

8815

Diag. Cht. No. 8202-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. LJ-10-1-64 Office No. H-8815

LOCALITY

State ALASKA

General locality GLACIER BAY

Locality BARTLETT COVE

1964

CHIEF OF PARTY

Richard H. Houlder

LIBRARY & ARCHIVES

DATE 9/25/69

USCOMM-DC 5067

8815

HYDROGRAPHIC TITLE SHEET

H-8815

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

FIELD NO.

LJ-10-1-64

State ALASKA

General locality GLACIER BAY

Locality BARTLETT COVE

Scale 1/10,000 Date of survey 13 May to 8 June 1964
4/28/64, Supp. 6/15/64 & 7/21/64

Instructions dated lters 3 & 22 Apr. 1964 Project No. SP-3-64

Vessel USC&GS Ship LESTER JONES and M.L. No. 1192

Chief of party Richard H. Houlder

Surveyed by R. H. Houlder and N. C. Austin

Soundings taken by echo sounder, ~~hand/lead/pole/~~

Graphic record scaled by Launch Personnel

Graphic record checked by Launch Personnel

Protracted by N. C. Austin Automated plot by -----

Soundings penciled by R. C. Westphall

Soundings in fathoms 1000 at M/L MLLW

REMARKS: _____

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8815 (LJ-10-1-64) 1964
BARTLETT COVE, GLACIER BAY, ALASKA

Scale: 1:10,000

13 May thru 8 June 1964

A. PROJECT

Project instructions for SP-3-64 included original instructions dated 28 April 1964, supplemental instructions dated 15 June and 21 July 1964, and letters dated 3 April and 22 April 1964.

B. AREA SURVEYED

The survey area is in the vicinity of Bartlett Cove in Glacier Bay, Southeast Alaska. The cove is formed by Lester Island on the northwest and the mainland on the southeast. The topography in the area is low and wooded with gravel and boulder beaches. It is the location of the U.S. National Park Service Headquarters for Glacier Bay National Monument. Sheet limits bound LJ-10-1-64 as follows:

Lat 58° 29' on the North,
Lat 58° 25' on the South,
Long 135° 51' on the East, and
Long 135° 59' on the West.

The survey was conducted during the period 13 May through 8 June 1964. It junctioned with prior survey H-6337, 1938 (1:10,000) and H-6339, 1938 (1:20,000). It also junctions

with contemporary survey LJ-20-1-64.

C. SOUNDING VESSEL

All soundings were recorded on Launch #1192 using purple day letters. All bottom samples were taken from the ship using purple day letters.

D. SOUNDING EQUIPMENT

Raytheon Fathometer 723 B, serial # 530, was used exclusively. Depths did not exceed 40 fathoms.

Two corrections were applied to the echo sounder; an index correction and an echo correction. The index was set to zero and deviations from this setting accounted for. The echo correction was determined by bar check taken twice daily to depths of 20 fathoms. When weather conditions permitted, a bar check to 30 fathoms was observed.

E. SMOOTH SHEET

The projection was ruled by ship personnel in the processing office at Seattle Ship Base. The rest of the smooth sheet was also completed there. Conditions were ideal for smooth plotting.

F. CONTROL

Hydrography was controlled visually by sextant fixes. Hydrographic signals were located by graphic and photogrammetric methods. Photogrammetric manuscripts were not

available at the start of the survey, so a planetable survey was made using existing triangulation. To avoid a shift in datums and to maintain the continuity of the hydrographic work when changing over to photo-identification of control, selected planetable stations were photo-identified. Photogrammetric compilations used were numbered T-12642, T-12643, and T-12644. Graphic control appears on sheet LJ-A-64.

G. SHORELINE

Shoreline detail was transferred from the compilations listed above. The transfer of shoreline and topographic details has been verified. Two insets of pier detail are shown on the smooth sheet. These two piers and the marine railway did not seem to have been verified and were not inked by the smooth plotter on the 1:10,000 scale. The two insets were transferred from the boat sheet without exact reference to orientation.

H. CROSSLINES

Eight percent crosslines were run. Junctions of crosslines were in good general agreement. Bartlett Cove has the appearance of a typical glaciated canyon submerged under the level of the sea. As such, the broad expanse of the center of the cove is nearly flat and soundings are in near-perfect agreement. However, the bottom comes

up very fast near the shoreline and crosslines are more difficult to compare, as a small difference of location will show a different sounding.

I. JUNCTIONS

Smooth plotting of contemporary survey LJ-20-1-64 is not sufficiently completed at this writing to make a comparison at the common junction. Junction with prior survey #H-6339 is very satisfactory.

J. COMPARISON:

Registered survey #6337 was conducted in Bartlett Cove in 1938. Boat sheet LJ-10-1-64 is a photostatic blue-line copy of H-6337.

Only one presurvey review item was listed in project instructions. It appears in the supplemental instructions dated 15 June 1964. This item is not within LJ-10-1-64 sheet limits.

K. CHART COMPARISON

The largest scale chart of the area is #8304 at a scale of 1:80,000. The great difference between this and the sheet scale makes comparison difficult. Nevertheless, all charted features are clearly developed on the smooth sheet. The features on the chart are adequate considering the scale. The numerous rocks plotted are all relatively close to the shoreline.

L. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede prior surveys for charting.

M. AIDS TO NAVIGATION

There were no aids on this sheet.

N. STATISTICS

Ship LESTER JONES ... 17 bottom samples

M.L. #1192 ... 1285 positions ... 140.3 N.M. Soundings
~~6.2~~ sq. m. Hydrography
7.6

There were no tidal current or magnetic observations in the survey area.

P. RECOMMENDATIONS

The smooth plotter makes no recommendations.

Q. REFERENCES

1964 Season's Report	(forwarded)
1964 Fathometer Report	(forwarded)
Tide Note	(1 sheet enclosed)
Abstract of Echo Corrections	(1 sheet enclosed)
List of Signals	(1 sheet enclosed)

Respectfully submitted,

Robert C. Westphall

Robert C. Westphall
LTJG, C&GS

Approved and forwarded,

Harold E. McCall

Harold E. McCall
LT, C&GS
Comdg., Ship LESTER JONES

TIDE NOTE

Project SP-3-64
LJ-10-1-64
Bartlett Cove,
Glacier Bay,
Alaska

<u>Station</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Time Meridian</u>	<u>Height MLLW on Staff</u>
Bartlett Cove	58° 27.2'N	135° 52.0W	120 W	5.0 feet

The portable tide gage at Bartlett Cove was used throughout this survey. Tide reducers were scaled directly from the marigrams. No corrections for differences in time of height were applied.

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~NOOKS AND CRACKS~~ Seattle Regional Officer

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 8815

Locality: Bartlett Cove, Glacier Bay
S. E. Alaska

Chief of Party: R. H. Houlder, 1964

Plane of reference is mean lower low water

Tide Station Used (Form C&GS-681): Bartlett Cove

Height of Mean High Water above Plane of Reference is as follows: 13.5 feet

Remarks

J. M. Symons

Chief, Tides and Currents Branch

ABSTRACT OF ECHO CORRECTIONS

LJ-10-1-64

Launch # 1192
Fathometer Type DE-723
Fathometer Serial #530

<u>DEPTH</u> (fms)	<u>CORRECTION</u> (fms)
0.0-6.5	+0.1
6.6-14.0	0.2
14.1-21.0	0.3
21.1-28.0	0.4
28.1-36.0	0.5

Corrections to be applied from
13 May through 8 June 1964.

LIST OF SIGNALS
LJ 10-1-64

ABE	T-12642 Pricked Direct
ANT	LJ-A-64
BAN	LJ-A-64
BART	BART, 1938
BEN	T-12644 Pricked Indirect
BEST	BEST, 1938 and T-12642 Pricked Indirect
BUT	LJ-A-64
CLAM	CLAM, 1938
COVE	COVE, 1938 and T-12643 Pricked Direct
DIE	LJ-A-64
GAB	LJ-A-64
GAL	LJ-A-64
GOD	LJ-A-64
HERE	HERE, 1938
ICE	LJ-A-64
IKE	T-12642 Pricked Direct
JAP	LJ-A-64
JON	T-12642 Pricked Direct
MAC	T-12644 Pricked Direct
MAD	LJ-A-64
OFF	T-12644 Pricked Indirect
ORE	LJ-A-64
PARK	PARK, 1959
PAW	LJ-A-64
PIL	LJ-A-64
PIT	LJ-A-64 and T-12643 Pricked Indirect
POOR	POOR, 1938 and T-12642 Pricked Direct
RED	LJ-A-64
ROK	LJ-A-64
RUN	LJ-A-64
SAL	LJ-A-64
SAM	T-12642 Pricked Direct
SNO	LJ-A-64
SOC	LJ-A-64
TELL	TELL, 1938 and T-12644 Pricked Direct
TOM	LJ-A-64
TRY	LJ-A-64
URP	LJ-A-64

GEOGRAPHIC NAMES PENCILED ON H-8815

BARTLETT COVE

BARTLETT RIVER

BEARDSLEE ISLANDS

GLACIER BAY

LESTER ISLAND

SITAKADAY NARROWS

GEOGRAPHIC NAMES

Survey No. H-8815

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Bartlett Cove										1
Bartlett River										2
Glacier Bay										3
Lester Island										4
										5
										6
										7
										8
										9
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										24
										25
										26
										27

PREPARED BY

Frank W. Lickert
CARTOGRAPHIC TECHNICIAN

APPROVED BY

A. J. Wright
CHIEF GEOGRAPHER

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-8815 (LJ-10-1-64)

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		/	BOAT SHEETS		/	
DESCRIPTIVE REPORT		/	OVERLAYS		0	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	1					
CAHIERS	1					
VOLUMES		8				
BOXES						

T-SHEET PRINTS (List) T-12642 ; T 12643 ; T 12644

SPECIAL REPORTS (List)

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				1385
POSITIONS CHECKED		552		
POSITIONS REVISED		22		
DEPTH SOUNDINGS REVISED		118		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		about 60%		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		None		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		8 hrs		
JUNCTIONS		3 hrs		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		20 hrs		
SPECIAL ADJUSTMENTS		5 hrs		
ALL OTHER WORK		114 hrs		
TOTALS		150 hrs		
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY <i>Norman A.J. Pauer</i>	BEGINNING DATE <u>Oct 14, 1966</u>		ENDING DATE <u>Oct 25, 1966</u>	
REVIEW BY	BEGINNING DATE		ENDING DATE	

H-8815 (L.I. 10-1-64)

Day	# Positions	# Pos. ✓	# Pos Corrected	Volume	Remarks
a	264	94	# 2	I	
b	73	25	5	II	
c	122	37	0	III	
d	174	²⁶ 24 } 54	6	III & IV	
e	193	⁴⁵ 25 } 70	1	IV & V	numerous short lines
	147 182	⁴⁸ 14 } 62	0	IV & V	
i	176	65	# 4	VI	
g	63	32	1	VII	all short lines
h	39	15	0	VII	
sub total	1285				
A	17	17	0	VIII	Detached Pos.
B	20	20	1	VIII	Detached Rocks
C	43	43	1	VIII	Addenda Report for Light page 9
D	18	18	1	VIII	Detached Rocks.
	1385	552	22		
	82	40%			
	1285				Verify Pos. 40 hrs
	17				All other 107
	82				includes: (7 hrs misc names; report; etc)
	1385 Total				

Volume VIII pg 8 pos 4 B rock not shown (located radial plot)

Addenda Marine Railway & Float ($\phi 58^{\circ} 27' 22''$) ($\lambda 135^{\circ} 52' 00''$)
shown as per boat sheet rather than as per T 12643
Preliminary & Advance. Topo details as corrected by field
party should have been shown in red ink on boat sheet.

Addenda Statistics

Launch #1192	—	1286	positions
Lester Jones		17	positions (Bottom Samples)
skiff		82	positions (Detached Rocks)
Total Positions		1385	Positions

N.B. The 82 skiff positions were not reported previously

Volume VIII pg 17 pos. 44C — direct transfers from
Boat sheet for location

Volume VIII pg 17

Privately maintained Light not described — not mentioned in report.

Verifier's Report Addenda

Part VI Soundings item 1B

The pencilled Soundings on the smooth sheet were the product of inexperienced trainees. ~~At~~ the average size was four millimeters in height and . millimeters wide. A ~~very~~ great number of soundings were not shown and about 60% of the soundings were improperly spaced. The inking of soundings was more time consuming because of the necessity of first erasing misplaced and oversized soundings. Doing a neat job of inking is more difficult over extensive erasured areas. ~~and~~ Both the cost of verifying and the quality of the final product is adversely affected by substandard pencilled smooth plotting.

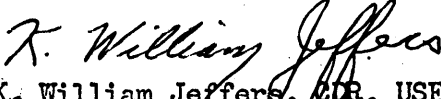
Approval Sheet

The smooth sheet has been inspected and meets the requirements of the Hydrographic Manual. (Note: Exceptions are noted in the verifier's report.)

Examined and Approved


William M. Martin
Supervisory Carto. Tech.

Approved and Forwarded


K. William Jeffers, CDR, USESSA
Acting Chief, Processing Division, PMC

VERIFIER'S REPORT
HYDROGRAPHIC SURVEY, H 8815 (LJ 10-1-64)

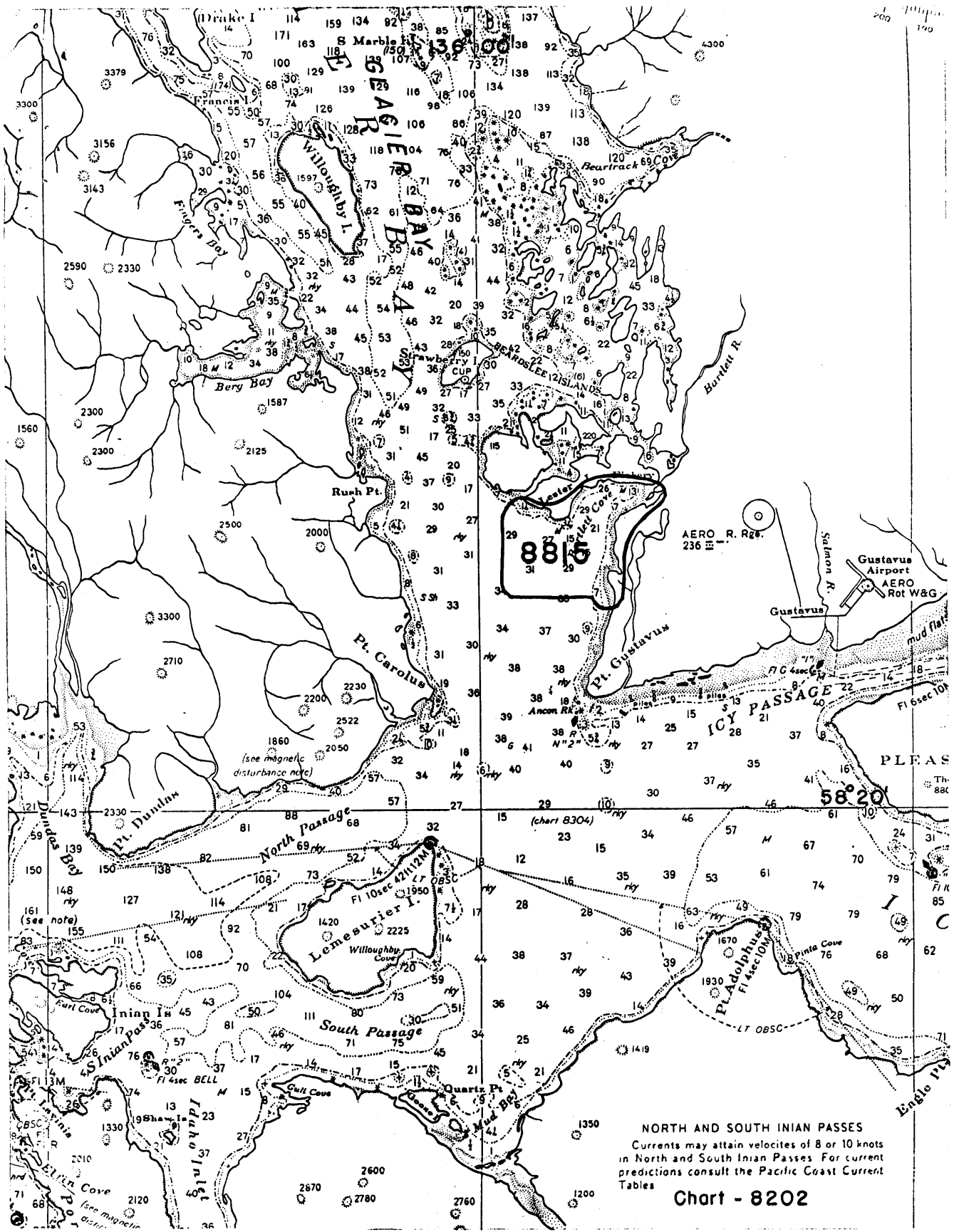
INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
<p>Note: The verifier should first read the Descriptive Report for general information and problems.</p> <p>1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None</p>	✓		<p>10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are SUPERSEDED.</p>	✓	
<p>2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None</p>	None		<p>Part IV - VOLUMES 11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None</p>	✓	
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p>	yes		<p>12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following: (a) rocks ✓ (b) line turns ✓ (c) position values of beginning and ending of lines ✓ (d) bar check or velocity correctors ✓ (e) time recording ✓ (f) notes or markings on fathograms ✓ (g) was reduction of soundings accurately done? ✓ (h) was scanning accurate? <i>Not consistent</i> X (i) were peaks at uneven intervals missed? <i>Few</i> (j) were stamps completed? <i>Mostly</i> ✓ (k) references to adjacent features ✓</p>		
<p>Part II - SHORELINE AND SIGNALS 4. Source of shoreline signals Remarks Required: -- List all surveys a. Give earliest and latest dates of photographs b. Field inspection date c. Field Edit date d. Reviewed-Unreviewed</p>	✓				
<p>5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>	✓				
<p>6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None</p>	✓				
<p>7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.</p>	None		<p>Part V - PROTRACTING 13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None</p>	✓	
<p>Part III - JUNCTIONS Note: Make a cursory comparison preliminary to inking soundings in area of overlap.</p>	✓		<p>14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None</p>	✓	
<p>8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None</p>					
<p>9. The notation in slanted lettering "JOINS H--- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None</p>	✓		<p>15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None</p>	✓	

Part V - PROTRACTING (Continued)	CL	R	Part VIII - AIDS TO NAVIGATION	CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	Satisfactory		26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed.	None	See Addenda
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.	✓		27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None	None	
Part VI - SOUNDINGS 18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None		See Addenda	Part IX - BOATSHEET 28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None	✓	
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.	✓		29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	✓	
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None		See Addenda	Part X - GENERAL 30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None	✓	
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	✓		31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	✓	
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.		See Addenda	32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: -- None	✓	
Part VII - CURVES 23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected. <i>bagp</i>	✓		33. The bottom characteristics are adequately shown. Remarks Required: -- None	✓	
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed Remarks Required: -- None	No Yes Yes No		Part XI - NOTES TO THE REVIEWER 34. Unresolved discrepancies and questionable soundings.	None	
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.	Satisfactory		35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	?	
			36. Supplemental information.	None	
Verified by <i>Cornelius A.J. Burr</i>			Date <i>October 28 1966</i>		



NORTH AND SOUTH INIAN PASSES
 Currents may attain velocities of 8 or 10 knots
 in North and South Inian Passes. For current
 predictions consult the Pacific Coast Current
 Tables

Chart - 8202

