



**30 X 60 MINUTE QUADRANGLE
SHOWING**

- Contours and elevations in meters
- Highways, roads and other manmade structures
- Water features
- Woodland areas
- Geographic names
- Bathymetric contours in meters



U. S. GEOLOGICAL SURVEY
NATIONAL OCEAN SERVICE



1979

Produced by the Geological Survey and the National Ocean Service

Compiled from USGS 1:500,000 scale topographic maps dated 1967-1973. Material removed from aerial photographs taken 1973-1977 and other source data. Revisited information added where necessary. Map adopted by USGS in 1978.

Vertical datum: Mean low water (MLW) datum for the Pacific coast of the United States, based on the 1929 National Tidal Datum Survey, and the 1983 International Geodetic Survey datum for the Atlantic coast.

Horizontal datum: North American Datum 1983 (NAD 83).

Vertical scale: Mean low water (dotted) line and mean low water (thick solid) symbol compiled by NCS Survey and Mapping Division, U.S. Geological Survey. Apparent vertical exaggeration is 1.5 times. Contours shown by light and thick solid lines.

Projection and 1:500,000 meter grid: zone 11; Universal Transverse Mercator (UTM) projection; datum is based on California coordinate system; zone 6.

1:500,000 scale map: 1977 National Ocean Service, map 6.

1:250,000 scale map: 1977 National Ocean Service, map 6.

1:50,000 scale map: 1977 National Ocean Service, map 6.

1:25,000 scale map: 1977 National Ocean Service, map 6.

1:12,500 scale map: 1977 National Ocean Service, map 6.

1:6,250 scale map: 1977 National Ocean Service, map 6.

1:3,125 scale map: 1977 National Ocean Service, map 6.

1:1,562 scale map: 1977 National Ocean Service, map 6.

1:781 scale map: 1977 National Ocean Service, map 6.

1:390 scale map: 1977 National Ocean Service, map 6.

1:195 scale map: 1977 National Ocean Service, map 6.

1:97 scale map: 1977 National Ocean Service, map 6.

1:48 scale map: 1977 National Ocean Service, map 6.

1:24 scale map: 1977 National Ocean Service, map 6.

1:12 scale map: 1977 National Ocean Service, map 6.

1:6 scale map: 1977 National Ocean Service, map 6.

1:3 scale map: 1977 National Ocean Service, map 6.

1:1 scale map: 1977 National Ocean Service, map 6.

1:0.5 scale map: 1977 National Ocean Service, map 6.

1:0.25 scale map: 1977 National Ocean Service, map 6.

1:0.125 scale map: 1977 National Ocean Service, map 6.

1:0.0625 scale map: 1977 National Ocean Service, map 6.

1:0.03125 scale map: 1977 National Ocean Service, map 6.

1:0.015625 scale map: 1977 National Ocean Service, map 6.

1:0.0078125 scale map: 1977 National Ocean Service, map 6.

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CONVERSION TABLE

Meters	Feet
1	3.2808
2	6.5617
3	9.8425
4	13.1234
5	16.4042
6	19.6850
7	22.9659
8	26.2467
9	29.5276
10	32.8084

To convert meters to feet multiply by 3.2808

To convert feet to meters multiply by 0.3048

DECLINATION DIAGRAM

UTM grid convergence (GN and 1983 magnetic declination (MN) at center of map Diagram is approximate

ADJOINING MAPS

1	2	3
4	5	6
7	8	9

1 Santa Catalina Island
2 Oceanside
3 Borrego Valley
4 San Clemente Island
5 El Cajon
6
7
8

ISBN 0-607-09652-1

Topographic Map Symbols

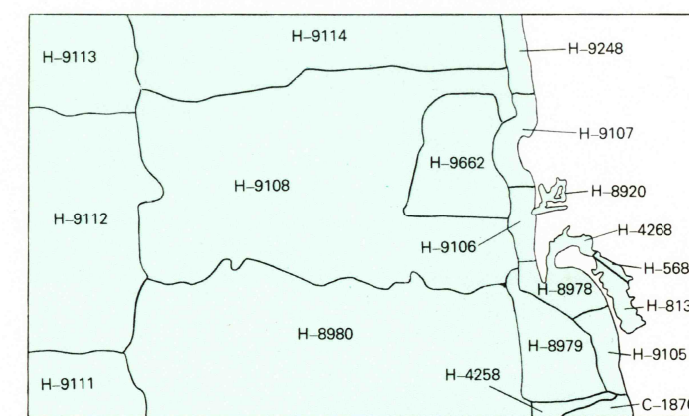
- Primary highway, hard surface
- Secondary highway, hard surface
- Light duty road, principal surface, hard or improved surface
- Other road or street, 100'
- Road network: Interstate, U.S. State
- Railroad: standard gage, narrow gage
- Bridge, spans, overpasses
- Tunnel, road, railroad
- Built up area; locally defined
- Airport; landing field; landing strip
- National boundary
- State boundary
- County boundary
- National or State reservation boundary
- Land grant boundary
- U.S. public lands survey, range, township, section
- Range, boundary, section line: protected
- Power transmission line; pipeline
- Line, air, web work
- Canal; building
- Vendster, water well, spring
- Alley, ditch, cave, mine, quarry, gravel pit
- Caveground; public area; U.S. location monument
- Ruined, ditch dwelling
- Disturbed surface: strip mine, lava; sand
- Portion: lake, reservoir; aqueduct
- Bayou/marine; contours; intermediate
- Swamp, lake; perennial; intermittent
- Stream, large and small; bays, large and small
- Area to be submerged, marsh, swamp
- Land subject to controlled inundation, woodshed
- Scrub: mangrove

A pamphlet describing topographic maps is available on request.

FOR SALE BY U.S. GEOLOGICAL SURVEY
 ER, COLORADO 80225, OR RESTON, VIRGINIA 20192
 NAL OCEAN SERVICE, ROCKVILLE, MARYLAND 20850
 Y CENTRO DE ASESORIA Y VENTA DE INFORMACION
 STICA Y CARTOGRAFICA BALDERAS #71, MEZCLA
 MEXICO 1, D.F.

The diagram illustrates a water column with depth in meters and feet. The top section is labeled 'Exposed at low tide'. Below it, a 'DEPTH GRADIENT' is shown with a color gradient from light blue at the surface to dark blue at the bottom. The depths are marked on both sides: 0 Meters / 0 Feet, 100 / 328, 200 / 656, 500 / 1640, and 1000 / 3281. The bottom is labeled 'Maximum depth'.

HYDROGRAPHIC SURVEY INDEX



Photographic copies of the above and price surveys may be obtained, at the cost of reproduction, by addressing the Director, NIOG243, National Ocean Service, National Oceanic and Atmospheric Administration, Rockville, Maryland 20852.

HYDROGRAPHIC SURVEY INFORMATION

SURVEY NUMBER	SURVEY DATE	SURVEY SCALE	SURVEY LINE SPACING (NAUT. MILES)
H-4258	1922-23	140,000	21.65
H-4268	1923	110,000	01.18
H-5880	1934	110,000	01.18
H-1131	1934	110,000	02.11
H-8920	1967	110,000	02.06
H-9528	1968	120,000	02.10
H-8979	1968	120,000	08.15
H-6990	1968	140,000	20.05
H-1026	1970	110,000	02.07
H-9106	1970	110,000	03.05
H-9107	1970	110,000	02.12
H-9110	1970	140,000	30.60
H-9111	1970	140,000	20.60
H-9112	1970	140,000	20.50
H-9113	1970	140,000	19.40
H-9114	1970	110,000	12.42
H-9248	1971	110,000	02.02
H-9562	1976	120,000	04.12

NOS CHART 1876S, 1977, 1:100,000

USGS NHD HISTORICAL
MAP ARCHIVES
SEP 3 - 1996
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SAN DIEGO CALIFORNIA BAJA CALIFORNIA NORTE

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BATHYMETRY ADDED 1988