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U. S. COAST AND GEODETIC SURVEY

T. C. ...

D. State: *New York*

DESCRIPTIVE REPORT.

Hydrographic Sheets Nos. *2082, 2083, 2097, 2098, 2099*

LOCALITY

East End Long Island

1891

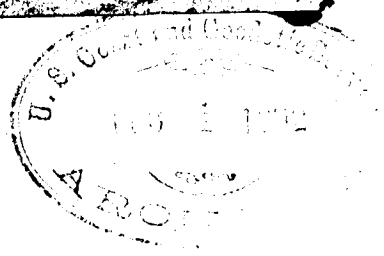
CHIEF OF PARTY

Lieut. W. P. Elliott, U.S.N.

Assistant in Charge

Division
State of New York

(7)





2083

COAST AND GEODETIC SURVEY
LIBRARY AND ARCHIVES

Diag. Cht. No. 1212-1

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

J. C. Mendenhall
Superintendent.

State: *New York*

DESCRIPTIVE REPORT.

Hyd^c Sheet No. 2083

LOCALITY:

East End Long Island

See SH 2082

2097

~~1891~~
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CHIEF OF PARTY:

Lieut. W. P. Elliott

2083

2097

COAST AND GEODETIC SURVEY
LIBRARY AND ARCHIVES

Diag. Cht. No. 1212-1 *See No.*

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

J. C. Mendenhall

Superintendent.

State: *New York*

DESCRIPTIVE REPORT.

Hyd C Sheet No *2097*

LOCALITY:

East End Long Island

See S.H.A. 2082

1891
190

CHIEF OF PARTY:

Lieut. W. P. Elliott

2097

2098

U.S. COAST AND GEODETIC SURVEY
LIBRARY AND ARCHIVES

Diag. Cht. No. 1212-1

Acc. No:

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

J C Mendenhall
Superintendent.

State: *New York*

DESCRIPTIVE REPORT.

Hyd 2 Sheet No *2098*

LOCALITY:

East End Long Island
See S.H.A. 2082

1891
190

CHIEF OF PARTY:

Lieut. W.P. Elliott

2098

2099

COAST AND GEODETIC SURVEY
LIBRARY AND ARCHIVES

Diag. Cht. No 1212-1

Doc. No.

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

J C Mendenhall
Superintendent.

State: *New York*

DESCRIPTIVE REPORT.

Hyd^e Sheet No 2099

LOCALITY:

Coast Land Long Island
See SHA 2082

1891
190

CHIEF OF PARTY:

Lieut. W. O. Elliott

2099

UNITED STATES COAST AND GEODETIC SURVEY,

WASHINGTON, D. C., JANUARY 14TH., 1892

DR. T. C. MENDENHALL,

SUPERINTENDENT U. S. COAST AND GEODETIC SURVEY,

WASHINGTON, D.C.

SIR: -

IN ACCORDANCE WITH THE CIRCULAR OF JULY 3RD., 1890, I HAVE THE HONOR TO SUBMIT MY REPORT OF THE WORK PERFORMED BY THE HYDROGRAPHIC PARTY UNDER MY COMMAND ON BOARD THE U. S. C. & G. SURVEY SCHR. "EAGLE", DURING THE SUMMER AND AUTUMN OF 1891.

YOUR INSTRUCTIONS AND DETAILED INSTRUCTIONS FROM THE HYDROGRAPHIC INSPECTOR WERE DATED MAY 19TH. - 20TH., AND IN OBEEDIENCE THERETO I LEFT THE NAVY YARD, NEW YORK, WITH THE SCHOONER AND STEAM LAUNCH NO. 23 ON JUNE 1ST. ARRIVING AT SAG HARBOR, N.Y., JUNE 4TH., WHEN THE FIELD WORK WAS AT ONCE BEGUN. THE SEASON'S WORK WAS CLOSED OCTOBER 16TH. AND THE PARTY ARRIVED AT NEW LONDON, CONN., THE SCHOONER AND LAUNCH ARE NOW IN WINTER QUARTERS AT THAT PLACE.

THE PARTY AS CONSTITUTED IN JUNE WAS AS FOLLOWS, VIZ: -

LIEUT. WM. P. ELLIOTT, U.S.N., CHIEF OF PARTY.

ENSIGN E. T. WITHERSPOON, U.S.N., OBSERVER AND BOAT OFFICER.

PAY. YEOMAN R. W. STEVENS, RECORDER AND OBSERVER.

SHIP'S WRITER WM. B. PROCTOR, " " "

SEAMAN WM. P. ELLINGSWORTH, " " TIDE OBSERVER.

" JAMES J. PUNCH, TIDE OBSERVER,

All communications should be forwarded under cover to the "Superintendent, U. S. Coast and Geodetic Survey, Washington, D. C."

AND THE PETTY OFFICERS, SEAMEN AND SERVANTS OF THE SCHOONER, IN ALL 22 PEOPLE.

LIEUTENANT MIERO TAYLOR, U.S.N., JOINED THE PARTY JULY 2ND., AND WAS ORDERED TO A NAVAL HOSPITAL FOR TREATMENT SEPTEMBER 7TH. THIS OFFICER WORKED WITH HIS WELL KNOWN ZEAL AND INTELLIGENCE AS FAR AS THE PRECARIOUS STATE OF HIS HEALTH ALLOWED. ENSIGN C. P. EATON, U.S.N., WAS ORDERED TO THE SURVEY AND REPORTED TO ME UNDER YOUR INSTRUCTIONS JUNE 23RD. HE SERVED THROUGHOUT THE SEASON AS BOAT OFFICER, OBSERVER, AND WAS THE DRAUGHTSMAN OF THE PARTY. HIS SERVICE HAS BEEN OF CREDIT TO HIMSELF AND GAVE ME GREAT SATISFACTION.

ENSIGN E. T. WITHERSPOON COULD BE DEPENDED ON TO DO ANY DUTY WITH ZEAL AND EFFICIENCY. PAY YEOMAN R. W. STEVENS HAD NO PREVIOUS KNOWLEDGE OF HIS DUTIES IN CONNECTION WITH THE SURVEY, BUT WAS ZEALOUS AND INTELLIGENT IN LEARNING HIS DUTIES AS A RECORDER AND OBSERVER. SHIP'S WRITER WM. B. PROCTOR PERFORMED HIS DUTIES AS RECORDER AND OBSERVER WITH ACCURACY AND ZEAL. THE COXWAINS, LEADSMEN, TIDE OBSERVERS AND THE ENLISTED MEN OF THE PARTY GENERALLY, ARE LARGELY OLD HANDS IN THE SURVEY AND IN THIS VESSEL, AND ARE RELIABLE AND FAITHFUL MEN.

THE DETAILED INSTRUCTIONS SENT ME PROVIDED FOR THE EXECUTION OF THE HYDROGRAPHY OF THE SOUTH SIDE OF SHELTER ISLAND SOUND, WITH NOYACK BAY, AND THE ENTRANCE TO LITTLE PONTO BAY; BUT AFTERWARDS THREE HYDROGRAPHIC SHEETS WERE ADDED TO COMPLETE THE WORK TO THE WESTERN EXTREMITY OF THESE WATERS. THAT PART OF THE WORK FIRST MENTIONED FORMS A PART OF CHART NO. 298, AND THIS PUBLICATION SHOULD BE OF GREAT VALUE TO A LARGE AND INCREASING BODY OF NAVIGATORS - THE YACHTSMEN WHO SO MUCH FREQUENT THESE WATERS; - IN ADDITION TO ITS

USE ON OUR NAVAL VESSELS - MANOEUVRING AND FIRING AT TARGET IN GARDINER'S BAY. MANY YACHTSMEN ARE DETERRED FROM USING THE PECONIC BAYS BY THE LACK OF A RECENT CHART, AND MY EXPERIENCE THIS SUMMER WAS THAT SOME OF THEM FOLLOWED THE LEAD OF A LARGE SCHOONER LIKE THE "EAGRE", AND VENTURED INTO THESE SPACIOUS BODIES OF WATER FOR THE FIRST TIME. I WAS ASKED MANY TIMES AS TO THE CHANNELS, BUOYS, ANCHORAGES, ETC., AND GENERALLY ANSWERED IN ACCORDANCE WITH SUGGESTIONS I HAVE TO MAKE IN THIS REPORT.

THE GENERAL LOCALITY OF THIS SURVEY IS SUFFICIENTLY WELL KNOWN, AND I WILL TAKE UP THE CHARACTER OF THE HARBORS, OR RATHER ANCHORAGES IN THIS LINE OF BAYS, WHICH MAY BE ALMOST CONSIDERED ONE GREAT HARBOR.

SAG HARBOR IS NOT A DESIRABLE ANCHORAGE IN ANY RESPECT, MY EXPERIENCE BEING THAT ABSOLUTE SAFETY IS ONLY TO BE HAD ALONGSIDE ONE OF THE WHARVES. THE LOWNESS OF THE PENINSULA, CALLED CEDAR POINT, AND THE GRADUAL WASTING OF CEDAR ISLAND ON WHICH THE LIGHT IS PLACED, COUPLED WITH THE FOUL BOTTOM OF THE ENTIRE HARBOR, MAKE IT VERY UNSAFE IN A NORTHEAST GALE. TWICE DURING THE SUMMER MONTHS THE "EAGRE" DRAGGED IN FRESH WINDS, ON ONE OCCASION PARTING A CHAIN AND BREAKING AN ANCHOR STOCK, AND AGAIN BREAKING THE STOCK OF THE HEAVIEST ANCHOR, AND I AM OF THE BELIEF THAT THE BOTTOM IS LARGELY OF ROCKS, OVERLAID WITH SOME SAND, BUT GENERALLY WITH GRASS AND OOZE FROM THE "COVE", WHICH TO THE LEADSMAN APPEARS LIKE A MUDDY BOTTOM. THE INNER HARBOR IS SO LIMITED IN SIZE THAT IT CAN NEVER BE OF GREAT IMPORTANCE, BUT THERE IS AN EFFORT BEING MADE TO INDUCE THE CONGRESS TO PROVIDE A BREAKWATER WHICH WOULD START FROM THE EASTERN PART OF THE TOWN, AND RUNNING OUT OVER THE SHOAL BANK AND BARE ROCK KNOWN AS GULL ISLAND, CURVE TO THE WESTWARD TOWARD THE "BAR" OR NARROW CHANNEL MARKED BY BUOY 14. A LIMITED AREA WITH 12 TO 13 FEET WOULD BE

FOUND SHELTERED BY THIS CONSTRUCTION BUT THE SHELTER WOULD BE PERFECT. THE SMALL FLEET OF VESSELS FOR HIRE TO PLEASURE PARTIES IN SUMMER, AND FOR FISHING AND DREDGING IN THE COLDER WEATHER, ARE NOW GENERALLY SENT TO SOME SAFER PLACE WHEN LAID UP. THERE IS LITTLE CARRYING TRADE FROM THIS POINT IN SAIL VESSELS AS THE CONTIGUOUS COUNTRY IS NOT HIGHLY PRODUCTIVE. ONE LARGE ESTABLISHMENT - A WATCH-CASE MANUFACTURING COMPANY - IS LOCATED AT SAG HARBOR, AND BESIDES COAL THERE IS LITTLE TO BE CARRIED - EXCEPT THE CLASS OF FREIGHT WHICH THE RAILWAY MONOPOLIZES. A LINE OF FINE STEAMERS MAKES DAILY TRIPS TO AND FROM NEW YORK DURING THE SUMMER MONTHS, AND TRI-WEEKLY TRIPS IN WINTER, CARRYING PASSENGERS AND FREIGHT, STOPPING AT SOUTHOLD, GREENPORT, THE TWO HOTEL LANDINGS ON SHELTER ISLAND, AND ORIENT, AND THE TRADE IS QUITE HEAVY, ESPECIALLY FROM THE PLACES ON THE NORTH PART OF SHELTER ISLAND SOUND IN THE VEGETABLE SEASON - GREAT QUANTITIES OF POTATOES, CABBAGE AND CAULIFLOWER BEING SHIPPED TO NEW YORK. FISH IS ALSO SENT IN LARGE QUANTITIES. TWO SMALL STEAMERS EACH MAKE DAILY TRIPS FROM NEW LONDON, CONN., TO SAG HARBOR DURING THE SUMMER MONTHS, MAKING SOME OR ALL OF THE LANDINGS NOTED ABOVE. ONE OF THESE STEAMERS IS KEPT ON THE LINE WITH TRI-WEEKLY TRIPS FOR ALL THE WINTER EXCEPT FEBRUARY AND PART OF MARCH. THEY CARRY SMALL CONSIGNMENTS OF FREIGHT, AND MANY PASSENGERS. IN COMMON WITH THE WHOLE NORTH AND SOUTH SHORE OF LONG ISLAND, SAG HARBOR IS LARGELY SUPPLIED BY THE LONG ISLAND R. R. CO. - BEING IN FACT THE TERMINUS OF THE MONTAUK DIVISION. THE STEAM FISHING BOATS THAT SCOUR THE COAST FROM MAINE TO CAPE MAY ALL THE SUMMER MONTHS DO NOT COME INTO SAG HARBOR OFTEN, ONLY ONE BEING FOUND AT THE WHARF DURING THE ENTIRE SUMMER, BUT THEY MAKE QUITE A HEADQUARTERS AT GREENPORT, AND FREQUENTLY GO UP THE BAY AS FAR AS ROBBINS ISLAND IN CHASE OF MENHADEN.

THE APPROACH TO SAG HARBOR ENTRANCE AS BY DIRECTIONS LAID DOWN IN THE COAST PILOT IS PERFECTLY PLAIN, BUT CARE SHOULD BE TAKEN TO KEEP AWAY FROM BUOY 4 AS A 12 FOOT SPOT IS FOUND 1000 YARDS SOUTH OF ITS PRESENT LOCATION, WHICH HAS NOT PREVIOUSLY BEEN CHARTED. A 13 FOOT SPOT IS FOUND 1-4 MILE N. BY E. FROM CEDAR ISLAND LIGHT. BY PASSING CLOSE TO THE LIGHT - SAY 1-8 OF A MILE - AND KEEPING CLOSE TO THE BLACK BUOYS, OVER 18 FEET CAN BE CARRIED UP TO BUOY NO. 12 - OUTSIDE THE INNER BAR OF SAG HARBOR. NINE OR TEN FEET CAN BE NOW CARRIED IN BY PASSING CLOSE TO BUOY 14 ON EITHER SIDE, AND ANCHORING OFF THE END OF THE OLD WHARF IN 13 FEET.

THE COMPLETION OF CHART 298 WILL SHOW CLEARLY THE EAST AND WEST CHANNELS THROUGH THE SOUND TO SOUTH FERRY. IF BOUND TO THE WESTWARD STRANGERS SHOULD GENERALLY TAKE THE EAST CHANNEL. IT IS SOMETIMES DESIRABLE, WITH FOUL TIDE AND S.W. WIND, TO TAKE THIS CHANNEL WHEN BOUND TO SAG HARBOR, AS A CROSSING CAN BE MADE OVER THE UPPER END OF THE MIDDLE GROUND, WHERE ^N SOUTH FERRY IS OPEN, OR AT NIGHT WHEN CEDAR ISLAND LIGHT OPENS OUT FOR THE THIRD TIME THROUGH THE OUTS ON MASHOMUOK POINT. AFTER CROSSING TO THE WEST CHANNEL, A SCANT WIND WITH FAIR TIDE LEADS ACROSS THE BAR. THE COURSE THROUGH SOUTH FERRY IS PLAIN FROM THE CHART, AND THE ONLY THING TO LOOK OUT FOR IS TO HAVE A FRESH BREEZE, OR A FAIR TIDE IF THE WIND IS LIGHT. SOME DIFFICULTY IS FOUND WITH A VESSEL THE SIZE OF THE "EAGLE" IN GETTING THROUGH AGAINST WIND AND TIDE, EVEN WITH A FRESH BREEZE. AN EXCELLENT ANCHORAGE AND SHELTER FROM EASTERLY BLOWS, INDEED IN ALL WEATHER, IS FOUND IN THE BIGHT NEAR DR. NICOLL'S HOUSE, (A CONSPICUOUS EDIFICE SEEN FROM THE SOUTHWARD,) IN 20 FEET OF WATER - STICKY BOTTOM.

NOYAOK BAY IS THE NAME GIVEN TO THE BEAUTIFUL SHEET OF WATER WEST OF

Nicola's on sheet

HOG NECK OR NORTH HAVEN, AND CAN BE NEARLY REACHED BY WATER FROM SAG HARBOR, AT THE END OF ONE ARM OF THE "COVE," THE SEPARATING BEACH BEING ONLY A FEW YARDS WIDE. IT AFFORDS EXCELLENT CRUISING GROUND FOR THE FLEET OF SMALL YACHTS FOUND IN THESE WATERS IN THE SUMMER TIME. NO SETTLEMENTS OTHER THAN SMALL SUMMER RESORTS ARE FOUND ON THIS OR LITTLE PECONIC BAY UNTIL NEW SUFFOLK IS REACHED. THE APPROACH TO THIS ANCHORAGE IS GENERALLY FROM THE SOUTHEAST. NATIVE SKIPPERS HOWEVER GO THROUGH FROM THE GREAT PECONIC BAY BY THE "NORTH RACE", AS IT IS LOCALLY CALLED - I.E. NORTH OF ROBBINS ISLAND. AFTER ROUNDING BUOY 12, THE EASTERN SHORE, OR LITTLE HOG NECK IS KEPT CLOSE ABOARD TILL NEARLY UP TO THE YELLOW BANKS [SAND AND CLAY] ON THE SAME SIDE, WHEN ONE CAN STAND IN TO THE WHARF CARRYING 14 FEET, CARE BEING TAKEN TO AVOID THE BANK AND LEDGE NORTH OF ROBBINS ISLAND. THE VILLAGE IS DOUBLED IN POPULATION IN SUMMER BY THE RESIDENCE OF VISITORS, BUT ITS NEEDS ARE GENERALLY SUPPLIED AND PRODUCE OF SURROUNDING COUNTRY CARRIED TO MARKET BY THE LONG ISLAND R. R. IN THE EARLY AUTUMN, ^{and winter} ALL SMALL VESSELS, A FLEET OF PERHAPS ONE HUNDRED, ARE ENGAGED IN DREDGING FOR SCOLLOPS.

JAMESPORT AT THE HEAD OF PECONIC BAY IS A PLACE OF LESS IMPORTANCE THAN ANY OTHER NOTED. IN APPROACHING IT CARE MUST BE TAKEN TO OPEN THE MAIN STREET OF THE VILLAGE FOR ITS LENGTH, OR BRING A DERRICK POST ON THE END OF THE WHARF ON RANGE WITH CUPOLA OF HOTEL BARN, AND THEN ABOUT 9 FEET AT HIGH TIDE CAN BE CARRIED IN TO AN ANCHORAGE IN 12 FEET INSIDE THE BAR. NOT MORE THAN 6 FEET CAN BE CARRIED TO THE WHARF, WHERE SMALL VESSELS LAND COAL AND CARRY AWAY WOOD, SCOLLOP SHELLS, FARM PRODUCE. BEYOND JAMESPORT THE CHANNEL IS TORTUOUS AND SHOAL, MERGING INTO THE PECONIC RIVER AT INDIAN ISLAND. THE CHANNEL TO RIVERHEAD IS ABOUT TWENTY FEET WIDE, HAS BEEN DUG OUT, AND IS STAKE

EVERY 25 FEET. TWO SMALL STEAM LAUNCHES OR YACHTS BELONG THERE, AND SCHOONERS MEASURING 150 TONS HAVE BEEN POLED AND WORKED UP THIS CHANNEL WHEN ALL CIRCUMSTANCES WERE FAVORABLE.

THE VILLAGE OF SOUTHPORT, NAMED ON OLD CHART, SHOULD BE OMITTED IN MY OPINION. THERE IS ONLY A FARM-HOUSE WITH ITS OUTBUILDINGS, AND IT HAS NEVER BEEN A POST-OFFICE, THE NEAREST ONE BEING GOOD GROUND ON THE RAILWAY ABOUT 3 MILES DISTANT. THE REFERENCE IN THE COAST PILOT WILL THEN DISAPPEAR. THE SHEET OF WATER IMMEDIATELY WEST OF THE SAND POINT REACHING OUT TOWARD JAMESPORT IS CALLED LOCALLY COW YARD BAY, AND IS EASILY REACHED BY VESSELS AFTER CROSSING JAMESPORT BAR AND A FINE ANCHORAGE IN FROM 10 TO 16 FEET IS FOUND.

CHANNEL DEPTHS IN THE VARIOUS PARTS OF THESE WATERS VARY GREATLY, BUT GENERALLY SPEAKING THE LEAST DEPTH IS FOUND IN THE SOUTH RACE SOUTH OF ROBBINS ISLAND. MENTION HAS ALREADY BEEN MADE OF THE CHANNEL AT SAG HARBOR ENTRANCE. THE USE OF THE LEAD IS NECESSARY HERE AS EVERY WHERE ELSE, BUT THE BUOYS ARE GENERALLY WELL ARRANGED, SOME OF THEM NEED SHIFTING A LITTLE. CHART 298, WITH THE PLOTTING OF THIS WORK ON CHART 118, WILL GIVE NAVIGATORS AN EXCELLENT GUIDE, AS IT IS BELIEVED THAT ALL DANGERS HAVE BEEN NOTED AS FOLLOWS:

NICHOLS POINT SHOAL BUOY [NO. 4] IS IMPROPERLY PLACED IN VIEW OF THE DISCOVERY OF THE 12 FOOT SPOT ABOUT 1-8 OF A MILE S. BY W. FROM THE PRESENT LOCATION OF THE BUOY. IF THE BUOY WERE MOVED THAT DISTANCE AND A LITTLE MORE ON THAT BEARING, IT WOULD KEEP VESSELS AWAY FROM THE ROCKS TO THE EASTWARD OF WHICH IT NOW LIES, JUST AS WELL AS IT DOES NOW. A 13 FOOT SPOT 3-8 OF A MILE N. BY E. FROM CEDAR ISLAND LIGHT CAN BE AVOIDED BY KEEPING NEAR THE ISLAND. THE LIGHT HOUSE CAN BE PASSED AS CLOSE AS 1-8 MILE, SO THAT LARGE VESSELS STANDING IN AGAINST A S.W. OR PREVAILING SUMMER WIND, CAN STAND IN

FOR THE LIGHT HOUSE TO THAT DISTANCE AND THE PORT TACK WILL CARRY THEM CLEAR OF THIS SHOAL, AND THE NEXT TACK WITH A FAIR TIDE SHOULD CARRY THEM WELL UP THE CHANNEL TOWARDS BUOY 5. BUOY 6 MARKS A ROCK WITH 4 FEET OF WATER ON IT. AFTER NICHOLS POINT IS SHUT OUT BY MASHOMUCK POINT, OR WHEN A LITTLE MORE THAN HALF WAY FROM BUOY 5 TO BUOY 7, IF DESIROUS OF GOING THROUGH THE EAST CHANNEL, THE MASHOMUCK SHORE CAN BE KEPT CLOSE USING THE LEAD, AS NO ROCKS ARE TO BE FOUND THERE. A DANGEROUS CLUMP OF THREE ROCKS IS LOCATED 1-3 OF A MILE N.N-E. OF THE BEACON SPINDLE AT PRESENT LOCATED ON THE SOUTHERN EXTREMITY OF THE MIDDLE GROUND. THIS DANGER MIGHT VERY WELL BE BUOYED OR A SPINDLE SET UP, AND I HAVE BEEN REQUESTED BY MANY OF THE LOCAL SKIPPERS TO RECOMMEND IT THROUGH THIS OFFICE. THIS WOULD BE OF GREAT VALUE TO THE FISHING STEAMERS WHO OFTEN RUN THROUGH HERE IN QUITE THICK WEATHER, AND HEAD RANGES ARE NOT VERY EASILY DISTINGUISHED. I NOTICED TWO YACHTS ASHORE THERE THIS SUMMER, AND ONE OWNER TOLD ME HE COULD NOT MAKE OUT THE ROCKS ON HIS CHART, AN OLD 115. REFERENCE TO THAT CHART SHOWS THAT HE SHOULD HAVE SEEN THE 4 FOOT SPOT AND^{Symbol} THE BLACK BUOY 13 NORTH OF GULL ISLAND SHOULD BE MOVED SOUTH 1-8 OF A MILE TO ACCORD WITH THE WISHES OF THE LOCAL SKIPPERS. IT IS SAID THAT NO. 14 WAS MOVED INTO MID-CHANNEL [WHERE IT NOW IS] BY SOME VESSEL FOULING ITS MOORINGS, AND HAS NEVER BEEN REPLACED ON THE WESTERN EDGE OF THE CHANNEL WHERE IT SHOULD BE, SAY 100 YARDS FROM WHERE IT NOW IS. SEVERAL SMALL YACHTS, THINKING THEY HAD ROOM TO THE EAST OF THIS BUOY, HAVE GIVEN IT TOO WIDE A BERTH AND HAVE GONE ASHORE IN 6 FEET TO THE S.E. OF THE BUOY. REFERENCE HAS BEEN MADE TO THE UNSAFE ANCHORAGE AT SAG HARBOR. IN STANDING UP ALONG THE SHORE OF HOG NECK IF UNFAMILIAR A FREE USE OF THE LEAD WILL KEEP THE VESSEL OFF THE MIDDLE GROUND. THE PASSAGE THROUGH SOUTH FERRY IS IN MID-CHANNEL AS NEAR AS POS-

SIBLE, FOR ROCKS ARE NOTED AT NORTHEAST AND SOUTHWEST CORNER OF THIS STRAIT. IF DRAWING OVER 7 FEET DO NOT ATTEMPT TO CROSS MORE THAN 3/8 OF A MILE TO NORTH OF BUOY 2 IN NOYACK BAY. A SPOT WITH 11 FEET, WITH DEEPER WATER ALL AROUND IT IS FOUND 1-3 OF A MILE S. BY W. FROM BUOY ¹² OFF HALLOOK'S OR PARADISE POINT. THE CHART WHEN COMPLETED WILL SHOW CLEARLY THE OUTLINES OF THE BANK TO THE SOUTH OF GREAT HOB NECK MARKED BY BUOY NO. ¹⁴ 10. IT IS HOPED THAT A WIDER AND DEEPER CHANNEL WILL SHOW IN THE SOUTH RACE LEADING INTO GREAT PECONEC BAY. THE NORTH RACE SHOULD NOT BE ATTEMPTED BY STRANGERS AS SEVERAL ROCKS AND SHOAL SPOTS ABOUND. NEW SUFFOLK OR CUTCHOGUE HARBOR SHOULD APPEAR AS A VERY MUCH CLEARER AND DEEPER HARBOR. I RESPECTFULLY RECOMMEND, AT THE SUGGESTION OF MANY PEOPLE OF NEW SUFFOLK ENGAGED IN MARINE PURSUITS, THAT THE LEDGE AND BANK NORTH AND EAST OF ROBBINS ISLAND BE MARKED WITH A BUOY WHERE THE SOUNDINGS OF THIS SURVEY INDICATE THE PROPER PLACE FOR IT. IT WILL BE A GREAT BENEFIT TO ALL IN THICK WEATHER, AND ALWAYS TO THE MANY AMATEUR SAILORS CRUISING ABOUT IN THE SUMMER. THE LARGE ROCK AWASH WHICH HAS NEVER BEEN LOCATED BEFORE SITUATED SOME DISTANCE OFF SHORE FROM THE HIGHEST POINT OF ROBBINS ISLAND TO THE S.W. SHOULD ALSO BE MARKED, AS THE DREDGERS OFTEN DRAG DOWN ON IT AT HIGH WATER AND DAMAGE THEIR GEAR. IT IS OF THE SAME SIZE AS THE LARGE BOULDER IN SIGHT ALL THE TIME INSHORE OF IT, AND OF "BLACKFISH ROCK" OFF NEW SUFFOLK IN A SOUTHERLY DIRECTION. I STRONGLY URGE THE NECESSITY OF THIS BUOY AS WELL AS THE ONE PREVIOUSLY SUGGESTED. THE BUOY NO. 16 AT JAMESPORT BAR HAS BEEN MOVED FROM ITS PROPER PLACE BY ICE, I AM INFORMED, AND HAS NEVER BEEN REPLACED. NOT KNOWING THAT IT WAS OUT OF POSITION, I RAN AGROUND IN MY FIRST ATTEMPT TO CROSS THE BAR DRAWING 8 FEET. IT SHOULD BE MOVED 200 FEET TO THE WESTWARD.

NO PILOTS ARE REGULARLY ENGAGED AS SUCH IN THESE WATERS. ALL THE

BOATMEN AND SKIPPERS OF VESSELS TRADING HERE ARE COMPETENT IN THAT CAPACITY, COMPULSORY FEES AND HARBOR REGULATIONS ARE NON-EXISTENT, AND NO TOW-BOAT CAN BE REACHED NEARER THAN NEW LONDON.

TIDAL CURRENTS GENERALLY SET FAIR WITH THE CHANNEL, THUS SWEEPING ACROSS MANH OF THE POINTS AND BARS WITH GREAT SWIFTNESS. IN SAG HARBOR ENTRANCE THE FLOOD CURRENT IS FAIR BUT BOTH CURRENTS SWEEP OUT OF SAG HARBOR ANCHORAGE, AS THE FLOOD COMES IN TO THE SOUTHWARD OF GULL ISLAND AND SWEEPS TO THE N-W. WHILE THE EBB CURRENT RUNS OUT OF THE COVE WITH CONSIDERABLE SWIFTNESS. IN SOUTH FERRY THE EDDIES ARE STRONG, AND A LARGE VESSEL SHOULD HAVE GOOD STEERAGE WAY OR BE READY TO ANCHOR. I ATTEMPTED TO BEAT THE SCHOONER THROUGH AGAINST THE TIDE, AND GOT AGROUND, AS THE INSHORE EDDY WAS SO STRONG THE VESSEL WOULD NOT TACK, BUT DRIFTED RIGHT ON SHORE. AT THE S. W. END OF SHELTER ISLAND, WHICH MAY BE CONSIDERED THE JUNCTION OF THREE STRAITS, TWO LEADING TO THE OCEAN THROUGH THE NORTH AND SOUTH BRANCHES OF SHELTER ISLAND SOUND, AND THE THIRD LEADING TO THE BAYS TO THE WESTWARD, THE TIDES ARE STRONG AND BAF-FLING IN DIRECTION. NO GENERAL RULE IS BETTER THAN THAT THERE IS A BACK EDDY NEAR THE SHORE IN EACH DIRECTION. ^{of the main current} A PART OF THE FLOOD CURRENT COMING THROUGH SOUTH FERRY BACKS UP TOWARDS HALLOCK'S POINT AT CERTAIN STAGES - AND AGAIN IT SEEMS TO COME FROM NORTH AND FROM EAST TO POUR THROUGH INTO THE PECONIC WITH GREAT STRENGTH. THE EBB CURRENT IS NOT FELT UNTIL UP TO BUOY 8 IN THAT CHANNEL, BUT RATHER SETS TO THE EASTWARD. NO OBSERVATIONS WERE MADE AS TO THE DURATION OF CURRENTS AFTER THE HIGH AND LOW WATERS.

THE ANCHORAGE AT GREENPORT, THE LARGEST TOWN IN THESE WATERS, IS FAR FROM GOOD. THE PRACTICABLE AREA FOR SMALL VESSELS IS LIMITED AS ANY WHERE OFF THE WHARVES THE WATER IS VERY DEEP AND HOLDING BAD. FROM THE MAIN

STREET WHARF TO THE END OF THE BREAKWATER CAN BE FOUND A VARYING DEPTH, BUT LARGE VESSELS MUST GO WELL DOWN TOWARDS THE BREAKWATER NOW COMPLETED, FOR SUFFICIENT DEPTH AND GOOD GROUND. ON THE SHELTER ISLAND SIDE, IN DERRINGS HARBOR, EXCELLENT ANCHORAGE FOR YACHTS IS FOUND, ALTHOUGH THE LARGER ONES GENERALLY ANCHOR NEAR THE EDGE OF THE MAIN CURRENT, AND GET A STRONG TIDAL EDDY.

THE RE-SURVEY OF THESE WATERS, AFTER SO MANY YEARS, SHOULD SHOW SOME CHANGES IN DEPTH, REFERRING ESPECIALLY TO THE CHANNELS AND STRAITS - ALTHOUGH NO POWERFUL CAUSES FOR CHANGE EXIST.

THE ORDINARY WINDS OF THE COAST PREVAIL, BUT THE SEVERITY OF N.E. STORMS IN AUTUMN AND WINTER IS NOTED IN SAG HARBOR. DURING THE OCTOBER GALE, THE EAGRE WAS TIED UP ALONGSIDE THE OLD WHARF AT SAG HARBOR, AND IT IS MY BELIEF THAT A WELL-FOUND VESSEL AT ANCHOR IN THE HARBOR AT THAT TIME WOULD HAVE PROBABLY DRAGGED ASHORE. ALL THE SMALL BOATS WERE THROWN ASHORE DURING THIS GALE, AND THEIR MOORINGS ARE GENERALLY STRONG IN PROPORTION TO THEIR SIZE. THE PROPOSED BREAKWATER WILL MAKE THIS A VERY SECURE ANCHORAGE FOR A SMALL FLEET OF SMALL VESSELS.

THE ABSENCE OF FOREIGN TRADE MAKES LOCAL QUARANTINE REGULATIONS UNNECESSARY, BUT THE GENERAL LAWS OF THE STATE OF NEW YORK APPLY AS TO SOUTHERN PORTS IN THE MONTHS WHEN DISEASES HAVE TO BE LOOKED FOR.

AT SAG HARBOR AND GREENPORT DEPUTY COLLECTORS OF CUSTOMS ARE STATIONED, AND A MEDICAL MAN IS EMPLOYED TO LOOK OUT FOR SEAMEN ENTITLED TO TREATMENT BY THE GOVERNMENT.

FRESH WATER CAN BE HAD IN ABUNDANCE AT EITHER WHARF IN GREENPORT OR SAG HARBOR FROM PIPES, AND AT GREENPORT YACHTS AND VESSELS ARE ALSO WATERED BY

BOAT. AT NEW SUFFOLK AND JAMESPORT WATER IS HAULED TO VESSELS AT THE WHARVES. COAL AND ALL SUPPLIES ARE KEPT IN THESE TOWNS; AND AT GREENPORT MARINE RAILWAYS AND MACHINE SHOPS AFFORD FACILITIES FOR REPAIRS OF ALL KINDS. A GOOD MANY VESSELS OWNED IN THE VICINITY ARE ENGAGED IN MISCELLANEOUS TRADE, ACCORDING TO THE SEASON OF THE YEAR.

NO STORM OR WEATHER SIGNALS ARE DISPLAYED IN THIS REGION, BUT THE AMPLE RAILWAY, TELEGRAPHIC AND TELEPHONIC COMMUNICATION WITH THE CITIES OF BROOKLYN AND NEW YORK KEEPS THE PEOPLE INFORMED AS TO WHAT IS GOING ON.

N O M E N C L A T U R E .

CONSIDERABLE CHANGES HAVE BEEN RENDERED NECESSARY IN MY OPINION IN THE NAMES AT PRESENT PRINTED ON THE CHART. THE NAME RUSSEL'S NECK ON THE SOUTHERN SHORE TO THE EASTWARD OF SAG HARBOR SEEMS TO BE LOST. I FOUND NO ONE WHO USED THAT NAME, BUT THE SHOAL BANK AND CONTIGUOUS PENINSULA ARE BOTH CALLED BARCELONA.

HOG NECK HAS BEEN CHANGED TO NORTH HAVEN, RATHER A MISNOMER FOR A PENINSULA, BUT IT HAS BEEN DONE BY THE PEOPLE OWNING THE PROPERTY AND THE TOWNS-PEOPLE OF SAG HARBOR.

HALLOCK'S POINT DOES NOT SEEM TO BE SO CALLED, BUT IS PARADISE POINT TO ALL THE PEOPLE OF THE VICINITY, WHILE THE NAME GREAT HOG NECK SEEMS TO BE CHANGING TO BAY VIEW. I CAN NOT QUOTE SO MUCH EVIDENCE FOR THIS LAST CHANGE, BUT I HAVE HEARD IT INVARIABLY SO CALLED BY THE PEOPLE OF SOUTHOLD AND THE VICINITY. LITTLE HOG NECK IS CALLED NASSAU POINT BY MANY PEOPLE, AND IS SO NAMED IN THE DETAILED TOWNSHIP MAPS OF LONG ISLAND AND SUFFOLK COUNTY. I CAN NOT FIND ANY REASON FOR RETAINING THE NAME CUTCHOGUE HARBOR. IT IS PROPERLY NEW SUFFOLK, AND THAT PART WHERE THE FORMER NAME IS NOW PRINT-

ED IS KNOWN LOCALLY AS THE "COVE". REFERENCE IS HERE MADE TO WHAT HAS BEEN SAID UNDER ANOTHER HEAD ABOUT SOUTHPORT.

TIDAL REDUCTIONS. - IN THE PROSECUTION OF THIS WORK THE PLANE OF MEAN LOW WATER AT GREENPORT IN 1882 WAS USED FOR THE REDUCTION, ALTHOUGH OTHER GAUGES WERE REFERRED TO. THE BENCH MARK AT GREENPORT WAS EASILY FOUND, AND A NEW GAUGE SET UP ON THE SAME NUMERICAL LEVEL OF FEET AS THE FORMER GAUGE. A COMPARISON OF HIGH AND LOW WATERS FOR A WEEK AT THIS GAUGE AND ONE AT SAG HARBOR WAS MADE, AND SHEET 2082 WAS THEN CORRECTED FROM THE LATTER GAUGE. AT THE NEXT GAUGE ESTABLISHED AN INDEPENDENT VALUE OF THE PLANE OF REFERENCE WAS FOUND FROM THE TIDAL HEIGHTS FOR A LUNAR MONTH, AND THE VALUE BY COMPARISON WITH GREENPORT WAS EXACTLY THE SAME. THE HYDROGRAPHY OF 2083, 2097, 2098 WAS ^{reduced from this gauge} ~~CORRECTED~~, AS THIS POINT, NEAR COREY'S CREEK, THE NORTH SHORE OF LITTLE PECONIC BAY WAS CONSIDERED LIKELY TO GIVE GOOD RESULTS IN THE CROSSING OF SOUNDINGS. SHEET 2099 WAS CORRECTED FROM A GAUGE AT JAMESPORT, THE PLANE OF MEAN LOW WATER ON WHICH WAS FOUND BY COMPARISON WITH THAT AT COREY'S CREEK.

IN ADDITION TO THE EXECUTION OF THE HYDROGRAPHY ON THE FIVE SHEETS ABOVE DISCUSSED, I WENT WITH MY PARTY TO THE VICINITY OF ACABANOCK HARBOR, OR "FIRE-PLACE", ON THE SOUTH SIDE OF GARDINER'S BAY, AND THOROUGHLY DISPROVED THE EXISTENCE OF A SHOAL SPOT WHICH APPEARED AS RESULTING FROM A FORMER SURVEY. IT IS CERTAIN THAT THE PLOTTED SOUNDING IN FEET SHOULD BE IN FATHOMS.

ON THE LAST DAY IN THE FIELD I MEASURED THE CUT WHICH HAS RECENTLY BEEN MADE IN THE NARROW NORTHERN END OF GARDINER'S ISLAND. I OCCUPIED THE NORTHERN END OF THE ISLAND PROPER, AND THE SOUTHERN END OF THE NEW INLET WHICH GARDINER'S POINT NOW MAKES. A DEPTH OF ONE FATHOM CAN BE CARRIED THROUGH THIS NEW CHANNEL, AND I JUDGE FROM THE SWIFTNES OF THE TIDAL CURRENT THAT

~~5/23/92~~

THIS CHANNEL WILL DEEPEN.

Very Respectfully
Wm. P. Elliott
Lieut. U.S.N. Asst. C.T.S.

Forwarded

S. M. Ackley Lt. Com'd'r, U. S. N.,
Hydrographic Inspector C. & G. Survey.

Schooner Eagle

Statistics of Field Work executed by

*Lieut W. P. Elliott, U.S.N.
Assistant C.T.S.*

Date of beginning field work.....

June 5-1891

Date of closing field work.....

Oct. 16 1891

RECONNAISSANCE:

Area of, in square statute miles

Lines of intervisibility determined as per sketch submitted.....

Number of points selected for scheme

BASE LINES:

Primary, length of.....

Secondary, length of.....

Beach measurements, length of.....

Number of days employed in measurements of base.....

Number of days employed in re-measurements.....

TRIANGULATION:

Area of, in square statute miles

Signal poles erected, number of.....

Observing tripods and scaffolds built, number of.....

Observing tripods and scaffolds built, heights of.....

Days occupied in opening and verifying lines of sight, number of.....

Stations occupied for horizontal measures, number of.....

Stations occupied for vertical measures, number of.....

Geographical positions determined, number of

Elevations determined trigonometrically, number of

GEODESIC LEVELING:

Elevations determined by spirit-leveling of precision, number of.....

Lines of geodesic leveling, length of.....

LATITUDE, LONGITUDE, AND AZIMUTH WORK:

Latitude stations occupied, number of

Pairs of stars observed for latitude, number of

Average number of observations on a pair.....

Longitude stations, telegraphic, number of.....

Longitude stations, telegraphic, number of nights on which signals were exchanged

Longitude stations, chronometric, etc., number of

Azimuth stations, number of.....

Number of nights of observations for azimuth

Number of stars observed for azimuth

Officers of Boats Season of 1891.-
East End Long Island.

Lieutenant Wm. P. Elliott, U.S.N. Comd'g

"Observers"

Lieutenant	Wm. P. Elliott	
"	Stiers Taylor	
Ensign	C. J. Eaton	6
"	E. J. Witherspoon	
Pay Geo	R. W. Stevens	
S. M.	W. B. Proctor	

"Recorders"

Pay Geo	R. W. Stevens	
S. M.	W. B. Proctor	3
Sea	W. S. Ellingworth	

"Coxswains"

S. M. M.	J. Caynor	
Com.	St. Alexander	3
S. M.	O. J. Johnson	

"Tidegangerman"

Sea	W. S. Ellingworth	2
	J. J. Puleh	

"Leademan"

S. M. M.	J. Caynor	
S. M.	O. J. Johnson	
"	W. Stargan	6
Sea	E. Tobiasseu	
"	H. Nelson	
"	H. Johnson	

Sheet I.

(1)

East End Long Island Shelter Island Sound So.

Date	Boat	Letter	Rough Journ.	Fair Journ.	Posn.	Angles	Sndgs.	Miles	Tide Book	Observers
June 10	Steam Launch	a	1	1	85	170	1432	17.50	1	W. P. Elliott, E. T. Witherspoon
" 11	"	b	1-2	1-2	106	212	1791	20.50	1	W. P. Elliott, E. T. Witherspoon
" 12	"	c	3	2	110	220	1848	22.50	1	W. P. Elliott, E. T. Witherspoon
" 13	"	d	3	3	179	258	1802	22.00	1	W. P. Elliott, E. T. Witherspoon
" 15	Whale Boat	a	11	9	138	276	1054	13.25	1	W. P. Elliott, E. T. Witherspoon, W. B. Proctor
" 16	"	b	12	9	55	110	957	5.75	1	E. T. Witherspoon, W. B. Proctor
" 17	"	c	12	10	29	58	450	3.00	1	E. T. Witherspoon, W. B. Proctor
" 22	Steam Launch	e	4	3-4	113	226	1660	18.00	1	W. P. Elliott, W. B. Proctor
" 23	"	f	4-5	4	110	220	1250	15.00	1	E. T. Witherspoon, W. B. Proctor
" 24	Whale Boat	d	12	10	57	114	806	5.00	1	E. T. Witherspoon, W. B. Proctor
" 25	"	e	13	10	58	116	1080	7.25	1	E. T. Witherspoon, W. B. Proctor
" 25	Steam Launch	g	5	4	65	130	925	10.50	1	E. T. Witherspoon, R. W. Stevens
" 26	Whale Boat	f	13-14	10-11	93	186	1733	10.00	1	E. T. Witherspoon, W. B. Proctor
" 29	Steam Launch	h	5	4-5	96	192	1256	15.00	2	E. T. Witherspoon, W. B. Proctor
" 30	"	i	6	5	48	96	657	6.75	2	E. T. Witherspoon, R. W. Stevens
" 30	Whale Boat	g	14	11	32	64	626	3.50	2	W. P. Elliott, W. B. Proctor
July 1	Steam Launch	j	6	5-6	137	274	1541	16.50	2	E. T. Witherspoon, R. W. Stevens
" 17	"	k	7	6	31	62	574	6.13	2	W. P. Elliott, E. T. Witherspoon
" 17	Whale Boat	h	15	11	40	80	673	6.00	2	W. P. Elliott, E. T. Witherspoon
" 25	Dinghy	a	17	13	30	60	115	—	2	E. T. Witherspoon
						3124	22230	224.13		

Date	Boat	Letter	Rough Journ.	Fair Journ.	Posn.	Angles	Sndgs.	Miles	Tide Book	Observers.
Brot ford						3124	22230	224.13		X X X X X X X X
July 25	Steam Launch	l	7	6	125	250	1520	16.00	2	W. P. Elliott, W. B. Proctor
" 27	"	m	8	6-7	74	148	852	10.00	2	W. P. Elliott, Hiero Taylor
" 27	Dinghy	b	17	13	17	34	134	2.00	2	W. P. Elliott, W. B. Proctor
" 27	Whale Boat	i	15-16	11-12	124	248	2094	13.50	2	E. T. Witherspoon, R. W. Stevens
Aug 19	"	j	16	12	51	102	1324	9.25	2	E. T. Witherspoon, W. B. Proctor
Aug 19	Steam Launch	n	8	7	96	192	1797	23.00	2	Hiero Taylor, C. P. Eaton
" 20	"	o	9	8	78	156	1093	14.00	2	C. P. Eaton, R. W. Stevens
Sept. 15	"	p	9	8	42	84	375	5.00	2	E. T. Witherspoon, R. W. Stevens
" 15	Whale Boat	k	16	12	21	42	223	2.50	2	C. P. Eaton, W. B. Proctor
" 16	"	l	16	13	35	70	589	4.25	2	E. T. Witherspoon, W. B. Proctor
" 16	Steam Launch	q	9	8	44	88	294	4.50	2	W. P. Elliott, R. W. Stevens
" 21	"	r	9	8	2	4	2	—	2	E. T. Witherspoon, W. B. Proctor
Oct. 14	"	s	10	8-2	98	196	1322	7.50	2	E. T. Witherspoon, R. W. Stevens
		30				4738	33849	335.63		

Sheet II

East End Long Island, Shelter Island Sound, So.

Date	Boat	Letter	Rough Journ.	Fair Journ.	Posn.	Angles	Sndgs.	Miles	Tide	Book	Observers.
July 13	Steam Launch	a	1	1	91	182	909	9.00	1		W. P. Elliott, W. B. Proctor.
" 21	"	b	1	1	59	118	796	8.25	2		E. T. Witherspoon, W. B. Proctor.
" 22	"	c	1-2	1	87	174	1140	10.00	2		Hiero Taylor, E. T. Witherspoon.
" 29	"	d	2	1-2	146	292	2200	25.50	2		Hiero Taylor, E. T. Witherspoon.
" 30	"	e	3	2-3	130	260	1977	26.70	2		W. P. Elliott, R. W. Stevens.
" 31	"	f	4	3	61	122	1100	14.00	2		Hiero Taylor, E. T. Witherspoon.
Aug 1	"	g	4	3-4	53	106	1053	11.50	2		Hiero Taylor, E. T. Witherspoon.
" 1	Whale Boat	a	10	8	37	74	920	4.75	2		C. P. Eaton, W. B. Proctor.
" 3	"	b	10-11	8-9	105	210	2345	14.50	2		C. P. Eaton, W. B. Proctor.
" 3	Steam Launch	h	4-5	4	139	278	1902	20.75	2		Hiero Taylor, E. T. Witherspoon.
" 18	"	i	6	4-5	59	118	982	9.50	3		C. P. Eaton, E. T. Witherspoon.
" 23	"	j	6	5	77	154	1274	16.25	3		Hiero Taylor, C. P. Eaton.
" 27	"	k	7	6	5	10	67	.50	3		Hiero Taylor, E. T. Witherspoon.
" 28	"	l	7	6	22	44	482	5.50	3		E. T. Witherspoon, R. W. Stevens.
" 29	"	m	7-8	6-7	141	282	2258	32.00	3		E. T. Witherspoon, R. W. Stevens.
Sept. 4	"	n	8	7	132	264	1521	20.50	4		E. T. Witherspoon, R. W. Stevens.
" 8	Whale Boat	e	11	9	38	76	995	6.75	4		C. P. Eaton, W. B. Proctor.
" 16	"	d	11	9	48	96	883	6.00	4		E. T. Witherspoon, W. B. Proctor.
" 11	Steam Launch	o	8-9	7	35	70	651	7.00	4		W. P. Elliott, R. W. Stevens.
		19	11	—	—	2080	23455	248.95			

Sheet III.

East End Long Island, Lit. Peconic Bay.

Date	Boat	Letter	Rough Journ.	Fair Journ.	Posn.	Angles	Sndgs.	Miles	Tide Book	Observers.
Aug. 8	Steam Launch	a	1	1	95	190	1293	8.00	3	W. P. Elliott, R. W. Stevens
" 9	"	b	1	1	59	118	1122	15.60	3	C. P. Eaton, R. W. Stevens
" 10	"	c	2	1-2	114	228	1522	20.00	3	Hiero Taylor, R. W. Stevens
" 11	"	d	2-3	2-3	144	288	2231	32.30	3	Hiero Taylor, E. T. Witherspoon
" 11	Whale Boat	a	11	8	51	102	1082	7.00	3	C. P. Eaton, R. W. Stevens
" 12	"	b	11	8	55	110	1236	7.50	3	C. P. Eaton, R. W. Stevens
" 12	Steam Launch	e	3	3	68	136	1188	18.50	3	Hiero Taylor, E. T. Witherspoon
" 13	"	f	4	3-4	98	196	1783	25.25	3	Hiero Taylor, E. T. Witherspoon
" 13	Whale Boat	e	12	8-9	91	182	1767	8.75	3	C. P. Eaton, R. W. Stevens
" 14	"	d	12-13	9	69	138	1190	7.00	3	C. P. Eaton, W. B. Proctor
" 14	Steam Launch	g	5	4	105	210	2058	29.00	3	Hiero Taylor, E. T. Witherspoon
" 25	"	h	6	4-5	114	228	1897	28.00	3	Hiero Taylor, E. T. Witherspoon
" 25	Whale Boat	e	13	9-10	94	188	1720	11.00	3	C. P. Eaton, W. B. Proctor
" 26	"	f	13	10	38	76	662	3.50	3	C. P. Eaton, R. W. Stevens
" 26	Steam Launch	i	7	5	145	290	1997	31.50	3	W. P. Elliott, E. T. Witherspoon
" 27	"	j	8	6	67	134	1081	16.50	3	Hiero Taylor, E. T. Witherspoon
" 27	Whale Boat	g	14	10	68	136	1623	6.50	3	C. P. Eaton, R. W. Stevens
Sept 4	Steam Launch	k	8	6	29	46	274	3.50	4	E. T. Witherspoon, R. W. Stevens
" 8	"	l	8-9	6-7	206	412	2294	32.75	4	E. T. Witherspoon, R. W. Stevens
" 8	Whale Boat	h	14-15	11	48	96	1083	7.75	4	C. P. Eaton, W. B. Proctor
" 9	"	i	15	11	116	232	2130	16.00	4	C. P. Eaton, W. B. Proctor
" 9	Steam Launch	m	9-10	17	130	260	1442	19.25	4	E. T. Witherspoon, R. W. Stevens
		22				3996	82675	355.15		

Sheet IV.

East End Long Island, Great Peconic Bay.

Date	Boat	Letter	Rough Journ.	Fair Journ.	Posn.	Angles	Sndgs.	Miles	Tide	Book	Observers.
Sept. 9	Steam Launch	a	1	1	74	148	1450	21.00	4		W.P. Elliott, R.W. Stevens
" 10	"	b	1-2	1-2	173	346	3017	50.00	4		W.P. Elliott, R.W. Stevens, W.B. Proctor
" 11	"	c	3	2-3	150	300	2497	38.75	4		W.P. Elliott, R.W. Stevens
" 11	Whale Boat	a	10	8	68	136	1281	10.00	4		C.P. Eaton, W.B. Proctor
" 12	"	b	10	8	63	126	1166	7.50	4		C.P. Eaton, W.B. Proctor
" 12	Steam Launch	d	4	3	76	152	1314	21.25	4		W.P. Elliott, E.T. Witherspoon
" 21	"	e	4-5	3-4	91	182	1646	25.00	4		E.T. Witherspoon, R.W. Stevens
" 22	"	f	5-6	4-5	142	284	2449	37.25	4		E.T. Witherspoon, R.W. Stevens
" 24	"	g	6	5	114	228	1981	29.75	4		E.T. Witherspoon, R.W. Stevens
" 24	Whale Boat	c	11	8-9	59	118	1272	8.80	4		C.P. Eaton, W.B. Proctor
" 28	"	d	11	9	52	104	1051	7.60	6		C.P. Eaton, W.B. Proctor
" 28	Steam Launch	h	7	5-6	77	154	1187	18.75	6		E.T. Witherspoon, R.W. Stevens
" 29	"	i	7-8	6	83	166	1554	29.00	6		W.P. Elliott, R.W. Stevens
" 30	"	j	8-9	6-7	140	280	2345	36.50	6		E.T. Witherspoon, R.W. Stevens
Oct. 1	"	k	9	7	49	98	856	13.25	6		E.T. Witherspoon, R.W. Stevens
" 1	Whale Boat	e	11-12	9	25	50	498	4.00	6		C.P. Eaton, W.B. Proctor
" 7	Steam Launch	l	9	7	27	54	178	3.00	—		E.T. Witherspoon, R.W. Stevens
		17				2926	25742	361.40			

Sheet V.

East End Long Island, Great Peconic Bay & River.

Date	Boat	Letter	Rough Journ	Fair Journ	Posn	Angles	Sndngs	Miles	Tide Book	Observers.
Sept. 28	Steam Launch	a	1	1	84	168	1263	18.75	1	E. T. Witherspoon, R. W. Stevens.
" 29	Whale Boat	a	5	4	59	118	1114	7.75	1	E. T. Witherspoon, W. B. Proctor
" 30	"	b	5-6	4-5	80	160	1769	13.20	1	C. P. Eaton, W. B. Proctor
Oct. 2	"	c	6	5	79	158	1455	9.75	1	C. P. Eaton, W. B. Proctor
" 2	Steam Launch	b	1-2	1-2	200	400	2610	41.50	1	E. T. Witherspoon, R. W. Stevens
" 3	"	c	2-3	2	112	224	1683	26.00	1	E. T. Witherspoon, R. W. Stevens
" 3	Whale Boat	d	6	5	15	30	219	1.75	1	C. P. Eaton, W. B. Proctor
" 5	"	e	6-7	5-6	102	204	2049	14.60	1	C. P. Eaton, W. B. Proctor
" 5	Steam Launch	d	3-4	2-3	168	337	2424	33.25	1	E. T. Witherspoon, R. W. Stevens
" 6	"	e	4	3	63	126	819	11.50	1	E. T. Witherspoon, R. W. Stevens
" 6	Whale Boat	f	7	6	38	76	910	6.50	1	C. P. Eaton, W. B. Proctor
						2001	16265	184.55		

Gardiner's Island Light.

Date	Boat	Letter	Rough Journ	Fair Journ	Posn	Angles	Sndgs.	Miles	Tide Book	Observers.
Sept. 3	Steam Launch		1	1	24	48	248	3.00	—	W.P. Elliott, E.T. Witherspoon
Oct. 16	"		1	1	11	22	128	2.50	—	E.T. Witherspoon, W.B. Proctor
						70	371	5.50		

U.S.C.S. Sbr. Eagle, Steam Launch 22, Whale Boat & Dinghy.
 Lieut W.P. Elliott, U.S.N., Chief of Party.

Season of 1891.

Locality & Sheet Number.	Month	Working Days	Boat	Letter	No. of Book	Angles	Soundings	Miles.
Shelter Island Sd., South, Sheet I.	June	9	Steam Launch	a.i.o.r.a.e.f.g.h.i.	1, 2, 3, 4, 5, 6	17 24	12621	147.75
"	"	7	W. Boat	a.b.c.d.e.f.g.	11, 12, 13, 14	9 24	6706	47.75
"	July	2	"	n.i.	15, 16	3 28	2767	19.50
"	"	4	Steam Launch	j.k.l.m.	6, 7	7 34	4487	48.63
"	"	2	Dinghy	w.b.	17	94	149	2.00
"	"	6	Steam Launch	a.b.c.d.e.f.g.	1, 2, 3, 4	1148	8122	93.45
"	Aug.	2	"	n.o.	8, 9	348	2890	37.00
"	"	1	W. Boat	j.	16	102	1324	9.25
"	"	2	"	a.i.b.	10, 11	284	3265	19.25
"	"	7	Steam Launch	g.h.i.j.k.l.m.	4, 5, 6, 7	992	8018	96.00
Little Peconic Bay	"	10	"	a.i.o.r.a.e.f.g.h.i.j.	1, 2, 3, 4, 5, 6, 7, 8	2018	16172	224.65
"	"	7	W. Boat	a.i.o.r.a.e.f.g.	11, 12, 13, 14	932	9280	51.25
Shelter Id. Sound, South, Sheet I	Sept.	2	"	k.l.	16	112	812	6.75
"	"	3	Steam Launch	p.q.r.	9, 10	176	671	9.50
"	"				9916	77284	812.73	

Locality & Sheet Number	Month	Work'd Days	Boat	Letter	No. of Book	Angles	Soundings	Miles
Brought Forward.								
Shelter Id. Sound, South, Sheet II.	Sept.	2	S. Ranche	n. o.	8-9	334	2172	27.50
" " " "	"	2	W. Boat	e, d.	11-	172	1878	12.75
Little Peconic Bay, Sheet III.	"	2	"	h, i.	14-15	328	3213	23.75
" " " "	"	3	S. Ranche	K, l, m.	8-9-10	718	4010	55.50
Great Peconic Bay, Sheet IV.	"	10	S. Ranche	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z.	22-40	19440	307.25	
" " " "	"	4	W. Boat	a, b, e, d.	10-11	484	4770	33.90
Great Peconic Bay + River " V.	"	1	S. Ranche	a.	1-	168	1263	18.75
" " " "	"	2	W. Boat	u, b.	5-6	278	2883	20.95
Gardiner's Island Sight.	"	1	S. Ranche	—	1	48	243	3.00
" " " "	Oct.	1	"	—	1	22	128	2.50
Shelter Id. Sound, South, Sheet I.	"	1	"	S.	10	196	1322	7.50
Great Peconic Bay, Sheet IV.	"	2	"	K, l.	9	152	1034	16.25
" " " "	"	1	W. Boat	e.	11-12	50	498	4.00
Great Peconic Bay + River. V.	"	4	"	e, d, e, f.	6-7	468	4633	32.60
" " " "	"	4	S. Ranche	b, e, d, e.	12, 3, 4,	1087	7486	112.25
						16661	132257	1491.18

Steam Launch No. 23.

(1)

Little & Great Peconic Bays,

East End Long Island, Shelter Island Sound, Noyack Bay.

Sheet	Date	Letter	Rough Journ.	Angles	Sndgs.	Miles	Observers.
1	June 10	a	1	170	1432	17.50	W. P. Elliott, E. T. Witherspoon
1	" 11	b	1-2	212	1791	20.50	W. P. Elliott, E. T. Witherspoon
1	" 12	c	3	220	1848	22.50	W. P. Elliott, E. T. Witherspoon
1	" 13	d	3	258	1802	22.00	W. P. Elliott, E. T. Witherspoon
1	" 22	e	4	226	1660	18.00	W. P. Elliott, W. B. Proctor
1	" 23	f	4.5	220	1250	15.00	E. T. Witherspoon, W. B. Proctor
1	" 25	g	5	130	925	10.50	E. T. Witherspoon, R. W. Stevens
1	" 29	h	5	192	1256	15.00	E. T. Witherspoon, W. B. Proctor
1	" 30	i	6	96	657	6.75	E. T. Witherspoon, R. W. Stevens
1	July 1	j	6	274	1541	16.50	E. T. Witherspoon, R. W. Stevens
2	" 13	a	1	182	909	9.00	W. P. Elliott, W. B. Proctor.
1	" 17	k	7	62	574	6.13	W. P. Elliott, E. T. Witherspoon
2	" 21	b	1	118	790	8.25	E. T. Witherspoon, W. B. Proctor
2	" 22	c	1-2	174	1140	10.00	Hiero Taylor, E. T. Witherspoon
1	" 25	l	7	250	1520	16.00	W. P. Elliott, W. B. Proctor
1	" 27	m	8	148	852	10.00	W. P. Elliott, Hiero Taylor
2	" 29	d	2	292	2200	25.50	Hiero Taylor, E. T. Witherspoon
2	" 30	e	3	260	1977	26.70	W. P. Elliott, R. W. Stevens
2	" 31	f	4	122	1100	14.00	Hiero Taylor, E. T. Witherspoon
				3606	25230	289.83	

Steam Launch No. 23.

(2.)

Sheet	Date	Letter	Rough Journ.	Angles	Sndgs.	Miles	Observers.
Bro't For'd.			3606	25230		289.83	x x x x x x x
2	Aug. 1	g	4	106	1053	11.50	Hiero Taylor, E.T. Witherspoon
2	" 3	h	4-5	278	1902	20.75	Hiero Taylor, E.T. Witherspoon
3	" 8	a	1	190	1293	8.00	W.P. Elliott, R.W. Stevens
3	" 9	b	1	118	1122	15.60	C.P. Eaton, R.W. Stevens
3	" 10	c	2	228	1522	20.00	Hiero Taylor, R.W. Stevens
3	" 11	d	2-3	288	2231	32.30	Hiero Taylor, E.T. Witherspoon
3	" 12	e	3	136	1188	18.50	Hiero Taylor, E.T. Witherspoon
3	" 13	f	4	196	1783	25.25	Hiero Taylor, E.T. Witherspoon
3	" 14	g	5	210	2058	29.00	Hiero Taylor, E.T. Witherspoon
2	" 18	i	6	118	982	9.50	C.P. Eaton, E.T. Witherspoon
1	" 19	n	8	192	1797	23.00	Hiero Taylor, C.P. Eaton
1	" 20	o	9	156	1093	14.00	C.P. Eaton, R.W. Stevens
2	" 23	j	6	154	1274	16.25	Hiero Taylor, C.P. Eaton
3	" 25	h	6	228	1897	28.00	Hiero Taylor, E.T. Witherspoon
3	" 26	i	7	290	1997	31.50	W.P. Elliott, E.T. Witherspoon
3	" 27	j	8	134	1081	16.50	Hiero Taylor, E.T. Witherspoon
2	" 27	k	7	10	67	.50	Hiero Taylor, E.T. Witherspoon
2	" 28	l	7	44	482	5.50	E.T. Witherspoon, R.W. Stevens
2	" 29	m	7	282	2258	32.00	E.T. Witherspoon, R.W. Stevens
G.I. Pt	Sept. 3	—	1	48	243	3.00	W.P. Elliott, E.T. Witherspoon
				7012	52553	650.48	

Steam Launch No. 23.

(3)

Sheet	Date	Letter	Rough Journ.	Angles	Sdgs.	Miles	Observers.
Bre't		Por'd		701 252553 650.48			X X X X X X X X
3	Sept 4	K	8	46	274	3.50	E. T. Witherspoon, R. W. Stevens
2	" 4	n	8	264	1521	20.50	E. T. Witherspoon, R. W. Stevens
3	" 8	l	8-9	412	2294	32.75	E. T. Witherspoon, R. W. Stevens
3	" 9	m	9-10	260	1442	19.25	E. T. Witherspoon, R. W. Stevens
4	" 9	d	1	148	1450	21.00	W. P. Elliott, R. W. Stevens
4	" 10	t	1-2	346	3017	50.00	W. P. Elliott, R. W. Stevens, W. B. Proctor
4	" 11	e	3	300	2497	38.75	W. P. Elliott, R. W. Stevens
4	" 12	d	4	152	1314	21.25	W. P. Elliott, E. T. Witherspoon
1	" 15	p	9	84	375	5.00	E. T. Witherspoon, R. W. Stevens
1	" 16	g	9	88	294	4.50	W. P. Elliott, R. W. Stevens
2	" 16	o	8-9	70	651	7.00	W. P. Elliott, R. W. Stevens
4	" 21	e	4-5	182	1646	25.00	E. T. Witherspoon, R. W. Stevens
1	" 21	r	9	4	2	00.00	E. T. Witherspoon, R. W. Stevens
4	" 22	f	5-6	284	2449	37.25	E. T. Witherspoon, R. W. Stevens
4	" 24	c	6	228	1981	29.75	E. T. Witherspoon, R. W. Stevens
4	" 28	v	7	154	1187	18.75	E. T. Witherspoon, R. W. Stevens
4	" 28	a	1	168	1263	18.75	E. T. Witherspoon, R. W. Stevens
4	" 29	i	7-8	166	1554	29.00	W. P. Elliott, R. W. Stevens
4	" 30	o	8-9	280	2345	36.50	E. T. Witherspoon, R. W. Stevens
4	Oct. 1	k	9	98	856	13.25	E. T. Witherspoon, R. W. Stevens
				10746 80965 1082.23			

Steam Launch No 23.

(4)

Sheet	Date	Letter	Rough Journ.	Angles	Sndgs.	Miles	Observers .
Bro't	For'd			10746	80965	1082.23	X X X X X X X X
5	Oct. 2	b	1-2	400	2610	41.50	E. T. Witherspoon, R. W. Stevens
5	" 3	c	2-3	224	1633	26.00	E. T. Witherspoon, R. W. Stevens.
5	" 5	d	3-4	337	2424	33.25	E. T. Witherspoon, R. W. Stevens
5	" 6	e	4	126	819	11.50	E. T. Witherspoon, R. W. Stevens
4	" 7	l	9	54	178	3.00	E. T. Witherspoon, R. W. Stevens
1	" 14	e	10	196	1322	7.50	E. T. Witherspoon, R. W. Stevens
G.I. Pt.	" 16	—	1	22	128	2.50	E. T. Witherspoon, W. B. Proctor
				12105	40070	1207.48	

Whale Boat.

(1)

Little & Great Peconic Bays,

East End Long Island, Shelter Island Sound, Noyack Bay.

Sheet	Date	Letter	Rough Journ. Angles	Sndgs.	Miles	Observers.
1	June 15.	a	11 276	1054	13.25	W.P. Elliott, E.T. Witherspoon, W. B. Proctor
1	" 16	b	12 110	957	5.75	E.T. Witherspoon, W. B. Proctor
1	" 17	c	12 58	450	3.00	E.T. Witherspoon, W. B. Proctor
1	" 24	d	12 114	806	5.00	E.T. Witherspoon, W. B. Proctor
1	" 25	e	13 116	1080	7.25	E.T. Witherspoon, W. B. Proctor
1	" 26	f	13-14 186	1733	10.00	E.T. Witherspoon, W. B. Proctor
1	" 30	g	14 64	626	3.50	W. P. Elliott, W. B. Proctor
1	July 17	h	15 80	673	6.00	W. P. Elliott, E. T. Witherspoon
1	" 27	i	15 248	2094	13.50	E. T. Witherspoon, R. W. Stevens
2	Aug. 1	a	10 74	920	4.75	C. P. Eaton, W. B. Proctor
2	" 3	b	10-11 210	2345	14.50	C. P. Eaton, W. B. Proctor
3	" 11	a	11 102	1082	7.00	C. P. Eaton, R. W. Stevens
3	" 12	b	11 110	1236	7.50	C. P. Eaton, R. W. Stevens
3	" 13	c	12 182	1767	8.75	C. P. Eaton, R. W. Stevens
3	" 14	d	12-13 138	1190	7.00	C. P. Eaton, W. B. Proctor
3	" 19	j	16 102	1324	9.25	E. T. Witherspoon, W. B. Proctor
3	" 25	e	13 188	1720	11.00	C. P. Eaton, W. B. Proctor
3	" 26	f	13 76	662	3.50	C. P. Eaton, R. W. Stevens
3	" 27	g	14 136	1623	6.50	C. P. Eaton, R. W. Stevens
			2570	23342	147.00	

Whale Boat.

(2)

Sheet	Date	Letter	Rough Journ.	Angles	Snags	Miles	Observers.
Bro't	For'd.			2570	23342	147.00	X X X X X X X X
2	Sept 8	c	11	76	995	6.75	C. P. Eaton, W. B. Proctor
3	" 8	h	14-15	96	1083	7.75	C. P. Eaton, W. B. Proctor
3	" 9	i	15	232	2130	16.00	C. P. Eaton, W. B. Proctor
4	" 11	a	10	136	1281	10.00	C. P. Eaton, W. B. Proctor
4	" 12	b	10	126	1166	7.50	C. P. Eaton, W. B. Proctor
1	" 15	K	16	42	223	2.50	C. P. Eaton, W. B. Proctor
1	" 16	l	16	70	589	4.25	E. T. Witherspoon, W. B. Proctor
2	" 16	d	11	96	883	6.00	E. T. Witherspoon, W. B. Proctor
4	" 24	e	11	118	1272	8.80	C. P. Eaton, W. B. Proctor
4	" 28	d	11	104	1051	7.60	C. P. Eaton, W. B. Proctor
5	" 29	a	5	118	1114	7.75	E. T. Witherspoon, W. B. Proctor
5	" 30	b	5-6	160	1769	18.20	C. P. Eaton, W. B. Proctor
4	Oct. 1	e	11-12	50	498	4.00	C. P. Eaton, W. B. Proctor
5	" 2	e	6	158	1455	9.75	C. P. Eaton, W. B. Proctor
5	" 3	d	6	30	219	1.75	C. P. Eaton, W. B. Proctor
5	" 5	e	6-7	204	2049	14.60	C. P. Eaton, W. B. Proctor
5	" 6	f	7	76	910	6.50	C. P. Eaton, W. B. Proctor
				4462	42029	281.70	

Dinghy.

Little & Great Peconic Bays,

East End Long Island, Shelter Island Sound, Noyack Bay.

Sheet	Date	Letter	Rough Journ	Angles	Sndgs	Miles	Observers.
	July 25	a	1	60	15	-	E. T. Witherspoon
	" 27	b	1	34	134	2.00	W. P. Elliott, W. B. Proctor
				94	149	2.00	