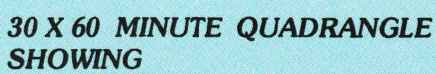


1:100 000-scale *metric*
topographic—bathymetric map



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



1984

Produced by the Geological Survey and the National Ocean Service

Compiled from USGS 1:24 000-scale topographic maps dated 1951–1979
Planimetry revised from aerial photographs taken 1975 and other source
data. Revised information not field checked. Map edited 1984

data. Revised information not field checked. Map edited 1994

Bathymetry compiled by the National Ocean Service from tide-coordinated hydrographic surveys. This information is not intended for navigational purpose. Mean lower low water (dotted line) and mean high water (heavy solid line) compiled by NOS from tide coordinated aerial photographs. Apparent shoreline (outer edge of vegetation) shown by light solid line

Projection and 10 000-metre grid, zone 14, Universal Transverse Mercator 25 000-foot grid ticks based on Texas coordinate system, south zone

1927 North American Datum

Five on the grid, south of 1927 North American Datum 1983 move the projection to 73 meters south and 77 meters east.

Offshore protection survey data, shown in red, furnished by the Minerals Management Service. Heavy lines indicate limits of Outer Continental Shelf Official Protection Diagrams dated July 16, 1954. The protections on this map are not for Federal leasing purposes; for such purposes, refer to OCS Official Protection Diagrams available from the Minerals Management Service.

There may be private inholdings within the boundaries of National or State reservations shown on this map.

CONTOUR INTERVAL 5 METERS
NATIONAL GEODETTIC VERTICAL DATUM OF 1929
BATHYMETRIC CONTOUR INTERVAL 2 METERS WITH SUPPLEMENTARY
1 METER CONTOURS-DATUM IS MEAN LOWER LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE

BASE MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS. BATHYMETRIC SURVEY DATA COMPLIES WITH INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO) SPECIAL PUBLICATION 44 ACCURACY STANDARDS AND/OR STANDARDS USED AS OF THE DATE OF THE SURVEYS

CONVERSION TABLE

Meters	Feet
1	3.2808
2	6.5617
3	9.8425
4	13.1234
5	16.4042
10	32.8084
15	49.2126
20	65.6168
25	82.0210
30	98.4252
40	131.2336
50	164.0439
60	196.8531
70	229.6623
80	262.4715
90	295.2807
100	328.0839

To convert meters to feet multiply by 3.2808

To convert feet to meters multiply by 0.3048

DECLINATION DIAGRAM

UTM grid convergence (IGN and 1984 magnetic declination) (M) at center of map

Diagram is approximate

ADJOINING MAPS

1	2	3
4	5	6
6	7	8

1 Alice
2 Corpus Christi
3 Allyn Bight
4 Fallujah
5 Encino
6 Fort Manfield
7
8

FOR SALE BY U.S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
AND NATIONAL OCEAN SERVICE, ROCKVILLE, MARYLAND 20852

Topographic Map Symbols

Primary highway, hard surface	
Secondary highway, hard surface	
Light duty, macadam street, hard or improved surface	
Other road or street; trail	
Road marker: Interstate, U.S. State	
Railroad: standard gauge, narrow gauge	
Bridge: covered, railroad	
Tunnel: road, railroad	
Built-up area; locality; elevation	
Airport: landing field, landing strip	
Political boundary	
State boundary	
County boundary	
National or State reservation boundary	
Land grant boundary	
U.S. public lands: survey, township; section	
Range, township; section line: protected	
Power transmission line; pipeline	
Dam, dam with lock	
Canal; water building	
Windmill, water well; spring	
Mine shaft; coal or stone mine; quarry; gravel pit	
Cemetary, picnic area; U.S. location monument	
Rail, off-diagonal	
Controlled access: strip mine, levee, sea wall	
Cutouts; index; intermediate; supplementary	
Bathymetric contour; intermediate; supplementary	
Stream, lake to perennial; intermittent	
Runoff, dry	
Shaded area: perennial; marsh, swamp	
Land subject to controlled inundation; woodland	
Water	
Ordinal; vicinal	

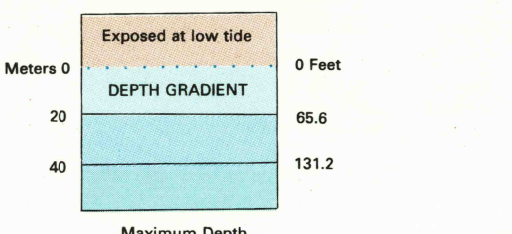
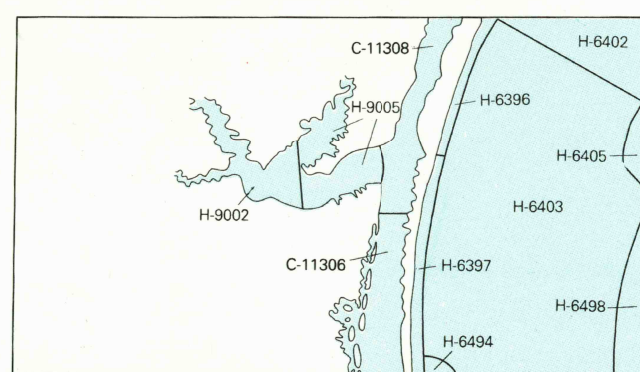
A pamphlet describing topographic maps is available on request.

RAFFIN BAY TEXAS

1984

SURVEY NUMBER	SURVEY DATE	SURVEY SCALE	SURVEY LINE SPACING NAUT. MILES
H4396	1928	1:20,000	55-15
H4397	1928	1:20,000	06-17
H4602	1931	1:40,000	12-13
H4603	1931	1:40,000	41-12
H4625	1936	1:80,000	10-20
H4694	1939	1:40,000	26-12
H4698	1939	1:80,000	38-17
H4903	1948	1:20,000	16-29
H4905	1968	1:20,000	16-43

NOS CHART 11306 MAY 1980 1:40,000
 NOS CHART 11308 JULY 1980 1:40,000



Photographic copies of the above and prior 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.