

H11471

NOAA FORM 76-35A

U. S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Type of Survey: **Hydrographic**

Field No.: NRT6

Registry Number: **H11471**

LOCALITY

State: California

General Locality: Los Angeles Harbor

Sub-locality: West Basin

2005

CHIEF OF PARTY

Edmund Wernicke

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NUMBER:

HYDROGRAPHIC TITLE SHEET

H11471

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State: **California**

General Locality: **Los Angeles Harbor**

Sub-Locality: **West Basin**

Scale: **1:5,000** Date of Survey: **8/10/2005 to 11/1/2005**

Instructions Dated: **August 5, 2005** Project Number: **L418-NRT6-05**

Vessel: **S3003**

Chief of Party: **Edmund Wernicke**

Surveyed by: **Navigation Response Team Six Personnel**

Soundings by: **Simrad EM3000 Multibeam Echosounder**

Graphic record scaled by: **N/A**

Graphic record checked by: **N/A**

Verification by: **Atlantic Hydrographic Branch Personnel**

Soundings in: **feet at MLLW**

Remarks: ***1) All Times are UTC.***

2) Projection is UTM Zone 11.

Bold italic red notes in Descriptive Report were made during office processing.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY H11471 "A"

PROJECT OPR-L418-NRT6-05

Scale of Survey: 1:5,000

Year of Survey: 2005

NOAA Navigation Response Team 6

Ed Wernicke, Team Leader (Acting)

A. AREA SURVEYED

Hydrographic surveys were conducted in accordance with Hydrographic Survey Letter Instructions for Survey H11471 "A", Los Angeles Harbor West Basin, California. The original instructions are dated August 5, 2005. H11471 includes 100% multibeam coverage and 200% side scan sonar coverage.

Data acquisition was conducted from Aug 10- Nov 1, 2005.

See Figure 1 on the following page for complete survey limits.

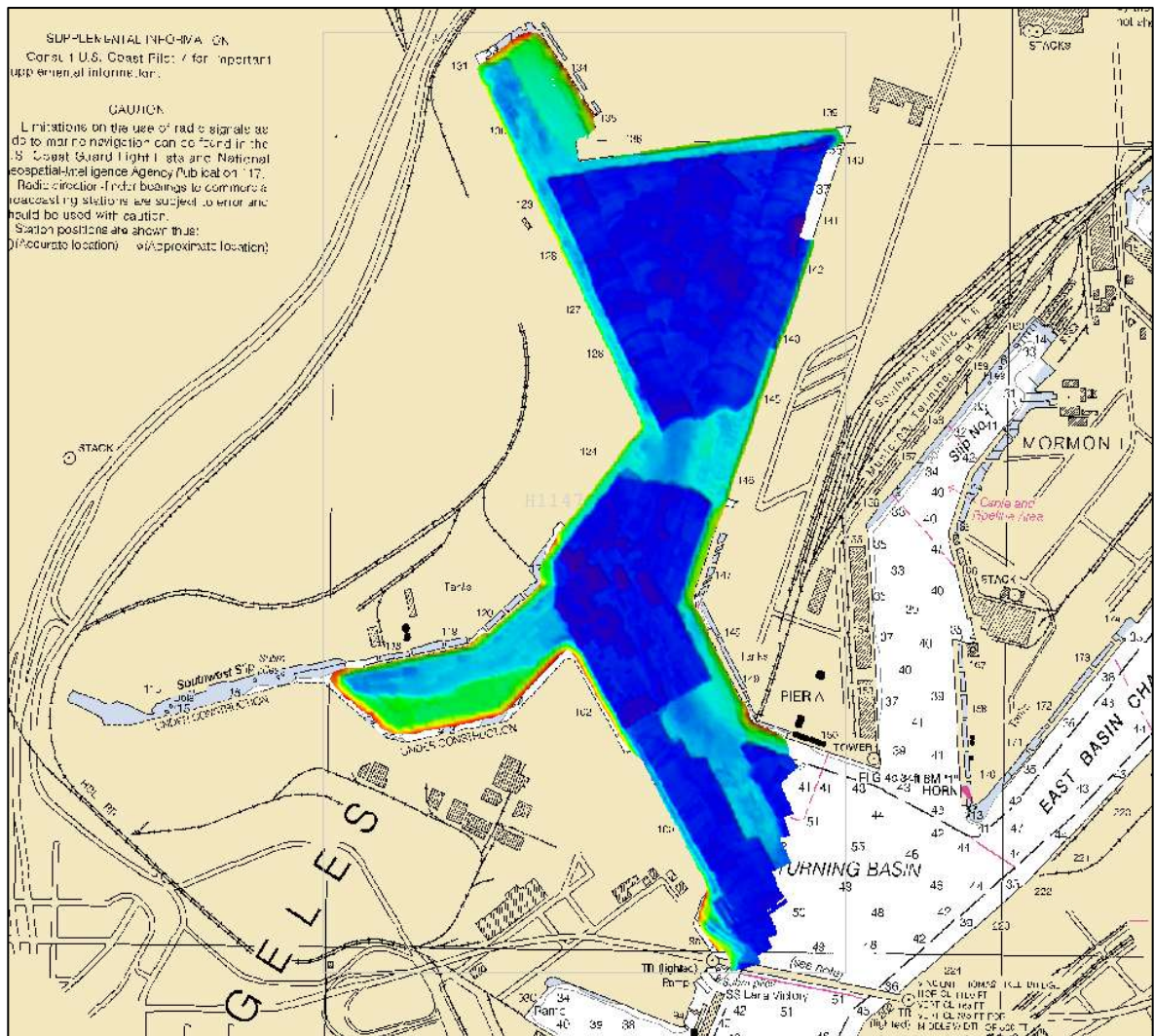


Figure 1: Complete Survey Limits & Data Coverage Los Angeles Harbor, CA Chart 18751

B. DATA ACQUISITION AND PROCESSING

B.1 EQUIPMENT

Data were acquired by NOAA Survey boat S3003, which is a 10-meter hydrographic survey vessel with an average transducer draft of 1.1 meters

NOAA Survey boat S3003 acquired soundings, imagery, and sound velocity profiles. Soundings were acquired by SIMRAD EM3000 multibeam echosounder. Imagery was acquired by KLEIN 3000 side scan sonar. Water column sound velocity data was acquired with a Sea-Bird SBE 19+ CTD.

NOAA Survey boat S3003 positioning and attitude data were determined with a TSS POS/MV 320 Version 3 GPS-aided inertial navigation system.

Refer to the Data Acquisition and Processing Report (DAPR)* for detailed equipment and vessel configuration information.

** Data filed at the Atlantic Hydrographic Branch*

B.2 QUALITY CONTROL *See also the Evaluation Report*

B.2.1 Side Scan Sonar Quality Control

Daily confidence checks were made by observing the outer ranges of the side scan sonar images. A good check consisted of distinguishing contacts across the entire range of the side scan trace.

B.2.2. Shallow Water Multibeam Quality Control

A patch test was conducted on July 14th, 2005 (DN 143) and applied to all multibeam echosounder data. This patch test was later determined to have busted. A patch test was conducted on March 23, 2006 (DN 082) by NRT-6, PHB, and HSTP personnel. The results of the March 2006 patch test were applied to the vessel configuration files NRT6_S3003_EM3000, and NRT6_S3003_EM3000_NAD83 which were applied to multibeam echosounder data for survey H11501.

Data were filtered at 60 degrees from nadir to reduce outer beam noise.

A positioning artifact is visible in the MBES data. This artifact presents as a position shift of 1 to 2 meters and is most noticeable on slopes between dredged and non-dredged areas. This is the known limit of resolution US Coast Guard Differential GPS (DGPS), and this position shift is caused by inherent error in DGPS. A CARIS QC test showed the product grid to meet IHO-1 standards, and thus the product of this survey meets specification.

Refer to this project's DAPR* for detailed discussion of SWMB system calibrations, data acquisition, and data processing.

** Data filed at the Atlantic Hydrographic Branch*

B.2.3 BASE Surfaces

Two CARIS HIPS BASE (*Bathymetry Associated with Statistical Error*) surfaces, which incorporate each sounding's total propagated error (TPE), were created. Each finalized BASE surface contains seven layers: depth, uncertainty (using the "greater of the two" option), density, mean, standard deviation, shoal, and deep. Refer to this project's DAPR* for detailed discussion of BASE Surface generation and processing.

** Data filed at the Atlantic Hydrographic Branch*

The following Fieldsheets were generated as part of this survey:

Table 1: Fieldsheets and BASE Surfaces

<u>Fieldsheet</u>	<u># BASE Surfaces</u>	<u>Resolution</u>	<u>Purpose</u>
H11471	2	2m	Coverage & Finalized
Anti-DTON	1	1m	Item Investigation

B.2.4 Crosslines

NOAA S3003 conducted the required amount of crosslines, totaling 10% of the total lineal nautical miles surveyed. Crossline-to-mainscheme data comparison was performed by visually inspecting the BASE Surface for data artifacts and large standard deviation areas. The crossline-to-mainscheme comparison was found to be satisfactory.

B.3 CORRECTIONS TO ECHO SOUNDING

All methods or instruments used were as described in the project DAPR*.

** Data filed at the Atlantic Hydrographic Branch*

C. VERTICAL AND HORIZONTAL CONTROL

C.1 VERTICAL CONTROL *See also the Evaluation Report*

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating National Water Level Observation Network (NWLON) station at Los Angeles, CA (941-0660) was the sole water level station for this project. See Figure 2 for station

location and tide zone boundaries. The tide zoning file “L418NRT62005CORP” was applied during processing.

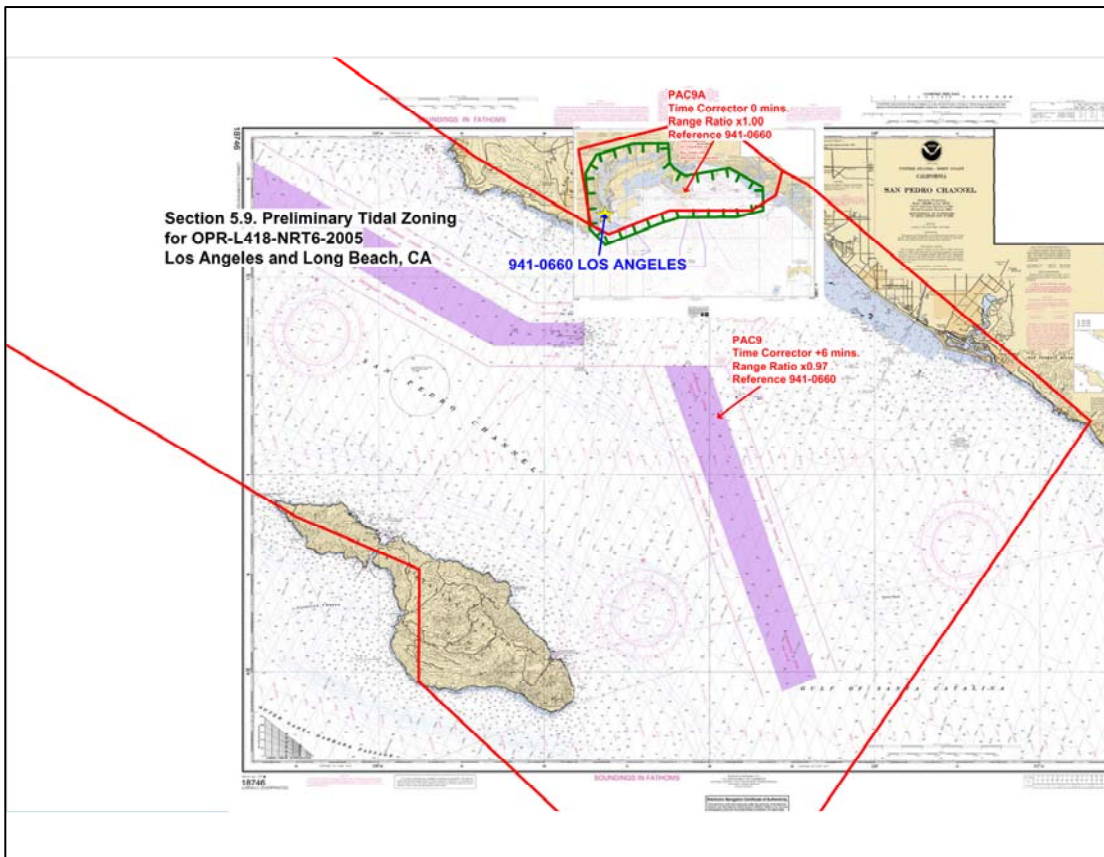


Figure 2: Preliminary Tide Zoning

The preliminary zones and correctors used for this survey are listed in Table 2 below.

Table 2: Preliminary Tide Zones & Correctors

<u>Zone Name</u>	<u>Time Correctors (mins)</u>	<u>Range Ratio</u>	<u>Predicted Reference</u>
PAC9	0	X0.97	941-0660
PAC9A	0	x1.00	941-0660

A Request for Approved Tides letter was sent to N/OPS1 on 30 June 2006 and is included in Appendix IV. Verified water levels from the N/OPS1 CO-OPS website were downloaded on 28 June 2006, and applied to all sounding data with preliminary

tide zoning. Refer to the 2005 DAPR* for a summary of the methods used to determine, evaluate, and apply tide corrections to sounding data.

*** *Data filed at the Atlantic Hydrographic Branch***

Seven sound velocity casts were conducted during this survey and are included in Separate III, Sound Velocity Profile Data.

C.2 HORIZONTAL CONTROL

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 11.

Horizontal position was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon station at Point Loma, CA (302 kHz). No horizontal control stations were established for this survey.

Horizontal dilution of precision (HDOP) was monitored daily. The observed HDOP values did not exceed 4.00.

D. RESULTS AND RECOMMENDATIONS *See also the Evaluation Report*

D.1 CHART COMPARISON

The Hydrographer has determined that data accuracy standards and bottom coverage requirements have been met and survey data are adequate to supersede charted data in their common areas. ***Do not Concur***

Comparison will be limited to the largest scale chart covering the survey area as shown below:

Chart No.	Name	Date	Edition	Scale
18751	Los Angeles and Long Beach Harbors	December, 2004	43 rd	1:12,000

Final chart comparisons will be made at the Atlantic Hydrographic Branch after the application of smooth tides.

Barges were buoyed in Northwest Slip at an approximate position of 33°46'04.20N, 118°16'40.52W. Lines were run around the barges and their buoys, causing irregular line spacing. Data from two buoy blocks and chains was rejected at position 33°46'05.02N, 118°16'41.12W and 33°46'02.70N, 118°16'39.40W. *Concur*

Dredging has occurred in the West Basin and Turning Basin areas. In general, soundings range between 3 and 10 feet deeper than charted depths due to dredging. The hydrographer recommends charting present survey soundings. Otherwise, charted depths agree with survey depths to within 2 feet. *Concur with certification*

D.1.1 General Agreement with Charted Soundings

Dredging operations were carried out in the Los Angeles West Basin from XXX to XXX, prior to this survey. Depths in the dredged areas are up to 6 feet deeper than charted soundings. Chart bathymetry as per present survey finding. *Concur*

D.1.2 Dangers to Navigation (Dton's)

Two Dton's were submitted on June 29, 2006. Refer to Appendix 1 for further detail on these Dton's. *Concur*

D.1.3 AWOIS Items

One AWOIS item was investigated and located within the limits of H11471 and is shown in Figure 3. Investigation methods, results, and charting recommendations have been entered into the Pydro PSS. Information pertaining to this AWOIS item is contained in Appendix II of this report.

Concur.

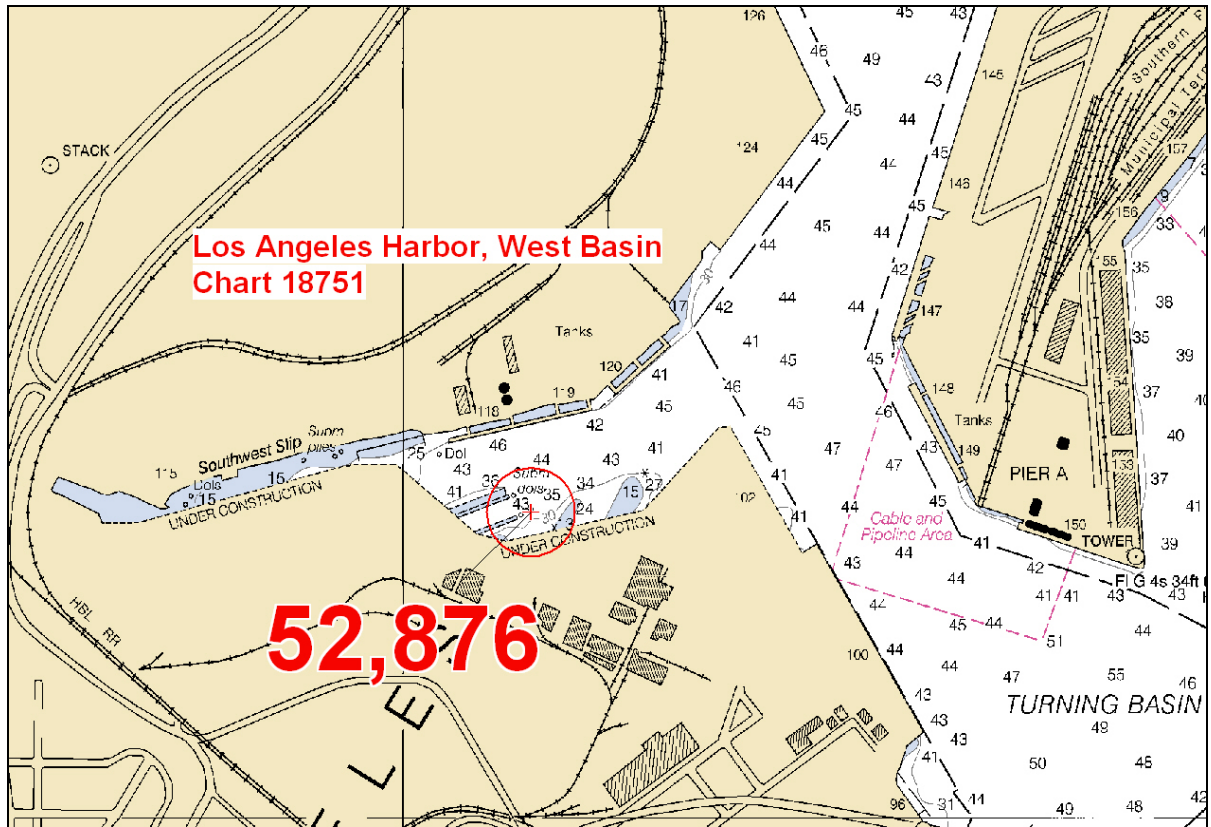


Figure 3: H11471 AWOIS Item 52,876 - Chart 18751

D.1.4 Significant Uncharted Features

Two uncharted features significant to surface navigation were found during survey H11471. Both of these features were submitted as Dangers to Navigation and are described in Appendix I. *Concur*

D.1.5 Non-AWOIS Charted Features & Notes

The following items were investigated with 200% multibeam coverage on DN222 and DN223:

Survey lines were run by a charted dolphin at position 33°45'20.1"N, 118°16'57.6"W. No evidence of this dolphin was found in echosounder data and this dolphin was not visually observed by the field party. This dolphin is disproved. Defer recommendations to MCD Update Services Division. *Concur.*

A search was conducted for a charted rock awash at position 33°45'19.05" N, 118°16'43.98"W. No evidence of this rock was observed in echosounder data and a rock awash was not visually observed by the field party. This rock awash is disproved. The field party recommends deleting this rock awash from all affected charts. This rock awash was submitted to Atlantic Hydrographic Branch as an "Anti-DTON" on July 6th, 2005. *Concur.*

Survey lines were run by a pair of charted dolphins in the Northwest Slip at position 33°46'07.606" N, 118°16'43.030" W. There is no evidence of these dolphins in the echosounder data and these dolphins were not visually observed by the field party. These dolphins are disproved. Defer recommendations to MCD Update Services Division. *Concur.*

D.2 ADDITIONAL RESULTS

D.2.1 Prior Surveys

This survey overlaps one prior NOAA survey:

Table 4: Prior NOAA surveys

<u>Registry Number</u>	<u>Scale</u>	<u>Year Surveyed</u>
H09671	5000	1977

This survey is adequate to supersede charted depths in common areas.

D.2.2 Aids to Navigation and Other Detached Positions

No fixed or floating aids to navigation were positioned during this survey. *Concur*

D.2.3 Bridges and Overhead Cables

There are no bridges or overhead cables in the survey area. *Concur*

D.2.4 Ferry Routes

There are no ferry routes in the survey area. *Concur*

D.2.5 Submarine Cables and Pipelines

There are no submarine cables or pipelines in the survey area. *Concur*

E. APPROVAL SHEET

**OPR-L418-NRT6-05
Los Angeles and Long Beach,
California**

Survey Registry No. H11471

Field operations for this basic hydrographic survey were conducted under my daily supervision with frequent checks of progress and adequacy. All bathymetry models, this Descriptive Report, and all accompanying records and data are approved.

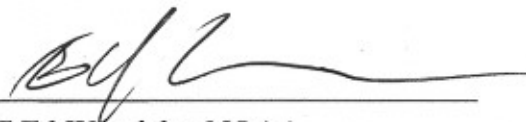
This survey is adequate to supersede all prior surveys in common areas and for application to the relevant NOS nautical charts.

Also submitted in association with this descriptive report has been a series of reports and data:

- SEPARATES TO ACCOMPANY PROJECT OPR-L418-NRT6-05, H11471
- OPR-L418-NRT6-05 HORIZONTAL AND VERTICAL CONTROL REPORT (*Pending*)
- DECEMBER 2005 DATA ACQUISITION AND PROCESSING REPORT (*Pending*)

Respectfully Submitted:

Approved and Forwarded:



PST Ed Wernicke, NOAA
Acting Chief of Party

APPENDIX I:

DTON

H11471-Danger to Navigation

Registry Number: H11471
State: CA
Locality: Los Angeles Harbor
Sub-locality: West Basin
Project Number: OPR-L418-NRT6-05
Survey Dates: 08/10/2005 - 11/01/2005

Charts Affected

Number	Version	Date	Scale
18751	44th Ed.	11/01/2005	1:12000
18749	40th Ed.	05/01/2006	1:20000
18746	36th Ed.	03/01/2005	1:80000
18740	41st Ed.	04/01/2005	1:234270
18022	35th Ed.	08/01/2005	1:868003
18020	37th Ed.	09/01/2003	1:1444000
501	12th Ed.	11/01/2002	1:3500000
530	31st Ed.	06/01/2005	1:4860700
50	6th Ed.	06/01/2003	1:10000000

Features

Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude
23/57 Retain as charted----- 44Obstns w/danger curve (two beside each unknow)	Obstruction	13.58 m	33° 46' 02.167" N	118° 16' 45.143" W
241/30 Retain as charted----- 39Obstn (pile) w/danger curve	Obstruction	12.03 m	33° 45' 58.913" N	118° 16' 28.808" W

1 - DTON

1.1) Profile/Beam - 1223/57 from h11471 / nrt6_s3003_em3000 / 2005-222 / 055_2041

DANGER TO NAVIGATION

Survey Summary

Survey Position: 33° 46' 02.167" N, 118° 16' 45.143" W
Least Depth: 13.58 m
Timestamp: 2005-222.20:43:48.381 (08/10/2005)
Survey Line: h11471 / nrt6_s3003_em3000 / 2005-222 / 055_2041
Profile/Beam: 1223/57
Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

The feature is a pair of obstructions of unknown type, located near the seawall of the Northwest Slip of Los Angeles Harbour. These obstructions were imaged with KLEIN 3000 Side Scan Sonar. Soundings were obtained by SIMRAD EM3000 MBES and corrected to MLLW with verified water levels and preliminary tide zoning.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11471/nrt6_s3003_em3000/2005-222/055_2041	1223/57	0.00	000.0	Primary
h11471/nrt6_s3003_em3000_nad83/2005-305/007_2219	279/63	3.91	314.6	Secondary
h11471/nrt6_s3003_klein3000_sss200/2005-235/sonar_data050823121700	0001	4.09	006.8	Secondary (grouped)

Hydrographer Recommendations

Chart a dangerous obstruction, least depth 13.6m (44 ft) at the present surveyed position.

Cartographically-Rounded Depth (Affected Charts):

44ft (18751_1, 18749_1)

7 ¼fm (18746_1, 18740_1, 18022_1, 18020_1, 530_1)

13.6m (501_1, 50_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 1:depth known

TECSOU - 3:found by multi-beam

VALSOU - 13.582 m

WATLEV - 3:always under water/submerged

Geo object 2: Sounding (SOUNDG)

Office Notes

Dangerous obstruction, least depth 13.6m (44 ft) at the present surveyed position.

Retain 44Obstn w/danger curve

1.2) Profile/Beam - 241/30 from h11471 / nrt6_s3003_em3000_nad83 / 2005-305 / 008_2215

DANGER TO NAVIGATION

Survey Summary

Survey Position: 33° 45' 58.913" N, 118° 16' 28.808" W
Least Depth: 12.03 m
Timestamp: 2005-305.22:16:05.156 (11/01/2005)
Survey Line: h11471 / nrt6_s3003_em3000_nad83 / 2005-305 / 008_2215
Profile/Beam: 241/30
Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

This feature is the shoalest of a group of three uncharted submerged piles imaged by SIMRAD EM3000 MBES and 200% KLEIN 3000 SSS. Soundings were corrected to MLLW using verified water levels and preliminary tide zoning.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11471/nrt6_s3003_em3000_nad83/2005-305/008_2215	241/30	0.00	000.0	Primary
h11471/nrt6_s3003_em3000/2005-222/newlinec	919/118	3.76	135.4	Secondary (grouped)
h11471/nrt6_s3003_em3000/2005-222/050_2012	888/98	4.51	090.7	Secondary (grouped)
caris/hdcs_data/h114712005-235/sonar_data050823113100	0002	11.77	240.5	Secondary (grouped)
h11471/nrt6_s3003_klein3000_sss200/2005-235/sonar_data050823122600	0001	15.90	245.1	Secondary (grouped)
h11471/nrt6_s3003_em3000_nad83/2005-305/008_2215	193/63	16.80	239.6	Secondary (grouped)

Hydrographer Recommendations

Chart dangerous submerged piles, least depth 12.03 m (39.4 feet) at the presently surveyed position.

Cartographically-Rounded Depth (Affected Charts):

39ft (18751_1, 18749_1)

6 ½fm (18746_1, 18740_1, 18022_1, 18020_1, 530_1)

12.0m (501_1, 50_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: VALSOU - 12.030 m
Geo object 2: Pile (PILPNT)
Geo object 3: Sounding (SOUNDG)

Office Notes

Dangerous submerged piles, least depth 12.03 m (39.4 feet) at the presently surveyed position.

Retain as charted 39Obstn (pile) w/danger curve

[Image file t:/nrt_bh/h11471/pss/images/subm_piles2.jpg does not exist.]

[Image file t:/nrt_bh/h11471/pss/images/subm_piles1.jpg does not exist.]

APPENDIX II:
NAVIGATIONALLY SIGNIFICANT FEATURES

H11471-AWOIS

Registry Number: H11471
State: CA
Locality: Los Angeles Harbor
Sub-locality: West Basin
Project Number: OPR-L418-NRT6-05
Survey Date:

Charts Affected

Number	Version	Date	Scale
18751	44th Ed.	11/01/2005	1:12000
18749	40th Ed.	05/01/2006	1:20000
18746	36th Ed.	03/01/2005	1:80000
18740	41st Ed.	04/01/2005	1:234270
18022	35th Ed.	08/01/2005	1:868003
18020	37th Ed.	09/01/2003	1:1444000
501	12th Ed.	11/01/2002	1:3500000
530	31st Ed.	06/01/2005	1:4860700
50	6th Ed.	06/01/2003	1:10000000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.2	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.3	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.4	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.5	OBSTRUCTION--- Delete / Obstructions (Subm dols) 3 Subm dols in this area	AWOIS	[no data]	[no data]	[no data]	---
1.6	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.7	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.8	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.9	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.10	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---

1.11	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.12	FOX	AWOIS	[no data]	[no data]	[no data]	---
1.13	PHILIPPINE	AWOIS	[no data]	[no data]	[no data]	---
1.14	PIERPOINT QUE	AWOIS	[no data]	[no data]	[no data]	---
1.15	SEA PRINCE	AWOIS	[no data]	[no data]	[no data]	---
1.16	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.17	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.18	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.19	OBSTRUCTIONS	AWOIS	[no data]	[no data]	[no data]	---
1.20	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.21	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.22	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.23	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.24	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.25	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.26	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.27	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.28	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.29	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.30	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.31	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.32	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.33	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.34	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.35	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.36	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.37	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.38	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.39	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.40	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.41	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.42	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.43	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.44	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.45	S/V MYSTERY III	AWOIS	[no data]	[no data]	[no data]	---
1.46	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---

1.47	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.48	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.49	SOUNDING	AWOIS	[no data]	[no data]	[no data]	---
1.50	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.51	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.52	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.53	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.54	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.55	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.56	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---

1 - AWOIS_ahb

1.1) AWOIS #50949 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 15.600" N, 118° 16' 34.800" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
LA AWOIS	AWOIS # 50949	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

NRT6 did not get to. They will address this when they return to area.

retain

Retain as Charted----- Obstn

1.2) AWOIS #50955 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 18.060" N, 118° 17' 05.250" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
LA AWOIS	AWOIS # 50955	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

NRT6 did not get to. They will address this when they return to area.
 Retain.

1.3) AWOIS #50965 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 17.460" N, 118° 16' 38.750" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:
 [unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:
 [None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
LA AWOIS	AWOIS # 50965	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

NRT6 did not get to. They will address this when they return to area.
 Retain.

1.4) AWOIS #52873 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 53.950" N, 118° 16' 27.100" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
LA AWOIS	AWOIS # 52873	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

NRT6 did not get to. They will address this when they return to area.
 Retain.

**1.5) AWOIS #52876 - OBSTRUCTION--- Delete / Obstructions (Subm dols) 3
Subm dols in this area**

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 16.900" N, 118° 16' 51.570" W
Historical Depth: [None]
Search Radius: 75
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:
 [unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

A 200% side scan sonar and MBES search was conducted for a group of charted submerged dolphins (AWOIS #52876). No evidence of these dolphins was found in the echosounder data.

Feature Correlation

Address	Feature	Range	Azimuth	Status
LA AWOIS	AWOIS # 52876	0.00	000.0	Primary

Hydrographer Recommendations

AWOIS #52876 is disproved. Delete the charted submerged dolphins from all affected charts.

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Office Notes

200% SSS coverage with complete MBES. AWOIS not there. Remove from list. Update AWOIS database.
 Delete / Obstructions (Subm dols) 3 Subm dols in this area.

1.6) AWOIS #53251 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 04.420" N, 118° 10' 55.850" W

Historical Depth: [None]

Search Radius: 0

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.7) AWOIS #53252 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 21.730" N, 118° 14' 36.480" W

Historical Depth: [None]

Search Radius: 0

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.8) AWOIS #53253 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 42' 46.070" N, 118° 14' 19.250" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.9) AWOIS #53254 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 07.280" N, 118° 13' 29.930" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.10) AWOIS #53255 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 30.590" N, 118° 12' 24.040" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.11) AWOIS #53256 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 17.060" N, 118° 08' 48.240" W
Historical Depth: [None]
Search Radius: 150
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.12) AWOIS #50116 - FOX

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 35.060" N, 118° 08' 38.230" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.13) AWOIS #50202 - PHILIPPINE

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 00.060" N, 118° 15' 03.250" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.14) AWOIS #50204 - PIERPOINT QUE

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 36.060" N, 118° 11' 45.240" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.15) AWOIS #50243 - SEA PRINCE

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 42' 45.070" N, 118° 15' 38.250" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

1

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.16) AWOIS #50944 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 46' 20.010" N, 118° 14' 53.080" W

Historical Depth: [None]

Search Radius: 0

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.17) AWOIS #50945 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 13.660" N, 118° 13' 56.950" W

Historical Depth: 3.26 m

Search Radius: 0

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.18) AWOIS #50946 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 03.060" N, 118° 14' 42.250" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.19) AWOIS #50947 - OBSTRUCTIONS

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 34.060" N, 118° 14' 00.250" W
Historical Depth: [None]
Search Radius: 100
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.20) AWOIS #50948 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 45.060" N, 118° 13' 18.240" W
Historical Depth: 8.84 m
Search Radius: 150
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.21) AWOIS #50950 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 46' 08.460" N, 118° 14' 01.450" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.22) AWOIS #50951 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 35.460" N, 118° 14' 39.850" W
Historical Depth: 0.61 m
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.23) AWOIS #50952 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 00.760" N, 118° 14' 49.850" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.24) AWOIS #50963 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 42.360" N, 118° 14' 18.650" W

Historical Depth: 0.79 m

Search Radius: 100

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.25) AWOIS #50964 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 05.860" N, 118° 14' 30.550" W

Historical Depth: 0.30 m

Search Radius: 0

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.26) AWOIS #51791 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 30.700" N, 117° 59' 53.500" W
Historical Depth: [None]
Search Radius: 75
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.27) AWOIS #52864 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 42' 35.600" N, 118° 16' 44.700" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.28) AWOIS #52865 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 42' 34.470" N, 118° 16' 34.320" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.29) AWOIS #52879 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 46' 12.500" N, 118° 15' 00.000" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.30) AWOIS #52882 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 52.960" N, 118° 14' 31.140" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.31) AWOIS #52883 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 53.260" N, 118° 13' 18.900" W
Historical Depth: 1.22 m
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.32) AWOIS #52884 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 12.370" N, 118° 13' 34.300" W
Historical Depth: [None]
Search Radius: 75
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.33) AWOIS #52885 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 08.170" N, 118° 13' 41.200" W
Historical Depth: [None]
Search Radius: 75
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.34) AWOIS #52886 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 25.290" N, 118° 13' 45.380" W

Historical Depth: 4.88 m

Search Radius: 0

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.35) AWOIS #52887 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 20.860" N, 118° 14' 23.670" W
Historical Depth: 4.57 m
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.36) AWOIS #52888 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 45' 06.300" N, 118° 13' 47.130" W
Historical Depth: [None]
Search Radius: 75
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.37) AWOIS #52891 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 56.070" N, 118° 11' 18.240" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18751_1, 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.38) AWOIS #52896 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 54.250" N, 118° 08' 49.710" W
Historical Depth: 4.88 m
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.39) AWOIS #53257 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 37.170" N, 118° 07' 52.040" W
Historical Depth: [None]
Search Radius: 200
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.40) AWOIS #53258 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 45.070" N, 118° 07' 28.230" W
Historical Depth: [None]
Search Radius: 200
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.41) AWOIS #53259 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 12.060" N, 118° 07' 33.230" W
Historical Depth: [None]
Search Radius: 200
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.42) AWOIS #53260 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 26.000" N, 118° 07' 00.000" W

Historical Depth: [None]

Search Radius: 125

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.43) AWOIS #53261 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 42' 21.000" N, 118° 04' 02.000" W
Historical Depth: [None]
Search Radius: 200
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.44) AWOIS #53262 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 39' 06.770" N, 118° 02' 52.920" W
Historical Depth: [None]
Search Radius: 250
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.45) AWOIS #53263 - S/V MYSTERY III

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 25.320" N, 118° 08' 28.020" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.46) AWOIS #53264 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 42.000" N, 118° 08' 42.000" W

Historical Depth: [None]

Search Radius: 0

Search Technique: [unknown]

Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.47) AWOIS #53265 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 44' 28.200" N, 118° 08' 04.700" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.48) AWOIS #53266 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 43' 03.100" N, 118° 05' 37.980" W
Historical Depth: [None]
Search Radius: 200
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18749_1, 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.49) AWOIS #53267 - SOUNDING

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 17.800" N, 117° 59' 55.500" W
Historical Depth: [None]
Search Radius: 200
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.50) AWOIS #53268 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 38' 00.720" N, 118° 01' 03.220" W
Historical Depth: [None]
Search Radius: 350
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.51) AWOIS #53269 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 39.000" N, 118° 00' 26.240" W
Historical Depth: [None]
Search Radius: 350
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.52) AWOIS #53270 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 38.000" N, 117° 59' 53.710" W
Historical Depth: [None]
Search Radius: 350
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.53) AWOIS #53271 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 25.390" N, 118° 00' 04.570" W
Historical Depth: [None]
Search Radius: 300
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.54) AWOIS #53272 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 22.400" N, 117° 59' 53.120" W
Historical Depth: [None]
Search Radius: 300
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.55) AWOIS #53273 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 09.440" N, 117° 59' 32.060" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

[None]

1.56) AWOIS #53274 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 33° 37' 00.700" N, 117° 58' 56.210" W
Historical Depth: [None]
Search Radius: 300
Search Technique: [unknown]
Technique Notes: [unknown]

History Notes:

[unknown]

Survey Summary

Charts Affected: 18746_1, 18740_1, 18022_1, 18020_1, 501_1, 530_1, 50_1

Remarks:

[None]

Hydrographer Recommendations

[None]

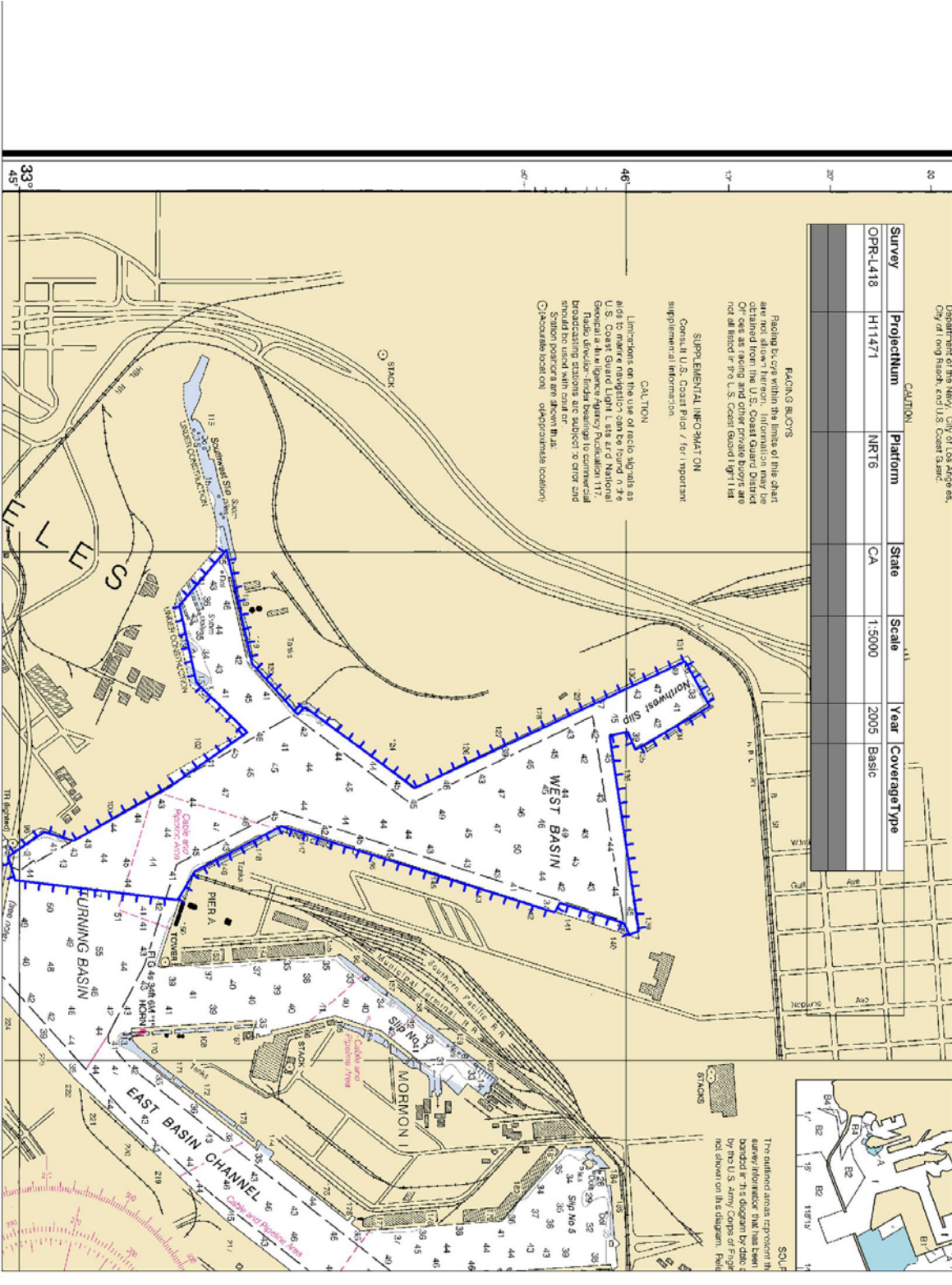
S-57 Data

[None]

Office Notes

[None]

APPENDIX III: PROGRESS SKETCH



APPENDIX IV:
TIDES AND WATER LEVELS

1) Field Tide Note (Section 5 of Project Instructions)

2) Smooth Tide Request

3) Times of Hydrography

4) Final Tide Note

APPENDIX V:
SUPPLEMENTAL RECORDS AND CORRESPONDANCE

1. Anti-DTON

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11471 (2005)**

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. DATA ACQUISITION AND PROCESSING

B.1 DATA PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

HSTP PYDRO version 7.3 r2239
CARIS HIPS/SIPS version 6.1 SP1 HF 1-6
CARIS Bathy Manager version 2.1 HF 1-3
DKART INSPECTOR, version 5.0 Build 732

B.2 QUALITY CONTROL

B.2.1 H-CELL

No sounding data will be submitted with H11471 do to newer resource sounding data collection in Los Angeles Calf. area. From the Northwest Slip to Pier A (Cable and Pipeline Area) was being dredged .

Chart compilation was performed by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

The H11471 CARIS H-Cell final deliverables include the following Base Cell products:

H11471_CU.000	1:12,000 Scale	H11471
H11471_BlueNotes.000	1:12,000 Scale	H11471 Cartographic Notes

B.2.2. Junctions

No contemporary surveys exist for junctioning..

C. VERTICAL AND HORIZONTAL CONTROL

Final vertical correction processing was completed by the field unit with no additional correction required by Atlantic Hydrographic Branch. The field unit applied verified water levels in conjunction with the preliminary tidal zoning which was accepted and

approved by N/OPSI CO-OPS as the final zoning for H11471. Vertical datum for all soundings is reference to Mean Lower Low Water (MLLW).

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 17. Office ENC processing of this survey required translating the datum to meet S-57 ENC requirements. The horizontal geodetic datum was translated to Latitude and Longitude (LLDG) World Geodetic System-84 (WGS-84) during CARIS HOM processing. The S-57 H-CELL format serves as the exchange file format submitted to Marine Chart Division.

D. RESULTS AND RECOMMENDATIONS

D.1 CHART COMPARISON

18751 (44th Edition, Nov./05)

Corrected through NM Nov. 12/05

Corrected through LNM Nov. 15/05

D.1.1 Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in Section D. of the Descriptive Report. The following are noted:

a. Sounding collected by NRT6 Hydrographic Survey H11471 will not be submitting soundings. Dredging was being done at the same time data was collected from Aug. 10, 2005 to Nov 01, 2005. When survey H11471 was supposedly finalized there were some areas that had not been dredged and this can be seen on the DTM. NSD established a working relationship with the Port of Los Angeles with the submission of hydrographic surveys data to Coast Survey for application to chart. Dredging is complete in LA Harbor now. Bob Dunbar, Hydrographic Operations Chief, Construction and Management Division agreed to provide Coast Survey with Hydrographic Survey Data for those area that were under dredging contract for the port of LA.

COMPARISON WITH PRIOR SURVEYS

A comparison with prior surveys was not done during office processing in accordance with section 4 of the memorandum titled "Changes to Hydrographic Survey Processing", dated May 24, 1995.

MISCELLANEOUS

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland. The following NOS charts were used for compilation of the present survey:

18751 (44th Edition, Nov/ 2005) 1:12,000 Scale
Corrected through NM 11/12/2005
Corrected through LNM 11/15/2005

D.3 ADEQUACY OF SURVEY

The present survey is adequate to supersede the charted features not specifically addressed either in the H11471_CU File or the Blue Notes. Refer to the Descriptive Report for further recommendations by the hydrographer.

APPROVAL SHEET
H11471

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, representation of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with National Ocean Service and Office of Coast Survey requirements except where noted in the Descriptive Report and the Evaluation Report.

All final products have undergone a comprehensive reviews per the Hydrographic surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

Reginald L. Keene Sr.
Cartographer
Atlantic Hydrographic Branch

I have reviewed the H-Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet National Ocean Service requirements and standards for products in support of nautical charting except where noted.

Approved: _____

Shepard Smith
Lieutenant Commander, NOAA
Chief, Atlantic Hydrographic Branch