Tequesta

Key Biscayne Base Marker--1855

By ARVA MOORE PARKS*

In the spring of 1970 personnel from the Dade County Parks Department were in the process of clearing virgin land for a new county golf course in the northwest corner of Crandon Park. In May, the clang of a bulldozer blade against a large object caused bulldozer operator W. E. Reed to stop his work and investigate. He discovered a large granite "tombstone-like" object which was immediately reported to Dade County Party Chief John Giffen. John Giffen called in J. C. Frazier, Field Survey Supervisor of the Dade County Public Works Department, who not only had the technical knowledge for this type of investigation, but also a keen interest in the history of the area.

What the bulldozer hit was the capstone or top monument of Key Biscayne North Base Marker, which had been placed there by the U.S. Coast Survey team in 1855. It was a sixteen inch square, three foot high, 800 pound obelisk of light grey granite with carving on four sides. The carving read: "U.S. Coast Survey—A. D. Bache, Superintendent—North Base No. 7—1855." The overall impression was truly that of a high quality, professionally done tombstone.

Upon further investigation the base of the marker was discovered ten feet northeast of the cap stone. The base was a three foot square, twenty-eight inch thick, 3,000 pound slab of granite, the top of which was flush with the ground. In the center there was a copper plug about the size of a dime with a cross in it.

Naturally the men were amazed to find this tonnage of granite in a mangrove swamp hundreds of feet from the west shore of Key Biscayne. But fortunately, professional surveyors had been called in the beginning who not only appreciated what they had stumbled upon but had the knowledge to put it back together again.

After careful re-alignment, they poured a four by four inch reinforced concrete curb around the base of the cap stone in order to properly secure it to the base. A recovery note was sent to the U.S. Coast and Geodetic

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Survey who in 1945 after reconnaissance of the area, had last reported the monument "lost." Thus the U.S. Coast and Geodetic Survey had "found" one of its missing base markers and historians had a new lead to pursue in uncovering the early history of the area.

Because the Coast Survey was under the Federal Government, all records of this project were preserved in the National Archives. Therefore, a full investigation of the North Base Marker at Key Biscayne was possible.

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The U.S. Coast and Geodetic Survey began in 1807 when President Jefferson authorized a survey to be made of the coasts of the United States. In 1816 the first "Superintendent of Survey of the Coast," F. R. Hasler was appointed in the Treasury Department. Although the early years of the survey were marked by confusion and lack of funds, by 1836 it had become a well organized branch of the Treasury Department.[1]

In 1843, Professor Alexander Dallas Bache, great grandson of Benjamin Franklin, and well known in scientific circles was appointed Superintendent of the Coast Survey. Under his direction the undertaking assumed greater proportions and the practical value of the survey was thoroughly demonstrated.[2]

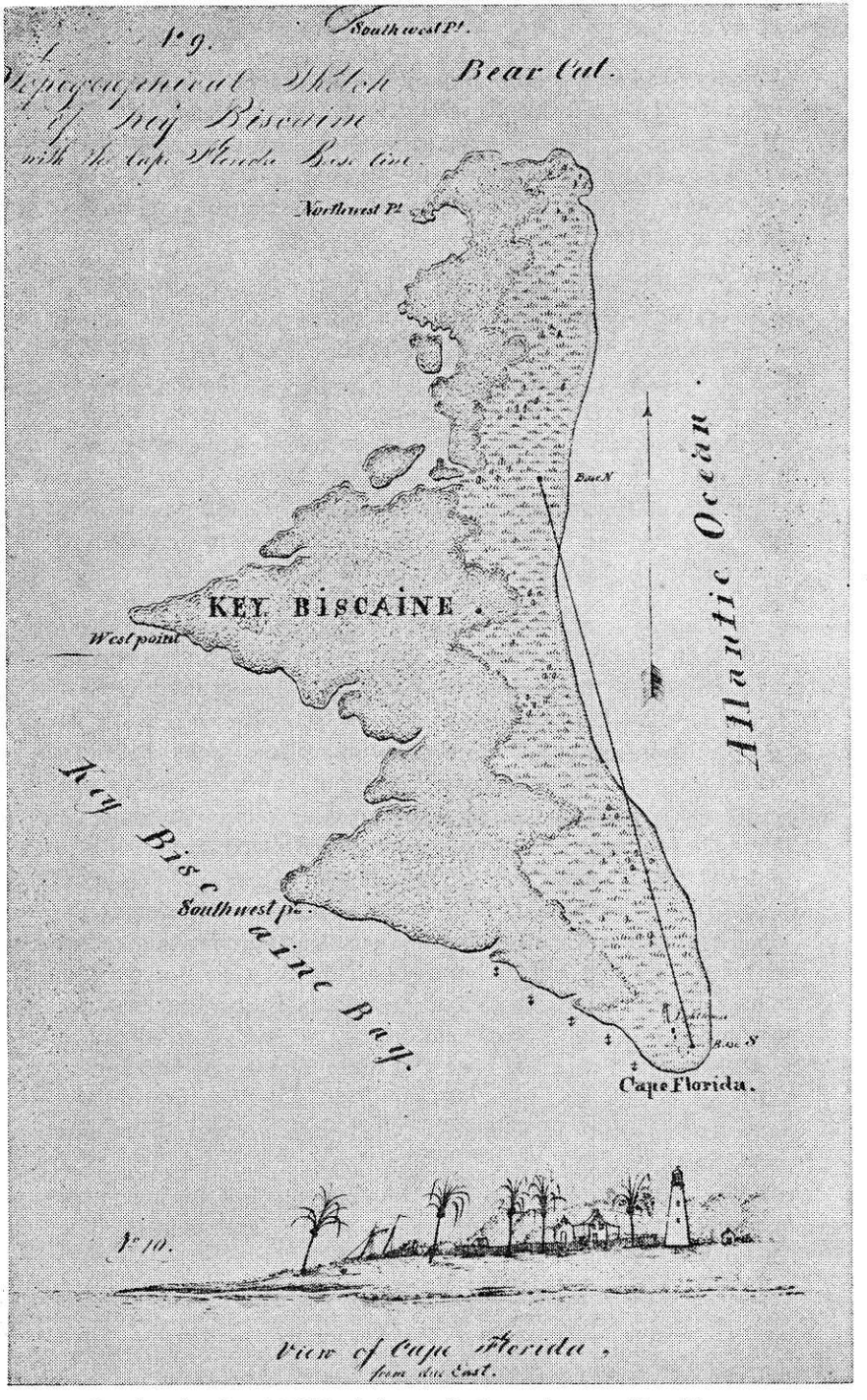
The Coast Survey was accomplished through triangulation. Triangulation consists of a system of connected triangles with all angles carefully observed, but with only an occasional length actually measured on the ground. Eeach measured length is known as a base. By use of these measured angles and bases the length of all other sides of the connected triangles may be computed by trigonometry. If the latitude and longitude of one point are known together with the azimuth to one of the other stations, the latitudes and longitudes of all other points and the azimuths of all other lines may also be derived.[3]

The first step in setting up the measurement of a base for triangulation is reconnaissance to determine the best location for such a base. The reconnaissance of the South Florida Coast was delayed by the Second Seminole War (1835-1842), when much of South Florida was threatened by the Seminole Indians. The uncharted "Great Florida Reef" was such a serious hazard to shipping that it became a priority item for triangulation as soon as practicable.

1"Registration of Record Group 23, Records of the Coast and Geodetic Survey," The National Archives, May 6, 1968. (Mimeographed.)

2Allen Johnson, ed., "Alexander Dallas Bache," *Dictionary of American Biography* (New York: Charles Scribner's Sons, 1928), pp. 461-62.

3U.S. Department of Commerce, *Horizontal Control Data,* Special Publications No. 227, 1961, p.1.



Gerdes sketch of 1851 of the preliminary base at Key Biscayne.

In January, 1849, Assistant Superintendent F. H. Gerdes began the reconnaissance of the Florida Keys and Reef from the head of "Key Biscayne Bay" to the Tortugas. His report included a description of the mainland, every key and a list of the most dangerous places on the reef. This early description provides an interesting and previously unpublished account of the area. He wrote:

> The Southern part of Florida as is well known consists chiefly of Everglades or vast and enormous water praries. The bottom of most places when I entered the Glades, had a rocky foundation and was covered only silghtly with soft soil, the thickness of which did not exceed 6 inches, apparently of an alluvial nature. The depth of water varied from 1 to 4 feet and the water was fresh drinkable and of a brownish color. Numerous hammocks or patches of elevated ground lay all over the Glades like islands in a bay; they are from 1 to 3 feet above the water, thickly covered with wood and exceedingly fertile.
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> Around the Everglades along the Atlantic Coast as well as on the branch of the Gulf towards the Florida Keys runs a belt of solid ground to the extent of 8 or 10 miles in bredth, [sic] bordering the Glades on the inside. It is generally thickly wooded, the soil is barren and stoney on some places rocky. Marshes extend for a few miles along the coast, and some hammocks and fertile spots are found at several projecting points. Among the latter the hunting grounds[4] occupy the first place. Here cultivation has very sparsely begun through the - - - - of the soil in sugar, rice, corn, limes, oranges and olives, etc. was very rich. On the Miami River are also some small plantations that seemed before the late Indian outbreak to thrive well. For 5 or 6 miles to the E. from Cape Sable the country is also very productive and here along is open and consists of well watered prarie land, intermixed with fine groves of trees. The stoney and barren tracts along the coast are covered chiefly with Pine growth, the ground in general is plentifully filled with arrow-root bushes called in this section by the Indian name of Coonty. This is a product, which is little used as yet, but which I presume will become in time a source of wealth to the land owners. The

[4]The "Hunting Grounds" usually referred to what today is considered South Dade and the term "Little Hunting Grounds" referred to the Coconut Grove area. At this time, however it referred to th entire mainland from South of the Miami River to South Dade. A. D. Bache, Supervisor. *Notes on the Coast of the United States* (Washington: 1861), Record Group 23, p. 64.

navigable streams from the Glades to the Bay of Florida with water power of generally 4 or 5 feet fall will facilitate the manufacturing of the article. It grows in very gerat abundance and is of an excellent quality, perfectly equal to the Bermuda Arrow-root, and can be delivered with large profits for ten cents per pound when the imported article sells here in the country for 60 or 75 cts.

Above Cape Florida there runs out of the Everglades into Key Biscayne Bay, a stream called the Boca Routes, and a few miles below the Little River, the Arch Creek and the Miami River fall into the same water all constantly discharging the contents of the glades into the bay. Some 10 or 13 miles below the Miami, near the Hunting grounds is Little Creek and further down another small stream without a name. From here to Cape Sable the shore is uninterrupted. I ran a line of levels along the Miami, which will show the fall and other features of the river and country.

The mainland of Florida above said cape (Cape Florida) runs down into a sharp point from the head of Key Biscayne Bay to Narrows Cut which separates it from Virginia Key, the most northern of the Florida Keys . . . This spit is in fact the first island itself, and ought to be counted as such. It is covered with wood, has a fine beach and is about 8 or 10 miles long and one half or one mile wide.

Virginia Key—about 3 miles long and 1 mile wide, a wooded area with a fine Atlantic beach; Southern passage called Bear Cut with 4 feet water.

Key Biscayne—Southern Point called Cape Florida, having a lighthouse, 5 miles long, from 1 to 2 wide, with a fine Atlantic beach and a strip of open land along side covered with palmettos, etc., the rest wooded. The Southern inlet (Key Biscayne inlet) has a swash channel over the reef with 10 ft. water. W. or S.W. of the island is an excellent anchorage and harbor. From here to the Miami 8 feet may be carried.[5]

After Gerdes completed his reconnaissance he selected two sites as the best location for a base to begin triangulation. One was at Cape Sable, and the other at Key Biscayne. In December, 1849 he began a preliminary

[5]"Extract from the Report of Assistant F. H. Gerdes to the Superintendent of the Coast Survey on the reconnaissance of the Florida Keys," 1850, Record Group 23, pp. 840-42.

clearing and measurement of the Cape Florida Base on Key Biscayne.

The South end of the base line was located near the tip of the key and was marked with crude stone monument, which consisted of five limestones cut ten inches square by twenty inches long. Two were laid underground, two others over the same nearly under the surface, and one on top. The top one had one exact point marked by a leaded bar firmly inserted in a drilled hole. A hill of earth was built up around the whole monument. It was also at this point that J. E. Hilgard, Gerdes' assistant, built a tripod and set up an astronomical and magnetic station to begin observations for latitude and azimuth and moon culminations for longitude.

The north point of the base was 3⅛ miles away and was marked by a coral screwpile inserted four or five feet deep in which a pole was inserted to serve as a signal. Much of the line was over water—probably to avoid clearing the land as much as possible.

From this base preliminary triangulation was begun. Forty-five signals were put up embracing all the points required from Bear Cut to the Miami River Southward to Card Sound. Seven stations were occupied, 210 angles (of six repetitions each) were measured with a six inch Gambey theodilite and twenty-seven stations were observed upon.[6]

On December 19, 1849 Gerdes wrote to Professor Bache to keep him abreast of his progress. In it he drew a sketch of the area in order to explain how he planned to set up signals on the reef for triangulation. Two names were mentioned on the mainland as a site where occupied signals would be constructed. "Beasley's" referred to the home site of Edmund D. Beasley, the first settler in what later became Coconut Grove, and "Dubose" to John Dubose the first lighthouse keeper at Cape Florida who returned to the area after the second Seminole War and lived near what was called "Elliot's Beach" which is in the present Gables Estates area.[7] Both of these men were probably those referred to in the reconnaissance report of 1849 who had cultivated land in the "Hunting Grounds."

All the work in 1849-50 was considered preliminary in nature with final measurement to come at a later date. But in the meantime this triangulation was used as the basis for all maps of the area. In the Superintendent's Report for 1850, Professor Bache urged that work on "one of the

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6"From the St. Mary's River to St. Joseph's Bay, Coast of Florida, and Including the Florida Reef and Keys," 1850, Record Group 23, pp. 183-98.

7Letter, L. H. Gerdes to A. D. Bache, December 19, 1849, "Coast Survey Correspondence with Civil Assistants, Extra Observers and Superintendents Party," Vol. 3, 1849, Record Group 23.

most important and dangerous parts of the United Coast"[8] be given priority status and a double appropriation, until the reef and keys were properly surveyed. In the previous five years over a million dollars worth of vessels and cargoes had been wrecked annually on this coast.[9]

In early 1851 Gerdes and party returned to Key Biscayne. He completed a topographical survey of Key Biscayne and made the decision to move the North Base marker to the north and west of the 1849 site. The 1849 South Base was retained because it was also being used as a magnetic station.

The new line commenced "from the South between the blacksmith shop of the lighthouse keeper and the lighthouse, leaving nine feet to the right and twelve feet to the left side and nowhere touches the thicket of wood to any considerable extent. The shore remains forty yards from the line . . . the soil in the site is sandy and generally more solid, than in other parts of the island. The northern terminus is a hammock of wood on a dry sandy patch about seventy-five yards from the shore line of N.W. Creek and nearly one-half mile from the signal N.W. point."[10]

A large scaffold was constructed at the South Base, range flags were placed in the palmettos and woods and all impediments to a line of sight were cleared. From this initial observation Gerdes decided that there were no obstacles that could not be overcome. It would not be easy, however, to cut through palmetto, "cabbage tree roots," about a mile of dense mangrove, twenty small hills and as many low places. Gerdes wrote that he "almost despaired . . . but in the face of all these objections there remained no alternative . . . this to be the only site on the key, but with perserverance . . . the line could be made a tolerable good one."[11]

Gerdes left for Key West in order to find some one to take a contract to effect the clearing.[12] He found Key West booming and because of this could find no one to take the contract for less than $1,000, which was twice as much as he had budgeted. He decided to hire day workers and superintendent the work himself.

8"From the St. Mary's River to St. Joseph's Bay," p. 183.

9*Ibid.*

10Letter, L. H. Gerdes to A. D. Bache, April, 1851, pp. 3-4. "Correspondence and Reports of Gerdes relating to the preparing, clearing, grading and ditching of the base line at Cape Florida," February-Aprli, 1851, Record Group 23.

11*Ibid.*, p. 5.

12According to the 1850 Census there were under a hundred residents in Dade County which at the time was almost four times its present size. Therefore, all labor had to come from Key West. (U.S. Department of Commerce, Bureau of the Census, *Seventh Census of the United States*, Dade County, Florida, 1850).

In late February Gerdes returned to the Cape with fourteen men who reluctantly began the tedious clearing—"a rather unknown and not very pleasant occupation to Key West laborers, who in fact are only acquainted with fishing and wrecking."[13]

One month later, the ten foot wide line through the wilderness was cleared. Hundreds of cords of palmetto roots were piled along the line and partially burnt. When the northern terminus was reached a screwpile was inserted by means of a capstan four feet deep and a "handsome" signal of thirty-six feet was erected with a red and white painted barrel in the socket.

The whole line was then carefully chained giving a distance of 5800 meters from signal to signal. It was ready for measurement, which Gerdes cautioned should take place as soon as possible because of the rapid tropical growth.[14] For the moment the whole line had the appearance of a "beautiful road running through brushwood."[15]

For some erason preparation for final measurement did not begin until late 1854. At this time Professor Bache sent a series of memoes to Mr. Gerdes to complete information for the forth coming measurement. From them a great deal of information about the area can be obtained.

Mr. Gerdes indicated that even though a narrow channel of eight feet existed to the south-east of the Cape, it would be foolish to attempt entry into the bay without a qualified pilot. There was no wharf on the key but good anchorage could be found on the lee side of the island near the tip. Here a suitable camp could be set up with little difficulty. If needed, two rooms were available at the keeper's house. He emphasized the importance of bringing mosquito nets for every man.

Gerdes wrote that water was available from the keeper's cistern or could be obtained from the "falls" of the Miami River. Wood was plentiful on the beaches or in the hammocks. Some vegetables and provisions could be obtained from the mainland. Fish, turtles and game were very plentiful in the area.[16]

It is interesting to note that Gerdes questioned the advisability of using the heavy granite monument at the North Base where the land was some-

13Letter, L. H. Gerdes to A. D. Bache, April, 1851, Record Group 23, p. 7.

14*Ibid.*, p. 9.

15"Remarks on the two Base Lines for the U.S. Coast Survey in Florida at Cape Florida and Cape Sable," 1851, Record Group 23, p. 239.

16"Correspondence, Reports, Sketches of Gerdes Relating to the Measurement of the Florida Bases at Cape Sable and Cape Florida," 1855, Record Group 23, p. 236.

what marshy. He believed the South Base location to be an excellent site for a heavy granite structure.[17]

In January, 1855, arrangements for the trip began. The schooner *Graham* was acquired in Baltimore and a small scow for landing equipment was put aboard. Arrangements were made to have the *Graham* fitted for sea as early as possible.

A month later the granite blocks for the Cape Florida base were placed on board the *Graham* as were four wagon loads of equipment—shovels, spades, grubbing hoes, medicine, pistols and supplies. Including the captain, Mr. Martin, and the men employed in Baltimore, nineteen hands were on board. The sail was delayed for a few days because of the extreme cold weather and ice in the dock. Finally, on February 22, the schooner *Graham* left for St. John's River, Florida to await further orders.

Meanwhile the base measurement apparatus was transferred to a railroad car in Portsmouth, N.H. and sent southward to Charleston where on March 7th it was transferred to a steamer heading for the St. John's River.

On March 11th all efforts came together at Mayport Mills on the St. John's. Thomas McDonnell, artificer and H. Prenot, mechanic arrived to help in the transfer of the base apparatus to the *Graham* which had arrived from Baltimore on March 2. Mr. Boutelle and Mr. Sullivan took up their quarters on board the schooner with Mr. Boutelle in charge of the operation.

After a tedious voyage the schooner made the Cape Florida Light at 1:00 A.M. on Friday, March 23. Two other schooners, the *Florida* and the *Joseph Henry* were already there. A pilot came out to bring the *Graham* around to safe anchorage.

Lieutenant James Totten, U.S.A., Assistant U.S. Coast Survey had arrived previously on the lighthouse schooner *Florida* and had already begun the clearing of the line. The 1851 line had been completely overgrown. By this time he had cleared only one and one-half miles so there was much work to be done. Mr. Boutelle was greatly concerned about the unusually long voyage from Mayport Mills which had delayed their arrival. Superintendent Bache himself was expected to arrive shortly to supervise the operation.

17"Remarks on the Two Base Lines," p. 240.

For the next week the men were busy clearing the line, making comparisons and generally setting up for Bache's arrival. Two days were almost lost when a "severe" storm interrupted the work. The day (April 1) following the storm the temperature dropped to 55° giving the men more discomfort.

During the unexpected storm the scow which contained the granite North Base Marker was swamped and almost sunk. Only quick action by the men saved it.

On Monday, April 2 Professor Bache and his wife, Mr. Fairman Rogers, volunteer aid from Philadelphia and others arrived on the steamer *Corwin* which anchored near Fowey Rock. Their baggage was brought ashore and they joined the others in the camp. The schooner *Bowditch* which accompanied the *Corwin* was brought around to the lee anchorage joining the three schooners already there.

By this time there were five large ships anchored off of Key Biscayne and over forty men and one woman in residence there. This undoubtedly was the largest contingent of civilians ever assembled in the area. In the next few days the revenue cutter *Sea Drift* arrived to join the group and the mail boat *Isabel* passed by on its monthly mail run.[18]

Professor Bache immediately took charge of the comparisons of the measuring bars with the standard.

The system of measuring by the U.S. Coast Survey at this time was a refinement of a very ancient method of determining long distances. The Egyptians had used lengths of rope which naturally stretched and shrank with varying humidity. The early Europeans had come up with the idea of rods of wood, well dried and tipped with metal which were used in pairs laid on the ground, butted one against the other and alternately leap-frogged ahead along a line. These rods were 16.5 feet long—variously called rods or perches and are still the basis of English land measurement, i.e. 320 rods = 5280 feet = 1 mile.

At this time the Gunters chain was in existence, it being made of 100 short links of wire totaling 66 feet or 4 rods. Its chief weakness lay in the fact that at each loop of the 100 links there was a point of friction and therefore it was subject to wear and consequent lengthening of the total chain after use over any length of time.

To overcome this weakness the Coast Survey had in effect dropped back to a more ancient method of measurement; namely tubes of metal, six meters long and tipped with agate to circumvent wear on the ends.

18"Key Biscayne Base. Abstract of Journal," 1855, Record Group 23, pp. 87-96.

Two of these tubes were used in the actual measurement but in order to keep control over their length, a standard bar was kept at the camp, carefully padded and protected in a long wooden box. A very stable bench or trestle was set up in camp and by a rather complicated set of clamps, mirrors and screws, a great number of comparisons were made between the standard and the tubes used in the field. Temperatures were vital to these comparisons as well as to the actual measurements in the field since the tubes, being made of metal, were subject to expansion and contraction.[19]

When the comparisons were completed the measuring apparatus was put on board the schooner *Bowditch* and taken to anchorage off the site of the North Base Marker. A path was cleared from the shore line to the site and preparation for setting the North Base Monument began.

A line was celared from signal to signal for a width of sixteen feet, eleven to the west of the chained line and five to the east. A four foot section, two feet on each side of the line was carefully grubbed and graded. On Monday, April 9, 1855 with chaining completed and the North Base Monument in place, measurement began.

The actual measurement began at the North Base and was in all respects a major operation. The tubes were laid on movable trestles, carefully butted one against the other, clamped and alternately moved forward down the line, each movement forward entailed moving rear trestle and tube forward. In addition to moving tubes and trestles, a straight line had to be maintained with an instrument, levels taken at each butting of the tubes and temperatures recorded for each tube length. When moving a tube forward extreme care was necessary to not bump the trestle or tube remaining in place or the whole operation was in trouble.

At breakfast and dinner time and at the end of a day's work, solid stakes were driven under the ends of the last three tube lengths to give three points to start the operation again. Under this system any accidents in operation would entail the loss of a half-day maximum.

In order to control the operation and get all men working as a team a quasi-military set of commands was devised by which all operations were done "by the numbers."[20]

Thirteen men were employed in the actual measurement of the base. Four men were tube bearers, four trestle and plate bearers, four assisting

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[20] *Ibid.*

[19] James C. Frazier, Field Survey Supervisor, Metropolitan Dade County, Public Works Department.

in the leveling and arranging of advance trestles and one keeping the plate frame in line and preparing the ground with a hoe for the plates.

The average workday began at 5:00 A.M. with a break for breakfast at abount 8:30 and "dinner" about 1:00 P.M. There was between seven and eight hours of work a day. The temperature ranged from a low of 55° to a high of 86°, the latter being described as "quite oppressive." At one point Mr. Boutelle succumbed to the heat and had to go back to camp to recover.

The topography of the island was carefully recorded as each day's measurement progressed. It consisted mostly of either sandy soil or low marsh. The vegetation on the path was almost exclusively dwarf palmetto, mangrove and sea grape—except for a few coconut trees surrounding the light keeper's dwelling that he had planted.

On Wednesday, April 18th at 5:45 P.M. the South Base signal was reached. Nine hundred sixty-five tubes had been used for a distance of 3.597 miles between the two points.[21] On the following day the South Base Monument was put into place. A detailed description of this procedure was recorded but there is no similar record for the North Base Monument. However, the two monuments were exactly alike so it can be assumed that the North Base Monument was put in place in the same manner.

After the South Base Mark was verified the old pieces of concrete that served as the old monument were removed and a hole dug six feet wide by two feet deep. With the old marker removed two sectors were carefully centered over the points in the copper bolts north and west of the line and a plumb line suspended from a movable tripod was made to coincide with the intersection of the lines of sight.

A hole about two feet deep was dug to receive the granite post that would mark the station below the surface. A half barrel was fixed in the hole and the five inch square twenty inch long granite post was placed in its center and the space around it filled with sand and rammed tight.

After this was set nine inches of sand were put on top of it to serve as support for the heavy granite blocks that would support the monument.

The existing scaffolding placed there was strengthened, a tackle rigged and the two heavy granite blocks were lowered into the bed of sand. Each stone was forty inches long, 38.5 inches wide and fifteen inches thick.

The next day when the stones had settled a hole was drilled and a copper bolt inserted thus marking the south end of the base. Upon the dressed

21"Key Biscayne Base. Abstract of Journal," pp. 100-108.

22"Key Biscayne Base. Setting of the Monument, South End," 1855, Record Group, 23, pp. 61-65.

surface of the upper stone they placed the pyramidal block.[22]

With most of the work completed at Key Biscayne many of the men left for the next order of business—the measurement of the Cape Sable Base. A few remained to finish marking the three mile posts of granite that were 2½ feet long and nine inches square, dressed down to a square of six inches on top.

The day the measurement was completed, the officers from Ft. Dallas, located on the north bank of the Miami River visited the scene. Before he left, Bache, Lieutenant Totten and Mr. Rogers visited "Miami"—presumably the garrison at Ft. Dallas.[23]

By Sunday, April 22, lighthouse keeper Dr. Fletcher and his family had the island back to themselves. One month later Charles Baron became lighthouse keeper and the Fletchers moved permanently to the south bank of the Miami River where Dr. Fletcher opened a store.[24] A short time later however, Lieutenant Totten returned to measure the angles resulting from the new base line.

It is somewhat ironic that Gerdes' warning about the inadvisability of the heavy granite marker at the North Base because of the unstable conditions of the ground could prove to be so incorrect. It was the site selection of the South Base Marker that proved to be a mistake. As early as 1883 when a coast survey team was again in the area for re-triangulation, the South Base Marker was already in three feet of water, three feet off shore. At this time the North Base Marker was still in good condition.[25]

The discovery of the North Base Marker has given South Florida another tangible piece of evidence to prove the considerable activity that did occur in the area before the coming of the railroad in 1896. Next to the lighthouse, the North Base Marker is the oldest documented man-made object in its original location in the Miami area.

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[23]"Key Biscayne Base. Abstract of Journal," pp. 109-110. Ft. Dallas which was established in 1836 was re-opened on January 3, 1855 because of the impending outbreak of war with the Seminoles for the third time. Scouting parties operated from Ft. Dallas before the tctual beginning of the war in December, 1855. (The initial period of occupation was 1836-41. It was briefly re-opened in 1849-50). At the same time the Coast Survey was taking place on Key Biscayne the troops at the Miami River were likewise engaged in feverish activity. Between February and July, 1855 the two stone buildings started by William English in the 1840's were completed by the Army. One of these buildings has been moved and is preserved in Miami's Lummus Park. (Letter, St. Lewis Morris to Quartermaster General U.S., Major General, Jesup, Washington, D.C., July 1, 1855, Record Group 698.)
July 1, 1855, Record Group 698.

[24]Mrs. A. C. Richards, "Reminiscences," circa 1903, Clippings. Dr. Fletcher and his family played an active role in the development of Miami in this era. Their home was located next to the present Miami Ave. bridge where they operated a store and boat to Key West.

[25]Letter, J. E. Hilgard, Superintendent to O. H. Tittman, Assistant, February 28, 1883, Record Group 23.

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