MARINE WEATHER INFORMATION

The National Park Service communications center makes twice daily weather broadcasts for boaters on Lake Mead. The Lake Mead broadcasts are on marine VHF station KGJ 734 (channel 22A (157.1 MHz)) located at 36°08'40"N., 114°30'10"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.

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 any way the passage of a vessel or passage of a vessel which can navigate only inside that channel.
A motorboat being overtaken has the right-of-way.
When 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.
Mariners are urged to become familiar with the complete text of the Rules of the Road in U.S. Coast Guard publication COMDTINST M16672.2.
For emergencies call KGJ 713 (National Park Service) on marine band channel 16.

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/mcd/contact.htm

STORM WARNINGS

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.

REGULATORY MARKERS

CHANNEL BUOY GUIDE
Entering port or going upstream

NOTE

Aids to Navigation on Lake Mead are maintained by the National Park Service. Lights are hve types, fixed and movable. Fixed lights are permanently located about any profitable tide level. Movable lights are not relied upon when the tide 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 have orange triangular dayboards on the edges of reefs.
NOTE: Reef markers are not charted.

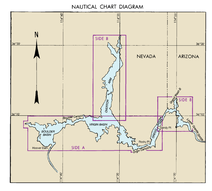
WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. Refer to the appropriate Coast Pilot and Coast Pilot for general information, and Superintendent, Lake Mead National Recreation 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.

NAUTICAL CHART DIAGRAM



NAUTICAL CHART 18687

ARIZONA - NEVADA

LAKE MEAD

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 1,140 feet above Mean Sea Level.

LAKE LEVELS, WATER DEPTHS AND ELEVATIONS

The 1100 foot elevation (ft) blue shaft curve (—) indicated by the dotted contour and represents a low lake level. The 1140 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 1140 feet above Mean Sea Level. The green tint indicates areas with elevations between 1140 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). World Geodetic System 1984 (WGS 84) is equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be shifted 0.06" southward and 0.08" southward and 2.50" 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
Al alternating
Bn beacon
Dir directional
F fixed
Fl flashing
G green
Gp group
Ldg leading
LFl long flashing
Mo(A) Morse code "A"
Oc occulting
Or orange
Q quick flashing
R red
Ra Ref radar reflector
Ro Mo radiobeacon
R Sft radio tower
Ref rotating
Sec seconds
SGC sector
Sft stadia mtrs
V violet
W white
WHFG white-red-green
Y yellow

Bottom characteristics

Blds boulders
Cbl cobble
Cl clay
Co coral
Grs grass
Gy gray
M mud
Oys oysters
S sand
Sh shells
Sft soft
Stk sticky
W weed

Miscellaneous

Abd abandoned
(D) landmark (buoy)(a)
Obscd obscured
PD position doubtful
Sukn submerged
PA position approximate
Rep reported
(a) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(1) 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 through Notice to Mariners (NM) published weekly by the Defense 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.

Fold out facilities

Formerly 661 - SC, 1st Ed., 1967 KAPP 1873
Nautical Chart Catalog No. 2, Panel R

JOHNS EXTENSION AT LEFT

JOHNS SIDE B

JOHNS SALT SPRING BAY EXTENSION

LAKE MEAD WATER DISTANCE TABLE

Distances indicated in statute miles.
Figure at the intersection of columns opposite false locations in question, is the distance to charge between the two.
Example:
Callville Harbor is 85 statute miles from Grand Wash.

	CALLVILLE BAY	LAS VEGAS BAY	ECHO BAY	STEWART POINT	GRAND WASH	PEARCE FERRY	OVERTON BEACH	VIRGIN CANYON	TEMPLE BAR	BONELLI LANDING	NAPOLEON'S TOMB	BOULDER CANYON	ICEBERG CANYON	HEMENWAY HARBOR
BOULDER HARBOR	9	7	40	33	38	67	66	53	57	35	37	27	13	7
HEMENWAY HARBOR	13	9	44	36	33	58	61	48	52	30	33	23	13	16
ICEBERG CANYON	7	5	38	31	36	65	64	51	55	33	35	25	11	—
BOULDER CANYON	5	14	39	32	34	64	63	50	54	32	34	24	—	11
BONELLI LANDING	14	28	26	18	23	52	45	34	38	14	16	—	24	23
NAPOLEON'S TOMB	35	37	14	13	16	47	33	18	22	7	—	16	35	36
TEMPLE BAR	27	27	20	20	27	29	29	30	5	—	7	16	18	19
VIRGIN CANYON	33	44	26	25	30	37	31	7	—	5	14	14	35	36
ICEBERG CANYON	43	57	34	41	47	13	4	—	10	35	34	34	48	56
GRAND WASH	0	43	41	51	56	17	—	4	29	51	47	45	46	57
PEARCE FERRY	58	76	73	57	50	—	4	12	27	39	4	30	52	59
STEWART POINT	33	45	7	7	—	50	38	47	51	30	0	37	50	51
ECHO BAY	38	46	14	—	7	57	51	41	25	13	14	30	33	34
OVERTON BEACH	36	50	—	7	27	73	57	34	36	23	24	39	41	42
LAS VEGAS BAY	12	—	50	45	75	63	57	44	37	31	39	14	7	8
CALLVILLE BAY	—	12	36	33	56	51	50	43	27	14	22	10	7	9

Distances determined by the National Park Service

GROUND-AIR EMERGENCY CODE

If you are lost, or in need of help or medical care, you should use one of the following systems to signal the ranger patrol plane or other aircraft. For land emergencies: The symbols below (from the Air Force Survival Manual) will be understood by the pilots of all planes.

Require doctor, serious injury.....
Require food and water.....
Unable to proceed.....
Am proceeding in this direction.....
(Same this symbol whenever you leave vehicle)
Require fuel and oil.....
Indicate direction to proceed.....
All is well.....
No - negative.....
Yes - Affirmative.....

IFXTLKLNY

For boating emergencies, or where the above system cannot be used due to smoke, wave a 3- by 5-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.

NOTE A

Navigation regulations are published in Chapter 2 U.S. Code Title 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.

NOTE B

Navigation regulations are published in Chapter 2 U.S. Code Title 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.

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 Service, a bureau of the U.S. world, 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.

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

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 be above 110°F (43°C), nights are usually cool and pleasant. Winter days are mild, but nights are usually comfortable. However, the weather is most delightful from late September through early December and from early April to June.

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	88	96
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

HISTORICAL HAPPENINGS

The Grand Canyon of the Colorado was first seen by white men in 1540 when Cardenas, one of Coronado's captains, led a small party to the rim in northern Arizona.

In 1776, a party led by Father Silvestez ness on Escalante made the first successful crossing of the Colorado River in the canyon country. This crossing is now known as the "Crossing of the Fathers" north of Lee's Ferry, Arizona.

The full beauty and magnificence of the canyon entered the area now occupied by Lake Mead in 1858-57, when he went down the Virgin River to the Colorado River on his way to the coast.

Later, other parties pushed their way through the canyon, but the Mormon Trail and the Colorado River

Lt. J. C. Ives, attempting to determine the navigability of the Colorado River for the Federal Government, brought the steamboat "Explorer" upriver into the lower end of the Black Canyon in 1857-58.

On November 24, 1866, Maj. John Wesley Powell conducted the first exploration down the Colorado River through the Grand Canyon by rowboat.

In 1871, on another Government exploration, Capt. George Wheeler ascended 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, the dam was complete and the impounded behind the dam. The last concrete was placed on May 29, and the structure was dedicated September 30, 1935.

Other existing phases of the area's history date with settlements along the river, river excavations, and mining.

History is still being made on the waters of Lake Mead and the Colorado River. As soon as the Lost City had been explored and 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 occupied this region almost continuously for thousands of years. In south and region, the pre-Columbian Indian inhabitants naturally centered their activities around dependable water supplies afforded by rivers and prehistoric lakes. Many of their settlements were large.

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 prehistoric sites. Before the area 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, artifacts depicting the fascinating story of the early Basketmaker and Pueblo Indians who lived, farmed, mined, hunted, 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.

Your are welcome to look at the various Indian sites within the area. However, digging for artifacts is illegal. Do not disturb anything 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.

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). Or if 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. Behind Hoover Dam, it is 589 feet deep at the deepest point. It holds 28,255,000 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 more long. Lake Mead has become a major area for recreation in the Southwest.

SWIMMING. Lake Mead is ideal for swimming months of the year. Public swimming beaches are available during summer at Boulder Beach. Buoys delineate the swim beach areas. Swimming is also fine at the many undeveloped beaches throughout the recreation area.

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 concessionaires. 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 16 years of age are not required to have a license. Before fishing you should read the current regulations concerning creel limits.

WATER-SKIING is rapidly increasing in popularity on Lake Mead. Several concessioners have water-ski boats for rent. Be sure to follow the rules of safety when water-skiing.

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 available to visitors, except during the warmer summer months. However, water is scarce so take an adequate supply with you.

ROADS. Many roads lead to points of interest in the area. Most roads are graded, and some are unimproved 4-wheel-drive tracks. 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 Joshuatrees in the entire Southwest. Ask a Park Ranger about other places to visit.

CAMPING. Developed campgrounds are available 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.

CAMPFIRES. Campfires are permitted in developed areas and in 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 for sale in 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.

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 limitations especially and occupancy limit.
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 a first aid kit and know how to use it.
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 should become stranded or lost in your vehicle, stay with it. Use a horn, flashlight, 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.

This chart is canceled. No new editions will be issued.

18687 Ed. 20, May 2000, Last Hydrographic Classified Through
Corrected through Local Notice to Mariners dated
To ensure that this chart was printed at the proper scale, fill the bar below should measure an inches (100 millimeters)