

7079

Diag. Cht. No. 4705

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. TU-B-50 Office No. T-7079

LOCALITY

State Philippines

General locality West Coast of Luzon

Locality Subic Bay

1945

CHIEF OF PARTY

WILBUR R. PORTER

LIBRARY & ARCHIVES

DATE JUNE 5, 1950

6202

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field No. TU-B-50

REGISTER NO.

State Philippines

General locality West Coast of Luzon

Locality Subic Bay

Scale 1:10,000 Date of survey 14 March - 18 April, 1950

Vessel TULIP

Chief of party WILBUR R. PORTER, Comdr., USC&GS

Surveyed by Ens. F. L. Corton

Inked by Ens. F. L. Corton, A. G. Jardiolin, A. del Rosario

Heights in feet above.....to ground to tops of trees

Contour, Approximate contour, Form line interval.....feet

Instructions dated CS-7 1 March, 1950

Remarks:.....

COMBINED DESCRIPTIVE REPORTS

To Accompany

TOPOGRAPHIC SHEETS TU-A-50, TU-B-50 and TU-C-50

USCAGS SHIP TULIP

W. R. PORTER, Comd'g

A. AUTHORITY:

Project instructions, Project CS-7 (US) dated 1 March 1950 from the Director of Coast Surveys, Manila Field Station addressed to the Commanding Officer, Ship TULIP.

B. PURPOSE:

1. To delineate by topography the shoreline around Subic Bay Zambales, from Cubi Point up to Macmany Point covering all around the east, north and west sides of Subic Bay.

2. To locate stations for hydrographic controls by graphic method.

3. To revise topographic features along the shoreline covered.

C. SURVEY LIMITS AND DATES:

Sheet No. TU-A-50 covers all the shoreline extending around the northern part of Subic Bay from Lat. $14^{\circ} 51.04'N$; Long. $120^{\circ} 15.00'E$ including shorelines around Pequena and Mayanga Islands down to Lat. $14^{\circ} 49.3'N$; Long. $120^{\circ} 12.6'E$. Sheet No. TU-B-50 covers all the shoreline around the east side of Port Olongapo from Lat. $14^{\circ} 51.04'N$; Long. $120^{\circ} 15.00'E$ down to Cubi Point. Sheet No. TU-C-50 covers the shoreline of the western part of Subic Bay from Lat. $14^{\circ} 49.3'N$; Long. $120^{\circ} 12.6'E$ down to Lat. $14^{\circ} 46.3'N$; Long. $120^{\circ} 11.7'E$. Date of survey was from 14 March 1950 to 18 April 1950. Work was not continuous on topography inasmuch as signal building was done simultaneously with this work.

D. CONTROL:

The following triangulation stations were used:

Sheet TU-A-50

1.	GAVIOTA	1947
2.	N. S. D.	1947
3.	PEQ	1947
4.	CABANGAN	1947
5.	CAYUAG	1947
6.	MAHA	1947
7.	MAYANGA LT.	1947
8.	SUB	1947

Sheet TU-B-50

1. N.S.D.	1947	7. MAGDA	1947
2. KALAKLAN LT.	1947	8. COAL	1947
3. MARINE	1947	9. MARITAN POINT WATER TANK	1947
4. CHAPEL	1947	10. NAGCABAN	1947
5. NAVY	1947	11. CAIMAN	1947
6. CON	1947	12. CUBI 2	1947
		13. GAVIOTA	1947

Sheet TU-C-50

1. MAYANGA LT.	1947	3. GRANDE LT. HO.	1947
2. AGOSOEN LT.	1947	4. MACMANY	1908

E. INSTRUMENTS:

The following instruments were used in this survey; 24 x 31" plane table with tripod and head, USC&GS alidades No. 133 and No. 28993 and their cooresponding sets of rods graduated for each particular instruments. Alidade No. 133 was used only at sheet No. TU-B-50 in the location of signals and in all other work No. 28993 was used.

F. SURVEY METHODS:

The survey was executed in accordance with standard Coast Survey methods. Graphic triangulation method was employed in locating signals for hydrographic control. At times when no triangulation stations could be occupied three point set ups were made. In every three point set ups checks were always made to all visible established and located signals.

G. COMPARISON WITH OLD SURVEY:

There was no old survey sheet at hand. The shoreline from Anchorage Chart B0 had been pantographed to the topographic sheets. In many places shoreline did not agree and the discrepancies were as much as 100 meters.

The following places were found to have considerable discrepancies in shoreline.

Sheet TU-A-50

1. The shoreline between Cayuag Point and Cabangan Point.
2. Manisbaso Point.
3. Petambu Point.

Sheet TU-B-50

1. The shoreline in the bight between Nagoaban Point and Mancha Blanca Cliff.

2. The location of the mouth of Boton River. Information from three old natives reveals that any change in the location of the river outlet must have been made before the last twenty years.

3. The southern mouth of Kalaklan River.
4. The area in the vicinity of Signals Gig and Mop.

Sheet TU-C-50

1. Shoreline between Cox and Fez.
2. Shoreline south of Agosoen Lt.

H. GENERAL DESCRIPTION OF THE COAST:

Generally all points along the coastline are rocky. The coast along Subic town is sandy. At nearby station Off the coast is sandy but fouled with wrecks. At between stations New and Ice it is sandy but detached rocks are found in the vicinity of Signal Ice.

In the bay east of N.S.D. 1947 the coast is sandy but the northwestern part is fouled with wrecks. The small bay where signal Sis is located is sandy and free of obstructions except for the two beached LCT's. From here up to Kalaklan Lt. it is rocky and dangerous even for small launches to go near-by the shore. In the northern part of the bay inside Port Olongapo north of Signal Ann is a mud flat that uncovers at low water. The Coaling wharf where triangulation station Coal, 1947 is located had been damaged during World War 2. The super-structure had been burned and some floor bays blasted. The area between Coal and Mancha blanca cliff (at signal Wit) is sandy. At signal Pro where Banican village is located shore is sandy.

I. LIST OF PLANE TABLE POSITIONS:

Inclosed are lists of Plane Table Positions, Sheet TU-A-50, TU-B-50 and TU-C-50.

J. REMARKS:

Junctions between the three sheets were good and no adjustment was done in any of them. In all traverses there was no discrepancy that went beyond the limits allowed in the topographic manual and no adjustment was made in the location of any topographic feature located by this method. All signals were located by intersections of not less than three rays except for signal Bic in sheet No. TU-A-50 that was located by two rays and stadia distance from the nearest set up to it.

K. STATISTICS:

Number of topographic recoverable station- - - - -	0
Number of unrecoverable topographic stations - - -	96
Statute miles of low water line - - - - -	26.5
Statute miles of high water line - - - - -	28.8
Statute miles of roads - - - - -	0.8

Respectfully submitted:

/s/ FILOMENO L. CORTON
Ens., C & G S

Ino.:

1. List of Plane Table Positions.
2. List of Objects Located.

APPROVED AND FORWARDED:

/s/ WILBUR R. PORTER
Comdr., USC&GS
Comdg. Ship TULIP

LIST OF PLANE TABLE POSITIONS
SHEET TU-B-50, CS-7 (U.S.)

NAMES	: NORTH : : LATITUDE :	: D. M. : : (Meters) :	: EAST : : LONGITUDE :	: D. P. : : (Meters) :	R e m a r k s
Pro	: 14°-47' :	: (78.3) : : 1765.7* :	: 120°-16' :	: (1589.4) : : 204.9 :	Banner on a post.
Sol	: 14°-47' :	: (49.2) : : 1794.8* :	: 120°-16' :	: (1079.2) : : 715.1 :	Banner on tree trunk.
Dud	: 14°-47' :	: (128.7) : : 1715.3* :	: 120°-16' :	: (614.9) : : 1179.4 :	White wash on wreck.
Box	: 14°-48' :	: (1753.2) : : 90.8 :	: 120°-16' :	: (358.3) : : 1435.9 :	White wash on rock.
Jap	: 14°-48' :	: (1764.9) : : 79.1 :	: 120°-16' :	: (44.4) : : 1749.8 :	Banner on tree.
Kid	: 14°-47' :	: (112.2) : : 1731.8* :	: 120°-16' :	: (153.3) : : 1641.0 :	White wash on wreck.
Roy	: 14°-47' :	: (514.2) : : 1329.8* :	: 120°-17' :	: (1708.2) : : 86.1 :	Banner on tree trunk.
Sam	: 14°-47' :	: (619.3) : : 1224.7* :	: 120°-17' :	: (1280.4) : : 513.9 :	Banner on tree trunk.
Wit	: 14°-47' :	: (143.7) : : 1700.3* :	: 120°-17' :	: (921.8) : : 872.5 :	White wash on rock.
Ant	: 14°-48' :	: (1541.5) : : 302.5 :	: 120°-17' :	: (464.8) : : 1329.4 :	Banner on tree trunk.
Dog	: 14°-48' :	: (1099.8) : : 744.2 :	: 120°-17' :	: (353.3) : : 1440.9 :	Banner on tree trunk.
Rat	: 14°-48' :	: (368.5) : : 1475.5 :	: 120°-17' :	: (488.5) : : 1305.7 :	White wash on rock.
Bed	: 14°-49' :	: (1084.2) : : 759.8 :	: 120°-17' :	: (520.3) : : 1273.7 :	Banner on tree trunk.
How	: 14°-49' :	: (906.9) : : 937.1 :	: 120°-17' :	: (975.8) : : 818.2 :	29th Engr's white signal
Nod	: 14°-49' :	: (912.2) : : 931.8 :	: 120°-17' :	: (1048.9) : : 743.1 :	White wash on east end of Bridge.

TU-B-50

	: NORTH	: D. M.	: EAST	: D. P.	
NAMES:	LATITUDE:	(Meters):	LONGITUDE:	(Meters):	R e m a r k s
Hut	:14°-49'	: (814.2) 1029.8	:120°-17'	: (1318.5) 475.5	:29th Engr's white signal
Gas	:14°-49'	: (1127.1) 716.9	:120°-17'	: (1316.4) 477.6	: Banner on tree trunk.
Pet	:14°-49'	: (889.2) 954.8	:120°-17'	: (1596.9) 179.1	: Center of pole
Tow	:14°-49'	: (1474.2) 369.8	:120°-17'	: (1628.8) 165.2	: Center of top of watch Tower
Yes	:14°-48'	: (61.1) 1782.9	:120°-17'	: (1323.5) 470.7	: White wash on concrete
Wed	:14°-48'	: (151.7) 1692.3	:120°-16'	: (37.6) 1756.6	: White wash on edge of Alava Dock
Max	:14°-48'	: (976.3) 867.7	:120°-15'	: (656.2) 1138.0	: Banner on Fish Trap
Sal	:14°-49'	: (1656.9) 187.1	:120°-16'	: (568.2) 1225.8	: White wash on NW'ly Dolphin at Fleet Landing
Ham	:14°-49'	: (1400.0) 444.0	:120°-16'	: (868.9) 925.1	: White wash on concrete
Ned	:14°-49'	: (1366.3) 477.7	:120°-16'	: (839.5) 954.5	: Signal Tower Pole
Lux	:14°-49'	: (1211.1) 632.9	:120°-16'	: (1069.0) 725.0	: White washed empty gas Drum
Art	:14°-49'	: (967.2) 876.8	:120°-16'	: (1393.7) 400.3	: Center pole on beach
Dix	:14°-49'	: (654.5) 1189.5	:120°-15'	: (76.1) 1717.9	: White wash on rock
Gag	:14°-49'	: (250.9) 1593.1	:120°-15'	: (126.9) 1667.1	: White wash on rock
Pot	:14°-50'	: (1720.3) 123.7	:120°-16'	: (1725.6) 68.3	: White wash on rock
Sis	:14°-50'	: (1364.1) 479.9	:120°-16'	: (1567.0) 226.9	: White wash on beached LCT

TU-B-50

	: NORTH	: D.M.	: EAST	: D.P.	
NAMES:	LATITUDE:	(Meters):	LONGITUDE:	(Meters):	R e m a r K s
Bag	:14°-50'	:(1105.1) 738.9	:120°-16'	:(1793.9) 000.0	:White wash on rock.
Gig	:14°-50'	:(831.5) 1012.5	:120°-15'	:(185.6) 1608.3	:White wash on rock.
Mop	:14°-50'	:(547.2) 1296.8	:120°-15'	:(18.9) 1775.0	:White wash on rock.
Now	:14°-50'	:(105.9) 1738.1	:120°-15'	:(128.2) 1665.9	:Banner on white washed post.
Rim	:14°-50'	:(4.8) 1839.2	:120°-15'	:(553.6) 1240.3	:White wash on NW'ly corner of pier.
Flag	:14°-51'	:(1687.1)* 156.9	:120°-15'	:(451.0) 1342.8	: N.S.D. Flag Pole
Tax	:14°-51'	:(1678.7)* 165.3	:120°-15'	:(825.1) 968.7	:White wash on NW'ly corner of Steel sheet piles
Zag	:14°-51'	:(1624.8)* 219.2	:120°-15'	:(1165.5) 628.3	:White wash on rock.
Val	:14°-50'	:(130.8) 1713.2	:120°-15'	:(1336.5) 457.3	:White wash on rock.
Fly	:14°-50'	:(31.8) 1812.2	:120°-15'	:(1531.8) 262.0	:White washed drum on top of beached barge.
Fog	:14°-50'	:(31.8) 1812.2	:120°-15'	:(1738.0) 55.8	:Center Pole at outboard end of pier.
Ann	:14°-49'	:(1490.9) 353.1	:120°-17'	:(1059.9) 734.1	: Banner on fish trap.

* Deduced

Tabulated by: F.I.C.

Checked by: A.R.

LIST OF OBJECTS LOCATED
SHEET TU-B-50, CS-7 (U.S.)

NORTH LATITUDE		D.M. (Meters)	EAST LONGITUDE		D.P. (Meters)	REMARKS
14°	47'	(92.0) 1752.0*	120°	16'	(844.0) 950.3	Wreckage
14°	47'	(120.0) 1724.0*	120°	16'	(617.3) 1177.0	Wreck
14°	47'	(115.0) 1729.0*	120°	16'	(157.3) 1637.0	Wreck
14°	47'	(527.0) 1317.0*	120°	17'	(1624.3) 170.0	Beached barge
14°	47'	(652.0) 1192.0*	120°	17'	(1478.3) 316.0	Beached barge
14°	47'	(674.0) 1170.0*	120°	17'	(1376.3) 418.0	Wreckages of barges
14°	48'	(545.0) 1299.0	120°	17'	(502.2) 1292.0	Beached barge
14°	48'	(464.0) 1380.0	120°	17'	(552.2) 1242.0	Wrecked barge barge 8'
14°	48'	(323.8) 1520.2	120°	17'	(464.4) 1329.8	Wreck
14°	48'	(319.7) 1524.3	120°	17'	(494.0) 1300.2	Wreck
14°	49'	(1570.5) 273.5	120°	17'	(353.4) 1440.6	Wrecked barge
14°	49'	(1475.8) 368.2	120°	17'	(400.4) 1393.6	Wrecked barge
14°	49'	(1304.0) 540.0	120°	17'	(293.5) 1500.5	Beached barge
14°	49'	(1144.5) 699.5	120°	17'	(479.3) 1314.7	Center of 2 beached barges

* Deduced

TU-B-50

NORTH LATITUDE		D.M.	EAST LONGITUDE		D.P.	REMARKS
		(Meters)			(Meters)	
14°	49'	(1224.2) 619.8	120°	17'	(1135.8) 658.2	Beached pontoon cube
14°	49'	(760.8) 1083.2	120°	16'	(1622.5) 171.5	Wreck, 16m. long
14°	49'	(792.5) 1051.5	120°	16'	(1747.7) 46.3	Beached wreck
14°	50'	(175.8) 1668.2	120°	15'	(1320.2) 473.7	Wreck baring 6' above HW
14°	50'	(46.0) 1798.0	120°	15'	(1528.4) 265.5	Beached pontoon
14°	50'	(22.8) 1821.2	120°	15'	(1577.5) 216.4	Beached pontoon

Tabulated by: F. L. C.

Checked by: C. S. R.

GEOGRAPHIC NAMES

Survey No. **T-7079**

Name on Survey	<div>On Chart No.</div> <div>On previous survey No.</div> <div>On U. S. quadrangle Maps</div> <div>From local information</div> <div>On local Maps</div> <div>P. O. Guide or Map</div> <div>Rand McNally Atlas</div> <div>U. S. Light List</div>
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Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. TU-B-50 Office No. T-7079

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CHIEF OF PARTY

WILBUR R. PORTER

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U.S. COAST AND GEODETIC SURVEY

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Vessel TULIP

Chief of party WILBUR R. PORTER, Comdr., USCGS

Surveyed by Ens. F. L. Corton

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Heights in feet above.....to ground to tops of trees

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Instructions dated CS-7 1 March, 1950

Remarks:.....

COMBINED DESCRIPTIVE REPORTS

To Accompany

TOPOGRAPHIC SHEETS TU-A-50, TU-B-50 and TU-C-50

USC&GS SHIP TULIP

W. R. PORTER, Comd'g

A. AUTHORITY:

Project instructions, Project CS-7 (US) dated 1 March 1950 from the Director of Coast Surveys, Manila Field Station addressed to the Commanding Officer, Ship TULIP.

B. PURPOSE:

1. To delineate by topography the shoreline around Subic Bay Zambales, from Cubi Point up to Macmany Point covering all around the east, north and west sides of Subic Bay.
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5. NAVY	1947	11. CAIMAN	1947
6. CON	1947	12. CUBI 2	1947
		13. CAVIOTA	1947

Sheet TU-C-50

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The following instruments were used in this survey; 24 x 31" plane table with tripod and head, USC&GS alidades No. 133 and No. 28993 and their corresponding sets of rods graduated for each particular instruments. Alidade No. 133 was used only at sheet No. TU-B-50 in the location of signals and in all other work No. 28993 was used.

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The following places were found to have considerable discrepancies in shoreline.

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2. Manisbaso Point.
3. Petambu Point.

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1. The shoreline in the bight between Nagoaban Point and Manoha Blanco Cliff.

2. The location of the mouth of Boton River. Information from three old natives reveals that any change in the location of the river outlet must have been made before the last twenty years.

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1. Shoreline between Cox and Fez.
2. Shoreline south of Agosoen Lt.

H. GENERAL DESCRIPTION OF THE COAST:

Generally all points along the coastline are rocky. The coast along Subic town is sandy. At nearby station Off the coast is sandy but fouled with wrecks. At between stations New and Ice it is sandy but detached rocks are found in the vicinity of Signal Ice.

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I. LIST OF PLANE TABLE POSITIONS:

Inclosed are lists of Plane Table Positions, Sheet TU-A-50, TU-B-50 and TU-C-50.

J. REMARKS:

Junctions between the three sheets were good and no adjustment was done in any of them. In all traverses there was no discrepancy that went beyond the limits allowed in the topographic manual and no adjustment was made in the location of any topographic feature located by this method. All signals were located by interssections of not less than three rays except for signal Bic in sheet No. TU-A-50 that was located by two rays and stadia distance from the nearest set up to it.

K. STATISTICS:

Number of topographic recoverable station- - - - -	0
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Statute miles of low water line - - - - -	26.5
Statute miles of high water line - - - - -	28.8
Statute miles of roads - - - - -	0.8

Respectfully submitted:

/s/ FILOMENO L. CORTON
Ens., C & G S

Inc.:

1. List of Plane Table Positions.
2. List of Objects Located.

APPROVED AND FORWARDED:

/s/ WILBUR R. PORTER
Comdr., USC&GS
Comdg. Ship TULIP

I.

LIST OF PLANE TABLE POSITIONS
SHEET TU-B-50, CS-7 (U.S.)

NAMES	NORTH LATITUDE	D. M. (Meters)	EAST LONGITUDE	D. P. (Meters)	R e m a r k s
Pro	14° 47'	(78.3) 1765.7 *	120° 16'	(1589.4) 204.9	Banner on a post.
Sol	14° 47'	(49.2) 1794.8 *	120° 16'	(1079.2) 715.1	Banner on tree trunk.
Dud	14° 47'	(128.7) 1715.3 *	120° 16'	(614.9) 1179.4	White wash on wreck.
Box	14° 48'	(1753.2) 90.8	120° 16'	(358.3) 1435.9	White wash on rock.
Jap	14° 48'	(1764.9) 79.1	120° 16'	(44.4) 1749.8	Banner on tree.
Kid	14° 47'	(112.2)* 1731.8 *	120° 16'	(153.3) 1641.0	White wash on wreck.
Roy	14° 47'	(514.2) 1329.8 *	120° 17'	(1708.2) 86.1	Banner on tree trunk.
Sam	14° 47'	(619.3) 1224.7 *	120° 17'	(1280.4) 513.9	Banner on tree trunk.
Wit	14° 47'	(143.7) 1700.3 *	120° 17'	(921.8) 872.5	White wash on rock.
Ant	14° 48'	(1541.5) 302.5	120° 17'	(464.8) 1329.4	Banner on tree trunk.
Dog	14° 48'	(1099.8) 744.2	120° 17'	(353.3) 1440.9	Banner on tree trunk.
Rat	14° 48'	(368.5) 1475.5	120° 17'	(488.5) 1305.7	White wash on rock.
Bed	14° 49'	(1084.2) 759.8	120° 17'	(520.3) 1273.7	Banner on tree trunk.
How	14° 49'	(906.9) 937.1	120° 17'	(975.8) 818.2	29th Engr's white signal
Nod	14° 49'	(912.2) 931.8	120° 17'	(1048.9) 743.1	White wash on east end of Bridge.

(cont.)

TU-B-50

NAMES	NORTH LATITUDE	D. M. (Meters)	EAST LONGITUDE	D. P. (Meters)	REMARKS
Bag	14° 50'	(1105.1) 738.9	120° 16'	(1793.9) 000.0	White wash on rock.
Gig	14° 50'	(831.5) 1012.5	120° 15'	(185.6) 1608.3	White wash on rock.
Mop	14° 50'	(547.2) 1296.8	120° 15'	(18.9) 1775.0	White wash on rock.
Now	14° 50'	(105.9) 1738.1	120° 15'	(128.2) 1665.9	Banner on white washed post.
Rim	14° 50'	(4.8) 1839.2	120° 15'	(553.6) 1240.3	White wash on NW'ly corner of pier.
Flag	14° 51'	(1687.1) 156.9	* 120° 15'	(451.0) 1342.8	N.S.D. Flag Pole
Tax	14° 51'	(1678.7) 165.3	* 120° 15'	(825.1) 968.7	White wash on NW'ly corner of Steel sheet piles
Zag	14° 51'	(1624.8) 219.2	* 120° 15'	(1165.5) 628.3	White wash on rock.
Val	14° 50'	(130.8) 11713.2	120° 15'	(1336.5) 457.3	White wash on rock.
Fly	14° 50'	(31.8) 1812.2	120° 15'	(1531.8) 262.0	White washed drum on top of beached barge.
Fog	14° 50'	(31.8) 1812.2	120° 15'	(1738.0) 55.8	Center Pole at outboard end of pier.
Ann	14° 49'	(1490.9) 353.1	120° 17'	(1059.9) 734.1	Banner on fish trap.

* Deduced

Tabulated by: F.L.C.
Checked by: A.R.

LIST OF OBJECTS LOCATED
SHEET TU-B-50, CS-7 (U.S.)

NORTH LATITUDE	D. M. (Meters)	EAST LONGITUDE	D. P. (Meters)	REMARKS
14° 47'	(92.0) 1752.0 *	120° 16'	(844.0) 950.3	Wreckage
14° 47'	(120.0) 1724.0 *	120° 16'	(617.3) 1177.0	Wreck
14° 47'	(115.0) 1729.0 *	120° 16'	(157.3) 1637.0	Wreck
14° 47'	(527.0) 1317.0 *	120° 17'	(1624.3) 170.0	Beached barge
14° 47'	(652.0) 1192.0 *	120° 17'	(1478.3) 316.0	Beached barge
14° 47'	(674.0) 1170.0 *	120° 17'	(1376.3) 418.0	Wreckages of barges
14° 48'	(545.0) 1299.0	120° 17'	(502.2) 1292.0	Beached barge
14° 48'	(464.0) 1380.0	120° 17'	(552.2) 1242.0	Wrecked barge bares 8'
14° 48'	(323.8) 1520.2	120° 17'	(464.4) 1329.8	Wreck
14° 48'	(319.7) 1524.3	120° 17'	(494.0) 1300.2	Wreck
14° 49'	(1570.5) 273.5	120° 17'	(353.4) 1440.6	Wrecked barge
14° 49'	(1475.8) 368.2	120° 17'	(400.4) 1393.6	Wrecked barge
14° 49'	(1304.0) 540.0	120° 17'	(293.5) 1500.5	Beached barge
14° 49'	(1444.5) 699.5	120° 17'	(479.3) 1314.7	Center of 2 beached barges.

* Deduced

(Cont.)

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TU-B-50

NORTH LATITUDE		D. M. (Meters)	EAST LONGITUDE		D. P. (Meters)	REMARKS
14°	49'	(1224.2) 619.8	120°	17'	(1135.8) 658.2	Beached pontoon cube
14°	49'	(760.8) 1083.2	120°	16'	(1622.5) 171.5	Wreck, 16 m. long
14°	49'	(792.5) 1051.5	120°	16'	(1747.7) 46.3	Beached wreck.
14°	50'	(175.8) 1668.2	120°	15'	(1320.2) 473.7	Wreck baring 6' above HW
14°	50'	(46.0) 1798.0	120°	15'	(1528.4) 265.5	Beached pontoon
14°	50'	(22.8) 1821.2	120°	15'	(1577.5) 216.4	Beached pontoon

Tabulated by: F. L. C.

Checked by: C. S. R.