7078

Diag. Cht. No. 4705

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. TU-A-50 *Office No.* T-7078

LOCALITY

State Philippines

General locality West Coast of Luzon

Locality Subic Bay

1950

CHIEF OF PARTY

WILBUR R. PORTER

LIBRARY & ARCHIVES

DATE JUNE 5, 1950

B-1870-1 (1)

7078

Form 537a
Ed. Nov. 1929

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-A-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

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.

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° 51.04'N; Long. 120° 15.00'E including shorelines around Pequena and Mayanga Islands down to Lat. 14° 49.3'N; Long. 120° 12.6'E. Sheet No. TU-B-50 covers all the shoreline around the east side of Port Olongapo from Lat. 14° 51.04'N; Long. 120° 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° 49.3'N; Long. 120° 12.6'E down to Lat. 14° 46.3'N; Long. 120° 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 BO 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.

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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.

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 nearby 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

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

LIST OF PLANE TABLE POSITIONS
SHEET TU-A-50 GS-7 (U.S.)

	Latitude	Longitude	Remarks
EGO	14° - 52' (1339.6) 504.4	120° - 12' (469.3) 324.3	White wash on Beached Buoy
NEW	14° - 52' (842.4) 1001.6	120° - 12' (1241.2) 552.4	Banner
OBI	14° - 52' (693.2) 1150.8	120° - 12' (993.1) 800.5	White wash on corner of Hut
ICE	14° - 52' (582.8) 1261.2	120° - 12' (508.3) 1285.3	White wash on wreck
HID	14° - 52' (709.0) 1135.0	120° - 12' (91.3) 1702.3	Mast of Beached LST
SAP	14° - 51' (105.3) 1738.7	120° - 12' (1641.5) 152.3	White wash on Wreck
FOX	14° - 51' (602.5) 1241.5	120° - 12' (1400.0) 393.8	Banner on Dolphin
AIM	14° - 51' (1060.9) 783.1	120° - 12' (1198.4) 595.4	White wash on Beached Pontoon cube
BOB	14° - 51' (1414.7) 429.3	120° - 12' (667.3) 1126.5	Banner at end of Pier.
SOX	14° - 51' (1681.6) 162.4	120° - 12' (561.1) 1232.7	Banner at end of pier
NOR	14° - 50' (491.9) 1352.1	120° - 12' (664.9) 1129.0	White wash on beached barge
HIS	14° - 50' (742.4) 1101.6	120° - 12' (731.2) 1062.7	White wash on beached Pontoon cube
LIL	14° - 50' (559.3) 1284.7	120° - 12' (431.4) 1362.5	Banner on pile
GUY	14° - 49' (207.0) 1637.0	120° - 12' (544.8) 1249.2	White wash on rock

	Latitude	Longitude	Remarks
SAD	14° - 49' (919.0) 925.0	120° - 12' (678.3) 1115.7	White wash on beached barge
RIP	14° - 49' (1337.4) 506.6	120° - 12' (727.8) 1066.2	Banner on tree trunk
OFF	14° - 52' (564.5) 1279.5	120° - 13' (1373.9) 419.7	Mast of Wreck
FIN	14° - 52' (647.7) 1195.3	120° - 13' (868.3) 925.3	Mast of Wreck
BIC	14° - 52' (307.5) 1536.5	120° - 13' (523.8) 1269.8	White wash on cocoanut trunk
PIG	14° - 52' (591.4) 1252.6	120° - 13' (222.1) 1571.5	White wash on Wreck LCM
TOM	14° - 52' (636.0) 1208.0	120° - 13' (35.5) 1758.1	Banner
GAB	14° - 52' (914.6) 929.4	120° - 13' (7.5) 1786.1	S'ly gable of green roof School Bldg.
NUT	14° - 52' (1568.7) 275.3	120° - 13' (18.9) 1774.7	White wash on Beached Barge
CRY	14° - 51' (390.3) 1453.7	120° - 14' (1577.1) 216.7	Banner
DIP	14° - 51' (420.7) 1423.3	120° - 14' (1322.1) 471.7	White wash on beach LCM
MAL	14° - 51' (560.2) 1283.8	120° - 14' (1619.0) 174.8	Mast of Wreck
DOL	14° - 51' (582.8) 1261.2	120° - 14' (1184.7) 609.1	Dolphin
HAG	14° - 51' (519.8) 1324.2	120° - 14' (987.4) 806.4	White wash on Camatsile
ANA	14° - 51' (860.3) 983.7	120° - 13' (88.2) 1705.6	White wash on Bare Rock

	Latitude		Longitude		Remarks
MAN	14° - 51'	(1216.5) 627.5	120° - 13'	(487.0) 1306.8	Mast of Wreck
CAM	14° - 51'	(1543.2) 300.8	120° - 13'	(224.5) 1569.3	White wash on Bare Rock
DON	14° - 51'	(999.4) 844.6	120° - 14'	(846.9) 946.9	Banner
WAS	14° - 51'	(1181.2) 662.8	120° - 14'	(965.4) 828.4	Only mast of group of wrecks
TOP	14° - 51'	(1376.8) 467.2	120° - 14'	(973.6) 820.2	Dressed Tripod on top of hill
GIN	14° - 51'	(1447.3) 396.7	120° - 14'	(904.2 889.6	White wash on coco-nut tree trunk
LOG	14° - 51'	(1509.3) 334.7	120° - 14'	(1072.3) 721.5	Dolphin
PAL	14° - 51'	(1602.7) 241.3	120° - 14'	(986.5) 807.3	Dolphin
END	14° - 51'	(1702.2) 141.8	120° - 14'	(499.3) 1294.5	Cross Banner

Tabulated by: A. R.

Checked by: A.G.J.

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

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	R E M A R K S
14° 49'	(703.2) 1140.8*	120° 12'	(632.7) 1161.3	Pontoon cube
14° 49'	(263.2) 1580.8*	120° 12'	(509.0) 1285.0	Rock awash
14° 50'	(719.3) 1124.7	120° 12'	(644.5) 1149.4	Drifted buoy
14° 50'	(394.8) 1449.2	120° 12'	(624.3) 1169.6	Detached rock bares ½' MLLW
14° 50'	(313.7) 1530.3	120° 12'	(644.4) 1149.5	Beached pontoon cube
14° 50'	(286.8) 1607.2	120° 12'	(649.8) 1144.1	Beached pontoon cube
14° 50'	(272.0) 1572.0	120° 12'	(624.0) 1169.9	Pile
14° 51'	(1739.0) 105.0	120° 12'	(812.6) 981.2	Center of wreckage
14° 51'	(1365.6) 478.4	120° 12'	(945.6) 848.2	Beached barge
14° 51'	(1237.5) 606.5	120° 12'	(990.2) 803.6	Pontoon cube
14° 51'	(1249.3) 594.7	120° 12'	(1007.2) 786.6	Pontoon cube
14° 51'	(1235.2) 608.8	120° 12'	(1034.1) 759.7	Pontoon cube
14° 51'	(763.8) 1080.2	120° 12'	(1396.2) 397.6	Beached pontoon cube
14° 51'	(618.5) 1225.5	120° 12'	(1450.8) 343.0	Wreck
14° 51'	(489.4) 1354.6	120° 12'	(1532.8) 261.0	Wreck

* Deduced

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	REMARKS
14° 51'	(477.2) 1366.8	120° 12'	(1592.2) 201.6	Beached pontoon barge
14° 51'	(443.5) 1400.5	120° 12'	(1652.4) 141.4	Beached pontoon barge
14° 51'	(361.6) 1482.4	120° 12'	(1714.0) 79.8	Beached pontoon barge
14° 51'	(299.2) 1544.8	120° 12'	(1766.7) 27.1	Beached pontoon barge
14° 51'	(232.5) 1611.5	120° 11'	(8.0) 1785.8*	Beached pontoon barge
14° 52'	(766.6) 1077.4	120° 12'	(1076.1) 717.5	Wreck
14° 52'	(768.6) 1075.4	120° 12'	(785.9) 1007.7	Wreck
14° 52'	(685.3) 1158.7	120° 12'	(878.1) 915.5	Beached barge
14° 52'	(628.7) 1215.3	120° 12'	(418.1) 1375.5	Center of 3 detached rocks bearing 4½ ft. above MLLW.
14° 52'	(574.2) 1269.8	120° 12'	(447.0) 1346.6	Middle of 2 detached rocks bearing ½ ft. above MLLW
14° 52'	(560.2) 1283.8	120° 12'	(429.3) 1364.3	Detached rock bearing ½ ft. above MLLW.
14° 52'	(532.3) 1311.7	120° 12'	(383.6) 1410.0	Beached barge
14° 52'	(557.2) 1286.8	120° 12'	(363.4) 1430.2	Wreck
14° 52'	(539.4) 1304.6	120° 12'	(292.3) 1501.3	Wreck

* Deduced

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	R E M A R K S
14° 52'	(603.2) 1240.8	120° 12'	(243.4) 1550.2	Wreck
14° 52'	(687.8) 1156.2	120° 12'	(117.0) 1676.6	Wreck, mast used as signal "Hid"
14° 52'	(594.0) 1250.0	120° 13'	(1395.1) 398.5	Wreck, mast used as signal "Off"
14° 52'	(528.8) 1315.2	120° 13'	(1318.8) 474.8	Wreck
14° 52'	(513.8) 1330.2	120° 13'	(1269.1) 524.5	Wreck
14° 52'	(485.0) 1359.0	120° 13'	(1190.4) 603.2	Wreck
14° 52'	(512.4) 1331.6	120° 13'	(1028.1) 765.5	Wreck
14° 52'	(655.2) 1188.8	120° 13'	(831.4) 962.2	Wreck, aftermast used as signal "Fin"
14° 52'	(596.6) 1247.6	120° 13'	(735.1) 1058.5	Wreck
14° 52'	(487.2) 1356.8	120° 13'	(476.1) 1317.5	Wreck
14° 51'	(858.5) 985.5	120° 13'	(98.6) 1695.2	Rock baring 4' above HW used as singal "Ana"
14° 51'	(1188.9) 655.1	120° 13'	(478.3) 1315.5	Wreck, aftermast used as signal "Man"
14° 51'	(1354.7) 489.3	120° 13'	(276.3) 1517.5	Wreck
14° 51'	(1394.2) 449.8	120° 13'	(174.2) 1619.6	Submerged wreck
14° 51'	(1539.3) 304.7	120° 13'	(231.0) 1562.8	Rock baring 9' above HW used as signal "Cam"
14° 51'	(1556.0) 288.0	120° 13'	(162.6) 1631.2	Rock baring 5' above HW

TU-A-50

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	R E M A R K S
14° 51'	(1714.5) 129.5	120° 14'	(748.3) 1045.5	Beeched wreck
14° 50'	(1492.5) 351.5	120° 13'	(147.5) 1646.4	Rock awash
14° 49'	(47.8) 1796.2*	120° 14'	(1793.9) 0.0	Wreck

* Deduced

Tabulated by: A. G. J.

Checked by: C. S. R.

GEOGRAPHIC NAMES

Survey No. T-7078

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
										1
										2
										3
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M 234

Form 504

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DEPARTMENT OF COMMERCE

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194 50

CHIEF OF PARTY

WILBUR R. PORTER

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B-1870-1 (1)

Form 537a
Ed. Nov. 1929

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3. Petambu Point.

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

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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

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

	Latitude	Longitude	Remarks
EGO	14° - 52' (1339.6) 504.4	120° - 12' (469.3) 324.3	White wash on Beached Buoy
NEW	14° - 52' (842.4) 1001.6	120° - 12' (1241.2) 552.4	Banner
OBI	14° - 52' (693.2) 1150.8	120° - 12' (993.1) 800.5	White wash on corner of Hut
ICE	14° - 52' (582.8) 1261.2	120° - 12' (508.3) 1285.3	White wash on wreck
HID	14° - 52' (709.0) 1135.0	120° - 12' (91.3) 1702.3	Mast of Beached LST
SAP	14° - 51' (105.3) 1738.7	120° - 12' (1641.5) 152.3	White wash on Wreck
FOX	14° - 51' (602.5) 1241.5	120° - 12' (1400.0) 393.8	Banner on Dolphin
AIM	14° - 51' (1060.9) 783.1	120° - 12' (1198.4) 595.4	White wash on Beached Pontoon cube
BOB	14° - 51' (1414.7) 429.3	120° - 12' (667.3) 1126.5	Banner at end of Pier.
SOX	14° - 51' (1681.6) 162.4	120° - 12' (561.1) 1232.7	Banner at end of pier
NOR	14° - 50' (491.9) 1352.1	120° - 12' (664.9) 1129.0	White wash on beached barge
HIS	14° - 50' (742.4) 1101.6	120° - 12' (731.2) 1062.7	White wash on beached Pontoon cube
LIL	14° - 50' (559.3) 1284.7	120° - 12' (431.4) 1362.5	Banner on pile
GUY	14° - 49' (207.0) 1637.0	120° - 12' (544.8) 1249.2	White wash on rock

	Latitude	Longitude	Remarks
SAD	14° - 49' (919.0) 925.0	120° - 12' (678.3) 1115.7	White wash on beached barge
RIP	14° - 49' (1337.4) 506.6	120° - 12' (727.8) 1066.2	Banner on tree trunk
OFF	14° - 52' (564.5) 1279.5	120° - 13' (1373.9) 419.7	Mast of Wreck
FIN	14° - 52' (647.7) 1195.3	120° - 13' (868.3) 925.3	Mast of Wreck
BIC	14° - 52' (307.5) 1536.5	120° - 13' (523.8) 1269.8	White wash on cocoanut trunk
PIG	14° - 52' (591.4) 1252.6	120° - 13' (222.1) 1571.5	White wash on Wreck ICM
TOM	14° - 52' (636.0) 1208.0	120° - 13' (35.5) 1758.1	Banner
GAB	14° - 52' (914.6) 929.4	120° - 13' (7.5) 1786.1	S'ly gable of green roof School Bldg.
NUT	14° - 52' (1568.7) 275.3	120° - 13' (18.9) 1774.7	White wash on Beached Barge
CRY	14° - 51' (390.3) 1453.7	120° - 14' (1577.1) 216.7	Banner
DIP	14° - 51' (420.7) 1423.3	120° - 14' (1322.1) 471.7	White wash on beach ICM
MAL	14° - 51' (560.2) 1283.8	120° - 14' (1619.0) 174.8	Mast of Wreck
DOL	14° - 51' (582.8) 1261.2	120° - 14' (1184.7) 609.1	Dolphin
HAG	14° - 51' (519.8) 1324.2	120° - 14' (987.4) 806.4	White wash on Camatsile
ANA	14° - 51' (860.3) 983.7	120° - 13' (88.2) 1705.6	White wash on Bare Rock

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CAM	14° - 51'	(1543.2) 300.8	120° - 13'	(224.5) 1569.3	White wash on Bare Rock
DON	14° - 51'	(999.4) 844.6	120° - 14'	(846.9) 946.9	Banner
WAS	14° - 51'	(1181.2) 662.8	120° - 14'	(965.4) 828.4	Only mast of group of wrecks
TOP	14° - 51'	(1376.8) 467.2	120° - 14'	(973.6) 820.2	Dressed Tripod on top of hill
GIN	14° - 51'	(1447.3) 396.7	120° - 14'	(904.2 889.6	White wash on cocoa-nut tree trunk
LOG	14° - 51'	(1509.3) 334.7	120° - 14'	(1072.3) 721.5	Dolphin
PAL	14° - 51'	(1602.7) 241.3	120° - 14'	(986.5) 807.3	Dolphin
END	14° - 51'	(1702.2) 141.8	120° - 14'	(499.3) 1294.5	Cross Banner

Tabulated by: A. R.

Checked by: A.G.J.

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

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	REMARKS
14° 49'	(703.2) 1140.8*	120° 12'	(632.7) 1161.3	Pontoon cube
14° 49'	(263.2) 1580.8*	120° 12'	(509.0) 1285.0	Rock awash
14° 50'	(719.3) 1124.7	120° 12'	(644.5) 1149.4	Drifted buoy
14° 50'	(394.8) 1449.2	120° 12'	(624.3) 1169.6	Detached rock bares ½' MLLW
14° 50'	(313.7) 1530.3	120° 12'	(644.4) 1149.5	Beached pontoon cube
14° 50'	(286.8) 1607.2	120° 12'	(649.8) 1144.1	Beached pontoon cube
14° 50'	(272.0) 1572.0	120° 12'	(624.0) 1169.9	Pile
14° 51'	(1739.0) 105.0	120° 12'	(812.6) 981.2	Center of wreckage
14° 51'	(1365.6) 478.4	120° 12'	(945.6) 848.2	Beached barge
14° 51'	(1237.5) 606.5	120° 12'	(990.2) 803.6	Pontoon cube
14° 51'	(1249.3) 594.7	120° 12'	(1007.2) 786.6	Pontoon cube
14° 51'	(1235.2) 608.8	120° 12'	(1034.1) 759.7	Pontoon cube
14° 51'	(763.8) 1080.2	120° 12'	(1396.2) 397.6	Beached pontoon cube
14° 51'	(618.5) 1225.5	120° 12'	(1450.8) 343.0	Wreck
14° 51'	(489.4) 1354.6	120° 12'	(1532.8) 261.0	Wreck

* Deduced

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	REMARKS
14° 51'	(477.2) 1366.8	120° 12'	(1592.2) 201.6	Beached pontoon barge
14° 51'	(443.5) 1400.5	120° 12'	(1652.4) 141.4	Beached pontoon barge
14° 51'	(361.6) 1482.4	120° 12'	(1714.0) 79.8	Beached pontoon barge
14° 51'	(299.2) 1544.8	120° 12'	(1766.7) 27.1	Beached pontoon barge
14° 51'	(232.5) 1611.5	120° 11'	(8.0) 1785.8*	Beached pontoon barge
14° 52'	(766.6) 1077.4	120° 12'	(1076.1) 717.5	Wreck
14° 52'	(768.6) 1075.4	120° 12'	(785.9) 1007.7	Wreck
14° 52'	(685.3) 1158.7	120° 12'	(878.1) 915.5	Beached barge
14° 52'	(628.7) 1215.3	120° 12'	(418.1) 1375.5	Center of 3 detached rocks bearing 4½ ft. above MLLW.
14° 52'	(574.2) 1269.8	120° 12'	(447.0) 1346.6	Middle of 2 detached rocks bearing ½ ft. above MLLW
14° 52'	(560.2) 1283.8	120° 12'	(429.3) 1364.3	Detached rock bearing ½ ft. above MLLW.
14° 52'	(532.3) 1311.7	120° 12'	(383.6) 1410.0	Beached barge
14° 52'	(557.2) 1286.8	120° 12'	(363.4) 1430.2	Wreck
14° 52'	(539.4) 1304.6	120° 12'	(292.3) 1501.3	Wreck

* Deduced

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	R E M A R K S
14° 52'	(603.2) 1240.8	120° 12'	(243.4) 1550.2	Wreck
14° 52'	(687.8) 1156.2	120° 12'	(117.0) 1676.6	Wreck, mast used as signal "Hid"
14° 52'	(594.0) 1250.0	120° 13'	(1395.1) 398.5	Wreck, mast used as signal "Off"
14° 52'	(528.8) 1315.2	120° 13'	(1318.8) 474.8	Wreck
14° 52'	(513.8) 1330.2	120° 13'	(1269.1) 524.5	Wreck
14° 52'	(485.0) 1359.0	120° 13'	(1190.4) 603.2	Wreck
14° 52'	(512.4) 1331.6	120° 13'	(1028.1) 765.5	Wreck
14° 52'	(655.2) 1188.8	120° 13'	(831.4) 962.2	Wreck, aftermast used as signal "Fin"
14° 52'	(596.6) 1247.6	120° 13'	(735.1) 1058.5	Wreck
14° 52'	(487.2) 1356.8	120° 13'	(476.1) 1317.5	Wreck
14° 51'	(858.5) 985.5	120° 13'	(98.6) 1695.2	Rock baring 4' above HW used as singal "Ana"
14° 51'	(1188.9) 655.1	120° 13'	(478.3) 1315.5	Wreck, aftermast used as signal "Man"
14° 51'	(1354.7) 489.3	120° 13'	(276.3) 1517.5	Wreck
14° 51'	(1394.2) 449.8	120° 13'	(174.2) 1619.6	Submerged wreck
14° 51'	(1539.3) 304.7	120° 13'	(231.0) 1562.8	Rock baring 9' above HW used as signal "Cam
14° 51'	(1556.0) 288.0	120° 13'	(162.6) 1631.2	Rock baring 5' above HW

NORTH LATITUDE	D.M. (Meters)	EAST LONGITUDE	D.P. (Meters)	R E M A R K S
14° 51'	(1714.5) 129.5	120° 14'	(748.3) 1045.5	Beached wreck
14° 50'	(1492.5) 351.5	120° 13'	(147.5) 1646.4	Rook awash
14° 49'	(47.8) 1796.2*	120° 14'	(1793.9) 0.0	Wreck

* Deduced

Tabulated by: A. G. J.

Checked by: C. S. R.

ORIGINAL

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. TU-A-50, ~~TU-B-50~~ & ~~TU-C-50~~ Office No. T-7078

LOCALITY

State Philippines

General locality West Coast of Luzon

Locality Subic Bay

1950

CHIEF OF PARTY

WILBUR R. PORTER, Comdr., USC&GS

LIBRARY & ARCHIVES

DATE JUN 5 1950

8-1870-1 (1)

Form 537a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

Each Topographic and Graphic Control Sheet, and each Air Photographic Drawing should be accompanied by this form, completed so far as practicable, when forwarded to the Washington office.

REGISTRY No. .....

Field No. TU-A-50, TU-B-50 & TU-C-50

Scale 1:10,000

State Philippines General locality West Coast of Luzon

Specific locality Subic Bay

Dates: Survey began 14 March 1950 Completed 18 April 1950

Photography....., Supplemented by ground surveys to .....

Project No. CS-7 Instructions dated 1 March 1950

Vessel ~~Party~~ USC&GS S TULIP Chief of party WILBUR R. PORTER, Comdr., USC&GS

Field work by Ens. F.L. CORTON Office work by Ens. F.L.CORTON, A.G.JARDIOLIN, A.del ROSARIO

Final inking by Office Personnel, Philippine Coast and Geodetic Survey

Ground elevations / Treetop elevations } in feet above { M. H. W. / or / .....

Contours / Approximate contours / Form lines } by { Planetable / Multiplex / ..... } Interval ..... ft.

REMARKS .....

U. S. GOVERNMENT PRINTING OFFICE 16—88129-1

DESCRIPTIVE REPORT.
To Accompany
TOPOGRAPHIC SHEETS TU-A-50, TU-B-50 and TU-C-50

USC&GS SHIP TULIP W. R. PORTER, Comdg.

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° 51.'04 N; Long. 120° 15.'00 E including shorelines around Pequena and Mayanga Islands down to Lat. 14° 49.'3 N; Long. 120° 12.'6 E. Sheet No. TU-B-50 covers all the shoreline around the east side of Port Olongapo from Lat. 14° 51.'04 N; Long. 120° 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° 49.'3 N; Long. 120° 12.'6 E down to Lat. 14° 46.'3 N; Long. 120° 11.'7 E. Date of survey was from 14 March 1950 to 18 April 1950. Work was not continous 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 corresponding sets of rods graduated for each particular instrument. 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 80 had been panthographed 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. Petabu Point

Sheet TU-B-50

1. The shoreline in the bight between Nagcaban Pt. 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 Agoscen Lt.

H. GENERAL DESCRIPTION OF THE COAST:

Generally all points along the coastlines are rocky. The coast along Subic town is sandy. At nearby station Off the coast is sandy but fould 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 nearby 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:

FILOMENO L. CORTON
Ens., C & G S

Inc.:

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APPROVED AND FORWARDED:

WILBUR R. PORTER
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Comdg. Ship TULIP

I

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I

TU-A-50

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14° 51'	(1739.0) 105.0	120° 12'	(812.6) 981.2	Center of wreckage
14° 51'	(1365.6) 478.4	120° 12'	(945.6) 848.2	Beached barge
14° 51'	(1237.5) 606.5	120° 12'	(990.2) 803.6	Pontoon cube
14° 51'	(1249.3) 594.7	120° 12'	(1007.2) 786.6	Pontoon cube
14° 51'	(1235.2) 608.8	120° 12'	(1034.1) 759.7	Pontoon cube
14° 51'	(763.8) 1080.2	120° 12'	(1396.2) 397.6	Beached pontoon cube
14° 51'	(618.5) 1225.5	120° 12'	(1450.8) 343.0	Wreck
14° 51'	(489.4) 1354.6	120° 12'	(1532.8) 261.0	Wreck

* Deduced

(Cont.)

NORTH LATITUDE	D. M. (Meters)	EAST LONGITUDE	D. P. (Meters)	REMARKS
14° 51'	(477.2) 1366.8	120° 12'	(1592.2) 201.6	Beached pontoon barge
14° 51'	(443.5) 1400.5	120° 12'	(1652.4) 141.4	Beached pontoon barge
14° 51'	(361.6) 1482.4	120° 12'	(1714.0) 79.8	Beached pontoon barge
14° 51'	(299.2) 1544.8	120° 12'	(1766.7) 27.1	Beached pontoon barge
14° 51'	(232.5) 1611.5	120° 11'	(8.0) 1785.8 *	Beached pontoon barge
14° 52'	(766.6) 1077.4	120° 12'	(1076.1) 717.5	Wreck
14° 52'	(768.6) 1075.4	120° 12'	(785.9) 1007.7	Wreck
14° 52'	(685.3) 1158.7	120° 12'	(878.1) 915.5	Beached barge
14° 52'	(628.7) 1215.3	120° 12'	(418.1) 1375.5	Center of 3 detached rocks bearing 4½ ft. above MLLW.
14° 52'	(574.2) 1269.8	120° 12'	(447.0) 1346.6	Middle of 2 detached rocks bearing ½ ft. above MLLW
14° 52'	(560.2) 1283.8	120° 12'	(429.3) 1364.3	Detached rock bearing ½ ft. above MLLW.
14° 52'	(532.3) 1311.7	120° 12'	(383.6) 1410.0	Beached barge
14° 52'	(557.2) 1286.8	120° 12'	(363.4) 1430.2	Wreck
14° 52'	(539.4) 1304.6	120° 12'	(292.3) 1501.3	Wreck

* Dedriced

(Cont.)

NORTH LATITUDE	D. M. (Meters)	EAST LONGITUDE	D. P. (Meters)	REMARKS
14° 52'	(603.2) 1240.8	120° 12'	(243.4) 1550.2	Wreck
14° 52'	(687.8) 1156.2	120° 12'	(117.0) 1676.6	Wreck mast used as signal "Hid"
14° 52'	(594.0) 1250.0	120° 13'	(1395.1) 398.5	Wreck, mast used as signal "Off"
14° 52'	(528.8) 1315.2	120° 13'	(1318.8) 474.8	Wreck
14° 52'	(513.8) 1330.2	120° 13'	(1269.1) 524.5	Wreck
14° 52'	(485.0) 1359.0	120° 13'	(1190.4) 603.2	Wreck
14° 52'	(512.4) 1331.6	120° 13'	(1028.1) 765.5	Wreck
14° 52'	(655.2) 1188.8	120° 13'	(831.4) 962.2	Wreck, aftermast used as signal "Fin"
14° 52'	(596.6) 1247.6	120° 13'	(735.1) 1058.5	Wreck
14° 52'	(487.2) 1356.8	120° 13'	(476.1) 1317.5	Wreck
14° 51'	(858.5) 985.5	120° 13'	(98.6) 1695.2	Rock baring 4' above HW used as signal "Ana".
14° 51'	(1188.9) 655.1	120° 13'	(478.3) 1315.5	Wreck, aftermast used as signal "Man".
14° 51'	(1354.7) 489.3	120° 13'	(276.3) 1517.5	Wreck
14° 51'	(1394.2) 449.8	120° 13'	(174.2) 1619.6	Submerged wreck.
14° 51'	(1539.3) 304.7	120° 13'	(231.0) 1562.8	Rock baring 9' above HW used as signal "Cam".
14° 51'	(1556.0) 288.0	120° 13'	(162.6) 1631.2	Rock baring 5' above HW.

NORTH LATITUDE	D. M. (Meters)	EAST LONGITUDE	D. P. (Meters)	REMARKS
14° 51'	(1714.5) 129.5	120° 14'	(748.3) 1045.5	Beached wreck
14° 50'	(1492.5) 351.5)	120° 13'	(147.5) 1646.4	Rock awash
14° 49'	(47.8) 1796.2 *	120° 14'	(1793.9) 0.0	Wreck

* Deduced

Tabulated by: A. G. J.

Checked by: C. S. R.