TP-01126

NOAA FORM 76- (3-76)	35
U.S. DEPARTMENT OF C	
NATIONAL OCEAN S	
DECODIDANCE	DEDORT
DESCRIPTIVE	KEPUK I
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Map No. TP-01126	Edition No. lst
Job No. CM-8104	
Map Classification Final	
Type of Survey	
Shoreli	
LOCALITY	
State New York	
General Locality Niagana R	iver
Locality Niagara Falls	
	·
19 80 TO 19	82
REGISTRY IN ARC	CHIVES
DATE	

*U.S. GOVERNMENT PRINTING OFFICE:1976-669-248

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NOAA FORM 76-36A U. S. DEPARTMENT OF COMMERCE (3-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	TYPE OF SURVEY	SURVEY TP. 01126
	XIX ORIGINAL	MAP EDITION NO. (1)
DESCRIPTIVE REPORT - DATA RECORD	RESURVEY	MAP CLASS Final
DESCRIPTIVE REPORT - DATA RECORD] -	
PHOTOGRAMMETRIC OFFICE	REVISED	лов 許 . <u>CM-8104</u>
Coastal Mapping Division	LAST PRECEED	ING MAP EDITION
AMC, Norfolk, VA	TYPE OF SURVEY	JOB PH
OFFICER-IN-CHARGE	ORIGINAL RESURVEY	MAP CLASS
Man Fil 21.	RESURVEY	SURVEY DATES:
Max Ethridge		
1. INSTRUCTIONS DATED	1	FIELD
1, OFFICE	- 	FIELD
Aerotriangulation August 12, 1981 Compilation January 15, 1982 Letter (Registration)	Photo ID Control	August 25, 1981
II. DATUMS		
II. DATUMS	OTHER (Specify)	<u> </u>
1. HORIZONTAL:		
MEAN HIGH-WATER	OTHER (Specify)	
2. VERTICAL: MEAN LOW-WATER MEAN LOWER LOW-WATER MEAN SEA LEVEL	International Gre	at Lakes Datum (1955)
3. MAP PROJECTION	4.	GRID(S)
Transverse Mercator	New York	zone West
1:20,000	STATE	ZONE
III. HISTORY OF OFFICE OPERATIONS		
OPERATIONS	NAME	DATE
1. AEROTRIANGULATION BY	B. Thornton	Sept 1981
METHOD: Analytic LANDMARKS AND AIDS BY	11	10000
2. CONTROL AND BRIDGE POINTS PLOTTED BY	"	"
METHOD: Corodinat CHECKED BY	D. Norman	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY	P. L. Evans	<u> March 1982</u>
COMPILATION CHECKED BY INSTRUMENT: Wild B-8 CONTOURS BY	R. Kravitz	
1 00 000	NA NA	
4. MANUSCRIPT DELINEATION PLANIMETRY BY	P.L. Evans	April 1982
CHECKED BY	F. Mauldin	May 1982
м метнор: Smooth Drafted contours by	NA	
CHECKED BY	NA	
scale: 1:20,000 HYDRO SUPPORT DATA BY	P.L.Evans	March 1982
CHECKED BY	F. Mauldin	April 1982_
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	F. Mauldin H. Lucas	June 1983
6. APPLICATION OF FIELD EDIT DATA CHECKED BY	R. Kelly	June 1983
7. COMPILATION SECTION REVIEW BY	H. Lucas	July 1983
8. FINAL REVIEW BY	H. Lucas	11
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY	H. Lucas	July 1983
11. MAP REGISTERED - COASTAL SURVEY SECTION BY	R. Horman	men 1984

COMPILATION PHOTOGRAPHY CAMERA(S) Wild RC-8(E) Focal L FIDE STAGE REFERENCE PREDICTED TIDES REFERENCE STATION RECOR TIDE CONTROLLED PHOTOGR	ength=152-71 n	M LEC (C) COLOR (P) PANCHRO	JRCES HOTOGRAPHY SEND	TIME REFE	-01126
CAMERA(S) Wild RC-8(E) Focal L FIDE STAGE REFERENCE PREDICTED TIDES REFERENCE STATION RECOR TIDE CONTROLLED PHOTOGR	ength=152-71 n	M LEC (C) COLOR (P) PANCHRO		ZONE	RENCE
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NUMBER AND TYPE		<u> </u>		4	
	DATE	TIME	SCALE	STAGE OF	TIDE
	į				
80 E (C) 6400-6405	9/27/80	09:04	1:30,000	NA NA	
- (-,] -, ,				
80 E (C) 6393-6395	9/27/80	08:50	1:30,000		
• •					
MARKS The Shoreline D	atum is the sl	oning river	surface at	the time of pho	tography
Based on I.G.L.D. (1	955) the river	level at t	he Ashland A	venue Gade. New	York was
+323.33 feet and the	American Fall	s Gade New	Vork was +	558 84 feet T	he nlane o
SOURCE OF MEANTHIGHT WATE	RANKE: refere	nce for ele	vations held	w the falls ar	Niagara Fa
	DATUM: is 323				iiiagana ia
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The interface of the					
here showing feature					
interpretation of co		s, at the t	ime and date	in Item 1, to	compile
the contents of this	map.			•	
SOURCE OF MEAN LOW-WATER	POPMENNIOWEDIO	W.WATED I INE.			
. Journe of Mean Confinal Co	NON MEAN LOWER EX	/#-#AIER CINE:			
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Not applicable					
not appricable					
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CONTEMPORARY HYDROGRAF	PHIC SURVEYS (List o	nly those surveys t	hat are sources for	photogrammetric survey i	nformation.)
	PHIC SURVEYS (List of				information.)
URVEY NUMBER DATE(S)					
URVEY NUMBER DATE(S) FINAL JUNCTIONS	SURVEY COP	PY USED SURV	EY NUMBER D	SURVI	
URVEY NUMBER DATE(S) FINAL JUNCTIONS ORTH	SURVEY COP	PY USED SURV	EY NUMBER D	NATE(S) SURVI	EY COPY USED
DATE(S) FINAL JUNCTIONS ORTH TP-00498*	SURVEY COP	PY USED SURV	EY NUMBER D	SURVI	EY COPY USED
. FINAL JUNCTIONS	SURVEY COR	SURV SOUT	ey number D	west Non	EY COPY USED

			NIG AND ATMOSPHERI NATION	AL OCEAN	
	HISTORY OF FIELD	OPERATIONS		TP-011	
. X FIELD INSPECTION OF	PERATION (Premarking) See su	mmary			
(OPERATION		NAME	DAT	ГЕ
. CHIEF OF FIELD PARTY	·	J.E. Dunfor	rd	Sept.	1981
	RECOVERED BY	C. Middleto		5-17+	1461
HORIZONTAL CONTROL	ESTABLISHED BY	None	···	1-17	
	PRE-MARKED OR IDENTIFIED BY	C. Middleto	าท	Sept.	198
	RECOVERED BY	None			
. VERTICAL CONTROL	ESTABLISHED BY	None			
<u> </u>	PRE-MARKED OR IDENTIFIED BY	None		<u> </u>	
	RECOVERED (Triangulation Stations) BY	None		<u> </u>	
I. LANDMARKS AND AIDS TO NAVIGATION	LOCATED (Field Methods) BY	<u>None</u>		 	
	IDENTIFIED BY TYPE OF INVESTIGATION	None		<u> </u>	
	COMPLETE		*		
GEOGRAPHIC NAMES INVESTIGATION	SPECIFIC NAMES ONLY				
	XX NO INVESTIGATION				
PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None		 	
BOUNDARIES AND LIMITS		NA			
I. SOURCE DATA					
. HORIZONTAL CONTROL I	DENTIFLED	2. VERTICAL CO	NTROL IDENTIFIED		
None		<u> </u>	lone		
PHOTO NUMBER	ST A TION NAME	PHOTO NUMBER	STATION DE	SIGNATION	
B. PHOTO NUMBERS (Clarific	ation of details)	<u> </u>	<u> </u>		
None					
LANDMARKS AND AIDS TO	NAVIGATION IDENTIFIED				_
None		_			
PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT	NAME	
,		J			
GEOGRAPHIC NAMES:	REPORT NONE	6. BOUNDARY AN	D LIMITS: REPO	RT [X]N¢	ONE
. SUPPLEMENTAL MAPS AN	ID PLANS				
None 					
	Sketch books, etc. DO NOT list dete submit oto I.D. Control folder	ted to the Geodesy D	ivision)		
	uffalo Descriptions Termina	al Printouts	TSN 149-20002	(office	cop

P	10 TO	NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
80	E¢	6395	Welland River Front Entrance ligh	t	
80	EC	6395	Welland River Rear Entrance light	;	
80	EC	6402	Flagpole (LDMK)		
80	EC	6495	Observation Tower (LDMK)		
			,		
5.	GEO	GRAPHIC N	NAMES: REPORT NONE	6. BOUNDARY AND	LIMITS: REPORT X NONE

7.	SUPPL	EMENTAL	MAPS	AND	PLANS
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N/A

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

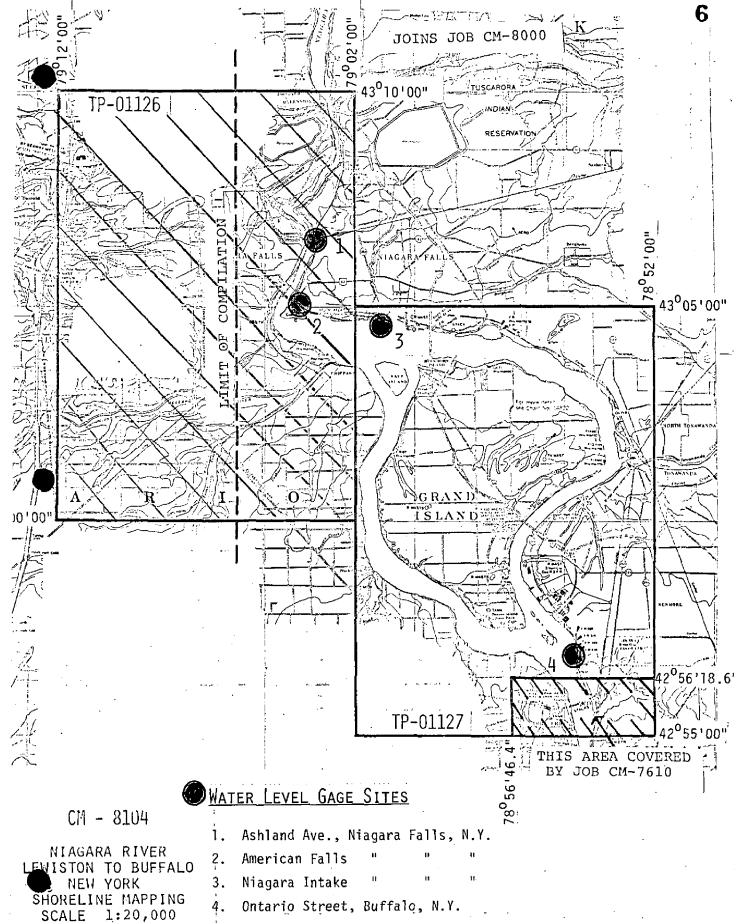
CSI Forms (NOAA Form 76-53)

--Field Edit Report

Field Edit Film Sheet

Field Notebook - Compilations and supplemental data

NOAA FOF (3-72)	RM 76-36D		N	ATIONAL OCE	U. S. DEPARTME ANIC AND ATMOSPHERIC	NT OF COMMERCE
		RECOR	RD OF SURVE	Y USE		TP-01126
I. MANUSC	RIPT COPIES					
	co	MPILATION STAGES	5		DATE MANUSCE	RIPT FORWARDED
<u> </u>	DATA COMPILED	DATE	RE	MARKS	MARINE CHARTS	HYDRO SUPPORT
Final	Review Map	June 1983	Field Ed	ited Map	Sept 20,8	3
			·			
				,		
II. LANDM	IARKS AND AIDS TO NAVIGA	TION	L			
	ORTS TO MARINE CHART DI		DATA BRANCH			
NUMBER	CHART LETTER NUMBER ASSIGNED	DATE			REMARKS	•
pages 3	# 86	Sept 20, 83	NOAA For	ns 76-40		
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			<u> </u>			
_	REPORT TO MARINE CHART REPORT TO AERONAUTICA					:
	RAL RECORDS CENTER DAT					<u> </u>
ī. 🗆	BRIDGING PHOTOGRAPHS;	[V∳OUPLICATE	BRIDGING REPO	nRT: √√COI	MPUTER READOUTS.	
	CONTROL STATION IDENTI	 -		. —		
	SOURCE DATA (except for GACCOUNT FOR EXCEPTION	eographic Names Rej				
4. 🗆				MAKCH	1984	
	DATA TO FEDERAL RECOR					
IV. JURVE	SURVEY NUMBER	JOB NUMBER		b addition is regi	TYPE OF SURVEY	,
SECOND	TP -	(2) PH		<u> </u>	REVISED RE	SURVEY
EDITION	DATE OF PHOTOGRAPH	DATE OF FI	ELD EDIT	 □n. !	MAP CLASS	FINAL
<u>-</u>	SURVEY NUMBER	JOB NUMBER	*	<u> </u>	TYPE OF SURVEY	
THIRD	TP -	(3) PH		Į		SURVEY
EDITION	DATE OF PHOTOGRAPH	TY DATE OF FIL	ELD EDIT	n.	MAP CLASS □III. □IV. □V.	FINAL
	SURVEY NUMBER	JOB NUMBER	ŧ		TYPE OF SURVEY	ŞÜRVÊY
FOURTH	DATE OF PHOTOGRAPH	(4) PH -	ELD EDIT	·	MAP CLASS	30K V E Y
EDITION				. □n. ∃	□ni. □ìv. □v.	FINAL



REV. 11-3-81 D.B. Rev. 5/26/81

12.

Summary to Accompany Descriptive Report

TP-01126

This 1:20,000 scale shoreline map is one to two maps of job CM-8104, Niagara River to Buffalo, New York.

The inclusion effecting TP-01126 starts north along the Niagara River at the cities of Lewiston, N.Y.-Queenston, Canada and south to the cities of Niagara Falls, New York-Chippawa, Canada. These cities are on opposite shores, i.e., Canadian Shore and United States shore.

Field work prior to compilation was accomplished in September 1981 and involved the identification of Horizontal Control by photoidentification method to meet the aerotriangulation requirements.

Photographic coverage was taken in September 1980 for aerotriangulation using the Wild RC-8 EC camera with color film at 1:30,000 scale. The same photography was used for compilation.

Bridging was completed by analytic aerotriangulation and plotting the manuscript projection and control points were done on the cordinat flatbed plotter at the Washington Science Center in September 1981.

Compilation was fulfilled at the Atlantic Marine Center from office interpretation of the 1980 color photography in April 1982. Copies of a Class III map was made available for field edit.

Referring to the Class III map, the original memorandum instructions from the Chief of the Photogrammtry Branch, dated May 13, 1982, required this map to be registered as a Class III map. However, the aforementioned memorandum instructions were superseded and a field edit was done for this map by a field survey party from the Atlantic Marine Center, in July 1982. All of the requirements set forth by the National Ocean Service were performed to conclude this field edit.

The field edit notations, clarifications, corrections, and the like were used or applied to the original map manuscript. The completion of this map and its final review was done in July and August 1983 at Rockville, Md.

PROJECT REPORT

CM-8104, NIAGARA RIVER LEWISTON TO BUFFALO, NY

The Project was completed according to the instructions by OA/C3 - Roger F. Lanier, dated 8/25/81.

Three Horizontal Control Stations were photoidentified in the areas indicated on the control requirement diagram. Two substitute stations for Station No. 1, WURLITZER 1972, were positioned by 3rd order traverse. Three substitute stations were positioned by 3rd order traverse for Station No. 2, EDGEWATER 2 1981. This station was established by 3rd order traverse and will be submitted to the NGS Control Network. Two substitute stations were positioned by 3rd order traverse for Station No. 3, TAURIELLO 1972.

Field work (including driving time to and from Norfolk) was accomplished during the period Sept. 18 through Sept. 27, 1981.

All records and data sent to OA/CAM513.

James E. Dunford

Photogrammetric Plot Report Niagara River, New York CM-8104 September 1981

21. Area Covered

The area covered by this project is Niagara River from Lewiston to Buffalo, New York. The project area is covered by two 1:20,000 scale sheets; TP-001126 and TP-001127.

22. Method

and the section of photocolly with the part of the section of

Six strips of 1:30,000 scale photography were bridged by analytic aerotriangulation methods. Horizontal control consisted primarily of office identified intersected stations. Several field identified stations were located to strengthen bridging adjustments. Ratio points were determined for compilation.

The Transverse Mercator, New York West coordinate system was used to adjust the bridging strips.

The manuscripts will be plotted using the same coordinate system.

23. Adequacy of Control

All control checked well within map accuracy standards and is more than sufficient for its intended use.

24. Supplemental Data

USGS quadrangles were used to provide vertical control for the strip adjustments.

25. Photography

The coverage, overlap, and quality of the 1980 EC photographs were adequate for the job.

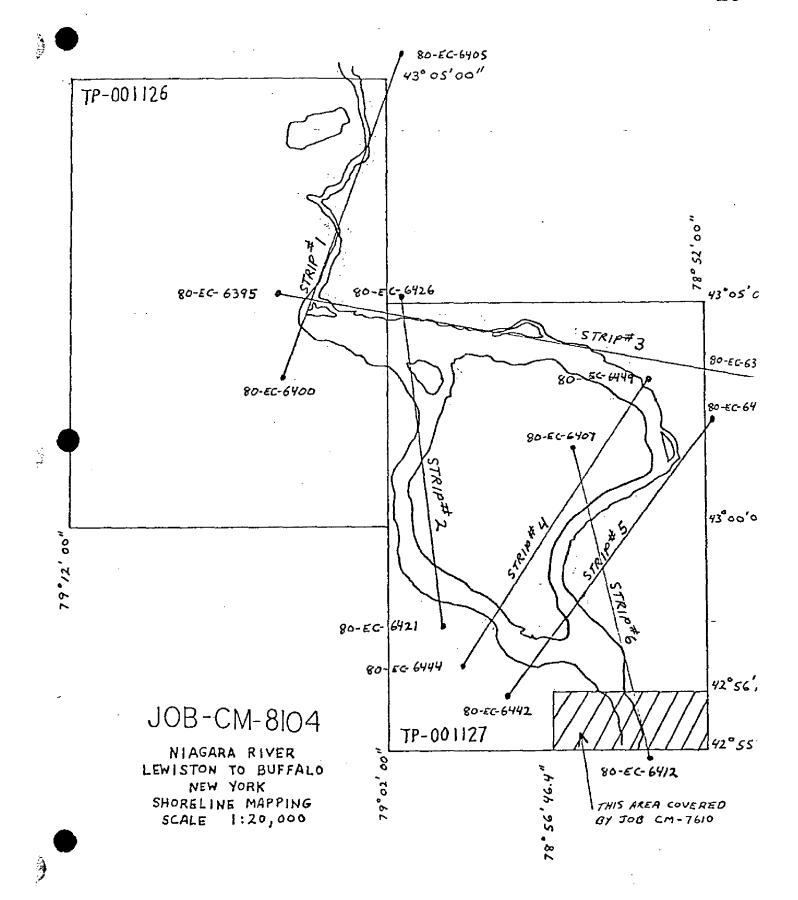
Submitted by,

Brian F. Thornton

Approved and Forwarded:

Don O. Norman

Don Norman Chief, Aerotriangulation Section



)
NOAA FORM 76-41 (6-75)		DESCRIPTIV	DESCRIPTIVE REPORT CONTROL RECORD		U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
MAP NO. TP-001126	JOB NO. CM-8:104		GEODETIC DATUM NA 1927	Coastal Mapping JAMC. Norfolk, VA	ing Division VA
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTR!- ANGULATION POINT NUMBER	COORDINATES IN FEET STATE New York ZONE West	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	REMARKS
CHIPPEMA, ENGLISH CHURCH SPIRE, CANADA, 1941	PC p. 40	·	x= 373,261.70 y= 1,116,168.26	Ф	VIS 80 E(C) 6395 Sept 27 1980
MI. CARMEL COLLEGE, CROSS, P N.F., ONTARIO, 1941	PC p. 40		x= 366,475.88 y= 1,120,407.22	Φ «	identi
CONVENT, CROSS, N.F., P	PC p. 40		x= 366,625.74 y= 1,121,082.21	Φ «	Not identifiable on photography
NIAGARA FALLS, SKYLON QU TOWER, 1972	Quad 430792 Sta. 1012		x= 367,351.02 y= 1,124,459.34	φ γ	VIS 80 E(C) 6402 27 Sept. 80
GENERAL BROCK HOTEL, FLAGPOLE, N.F., CANADA, 1941	PC p. 40 \		x= 369,540.25 y= 1,126,910.02	ф	t ident photog
HOLY TRINITY CHURCH, CROSS, IN.F., NEW YORK, 1941	PC p. 40		x= 376,975.49 y= 1,124,980.72	φ χ	VIS 80 E(C) 6395 27 Sept. 80
ST. PATRICKS CHURCH, SPIRE, IN.F., CANADA, 1941	PC p. 39		x = 369,024.08 y = 1,132,296.85	ф	S E(C) 6 Sept.
			x= h=	φ	1
			χ= η=	φ	
			zx	φ Υ	
COMPUTED BY		DATE	COMPUTATION CHECKED BY		DATE
LISTED BY P. L. Evans		5º^¥Eb. 82	LISTING CHECKED BY W. Connally	ally	рате 8 Feb. 82
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE
		SUPERSEDES NO	ERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE	CH IS OBSOLETE.	

NOAA FORM 76-41 (6-75)		DESCRIPTIV	CRIPTIVE REPORT CONTROL RECORD		U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
MAP NO.	JOB NO.		GEODETIC DATUM	ORIGINA	
TP-01126	CM-8104		NA 1927	Coastal Mapping AMC, Norfolk, V	oing Division
FAST NOTES	SOURCE OF	AEROTRI-	COORDINATES IN FEET	GEOGRAPHIC POSITION	######################################
	(Index)	POINT NUMBER	zone West		
FIRST CONGREGATIONAL CHURCH,	PC		x = 374,170.06	ф	
SPIRE, N.F., NEW YORK, 1941	p. 40		y= 1,132,357.34	γ	80E(C) 6395 27 Sept. 80
SACRED HEART CHURCH,	PC		x= 375,704.50	ф	. (
SPIRE, N.F., NEW YORK, 1941	p. 40		y = 1,131,924.48	γ	80 E(C) 6395 27 Sept. 80
RI,POOL AUTOCAR,	PC		x= 370.324.41	ф	(6)
OF CABLE, CANADA, 1941	p. 40		y= 1,136,428.45	Å	80 E(C) 6303 27 Sept. 80
AUTOCAR,	PC		ε7 267 02ε = χ	ф	S
OF CABLE, CANADA, 1941	p. 39		. ~	K	80 E(C) 6303 27 Sept. 80
NIAGARA UNIVERSITY, CROSS,	PC		χ= 378 188 Ω3	ф	5
NEW YORK, 1941	p. 39		43,8	γ	80 E(C) 6402 27 Sept. 80
BROCK MONUMENT	PC		x= 374,610.85	φ	, ,,,
(USLS), 1875	p. 27		y= 1,151,749.97	γ	80 E(C) 6404 27 Sept. 80
			εX	•	i
			y=	γ	
			εχ	ф	· ·
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COMPUTED BY		DATE	COMPUTATION CHECKED BY		DATE
LISTED BY P. L. Evans		SAFED. 82	LISTING CHECKED BY W.	Connally	DATE 8 Feb. 82
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE
		SUPERSEDES NO	SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE	CH IS OBSOLETE.	1

COMPILATION REPORT

TP-01126 CM-8104

31. DELINEATION

All map detail was compiled from photo interpretation of the 1:30,000 scale 1980 color photographs. The photography was adequate. The Wild B-8 stereoplotting instrument was used.

32. CONTROL

The horizontal control was adequate. Refer to the Photogram-metric Plot Report, dated September 1981.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Contours are not applicable to this project. Drainage was compiled from office interpretation of the aerial photographs.

35. SHORELINE AND ALONGSHORE DETAILS

The eastern side of the Niagara River below the falls was heavily shadowed causing some difficulty in compiling the water-land interface. The shoreline and alongshore detail were compiled from office interpretation of the photographs. Refer to 76-36B, Item 2 for definition of shoreline.

36. OFFSHORE DETAILS

Offshore details were compiled from office interpretation of the photographs. No unusual problems were encountered.

37. LANDMARKS AND AIDS

Appropriate copies of 76-40 forms are bound with this report.

38. CONTROL FOR FUTURE SURVEYS

None

TP-001126 CM-8104

39. JUNCTIONS

Refer to the Data Record Form 76--36B, Item 5 of this Descriptive Report.

40. HORIZONTAL AND VERTICAL ACCURACY

See Item #32.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with U.S. Geological quadrangles: Niagara Falls, Ontario-New York, dated 1965, scale 1:24,000; Lewiston, Ontario-New York, dated 1965, scale 1:24,000.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with nautical charts: #14816, 20th edition, dated September 19, I981, scale 1:30,000; #14832, 28th edition, dated June 13, 1981, scale 1:30,000.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted by:

P. L. Evans

Cartographic Technician

Date: March 31, 1982

Approved:

James L. Byrd, Jr.

Chief, Coastal Mapping Section

TP-01126 CM-8104

51. METHODS

Field edit was performed as prescribed by the National Ocean Survey Standard Field Edit Instructions.

Field edit operations were performed from a skiff, by truck and afoot. Safe navigation is prohibitive over a majority of the waters within the limits of this sheet. In the unsafe areas field edit was performed from observation towers and various vantage points along the shoreline.

All questions addressed to the Field Editor were answered and one question directed to the Hydrographer was answered because the hydrography in this area was performed in 1980 and is not scheduled to be resurveyed within the next 5 years. The rocks in the questioned area were located by intersection for a graphic plot.

There were two range lights discovered during field edit that are uncharted and not listed in the light list. The lights were located by sextant fix (resection).

All clarifying annotations, additions, deletions, changes, etc. are given on field edit ozalid or cross-referenced to the appropriate photo, CSI card, etc.

NOAA Form 75-82A has been initiated for all horizontal control stations listed on this sheet. The original 75-82A's have been retained for entry into NGS Data Base.

52. ADEQUACY OF COMPILATION

Compilation of this manuscript was good. Only minor corrections to the compiled shoreline were necessary.

53. MAP ACCURACY

Pending application of field edit it is believed that this map will be both complete and accurate. See Photogrammetric Plot Report for accuracy of horizontal control.

54. RECOMMENDATIONS

For future field edit projects it is recommended that the



Field Editor be supplied with all of the photographs so that adequate stereo coverage will be available.

55. EXAMINATION OF PROOF COPY Not required.

Submitted 7/12/82

Approved 7/12/82

Clifton Middleton



REVIEW REPORT SHORELINE

TP-01126

61. GENERAL STATEMENT

See Summary included with this Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not Applicable

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with U.S. Geological Survey Quadrangles: Niagara Falls, Ontario-New York, dated 1965, scale 1:24,000 and Lewiston, Ontario-New York, dated 1965, scale 1:24,000.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Contemporary hydrographic survey H-9889 at scale 1:10,000 was being processed by the Verification Branch at Atlantic Marine Center. Therefore, no comparison was made.

65. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with NOS Marine Chart 14816, Scale 1:30,000, 29th Edition, dated September 1981

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with the Project Instructions and meets the requirements for National Standards of Map Accuracy.

67. LANDMARKS AND AIDS

Additional compilation activity became inevitable after the Field Party located three uncharted fixed aids. They are; the Niagara Mohawk front and rear lights, privately maintained, plotted from latitude and longitude positions ascertained by sextant fixes, and the lighted (green) cable tower at the entrance to the Welland River, south of Two Towers, identified on photographs by the Field Edit Party.

Submitted by,

Henri Lucas

Approved and Forwarded:

Chief, Photogrammetric Section

Chief, Photogrammetry Branch

6-1-1982

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8104 (Niagara Falls, N.Y.)

TP-01126

American Falls

Chippawa ...

Conrail (RR)

Devils Hole

Dufferin Island

Goat Island

Horseshoe Falls

Lyons Creek

New York

Niagara Falls (N.Y.)

Niagara Falls (Ont.)

Niagara Falls

Niagara Glen

Niagara River

Ontario

Prospect Point

Queenston -

Terrapin Point

The Whirlpool

Three Sisters Islands

Welland River

Whirlpool Point

Approved by:

Charles E. Harrington

Chief Geographer, 0A/C3x5

Dissemination of Project Material CM-8104

National Archieves/Federal Record Center

Box (contents)

Bridging Photographs

Field Folios Containing:

Plane Coordinate Plotted Control Printouts
Photoidentified Control W/Ground Points

Field Report

Grand Island-Buffalo Terminal Description Printouts

Field Notes W/C.S.I. Cards

Indexes

Correspondence:

Form 76-41

Form 76-53

Form 76-82A

Letters:

Instructions

Rep1ys

Bureau Archives:

Registered Copy of Each Map Descriptive Report of Each Map

Reproduction Division

8x Reduction Negative of Each Map

Office of Staff Geographer

Geographic Names Standard

GEODETIC PARTY

PHOTO FIELD PARTY

COMPILATION ACTIVITY

NOTIVE TO SUPPLY

COAST PILOT BRANCH (See reverse for responsible personnel) AFFECTED CHARTS 14832 148/10 -1 ORIGINATING ACTIVITY HYDROGRAPHIC PARTY 6-23-82 7-8-4-4 6-25-82 METHOD AND DATE OF LOCATION (See Instructions on reverse side) S)/-/ FIELD 17 U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION 123060 BOEC G395 9-27-80 DATE OFFICE D.P. Meters been inspected from seaward to determine their value as landmarks 39.13 40.38 10,83 NIAGABA BURK LONGITUDE ಕ 80 8 79 NONFLOATING AIDS OR EANDMARKS FOR CHARTS 5 ב ה POSITION LOCALITY D.M. Meters 08.36 40.32 41.04 1927 NA LATITUDE つ す り 40 04 ቷ 43 133 YOUN YOUN DESCRIPTION Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses) NINGARA MOITAUX FRONT RUSES CT ţ LIGHT AT EAST END OF WRANKTIONAL TP-01126 STATE MINGARA MOHANN REAR BANGE SURVEY NUMBER REPORTING UNIT IF IOLD PARY, Ship or Office) PALESTOCHENNING TREAK BR. NIACARA COLITROL WEIR (NOT IN CALICHT LIST) The following objects HAVE HAVE NOT OPR PROJECT NO. JOB NUMBER C-810H PRIV. MALWITD. PRIV MAINTE Replaces C&GS Form 567 TO BE CHARTED TO BE DELETED TO BE REVISED OPR PROJECT NO. NOAA FORM 76-40 してのかり CHARTING こうに LIGHT

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	RESPONSIBLE PERSONNEL	PERSONNEL	
TYPE OF ACTION	NAME	Æ	ORIGINATOR
			PHOTO FIELD PARTY
OBJECTS INSPECTED FROM SEAWARD			CEOSCIE DARTY
			OTHER (Specity)
POSITIONS DETERMINED AND/OR VERIFIED	PE ENANS		FIELD ACTIVITY REPRESENTATIVE
	truck tucks		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW	HZ WRY I WAS		☐ QUALITY CONTROL AND REVIEW GROUP
ACTIVITIES			REPRESENTATIVE
	INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE O (Consult Photogrammetric Instructions No. 64,	OR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64,	
I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including r day, and year) of the photograph used identify and locate the bject. EXAMPLE: 75E(C)6042	D LOCATED OBJECTS date (including month, photograph used to the bject.	FIELD (CONT.d) B. Photogrammetric field entry of method of locate of field work argraph used to locate EXAMPLE: P-8-V 8-12-75	(cont a) Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photo- graph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75
FIELD		/+[(0/230	
EW POSITION DETERMI nter the applicable - Field - Located	NED OR VERIFIED data by symbols as follows: P - Photogrammetric Vis - Visually	II. TRIANGULATION STATION RECOVERED When a landmark or aid which is angulation station is recovered Rec. with date of recovery.	ON RECOVERED aid which is also a tri- is recovered, enter 'Triang. recovery
1 1	Field identified Theodolite	Triang. R 8-12-75	•
tion 7 - n 8 -	Planetable	III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH	UALLY ON PHOTOGRAPH
sitions*	require entry of method of of field work.	EXAMPLE: V-Vis. 8-12-75	
8-12-75	-	entirely, or in part, upon conti	POSITIONS are dependent
*FIELD POSITIONS are determined by field obser- vations based entirely upon ground survey methods.	round survey methods.	etric me	ds.

NOAA FORM 76-40 (8-74)

SUPERSEDES NOAA FORM 75-40 (2-71) WHICH IS OBSOLETE, AND. Existing stock should be destroyed upon receipt of revision.

NOAA FORM 76-40 (8-74)		NATIONAL OCEANIC	NAT NAT	TONAL OCE	ANIC AND	S. DEPARTM Atmospher	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ST FOR CHARTS	ORIGINATING ACTIVITY HYDROGRAPHIC PARTY GEODETIC PARTY	CTIVITY
Neplaces Caus Form 36/	NO.	STATE		LOCALITY			DATE	PHOTO FIELD PARTY	TY 1V1TY
TO BE REVISED		1) B	MIAGARA		FALLS	-	THINAL REVIEWER	BREVIEW GRP.
The following	HAVE X HAVE NOT	en inspected from sec	ward to det	termine thei	ir value as	landmarks.		COAST PILOT BRANCH (See reverse for responsible personnel)	NCH ible personnel)
OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER DATUM	DATUM (9(27	7 K			METHOD AND DAT	F OF LOCATION	
	- HOIDEU	11/-01120		POSITION	NO.		(See instructions on reverse side)	on reverse side)	CHARTS
3	DESCRIPTION		LATITUDE	UDE	LONGITUDE	JOSE TOSE			AFFECTED
NAME	(Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.	aid to navigation. plicable, in parentheses)	•	// D.M.Meters	•	D.P. Meters	OFFICE	FIELD	
	WIAGNER TOWER (15 NOW	3000	43	30,02	79	21.12	BOEC 6345	V-V15	91841
IOWER	MAPLE LEAF VILAGE TOURK	(Mano)	. os		70		9-27-80	23-82-9	74820
TOWER	CICHTED (red) CARLETCOWER ATTER CORTH	COWER ATTOME -	43	44.72	79	38.74	7 7)	17
10 WER	CE TO WELLAND RNICK SOUTH OF THE	err At Entrum- South Settles	43 03	43,35	79 02	39,50		= 0-23-82 80EC 6395	17
TOWAR			70 75	50.50	79	20.03	80FC 6395 9-27-80	V - VIS	17)
STANDPIPE			45 54	17.8	79	44018	8	V-V15 6-24-82	רן
TOWER	PANASONIC CENTER TOWER	TOWER	43 43	44.35	79	56,44	11 6402	V-VIS 6-23-82	11
SPIKE			50 th	20:00	79 03	5386	11 6396	V-V15	,,,
TOWER	(NIADARA FALLS SU	FALLS SKYLONTOWER	43 05	06.288	79 04	47,561	11 6402	TRIANO REC V-VIS 0-23-82	71
TOWER	2ADIO TOVER		80 Eti	LS.9H	74 02	54.11	hotes "	2	17
10wes			43 03	58.63	79 .	11,48	6395	()	rl
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metric me	FIELD POSITIONS are determined by field obser- vations based entirely upon ground survey methods.	*FIELD POSITIONS a
**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely. or in part, upon control established	F-2-6-L ⁸ -12-75	EXAMPLE: {
EXAMPLE: V-Vis. 8-12-75	Field positions* require entry of method of location_and date_of field work.	A. Field positions* location_and date
± <	ion 7 - Planetable 8 - Sextant	3 - Intersection 4 - Resection
		l - Triangulation 2 - Traverse
ATION STAT andmark or on station th date of	NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located Vis - Visually	EW POSIT
		FIELD
graph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 741(C)2982	identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	identify and EXAMPLE: 75E
—n O⊔	the number and date (including month,	OFFICE [DENT]
OR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64,	INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE (Consult Photogrammetric Instructions No. 64)	
REPRESENTATIVE	TY CONTROL LREVIEW HENCE	FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES
OFFICE ACTIVITY REPRESENTATIVE	P. EVANS	
FIELD ACTIVITY REPRESENTATIVE	OR VERIFIED	POSITIONS DETERMINED AND/OR VERIFIED
GEODETIC PARTY OTHER (Specify)	3 3 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	OBJECT O INSPECTED FROM SECTION
☐ PHOTO FIELD PARTY		
(E ORIGINATOR	Z XAXII	TYPE OF ACTION
PERSONNEL	RESPONSIBLE PERSONNEL	

NOAA FORM 76-40 (8-74)

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

NOAA FORM 76-40	-40				C.S	DEPARTM	U.S. DEPARTMENT OF COMMERCE	ORIGINATING ACTIVITY	CTIVITY
Replaces C&GS Form 567.		IDS OR LAND	MARKS	R LANDMARKS FOR CHARTS	ANIC AND A	NT MOSPHER	IC ADMINISTRATION	HYDROGRAPHIC PARTY GEODETIC PARTY	LRTY
TO BE CHARTED	TED REPORTING UNIT	STATE		LOCALITY			DATE	COMPILATION ACTIVITY	IVITY
TO BE REVISED		NEW YORK	スス	NIA0	WIAGARA RIVER	21/2012	19 500.33	EXPINAL REVIEWER OUALITY CONTROL & REVIEW GRA	LAREVIEW GRP.
The following objects	HAVE NOT	been inspected from seaward to determine their value as landmarks.	rard to det	ermine thei	r value as	landmarks.		(See reverse for responsible personnel)	ible personnel)
OPR PROJECT	JOB NUMBER	NUMBER	DATUM (@20	V V 02					
	1-01 tois-w7	TP-001126	7	NOITION	NO		METHOD AND DATE OF LOCATION (See instructions on reverse side)	E OF LOCATION	A H C
	NOITGIRONAG	† 	LATITUDE	1	LONGITUDE	.uoe			AFFECTED
CHARTING	(Record reason for deletion of landmark or sid to nevigation. Show triangulation station names, where applicable, in persentheses)	navigation. Je, in parentheses)	, ,	// D.M. Meters		// D.P. Meters	OFFICE	FIELD	
13.4	(GORGE VIEW PAPK WARRYTANK	R GANK	113	15,987	74	150311	-	У- П	14816
7	ASKI CITTI YASK XIII	ころへんろく	8		02			6-23-82	14820
10WER	SPIRAL RIDE OBSERVATION TOWER (RECOMMEND DELETION BY RIGED PARTY)		43	52.6	79	30,00	80 EC 64∞ 9-27-8º	V-VIS 6-23-82	11,
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77.00 2									

EXAMPLE: F-2-6-L 8-12-75	and date of		tion 7 -	1 - Triangulation 5 - Fi	V - Verified Vis -	ield	I. NEW POSITION DETERMINED OR VERIFIED	FIELD	8-12-75	identify and locate the object.	Enter the number and date (including month, day, and year) of the photograph used to	OFFICE 1. OFFICE IDENTIFIED AND LOCATED OBJECTS			AND REVIEW GROUP AND FINAL REVIEW	FORMS ORIGINATED BY QUALITY CONTROL		DOSITIONS DETERMINED AND/OR VERIELED		OBJECTS INSPECTED FROM SEAWARD			TYPE OF ACTION	
**P+	field work.	Vextant	Planetable	Field identified	Visually	ric	VERIFIED II.			Ject.	(including month, ograph used to		(Consult Photogrammetric Instructions No. 64)	NOT BUT THE TOUR THE STATE OF THE STATE OF	THERE TORO		HEEVEL LUCIOS	CLIFTEN MIDDLE 1000	CLICTON MIDDLESION			-	NAME	RESPONSIBLE PERSONNEL
PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established	8-12-75	EXAMPLE: V-Vis.	POSITION VERIFIED VISUALLY ON PHOTOGRAPH	8-12-75	Rec.' with date of recovery. EXAMPLE: Triang. Rec.	angulation station is recovered, enter	When a landmark or ald which is		8-12-75 741 (C) 2982	graph used to locate or identity the object. EXAMPLE: P-8-V		<pre>FIELD (Cont'd) B. Photogrammetric field positions require</pre>	ructions No. 64,	LOCATION'	REPRESENTATIVE	REVIEWER	OFFICE ACT		OTHER (Specify)	ED GEODETIC PARTY	,] [] HYDROGA	⊠ рното ғі		ZXEL
are dependent rol established		·	PHOTOGRAPH			, enter	D so a tri-			itity the object.	or verification, or of the photo-	ons** require			QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	, , , , , , , , , , , , , , , , , , ,	OFFICE ACTIVITY REPRESENTATIVE	FIELD ACTIVITY REPRESENTATIVE	pecify)	C PARTY	HYDROGRAPHIC PARTY	PHOTO FIELD PARTY	ORIGINATOR	

NOAA FORM 76-40 (8-74)

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

SUPERSEDES NOAA FORM 74-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

NOAA FORM 76-40	40				U.S	DEPARTM	U.S. DEPARTMENT OF COMMERCE	ORIGINATING ACTIVITY	CTIVITY
(8-74)			HYZ C	IONAL OCEA	INIC AND A	TMOSPHER	C ADMINISTRATION	HYDROGRAPHIC PARTY	ARTY
Replaces C&GS Form 567		Ħ	DMAKKS	FUR CHA	KIS			GEODETIC PARTY PHOTO FIELD PARTY	X.
TO BE CHARTED	TED REPORTING UNIT	S		LOCALITY			DATE	COMPILATION ACTIVITY	IVITY
TO BE REVISED TO BE DELETED		UNIT NEW YORK	OPER	NIAGA	NIAGARA FALLS	Y T	12 Jul 83	LX FINAL REVIEWER OUALITY CONTROL & REVIEW GRP.	LAREVIEW GRP.
The following objects	ᄇ	been inspected from seaward to determine their value as landmarks	award to det	termine their	value as I	andmarks.		(See reverse for responsible personnel)	ible personnel)
OPR PROJECT	t	SURVEY NUMBER	DATUM			l			
	#018-V	10-01120	いならい	ر کا د			METHOD AND DATE OF LOCATION	E OF LOCATION	
))		POSITION	NO		(See instructions on reverse side)	on reverse side)	CHARTS
SNITGVIO	DESCRIPTION	Z	LATITUDE	UDE	LONGITUDE	UDE		i i	AFFECTED
NAME	(Record reason for deletion of landmark or eid to navigation. Show triangulation station names, where applicable, in perentheses)	k or eid to navigation. • applicable, in perentheses	, ,	// D.M. Meters	/ 。	D.P. Meters	OFFICE	FIELD	i
	NIMGARA FALLS UNITED OFFICE TRIDG	OFFICE BLDG	43	481.70	29	43,539		7-5-0	919HI
HABIN	FLAGPOLE (FALL PAS CENTER OF	ROF ROOF)	50		63			6-23-82 80Ec 6402	14822
			43	36-260	200	11.794	BOEC 6404	1-51/1-1	028/1
MONUMENT	(BROCK MONUMENT USLS 1875)	(5181 575)	60	1	83		08-62-6	28-22-9	,,
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ons E	FIELD 1. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols F - Field P - Photogrammet L - Located Vis - Visually V - Verified 1 - Triangulation 5 - Field identi	OFFICE 1. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the bject. EXAMPLE: 75E(C)6042 8-12-75	11	FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	POSITIONS DETERMINED AND/OR VERIFIED	OBJECTS INSPECTED FROM SEAWARD	TYPE OF ACTION	
Intersection 7 - Planetable Resection 8 - Sextant Resection 8 - Sextant ield positions* require entry of method of ocation and date of field work. XAMPLE: F-2-6-L 8-12-75 DSITIONS are determined by field obser- based entirely upon ground survey methods.	OR VERIFIED ta by symbols as follows: Photogrammetric - Visually Field identified Theodolite	ATED OBJECTS (including month, tograph used to bject.	INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE O (Consult Photogrammetric Instructions No. 64,	HENZI LUCAS	CLIFIEN MIDDLECON	CLIFFED MIDDLETON	NAME	RESPONSIBLE PERSONNEL
III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V*Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are depende entirely, or in part, upon control establis by photogrammetric methods.	II. TRIANGULATION STATION RECOVERED When a landmark or aid which is angulation station is recovered Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75		METHOD AND DATE OF LOCATION'		ر د ت	30		VERSONNEL
ERIFIED VISUALLY ON PHOTOGRAPH is.' and date. V-Vis. 8-12-75 IC FIELD POSITIONS are dependent in part, upon control established etric methods.	ON RECOVERED aid which is also a tri-is recovered, enter 'Triang. recovery.	mmetric field positions** require method of location or verification, field work and number of the photoed to locate or identify the object. P-8-V 8-12-75 74L(C)2982		MREVIEWER OUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	FIELD ACTIVITY REPRESENTATIVE	PHOTO FIELD PARTY HYDROGRAPHIC PARTY GEODETIC PARTY OTHER (Specify)	ORIGINATOR	

NOAA FORM 75-40 (8-74)

SUPERSEDES NOAA FORM 75-40 (2-71) WHICH IS OBSOLETE, AND. Existing stock should be destroyed upon receipt of revision. FORM C&GS-8352 (3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

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USCOMM-DC 8558-P63

INSTRUCTIONS

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-978.

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.

2. In "Remarks" column cross out words that do not apply.

3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
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