Wright Brothers National Memorial

An Administrative History

By

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FOREWORD

This report has been prepared to provide an historical background to Wright Brothers National Memorial as cited by RSP WRBR-H-1.

From the insular Outer Banks of 1903 and 1926 to the Hatteras National Seashore today, the development of this region has been greatly influenced by the National Park Service and the "changing times."

Those persons interested in or involved with Wright Brothers will find in this report an explanation of how the Memorial has grown and come to exist in its present state. Hopefully, the reader will gain a deeper appreciation for the directions in which the Memorial has developed and how these reflect its changing services to the people of the Outer Banks and to the nation.

I would like to express my gratitude to the great number of people who assisted me in the preparation of this report. Warm thanks are especially due to Mr. Edwin C. Bearss and Mrs. Lucy Wheeler, who guided me through the research; and also to Miss Mary Shipman, who typed the manuscript.

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Chapter 1

The contribution of the Wright Brothers to the development and present level of modern society can be put in terms of "the glory of air power" and "the shrinking of the globe." It can hardly be overstated. The original speed of one hundred twenty feet in twelve seconds has developed directly to the current prospect of "lunch in Paris, lunch in New York, lunch in San Francisco." For this is the air age as much as the age of any other field, and the laudatory compliments owed to the Wright's pioneering accomplishments are endless and as much realistic as sentimental.

"If it wasn't for the Wrights we wouldn't be flying today."¹ Be this as it may, the Wright Brothers contributed to "the inventive genius of man"² not only the first powered, heavier-than-air flight carrying a man on a horizontal plane, but they also gave to the world "scientific" facts and theories essential to heavier-than-air flying machines.

The opportunity to memorialize the "first flight" came in the middle 1920's. By this time the airplane had proven itself in the

² Ibid., p. 8.
First World War and as a means to bring the world closer together. The 1925 Air Mail Act, the establishment of the Army Air Corps in July 1926, and spectacular feats, such as the New York to Paris solo flight of Charles Lindbergh in the spring of 1927 which received the frenzied attention of the nation, helped establish the legacy of the "first flight."

The Wright's first flight had taken place near Kill Devil Hill, a large sand dune several miles south of Kitty Hawk, on the Outer Banks of Northeastern North Carolina. The Wrights had selected this area because it was barren--clear of obstructions for a potentially erratic glider or powered airplane; sandy--so that landings might be the least damaging; and, most important of all, as consistently windy as any other location available to the Wrights--an essential advantage in flying gliders and, as it later developed, a low-powered flying machine. The inhabitants of this barren, sandy, wind-blown area were primarily oriented towards the sea--fishing, boat-building, and, because of the off-shore barrier reef known as "the graveyard of the Atlantic," Coast Guard service. The attachment between the Banks and the Coast Guard has been a strong one, and men from the Kill Devil Hill Station of the Life-Saving Service (as the Coast Guard was called before 1915) helped the Wrights on numerous occasions, including their flights on December 17, 1903.

In the 1920's this area was continuing its traditional ways of fishing and Coast Guard service. Roads and bridges to the mainland
were nonexistent and travel was essentially by water. In contrast to the newly-arrived "air age" and much of the now-distorted image of the "roaring '20s," the Outer Banks were isolated and backward. Prosperity was for the big city folk.

One of the major "excitements" of the 1920's other than the airplane was real estate. The Florida land boom is now legendary, and was duplicated less successfully in other states, including North Carolina. Some land speculators, like Mr. Frank Stick of New Jersey, were from out-of-state and saw the tremendous beauty and land opportunities of the Outer Banks. Land values were very low and could only rise, but there were disadvantages--few roads, no bridges to the mainland, no electricity, and no special "drawing force." People wouldn't come to such a primitive area for scenic value alone.

Lindsay Carter Warren, born, raised, and still living in Washington, North Carolina, was elected United States Representative to Congress in the 1924 elections. A competent and apparently far-seeing man, Lindsay Warren was concerned with drawing the Outer Banks into the society and the economy of the nation. Congruent with this goal were "visions," as Mr. Warren called them, of creating a memorial to the Wrights at the site of their 1903 success and of eventually developing from this "a national park or a national monument." ³

There were, then, several major reasons why a memorial to the Wright Brothers could be, and was, considered. First, the United

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³. Ibid., p. 7.
States had attained a position of relative confidence and "identity." This could be seen in the American arts and sciences as well as in the economy, and this feeling had been primarily strengthened by United States performance in the First World War. The Wright Brothers were symbols of America's contribution to the world, perhaps more spectacularly so than any other Americans. A memorial to them would be only just gratitude on the part of a prospering and airplane-conscious nation. On a local level, a memorial to such pioneers, located on the site of their single most dramatic achievement--the first flight--would serve to stimulate bridge and road building to bring together the Outer Banks and the mainland, and to open up the area to the prosperity of the nation.
A DREAM BECOMES LAW

Chapter 2

In April 1926 Representative Warren drew up a bill for "the aviation memorial."
4 It was not, however, until the month of August that Warren was ready to have publicity on the matter. He had decided earlier to postpone action on the memorial to the Wright Brothers as he was engaged in "the Virginia Dare matter" and did not want publicity about a second, somewhat similar bill to confuse the first. Furthermore, he also wished to introduce the bill on the symbolic December 17.5

Thus, in August, Warren wrote to Orville Wright in order to be "privately assured of your interest in it, and secure from you all information possible."6 He also wrote to the National Aeronautics Association to request their support for the bill.

A letter to D. V. Meekins, a member of a group of Dare County residents which was concerned with marking historic sites in Dare, informed him that he could now way that it was Warren's intention to introduce the Wright Memorial bill if he saw fit to do so. "However," Warren continued, "I would let it rest with just that publicity and

4. Letter, Warren to Jonathan Daniels, (Elizabeth City, N. C.), Sept. 2, 1926. (3a)
5. Ibid.
no more at this time, as we will need it later on."\(^7\) At this
time also, Warren wrote to the Commandant of the United States
Coast Guard to inquire about conditions at the Coast Guard station
at Kill Devil Hill—the station which had assisted the Wrights in
transporting their planes and equipment. It had been reported to
Warren that conditions there were rather unsatisfactory, and Warren
wanted this corrected.\(^8\) As shall be seen, the poor conditions
existing at the Station later became an issue in the design of the
Wright memorial. Concerning the problem of a lack of roads to the
Banks, Warren wrote to North Carolina Assemblyman E. R. Johnson, of
Currituck, North Carolina:

> If Eastern North Carolina is to develop, then there
must be additional communication afforded. If the
members from the First District [Warren's] will
consult . . . and stand as a unit for additional
mileage, it would certainly exert a powerful influ-
ence. The Highway Commission has no right now to
add one inch to the present map . . . but the State
Highway Commission should be given the right to put
them on.\(^9\)

If pressure could not be brought upon the State Assembly, appropria-
tions for a road would not be forthcoming. It becomes clear at a
later date that a decision to build a road is largely dependent on
a decision to build a sizeable memorial to the Wrights. On the

\(^7\) Warren to D. V. Meekins (Elizabeth City), Aug. 24, 1926. (3a)

\(^8\) Warren to Admiral F. C. Billard, Commandant, U. S. Coast
Guard (Washington, D. C.), Aug. 27, 1926. (3a)

\(^9\) Warren to Hon. E. R. Johnson (Currituck, N. C.), Sept. 22, 1926.
(3a)
other hand, to obtain a sizeable memorial, proper access should either exist or be well beyond the planning stage.

On November 29 Lindsay Warren wrote a second letter to Orville Wright--the first had never been answered--saying that "the proposal has created a great deal of interest, and my idea has been to attempt something on a large scale in the form of a memorial." Warren was still vague as to what form such a memorial should take.

On December 17, 1926, the anniversary of the "first flight," Warren introduced his bill in the House of Representatives. The Bill was referred to the House Committee on the Library, and it called for a memorial to Orville and Wilbur Wright to be located at Kill Devil Hill, North Carolina, and for authorization of an appropriation of $50,000. This sum was "to be expended under the direction of the Secretary of War." Warren's bill provided for "a commission composed of the Secretaries of War and Navy and three citizens of the United States to be appointed by the President who will determine the type and form of the memorial." Warren's Bill was never reported out of committee, however, for Senator Hiram Bingham, of Connecticut, had coincidentally introduced a bill, very similar to Warren's, on the same day.

10. Warren to Orville Wright (Dayton, Ohio), Nov. 29, 1926. (3a)
12. Letter, Warren to Jonathan Daniels (Washington, D. C.), Sept. 2, 1926. (3a)
Hearing of this, Warren wrote:

I see that you today introduced in the Senate a bill for a memorial to the first successful air-plane flight made at Kitty Hawk, Dare County, North Carolina by Orville and Wilbur Wright on December 17th, 1903. It so happens that I introduced practically the same bill also today.

I am very glad to know of your interest, and I have quite a large file on the subject which I will be glad to place at your disposal.13

Senator Bingham was known as an "archeologist, historian, and statesman," and had been Governor of Connecticut and co-discoverer of Macchu Piccu, the "lost city" of the Incas in Peru.14 Bingham's bill provided for a commission composed of the Secretaries of War, of the Navy, and of Commerce to carry out the purposes of the Act.15 Secondly, the duty of the Commission was "to select a suitable location . . . which shall be as near as possible to the actual site of said flight; to acquire the land therefor; to superintend the erection of said monument; and to make all necessary and appropriate arrangements for the unveiling and dedication of the same when it shall have been completed." Third and last, appropriations were authorized for "such sum or sums as Congress may hereafter appropriate."

13. Letter, Warren to Sen. Hiram Bingham, December 17, 1926. (3a)
Warren was apparently very willing to go along with Bingham's bill rather than his own. The Senate had more prestige and, as it turned out, the Senate Bill was passed unanimously on January 10, 1927, long before the scheduled February 8 debate in the House on Warren's bill. In any case, the bills were not opposed to one another, and Warren's position with his constituents was not compromised. Warren's intention to not have his bill considered was made clear several days before a January 18 meeting of the House Committee on the Library. Warren suggested an amendment to include the name of Wilbur Wright--Bingham had not because Orville actually made the first flight. Warren also preferred Bingham's wording regarding appropriations as this would allow more leeway in deciding the cost and plans for a memorial.

The publicity that the proposed legislation received brought many responses. These included a suggestion from the Methodist parson of Kitty Hawk, the Reverend W. A. Betts, that a junior college dedicated to the memory of the Wrights be built instead of "a mere upstanding monument of stone upon the ground." A North Carolina Senator wrote Warren that he thought the suggestion "very impractical at this time," and the question was never seriously

16. Letter, Warren to Hon. A. L. Bulwinkle, Jan. 16, 1927. (3a)
17. The Daily Advance (Elizabeth City, N. C.), Jan. 7, 1927.
considered by anyone other than the Reverend Mr. Betts. Another concerned citizen, Mr. Frank Stick, of Asbury Park, New Jersey, sent a telegram to Warren in early January:

MY ASSOCIATES AND MYSELF GREATLY INTERESTED IN YOUR BILL FOR MONUMENT COMMEMORATING FIRST AEROPLANE FLIGHT. WE OWN KILL DEVIL HILLS TRACT AND WILL GLADLY DEED THESE HILLS AND ADJACENT LAND REQUIRED FOR MONUMENT AND RESERVATION TO GOVERNMENT WITHOUT COST.19

In general Warren's proposal was received favorably, and there was no serious opposition.

Meanwhile, the House Library Committee had suggested that the Fine Arts Commission--a commission established by Congress and composed of various experts who were to decide on matters concerning aesthetics and the fine arts--be given supervisory authority over the design selected by the Secretarial commission. In response to this suggestion, Warren agreed and, in the same letter, answered very simply the Committee's question of "the remoteness and isolation" of Kitty Hawk . . . "I think that a historic occasion should be commemorated at the place where it occurred."20 He went on to explain that the state of North Carolina, in an attempt to correct the problem of access, was considering a bill to erect a bridge from Kitty Hawk to the mainland, and re-emphasized the necessity for the bill to pass at that session of Congress in order that

19. Telegram, Frank Stick (Asbury Park, N. J.) to Warren, January 5, 1927. (3a)

20. Letter, Warren to Hon. Robert Luce (Chairman, House Committee on the Library), Jan. 31, 1927. (3a)
the memorial might be dedicated in December 1928, the 25th anniversary of the 1903 flight.

On February 3 Warren was visited by "a member" of the Library Committee to ascertain if Warren would be interested in amending Bingham's bill "so as to provide for a small marker." Warren strongly rejected this, and immediately wrote Bingham that "I need your help at this stage very much." Warren felt that the cause of this startling suggestion by the Committee was not so much opposition to the bill per se as it was that "the House Committee is very jealous of its functions" concerning Senate bills which are similar to those originating in the House.

The following day, the 4th, the Bingham bill was reported—without amendments—to the House. Before the vote on the 21st, however, the following had been added to the original bill: that "... and Wilbur Wright" be added, and that "the design and plans ... shall be subject to the approval of the Commission of Fine Arts and the Joint Committee on the Library." The Chairman of the Committee reported:

The proposal of this [latter] amendment has in view two things: First, that there may be assurance as to the artistic quality of the monument, and secondly, that the legislative branch may have some part in the matter of contemplated expenditure before the plans for the work have proceeded so far as to make modification difficult.

22. Ibid.
23. 69 Cong., 2 Sess., S. 4876, 68-3003, (December 17, 1926).
This amendment, instigated by the Library Committee, was not objectionable to Bingham or Warren, and Warren was able to write to Bingham on the 8th of February that he had given a speech in the House regarding the bill, and that the bill had been placed on the House Unanimous Consent Calendar for February 21.

The House vote on the 21st carried, and the Senate concurred the following day with the two amendments.

It was only at this point that the Secretary of War, Dwight F. Davis, wrote that he had no objection to serving on the Memorial Committee to carry out the responsibilities of the Act. On March 2 President Calvin Coolidge signed the Act "For the erection of a memorial in commemoration of the first successful attempt in all history at power-driven airplane flight." 27


26. Letter, Warren to Bingham, Feb. 8, 1927. (3a)

Chapter 3

The Secretaries of War, Navy, and Commerce were respectively, Dwight F. Davis, Curtis D. Wilbur, and Herbert Hoover, the chairman. Almost immediately, Hoover's assistant wrote Warren that Hoover had suggested the three secretaries appoint their assistants-in-charge-of-aeronautics to assume charge of the Commission. Nonetheless, Secretary Hoover made a personal inspection tour of the Kill Devil Hills area immediately thereafter, accompanied by the Assistant Secretary of Commerce for Aeronautics, William P. MacCracken, Jr., and others. Upon their return, MacCracken wrote Warren, "It occurs to me that a marine light, which could also be used as an airways beacon, with a Coast Guard station as its base, would be a very appropriate and useful memorial." This was Hoover's idea, based upon the belief that the assistance to the Wrights by members of the Kill Devil Hills Life-Saving Station--now in very poor condition--should be rendered the government's gratitude. Furthermore, Hoover stated that he would be opposed to

28. Letter, George Akerson (Assistant to Secretary Hoover) to Warren, March 23, 1927. (3a)

29. Letter, Wm. P. MacCracken (Asst. Sec'y of Commerce for Aeronautics) to Warren, March 30, 1927. (3a)
"dumping a quarter of a million dollars of public money on a
sand dune where only a few neighborhood natives would see it." 30

The issue of accessibility was a primary stimulus of opposition
to a sizeable memorial. It was necessary for Warren to lessen
anxiety about inaccessibility as strongly and as quickly as
possible, and by June 20 he was able to write the Committee that
he and North Carolina agencies "are reclaiming Kitty Hawk from its
inaccessibility, and that if anything is placed there as a memorial
which is worthwhile, it will be within easy access." 31 There was
at that time regular ferry service from Point Harbor (on the
mainland) to Kitty Hawk, plans to construct a road from Kitty Hawk
to Nags Head (ten miles to the South), and a bill pending for a
bridge to replace the above-mentioned ferry. 32

Warren was in favor of the suggestion to have a combined
Coast Guard Station, tower, and beacon, 33 as the Coast Guard
station then existing at Kill Devil Hills was "one of the most
dilapidated on the coast and . . . it will be several years
before a new one can be secured." 34 Warren was anxious to serve
his constituents as best he could, and improved living conditions

30. The Independent (Elizabeth city, N.C.), Nov. 18, 1932.
31. Letter, Warren to Akerson (For the Commission), June 20,
1927. (3a)
32. Letter, Warren to Luce January 31, 1927. (3a)
33. Letter, Warren to William O. Saunders, June 22, 1927. (3a)
34. Ibid.
at this Station were an essential service. By September the beacon proposal was still as tentative as it had been in late March, \(^{35}\) for Bingham had been in the Orient from June until that month, and the Commission had not wanted to proceed without his personal views.

In the meantime, there had been a contest held by W. O. Saunders' Elizabeth City weekly, The Independent, and such names at the "Wright Memorial Beacon" had been suggested. Warren had selected the thirteen most satisfactory to him, but added, "I like none of them." \(^{36}\) He also pointed out that a name could not be chosen as "we don't know whether it will be a light or a shaft or something else." \(^{37}\)

The long wait for Bingham's return may have been an important stimulus to the Kill Devil Hills Memorial Association. This association--the name had been selected, according to Saunders, "because of a lack of a better one, and because it is an unusual type and would attract attention" \(^{38}\)--was organized to insure a proper memorialization of the Wrights and of their first flight. According to The Daily Advance of August 5, 1927, the slogan of

\[^{35}\text{Letter, Bingham to Warren, September 27, 1927. (3a)}\]
\[^{36}\text{Letter, Warren to Saunders, June 22, 1927. (3a)}\]
\[^{37}\text{Ibid.}\]
\[^{38}\text{The Daily Advance, Nov. 18, 1932.}\]
the Association was to "Build the last link from Murphy to Manteo"; the purpose was "to give the world a ready opportunity to visit the Nation's twin Shrines thus to be made accessible to motorists--Kill Devil Hills . . . and old Fort Raleigh." 39

The formal organizational meeting took place August 16, and The Independent reported that forty-six people joined the Association at that meeting. 40 The Independent's editor, William O. Saunders, who may have given the original idea of a marker to the Wrights to Lindsay Warren, was the first President of the Association. He looked upon the immediate function of the Association as a pressure group to provide for a road, and thus, an outstanding memorial. "Make Kill Devil Hills accessible," he proclaimed, "and it will mean the erection of one of the most impressive memorials in America." 41

In August numerous letters were sent to men whose names were "household words," asking them to serve on the honorary Advisory Council of the Association. The backing of dozens of such men would provide tremendous pressure on the State of North Carolina to build the bridge to Kitty Hawk and a road South from there, and would also independently affect the decision as to form and expense of the Wright memorial. Publicity played a large part in these plans.

40. The Independent, August 19, 1927.
41. The Daily Advance, August 5, 1927.
Saunders often wrote letters to Warren such as the following:

Copies of the Bingham, Dawes, Roosevelt letters (of acceptance to the Advisory Council) received. Great work. I shall play Senator Bingham in the headlines of my paper next week and save Dawes and Roosevelt for the next week. At an early date I shall go to the Associated Press with a big story about the association and its personnel.”42

Secretary Hoover was on the Advisory Council, as was the Chairman of the North Carolina State Highway Commission. Col. Charles A. Lindbergh, after his flight to Paris in April of that year, joined only this organization in his moment of glory. Names such as Commander Richard E. Byrd, General John J. Pershing, Edsel Ford, Robert Luce, Alfred E. Smith, Joseph Pulitzer, William Randolph Hearst, Cecil B. DeMille, and Harry Guggenheim stood on the Advisory Council.43 The movement for access to Kill Devil Hills and for a memorial monument was backed by powerful national support. Representative Fiorello LaGuardia of New York stated, in accepting a place on the Advisory Council, "The monument at Kitty Hawk should compare favorably in artistic design and dimensions to that of the Statue of Liberty in New York Harbor, to the monument to Frederick the Great at Berlin, the Victor Emanuel Memorial in Rome, or the Waterloo Monument in Berlin, [sic] or even the pyramids in Egypt."44

By the end of September, Hoover too felt the spirit of interest, and expressed his sentiments to Warren about the future of the

42. Letter, Saunders to Warren, Sept. 18, 1927. (3a)

43. Letterhead, Kill Devil Hills Memorial Association (Elizabeth City), Letter of December 12, 1927. (3a)

44. The Independent, Oct. 7, 1927.
memorial—"I am convinced that the time has come when a distinguished
memorial should be erected to this most notable event." This was
to say—a distinguished Coast Guard Station. The time had passed
when a "suitable marker" would be deemed sufficient. Hoover con-
tinued, "As you [Warren] probably know, by virtue of an act of
Congress I am a member of the commission making a report on the
subject and have visited the locality." Whether Hoover was simply
being formal in addressing this basic information concerning his
relation to the memorial to a man who had initiated it would be
difficult to determine. In any case, it could probably be said
that Hoover and Warren were not as close as one might imagine two
men working on the same project might have been.

On December 12, 1927, Saunders was able to write Warren that
the Association had acquired title to a tract of 200 acres, and
would be receiving more, which was to be eventually deeded to the
Federal government. By this time also, the Association had finally
prevailed upon the State Highway Commission to "put Kill Devil Hills
on the N.C. State Highway map," and in October, the State had
taken over the land for the proposed road.

The Orville and Wilbur Wright Memorial Commission submitted its
recommendation for a memorial on January 31, 1928, to President
Coolidge. It was returned on February 10 as it lacked the necessary
approval of the Commission of Fine Arts and the Joint Committee on

45. Letter, Secretary Hoover to Warren, September 22, 1927. (3a)
46. Letter, Saunders to Warren, Dec. 12, 1927. (3a)
the Library. They were thus passed on to the former for approval. This plan called for "a combined Coast Guard station and a marine or aerial lighthouse . . . of native field stone." A recommendation of a $100,000 appropriation was made, and a "modest but attractive" proposed design was attached.47

On March 10 the Commission of Fine Arts rejected the proposal. Charles Moore, Chairman of the Commission, wrote the Memorial Commission:

On examination of the Act of Congress providing for a memorial . . . the Commission of Fine Arts are of the opinion that the proposed structure would not fulfill the requirements of the Act; also that the utilitarian features of the proposed building so far outweigh the memorial feature that the result would not be a memorial within the meaning of the Act. This opinion . . . is reinforced by a statement made by Hon. Lindsay C. Warren . . . and the members of the Kill Devil Hills Memorial Association . . . [The Association's] idea is to erect a memorial tower which should carry a powerful light to aid flyers . . . [and] a landing place for planes . . . In the opinion of this Commission, these latter proposals carry out the terms of the Act of authorization and would result in an appropriate memorial.

The plans are herewith returned. 48

Meanwhile, in February, Warren had obtained promise of a Congressional appropriation through the Cemeterial Division of the War Department for $25,000 for "plans, surveys, investigations, etc." of the prospective site.49 Warren had also sent a telegram

48. Charles Moore, Chairman, Commission of Fine Arts, to Edward P. Warner, Assistant Secretary for Aeronautics, Navy Dept., March 10, 1928. (3a)
49. McClintock (Cemeterial Division) to Design Branch, War Dept., May 18, 1928; and Warren to Judge Thomas M. Pittman (Henderson, N.C.), Feb. 10, 1928. (1-b)
to Orville Wright asking if he would "advise placing the 1903 plane at Kitty Hawk." 50 Obtaining this plane would serve, of course, to secure a large appropriation for the memorial. In a letter to Mr. Wright the following day, Warren stated that "some portion of the memorial should be for a utilitarian purpose, but I do not subscribe to their full purpose" of having a Coast Guard station as the base. He explained that Charles Moore "is up in arms over [the report of the Memorial Commission] and is insisting that the entire plan be changed. He is in favor of something outstanding and notable. You no doubt understand that it has not been the policy of the government to erect memorials." 51 Warren went on to say that "a responsible gentleman from New York" had promised to supplement a government appropriation, and Warren said he was "seriously considering an amendment to allow such donations. Orville Wright's only comment to Warren was that he would prefer to give the plane to the city of Dayton, and that he would prefer most of all to have the plane displayed in "a museum having exhibits portraying the entire history of the art." 52

With the rejection by the Fine Arts Commission of the Memorial Commission's plans, what had been a simple proposal became confused and tiresome. Warren's preliminary appropriation of $25,000 was

50. Telegram, Warren to Orville Wright, February 18, 1928. (3a)
51. Letter, Warren to Orville Wright, February 19, 1928. (3a)
52. Letter, Orville Wright to Warren, February 22, 1928. (3a)
finalized March 23, and the Memorial Commission again submitted its plans to the Fine Arts Commission—this time with plans for a "granite shaft with bronze tablet and inscription" at the actual site, but at some distance from the memorial on the beach.  

These plans were again rejected, on June 16, by the Fine Arts Commission, along with a recommendation that Warren "take up the matter with the Memorial Commission and have it settled." The day before this rejection, the Assistant Secretary of War had directed the Quartermaster General "to secure by competition plans for a Coast Guard station and light beacon." With this, the Memorial Commission had shifted their responsibility to another party, and removed direct responsibility for the design from any of the three previously concerned bodies. This shifting of responsibility for the design became especially detached from the original three committees when, in June, the competition was determined by the Office of the Quartermaster General to be open to all architects. The Memorial Commission maintained that the memorial should be a Coast Guard station, and as late as October 4, the Quartermaster General was to write that the Commission had made its decision, and that it was the duty of his office to carry out that decision.

53. Horton (War Dept.) to Gen. Cheatham, Oct. 17, 1928. (2-5)  
54. Ibid.  
55. Ibid.  
56. B.F. Cheatham, The Quartermaster General, to Warren, Oct. 4, 1928. (3a)
This, in spite of the legal binding of approval of two other bodies, let alone the Kill Devil Hills Memorial Association, which could conceivably force the government to condemn the Kill Devil Hill tract at high cost if the plans for the memorial were contrary to the Association's judgement.

The question of the importance of the lighthouse/airways beacon was made almost pointless—except for sentimental value—by the opinions of the Lighthouse Bureau and the Airways Division of the Department of Commerce. The former said that they "would not oppose" such a lighthouse at that location, but that they could "not consider [it] would be of any particular advantage." The Airways Division felt that such a beacon "is worthy of consideration, but the cost . . . must enter into the proposition" in view of the fact that there were no air routes nearby, and because it was then standard practice for planes to stay away from the coastline.57 By early October, Quartermaster General B.F. Cheatham suggested that "a granite base be constructed at once upon which can be erected later a small monument."58 This sounds desperate indeed, and would certainly have served to narrow all subsequent discussion, and Senator Bingham, upon his return from the Orient in September, wrote various letters indicating that it was his understanding that the entire idea was being "misdirected."59

57. Lieutenant Nurse to Engineering Dept., War Dept., May 21, 1928. (2-5)
58. Horton to Cheatham, Oct. 17, 1928. (2-5)
59. Ibid.
The ice began to break in October. As Horton of the Construction Service wrote to Cheatham, there would be no harm in eliminating entirely the plans for a Coast Guard station. To allocate the entire appropriation to a memorial "in compliance with the intention of the framers of the appropriation act" would please Senator Bingham, the National Aeronautics Association, and the Fine Arts Commission.60

At this same time, the Memorial Commission decided that the Quartermaster General should begin the public competition to secure plans for a "memorial light tower . . . and a Coast Guard Station to be built separately," at a total cost of not more than $100,000. The "small marker" theretofore proposed for the top of Kill Devil Hill was to be omitted.61 The Assistant Secretary of War, in a letter to Warren, inferred that this change in plans represented unanimity among all concerned. The now-detached "memorial light tower" and Coast Guard station were both to be considered memorials to the Wright Brothers, but financed as one.

On October 29 the report of a committee appointed to investigate the site for the memorial at Kill Devil Hills arrived at a decision to recommend construction of the "Memorial Monument" at the top of Kill Devil Hill. Previously, it had been generally thought that such an attempt would be impractical because of the shifting of the sand dune. However, the Committee discovered that

60. Horton, Construction Service, to The Quartermaster General, October 17, 1928. (2-5)

61. The Quartermaster General to Construction Service, Oct. 17, 1928 (2-5)
"a few inches below the surface the sand . . . is moist and heavily compacted." It is only the wind-blown surface which becomes dry and blows over the top of the hill to settle on the lee side. 62

The hill could thus be planted and secured. The advantage of placing the memorial on high ground for reasons of visibility had been generally accepted, but the previously apparent impossibility of this forced many to think that the beach would be the best location. On the beach it was most practical to combine it with the much-needed Coast Guard station.

The proposal of using funds for the Wright memorial for a Coast Guard station, whether physically combined or not, continued to be completely unacceptable to Senator Bingham. W.O. Saunders, the editor of The Independent, joined with him to fight this. The National Aeronautics Association was in sympathy with Bingham, the Association's President, who made very clear to Colonel Bash of the Construction Service its opposition to a Coast Guard station and to any hesitation on the part of the War Department to build the memorial on Kill Devil Hill. Bingham had threatened to block a Coast Guard station by appealing personally to the Comptroller General on the grounds that it was "positively not the intent of Congress to have a Coast Guard station." 63 The result of this strong

62. "Report of Committee . . . to Investigate the Site for the Wright Memorial . . .," (Gilman et al), pp. 4 & 5, Oct. 29, 1928. (2-5)

63. Memorandum of conversation between Col. Bash and Mr. Victory of the National Aeronautics Association, Oct. 31, 1928.
position was that the memorial tower and the Coast Guard station were to be separated in competition. 64 Furthermore, General Cheatham expected no problems in view of the fact that an appropriation was being requested in advance of an approved design. No mention was made of an appropriation for the Coast Guard station, but the situation appeared more promising for a memorial tower only than it actually was. 65

On December 17, 1928, the 25th anniversary of the "first flight," the cornerstone of the memorial tower was laid, even though it was to be replaced and relocated at a later date. A Congressional committee was in attendance as the result of a resolution introduced by Warren, and the National Advisory Committee for Aeronautics dedicated a boulder of Mount Airy (N.C.) granite to mark the site of the launchings of the December 17, 1903, flights.

If the memorial were to be built on Kill Devil Hill, it was necessary to "anchor" it before construction could begin. Captain John A. Gilman, who had headed the committee investigating the site in October, mentioned the importance of beginning this work to Warren, who in turn relayed this to Assistant Secretary of War Davison on the boat returning from the ceremonies of the 17th. 66

64. The Quarter Master General to Construction Service, Nov. 10, 1928. (2-5)

65. B.F. Cheatham to Warren, December 5, 1928. (2-5)

66. Warren to F. Trubee Davison, Dec. 22, 1928. (3a)
An appropriation—to be outside of the proposed $100,000 for the construction of the memorial—was needed. Requests for this appropriation were quickly made, and authorization to hire a civil engineer and a superintendent of construction was given.  

The year 1928 ended, then, without a final solution in sight. Road and bridge construction in Dare County were coming along as well as could be expected—the contract for the bridge near Kitty Hawk had been let and the paperwork for the Kitty Hawk-Nags Head road was nearly completed. Financial troubles were present, however, in February of 1929 an unallocated surplus was reported and destined to be put to use in Dare.

With General Cheatham's assurance that the southerly march of Kill Devil Hill could be brought to a halt by planting, and with the interested backing of the Secretary and Assistant Secretary of War, a $25,000 appropriation was requested to accomplish this end. Captain William H. Kindervater of the Quartermaster Corps was assigned to Kitty Hawk as "inspector of construction" on January 16. In place of a $25,000 appropriation for the anchoring of Kill Devil Hill, which was to have been in addition to approximately $100,000 for the memorial itself, the budget for the memorial area—including both of the above items—was a tremendous $277,688.  

Furthermore, this figure was in addition to the $25,000 appropriated in 1928.

67. Lt. Col. Holliday (Quartermaster Corps) to Constructing Quartermaster (Washington, D.C.), December 26, 1928. (2-1)

68. Budget of War Dept., February 12, 1929. (2-1)
for preparatory surveys and plans. It is perhaps fortunate that the memorial was not under the National Park Service at this time, for Congress was not yet amenable to allocating large sums of money to this administrative newcomer. As John Ise has written, a 1924 Congressional appropriation of $50,000 for the purchase of lands in the area which is now Sequoia was "the last generous gesture [towards the Park Service] for ten years."\(^{69}\) Furthermore, Congress was at that time fond of making matching grants to the Park Service, and this practice might have slowed the progress of the Wright memorial even more than it was. Ise also felt that "Congress showed a more generous disposition toward historical monuments than toward scenic parks and monuments."\(^{70}\)

It was to the advantage of the Wright memorial, then, that it was an historical site under the War Department.

The competition for the memorial closed on January 31, 1929, and though there had been little time for public notice and preparation, some thirty-six designs had been submitted--"all beauties" according to Warren.\(^{71}\) The design that exists today was selected by a jury established by the Memorial Commission through The Quartermaster General. The selection of the jury members and the means by which the selection of a design was made were in accordance with

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70. Ibid., p. 344.
71. Warren to Sen. Harry McMullan (Raleigh, N.C.), February 5, 1929. (3a)
the American Institute of Architects. The Memorial Commission, having thus made its recommendation, submitted the design to the Fine Arts Commission, which likewise approved the design on February 18 over the objections of Senator Bingham. According to Colonel Bash of the Quartermaster Corps, Bingham had stated that "the design was an abortion" and that "it was never his intention . . . that anything in the nature of a lighthouse, or a Coast Guard station, should be built."\textsuperscript{72} Having approved the design, the Commission agreed nonetheless to rediscuss their decision. Orville Wright was invited to attend this meeting, but he neither came nor offered advice, and the design approved on the 18th was reconfirmed on the 21st. Final approval was now required by the Joint Committee on the Library, of which Bingham—though not Warren—was a member. Bingham, continuing his deep-set opposition, wrote to Warren that he would refuse to allow a monument which "endeavors to combine memory with utility,"\textsuperscript{73} and also expressed his decision to resign from the Kill Devil Hills Memorial Association—the result of an article by Saunders, the President of the Association, which attacked Bingham's position. Warren answered that Saunders, whose newspaper's motto was "A Newspaper for Human Beings With Heads," wasn't attacking Bingham, he just "says anything that might at the time be on his mind."\textsuperscript{74}

\textsuperscript{72} Colonel Bash (Quartermaster Corps) to the Quartermaster General, February 21, 1929. (2-6)

\textsuperscript{73} Bingham to Warren, February 28, 1929. (3a)

\textsuperscript{74} Warren to Bingham, February 28, 1929. (3a)
For fear of detrimental results of Bingham's withdrawal, Warren expressed his regrets and cautioned Bingham to "say nothing and do nothing about severing your relations with the Association." Bingham agreed to this and, though still resigning, assured Warren that he was "most anxious to help you in any way I can toward getting a beautiful memorial . . . that will be the admiration of the world." He complained that it was "very disappointing that the Commission was so set in their attitude of utilizing this memorial to save the Department of Commerce from having to make an appropriation for a Coast Guard station and a lighthouse and charge it up to memorials. I do not think we shall lose anything by waiting, however." 75

With a lessening and almost forgotten concern for providing memorial funds for a Coast Guard station at Kill Devil Hills, Warren wrote the Commandant of the Coast Guard, asking if their own funds could be used to provide for a new station. F.C. Billard, the Commandant, replied that he was in a position "to inform you at this time that we can initiate steps looking to the construction of the new building during the present year." 76 A memorial Coast Guard station was then most assuredly dead.

By April no further action had been taken on the memorial design. Bash notified the competitors--who still knew nothing of

75. Bingham to Warren, March 1, 1929. (3a)

76. F. C. Billard, Commandant, U.S. Coast Guard (Washington, D.C.) to Warren, March 22, 1929. (3a)
the outcome of the competition—that "approval of one of the agencies . . . has not yet been obtained." 77 Warren summed up the situation at the end of the month by writing, "Senator Bingham termed it as grotesque . . . General Cheatham does not know what to do. You can see that until some plan is accepted, nothing can be done." 78

Meanwhile, Captain Kindervater was occupying himself at the site of the proposed memorial. The formula for fertilizer had been worked out at least as early as January 1929 and remained essentially unchanged when put into practice. Confident of success, he wrote a Senior Agronomist in the Department of Agriculture, Roland McKee, "Due to the number of tourists that pass here I am anxious to beautify as well as stabilize, so if you have any seed that has a pretty flower I would like to spell out the words 'Kill Devil Hill' in flowers." 79

The main problem, however, was protection from "the molest- tation of tourists and souvenir collectors, and the ravages of wild hogs," 80 and a fence around the area to guard against animal ravaging was completed in March. An invitation in the fall to the Prince of Wales to visit Kitty Hawk was discouraged

77. Bash to [the competitors], April 11, 1929. (2-6)
78. Warren to Sen. F.M. Simmons (N.C.), April 24, 1929. (3a)
79. Kindervater to McKee (Washington, D.C.), April 10, 1929. (2-3)
for fear of plant damage by the resulting crowds, and an invasion of army worms was turned back and eradicated in June by hand-spraying with "Paris Green," as well as by the assistance of birds. Kindervater found that the "most serviceable" grasses and shrubs for Kill Devil Hill were:

a. the common variety of wire (Bermuda) grass, found locally;

b. Bitter Tanic, gathered at Virginia Beach, Virginia, and "prolific over the whole hill" in January 1933; and

c. "all of the local varieties" of shrubs: "yopon, water, myrtle, pine, live oak, sumac, and others." In August, for his apparently excellent service and success in planting Kill Devil Hill, Kindervater was promoted from "inspector" to "superintendent of construction." The work continued—without pretty flowers.

Frank Stick, who had sent the telegram to Warren offering the Kill Devil Hills tract to the government, now wrote Warren to express his concern over the lack of progress. His suggestion was to "put through this big thing now" and call it the "Wright Memorial Park." The granite memorial would then follow in due course. As

81. Captain Gilman to Kindervater, September 11, 1930. (2-3)

82. "Annual Report" (year ending) Dec. 31, 1929. (2-2)

83. Kindervater to Roland McKee, Senior Agronomist, Dept. of Agriculture (Washington, D.C.), January 15, 1933. (2-2)

84. Office of the Quartermaster General to Assistant and Corps Commander, War Dept., Aug. 5, 1929. (2-1)
Stick saw it, "From a real estate standpoint, the structure would be the real thing."85 Colonel Bash again wrote the competitors, advising of continued difficulties. The difficulty was that the Joint Committee on the Library was to be reorganized in 1930. Until such time, the Wright Memorial question was tabled.86 Warren asked Herbert Hoover, now President of the United States, to assist in any way possible to end the deadlock "without further delay."87 President Hoover could do little at that time, however, about the organization of the Joint Committee, and Saunders suggested to Warren that they dramatize their impatience with Congress by releasing in North Carolina a flock of carrier pigeons trained to roost on the Capitol.88 It was felt that even this could gain no ground. It was necessary to wait until the new Joint Committee met in January of 1930, with Lindsay Warren as a new member. Warren remarked to the Chairman at that time that "we are placed in the rather ridiculous attitude of having held the cornerstone exercises ... and yet have never approved the plans."89

85. Frank Stick to Warren, September 6, 1929. (3a)
86. Bash to Capt. Gilman, October 12, 1929. (2-6)
87. Warren to President Hoover, November 22, 1929. (3a)
88. W. O. Saunders to Warren, December 1, 1929. (3a)
89. Warren to Senator Fess (Chairman, Senate Committee on the Library), Jan. 23, 1930. (3a)
Warren met President Hoover on January 23, and was authorized by him to state that Hoover was "strongly in favor of the plans [being] considered by the Committee." Upon leaving the President, Warren than engaged in a rather heated argument with Senator Bingham. Warren asked Bingham to withdraw his opposition, and told Bingham that he was opposed by both North Carolina Senators, the North Carolina Governor, the Kill Devil Hills Memorial Association, "and many others." Bingham continued to feel that the proposed memorial was a terrible desecration.

Senator Bingham informed Mr. Warren that he would not withdraw his opposition: that he was bitterly opposed to the proposed plans; that he would again cause their rejection by the Joint Committee, and failing in that he would defeat the appropriation. He further stated that the estimated expenditure of $238,000 was entirely too high, and that Senator Smoot [chairman, Senate Committee of Finances] would see that it was not allowed. He said that regardless of the President's opinion he would fight till the end. Mr. Warren then informed Senator Bingham that he likewise would fight to the end and would insist that the plans desired by the President, the Senators and others be adopted. I left him by telling him I would urge Senator Fess to call a meeting at an early date. I have been assured that the War Department will send several high officials to the meeting favoring the plans.

Warren wrote Senator F.M. Simmons of North Carolina again several days later to impress him with the fact that at the next Committee meeting the plans would have to be adopted; otherwise, it would be

90. Ibid.

91. Warren to Sen. F.M. Simmons (N.C.), January 24, 1930. (3a)
very difficult to do so later in the session. The meeting was held the 6th of February, and Warren wrote Saunders of the Committee's approval of the plans:

After the hearing had been concluded, Senator Fess announced that Senator Bingham had withdrawn his opposition. Bingham did not appear. Not seeing Bingham and wishing to do the proper thing and hoping to avoid opposition on the appropriation, I sat down and wrote him a nice note . . . of appreciation etc. Now keep off him until we find out if he has completely surrendered, for he can give me much trouble on the appropriation if he still persists.

The "hard mean fight" with Bingham was over, but the appropriation was to come out of the War Department budget, and this could still be changed if Congress so desired. Warren was afraid that Bingham, plus the possibly harmful fact that work on the Kitty Hawk-Nags Head road had not yet begun, could destroy this appropriation. However, it soon became clear that Bingham was not to rise again.

On February 14 the architectural firm of Rogers & Poor, of New York City, was notified of their winning--and approved--design. This selection carried with it a $10,000 award and employment as memorial architects for the construction. The design by Alfred E. Poor would be modified to make it look less like a glorified beacon and more like a memorial-with-beacon, but this was not so

92. Warren to Sen. F.M. Simmons, January 28, 1930. (3a)
93. Warren to W.O. Saunders, February 6, 1930. (3a)
94. Bash to Edmund Rogers and Alfred E. Poor (N.Y.C.), February 14, 1930. (2-6)
95. Robert P. Rogers to Gen. Bash, March 8, 1934. (2-6)
much the influence of Bingham as it was the Quartermaster Corps.

The decision had been made.
A GRANITE SHAFT

Chapter 4

When appropriations for the memorial were confirmed in December 1930, the Office of the Quartermaster General gave Marine Capt. John A. Gilman orders to report to Kill Devil Hill as Constructing Quartermaster of the site, and the Wills & Mafera Corporation of New York City was named general contractor in December for its low bid of $213,000 for the memorial and a substation at the foot of Kill Devil Hill. Construction specifications, dated November 11, 1930, had called for a granite tower 61 feet in height and a base of 36 by 43 feet, with stainless steel as the standard metal, except for the weather-proofing and (bronze) thresholds. The tower was to include a light beacon, but only the mounting was part of the contract. Stainless steel, as well as the nickel which forms the core of the entrance doors, were both 'modern' construction materials, and indicate the special attention this building was to be given. Mandatory spittoons for workers were to be kept filled with clean sand--a necessity of the era. All granite was to be "faultless," as determined by the Constructing Quartermaster, and the building was to be guaranteed.

96. Office of the Quartermaster General to Gilman, December 17, 1930. (2-6)

97. Bash to Wills & Mafera Corporation (N.Y.C.), December 27, 1930. (2-6)
against leakage for a period of twenty years.\textsuperscript{98} Construction was expected to begin in February, 1931, with General DeWitt turning over the first shovelful of dirt.\textsuperscript{99}

The anchoring of the hill was by now sufficient to begin construction work—the "southerly march" of Kill Devil Hill had been halted. Kindervater's planting method had been to: (1) harrow the site to loosen the sand and soil; (2) spread a two-inch layer of pine straw, rotted leaves, and wood mold; (3) sow with bermuda grass seed (provided by Government); (4) cover area with brush to an average depth of eight inches. Fertilizer was to be spread at a rate of two pounds per one hundred square feet, and the fertilizer mixture contained 5\% ammonia, 5\% potash, and 8\% available phosphoric acid. The base substance was cotton seed mead.\textsuperscript{100} The sand dune became a verdant hill, and weathered several storms in 1929 "without material damage."\textsuperscript{101} In July of 1931 The Christian Science Monitor carried an article on sand dunes, and quoted Frank Stick, "author, sportsman, real estate man of New Jersey and Roanoke Island," as saying that the theory of shifting sand dunes is "one of the greatest hoaxes ever perpetrated." The Monitor convincingly responded that many people would disagree, and especially "the

\textsuperscript{98} "Specifications for Construction of Wright Memorial and Sub-Station Building . . .," November 1, 1930. (2-2)

\textsuperscript{99} Gilman to Kindervater, January 28, 1931. (2-2)

\textsuperscript{100} "Specifications for Fencing and Stabilizing . . .," January 4, 1929. (2-2)

\textsuperscript{101} "Annual Report," (year ending) Dec. 31, 1929. (2-2)
Before construction could begin on the monument itself, it was necessary to construct an access road from North Carolina State Highway #158, part of the Kitty Hawk-Nags Head road, and roads within the "reservation" as well. On January 13, 1931, the Congress authorized the Secretary of War to allocate a total of $25,000 for the construction of these roads, with the understanding that Dare County would provide maintenance. A title to the strip of land connecting the reservation and the State highway was obtained from Dare County on February 3 for one dollar and "other valuable considerations." Bidding for the sand-asphalt roads was opened the middle of February and the winning contractor was to begin April 2.

The roadwork was reported complete on May 4, but in May it was realized that the War Department could accept deeds for approach roads only in cases of national cemeteries and military parks. The "Monument on Kill Devil Hill" was a "national monument," and, as Congress had not intended it to commemorate a military achievement, this designation could not be changed to a military one.

102. The Christian Science Monitor, July 1931. (2-3)
103. 72 Cong., 1 Sess., H.R. 16117 (January 13, 1931).
104. A.W. Brown (Col., Judge Advocate General Dept.) to Assistant Secretary of War, May 23, 1931. (1b)
105. "Construction of a Sand-Asphalt Approach Road to Wright Memorial . . . and to Marker," February 16, 1931. (1a-3)
106. Brown to Assistant Secretary of War, May 23, 1931. (1b)
The final solution to the problem is unclear, but a loophole was apparently found which circumvented the need for legislative recourse.

Wills and Mafera, upon receiving the contract to construct the memorial, received bids for granite work from numerous granite companies in New England and North Carolina. The contract was awarded to the Sargent Granite Company of Mount Airy, North Carolina. This same company had also supplied the white granite for the Arlington Memorial Bridge in Washington, D.C., and the Gettysburg Memorial in Pennsylvania, and had a reputation for excellent craftsmanship as well as excellent stone.107 Transportation of the stone was by railroad to Norfolk or Elizabeth City, and then by truck or barge to Kill Devil Hill. The bridge at Kitty Hawk had been opened the previous September, allowing smaller pieces to be transported over the bridge route by truck. In the case of barge transport—essential for the larger cuts—the granite was unloaded at concrete piers, the first of these having been constructed in October 1931,108 and then on rails to the site.109 Granite began arriving in October, and continued throughout the time until the monument was completed the following year.110

107. The Independent, Section 3, page 1, November 18, 1932.
109. The Baltimore Sun, page 10, August 28, 1932. (2-3)
On some days, up to three barges would arrive.\(^{111}\) The granite was of a consistently high quality, and the several blocks which were flawed had been damaged in transit, and substitutions were provided as rapidly as possible. In one case, a three-ton block was found defective and a Mount Airy truck delivered a replacement in three days—the result of around-the-clock operations. Gilman was ecstatic.\(^{112}\) Relations with the Sargent Granite Company were marred only by frequent late payments by Wills and Mafera.\(^{113}\)

Work on the granite base, in the outline of a five-pointed star, began in December 1931.\(^{114}\) Granite was lifted into place by means of a Caterpillar crane, for which the contour of the hill was made less steep.\(^{115}\)

The amount of materials involved is impressive, as the following table shows.\(^{116}\) A total of 1,200 tons of granite was used.

<table>
<thead>
<tr>
<th>Material:</th>
<th>Monument</th>
<th>Platform</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granite:</td>
<td>640 Tons</td>
<td>557 Tons</td>
<td>----</td>
</tr>
<tr>
<td>Gravel:</td>
<td>399</td>
<td>685</td>
<td>975 Tons</td>
</tr>
<tr>
<td>Sand:</td>
<td>163</td>
<td>299</td>
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</tr>
<tr>
<td>Cement:</td>
<td>74</td>
<td>136</td>
<td>181</td>
</tr>
</tbody>
</table>

\(^{111}\) Ibid.

\(^{112}\) The Independent, Sept. 23, 1932.

\(^{113}\) Bash to DeWitt, September 23, 1933. (2-6)

\(^{114}\) "Daily Report," December 14, 1931. (2-3)

\(^{115}\) Dough to (illegible), December 31, 1934. (1-a3)

\(^{116}\) Memorandum, Office of the Quartermaster General, (undated). (2-4)
The average number of men employed at the site by the general contractors ranged from forty-five to sixty, including one civilian, Joseph E. Partridge, as he was "the only man familiar with the corners and land line." As the monument was to be completed in November 1932 and put under the jurisdiction of the Commanding General of the Fourth Corps Area, it was essential that a caretaker be appointed to maintain and protect the monument. Partridge was interested in this position, and support for him came from all those engaged in the actual construction. Bash wrote Warren in August fully supporting Mr. Partridge's candidacy, and Kindervater likewise gave full support, explaining later that he had not been interested in the position himself as the salary of $1,200 per year would not be sufficient to support his family. Partridge was regarded as qualified, but, as Warren wrote Bash, "Orville Wright and about 25 outstanding citizens in the nation," including President Hoover, wanted Capt. W.J. Tate to be appointed caretaker. Warren wondered if two caretaker positions might not be created. Tate was a native of Kitty Hawk and had assisted the Wright Brothers during their trips to


118. General memorandum, Gen. J.L. DeWitt, the Quartermaster General, to the Office of the Quartermaster General, July 29, 1932. (2-1)

119. Ibid.

120. Bash to Warren, August 2, 1932. (2-6)

121. Warren to Bash, August 5, 1932. (2-6)
the area. Had it not been for Tate's generosity in offering the Wright's his house and information about the area, they might not have come to Kitty Hawk. Tate, although as qualified as Partridge as caretaker of the Wright Memorial, received priority, then, because of his past association with the Wrights. However, the appointment was made by The Quartermaster General, who ignored the opinions of "about 25 outstanding citizens" in deference to those under his command, who had recommended Partridge. He was thus appointed caretaker on October 13, at a time when he was seriously ill with what had not yet been diagnosed as cancer.\textsuperscript{122} He died the following January, and Kindervater was to be retained at the site until July 1, 1933, with only the help of an "unskilled laborer."\textsuperscript{123} Tate's name was not proposed again.

Plans for the dedication of the completed monument began in August 1932. The Weather Bureau assured those concerned that "November is one of the best months of the year," and, as The Independent pointed out in August, "The Wright Memorial will be completed by October 1, 1932, but . . . to have the dedication this fall would bring it in conflict with the national political campaign."\textsuperscript{124} It wouldn't do to have such people as the President absent. Bash, as Acting Quartermaster General, decided, however, that November would be the best, and he suggested the 19th, the

\textsuperscript{122} Personnel Vacancy form, by Gen. DeWitt, June 12, 1933. (2-1)
\textsuperscript{123} Ibid.
\textsuperscript{124} The Independent, August 26, 1932.
Saturday after the elections. \(^{125}\) Excitement mounted as the dedication date approached. Soldiers from Fort Monroe, Virginia, volunteered to participate, and the mayor of Elizabeth City—fifty miles from Kill Devil Hill—declared a city holiday, stating that he hoped "residents of our City will pay respect to the great aviation pioneers, Orville and the late Wilbur Wright." \(^{126}\) The U.S. Navy was to send a dirigible capable of carrying five airplanes within it "like a Great Air Circus," and the Army was to send bomber and pursuit squadrons over the ceremonies. \(^{127}\) Various members of the Congress, area dignitaries, numerous military personnel, aviation heroes and manufacturers, and the President of the United States were all respectfully invited to attend. Orville Wright was, of course, the guest of honor. Special boats were chartered to make the trip from Washington—with tickets costing $7.50 per person for the round trip, including meals. \(^{128}\) The Office of the Quartermaster General had been put in charge of the dedication by the three Cabinet Secretaries of the Memorial Commission—the last of its duties. \(^{129}\) It therefore constructed bleachers for 2,000 persons, parking space for 1,000 cars, and general arrangements for 20,000 persons. \(^{130}\)

\(\)\(^{125}\) Acting Quartermaster General Bash to The Adjutant General, Oct. 10, 1932. (1b)

\(\)\(^{126}\) The Independent, November 18, 1932.

\(\)\(^{127}\) Ibid.

\(\)\(^{128}\) Shannon (Office of the Quartermaster General) to Gen. Bash, October 14, 1932. (2-3)

\(\)\(^{129}\) Gen. Bash to Chief Signal Officer, Nov. 3, 1932. (1b)

Unhappily, the eve of the dedication saw heavy rains and high winds, and the raging storm continued throughout the morning, reducing attendance to "a bare thousand," and hundreds of these remained in their automobiles. The airplanes and the "Great Air Circus" of a dirigible could not leave their bases, and a lone Navy photography plane was forced to land on the beach, breaking its propellor in the process.

General Louis H. Bash, Acting Quartermaster General, master of ceremonies, was reading a letter from President Hoover expressing his regret at not being able to attend, when a gust of wind lifted the canvas cover over the guests, and rain fell upon them. The resulting pause lasted twenty minutes, and General Bash quickly finished. Handing the letter to Orville Wright, he apologized, "I am sorry it was drenched, and you will have to use blotting paper." Mr. Wright then expressed his "appreciation of the thoughtfulness of the Chief Executive." Though he did not make an address, he later expressed his opinion that the monument "is distinctive, without being freakish." The monument was complete. And so it was—except for "the cable to the main road, the beacon grill, ventilation, ornamental entrance gates, and other lists of work."

131. Ibid.
133. The Norfolk Ledger-Dispatch (Norfolk, Va.), Nov. 19, 1932. (2-3)
135. Beard to Kindervater, Nov. 27, 1932. (2-2)
HORACE DOUGH, CARETAKER

Chapter 5

To fill the vacancy of caretaker, the Office of the Quartermaster General began taking steps to once again appoint a caretaker. Partridge, ill at the time of his appointment, had died of cancer before assuming duties or receiving any salary.¹³⁶

A local boatbuilder and fishing guide, Horace A. Dough, of Manteo, applied for the position along with five others.¹³⁷ In the consideration of his application, his comparatively young age--thirty-nine--was to his advantage. A memorandum from General Beard reported that he had not finished high school, and had been "a boat builder by profession until four or five years ago, and a presentable type of man who could handle visitors to the monument satisfactorily and could maintain order. He did not appear to be particularly anxious to accept offer of a job for a month or two spreading fertilizer and planting Bermuda grass on Kill Devil Hill."¹³⁸

Horace Dough had indeed been a boat-builder in Manteo, just as all the sons in his father's family were. In the immediate

¹³⁶. "EHO" to Major Calvert, Quartermaster Corps, June 8, 1933. (2-1)
¹³⁷. Gen. Beard to Chief of Construction Division, Feb. 6, 1933. (2-6)
¹³⁸. Ibid.
post-war years, Dough had built an "air-boat" from a design by a German boat builder, with an Hispano Suiza airplane engine and single airplane propellor. Along with a larger, twin-propellor boat in the early 20's, these boats could navigate not only in shallow water, but even on wet reeds or wet sand—a tremendous advantage in an area of shallow waters, marsh-lands, and sand bars. In 1928, however, Dough realized that the boat-building profession was financially limiting and began hiring out his boat and fishing knowledge to sport fishermen, especially Baltimoreans. The financial incentive was tremendous. The minimum charge for one day was $15, and competition was negligible. The fishing possibilities of that area are today regarded as among the finest in the country, and were perhaps even better in those near-wilderness times. A 1932 advertisement for Mr. Dough's services ran:

OREGON INLET FISHING
Good striped Bass Fishing now & until December 20th

Let Horace Dough serve you. He has the boats and guides and is himself available for special parties

HORACE DOUGH

Who Knows Dare County's Fishing Grounds
Manteo, N.C. 139

A man who was "himself available for special parties" could scarcely be expected to want to spread fertilizer. As a sport-fishing guide Horace Dough was able to earn up to $5,000 a year. However, by the

139. The Independent, Sect. 2, page 2, Nov. 18, 1932. (2-3)
time of his application for caretaker of the Wright Memorial, the situation had changed, and the situation was to get still worse. The Depression had reduced the number of sport fishermen and increased general prices. At the same time competition from others had gained and reduced prices to a bare profit-margin. A job as caretaker, at $1,200 per year, would provide a lower, but guaranteed, income to see Mr. Dough through the Depression.140

Accordingly, when this position became vacant, it was necessary to look around for a worthy successor of the material that was available and lived in the vicinity and knew the local conditions. This office chose Mr. Dough as being the most suitable. He was given a trial by being appointed as a laborer for three months at $3.00 per day, and his services have been satisfactory and he had given promise of being a reliable employee . . . .

Due to this fact, it is requested that steps be taken to immediately appoint Mr. Dough as permanent caretaker at the Kitty Hawk Memorial.141

Dough had begun working as a "laborer" on March 16, 1933,142 and was recommended for a permanent position as caretaker beginning in early June. Kindervater was to leave July 1 and there was authority to hire only a caretaker after this time.143 By August 8 Dough was "to assume charge" of the Memorial immediately, his position being listed as "acting caretaker, unskilled labor," pending review

140. Interview with Horace A. Dough (Manteo, N.C.), November 5, 1967.

141. Laubach (Memorial Branch, War Dept.) to Personnel Branch, June 9, 1933. (2-1)

142. Kindervater to Dough, Feb. 28, 1933. (2-2)

143. Vacancy form by Gen. DeWitt, June 12, 1933. (2-1)
by the Civil Service Commission. Kindervater had left, having completed his reports. The final construction—the entrance gates—had been completed June 24 by the L.R. Broyhill Company of Hampton, Virginia.

Much of the hesitancy about a permanent appointment for Dough was a result of the transfer of the "Kill Devil Hill Monument (Wright Memorial)" from the War Department to the National Park Service. This was the result of two Executive Orders which directed that a total of forty-eight areas under the War Department be so transferred. In 1928 the Secretary of the Interior had secured an agreement with the Secretary of War for such a transfer of areas, and a bill was introduced in the Senate to this end but did not pass. In 1932 President Hoover had suggested that Congress effect the change, but when this was ignored, the President asked the Director of the Budget to draw up a plan. It was this plan which met the approval of the two Secretaries, and which was promulgated by President Franklin D. Roosevelt in 1933.

In accordance with this Order, the transfer was to take place August 10, 1933—two days after Dough had become Caretaker of the Memorial.

144. Office of the Quartermaster General to Quartermaster, 4th Corps Area, Aug. 8, 1933. (2-6)

145. Robert S. Beard (Constructing Quartermaster) to The Quartermaster General, July 25, 1933.

146. Executive Order No. 6166 (June 10, 1933); Executive Order No. 6228 (July 28, 1933)

147. John Ise, Our National Park Policy, p. 352.
Thus, on August 12, the Acting Director of the National Park Service instructed Dough that he was to "assume charge of the following: Kill Devil Hill National Monument, Kitty Hawk, North Carolina."¹⁴⁸ Dough was given a temporary appointment, probably due to the extensive new "possessions" of the Park Service creating a heavy work load. Meanwhile, Representative Warren wrote General Bash explaining that Dough was planning to move into the house vacated by Captain Kindervater, and that Kindervater "has thoroughly gone over with Mr. Dough the necessary instructions about the up-keep of the grasses, and Mr. Dough is also fully conversant with the history of the Wright Brothers."¹⁴⁹ Like Warren, W.O. Saunders felt that Dough should be given the permanent position as soon as possible, asserting to Associate Director Cammerer that Dough "is as clean, sober, upstanding, and responsible . . . a chap as you will find in that coast country . . . there isn't a lazy bone in him . . . . I am hoping you will retain him."¹⁵⁰ Endorsements notwithstanding, Dough's position as Acting Caretaker was renewed in November only for an additional three months.¹⁵¹ After this time, Dough's appointment became permanent.

¹⁴⁸. A. E. Demaray (Acting Director, NPS) to Dough, Aug. 12, 1933. (1a-1)

¹⁴⁹. Warren to Gen Bash, Aug. 25, 1933. (1a-1)

¹⁵⁰. W.O. Saunders to Associate Director Cammerer, Sept. 7, 1933. (1a-1)

¹⁵¹. Dough to The Director, Nov. 6, 1933. (1a-1)
The Depression, which left the outlook for the Park Service rather bleak at first, proved not completely unfavorable. Congress voted to provide work forces for the parks, and though the appropriation for the "operation" of the Monument for the period August 10, 1933, to June 30, 1934 was $2,200, the appropriation for improvements through the Public Works Administration was $90,500.

The question of ends to which this amount would go was open to public debate, and those backing a landing strip for airplanes were the most vocal. One of the original goals of the Kill Devil Hills Memorial Association was to obtain an airport, primarily for sentimental reasons, but for certain practical reasons as well. Saunders wrote in The Independent in August, "The Wright Memorial... without a landing field in proximity is much like a ship stranded on a reef." Furthermore, as The Independent later brought out:

There would be a distinct utilitarian value to a landing field at Kill Devil Hills. Happily, these hills afford a midway stop for air liners plying between New York and Florida... And here should be an important airplane base in event of war. It was off this very North Carolina coast that German U-boats did their most disastrous work in American waters in the last great conflict.

152. Hillory A. Tolson (Assistant Director, NPS) to Dough, Oct. 18, 1933. (4a)

153. Warren to NPS Director Cammerer, October 20, 1933. (1a-3)

154. The Independent, p. 4, August 26, 1932.

155. The Independent, September 8, 1933.
The National Park Service has, in general, resisted airports and airplane landing strips, feeling they are inconsistent with the principles of maintaining "the scenery and the natural and historic [resources] . . . for the enjoyment of future generations." But of all the Park Service's holdings, this one might deserve an exception.

To construct a landing field, the size of the Monument would have to be expanded. The land which in 1926 had been valued at $10.00 an acre, and perhaps worth less than that, was by this time thought to be valued at $40.00 an acre, and by 1934 Stick reported that Baker was holding out at $1,000 an acre and the Kitty Hawk Development Corporation at $240 an acre.

Frank Stick attempted to be of help to the Park Service, and had offered his services "without obligation" toward a coastal park. He felt that a seashore area "would have served the public needs far better, and would have as fully perpetuated the names of these great Americans, as does a granite shaft . . . . At that time, the entire territory north and south of Kittyhawk could have been procured for less than the cost of the monument alone."

156. Ise, Our National Park Policy, pp. 486, 291.
157. Frank Stick to Demaray, August 24, 1934.
158. Stick to Demaray, Oct. 21, 1933. (1a-3)
159. Stick to V.E. Chatelain, September 7, 1933. (4a)
Mr. Stick could have apparently obtained P.W.A. funding of a landing strip from a public works fund. Furthermore, money for land purchase was not, in itself, a tremendous problem—the Park Service had received cash donations in 1930 totaling over one million dollars for this purpose.\textsuperscript{161} However, the costs per acre were considered outrageous, and Stick could do little about this. At all times, however, the Park Service agreed that the Monument boundaries "should be extended."\textsuperscript{162}

The final budget for the $90,500 Public Works allocation was as follows:

1. Construction, reconstruction, and improvement of roads and trails $38,000
2. Superintendent's residence and office 13,500
3. Shelter and comfort station 10,000
4. Fencing 5,000
5. Electric service and electric pump 4,000
6. Planting (along roads, trails, and around memorial) 10,000
7. Planting of 290 acres 10,000

\textbf{Total} $90,500\textsuperscript{163}

\begin{flushleft}
\textsuperscript{160} Stick to Chatelain, Nov. 20, 1933. (1a-3)
\textsuperscript{161} John Ise, Our National Park Policy, p. 326.
\textsuperscript{162} Demaray (Acting Director) to Warren, Oct. 21, 1933. (1a-3)
\textsuperscript{163} Ibid.
\end{flushleft}
The high acreage costs of lands surrounding the Memorial notwithstanding, the Park Service directed that options be taken on these same lands for future protection. In a letter to W.O. Saunders, Cammerer informed him that Warren had suggested him as a person to secure these options. It was to be understood that all options should be undertaken with "the greatest secrecy" in order to prevent a further escalation of values, values which had also risen because of the now-free bridges onto the Outer Banks. One real estate firm, Kitty Hawk Shores, of Norfolk, Virginia, printed a pamphlet extolling the wondrous opportunities of the area. Their brochure included the following undated editorial from The Independent:

The lifting of the tolls from the Wright Memorial Bridge and the Roanoke Sound Bridge is going to mean an inpouring of thousands of new visitors . . . . It will be only a matter of a few years now before the entire ocean front from Kitty Hawk Beach to Nags Head will be lined with hotels, boarding houses and private cottages. Front property will be at a premium.

This reprint was supplemented with the incentive to "double your capital here if you buy before prices begin to rise," and "Happy Days Are Here Again." The Wright Memorial's beacon light was described as "pointing the way to airmen . . . seamen and to YOU as a SAFE and SANE place to live and invest."165

164. Cammerer to W.O. Saunders, Nov. 7, 1933. (1a-3)
165. Brochure of Kitty Hawk Shores, Kitty Hawk Development Corporation (Norfolk, Va.), May 25, 1934.
Frank Stick, enclosing the above, wrote to Verne Chatelain:

These men mean business. They are bringing down their first bus loads of prospects next week.

The situation is so damned rotten that Congressional action should be invoked if our hands are tied. Unless you halt them the entire program of development you contemplate will be a failure. Personally I should not hesitate to close off the road leading into the memorial, temporarily. Their sales office is located on this highway.

I have been preaching the need for haste for the last six months. Perhaps it is now too late. 166

In response to a letter from Warren concerning the immediacy of the situation, Cammerer wrote, "Public Works funds are only available for land purchase when it can be shown that such purchases will inaugurate important Public Works activities." 167

The position of the Kitty Hawk Development Corporation is made very clear by a letter to Demaray:

We can take ($500,000.00 profit out of it in the next two years under a broad plan NOW being worked out with Capitalists in New York and Phila. These plans will be completed within the next thirty days. However we well know now that there is TREMENDOUS sentiment in favor of the Government acquiring this Historic Shrine and we will NOT STAND IN THE WAY of the National Park Service getting it IF you WANT it and can ACT, before we ourselves are all tied up with commitments . . . contracts and sales contracts. 168

166. Stock to Chatelain, June 8, 1934. (la-3)

167. Cammerer to Warren, June 25, 1934. (la-3)

168. J.B. Fogel (Secretary, Kitty Hawk Development Corp.), to Demaray, August 24, 1934. (la-3)
Cammerer wrote Warren about this letter, saying, "In fact there apparently has been quite a boom in land prices recently."169 Indeed, options of the previous winter had averaged between forty and fifty dollars per acre. Now, nearly a year later, the Kitty Hawk Development Corporation and others were asking $267 per acre. Cammerer felt that the solution rested with Congressional legislation . . . in any case, "There is nothing to be done by the National Park Service at this time."170 The dream of an Atlantic beach park would come true, but not as an extension of the Wright Memorial. This land was lost even though it was not until after the Second World War that the actual "boom" would come.171 In 1937 what was to eventually become the Cape Hatteras National Seashore was authorized to include the Monument within its boundaries, but this could not be done because of the high land costs and the then-existing land use, primarily private cottages.

A report to the Chief Forester of the Park Service in 1934 outlined the three main problems in maintaining the Kill Devil Hills Monument. These were: to hold the sand in place; to eliminate animal disturbance of planting operations; and to prevent "undesirable encroachment by private concerns."172 These recommendations resulted in the fixation of West Hill and planting of

169. Cammerer to Warren, Sept. 11, 1934. (la-3)
170. Ibid.
290 acres—both financed with Public Works funds. The methods used were identical to those of Kindervater, except that less costly swamp rushes (collected on Colington Island) were substituted for wood's mould. The latter was more effective as a fertilizer, but its purpose was not that so much as protection for the seeds underneath. Furthermore, wood's mould contains a variety of seeds, some of which might not be desirable. In 1934 it was reported that "only the Bermuda grass and Bitter Tanic have flourished." Bermuda grass crowded out most others, but allowed the characteristics of sand dunes to remain. The Bitter Tanic, on the other hand, reminds one of "a field of shaving brushes." 173

To further protect the planting, the fence around the monument was rebuilt with concrete posts to include all of the 314 acres. Previously, only Kill Devil Hill and the First Flight Marker had been so protected from animals. The new fence was completed in July under Hugh A. Campbell of the Engineering Department. 174 Fire protection was also necessary. Several acres of grass were burned on Kill Devil Hill the 13th of August, 1934—a lighted cigarette had been thrown by a tourist from the monument. The fire was detected only after an hour of smoldering, and was then "automatically" stopped by a non-planted path.

173. Edward S. Zimmer to Mr. Peterson, April 24, 1934. (la-5)
"It is essential," wrote a forester on the scene, "that all smoking be prohibited within the area." The system of paths leading to the monument were to be considered effective fire lanes as long as grass was the only vegetation. Dough requested permission to post "Positively No Smoking" signs, and this was approved by Tolson as an interpretation of the policy of protection and maintenance.

Construction under the Public Works funds was to start in the fall of 1934. Previously, there had been 11 miles of roads, 1.80 miles of trails, and 3,400 feet of underground electric power cable. These figures would become, respectively, 2.04 miles and 1.99 miles. In July a survey was made for a circular road around Kill Devil Hill—there had been only an arc on the east side of the Hill before, connecting the First Flight Marker, the Monument, and the access road to the State Highway. By October 1934 the grading plans for the paths on Kill Devil Hill were completed, and the former War Department concrete-slab path was to be obliterated. The original allotment had been for two curved paths, but this was altered to allow for


176. Tolson to Dough, August 30, 1934. (la-5)

177. Dough to Chatelain, July 24, 1934. (4a)

178. "Statistical Table of Areas Administered by the National Park Service," June 27, 1936. (la-3)

four, making a total allotment of $5,400 and a $3,500 supplement to replant areas damaged by the construction. \textsuperscript{180} Work began in November 1934 with seventeen laborers and six plowing teams, and was completed the following April after several delays due to cold and wind. The surfacing of the trails was finished in July 1936.

Work began on the circular road in February 1935, and grading was completed in May. \textsuperscript{181} The difficulties presented by grading sand on a hill were minimized on level ground. Talk of cooperation with the State of North Carolina developed over plans for the State to build a road to the village of Colington, west of the Memorial, using the monument's roads for access at its own. \textsuperscript{182} This was agreed upon by Cammerer and the Chairman of the State Highway and Public Works Commission in August, although the State did not begin construction immediately. \textsuperscript{183} Work on the circular road continued sporadically, slowed by the winter and lack of manpower.

Meanwhile, construction on the superintendent's residence and comfort station had begun, and these were completed by April

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\textsuperscript{180} Ibid.

\textsuperscript{181} "Monthly Report," Caretaker to The Director, May, 1935. (1a-2)

\textsuperscript{182} Office Memorandum, Charles E. Peterson to Branch of Plans & Designs, July 23, 1935. (1a-4)

\textsuperscript{183} Capus C. Waynick (Chairman, N.C. State Highway & Public Works Commission) to Cammerer, August 5, 1935. (1a-4)
1936. 184 The locations of the residence and comfort station were planned to provide minimum disruption of the "natural and historic" environment while still providing the best possible protection for the monument. This placed the buildings on the side of Kill Devil Hill opposite the site of the first flights. Dough had received the first designs for the buildings at the end of 1934 from the architect, J.R. Thrower, 185 and construction on the brick structures began in October of the next year. 186 In Dough's case, the residence did enable better protection for the monument, but also served to isolate him from friends and family relations in Manteo. This situation necessitated commuting almost every evening to and from Manteo. 187

By January 1936 Greenbriar Farms of Norfolk, Virginia, had completed the planting projects—lining the circular drive with trees, planting flat, sandy areas with grass, and installing numerous shrubs. 188 In July 1936 the roads and paths project was completed, 189 but another $7,500 was still required to make such

184. Dough to The Director, April 10, 1936. (1a-2)
185. J.R. Thrower to Dough, October 4, 1934.
188. John S. Cross, Engineer, to the Director, "Final Construction, Report on Furnishing and Planting," F.P. 450, July 2, 1936. (1a-1)
further improvements as a tree and bush-lined mall between the First Flight Marker and the Monument. ¹⁹⁰

Visitors had been arriving at the Monument in substantial numbers since the beginning of construction, and their numbers had gained each year. The Depression did not affect the rate as much as might today be imagined. Under Park Service administration a greater concern for service to the public soon became evident. The War Department was not institutionalized to this end and, furthermore, the monument at the time of War Department administration was not yet ready for an emphasis on the public. In 1936, then, the concern for the public led to the floodlighting of the monument in the evenings and concessionaires sold pamphlets. The lighted monument was spectacular, and Horace Dough wrote in his Monthly Report for July 1936 that it "incites hundreds of visitors to expressions of admiration." ¹⁹¹ In September 1937 the monument was flood-lighted only during the tourist season. Concession operations had begun in the summer of 1935 with the sale of W.O. Saunders' book, Handbook of the Wright Memorial. ¹⁹² The decision to allow this book to be sold on the premises, and to be sold by an agent of Saunders, was based on the reasoning

¹⁹⁰. T.C. Vint (Chief Architect) to Asst. Dir., Branch of Operations, Nov. 20, 1935. (1a-4)


¹⁹². Cammerer to Dough, July 8, 1935. (1a-5)

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that there was neither already-established literature on the Monument nor any other outlet in the vicinity of the Monument through which the book could be sold.\textsuperscript{193} It was not Park Service policy to sell materials itself.\textsuperscript{194} This policy was kept closely controlled and such materials as post cards were not allowed to be sold.\textsuperscript{195} In September 1935 a book by Miss Catherine Albertson of Elizabeth City, Legends of the Dunes of Dare, was allowed to be sold through the agent of Mr. Saunders.\textsuperscript{196} In March of 1937, however, Saunders refused to allow his agent to continue selling her book, and a directive from Director Cammerer was needed to enable Miss Albertson to sell her books through her own agent.\textsuperscript{197} Both agents were required to maintain their own equipment and to refrain from soliciting.\textsuperscript{198}

Dough felt that the book agents were invaluable in their coincidental duties as guards, for protection of the monument had become a more serious problem since the Colington road had been opened to the public.\textsuperscript{199} Dough wrote Tolson that such items as the beautiful, but poorly secured, door handles of the monument had been removed, and that "this class of people would not hesitate

\begin{itemize}
\item \textsuperscript{193} Ibid.
\item \textsuperscript{194} Ise, Our National Park Policy, p. 614.
\item \textsuperscript{195} G.A. Moskey (Asst. Director) to Wm. L. Stephens, July 23, 1935. (1a-5)
\item \textsuperscript{196} C. Albertson to Demaray, March 14, 1937. (1a-5)
\item \textsuperscript{197} Director Cammerer to Miss C. Albertson, March 29, 1937. (1a-5)
\item \textsuperscript{198} Ibid.
\item \textsuperscript{199} Dough to Tolson, Feb. 21, 1936. (1a-5)
\end{itemize}
in using an auto crank for the purpose of knocking a chunk of granite from one of the sharp corners of the monument." Dough had the services of one guard only, and insisted on funds to hire a guard for night hours, for these "are exactly the hours during which a great many people ride and ramble on the beaches in this area." 200 Commenting on an earlier letter from Dough concerning protection for the Monument, T.C. Vint suggested to Tolson that the problem could be "materially reduced by the placing of our standard metal sign: 'It is unlawful to mar or deface any structure or natural feature in any National Park.'" 201 A more practical solution was the creation of a second permanent position of guard in February 1937. 202

Not everyone wanted to deface government property, however. The Junior Birdmen of America wanted, and got, permission to use replicas of the Wright Memorial for winners' trophies in their annual model plane contest. 203 Furthermore, the Wright Memorial under Dough's caretaking was the scene of many fishing trips for the benefit of the Washington office. Dough, as a retired fishing guide, was constantly inviting such people as Demaray, Tolson, and

200. Ibid.
201. T.C. Vint to Tolson, Feb. 18, 1936. (la-5)
203. Cammerer to National Director, Junior Birdmen of America (N.Y.C., N.Y.), July 24, 1935. (la-5)
Chatelain to spend their vacations fishing for channel bass. As could be expected, these fishing trips were enjoyed tremendously, marred only by Demaray leaving such things as brief cases behind.

With the tremendous accomplishments of the Public Works projects completed, construction at the Monument understandably dropped off. There were still plans for an airport and a mall between Kill Devil Hill and the First Flight marker, but these received lower priority than such projects as water and sewage services and the three approach roads to the circular drive. The proposed projects in the 1936 program for the years 1938 through 1943, not including plans for a proposed airport, were as follows:

1. Utility building ($5,000)
2. Employee's residence ($8,000)
3. Lightning protection for monument ($2,000)
4. Sewage disposal, water and sewage lines ($3,500)
5. Radial approach roads to circular drive ($55,000)
6. Paths along mall ($8,000)
7. Planting ($62,000)

With airport costs—not mentioned above—the total would be approximately $1,219,400. Without the airport, costs were a much lower $143,500—a tremendous savings which indicates the rather extensive proposed airport.

The airport proposal maintained a rather high level of interest until the immediate pre-War period. Location, size,
and finances were debated among innumerable persons during this time. The official justifications for the airport, as reported in May 1939, were that it would have a definite memorial basis, would serve in emergencies, could be used as a Coast Guard air operations center, and would provide air access to a recreational area. The location was to be South of the monument due to excessive costs to the North and East—and an alleged lack of space to the West. In any event, a minimum of 523 acres of airstrip grounds was established. Alfred E. Poor, of the firm which had designed the Memorial, offered to serve as architect for any airport that might be built, explaining:

At the time that we were selected for the Memorial by open competition, there was to be a landing field at the base of Kill Devil Hill. The location of this proposed field had an important bearing on our design of the Memorial and its orientation.

An airport location to the South of the Monument had been surveyed and laid out by July 1939. Roy Knabenshue, working with the proposal, found that even though land prices were lower to the South, the cost would become prohibitive because a sand dune covering some 400 acres would have to be removed. Knabenshue had spoken with Orville Wright about sites for an airport, and

205. "Descriptive Report on the Proposal for an Airport" (prepared by N.P.S., Region I, Branch of Plans and Design), May 1939. (1a-3)
206. Ibid.
207. Alfred E. Poor to The Director, NPS, July 3, 1939. (1a-3)
208. Roy Knabenshue to Sager (NPS), July 31, 1939. (1a-3)
the latter's comments were equal to the occasion:

Mr. Orville Wright . . . expressed the view that the north side of the monument would be more suitable for a landing field than the south side. He was quite positive concerning the value of the land. He claims that the land all around the Monument is not worth more than a dollar an acre and he would seriously object to paying anybody in excess of ten dollars an acre at the outside. He is further of the opinion that the land should be donated for the purpose. 209

A new stalemate on further development had actually been reached in 1938, when appropriations were cut from those previously proposed, and thus not even all of the items in the "Six Year Program" remained unscathed. 210 Congress had, for one explanation of this, become somewhat wary of Park Service expansion and improvements in general. Furthermore, it is probable that the Park Service, with its traditional lack of desire to build and operate airports, had not supported this particular proposal as fully as certain persons might have wished.

Horace Dough's qualifications for caretaker had not included office procedures, and it is not surprising that in 1938 an auditor found the Kill Devil Hill National Monument files inadequate, and generally out-of-date and incomplete. Furthermore, private concessioners were selling post cards on the grounds. 211 According to Dough, he had been swamped with paperwork during most of the

209. Knabenshue to Sager, December 19, 1939. (la-3)

210. Demaray to E.K. Burlew (Administrative Assistant & Budget Officer), Jan. 12, 1938. (la-4)

211. Hillory A. Tolson (Acting Associate Director) to Dough, June 16, 1938. (la-1)
early years he was in charge and there were many procedures with
which he was simply not familiar.\footnote{Interview with Horace Dough, November 5, 1967.} In any case, the improper
handling of the office records was accepted without question to
be a result of error, not intentions. The Auditor called the
situation "improper, but not scandalous,"\footnote{Earl H. Brown (Senior
Auditor) to The Director, NPS, May 21, 1938. (1a-1)} and promises were
made to correct the situation.\footnote{Dough to The Director, July 1, 1938. (4a)} Nonetheless, the lack of these
records, then as now, limits knowledge of the circumstances con-
cerning the Monument. Much of the information may have been writ-
ten up in longhand and then put—not filed—in Dough's desk drawers.
These records were then eventually disposed of.\footnote{Interview with Horace Dough, November 5, 1967.}

The staff at this time—1938—numbered seven, of whom three
were laborers. Otherwise there was a clerk-typist and two guards
who also served as guides, plus, of course, Horace Dough, now
"Custodian."\footnote{"Monthly Report," October 1938. (1a-2)}

The year 1938 was the 20th anniversary of air mail, and special
ceremonies were accordingly held at the Monument. The climax of
this affair was the postmarking and air transport of 56,000 pieces
of mail from the foot of Kill Devil Hill. Annual observances of

\footnote{212. Interview with Horace Dough, November 5, 1967.}
\footnote{213. Earl H. Brown (Senior Auditor) to The Director, NPS, May 21, 1938. (1a-1)}
\footnote{214. Dough to The Director, July 1, 1938. (4a)}
\footnote{215. Interview with Horace Dough, November 5, 1967.}
the Wright's first flight were now held each December 17. These were usually banquet affairs with one or several speeches on the actual site by various invitees of the Kill Devil Hills Memorial Association. Orville Wright did not, for various reasons, attend these observances. He had visited in 1928 and 1932 for ceremonies, and in April 1939 he drove down in his Hudson for personal sentimental reasons. He was shown about, and appeared to enjoy his visit immensely. 217 "Except for the prolific scrub growth," he commented, "I don't see that it has changed much since we were first here. In earlier years there was just sand." 218 This was Orville Wright's last visit to the site which is so strongly linked with his legend.

Until the early 1950s, Horace Dough was the only Park Service administrator in the entire Banks area. In addition to being Superintendent—since June 1941—of the Kill Devil Hill National Monument, 219 he was also the Acting Custodian of the Currituck Beach and Hatteras lighthouses, and of Fort Raleigh as well. The lighthouses had been transferred to the Park Service in May 1938 in connection with the proposed national seashore. 220 Fort Raleigh was transferred to the Park Service and Dough's care in 1941, after several years of unofficial transition, 221 and Dough was

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218. Bee-Hive (magazine), Dec. 1953, p. 30. (1a-2)
219. General Memorandum, Tolson, June 18, 1941. (1a-2)
220. A.E. Demaray (Acting Director) to Dough, Feb. 14, 1939. (4a)
221. The Director to Secretary of the Interior, April 5, 1941. (4c)
thenceby made custodian of his own birthplace. In this same year, Mr. Robert H. Atkinson, who had been the Superintendent of Schools in Dare County for the preceding six years, began work as a guard at Kill Devil Hill and, one year later, was transferred to Fort Raleigh as Superintendent.\textsuperscript{222}

One of the original policies of some of the Park Service officials, including Stephen Mather, had been to keep the National Parks financially self-sufficient. This had been, of course, impossible and especially so in an era of construction and improvements. In 1939, however, Congress and the Bureau of the Budget stressed the importance of lessening the Parks' deficit, and entrance fees were raised or, in areas where there had been none, such fees were established for the first time.\textsuperscript{223} At Kill Devil Hill, previously without an entrance fee, the charge was now ten cents. The fee was deferred, at the end of February 1940,\textsuperscript{224} but reinstated almost immediately--this time eliminating motorcycles from payment.\textsuperscript{225} Dough, not wanting to be again criticized for improper handling of affairs, applied the entrance fee rigorously. In November 1941 he wrote to the Associate Director that

\textsuperscript{222} "Monthly Report," July 1941. (1a-2)

\textsuperscript{223} Ise, \textit{Our National Park Policy}, p. 622.

\textsuperscript{224} Telegram, Cammerer to Dough, Feb. 29, 1940. (1a-3)

\textsuperscript{225} Marlow Glenn (Sr. Auditor) to the Director, April 9, 1940. (1a-3)
a local company had applied for exemption to the entrance fee for its deliverymen. Dough wished to be advised, and Demaray did so, saying, "This Service has approved such (exemptions) on the ground that the duties of the deliveryman require them to enter the area . . . and that their duties are in furtherance of the administration of the areas. It will also be unnecessary to collect admissions [state] tax."226 It is unclear when the admissions charge was abolished, although it was probably in the early '50s.

With the completion of physical facilities, and with greater numbers of visitors, more and more attention was given to interpretation. Although there was a decline in numbers of visitors in 1939 over the preceding year—which Dough attributed to competition from the New York World Fair—the 1941 tourist year (from September 1940 to September 1941) saw an all-time high, with 24,194 visitors.227 Scenic viewers (coin-operated binoculars) had been installed by a Connecticut firm in 1941 so that visitors might have a better view of the surroundings,228 and the suggestion was made to obtain an automatic speaker for lectures as the one guard on duty at any one time was not sufficient.229 The prevalent feeling

226. A.E. Demaray (Associate Director) to Dough, Nov. 29, 1941. (la-3)


229. Ralston B. Lattimore (Assistant Historical Technician) to Acting Regional Director, Region One, July 30, 1940. (4a)
was that the visitor could very easily gain little or no educational value from a "pilgrimage" to the Monument. There were few educational displays and the guide was often too occupied with group lectures to handle individual questions at length. "Few areas," wrote Mr. Ralston Lattimore in a report on the Monument, "have a greater opportunity ... for interesting and significant museum development . . . . I strongly recommend that a museum plan be developed for this area, and I believe that the aviation industry would assist financially." 230 Little was done, however, with this proposal, even though funding might have been possible. Museums were probably still considered an unnecessary frill, and the War stopped any progress that might have existed. Nonetheless, the idea was there--it would simply have to wait. An example of the effect of the War on the proposed museum was the offer in 1941 by Mr. Paul Garber of the Smithsonian Institution to donate to the Monument a scale-model of the 1903 Wright plane. It was to be placed in the center niche in the Memorial Shaft--a niche which had been originally designed for such a replica. 231 Dough replied affirmatively, but the correspondence ends at this point. Not until 1952 was the offer of a replica made again.

230. Ibid.

231. Superintendent of Historic Sites to Dough, Dec. 1, 1941. (4a)
World War II brought many problems to the Park Service which were in turn felt at Kill Devil Hill. Most important was an appropriations cut from the 1940 level of $21 million to $5 million in 1943—a minimum level which was maintained until 1947.\footnote{Ise, Our National Park Policy, p. 452.} Rationing and unavailability of many items made the situation even more severe—gasoline rationing, for example, helped reduce the number of visitors to the Park Service areas from a 1941 level of twenty-one million to a series of years at about six million, and the 1941 figure was not surpassed until 1946.\footnote{Ibid.} Fertilizer, so important to Kill Devil Hill, was limited to the non-nitrate, "victory" types, and these were of inferior quality. Furthermore, military service reduced staffs to a minimum and women were hired for many vacant positions.

Not only were the National Parks restricted by national wartime needs, but most of the seacoast sites were used in one way or another for defense installations. Most areas suffered little damage, but some, like Hawaii National Park, which surrendered 6,400 acres for use as an Army bombing range, received severe...
At Kill Devil Hill, an "ultra-high frequency monitoring system" was installed in the top of the Monument, presumably to monitor and locate enemy submarines which would again patrol the shipping lanes off the Banks as they had done in World War I.\textsuperscript{235} This station--installed in March 1942--was removed that same Spring to what later became a radar site, north of Kitty Hawk. No damage had been done. As early as April 1942, enemy submarines were active off the Banks, and Dough reported that numerous birds in the area were dying as a result of being soaked in the fuel-oil of sunken tankers.\textsuperscript{236}

The "Monthly Report" changed little from month to month. Oftentimes, the only words which changed were those concerning the weather. For December 1942 the Report, in its entirety, was:

Principal activities at this area consisted of the general routine business of contacting visitors, administration, protection and maintenance.

The weather during the month continued unusually cold.

In March of that year, though, a dead whale had washed ashore eight miles north of Kill Devil Hill with a large hole in its back--presumably mistaken for a submarine by an airplane. Two photographs

\textsuperscript{234} Ibid.  
\textsuperscript{235} Capt. Joseph R. Redman (U.S.N.) to Secretary of the Interior, March 11, 1942. (4c)  
\textsuperscript{236} "Monthly Report," April 1942. (1a-2)
of the whale were attached to the "Monthly Narrative," one "head
to tail," the other "tail to head." The accompanying text read,
in part, "One bomber certainly made one whale of a good shot."237
And in February 1943 permission was given for a widow to throw
the ashes of her deceased husband from the top of the Monument.
One of the happiest moments of their lives had been a three-week
vacation several years before camping just outside the gates.238

Shortly before the entrance of the United States into the war,
Orville Wright announced that the 1903 plane would be returned
from England to this country. The Kill Devil Hills Memorial Asso-
ciation sprang into action with a reorganization and incorporation,239
with Horace Dough as vice-president.240 The goal of the Associa-
tion was to obtain the 1903 plane--"should this plane be housed
anywhere else it would be like separating a man and his wife,"241--
and install it in "an appropriate ultra-modern aviation museum."242
In October 1943 Governor J. Melville Broughton of North Carolina
assisted the effort by designating December 17 as "Kitty Hawk Day,
and named a Kitty Hawk Day Committee to plan "an appropriate

238. Newton B. Drury (Director, NPS) to Dough, Feb. 8, 1943. (1a-5)
241. Melvin R. Daniels (Secretary, Kill Devil Hills Memorial Assos-
ciation) to North Carolina Governor Broughton, December 19, 1942.
(1a-5)
observance" of the event. The observances that year were, however, not held because of snow and it soon became obvious that no shipment of the plane would be made until war's end. Interest was bridled until August 1945, at which time enthusiasm again broke forth.

The few visitors who did come to the Monument were primarily relatives of those stationed at nearby Coast Guard stations and an Air Station, although there were also a good number of foreign visitors from the Norfolk naval area, especially British and Russian naval officers. The small maintenance crew was kept fully occupied preventing brush and trees from spreading into areas where such growth was undesirable. Dough wrote, "For the past twelve years we have been compelled to spend considerable time and money in planting, fertilizing and nursing the vegetation and now . . . we are going to have to spend more money to keep certain areas from reforesting than we spent to make it grow in the past." The condition of the grounds was such that in September 1944 "one of the worst, if not the worst," hurricanes did little more than destroy the sheet copper roof of Dough's residence and knock down the weaker trees. The sheet copper was replaced with a slag and

pitch roof which would be better able to resist high winds. The Memorial Shaft suffered slight flooding from rains, but no damage.246

As the war ended in August 1945, the Park Service was ready to proceed with master plans compiled in 1942. Congress, however, saw differently. The Regional Director informed the field offices, including Kill Devil Hill, that a 1939 investigation instigated by Congress and the Bureau of the Budget had not yet been fully carried out, and that the "strong pressure on the National Park Service to raise itself to a fully self-sustaining status" was stronger than ever. It was recommended to Dough that he provide a self-sustaining rate of twenty per cent of the total costs by charging an entrance fee of twenty-five cents per person.247 "The post-war financial embarrassment," as John Ise termed it, maintained the Park Service close to minimal levels until 1947, and even then there was only one year of Congressional grace, for in 1948 the appropriation was only ten million dollars—not quite double that of the war years, and well below the 1941 level. In 1949 when Director Drury felt the Park Service needed 496 million dollars for physical improvements and completion of existing construction, the Park Service appropriation was for just over fourteen million, and sustaining what Drury called "the dilemma of the Parks."248

247. Thomas J. Allen (Regional Director, Region One) to field offices, August 6, 1946. (4c)
248. John Ise, Our National Park Policy, p. 455.

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In planning for the future—for the above circumstances would eventually change—Dough wrote the Director of the ways in which Kill Devil Hill could be improved.

These areas could provide better service to the nation by adding exhibits and increasing their guide service in order that the visiting public might be better informed, made more comfortable, rested and perhaps inspired by the feeling that they were visiting historic sites . . . and these should be expanded and improved to the extent that this nation can feel justly proud of them. 249

A summary of the status of Kill Devil Hill at the end of the war revealed that the Monument Shaft was showing "rapid signs of deterioration" as a result of water accumulations. 250 The resulting discoloration of the granite and possible damage to mortar had been the result of both rain and a peculiar problem to the Monument—condensation. The Monument had been designed to be water and air-tight, and ventilation was almost nil. When sealed shut, the differences in exterior and interior air temperature and humidity resulted in an accumulation of moisture anywhere from dampness of the walls to several inches on the main floor. In addition, rain water entered the Monument in several places.

Dough had raised a point that the name "Kill Devil Hill" is of totally local significance, for the Wright Brothers are associated with the name Kitty Hawk, however "incorrect" this might actually be. Dough suggested that the name of the Monument be

249. Dough to Director, May 14, 1946. (4c)

250. Roy E. Appleman (Regional Historian) to Regional Director, Region One, Dec. 20, 1946. (1a-1)
changed through legislation along the lines of "Wright Brothers First Flight Memorial," and Regional Historian Roy E. Appleman agreed. 251 The designations used for what is today "Wright Brothers National Memorial" were always rather arbitrary. The original bill of enactment referred to "a memorial" and "the monument," and the 1933 Executive Order listed "Kill Devil Hill Monument" under "Miscellaneous Memorials." In 1942 the area was designated the "Kill Devil Hill Monument National Memorial." 252 In 1948, two years after the above-mentioned suggestion by Dough and Appleman to make the name more relevant, Tolson suggested to the Director that, "In the absence of specific designation by law of the name for the Kill Devil Hill monument, it is recommended that you designate it administratively as the 'Kill Devil Hill National Memorial.'" 253 At various times the memorial monument has also been unofficially called "Kill Devil Hill National Monument National Memorial." A clarification was clearly needed, but it was not until 1953--upon pressure from chambers of commerce and individuals in the area--that Park Service Director Conrad L. Wirth personally effected the change. 254 Legislation had not been necessary as none had ever established an original name, and the present name became effective December 1, 1953. 255

251. Ibid.
252. Watson to Tolson, July 10, 1942. (1a-5)
253. Tolson to The Director, June 22, 1948. (1a-4)
254. Wirth (Director, NPS) to Assistant Secretary of the Interior Lewis, Nov. 20, 1953. (4a)
Of all the possible developments for the Memorial, that of "rounding out the boundaries" was the most immediate. Even before the defeat of Japan in 1945, a land boom in the Kill Devil Hills area had begun with an intensity theretofore unmatched, and tourism was at least the equal of most speculation. New hotels, motels, restaurants, stores, cottages, and other service developments had already caused a tremendous increase in assessed values in the Kitty Hawk-Kill Devil Hills area, and by 1957, the real and construction values had increased to $6,250,000 from the 1927 level of $100,000.²⁵⁶

Eventual boundaries changes would be needed to provide for a new entrance east of the Memorial ²⁵⁷ and acquisition of the site of the fourth landing of December 17, 1903, which could not be further ignored.²⁵⁸ There was also the constant fear that private interests would eventually impair continued Park Service control over the qualities of the monument.

In May 1947 the Master Plan was revised to include the acquisition of an 800 by 2,000 foot strip of land between the monument and the state highway to the east. An East-West approach road was to be constructed through the center of this land.²⁵⁹ With the construction of a new entrance road, the previous right-of-way, which

²⁵⁷. T.V. Vint (Chief of Development) to the Director, December 23, 1947. (la-3)
²⁵⁸. Herbert E. Kanler (Chief Historian) to the Director, Nov. 9, 1953. (4a)
also served as the State route to Colington, would be donated to North Carolina. Furthermore, the State was expected to re-route its Colington road so as to not use the circular drive around Kill Devil Hill. It would still cross federal lands in the southwest corner, but would not have access to the Memorial's roads.260 Inasmuch as Kill Devil Hill was within the boundaries of the proposed National Seashore area, it should have been possible to obtain funds for the Memorial's land acquisitions. However, the Seashore area was itself embroiled in problems—problems which centered around its very existence—and little assistance could be expected from this source. Nor could the Park Service, in its difficult financial situation, afford to provide funds for the estimated $108,000 cost.261 Private sources, the last possibility, could not be utilized except after lengthy soliciting. Land purchase and related developments would have to be indefinitely postponed, and were not, in fact, recommenced until the late '50s.

Due to necessary measures of economy and security, the monument had not been lighted during the war years. Shortly thereafter, however, complaints were received to the effect that the beauty of the lighting could no longer be foregone,262 and in December 1947 lighting began once again.263 Perhaps indicative

260. T.C. Vint to The Director, Dec. 23, 1947. (1a-3)
261. Director Wirth to Hon. William B. Umstead (Governor of North Carolina), Nov. 20, 1953. (4a)
of post-war needs for comfort, complaints were also received about the lack of "settees" (benches) and soft drinks at the Hill.\textsuperscript{264} In warm weather, the two-minute climb up Kill Devil Hill was tiring, and without benches one could rest only on the grass, which would in turn be a danger to the very grass roots of preserving the Monument's natural beauty. And then upon reaching the top of the hill, the nearest cold liquid was one-half mile away. It was suggested that the Eastern National Park and Monument Association, the concessions agent for many of the Eastern Parks areas, install a Coca-Cola dispensing machine.\textsuperscript{265} "Impossible," was the reply--the Monument had no space for either a soft drink machine or the resulting used bottles, and the Park Service had no funds for improvement in the water supply.\textsuperscript{266}

\textsuperscript{264} Demaray to Regional Director, Region One, August 2, 1950. (4c)

\textsuperscript{265} Ibid.

\textsuperscript{266} Regional Director, Region One to the Director, August 8, 1950. (4c)
The doldrums would linger on for several more years, but a brief, intense respite was stimulated in the early Fifties by the coming fiftieth anniversary of the 1903 "first flight." What actually put an end to what Drury had called "the dilemma of the Parks" was a ten-year program of national development to commemorate the fiftieth anniversary of the National Park Service, established in 1916. This program, named "MISSION 66," would establish Wright Brothers National Memorial on a level of development possibly equal to the 1926 "visions" of Lindsay Warren.

Preparations for the fiftieth anniversary of the first flight began in 1951 with the reorganization of the Kill Devil Hills Memorial Association as a national "Society." It was hoped that support for the celebration would be as widespread as the Wright's contribution itself had been, and truly grandiose plans were laid for the greatest "first flight" observance to date. Not only did the Society want support for the actual celebration activities, but also for funding land acquisition, a museum, reconstruction of buildings such as those used by the Wrights during their experiments, and sculptured busts of each of the brothers. The Society also wanted an airstrip, but realized that this would be impossible to finance at that time. Because the Park Service had no funds for
these activities, the Society turned to Mr. Ralph Whitener of the Air Force Association in Washington, D.C. This Association maintained national contacts with the Air Force and aircraft industries, and it was from these sources that financing for the memorial programs was expected. By the Spring of 1952, however, it could be seen that it was going to be impossible to raise enough money to cover all of the projects originally proposed, and Whitener proposed that priorities be established immediately among the proposals, and that some of the responsibilities be given to others—for example that the State of North Carolina provide the funds to purchase the site of the fourth landing. Postponing the acceptance of these suggestions, an investigation into the possibility of hiring a national fund-raising organization was made. It was soon discovered that the cost of such an agency would require an initial outlay of over twenty-five thousand dollars and a total amount of more than double this figure. As a result it was felt that a nationwide campaign could not be carried out and, furthermore, that certain of the projects, such as the $1,250,000 museum, would have to be postponed. As the Regional Director commented at the anniversary ceremonies in 1953, "Many of us still feel very strongly that the project [to construct a museum] should not be abandoned and

267. General memorandum from Ralph Whitener, Spring 1953. (4a)

that renewed efforts in the years ahead could be made."269 Instead of a museum, priority was given to the reconstruction of the two buildings in which the Wright Brothers had lived and worked during their experiments. Since these structures had been simple and temporary, the reconstructions would likewise be inexpensive and temporary. By May 1953 the Society's plans were: first, to reconstruct these two buildings and the monorail from which their 1903 plane had taken off; second, to erect cast aluminum information markers at the four landing points of the December 17 flights; and third, to construct a series of walkways to connect the various historic sites. The total budget for this revised set of plans was $15,000.270 Even with this tremendous reduction in goals, difficulties in raising the needed financing continued to stand in the way of carrying out any activities. Most notable among these difficulties was a pending application for non-profit status. This would allow tax deductible donations for the anniversary activities, and the Society did not want to begin fund-raising without it.271 Upon the receipt of this status in September, Ralph Whitener began actively soliciting donations, but by this time little had been done

269. Regional Director (Region One) Elbert Cox, address at Wright Brothers National Memorial, December 17, 1953. (4a)

270. Ronald F. Lee, Assistant Director of the National Park Service, to Admiral DeWitt C. Ramsey (U.S.N., Ret.), Aircraft Industries Association of America, Inc. (Washington, D.C.), May 12, 1953. (4c)

271. Whitener to N. Elton Aydlett (Elizabeth City), June 30, 1953. (4c)
with the reconstructions and the erection of information markers, and the Park Service did not wish to proceed until financing was actually available.\textsuperscript{272} As Chief Historian Kahler wrote the Director in early November, the small funds available (at the time they totaled only $2,300) "is greatly affecting the speed with which the Park Service can reconstruct the sheds," and it can be easily imagined that such items as original, square cans of asparagus tips could not be easily located.\textsuperscript{273} In order that the work could begin the Air Force Association loaned the Park Service $500.\textsuperscript{274} The rush to reconstruct the buildings did not, however, seemingly affect the quality of the reconstructed buildings, and they were accepted very well by the public in December.

In November, the Avalon and Old Dominion Foundations of New York gave $82,000 to the Park Service for land acquisition at Wright Brothers, and by previous agreement with North Carolina to match funds for this purpose up to a maximum of $25,000, these commitments equaled the required amount for all proposed land purchase.\textsuperscript{275} Although these lands were not legislatively transferred

\textsuperscript{272} Assistant Director Lee to Regional Director, Region One, September 2, 1953. (4c)

\textsuperscript{273} Chief Historian Herbert F. Kahler to the Director, November 9, 1953. (4a)

\textsuperscript{274} "Flight's Biggest Birthday Party," \textit{Air Force} (magazine), February 1954, page 19. (4a)

\textsuperscript{275} Director Wirth to the Governor of North Carolina William B. Umstead, November 20, 1953. (4a)
to the Memorial until 1959, they did contribute to the spirit of the anniversary ceremonies and did rest the worries of many who were afraid the land would continue in jeopardy.

As the date of the fiftieth anniversary approached, preparations for the observances became hectic. As the February 1954 issue of *Air Force* magazine reported, Kill Devil Hills is a terrible location for a ceremony involving many thousands of participants and spectators. Communications, lodgings, general public services, coordination, and safety were all lacking and had to be developed on the site as best they could. The Air Force Association, represented by Ralph Whitener, took responsibility for all national arrangements and participation, as well as coordinating all air operations. The Kill Devil Hills Memorial Society handled local arrangements; the Park Service rebuilt and refurnished the 1903 camp and worried about the safety of its property; and the North Carolina 50th Anniversary Committee, appointed by the Governor earlier that year, coordinated state participation. The three areas of supervision and management were the Memorial, the communications and coordinating headquarters in the Carolinian Hotel near the Memorial, and the Manteo Municipal Airport. The ceremonies were to extend over a four-day period ending the 17th, and presided over by representatives of the four coordinating committees.

The "birthday party" can only be described as spectacular. Events included fly-overs by representatives of each of the armed forces, the dedication of the reconstructed buildings, the
presentation of a plaque describing the gliding exploits of the Wrights, and the raising of flags which had just returned from a six-day trip around the world. The U.S. Air Force provided precision team-flying exhibitions by the "Thunderbirds" team; the Navy demonstrated the abilities of a jet-powered helicopter. A British Royal Air Force jet bomber flew over the Memorial the same morning it had left England. On the fourth day of the anniversary observances, at the exact time of the Wright's original flight, a 1912 bi-plane was flown over the original course by air pioneer Billy Parker. At this time also, twelve thousand wallet-sized cards were distributed to passengers on commercial airliners "to certify" that the individual was airborne fifty years to the minute after the first flight. Press coverage of the celebration was extensive—some fourteen thousand people attended the activities, but many millions were informed by radio, newspaper, television, and newsreel. Western Union Telegraph sent out over seventy-five thousand words from its office near the site, and so celebrated its participation of fifty years before in sending to the world the news of the first flight.

The 1903 camp buildings, left after the celebration for later visitors, were not "a disappointment," as the Chief of the Museum Branch had feared they would be, and even though they had been

expected to remain only until the first storm, they actually survived almost ten years of storms. When they were removed in 1962 it was because of termite damage, and new and sturdier reconstructions soon took their place.

The staff of Wright Brothers had grown over the years. In 1956 the staff had risen to seven persons: Superintendent Horace Dough; Historian Omega G. East; Tour Leader (temporary) James D. Groce; a clerk-typist (temporary); one permanent laborer; and two temporary laborers. These staff positions would change in the next ten years to reflect the new policies of MISSION 66 and the greater numbers of tourists.

After many years of indecision and debate, the Cape Hatteras National Seashore was finally established in January 1953. Its early influence on Wright Brothers was, however, slight. It was understood that the Memorial would eventually come under the supervision of Hatteras, but until Dough's retirement in the early '60s, Hatteras had too many problems of its own to place a high priority on such chores as administering an established area such as Wright Brothers. Horace Dough was, as always, the Superintendent, and his competence in this position did not call for control by Cape Hatteras. Wright Brothers continued, then, as an independently administered area until Dough's retirement in 1962, after twenty-nine years of service, twenty nine years at the Memorial. Under

277. Payroll records of Wright Brothers, October 1938 (1-a2) and December 1956. (4c)
the "satellite system" of management, the Superintendent of Cape Hatteras National Seashore would now be the Superintendent of Wright Brothers as well. The disadvantage of this system is that the smaller area can tend to be ignored or viewed as less important than it might otherwise be, especially when the larger area is of a different type. In this case, one Superintendent administers three different types of areas--Cape Hatteras, a seashore and recreational area with lighthouses, and adjoining game preserves; Fort Raleigh, an archeological and historic site with theatrical performances in the summer; and Wright Brothers, a memorial monument. Many of the problems related to these three areas are identical; many are different. In any case, the dominant position necessarily held by the Seashore might in certain circumstances work to the disadvantage of maintenance and possible development of the other areas.

Furthermore, the personnel at Wright Brothers, as in the remainder of the National Park Service, is now expected to transfer to other Park Service areas every several years. Wright Brothers will have no more Horace Doughs with twenty-nine years service. This policy has many advantages, but it can change certain aspects of Wright Brothers nonetheless. Exactly how is a question that only time can tell.

The years of MISSION 66--1956 through 1966--saw the remaining pieces in the development of Wright Brothers fall into place. On a national scale, the program was to provide an "intensive study
of all the problems facing the National Park Service," and following this study would be action to correct the primary problems.278 These problems were expected to include the questions of building visitor centers and acquisition of land, and the overall problems centered around interpretive services. At the 1957 "first flight" ceremonies, Director Wirth outlined what MISSION 66 was to mean for Wright Brothers in particular:

The major developments of the MISSION 66 program here will be accomplished, we hope, in two years. Our plan is to construct during this fiscal year a new entrance road to, and a parking area at, the site of a new Visitor Center. This work should be finished by next summer. During the next fiscal year, we expect to proceed with the construction of the Visitor Center. It will accommodate visitors in large numbers; it will provide for their physical comforts; and it will present the story of the Wright Brothers at Kill Devil Hill in the most effective way graphic arts and modern museum practice can do it.279

What Wirth outlined was, however, only part of the story, for construction of one sort often breeds yet other construction, and the men to stimulate continued growth were there. Wright Brothers is lucky in this respect, for unlike many Park Service areas, this Memorial monument is an object of community pride that lends itself to development and public support. Ralph Whitener had stated in August 1957 that he was enthusiastic about the possibility of raising privately more than a million dollars for a new visitor center

278. Ise, Our National Park Policy, p. 547.

279. Director Wirth, address at Wright Brothers, December 17, 1957. (4a)
and other improvements, and thus provide Wright Brothers with much more than the Park Service could otherwise make available. 280 And with the imminent acquisition of land as provided for by the 1953 financial grants for that purpose came optimism that the long-proposed landing strip might finally be built.

A major change in the character of the Memorial would come about with the construction of the Visitor Center, for the Center and adjacent first flight grounds necessarily became the area of comprehensive interpretation and emphasis. The previous focal point had been the Memorial Shaft, and this area would now become of secondary importance. The closing of the Shaft to visitation in 1960 confirmed this secondary status. Indeed, the Shaft is now almost a "white elephant." It serves only as something to look at from afar, or perhaps as a partner on Kill Devil Hill, from which one has a view of the surrounding lands. The Memorial gained a visitor center, but lost the close relationship of an old friend. The rationale for closing the Shaft was not only the diversion of interest to the visitor center several hundred feet away. In a conference between Dough and the Acting Regional Director in 1960, the reasons given for the closing of the Shaft were several: concern for visitor safety, even though there was never a serious accident; the inefficient use of staff if a person were kept at the Shaft as a guard while all interpretation was centered around the Visitor

Center; and visitor complaints of overcrowding inside the Shaft itself. 281 The decision to close the Shaft disappointed many people, but it was the wisest and most practical means of solving the various problems presented by its being open. Kill Devil Hill still affords an excellent view of the area without climbing to the top of the Shaft.

At the time of the announcement that the Visitor Center would be built, the State of North Carolina was proceeding with the relocation of the main highway paralleling the eastern boundary of the Memorial and several hundred feet away. The new highway would be located directly on the proposed Eastern boundary, and it would be from this highway that most visitors would enter the Memorial. 282 Another change in highways was the relocation of the Colington road, completed in July 1958. Public traffic no longer had access to the Memorial roads even though the right of way, in the southwestern corner of the Memorial, was still on government land.

As plans for the design of the Visitor Center became more definite, bids were received and an award was made for the construction of an East entrance road and parking lot to Dickerson, Incorporated, of Monroe, North Carolina, for a cost of $73,930. 283

281. Acting Regional Director E.M. Lisle to Acting Superintendent Smith of Wright Brothers, December 5, 1960. (4b)

282. Director Wirth to Gen. Thomas D. White, USAF, November 8, 1957. (4c)

These projects were to be completed by December 1958, and the following February the contract for the construction of the Visitor Center itself was awarded to the Hunt Contracting Company of Norfolk, Virginia, for a low bid of $257,203.  

The impending construction of the Visitor Center was the final stimulus needed for the formal acquisition of the lands for which the Avalon and Old Dominion foundations and the State of North Carolina had provided $107,000. The site of the center was limited by three considerations: to provide for proximity to the site of the reconstructed 1903 camp buildings and "first flight" area; to enable easy access to the State highways; and to maintain an unobstructed area between Kill Devil Hill and the first flight area. By building to the east of the first flight area, all of these conditions would be met as well as practicable, but this would place the Visitor Center very close to the east boundary line, and the parking lot—a construction even more obtrusive than a well-designed building—either off Memorial property or in the area which was to be kept undeveloped. A Congressional bill was therefore introduced in June of 1959 by the Hon. Herbert C. Bonner, the District's Representative, to authorize the enlargement of Wright Brothers under the authority of the Historic Sites Act of 1935. The Bill extended the east Memorial boundary some five hundred feet, and the northern boundary by nearly one thousand feet. This

area included the site of the fourth landing of December 17, 1903, and allowed for more than enough room for a visitor parking area. A second tract of land was also added to the Memorial, between Lowell and Woodmere avenues and between the two State highways east of the previous Memorial boundaries. This tract would allow an entrance road from the older Highway 158 and would prevent development that might not be in the best interests of preserving some semblance of the original barren land. Together, these new lands added 111 acres to the previous 314 acres of the Memorial.

The Visitor Center building is a modern one-story structure with large glass windows. Space is divided into several types of areas: a lobby, including a concessions stand; interpretive exhibits; a display room for one Wright Brothers plane; and administrative quarters. Preliminary plans had called for a mezzanine in order to view a full-scale Wright plane from above as well as from the ground floor level. Historian Appleman suggested, however, that the plane be installed on a small platform thus enabling the visitor to view the plane just as well, albeit differently, and thus saving considerable construction costs. This recommendation was accepted and when the Center was dedicated in December 1960 a replica of the Wright's 1902 glider, donated by the Air Force Museum in Fairborn, Ohio, was being exhibited in this way.

286. Actg. Chief Historian Appleman to Chief, Division of Interpretation, May 5, 1958. (4a)

With the general upswing in the late '50s at Wright Brothers, attention turned to attempting once again to obtain the original 1903 Wright powered plane. A decision had been reached in the late 1940's to accept the fact that the National Air Museum of the Smithsonian Institution had due possession of the plane as stipulated in Orville Wright's will. The only course of action was the relocation of the Air Museum, encouraged by the fact that facilities in Washington were overcrowded, whereas the Kill Devil Hills area was distinctly the opposite. Furthermore, the Kill Devil Hills area would be a more symbolic location for a National Air Museum than Washington.\footnote{288} For obvious reasons, however, this proposal was never brought to the attention of the Smithsonian and the idea was forgotten. Then, in the fall of 1959, an offer to build a full-scale replica of the 1903 plane was received from the Washington Section of the Institute of the Aeronautical Sciences. The original offer was made simply to know if the Park Service would be interested, and Ralph Whitener of the Air Force Association, for his part, "jumped the gun" on what he took to be a commitment on their part, "considerably irking" some of the Institute's members.\footnote{289} Nonetheless, the Institute promised that it would try to complete such a plane within three years' time, after completing previous engagements and

\footnote{288. Actg. Chief Historian Appleman to Schnettler, May 15, 1956. (4a)}

\footnote{289. Staff Historian Appleman to the Director, February 2, 1960. (4a)}

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organizing various manufacturers to contribute on a voluntary basis. The reconstruction began in 1962, and the volunteering builders included over fifty agencies, companies and individuals. Some of those volunteering materials and labor were Pratt and Whitney, making the mock-up of the engine; Diamond Chain Company, supplying the propeller drive chains; M. Lowenstein and Son of New York City, donating the muslin fabric; and the Cleveland Pneumatics Industries, which constructed the landing skid assembly. The Smithsonian's National Air Museum, and Mr. Walter Male in particular, advised on techniques and supplied research materials. The reconstruction was carried on in many parts of the nation, and the parts shipped to Washington, D.C., in the fall of 1963 for assembly and temporary exhibit. On December 10 the plane was delivered to Wright Brothers, and was re-assembled early the next week by three members of the "Project 60" committee. The 1902 glider, previously in the place now occupied by the 1903 plane, was suspended from the ceiling near the east wall of the room. In a ceremony the 16th of December, Director Wirth officially accepted the replica from the President of the Institute, now renamed the American Institute of Aeronautics and Astronautics.

290. Director Wirth to Ernest N. Robinschon, Manager, Western Region, Institute of the Aeronautical Sciences (Los Angeles), February 4, 1960. (4a)


Also on the 16th, the Soaring Society of America presented a plaque to the Memorial, sculptured by Captain Ralph Barnaby (USN, Ret.), and commemorating the part that gliders played in the Wright's development of techniques for flying. To this date, however, no location has been specified for the plaque, and it is in storage. The following day--the 60th anniversary of the first flight--the long-awaited "First Flight" airstrip was officially opened.293 Definite plans for the three-thousand-foot airstrip had been announced at the 1961 anniversary ceremonies, and the financing of the necessary $133,000 was shared by the State of North Carolina, the Federal Aviation Agency, and the National Park Service.294

With the construction and dedication of the airstrip, Wright Brothers reached a level of sophistication which would require only minor modifications and additions in the future. The newly reconstructed camp buildings would still be attacked by termites and the yellow-shafted flicker, and the only defense against this would be applications of new methods to counteract old problems. One change which might affect the camp buildings is the installation of the 1902 glider in the hangar. In 1966 the granite Marker at the original take-off site was turned ninety degrees so as to face visitors approaching the boulder from the camp buildings,

293. Ibid.
and the mound of earth under the boulder was removed at the same time so that the monorail track might lie flat on the ground so that visitors would not be misled to think that the monorail had originally been on a slope. 295

The Memorial Shaft suffered as always from problems of water condensation, although an air circulatory system installed in July 1963 partially alleviated the problem. 296 It is probable that nothing further will be done to lessen the condensation because there is no longer a need for public access to the interior. The only substantial change to the Shaft was the addition of the two busts of the Wright Brothers which stand on the front of the platform. Attempts to secure such busts began as early as 1951, and the Kill Devil Hills Memorial Society had originally planned to provide for their cost. They were to be bronze, and electroplated with grey cadmium to resist the salt air. The sculptor, Oskar Hansen, stated in 1951 that the busts would be ready for golden anniversary observances in 1953, even if he had to finance them himself. 297 However, for various reasons including a serious automobile accident, Hansen was not able to complete the busts by the


297. Oskar J.W. Hansen (Charlottesville, Virginia), to Director Demaray, July 17, 1951. (4a)
promised date. It was not until 1959 that Hansen again began work
on the busts; at this time he was not able to finance the costs
himself and an outside benefactor had to be found.\footnote{298} The donor
volunteering to cover the necessary $10,000 financing cost was
the North Electric Company of Galion, Ohio, and plans went ahead
immediately after confirmation of this backing to place the busts
in the wall niches inside the Shaft which had been originally de-
signed for just such a purpose.\footnote{299} However, by the time the busts
were ready for placement in 1960, the Shaft had been closed to the
public. The busts were thus erected on either side of the steps
to the platform, and here they gaze out over the flat lands of the
Banks, looking exactly as if they had always known they would even-
tually find themselves in such a posture.

As the Memorial reached apparent maturity, the Kill Devil Hill
Memorial Society also seemed to be well along the same path. In
1966 the name was changed to "First Flight Society" in order to
"make the purpose of the organization more apparent, and to assure
that only the organization located at the site of the first flight
would bear a name of such significance."\footnote{300} The Society continued
to organize annual observances of the "first flight," but on a

\footnote{298. Hansen to Director Wirth, June 25, 1959. (4a)}

\footnote{299. Director Wirth to James. D. Williams, Jr., North Electric
Company, July 6, 1959. (4a)}

\footnote{300. Pamphlet of the First Flight Society (P.O. Box 1903, Manteo,
N.C., care of Mr. Aycock Brown), 1966.}
nationwide scale only for the numerically important anniversaries. A current development is the "First Flight Shrine," to be organized by the Society on private land near the Memorial. The purpose is to honor airmen and astronauts who have accomplished outstanding "firsts," although it is unclear at this time whether this will include those of nationalities other than American. A second purpose is to establish a location where objects and representations related to the fame of these persons may be exhibited. An example of these mementos is a twelve-foot long scale-model of the United States aircraft carrier, Kitty Hawk, named in honor of the Wright Brothers. This model was originally unveiled and presented to Wright Brothers in 1964, but is now in storage at Little Kinnakeet. It had been intended for exhibition at the Visitor Center, but Director Wirth declined such offers on the grounds that they bear "no relationship to the historic events of the Wright Brothers at Kitty Hawk ... [and this] will distract from the real purpose of the area and the story we are trying to tell." The model may now have a home.

Around 1960 a competitor to the First Flight Society originated out of what Aycock Brown has called "newsmen and such." The Man

301. Interview with Mr. Aycock Brown, Secretary of the First Flight Society, November 7, 1967.
302. Ibid.
303. Director Wirth to Representative Herbert C. Bonner, March 1, 1962. (3b)
Will Never Fly Society maintains the motto, "Birds fly; men drink," and the Society delights in telling those who cannot arrive for December 17 observances by air transportation because of poor weather that "we told you so." The competition usually exhausts itself by early morning of each December 17, and the First Flight Society is thus free to commemorate the fact that man can indeed fly. The statement made by The Daily Advance in 1928 is as true as ever: "The Wright Brothers gave Kitty Hawk a place in the sun, but it is the (First Flight Society) which has given Kitty Hawk a place on page one." 304

It is difficult to prophesy what direction Wright Brothers might take in the future. The developments which were discussed year after year have now been accomplished. Perhaps an entrance fee will be collected some day, thus necessitating a contact station. The old 1930s contact and comfort stations will certainly be obliterated in the next few years. But these are minor changes directed more toward "tidying up" the Memorial than beginning a new tangent of development. The pressures of increased visitation are probably the key to understanding future changes, and over-flow parking areas, a new comfort station, and re-arrangements of interpretive materials may all come about as a result of this. In any case, more emphasis will probably be given to the conservation of the area than to new development. As a visitor wrote

304. The Daily Advance (Elizabeth City), December 15, 1928.
in the guest register in 1961, "At last it's like it should be! Thank you."
BIBLIOGRAPHY

As an aid to future research, the outline order below is referred to by the figures in parentheses following the footnotes in the text.

Collections (unbound sources)

1. National Archives (Washington, D.C.)
   a. Record Group 79 -- National Park Service - Wright Brothers National Memorial
      1. Box No. 2693
      2. " " 2694
      3. " " 2695
      4. " " 2696
      5. " " 2697
   b. Record Group 94, Box No. 583 -- Adjutant General Office - "Kitty Hawk, North Carolina"

2. National Records Center (Suitland, Maryland) -- Record Group 92 - Office of the Quartermaster General - General Correspondence - Geographic File, 1922 to 1935 - "Kitty Hawk"
   1. Box No. 1036
   2. " " 1037
   3. " " 1038
   4. " " 1039
   5. " " 1040
   6. " " 1041

3. Southern Historical Collection, Library of the University of North Carolina (Chapel Hill)
   a. Record Group 3172 -- papers of Lindsay C. Warren
   b. Record Group 3710 -- papers of Herbert C. Bonner - National Seashore Park Series, 1955 to 1960

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Working files

4. National Park Service

   a. Office of Archeology and Historic Preservation, Division of History (Washington, D.C.)

   b. Cape Hatteras National Seashore (Manteo, N.C.) (bound Monthly Narratives, 1957 to 1964)

   c. Wright Brothers National Memorial (Kill Devil Hills, N.C.)

   d. Rogers, Edmund, MS. Legislative History of the National Park Service, volumes ten & fifty, (Department of the Interior Library)

Published materials

5. Books


6. Newspapers

   a. The Daily Advance, Elizabeth City, N.C. (microfilm records on file at newspaper office)

   b. The Independent, Elizabeth City, N.C. (on file in Raleigh and Chapel Hill, N.C.)

Interviews

Interviews

8. Mr. Aycock Brown, Secretary, First Flight Society, Manteo, N.C., November 6, 1967

9. Mr. Horace A. Dough, Superintendent, Wright Brothers National Memorial (1933 to 1962), Manteo, N.C., November 5, 1967
PHOTOGRAPH SOURCES

A. Cover -- from a photograph by Hugh Morton, Elizabeth City News Company, Elizabeth City, N.C., No. P81365. (Sold as postcard at Wright Brothers National Memorial.)

B. Photograph file at Wright Brothers National Memorial
   a. Plate I -- (not listed)
   b. Plate II, top -- Negative No. 465
      (National Archives Neg. No. SC-94311)
   c. Plate II, bottom -- Neg. No. 466
      (National Archives Neg. No. SC-98309)
   d. Plate III -- Neg. No. 132
   e. Plate IV -- Neg. No. 313 (photograph by Aycock Borwn, 1953)
   f. Plate V -- Neg. No. 356 (photograph by Harris, 1964)
ILLUSTRATIONS
PLATE I

Kill Devil Hill, December 17, 1928. The cornerstone is laid.
PLATE II

Two views of the winning design for the Wright Memorial Tower so bitterly opposed by Senator Hiram Bingham on the grounds that it "endeavors to combine memory with utility." Bingham's criticism was taken into account only after this design had been approved.
PLATE III

The Wright Memorial just prior to its dedication, December 17, 1932. Note the incomplete system of roads and the concrete path leading straight up the Hill. The beach front has not yet been developed.
PLATE IV

The Memorial in the late 1930s. The circular drive, the residence, and the comfort station had been completed in 1936, and land development along the beach was just beginning. The road at the left of the photograph leads to Colington.
PLATE V

The nucleus of Wright Brothers National Memorial is the area including the take-off and landing sites, the reconstructed wood buildings used by the Wrights as hangar and living quarters, and the Visitor Center and administrative offices. The Atlantic Ocean is in the background.