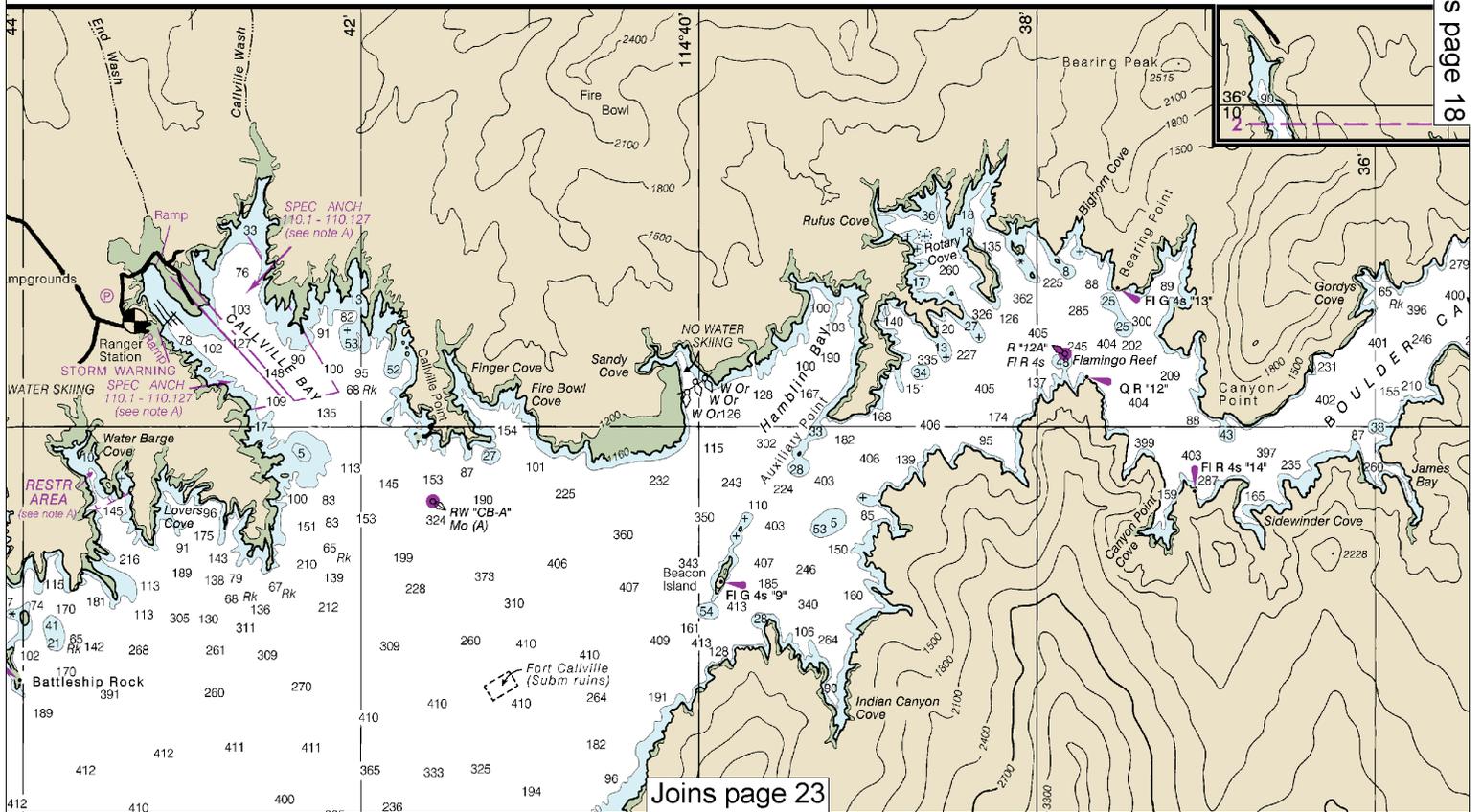
LAKE MEAD. The Hoover Dam has a maximum capacity of 26,200,000 gallons. The Colorado River flows long ago by the dam, 550 miles long.

SWIMMING. The beaches are available in the area and lifeguards are on duty.

BOATING. A variety of boats are available. For public safety, motor boats are not permitted in the area.

For public safety, navigation, and Park Rangers.

FISHING. You must have a fishing license. Special Use starts at \$1.00 for children under 12. You should read the rules. **WATER-SKIING.** Equipment is available for rent. **SCUBA DIVING.** A swimming beach is available.



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to terrain, wave a 2- by 3-foot piece of orange material (or orange life jacket) overhead from side to side. This will alert the ranger patrol plane, other aircraft, or boats of your plight.

SOME THINGS TO SEE AND DO

Lake Mead National Recreation Area offers you a variety of activities. Listed below are a few suggestions of things to do and places to see.

VISIT HOOVER DAM. Bureau of Reclamation guides conduct tours daily through Hoover Dam from 8 a.m. to 5 p.m. (time subject to seasonal changes). On these tours, you will be able to see some of the interior operations of one of the engineering wonders of the world.

LAKE MEAD. This large manmade reservoir is named after Dr. Elwood Mead, who was Commissioner of Reclamation from 1924 to 1936, it has an area of 229 square miles at maximum capacity, a length of 110 miles, and a depth of 589 feet. Storage capacity of the lake is 26,200,000 acre feet of water - an amount equal to more than 2 years of normal flow from the Colorado River. Wide sandy beaches, shadowed coves, and steep canyon walls carved long ago by the raging waters of the Colorado River make up the shoreline that is more than 550 miles long. Lake Mead has become a major area for recreation in the Southwest.

SWIMMING. Lake Mead is ideal for swimming many months of the year. Public swimming beaches are available during summer at Boulder Beach. Buoys delineate the swim beach area and lifeguards are on duty. Caution should be exercised when swimming elsewhere.

BOATING. As a family sport, boating is unexcelled at Lake Mead National Recreation Area. Free public launching ramps are provided at each developed area on the lake. Boats and motors can be rented or chartered from several concessioners. Mooring slips and buoys are available. Mooring or slip charges should be discussed with the concessioner concerned. For public safety and health, specific regulations affecting water safety, sanitation, navigation, and boat operation must be observed. These regulations can be obtained from Park Rangers.

FISHING. You can fish throughout the year within Lake Mead National Recreation Area. A fishing license from either Nevada or Arizona is required. To the license must be affixed a Special Use stamp from the other State. Nonresident children under 14 years of age and resident children under 18 years of age are not required to have a license. Before fishing you should read the current regulations concerning creel limits.

WATER-SKING is rapidly increasing in popularity on Lake Mead. Several concessioners have equipment for rent. Be sure to ask a Park Ranger about water-skiing regulations.

SCUBA DIVING. You may SCUBA dive in Lake Mead, but use caution and stay away from swimming beaches and harbors. Always display the red and white SCUBA diving flag.

CRUISES ON LAKE MEAD. Leaving Lake Mead Marina daily, these cruises give you an opportunity to become better acquainted with Lake Mead. In summer, a Park Interpreter goes along on many of the trips. Ask about current schedules and rates.

HIKING AND EXPLORING are excellent in the region, except during the warmer summer months. However, water is scarce so take an adequate supply with you.

MOTORING. There are hundreds of miles of roads; many are paved, others are graded, and some are unmaintained 4-wheeled vehicle trails. If you travel off-road in your vehicle, check first at a Ranger station. A map of backcountry roads, approved for vehicle travel, is there for your reference. CAUTION: These roads are not recommended for 2-wheel drive vehicles. Forty miles southeast of Hoover Dam, a graded road leaves Kingman Highway and leads about 40 miles north to South Cove and Pearce Ferry. You will have an excellent view of the Colorado River and the Grand Wash Cliffs, and along the route a view of Gregg's Basin on Lake Mead. The road passes through one of the largest forests of Joshua trees in the entire Southwest. Ask a Park Ranger about other places to visit.

CAMPING. There are twelve developed campgrounds in the recreation area and they are open year round. Fees are collected under the provision of the Land and Water Conservation Fund Act. There are no entrance fees to the park, but there is a fee for the use of developed campgrounds. There are no individual connections for electricity, water, and sewer. However, comfort stations and water faucets are conveniently located. Trailer sites with hook-ups are available from the concessioners in the park.

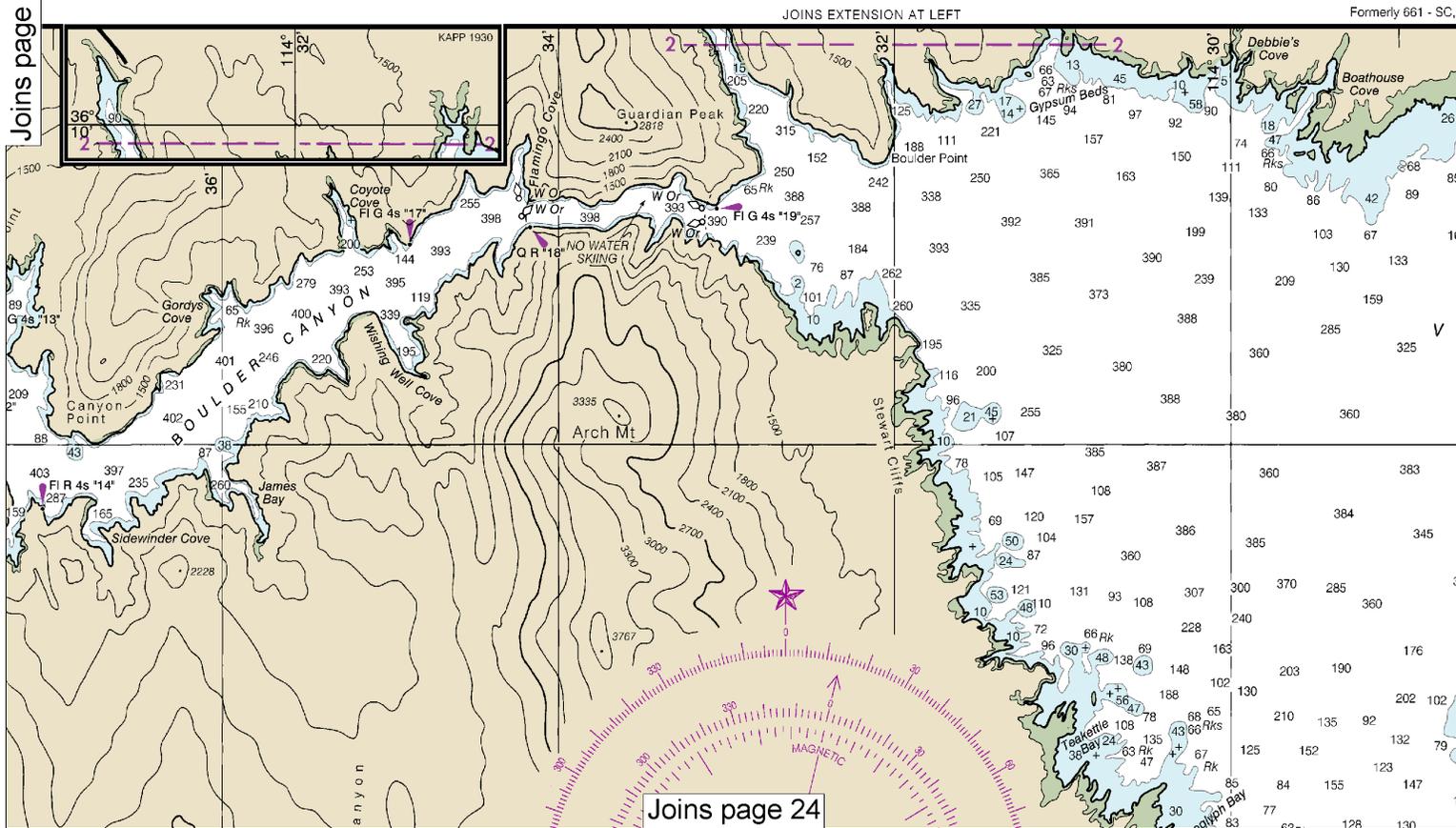
The annual Golden Eagle and Golden Age passports are available. Camping is confined to designated campgrounds, except on trips into remote sections of the park. Camping space is available on a first come, first served basis; consequently no reservations can be accepted. Camping is limited to 30 days within any 90 day period. Firewood is not available, but charcoal is sold by concessioners. Each of the campgrounds has shade trees, water, modern rest-rooms, charcoal grills, and tables. Please place your trash in the containers provided. If you camp in the backcountry, use trash receptacles at the launching ramps when you return.

Campfires are permitted in remote areas. No campfires are permitted on beaches near boat harbors or on swimming beaches.

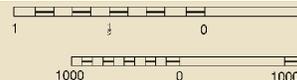
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at the various In- However, digging collecting items permitted. They es Act of 1906 so hains may not be ing together the rials can skilled y of these ancient e learned from rbed.

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Note: Chart grid lines are aligned with true north.

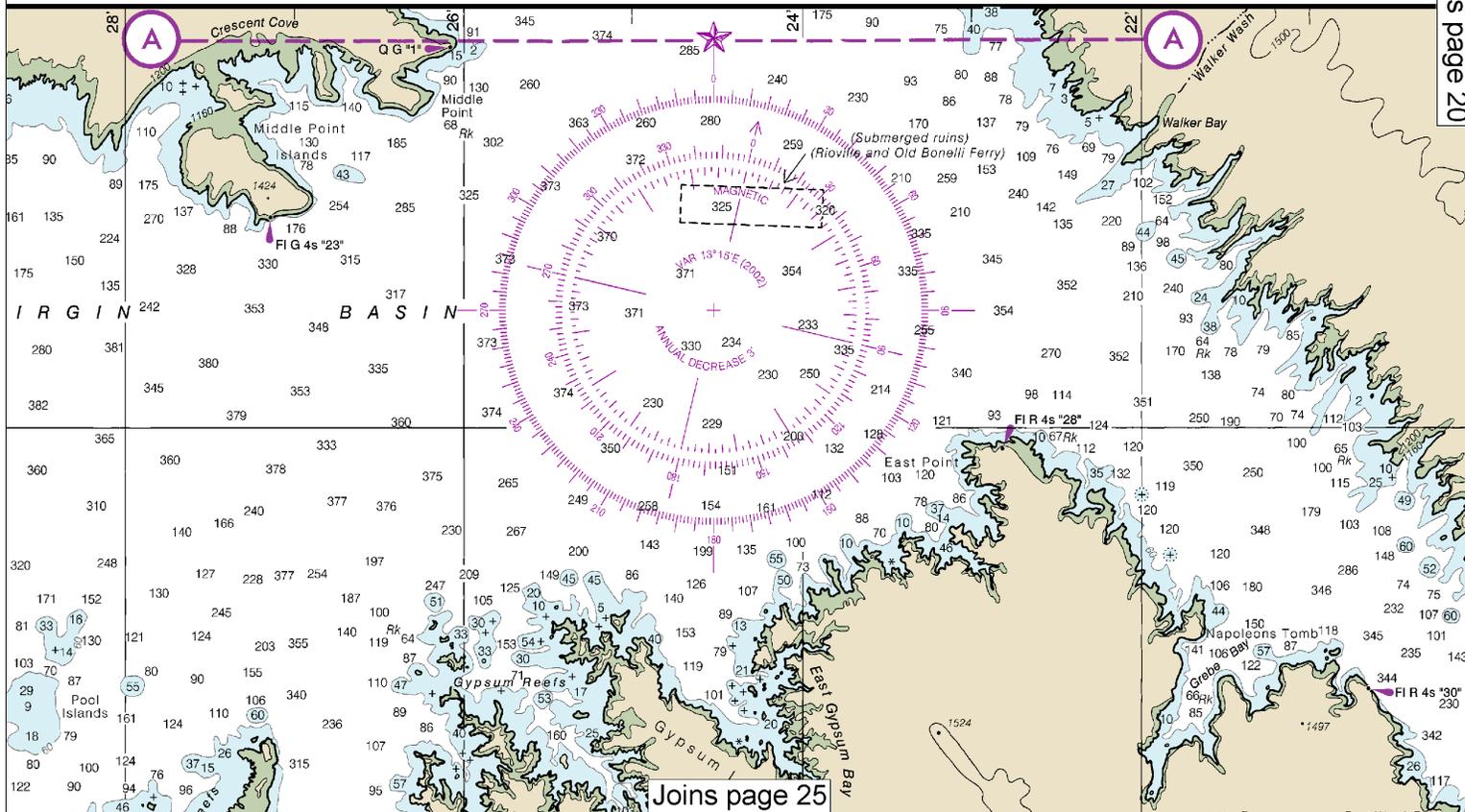


SAFETY TIPS

1. Always use care in navigation. The fluctuating surface level of the lake may be hazardous to navigation in that reefs may become exposed or submerged depending upon the water elevation. Boating is hazardous on the lake during periods of high wind. If you are caught in open water, head for the nearest sheltered spot and wait it out.
2. Always instruct at least one other person on how to operate your boat.
3. Know your boat's fuel capacity and cruising radius.
4. Read the information posted at Ranger stations, launching ramps, and on campground bulletin boards.
5. National Park Service Rangers are at Lake Mead National Recreation Area to provide information and other assistance and to enforce regulations, including safe boating practices. Please check with them if you have any questions.
6. Before you start a trip on water or land always inform some responsible person as to where you are going and when you expect to return.
7. An approved personal flotation device must be available for each passenger in a boat. Carry day and night flares for distress signals.
8. Weather forecasts are available daily at Ranger stations, at the bulletin boards on the launching ramps, and at the offices of concessioners.
9. For protection against the brilliant desert sun, you should have sunglasses available. During the summer, when traveling in the backcountry it is advisable to wear a hat and a long sleeved shirt. You should carry extra water, food, and a shovel. Take a map of the area. Never camp in washes. They are paths for flash floods.
10. If you become stranded away from the lake and have a vehicle, stay with it. Use a mirror for signaling or build a fire. If you must walk out, walk at night, it's cooler. Leave a note giving your name, destination, date and time you started walking.

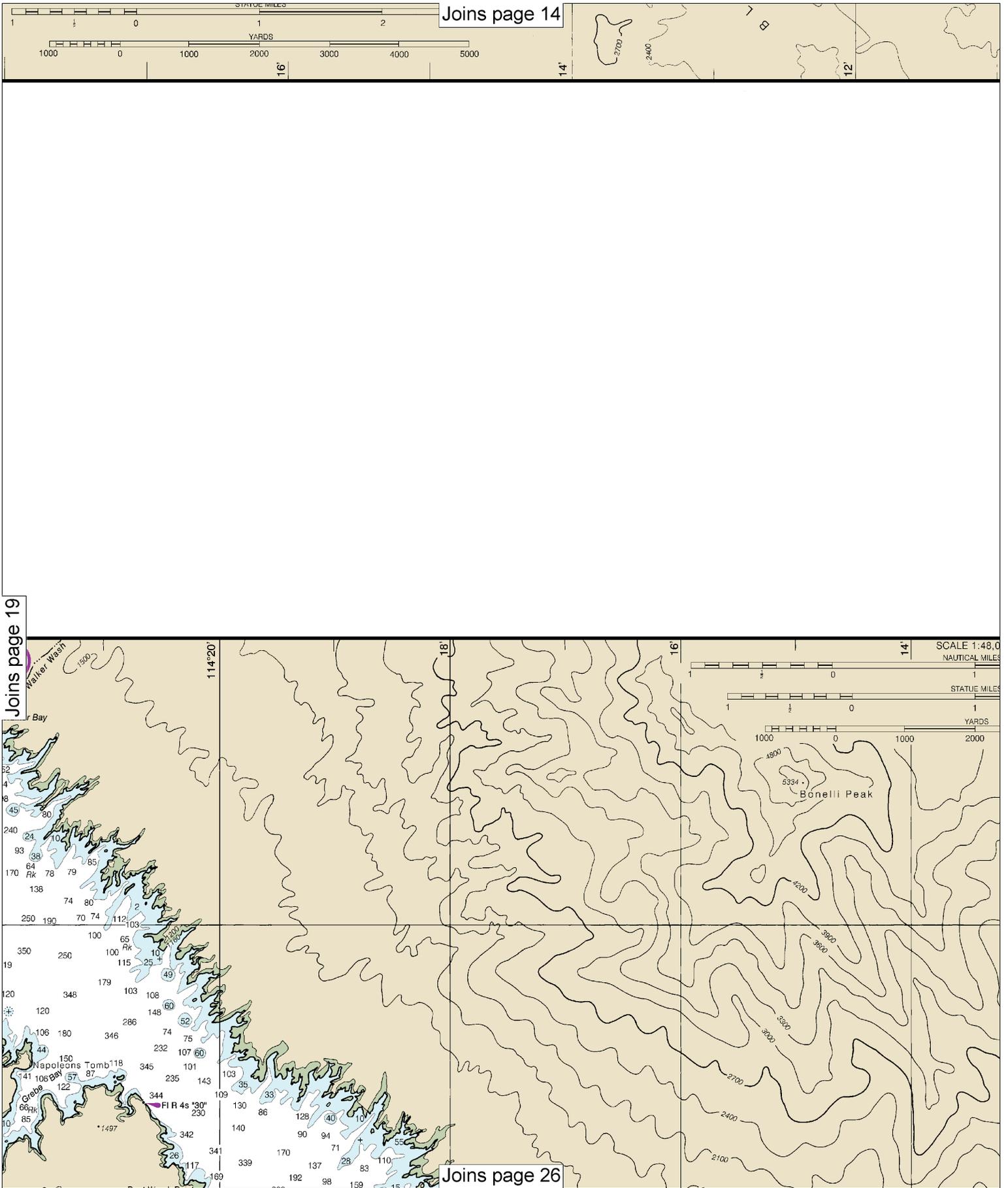
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JOINS SIDE B



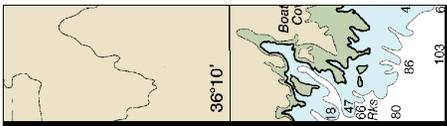
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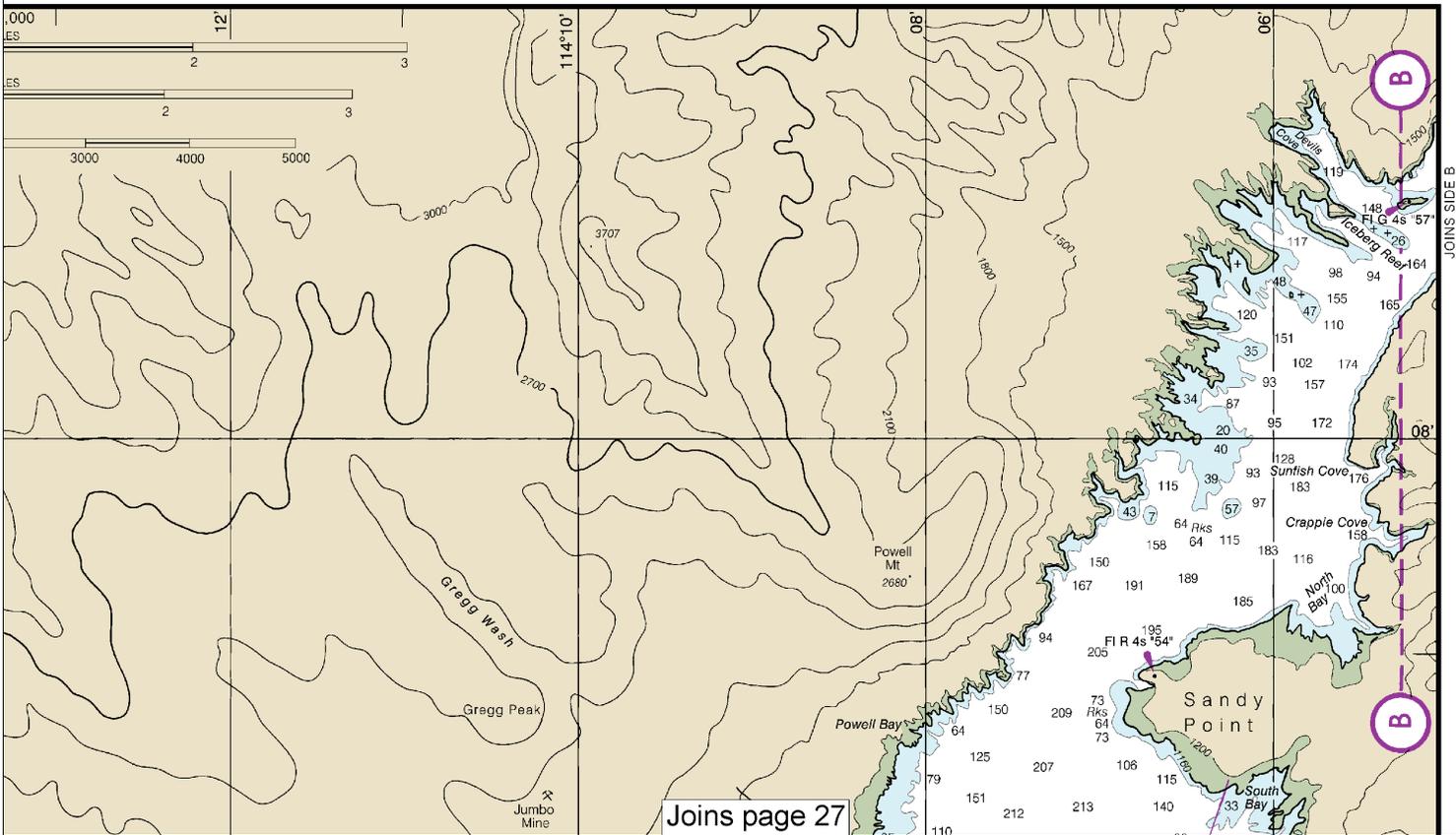


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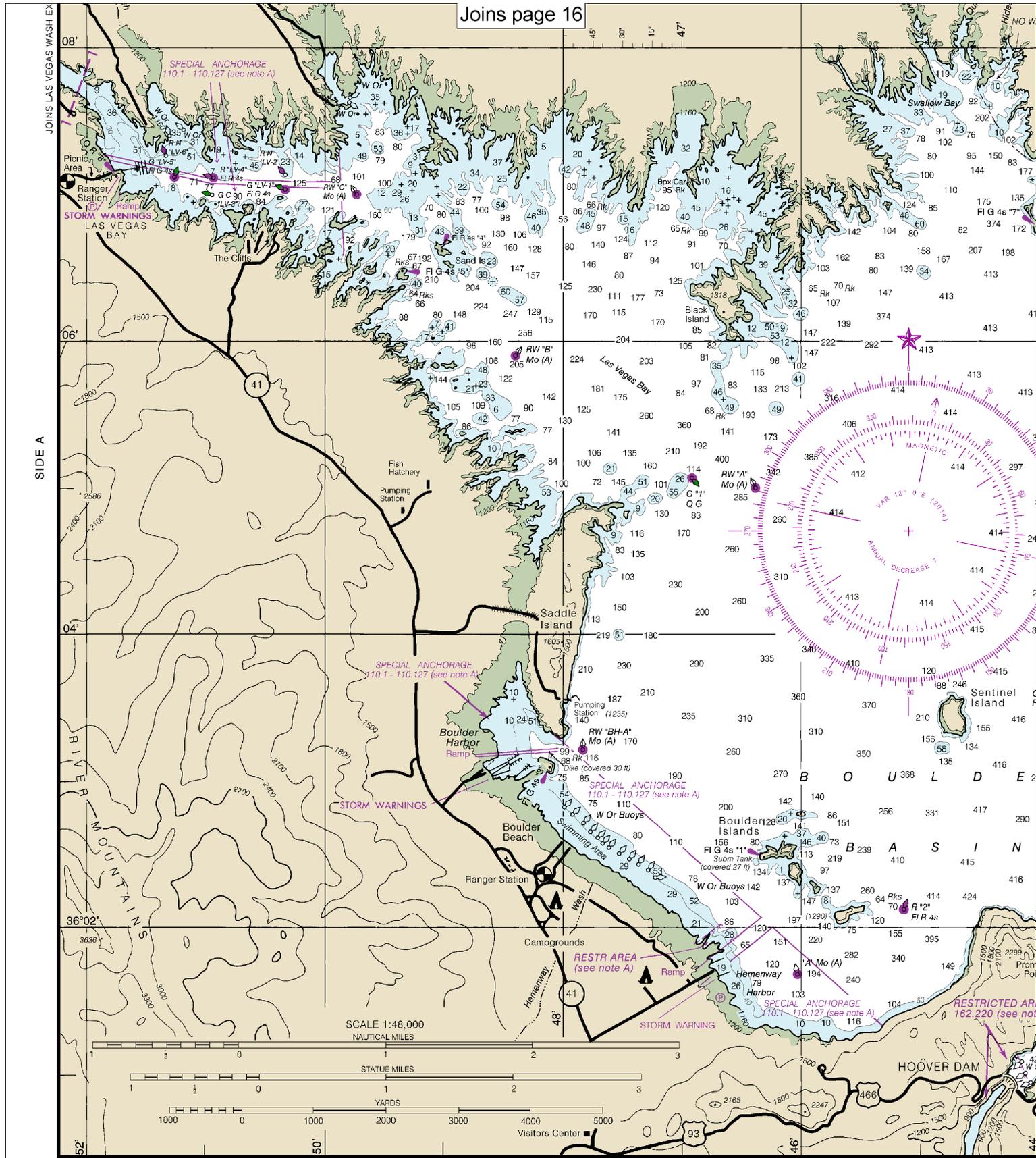
Note: Chart grid lines are aligned with true north.



Nautical Chart Catalog No. 2, Panel R



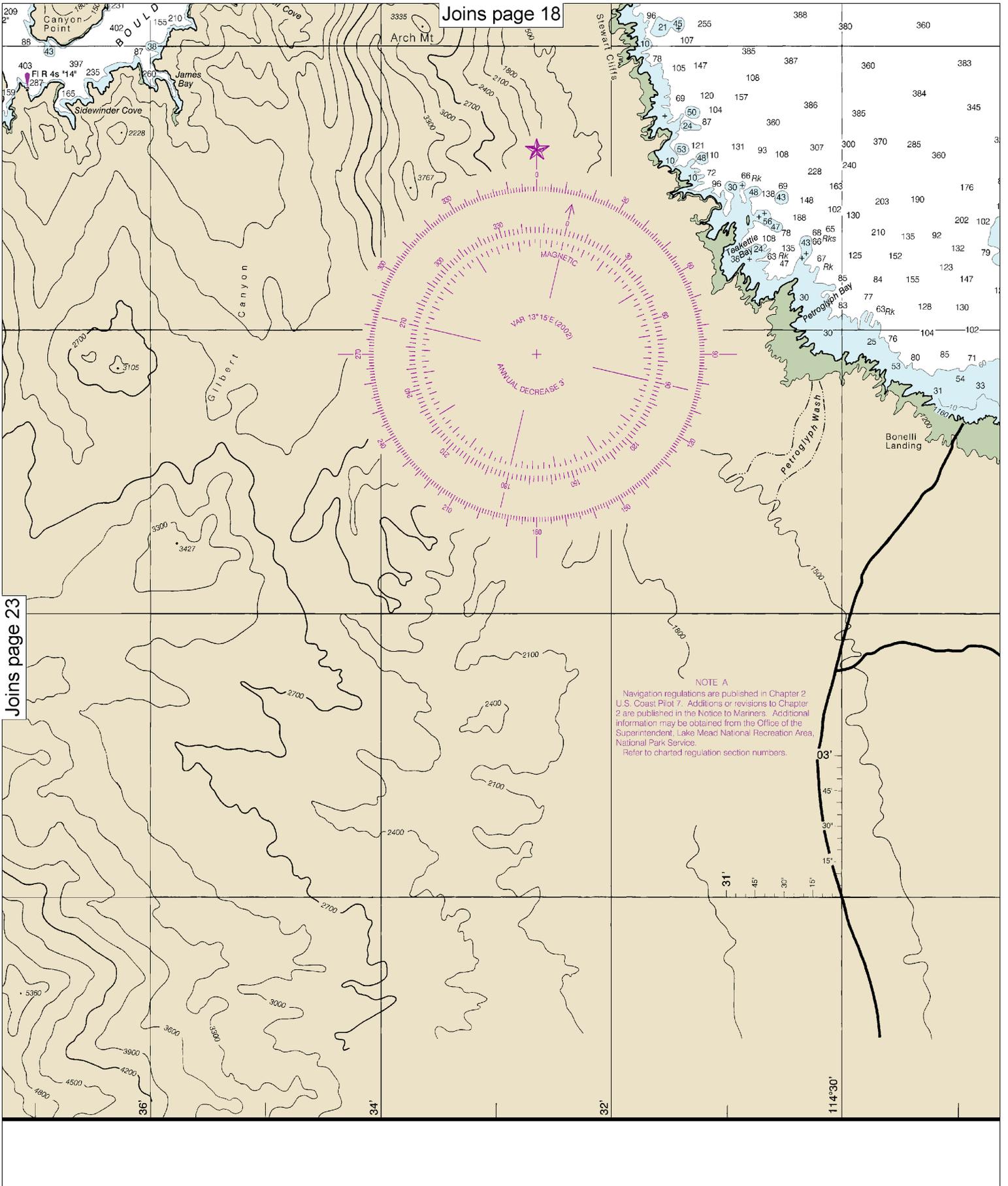
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18687 13th Ed., Nov. 2002. Last Correction: 6/7/2016. Cleared through:
 LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016)

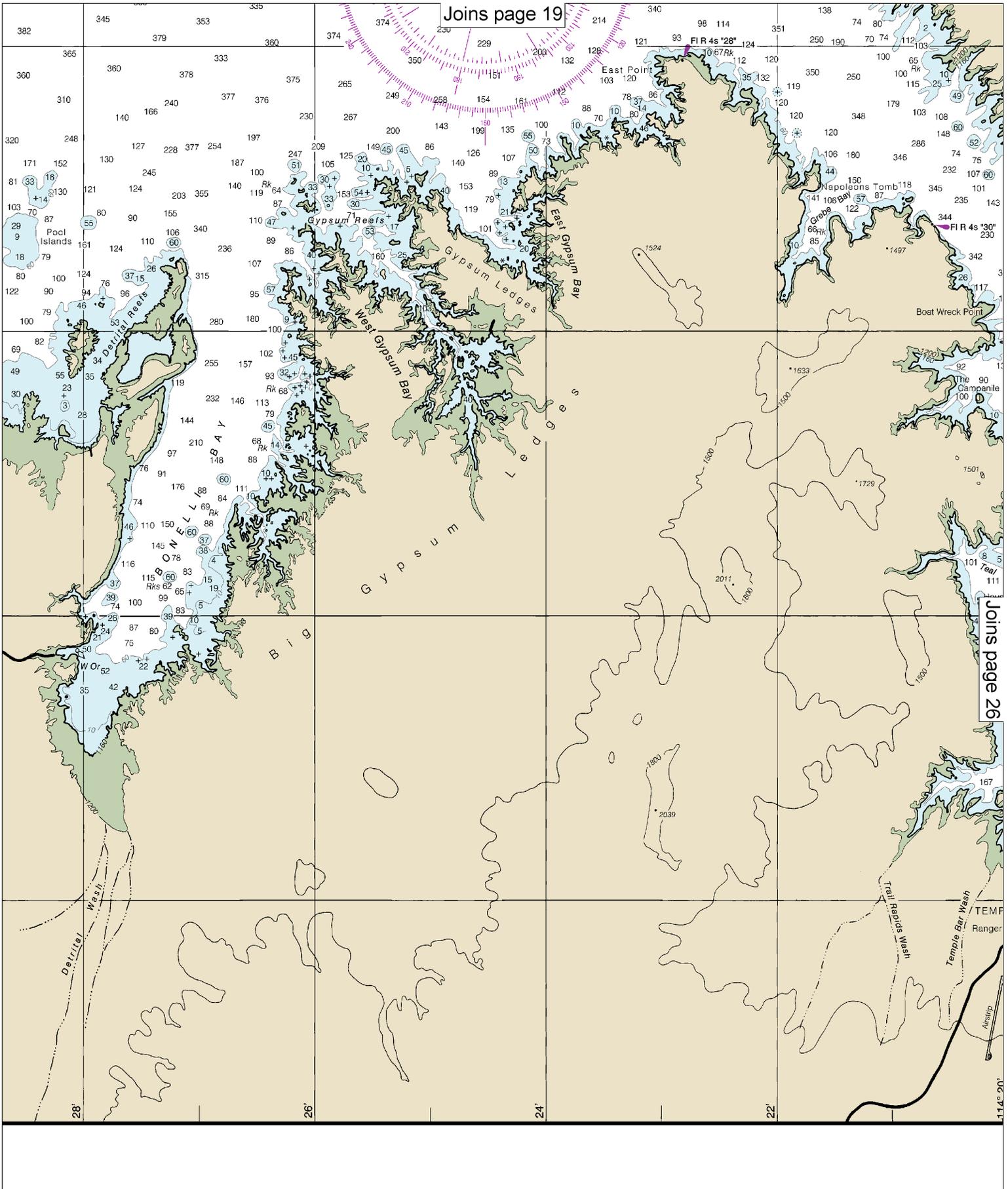


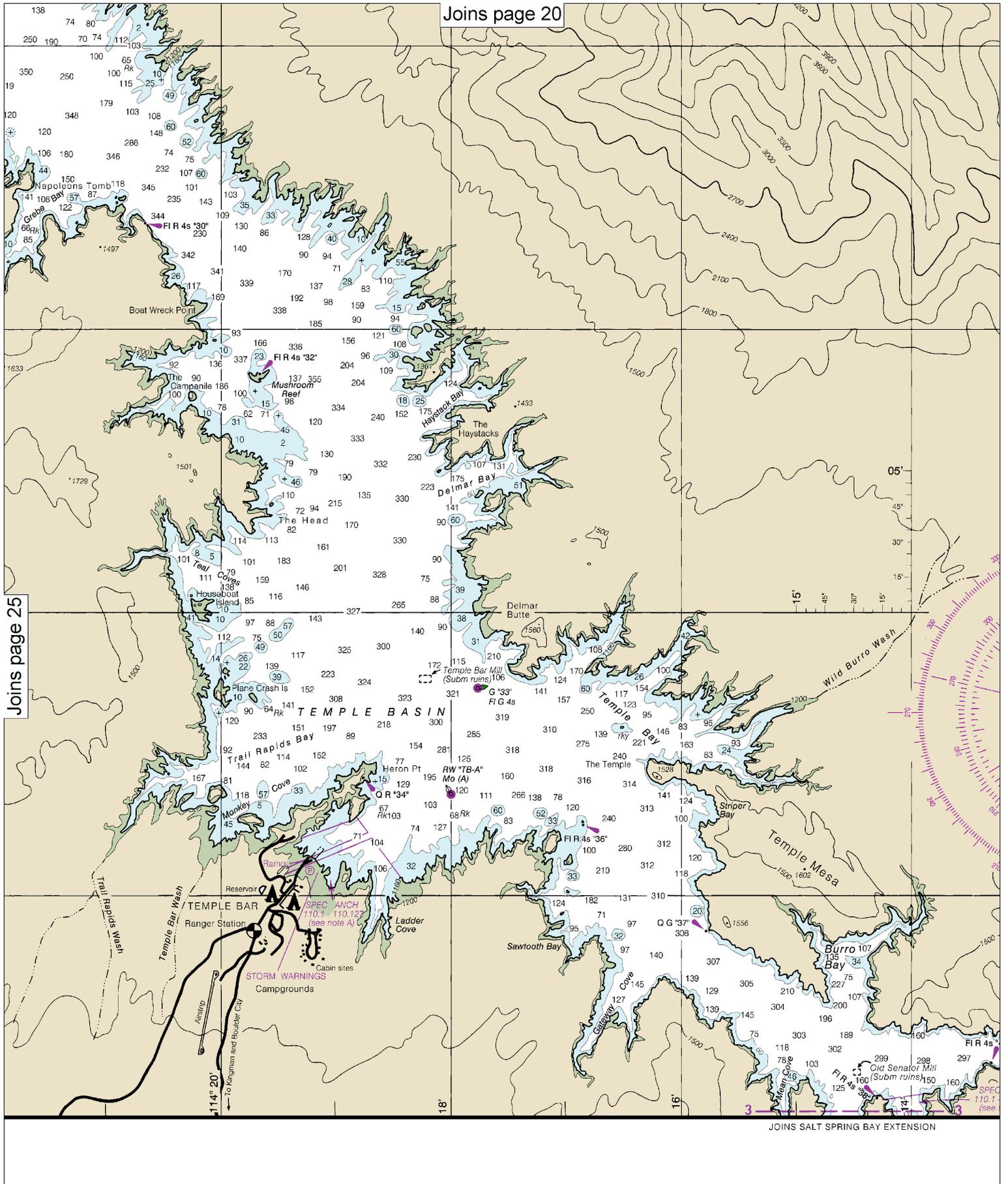
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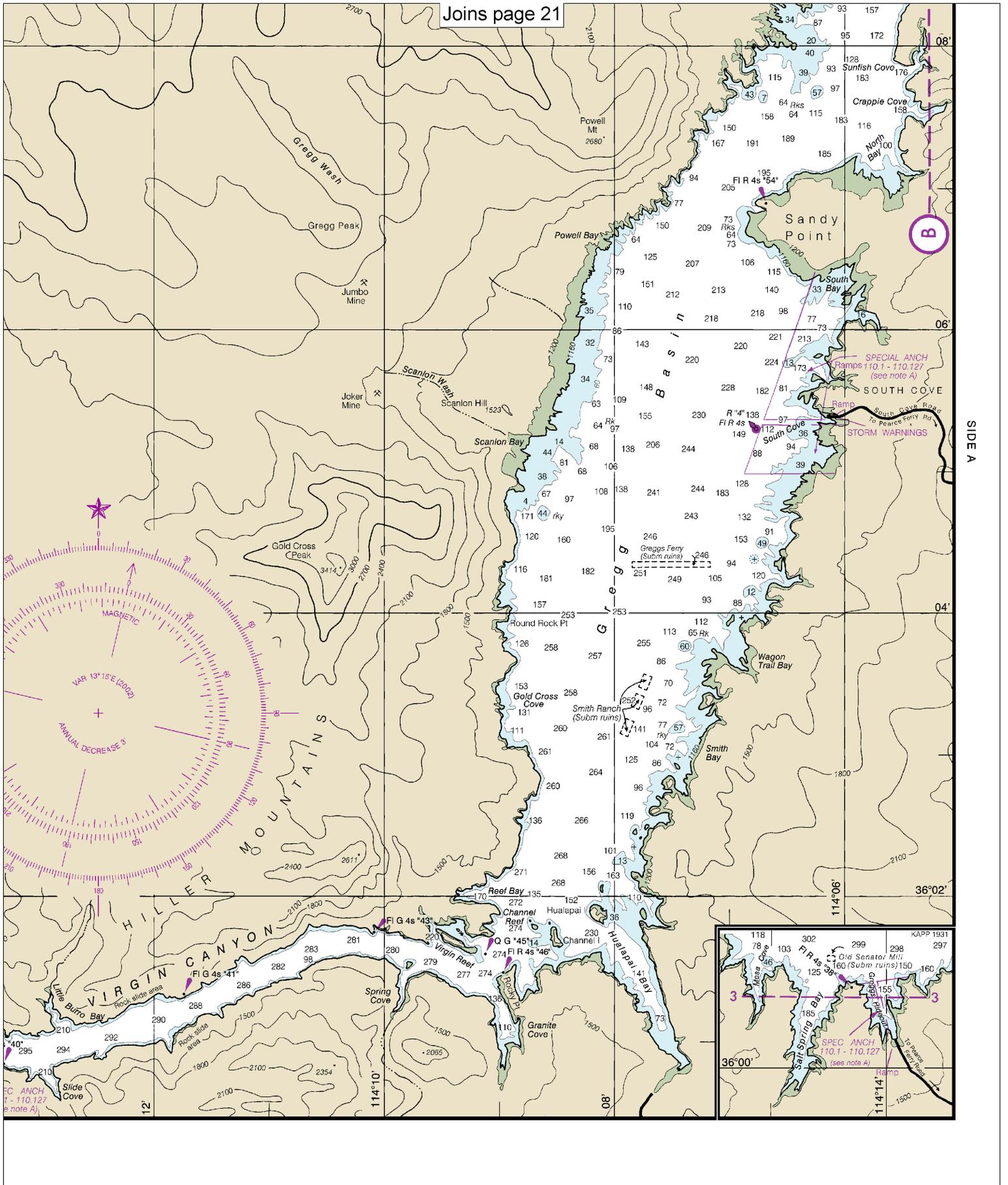
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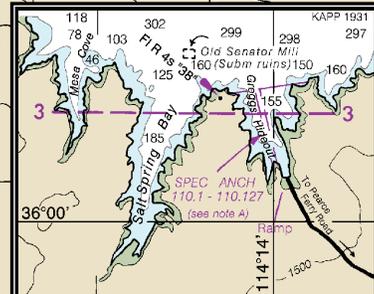
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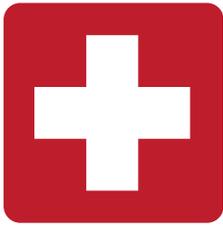
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JOINS SALT SPRING BAY EXTENSION



SIDE A





EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

- Nautical chart related products and information — <http://www.nauticalcharts.noaa.gov>
- Interactive chart catalog — <http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml>
- Report a chart discrepancy — <http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx>
- Chart and chart related inquiries and comments — <http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs>
- Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
- Coast Pilot online — <http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm>
- Tides and Currents — <http://tidesandcurrents.noaa.gov>
- Marine Forecasts — <http://www.nws.noaa.gov/om/marine/home.htm>
- National Data Buoy Center — <http://www.ndbc.noaa.gov/>
- NowCoast web portal for coastal conditions — <http://www.nowcoast.noaa.gov/>
- National Weather Service — <http://www.weather.gov/>
- National Hurricane Center — <http://www.nhc.noaa.gov/>
- Pacific Tsunami Warning Center — <http://ptwc.weather.gov/>
- Contact Us — <http://www.nauticalcharts.noaa.gov/staff/contact.htm>



— For the latest news from Coast Survey, follow @NOAAcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.