

5540

1250

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Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic map Sheet No. T-5540
~~Topographic~~

State Florida

LOCALITY

Florida Keys

Upper Matecumbe Key

Photographs Jan. 1935
Field inspection with ground surveys
1937 to 1937

CHIEF OF PARTY

E. R. McCarthy

5540

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.

REGISTER NO. ~~1-5540~~

State Florida

General locality Florida Keys

Locality Upper Matecumbe Key

Scale ~~1:20,000~~ Date of ~~survey~~ ^{photographs} January 26, 1935

Vessel Field Party No. 14

Chief of party E. R. McCarthy

Surveyed by See data sheet attached to descriptive report.

Inked by * * * * *

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 17, 1935

Remarks: Compiled from air photographs at a scale of 1:20,000
for reproduction by the photo-lithographic process at a scale
of 1:20,000.

DATA SHEET

Sheet Register No. T-5540

Portion of work	Performed by	Date completed
Projection made by	Washington Office	
Projection checked by	E. R. M.	May 13, 1936
Control plotted by	E. R. M.	May 13, 1936
Control checked by	M. B. G.	May 14, 1936
Radial Plot developed by	F. N.	December 4, 1936
Radial plot checked by	J. C. M.	February 18, 1937
Compiled in pencil by	J. C. M.	October 20, 1937
Inked by	J. C. M.	October 20, 1937

* * * * *

STATISTICS

Statute miles of shoreline 32.0
 Statute miles of creeks and canals 1.5
 Square statute miles, land area 4.5
 Square statute miles, shoals 9.7

Reference Station: Snake Creek, 1934
 Lat. 24° 57' 18.999" (+584.6 meters)
 Long. 80° 34' 47.535" (+1333.5 meters) unadjusted

N.A. Datum

Photos taken January²⁶, 1935
 Field Inspection with ground surveys to 1937

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC MAP

REGISTER NO. T-5540

UPPER MATECUMBE KEY

FLORIDA KEYS

FLORIDA

1937

Scale of compilation, 1:20,280

DESCRIPTION OF AREA:

The topography shown on this map drawing covers an area on the southeast side of Florida Bay lying between Plantation Key and Lower Matecumbe Key. This area embraces the southwest portion of Plantation Key, all of the area of Windley and Upper Matecumbe Keys and the fill between Upper and Lower Matecumbe Keys. Also delineated on this compilation are Wilson, Cotton and Shell Keys in the area of Florida Bay and Teatable and Indian Keys on the outside.

The abandoned right of way of the Florida East Coast's Overseas Railroad and the Overseas Highway traverse the keys forming the southeastern boundary of Florida Bay. Most of the area of these keys are high, fast land which contains a thick hammock growth of trees and vines. The ocean beach of these keys are generally sandy or rock ledges while the bay side is made up of mangrove. At some localities, on the southwest end of Windley Key and the southwest end of Plantation Key, this mangrove growth extends to the ocean side of the keys.

The keys that are located in the Florida Bay area of this sheet are composed entirely of mangrove and areas of mud flats. Indian Key is high, fast land while Teatable Key is fast land on the south side and mangrove on the north side.

The area of Upper Matecumbe Key is rather thickly settled. There are two communities on this key, one near the northeast end which is known as Islamorada and the other in the central portion of the key which is known as Matecumbe. Islamorada is a community of permanent residents while Matecumbe is composed mostly of homes of winter residents. The post office serving this area is located at Islamorada.

The principal industry of the local residents of this area are fishing for the market and catering to tourist fishing parties during the winter season. A rather large colony of those engaged in this vocation was located, before the 1935 hurricane, at Whale Harbor at the east end of Upper Matecumbe Key. This place is used to some extent at the present time but not as much as formerly. Since the 1935 hurricane a small pier and fish house has been built at this place.

There is a rock quarry located on the east end of Windley Key. Beautiful building stone is obtained from the coral formation at this locality which has been used extensively in building public buildings in the area of Southern Florida. The post offices at Miami and Key West and Fort Myers and possibly several other cities of this area have been built with this stone. There are areas on Windley Key which were cleared by the Veteran Relief Camps to obtain stone for the construction of ~~the~~ the Overseas Highway (abandoned after the 1935 hurricane) but which were never used. There are also other areas which appear as ponds on the compilation where quarrying operations have been abandoned.

Indian Key, shown on this compilation, is said to have been the first port of entry in this locality. There was a settlement here and trading posts and it is said that the place was a regular stop for the steam packets. At the present time the key is privately owned.

The hurricane of September 2, 1935 destroyed all of the houses and other structures in the area of this sheet. Other changes were caused by this storm which will be discussed under another head to be found further along in this report.

GENERAL INFORMATION:

The photographs covering the area of this sheet are centered over the highway right of way. There is only one flight of photographs centering on this compilation and these are numbers 522 to 546 and were secured on January 26, 1935.

A portion of Upper Matecumbe Key and Shell Key are covered on the wing prints of the flight of photographs between Cape Sable and Lower Matecumbe Key. These were not used in the compilation of this sheet.

An index of photographs, drawn on a section of published chart, is appended to the General Descriptive Report of the area of which this sheet is a part. This report is bound with the descriptive report for Sheet Register No. T-5538.

Field inspection probably done during 1937

CONTROL:

The sources for the triangulation control used in the compilation of this sheet are as follows:

H. A. Cotton, 1934



R.M. Triangulation station ISLA, 1934, as found after the
hurricane of September 2, 1935.

*(The marks at this station were not lost. They have been strengthened
since this picture was taken.)*



Station mark and one reference mark of Triangulation
station BEY, 1934, as found after the hurricane.

*(The mark at this station is to be replaced
in its former position)*

Publication "Triangulation in Florida".
 E. R. McCarthy, 1935
 J. Bowie, 1935 (one station)

All of the schemes are on the North American Datum with the exception of the latter which was adjusted to agree. As all of the positions were obtained from the field computations, they are unadjusted. *For the factors applied in the field to coordinate the triangulation of different years, see Dis. Report, T 6498, P. 3*

There is appended to this report a list of these station which were used in the compilation of the sheet. This list gives the plotting distances used for the scale of the compilation which is 1:20,280. *The recoverable H&T stations located by graphic control surveys were apparently not used for control.*

COMPILATION METHODS:

The usual radial line methods as described in the "Notes on the Compilation of Planimetric Line Map" was used in the compilation of this sheet.

Due to the abundance of good control and the small area of the sheet, no difficulty was experienced in obtaining the smooth radial plot. The plot was developed without adjustments.

INTERPRETATION OF PHOTOGRAPHS:

The photographs covering the area of this sheet were clear and adequate coverage was afforded for the compilation of this sheet. No difficulty was experienced in obtaining the delineation of the sand beach along the ocean side of these keys.

Only the limits and the channels through the extensive shoal area in the vicinity of Central Supply are shown on the sheet. As a general rule in this area, the channels are usually lined with a narrow ridge and deeper water found in the area between channels which is traversable by boats of shoal draft especially at high tide. No attempt has been made to delineate these ridges along the channels, as they do not appear as a definite line on the photographs.

INFORMATION FROM OTHER SOURCES:

Due to the extensive damage caused by the hurricane of September 2, 1935 and the subsequent building since this storm, it was necessary to obtain much topographic information by field sextant surveys and inspection. All of the houses and other structures as well as the fill between Windley Key and Upper Matecumbe Key and the fill between Upper and Lower Matecumbe Keys were destroyed by the hurricane. The changes which were due to this cause are discussed below.



Showing the destruction of the railroad and highway fill at the lower end of Upper Matecumbe Key. Featable Key in right background.



The fill between Upper and Lower Matecumbe Keys as it appeared immediately after the hurricane of September 2, 1935. Note flash boards along inside of fill and temporary construction trestle in right foreground. Indian Key in left background and Lower Matecumbe Key in right background.

Clearances of bridges are given on the map drawing.
Data is probably from field measurement by field inspection party.
Vertical clearances probably refer to M.H.W. ^(or H.M.W.) datum.

Sept 21

Before the hurricane of 1935 the only opening between Florida Bay and the ocean was at Snake Creek. When the fills at Whale Harbor and Central Supply were replaced by the State Road Department, openings were left and bridged so that the keys would not be inundated during future hurricanes. The abutments of these bridges were located by sextant fixes and plotted on the compilation and the detail of the fill between bridges obtained by spotting on the field prints. There will no doubt be found small error in the case of these fill for at the present time they are not complete. The detail as shown is approximately correct. One bridge was constructed at Whale Harbor and four at Central Supply, one with a single bascule lift span. The bridge over the railroad abutments at Snake Creek was not replaced but the abutments still stand. In replacing the highway bridge at Snake Creek a pile bent was placed in the center of the channel and this reduced the horizontal clearance from what is shown on the Graphic Control sheet covering the area.

Due to the fact that all of the houses in the area of this sheet were destroyed by the hurricane and have been rebuilt since, it was necessary to locate them by surveys. This was done by field measurements to points which ^{were} located on the photographs. Also located by this method was the road and two boathouses on the ^{N.W. side, center} north side of Upper Matecumbe Key at the dredged canal east of Little Basin.

The dolphins and several single piles shown on the compilation were located by sextant fixes during the course of the field inspection and plotted on the sheet.

The ferry slip, which is now abandoned, located at the lower end of Upper Matecumbe Key was built after the hurricane to take care of the ferry traffic. This was located from the east abutment of the east bridge and spotted on the photograph. In order that the ferry might reach this slip it was necessary to remove some of the pile bents from the temporary construction trestle. At this locality the length of Carabee Basin was increased for a hurricane anchorage and to obtain material for the fill between the keys.

The curve in the road where it crossed the railroad grade near Carabee Colony (destroyed during the hurricane) just east of B. M. G-69, 1934 was eased. This detail was obtained from field inspection.

The fish house and pier at the east end of Upper Matecumbe Key and the four small piers at The Hole on the south side of the key were located by sextant fixes. At the latter area there has been much improvement since the hurricane. A considerable area of the key has been filled with spoil obtained from the water area east of The Hole. No definite information is available in regard to the limits of this area as the work is not complete. The area has been noted on the name sheet for the compilation.

RECOVERABLE STATIONS:

A great many of the recoverable hydrographic and topographic

Those rec. H.T. stations which were not lost, appear on 7-5540. The stations, as described, agree with the detail compiled from the photos. They were probably checked for position in the course of the radial plot.

stations located on the Graphic Control Sheets of the area were destroyed by the hurricane. The loss of some of these stations have been previously reported by this party. These stations are as follows:

Matecumbe Grade School (east face)
 Matecumbe Baptist Church (east face)
 FAD
 AMY
 GARE
 CHY
 AX

Noted "lost" on any of these that were found in files.
 Reported to Div. Tides & Currents.

The three tidal B. M.'s. at Whale Harbor
 The three tanks at the Veteran Relief Camp on Windley Key

Additional recoverable stations which were destroyed but have not been previously reported are given below. The loss of these stations are reported on form 524 which are being transmitted with the sheet.

BULK ✓
 KUX ✓
 SED ✓
 ULE ✓

FOY
 ING ✓
 TAP ✓

Noted "lost" on Form 524 in files.

There are two first order benchmarks and three intersection stations which were destroyed by the storm and recovery cards are being submitted for these. These stations are as follows:

HOTEL, 1934
 N. TANK, 1934
 S. TANK, 1934

B. M. H-69, 1934
 B. M. E-69, 1934

Reported to Triang. & Levels.

An error was noted in the position given for recoverable station TRA. The longitude of this station was recorded as 80° 39' 670 meters and the correct Longitude is 80° 39' 770 meters. This should be corrected on the card for this station. Done. T.M.P.

COMPARISON WITH CONTEMPORARY SURVEYS:

The area of this compilation is shown in part on the following Graphic Control Sheet surveyed during 1934 and 1935.

Sheet Register No.	6257	(1934)
"	"	No. 6258 "
"	"	No. 6360 a (1935)
"	"	No. 6360 b "

Only a slight amount of topographic detail is shown on these sheet but in comparing them with the compilation it was found that they agree in the detail shown.

The only disagreement found was in the location of the west

derrick at the quarry on Windley Key. It is believed that this is a movable derrick and that it was moved between the dates of the two surveys. *Noted on T 6360a*

COMPARISON WITH PREVIOUS SURVEYS:

The results of previous surveys in the area of this sheet were not on file in the field office so a general comparison was made with the published chart of the area.

In such a comparison it is difficult to obtain definite information as to the locations of detail and only general changes are to be noted.

The principal difference noted in comparing the compilation with the published chart of the area was in the size of the mangrove area on the north side of Windley Key. The mangrove in this area has extended considerably on the northwest side of the key to cover parts of the mud banks that exist at this point. It is interesting to note that an area of deeper water shown on the northeast end of the key on the chart has been left as a pond as shown on the present compilation.

Isolated clumps and bushes of mangrove have grown on the banks in the vicinity of Central Supply and Snake Creek which are not shown on the present chart of the area.

LANDMARKS:

Landmarks for Charts for the area covered by this compilation were submitted previously by this party.

On May 12, 1937, a list of Permanent (non floating) Aids to Navigation which were built to replace those destroyed by the hurricane was submitted. These were located by sextant fixes during a field inspection. Of the aids which were reported, two are temporary and are to be moved. These are Beacon 1, (light) Upper Matecumbe Key and Beacon 2, (day marker) Shell Key. A copy of this list is attached to this report.

There is being transmitted a list of Landmarks which were destroyed by the hurricane and which are to be deleted from the chart. A copy of this list is also attached to this report.
See Review of this sheet for further discussion of Landmarks.

GEOGRAPHIC NAMES: *See Name List at end of this report.*

Unlike most areas in the Florida Keys, the geographic names in the area of this sheet are fairly well established and few conflicts exist.

Local inhabitants were consulted rather extensively in order to obtain the correct geographic names of the features shown on this sheet. In addition, all of the maps of the area were also consulted for this purpose. It is believed that it would be impossible to obtain better information and all of the names as given here are recommended for charting.

The names which are at present shown on the published chart of the area and were verified to be in local use are as follows:

Plantation Key
 Plantation Point
 Snake Creek
 Wilson Key
 Islamorada
 Upper Matecumbe Key
 Teatable Key
 Indian Key
 Shell Key
 Shell Key Bank

Land Features:

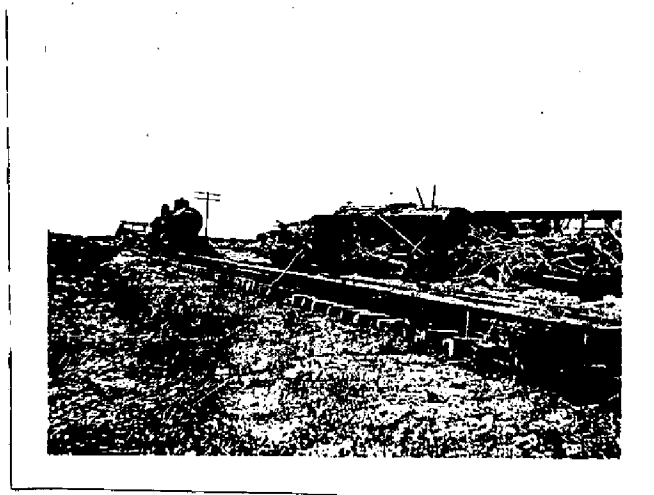
The present published chart of the area shows McGinty Key on the bay side of the highway. The name in universal local usage for this key is COTTON KEY. All authorities agree on this name and it is shown on the original land plats of Monroe County. It is said that the key received its name because a ship with a cargo of cotton went ashore there. It is not due to the fact that wild cotton grows on the key as it is composed entirely of mangrove.

Some difficulty was experienced in obtaining the correct name of the key on which the quarry is located. The old timers of the locality know this key as Umbrella Key but this is not used to any great extent in the locality at the present time. The name of the quarry on the key is Windley Island Quarry Company and most of the local residents refer to the key as Windley Island. It is recommended that the name WINDLEY KEY be charted for this key. The origin of the name is unknown.

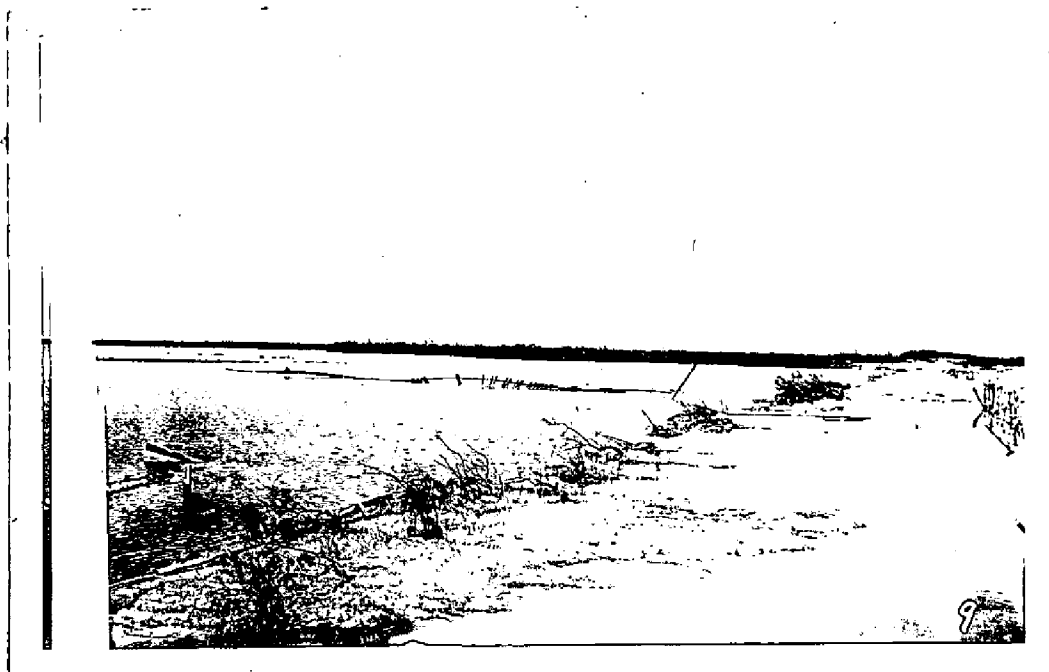
The community of MATECUMBE has not previously appeared on the published chart. This is the name used by the local resident of the area.

For a discussion of CENTRAL SUPPLY, see a "Report on Geographic Names, Florida Keys, Key Largo to Long Key," page 5.

The present published chart of the area shows MARK KEY on the bay side of Windley Key. This name is no longer used in the area and, it is believed, the keys to which it referred has grown into the area of Windley Key. *Old surveys seem to indicate that name "Mark Key" applies to the very small key at lat. 24-52.8 Long. 81-35.9 which has not grown into area. However if name no longer used it will be dropped.*



A view of the wreck of the train which was on the siding at Islamorada during the hurricane.



The railroad and highway fill between Windley Key and Upper Matecumbe Key after the hurricane. This fill was approximately ten feet above high tide before the storm. Windley Key in background.

Water Features:

For a discussion of WINDLEY HARBOR as a geographic name, see the field letter date July 11, 1935 ^{GN 60} and for a discussion of WHALE HARBOR as a geographic name, see a "Report on Geographic Names, Florida Keys, Key Largo to Long Key", page 9.

LITTLE SNAKE CREEK, the small creek on Plantation Key east of Snake Creek, is a name in local use. This is an old name in the locality and the creek was probably at one time used as a hurricane anchorage and well known. This statement is made because all of the older inhabitants of the area know this creek. Since the railroad and highway fill have been placed across the creek it has become unimportant.

THE HOLE and ^{Caribbee} CARIBBEE BASIN are names used by the inhabitants in the immediate vicinity of these features. The former is said to be a very old name, dating from Indian times while the latter has been applied in recent years since the basin was made larger to accommodate more boats during hurricanes.

The small basin on the north side of Upper Matecumbe Key is known locally as LITTLE BASIN. This basin is used extensively as an anchorage by boats in this area. The passage through the private cut into this basin on the east side and through the dredged channel into Yellow Shark Channel on the west side is known locally as "The Short Cut". This name is little used locally and has not been placed on the name sheet.

The local names of the three channels through the fill at Central Supply from east to west are TEATABLE CHANNEL, INDIAN KEY CHANNEL and LIGNUMVITAE CHANNEL. The origin of the names are evident.

North of the fill, Teatable Channel divides into three channels which are known locally as YELLOW SHARK CHANNEL, SHELL KEY CHANNEL and RACE CHANNEL. The origin of Race Channel is said to be due to the fact that a schooner by this name went ashore on the bank of this channel near Shell Key. The origin of Yellow Shark Channel is not known to the compilation party. All names are in local use and recommended for charting.

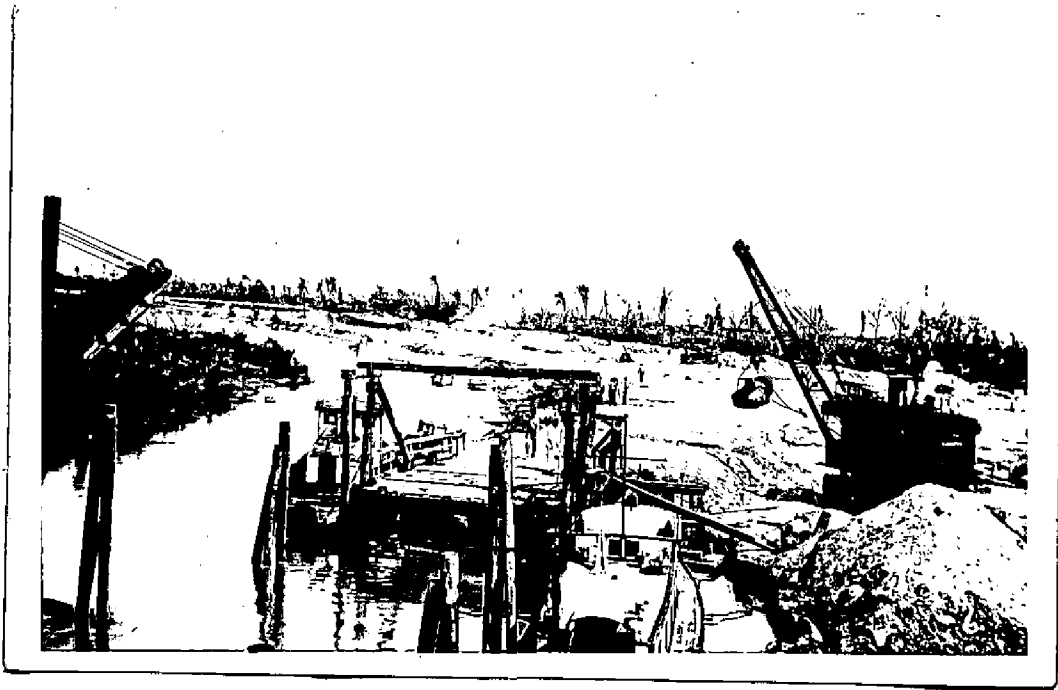
For a discussion of Lignumvitae Basin as a geographic name see page 9 of the descriptive report for Sheet Register No. T-5442.

For a discussion of Cotton Key Basin as a geographic name see page 8 of the descriptive report for Sheet Register No. T-5539. Both of these areas are known locally as "lakes" but it is recommended that they be charted as basins.

There are two channels through Shell Key Bank. The one which carries the Intracoastal Waterway at the present time is known as STEAMBOAT CHANNEL while the one further north is known as IRONWOOD CHANNEL. Some local inhabitants refer to the latter erroneously as



The site of Carabee Colony as it appeared after the hurricane.



The ferry landing at the lower end of Upper Matecumbe Key under construction. Entrance into Carabee Basin is shown beyond the ferry landing. It will be noted from these photographs that all of the palm trees were not destroyed by the storm.

Iron Stake Channel. The Intracoastal Waterway was shifted from Ironwood Channel to Steamboat Channel during 1935.

NAME SHEET:

In compliance with The Director's letter of June 28, 1937, the name sheet for this compilation was made on clear celluloid.

In making this over-lay it was found that the regular celluloid ink was much easier to use on the clear celluloid. Weber's black waterproof drawing ink as well as Craftint's water soluble celluloid ink were tried but found to be inferior to the regular celluloid ink. This ink resulted in a even, black letter and it is equally as easy to handle as any other.

RECOMMENDATION FOR FURTHER SURVEYS:

It is believed that this compilation fully covers the area and that further surveys are not necessary at the present time.

The accuracy of location of well defined detail of importance for charting is believed to be within the limits that are desired on these compilations.

Respectfully submitted,

John C. Mathisson
 John C. Mathisson,
 Jr. H. & G. Engr.,
 U. S. Coast and Geodetic Survey.

Key West, Florida
 October 22, 1937

Notes in red by T.M.P., Jan. 1938
 For information concerning A Bey, 1934, Windmill, 1934 (M.I., 1934), I 312, 1934 recoveries, see letter from McCarthy dated Jan. 4, 1938, (Chart Div. Files) These As have been, or will be, replaced in original position.

REVIEW OF AIR PHOTO COMPILATION NO. T-5540

Chief of Party: E. R. McCarthy

Compiled by: See Data sheet.

Project: HT 158

Instructions dated: Nov. 17, 1933.

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)
3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)
4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)
none transmitted
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
comparison with contemporary hydrographic surveys apparently not made in field.
6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i)
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs." M-57

Notes in red by T.M.P., Jan., 1938

8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)
Extensively revised upon review in order to supplement contemporary hydrographic surveys.
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
13. The geographic datum of the compilation is North American and the reference station is correctly noted.
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
15. The drafting is satisfactory and particular attention has been given the following:
 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
 2. The degrees and minutes of Latitude and Longitude are correctly marked.

3. All station points are exactly marked by fine black dots.
4. Closely spaced lines are drawn sharp and clear for printing.
5. Topographic symbols for similar features are of uniform weight.
6. All drawing has been retouched where partially rubbed off.
7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

E. R. McCarthy

E. R. McCarthy
Chief of Party

19. Remarks after review in office:

Drafting on this survey is neat, accurate and complete. It would have been advantageous to have made a comparison with the hydrographic surveys (if copies were available), in the field, so that an approximate low water line could have been shown in place of a general shoal line where there is no channel.

Reviewed in office by: *T. M. Price*
Jan. 4, 1938

Examined and approved: *JSD*

K. T. Adams

Asst Chief, Section of Field Records
Division of Charts

L. O. Lobert

Chief, Division of Charts

Fred. S. Peacock

Chief, Section of Field Work

G. H. ...

Chief, Division of Hydrography and Topography.

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5540

Data Record

Triangulation, 1857, 1934, 1935
Recoverable stations of less than third order accuracy, 1934, 1935
Photographs taken January 1935
Field inspection, 1937
Planetable graphic control surveys, 1934-35.

The field inspection was for the dual purpose of interpreting the photographs and of surveying by ground methods the changes since the photos were taken. The detail of T-5540 is of the date of the photographs, except for the following:

- (1) From 1934-35 graphic control surveys:
 - (a) certain piles
 - (b) recoverable hydrographic and topographic stations
- (2) From field inspection information to October 1937:
 - (a) bridges, and breaks in causeway
 - (b) all houses, piers and boat houses
 - (c) certain piles; all dolphins
 - (d) ferry slip at Carib^bee Basin
 - (e) certain road changes; abandonment of railroad
 - (f) all lights and beacons other than triangulation stations
 - (g) short sections of shoreline near causeways
- (3) Low water line: added in Washington office Jan. 4, 1938 from a comparison of the photos and 1934 to 1935 hydrographic sheets.

COMPARISON WITH RECENT GRAPHIC CONTROL SURVEYS

T-6360a (1935),	1:20,000
T-6360b (1935),	"
T-6257 (1934),	"
T-6258 (1934),	"

General

- (1) The graphic control surveys were made for the purpose of locating signals, beacons, piles, etc. Very little shoreline or other topographic detail is shown.
- (2) A large proportion of the objects located by the graphic control surveys has been destroyed by the hurricane of September 1935.
- (3) T-5540 has been carefully compared with each of the above graphic control surveys, the photographs, and recent hydrographic sheets. In general, the photographs show the detail clearly; the field inspection is adequate and ground surveys were made in conjunction with the field inspection to determine changes caused by the hurricane which

was subsequent to the date of the photographs. T-5540 has been corrected against the above sources of information and in case of any differences between the above graphic control surveys and T-5540, the latter should now be taken as correct.

(4) All detail on the above graphic control surveys within the area of T-5540 is now shown on T-5540, except:

- (a) Magnetic declination
- (b) Temporary topographic stations
- (c) Recoverable topographic stations or triangulation stations, destroyed
- (d) Other detail no longer existing.

Detail Comparison

T-6360a

(1) South side Snake Creek, east of highway bridge. Difference in shoreline. Cause: T-6360a shows high ground line; T-5540 shows limit of mangrove. The small pier or bulkhead shown near here on T-6360a has been destroyed.

(2) All of the piers shown on T-6360a have been destroyed. Those shown on T-5540 are newly built.

(3) All bridges destroyed; all recoverable hydrographic and topographic stations and triangulation stations not appearing on T-5540 are destroyed; beacons destroyed.

(4) Hydrographic and topographic station ELK (red derrick) moved.

T-6360b

(1) The high water line shown on T-6360b between PIN (d) and ING (d) coincides with the low water line shown on T-5540. The photographs were examined and T-5540 was accepted as correct.

(2) The shoreline at the extreme south end of Upper Matecumbe Key, where the causeway begins, has changed considerably. T-5540 represents present conditions.

(3) The piers and the causeways shown on T-6360b were destroyed. Those shown on T-5540 are newly built. Beacons 26 and 43 were destroyed. T-5540 shows locations of the rebuilt beacons.

(4) All recoverable hydrographic and topographic stations and triangulation stations not appearing on T-5540 have been destroyed.

T-6257

(1) Vicinity of triangulation station McGinty; 1934, 18 meters difference in shoreline. Not of consequence because shore is mangrove. T-5540 accepted as correct.

(2) Highway bridges have been changed; railroad bridge partly destroyed.

(3) All recoverable hydrographic and topographic and triangulation stations not appearing on T-5540 have been destroyed. Beacons on T-6257 destroyed. T-5540 shows location of the rebuilt beacons.

T-6258

(1) Distance between meridians on projection, 6 meters short.

(2) The causeway between Upper and Lower Matecumbe has changed. T-5540 shows present conditions.

(3) All recoverable hydrographic and topographic stations, triangulation stations and beacons not appearing on T-5540 have been destroyed.

COMPARISON WITH PREVIOUS TOPOGRAPHIC SURVEYS

T- 640 (1857), 1:20,000
T- 641 " " "
T- 690 " " "
T- 696 " " "
T-1154 (1870), 1:40,000

T-696

(1) Lat. $24^{\circ} 57.8'$, long. $80^{\circ} 39.1'$. A small island was formerly shown at this point. None is shown on T-5540. It can not be told with certainty from the photos whether the shoal at this spot is bare at high water or not. It apparently is very low in any case. There are no field inspection notes covering this spot. The recent hydrographic survey H-5778 says the whole reef is below high water. The T-5540 representation has been accepted as correct.

T-640, T-641, T-690, T-696

The changes in the shoreline in mangrove areas are too numerous to mention. The outside coast has not changed to any great extent but the small changes are numerous. These differences are to be expected in view of the early date of the above surveys, and except for the item noted in the paragraph immediately above, no difference has been noted that is worthy of separate discussion.

T-1154

Since this survey is on a scale of 1:40,000 and the small amount of detail that is in common appears to be rather roughly drawn, only a general comparison has been made.

T-5540 is adequate to supersede the portions of the former topographic surveys which it covers.

COMPARISON WITH RECENT HYDROGRAPHIC SURVEYS

H-5595	(1934), 1:20,000
H-5778	(1934-5) "
H-5888	(1935) "
H-5892a, b	(1935) "

H-5595

(1) Lat. $24^{\circ} 56.8'$, long. $80^{\circ} 37.5'$.^A Small disagreement between channel indicated by hydrography and that indicated by T-5540. Latter appears correct.

H-5778

(1) Lat. $24^{\circ} 55.7'$, long. $80^{\circ} 37.5'$. Just south of H. & T. station MY a 2 foot sounding hits the shoreline. T-5540 appears correct.

(2) Lat. $24^{\circ} 54.6'$, long. $80^{\circ} 38.75'$. A sounding line giving 1 to 2 foot depths runs 70 meters inside dense mangrove limit. No channel could be seen on the photos. T-5540 appears correct and the hydrography in error.

(3) Lat. $24^{\circ} 53.8'$, long. $80^{\circ} 40.2'$. Low water line temporarily indicated on hydrographic sheet. Photos show no indication ^{here} of ^{shoal} this. ^{bare or} ^{at} ^{low water.}

(4) Lat. $24^{\circ} 55.0'$, long. $80^{\circ} 39.0'$.^A Small disagreement between channel indicated by hydrography and that indicated by T-5540. Latter appears correct.

H-5888

(1) At Teatable Key, 1/2 foot sounding falls in middle of key. Hydrography appears in error, T-5540 correct.

(2) Lat. $24^{\circ} 55.7'$, long. $80^{\circ} 37.3'$. A ^{minus} (1) foot sounding falls on the edge of a pit. Photos show a very small spot that might be this place. It appears detached. Hydrography correct.

H-5892a

(1) South end of Upper Matecumbe Key, 1/2 foot sounding falls on high water line. T-5540 appears correct.

(2) Indian Key, south end. A 2 foot sounding falls on the high water line. T-5540 appears correct.

General

(1) The dotted line offshore on T-5540 represents a close approximation to the low water line as obtained from a careful comparison of the photographs against the recent hydrographic sheets. Unless a specific note in the sounding records should contradict the low water line now shown on T-5540 at any place, this low water line should be used in place of the approximate low water line now shown on these hydrographic sheets.

(2) The dashed line shown offshore on T-5540 represents (a) edge of channel, (b) limits of shoal areas. In either case it does not represent a depth curve but only a break between very shallow water and deeper water.

The edges of channels are well defined on the photographs and their position is reliable. The representation thereof on T-5540 may be used to better align the channels obtained by hydrography.

The shoal limit is a very approximate line but will serve in certain places to supplement the hydrography.

(3) The additional low water line information as obtained from the photographs, as well as the above described differences between T-5540 and the recent hydrographic sheets, have been called to the attention of the hydrographic reviewing section.

COMPARISON WITH CHARTS

Chart 1250 (edition 9/27/37), 1:80,000

The important changes to be made on this chart are noted on a section of the chart attached to this report.

REMARKS

Recoverable H. and T. Stations

It is not stated in the descriptive report whether the recoverable hydrographic and topographic stations were used for controlling the radial plot or whether they were checked by the radial plot.

Forms 524 for the recoverable hydrographic and topographic stations which appear on T-5540 are filed as follows:

Under T-6360a -- Roy; B.M. D-69, 1934; B.M. F-69, 1934;
Under T-6360b -- Tea; Pin; B.M. G-69, 1934;
Under T-6257 --- Rit; My.

The Forms 524 for the other stations which appear on the graphic control sheets within the area of T-5540, but which have been destroyed, have been noted as lost on the file descriptions; also noted lost on the graphic control sheets.

Triangulation Stations, Bench Marks, Tidal Bench Marks

Any of these stations which appear on the graphic control sheets but not on T-5540 have been lost. The proper Division of this Bureau has been notified in each case.

Landmarks

(1) Lights - Hen and Chickens Shoal Light was located by triangulation in 1934. It is noted in the Light List as having been rebuilt in 1936. However, no notice of change in position has been received from the Lighthouse Service, so the 1934 position is still considered correct.

No notice of change in position of Alligator Reef Light has been received, so the 1934 triangulation position is considered still correct.

All other lights shown on T-5540 were located by sextant in 1937.

Shell Key Light 87 was removed from T-5540 upon review, because it has recently been reported destroyed.

(2) Beacons - Crocker Reef Beacon H, and Upper Matecumbe Beacon "41" destroyed in 1935. Rebuilt in 1936. Not located since rebuilding, therefore not shown on T-5540. (With regard to the above beacons ~~it might be said that, considering the large change in position of some of the other beacons rebuilt, it should not be assumed~~ ^{that because no new position has been received for them} that the positions of these two beacons are approximately the same as formerly. The adjacent beacons Nos. 43 and 26 are now located 300 meters from their former positions.)

All beacons shown on T-5540 were located by sextant in 1937.

Bridges

The source of information for the bridge clearance data shown on T-5540 is not stated in the report. It is presumed the measurements were made by the field party. The stage of tide at which the vertical clearances apply is not given on the sheet or in the report, but it is assumed that M.H.W.^{or H.W.} is meant.

Special Symbols

The following special symbols not mentioned in the descriptive report appear on this sheet:

(1) A single line of short dashes indicates the alignment of the bed of the abandoned F.E.C. R.R.

(2) ^{The} Light line outside mangrove indicates outer edge of vegetation visible at high water; ^{the} light line inside mangrove indicates high ground line; heavy line along shore indicates M.H.W.L. on fast land. (note: the high ground line was removed upon review)

(3) The dotted line offshore represents the approximate low water line and it is recommended that it be charted. The areas inside this line are largely bare or awash at low water.

(4) ^{The} Dashed line offshore represents channel limits and boundaries of shoal areas. It is not a depth curve but only represents the approximate break between very shallow water and considerably deeper water.

Changes

The following changes have been made to this sheet upon review:

- (1) Shell Key Light "87" removed. Recently reported destroyed.
- (2) Amplification of names of lights and beacons to conform to Intracoastal Waterway Aids to Navigation List, 1937.
- (3) Change of the shoal lines to (a) a low water dotted line and (b) a dashed channel line as explained elsewhere.
- (4) Removal of the high ground line (see par. 2 at top of this page)

Accuracy

No numerical statement of accuracy was given in the report but from a review of the sheet it is believed that a probable error of 5 to 10 meters obtains throughout most of the work because the control was good and the photo scale was close to the drafting scale. This probable error, ~~of course,~~ does not include the positions ~~of these features located by the field inspection party or~~ of the low water and channel lines.

Additional Work

This survey is complete and adequate for chart compilation, except for the location of Crocker Reef Beacon "H" and Upper Matecumbe Beacon "41".

January 7, 1938.

T. M. Price, Jr.
T. M. PRICE, JR.

V. B. Jones

TABLE OF CONTROL

Sheet Register No. T - 5540

Station	Position	Plotting Distances	
SNAKE, 1934	Lat. 24° 58' Long. 80° 34'	20.4 (1825.6) 1661.4 (21.6)	20.1 (1800.4) 1638.5 (21.3)
McGINTY, 1934	Lat. 24° 57' Long. 80° 37'	1513.6 (332.4) 747.1 (935.9)	1498.0 (327.8) 737.7 (923.0)
PLANTATION PT., 1857	Lat. 24° 57' Long. 80° 33'	708.9 (1137.1) 1621.8 (61.4)	699.1 (1121.4) 1599.4 (60.6)
PENDER, 1934	Lat. 24° 57' Long. 80° 33'	728.6 (1117.4) 1640.5 (42.8)	718.5 (1102.0) 1617.9 (42.2)
SNAKE CREEK, 1934	Lat. 24° 57' Long. 80° 34'	584.6 (1261.5) 1333.5 (349.7)	576.5 (1244.1) 1315.1 (344.9)
DERRICK MAST, 1934	Lat. 24° 56' Long. 80° 35'	1820.5 (25.5) 1194.8 (488.4)	1795.4 (25.1) 1178.3 (481.7)
RUSSELL, 1935	Lat. 24° 56' Long. 80° 36'	157.3 (1688.9) 1579.5 (103.9)	155.1 (1665.6) 1557.7 (102.8)
ISLA, 1934	Lat. 24° 56' Long. 80° 36'	203.7 (1642.3) 1410.9 (272.6)	200.9 (1619.6) 1391.4 (268.8)
HEN & CHICKENS BN. 24, (HEN & CHICKENS LT.) 34	Lat. 24° 55' Long. 80° 32'	1782.6 (63.5) 1579.5 (103.9)	1758.0 (62.6) 1557.7 (102.5)
BOUTTE, 1934	Lat. 24° 55' Long. 80° 40'	687.6 (1158.4) 367.4 (1316.3)	678.1 (1142.4) 362.3 (1298.1)
BEY, 1934	Lat. 24° 54' Long. 80° 38'	1673.9 (172.1) 3.2 (1680.6)	1650.8 (169.7) 3.2 (1657.4)
WINDMILL (MIL)† 1934	Lat. 24° 54' Long. 80° 39'	271.8 (1574.2) 237.9 (1445.9)	268.1 (1552.5) 234.6 (1426.0)
INDIAN KEY 2, 1934	Lat. 24° 52' Long. 80° 40'	1142.8 (703.2) 1001.0 (683.1)	1127.0 (693.5) 987.2 (673.7)
ALLIGATOR REEF L. H., 1908	Lat. 24° 51' Long. 80° 37'	171.4 (1674.6) 250.2 (1434.4)	169.0 (1651.5) 246.8 (1414.6)
WALKER BANK, 1857	Lat. 24° 56' Long. 80° 34'	1480.4 (365.9) 1407.7 (275.7)	1460.0 (360.6) 1388.3 (270.6)

Remarks

Decisions

1		
2		see. H-5778 T-5442
3		
4		
5	* Called "Teatable Key Chan." in S.R. 1 pg. 9	
6		USGB decision
7		
8		
9		
10		
11		
12		
13		
14		
15		see T-5539
16		
17		USGB decision
18	* Feature used ^{fragment} much by boatmen	
19		
20	Carabee an error on name sheet Caribee corrected from note in D.R.	GN 1 (1938)
21		
22		
23		
24		
25		USGB decision
26		
27		

GEOGRAPHIC NAMES

Survey No. T-5540

Name on Survey	Source of Name									
	A	B	C	D	E	F	G	H	K	
	On Chart No. 1250	On previous survey No.	On U. S. quadrangle Maps	From local information <i>See P.R.</i>	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
✓ <u>Florida Bay</u>	✓									1
✓ <u>Lignumvitae Basin</u>	✓									2
✓ <u>Lignumvitae Channel</u>	✓ GNS			✓						3
✓ <u>Indian Key</u>	✓			✓						4
✓ <u>Indian Key Channel</u>	✓ GNS			✓						5
* ✓ <u>Teatable ^{Key} Channel</u>	Teatable Key Chan. (G.N.S.)			✓						6
✓ <u>Teatable Key</u>	✓			✓						7
✓ <u>Shell Key</u>	✓			✓						8
✓ <u>Shell Key Channel</u>	✓			✓						9
✓ <u>Race Channel</u>				✓						10
✓ <u>Yellow Shark Channel</u>				✓						11
✓ <u>Shell Key Bank</u>	✓			✓						12
✓ <u>Ironwood Channel</u>				✓						13
✓ <u>Steamboat Channel</u>				✓						14
✓ <u>Cotton Key Basin</u>	GNS			P.R. T-5539						15
✓ <u>Cotton Key</u>	GNS			✓						16
✓ <u>Upper Matecumbe Key</u>	✓			✓						17
✓ <u>Matecumbe</u>				✓						18
* ✓ <u>Little Basin</u>				✓						19
✓ <u>Caribbee Caribbee Basin</u>				✓						20
✓ <u>Islamorada</u>	✓			✓		✓				21
✓ <u>Hawk Channel</u>	✓									22
✓ <u>Wilson Key</u>	✓			✓						23
✓ <u>Windley Key</u>	GNS			Windley Island						24
✓ <u>Snake Creek</u>	✓			✓						25
✓ <u>Plantation Key</u>	✓			✓						26
✓ <u>Windley Harbor</u>	GNS			✓						27

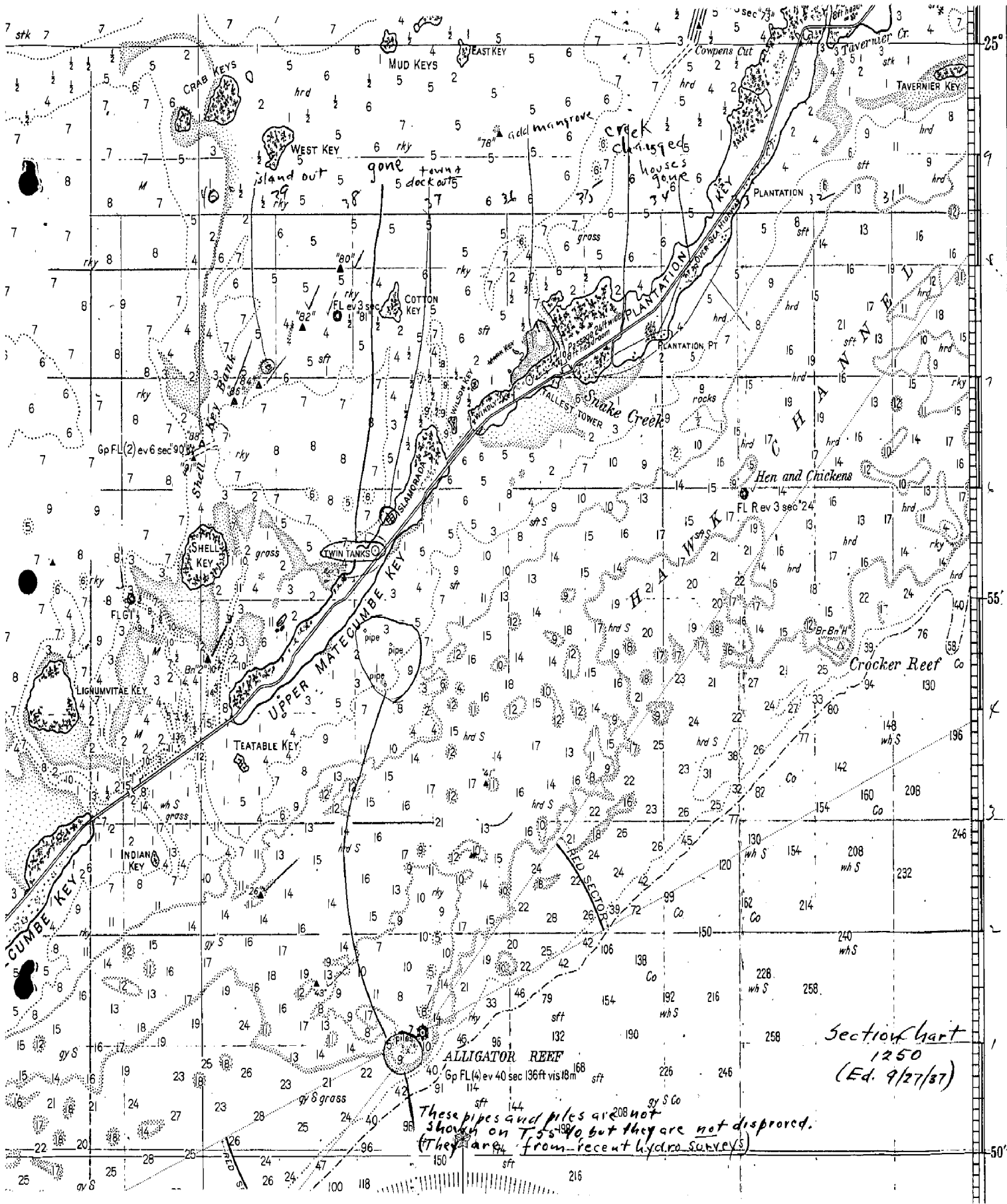
Remarks.

Decisions

1		
2		OK for Planimetric Map only
3		OK for planimetric Map only
4		See P.R.
5		
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GEOGRAPHIC NAMES
Survey No. T-5540

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.	
<u>Plantation Point</u>	✓			✓						1
Little Snake Creek										2
Central Supply				see S.R. 1 Pg. 5						3
(Mark Rex)										4
<u>Whale Harbor</u>				S.R. 1						5
<u>The Hole</u>				D.R. Pg. 8						6
										7
										8
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										21
										22
										23
										24
<div style="border: 1px solid black; padding: 5px;"> Names underlined in red approved by <u>STC</u> on <u>12/20/37</u> </div>										25
										26
										27



Section Chart
1250
(Ed. 9/27/87)

These pipes and piles are not shown on T. 55-180 but they are not disproved. (They are from recent hydro surveys)

✓
Applied to Chart Correction 1249 February 24, 1938 W.S. MacEwan

Applied to Chart Cor. 1250 March 18, 1938 W.S.M.