


SRH-302

U. S. NAVAL SUPRADSTA, POYNER'S HILL

POPLAR BRANCH, NORTH CAROLINA

1920 - 15 July 1945

CERTIFIED TO BE UNCLASSIFIED  
by Director, NSA/Chief, CSS

 Date: 18 July 1984

REVIEWER'S NOTE:

This document was prepared as UNCLASSIFIED by Naval personnel who had access to classified records. The first review to verify the fact that the report does not contain sensitive information was conducted by personnel of the Naval Security Group. The original of this document was retained by them and has been placed in the NSG Repository, Crane, Indiana. A final review to insure releasability was conducted by NSA.

U. S. NAVAL SUPRADSTA, POYNER'S HILL

POPLAR BRANCH, NORTH CAROLINA

1920-15 July 1945

NOTE: The attached document was prepared by Naval personnel with access to various historical records with the objective of bringing diverse records into a usable narrative history of a Naval activity. The document does not constitute an official Navy history and no claims are made regarding its completeness and accuracy. Prepared at NAVSECGRUDET Crane, Indiana  
16 August 1978

U. S. Naval Supplementary Radio Station, Poyner's Hill,  
Poplar Branch, North Carolina.

Based on available data, the station, or at least the land, which was variously known as the Naval Radio Direction Finder Station, the Naval Radio Station, and the Naval Supplementary Radio Station, Poyner's Hill, Poplar Branch, North Carolina, was turned over by the United States Coast Guard to the Navy in 1920, and was retained by the Navy until 15 July 1945 when it was turned back to the Coast Guard.

However, aside from this reference to the acquisition of the station, the earliest reference to Poyner's Hill is found in a 1 October 1931 memorandum to CNO discussing the closure of certain Naval Direction Finder Stations of which Poyner's Hill was one under consideration. The memorandum discussed individual stations listing the pros and cons of closure including protests against closure lodged by Congressional leaders and business groups. The paragraph on Poyner's Hill states, "Poyner's Hill. One of group of two stations with Virginia Beach. Handles more than average number of bearings. No protests." Some time later, a 12 July 1933 letter from the Commanding Officer, Naval Radio Stations, FIFTH Naval District, to the Bureau of Navigation reported that the order to close the Radio Direction Finder Stations at Poyner's Hill and Cape Hatteras had been cancelled and the stations would continue in operation.

As noted, Poyner's Hill survived the threat of closure and a 28 October 1935 letter from the Commandant, FIFTH Naval District, to CNO discussed a radio direction finder test utilizing the USS DEWEEY which was conducted on 25 and 26 September 1935 in conjunction with the recalibration of the RDF stations at Virginia Beach and Poyner's Hill. According to this letter, the

U. S. Naval Supplementary Radio Station, Poyner's Hill,  
Poplar Branch, North Carolina

Based on available data, the station, or at least the land, which was variously known as the Naval Radio Direction Finder Station, The Naval Radio Station, and the Naval Supplementary Radio Station, Poyner's Hill, Poplar Branch, North Carolina, was turned over by the United States Coast Guard to the Navy in 1920, and was retained by the Navy until 15 July 1945 when it was turned back to the Coast Guard.

However, aside from this reference to the acquisition of the station, the earliest reference to Poyner's Hill is found in a 1 October 1931 memorandum to CNO discussing the closure of certain Naval Direction Finder Stations of which Poyner's Hill was one under consideration. The memorandum discussed individual stations listing the pros and cons of closure including protests against closure lodged by Congressional leaders and business groups. The paragraph on Poyner's Hill states, "Poyner's Hill. One of group of two stations with Virginia Beach. Handles more than average number of bearings. No protests." Some time later, a 12 July 1933 letter from the Commanding Officer, Naval Radio Station, FIFTH Naval District, to the Bureau of Navigation reported that the order to close the Radio Direction Finder Stations at Poyner's Hill and Cape Hatteras had been cancelled and the stations would continue in operation.

As noted, Poyner's Hill survived the threat of closure and a 28 October 1935 letter from the Commandant, FIFTH Naval District, to CNO discussed a radio direction finder test utilizing the USS LEARY which was conducted on 25 and 26 September 1935 in conjunction with the recalibration of the RDF stations at Virginia Beach and Poyner's Hill. According to this letter, the

Poyner's Hill station was located on a sand dune with only a few Coast Guard buildings near it. The beach was described as gently sloping and sandy.

Statistical data for FY36 lists Poyner's Hill as having provided 10,592 bearings on 3787 targets for an average of 29 bearings per day at an estimated cost of \$.61 per bearing. In tracking drills, the station provided 262 bearings or 0.7 bearings per day. The station reportedly had a Model DP RDF set and was recommended for retention.

On 21 August 1936, an OP-20G memorandum proposed a "system" of radio direction finder stations for strategic tracking (long distance and coastal) which included Poyner's Hill in the group of 13 fixed stations listed for coverage of the Atlantic Ocean, Gulf of Mexico and the Caribbean.

In a 26 September 1938 letter from OP-20GX to CNO, Poyner's Hill was referred to as a strategic tracking station and was scheduled to receive a Model DT RDF set. The station was listed as being in the Atlantic Group which included Chatham (control), Amagansett, Jupiter, and San Juan. The station was listed as having an allowance of five men with a planned increase to six.

The beginning of World War II in Europe in 1939 precipitated an OP-20G memorandum for the Director of Naval Communications on the subject of radio direction finder policy in an apparent effort to clarify the purpose of the coastal direction finder stations and the Navy's responsibility for operating navigational aids. The memorandum cited a number of statements by the Secretary of the Navy, the first on 16 June 1922, to the effect that the primary mission of the radio direction finder system in time of war was the location and tracking of enemy vessels or aircraft. The use of the RDF system as an aid to navigation was on a not-to-interfere basis and served the purpose of training and maintaining operator proficiency and equipment development. This was further

Poyner's Hill station was located on a sand dune with only a few Coast Guard buildings near it. The beach was described as gently sloping and sandy.

Statistical data for FY36 lists Poyner's Hill as having provided 10,592 bearings on 3787 targets for an average of 29 bearings per day at an estimated cost of \$.61 per bearing. In tracking drills, the station provided 262 bearings or 0.7 bearings per day. The station reportedly had a Model DP RDF set and was recommended for retention.

On 21 August 1936, an OP-20G memorandum proposed a "system" of radio direction finder stations for strategic tracking (long distance and coastal) which included Poyner's Hill in the group of 13 fixed stations listed for coverage of the Atlantic Ocean, Gulf of Mexico and the Caribbean.

In a 26 September 1938 letter from OP-20GX to CNO, Poyner's Hill was referred to as a strategic tracking station and was scheduled to receive a Model DT RDF set. The station was listed as being in the Atlantic Group which included Cheltenham (control), Amagansett, Jupiter, and San Juan. The station was listed as having an allowance of five men with a planned increase to six.

The beginning of World War II in Europe in 1939 precipitated an OP-20G memorandum for the Director of Naval Communications on the subject of radio direction finder policy in an apparent effort to clarify the purpose of the coastal direction finder stations and the Navy's responsibility for operating navigational aids. The memorandum cited a number of statements by the Secretary of the Navy, the first on 16 June 1922, to the effect that the primary mission of the radio direction finder system in time of war was the location and tracking of enemy vessels or aircraft. The use of the RDF system as an aid to navigation was on a not-to-interfere basis and served the purpose of training and maintaining operator proficiency and equipment development. This was, further

clarified on 24 July 1924 by the final Conference on Radio Direction Finding which issued the following Statement of Policy,

"The giving of bearings upon call by naval radio compass stations is recognized as incidental to the training of their personnel and to the effective maintenance of the stations.

The location, installation, maintenance and operation of sea marks, land marks, or other forms of stationary target designed to serve solely as an aid to navigation --- devolves upon the lighthouse service.

The location, installation, maintenance and operation of stations --- for the purpose of determining the position of ships for strategic or other naval purposes --- devolves upon the Navy.

When stations operated by the Navy may be used profitably to supplement those installed primarily for the purpose of rendering aid to navigation, such aid will be rendered on request --- it being recognized that such assistance is gratuitous on the part of the Navy and is merely incidental to the mission of these stations."

The OP-20G memorandum went on to state that ADM Leahy had reaffirmed the military functions of the radio direction finders and promulgated this policy to the Naval Service in OPNAV CONFIDENTIAL serial 2792 of 21 July 1939. This document apparently prescribed a Strategic Tracking Organization with 19 RDF stations assigned to it of which twelve were HFDF stations which had never rendered navigational service. However, the other seven were listed in "Radio Aids to Navigation" and had rendered navigational service for some 15 years. Official termination of navigational service from these seven stations had been recommended in 1938 but disapproved as being too drastic for normal peacetime conditions. Further efforts to transfer the stations from navigational to solely strategic direction finder operations was held in abeyance until ADM Stark's approval could be obtained. However, arrangements were made to provide HFDF equipment and additional personnel so that some training could be undertaken and the station would be ready for an emergency. Under this plan, it was apparently proposed that Poyner's Hill be closed to navigational direction finder operations in 1941. However, the beginning of World War II required an



clarified on 24 July 1924 by the final conference on Radio Direction Finding which issued the following Statement of Policy,

"The giving of bearings upon call by naval radio compass stations is recognized as incidental to the training of their personnel and to the effective maintenance of the stations.

The location, installation, maintenance and operation of sea marks, land marks, or other forms of stationary target designed to serve solely as an aid to navigation --- devolves upon the lighthouse service.

The location, installation, maintenance and operation of stations --- for the purpose of determining the position of ships for strategic or other naval purposes --- devolves upon the Navy.

When stations operated by the Navy may be used profitably to supplement those installed primarily for the purpose of tendering aid to navigation, such aid will be rendered on request --- it being recognized that such assistance is gratuitous on the part of the Navy and is merely incidental to the mission of these stations."

The OP-20G memorandum went on to state that ADM Leahy had reaffirmed the military functions of the radio direction finders and promulgated this policy to the Naval Service in OPNAV CONFIDENTIAL serial 2792 of 21 July 1939. This document apparently prescribed a Strategic Tracking Organization with 19 RDF stations assigned to it of which twelve were HFDF stations which had never rendered navigational service. However, the other seven were listed in "Radio Aids to Navigation" and had rendered navigational service for some 15 years. Official termination of navigational service from these seven stations had been recommended in 1938 but disapproved as being too drastic for normal peacetime conditions. Further efforts to transfer the stations from navigational to solely strategic direction finder operations was held in abeyance until ADM Stark's approval could be obtained. However, arrangements were made to provide HFDF equipment and additional personnel so that some training could be undertaken and the station would be ready for an emergency. Under this plan, it was apparently proposed that Poyner's Hill be closed to navigational direction finder operations in 1941. However, the beginning of World War II required an

Immediate decision and it was recommended that the four East Coast stations (1 Amagansett, Poyner's Hill, and Jupiter) be closed to navigational service as soon as due notice could be given. On 13 September 1939, a letter was forwarded from CNO to the Hydrographic Office stating that it was necessary to suspend navigational service effective on 1 October for an indefinite period from the radio direction finder stations at

; Poyner's Hill, North Carolina; and Jupiter, Florida. The reason for the suspension of service was given as the installation of new equipment. (Service had already been suspended from Amagansett due to the station having been placed out of service due to severe storm damage.)

On 23 September 1939, CNO (OP-20G) informed the Commandant, FIFTH Naval District that, to accomplish the desire of CNO to have the Strategic Tracking Organization in operation as soon as possible, a Model DT-1 HFDF equipment was being shipped for installation at Poyner's Hill. RMC W. I. Edens was being sent TAD to the Radio Direction Finder Station, Poyner's Hill, to assist in the location, installation, and calibration of the equipment and to instruct station personnel in its use. In order that all efforts could be devoted to placing the HFDF equipment in commission, COMFIVE was authorized to suspend navigational services at Poyner's Hill on 1 October 1939, for an indefinite period. Reference was also made to a planned increase in the station's allowance of one RMC, one RM1 and three RM2/RM3.

In a CNO (OP-20G) letter to the Chief of the Bureau of Engineering dated 17 October 1939, discussing the provision of shelters for housing HFDF equipment, reference was made to HFDF equipment being scheduled for use in neutrality enforcement with Poyner's Hill listed as one of the stations receiving this equipment. In an OP-20GX memorandum dated 20 October 1939 regarding a tracking exercise, it was stated that the Poyner's Hill station could not be operated for extended periods until the shelter was completed because blowing sand could damage

immediate decision and it was recommended that the four East Coast stations ( , Amagansett, Poyner's Hill, and Jupiter) be closed to navigational service as soon as due notice could be given. On 18 September 1939, a letter was forwarded from CNO to the Hydrographic Office stating that it was necessary to suspend navigational service effective on 1 October for an indefinite period from the radio direction finder stations at

; Poyner's Hill, North Carolina; and Jupiter, Florida. The reason for the suspension of service was given as the installation of new equipment. (Service had already been suspended from Amagansett due to the station having been placed out of service due to severe storm damage.)

On 23 September 1939, CNO (OP-20G) informed the Commandant, FIFTH Naval District that, to accomplish the desire of CNO to have the Strategic Tracking Organization in operation as soon as possible, a Model DT-1 HFDF equipment was being shipped for installation at Poyner's Hill. RMC W. I. Edens was being sent TAD to the Radio Direction Finder Station, Poyner's Hill, to assist in the location, installation, and calibration of the equipment and to instruct station personnel in its use. In order that all efforts could be devoted to placing the HFDF equipment in commission, COMFIVE was authorized to suspend navigational services at Poyner's Hill on 1 October 1939, for an indefinite period. Reference was also made to a planned increase in the station's allowance of one RMC, one RML and three RM2/RM3.

In a CNO (OP-20G) letter to the Chief of the Bureau of Engineering dated 17 October 1939, discussing the provision of shelters for housing HFDF equipment, reference was made to HFDF equipment being scheduled for use in neutrality enforcement with Poyner's Hill listed as one of the stations receiving this equipment. In an OP-20GX memorandum dated 20 October 1939 regarding a tracking exercise, it was stated that the Poyner's Hill station could not be operated for extended periods until the shelter was completed because blowing sand would damage

the equipment. It was expected that the station would be ready by 1 December. On 15 December, COMFIVE reported to OPNAV that the Model DT direction finder was installed at Poyner's Hill and ready for service.

An 11 March 1940 letter from COMFIVE to the Bureau of Engineering discussed the necessity of using transceivers for communications at Poyner's Hill between the HFDF building and the communications center about 1,000 feet away over shifting sand dunes. Due to the expense of excavating a cable trench and the fact that it was not unusual that cables buried to a depth of four feet be uncovered within 30 days due to shifting dunes, low-power transceivers were considered the only practical means of communication between the buildings. Use of the transceivers was approved by CMO on 23 March 1940.

A quarterly inspection of the U. S. Naval Radio Direction Finder Station, Poyner's Hill, Poplar Branch, North Carolina, dated 23 October 1940, listed RMC Henry Murdock McLeod as Radioman in Charge. The inspection listed a number of material deficiencies and recommended that a Pharmacists Mate be added to the personnel allowance of one RMC, four Radiomen, and one Machinists Mate since medical care was expensive (\$6 per visit) and difficult to obtain, especially at night and in bad weather. Housing facilities were considered inadequate and available space was barely adequate for the radio equipment then installed. However, it was noted that funds for the construction of new quarters and an operations building had been allocated.

In a COMFIVE District Communication Officer memorandum dated 19 November 1940, it was reported that Poyner's Hill had one Model DT direction finder, two RAS receivers, one RAK-RAL receiver and one Model DP direction finder installed with a new direction finder slated for installation in the near future. To man this equipment, there was a crew of one RMC and four Radiomen. The DCO was planning to request five additional reserve Radiomen and one Ship's Cook be added to the station's allowance. To house the additional personnel, the DCO proposed, on

the equipment. It was expected that the station would be ready by 1 December. On 15 December, COMFIVE reported to OPNAV that the Model DT direction finder was installed at Poyner's Hill and ready for service.

An 11 March 1940 letter from COMFIVE to the Bureau of Engineering discussed the necessity of using transceivers for communications at Poyner's Hill between the HFDF building and the communications center about 1,000 feet away over shifting sand dunes. Due to the expense of excavating a cable trench and the fact that it was not unusual that cables buried to a depth of four feet be uncovered within 30 days due to shifting dunes, low-power transceivers were considered the only practical means of communication between the buildings. Use of the transceivers was approved by CNO on 23 March 1940.

A quarterly inspection of the U. S. Naval Radio Direction Finder Station, Poyner's Hill, Poplar Branch, North Carolina, dated 23 October 1940, listed RMC Henry Murdock McLeod as Radioman in Charge. The inspection listed a number of material deficiencies and recommended that a Pharmacists Mate be added to the personnel allowance of one RMC, four Radiomen and one Machinists Mate since medical care was expensive (\$6 per visit) and difficult to obtain, especially at night and in bad weather. Housing facilities were considered inadequate and available space was barely adequate for the radio equipment than installed. However, it was noted that funds for the construction of new quarters and an operations building had been allocated.

In a COMFIVE District Communication Officer memorandum dated 19 November 1940, it was reported that Poyner's Hill had one Model DT direction finder, two RAS receivers, one RAK-RAL receiver and one Model DP direction finder installed with a new direction finder slated for installation in the near future. To man this equipment, there was a crew of one RMC and four Radiomen. The DCO was planning to request five additional reserve Radiomen and one Ship's Cook be added to the station's allowance. To house the additional personnel, the DCO proposed, on

22 November, that the Navy acquire an unused Coast Guard station which could be converted into a barracks for 10-15 men. The DCO was subsequently informed that the authorization for new buildings made acquisition of the Coast Guard station unnecessary. A total of \$72,000 had been allocated by Congress for construction at Poyner's Hill.

On 28 March 1941, a CNO (OP-20G) letter to COMFIVE stated that it was urgent that Poyner's Hill be placed in full commission without delay.

On 9 April 1941, the station's coordinates were given as 36-17-16N 75-47-48W.

The first available monthly Radio Intelligence report for Poyner's Hill covers the period 1-31 May 1941 and was signed by RMC E. G. Fowlkes, USN. It states that additional USNR radiomen had reported about a month before and bids on the new building were proceeding as rapidly as possible. Plans were being made to improve communications by installing a TWX line from the station to Wright Memorial Bridge, 15 miles south, rather than to Virginia Beach, 42 miles north. It was also stated that a Ship's Cook and a Pharmacist's Mate were expected to arrive on or about 1 July.

The TWX line was also the subject of a CNO (OP-20G) letter of 25 June 1941, to RUSHIPS requesting that the line be constructed from Poyner's Hill to the nearest commercial landline facilities at Currituck Sound Bridge. The line could be strung by the Southern Bell Telephone Company on Coast Guard poles for a cost of about \$1,000 over the 15 miles the line would have to be run.

The monthly report for June reported that funds for the TWX had been authorized and installation was to begin immediately. Several additional personnel had reported on board for duty from the Radio Direction Finder Stations at Virginia Beach and Cape Hatteras. An earlier reference to these stations mentioned their being scheduled for turn-over to the Coast Guard. It was also reported that a large boat room which was part of a Coast Guard building had been

22 November, that the Navy acquire an unused Coast Guard station which could be converted into a barracks for 10-15 men. The DCO was subsequently informed that the authorization for new buildings made acquisition of the Coast Guard station unnecessary. A total of \$72,000 had been allocated by Congress for construction at Poyner's Hill.

On 28 March 1941, a CNO (OP-20G) letter to COMFIVE stated that it was urgent that Poyner's Hill be placed in full commission without delay.

On 9 April 1941, the station's coordinates were given as 36-17-16N 75-47-48W.

The first available monthly Radio Intelligence report for Poyner's Hill covers the period 1-31 May 1941 and was signed by RMC E. G. Fowlkes, USN. It states that additional USNR radiomen had reported about a month before and bids on the new building were proceeding as rapidly as possible. Plans were being made to improve communications by installing a TWX line from the station to Wright Memorial Bridge, 15 miles south, rather than to Virginia Beach, 42 miles north. It was also stated that a Ship's Cook and a Pharmacists Mate were expected to arrive on or about 1 July.

The TWX line was also the subject of a CNO (OP-20G) letter of 25 June 1941, to BUSHIPS requesting that the line be constructed from Poyner's Hill to the nearest commercial landline facilities at Currituck Sound Bridge. The line could be strung by the Southern Bell Telephone Company on Coast Guard poles for a cost of about \$1,000 over the 15 miles the line would have to be run.

The monthly report for June reported that funds for the TWX had been authorized and installation was to begin immediately. Several additional personnel had reported on board for duty from the Radio Direction Finder Stations at Virginia Beach and Cape Hatteras. An earlier reference to these stations mentioned their being scheduled for turn-over to the Coast Guard. It was also reported that a large boat room which was part of a Coast Guard building had been

converted into a barracks room large enough to berth 20 men.

As of 31 July 1941, installation of the TWX line had not yet begun and no reason was known for the delay. The contract for construction of the new building was awarded during the month and construction was expected to begin within a week. Construction actually began on 21 August with completion scheduled within 140 days. It was also subsequently reported that delay on installation of the TWX line was due to the inability to obtain hard-drawn copper wire.

On 29 August, RMC Charles Lee Aikin, USFR, reported for duty as relief for RMC E. G. Fowlkes, as Radioman in Charge. RMC Fowlkes departed the station on 1 September. RMC Aikin was subsequently relieved by RMC O. C. Coonce on 2 October 1941, and transferred back to NOB Norfolk. Since RMC Aikin had come from the Naval Operating Base, Norfolk, it would appear that he had only been intended as an interim replacement.

The October 1941 Radio Intelligence report stated that the long-awaited TWX line was finally placed in service at 2230, 8 October. Construction of the new building was proceeding on schedule. A three-man, four section watch (one in the control room, one manning the Model DT HFDF equipment, and one supervisor) was maintained during the month. The station was taking bearings on German targets based on references to "Series A" frequencies. During the month, the station forwarded 133 bearings by TWX to net control and reported 67 "no-bearings". A short summary of station operating procedures was included in the report. A "Communo-phone" system was used between the HFDF building and control. The HFDF operator forwarded bearings by voice rather than landline which was believed the more rapid procedure. The control supervisor or control operator would copy the bearing down on the bearing form. When either of them heard a unit transmission, he would inform the HFDF operator by announcing "Unit A" or the frequency



converted into a barracks room large enough to berth 20 men.

As of 31 July 1941, installation of the TWX line had not yet begun and no reason was known for the delay. The contract for construction of the new building was awarded during the month and construction was expected to begin within a week. Construction actually began on 21 August with completion scheduled within 140 days. It was also subsequently reported that delay on installation of the TWX line was due to the inability to obtain hard-drawn copper wire.

On 29 August, RMC Charles Lee Aikin, USFR, reported for duty as relief for RMC E. G. Fowlkes, as Radioman in Charge. RMC Fowlkes departed the station on 1 September. RMC Aikin was subsequently relieved by RMC O. C. Coonce on 2 October 1941, and transferred back to NOB Norfolk. Since RMC Aikin had come from the Naval Operating Base, Norfolk, it would appear that he had only been intended as an interim replacement.

The October 1941 Radio Intelligence report stated that the long-awaited TWX line was finally placed in service at 2230, 8 October. Construction of the new building was proceeding on schedule. A three-man, four section watch (one in the control room, one manning the Model DT HFDF equipment, and one supervisor) was maintained during the month. The station was taking bearings on German targets based on references to "Series A" frequencies. During the month, the station forwarded 133 bearings by TWX to net control and reported 67 "no-bearings". A short summary of station operating procedures was included in the report. A "Communo-phone" system was used between the HFDF building and control. The HFDF operator forwarded bearings by voice rather than landline which was believed the more rapid procedure. The control supervisor or control operator would copy the bearing down on the bearing form. When either of them heard a unit transmission, he would inform the HFDF operator by announcing "Unit A" or the frequency,

indicator for the frequency in use.

The three-man, four section watch was maintained until 14 November when the transfer of personnel required the watch be reduced to two men accomplished by deleting the control supervisor watch. On 7 November, the station's assignment was shifted from Series "A" to Series "AW" which resulted in a decrease in bearings taken due to poor reception which improved toward the end of the month. A total of 58 bearings and 66 "no-bearings" were reported for the month of November.

On 12 December 1941, the TWX line to Poyner's Hill was the subject of a COMFIVE memorandum to CNO (OP-20GX). Apparently the line was presenting maintenance problems for the telephone company. The line was described as crossing Currituck sound on the state highway bridge about nine miles below the station and from there to the station on Coast Guard poles. The problem was that the TWX line was only three to four feet above high water as it crossed the bridge. A rough sea caused moisture to collect on the insulators. One alternative, which was apparently favored by COMFIVE, was to lay a cable across Currituck Sound from Poplar Branch, North Carolina, and continue the cable on to the station. This would require about 30,000 feet of five conductor cable and could be accomplished by the Coast Guard for about \$10,000. A need to solve the problem was prompted by the planned installation of an oscillator circuit. OP-20GX's response was, however, that the money could not be obtained and the TWX circuit would have to remain as installed unless COMFIVE could identify funds. A subsequent reference to the oscillator circuit (identified as the control circuit) on 20 December, indicated that it would be run from Virginia Beach to Poyner's Hill which would not parallel the TWX circuit. A 31 December 1941 OP-20GX letter to the DCO COMFIVE further indicated that the oscillator circuit was the direction finder control circuit and the TWX the report circuit.

0016

indicator for the frequency in use.

The three-man, four section watch was maintained until 14 November when the transfer of personnel required the watch be reduced to two men accomplished by deleting the control supervisor watch. On 7 November, the station's assignment was shifted from Series "A" to Series "AW" which resulted in a decrease in bearings taken due to poor reception which improved toward the end of the month. A total of 58 bearings and 66 "no-bearings" were reported for the month of November.

On 12 December 1941, the TWX line to Poyner's Hill was the subject of a COMFIVE memorandum to CNO (OP-20GX). Apparently the line was presenting maintenance problems for the telephone company. The line was described as crossing Currituck sound on the state highway bridge about nine miles below the station and from there to the station on Coast Guard poles. The problem was that the TWX line was only three to four feet above high water as it crossed the bridge. A rough sea caused moisture to collect on the insulators. One alternative, which was apparently favored by COMFIVE, was to lay a cable across Currituck Sound from Poplar Branch, North Carolina, and continue the cable on to the station. This would require about 30,000 feet of five conductor cable and could be accomplished by the Coast Guard for about \$10,000. A need to solve the problem was prompted by the planned installation of an oscillator circuit. OP-20GX's response was, however, that the money could not be obtained and the TWX circuit would have to remain as installed unless COMFIVE could identify funds. A subsequent reference to the oscillator circuit (identified as the control circuit) on 20 December, indicated that it would be run from Virginia Beach to Poyner's Hill which would not parallel the TWX circuit. A 31 December 1941 OP-20GX letter to the DCO COMFIVE further indicated that the oscillator circuit was the direction finder control circuit and the TWX the report circuit.

The Radio Intelligence report for December 1941 indicated that considerable work had been accomplished by A.T.&F. repairmen on the TWX circuit but it still remained unsatisfactory. Reference was made to telephone and landline circuits to Virginia Beach usually being out of service during heavy rains and high winds. Only 19 bearings and 14 "no-bearings" were reported to net control via the TWX during the month.

The TWX circuit was improved in January 1942 with the installation of new relays although periods of high winds and heavy rains still created problems. The station covered both Series "A" and "AW" frequencies reporting 108 bearings and 35 "no-bearings" for the month. Based on the material report for the month, the station still had one RAS-1, one RAS, and one RAK-RAL receiver, a TAY-1 (300-600 KHZ) transmitter, one Model DP (100-1500 KHZ) direction finder and one Model DT HFDF set.

February 1942 saw the delivery of a Model TBK-11 transmitter to the station as well as a new truck. HFDF operations saw another increase with 308 bearings and 92 "no-bearings" reported.

On 8 March 1942, OP-20GX modified Poyner's Hill's assignment somewhat by directing that the station copy Series "A" and put the direction finder on Series "B". However, until the station was on the control circuit it was to continue to cover the Series "AW" but no copy was desired. Two 20 KW Diesel generators were received during March. Work was continuing on the new building but completion was still estimated as six weeks away. A two-man, four section watch was maintained during the month with 130 bearings reported. It was noted that the men were working an average of 62 hours per week with those living on station subject to call at all times if the need arose.

The April 1942 monthly Radio Intelligence report indicated installation of the Diesel generators completed. In addition, the new building was finally completed on 26 April and furniture received thereby making five apartments available for

The Radio Intelligence report for December 1941 indicated that considerable work had been accomplished by A.T.&T. repairmen on the TWX circuit but it still remained unsatisfactory. Reference was made to telephone and landline circuits to Virginia Beach usually being out of service during heavy rains and high winds. Only 19 bearings and 14 "no-bearings" were reported to net control via the TWX during the month.

The TWX circuit was improved in January 1942 with the installation of new relays although periods of high winds and heavy rains still created problems. The station covered both Series "A" and "AW" frequencies reporting 108 bearings and 35 "no-bearings" for the month. Based on the material report for the month, the station still had one RAS-1, one RAS, and one RAK-RAL receiver, a TAY-1 (300-600 KHZ) transmitter, one Model DP (100-1500 KHZ) direction finder and one Model DT HFDF set.

February 1942 saw the delivery of a Model TBK-11 transmitter to the station as well as a new truck. HFDF operations saw another increase with 308 bearings and 92 "no-bearings" reported.

On 8 March 1942, OP-20GX modified Poyner's Hill's assignments somewhat by directing that the station copy Series "A" and put the direction finder on Series "B". However, until the station was on the control circuit it was to continue to cover the Series "AW" but no copy was desired. Two 20 KW Diesel generators were received during March. Work was continuing on the new building but completion was still estimated as six weeks away. A two-man, four section watch was maintained during the month with 130 bearings reported. It was noted that the men were working an average of 62 hours per week with those living on station subject to call at all times if the need arose.

The April 1942 monthly Radio Intelligence report indicated installation of the Diesel generators completed. In addition, the new building was finally completed on 26 April and furniture received thereby making five apartments available for

married personnel and quarters for ten single men. Four men reported to the station on 20 April directly from radio school with no HFDF experience. They were all put on watch in a training status. A total of 111 bearings were reported during the month. RMC Coonce, who had been serving as Radioman in Charge, was transferred on 6 April. His impending transfer had been discussed in a 31 March memorandum from OP-20GX to the DCO COMFIVE which cited the requirement, due to the war situation, to transfer all qualified Kana operators to Hawaii or to a new intercept station being established on the West Coast. Replacements for East Coast stations would be largely inexperienced personnel who would receive a short period of training at Cheltenham. RMC Coonce was replaced by RMC J. I. Ballastro.

On 8 May 1942, RMC Ballastro reported to OP-20GX that the receiving equipment, landlines, telephone and TWX had been moved into the new building. HFDF net communications for the station at this time apparently still consisted solely of the TWX circuit as a report circuit. The station could not receive directives or tip-offs and therefore reported bearings taken based on a time-frequency guard schedule. Since after nearly a year it appeared that installation of a control circuit was no nearer realization, it was proposed that a switching arrangement be installed on the TWX circuit to permit its being used as the control circuit when not required as the report circuit.

On 23 May, RMC Ballastro reported that the station had received a Model DAB-1 HFDF equipment and work was underway to get a shelter constructed and the equipment installed. A total of 194 bearings were reported during May 1942.

On 8 June, a permanent site for the Model DAB-1 HFDF equipment was selected some 200 feet NNW of the DT hut and 600 feet West of the new barracks. Construction of the DAB shelter was largely completed by 14 June. Installation of the equipment began on 16 June under the direction of RMC Harry Kidder, USN (Ret.). Installation was largely complete by 24 June and RMC Kidder began instructing

married personnel and quarters for ten single men. Four men reported to the station on 20 April directly from radio school with no HFDF experience. They were all put on watch in a training status. A total of 111 bearings were reported during the month. RMC Coonce, who had been serving as Radioman in Charge, was transferred on 6 April. His impending transfer had been discussed in a 31 March memorandum from OP-20GX to the DCO COMFIVE which cited the requirement, due to the war situation, to transfer all qualified Kana operators to Hawaii or to a new intercept station being established on the West Coast. Replacements for East Coast stations would be largely inexperienced personnel who would receive a short period of training at Cheltenham. RMC Coonce was replaced by RMC J. I. Ballastro.

On 8 May 1942, RMC Ballastro reported to OP-20GX that the receiving equipment, landlines, telephone and TWX has been moved into the new building. HFDF net communications for the station at this time apparently still consisted solely of the TWX circuit as a report circuit. The station could not receive directives or tip-offs and therefore reported bearings taken based on a time-frequency guard schedule. Since after nearly a year it appeared that installation of a control circuit was no nearer realization, it was proposed that a switching arrangement be installed on the TWX circuit to permit its being used as the control circuit when not required as the report circuit.

On 23 May, RMC Ballastro reported that the station had received a Model DAB-1 HFDF equipment and work was underway to get a shelter constructed and the equipment installed. A total of 194 bearings were reported during May 1942.

On 8 June, a permanent site for the Model DAB-1 HFDF equipment was selected some 200 feet NNW of the DT hut and 800 feet West of the new barracks. Construction of the DAB shelter was largely completed by 14 June. Installation of the equipment began on 16 June under the direction of RMC Harry Kidder, USN (Ret.) Installation was largely complete by 24 June and RMC Kidder began instructing

station personnel in the operation of the equipment. Minor problems still existed with the equipment on 29 June when RMC Kidder departed Poyner's Hill but they were problems which he considered only a Collins' engineer could correct. The month of June also saw the receipt of one RAZ-1 receiver (15-600 KHZ). The station also implemented an IFDF watch at 000, 28 June 1942 using eight men transferred to the station by the DCO COMFIVE for that purpose. The station was assigned the mission of searching between 275 and 350 KHZ using one man with the second man monitoring 500 KHZ. All eight personnel were graduates of radio school and it was necessary to train them in IFDF, procedure and general duties. The station reported a total of 239 bearings to net control. Although not stated, it is presumed that these were all bearings on HF targets reported to the Strategic HFDF Net.

In a 2 July 1942 letter from BUDOCKS to the Commandant of the Norfolk Navy Yard, Poyner's Hill was referred to as a Supplementary Station rather than a Radio Direction Finder Station. However, it was not until near the end of the war that the title Naval Supplementary Radio Station was used in conjunction with Poyner's Hill in correspondence. The title normally used was Naval Radio Station.

In a 2 July 1942 OP-20GX memorandum to OP-20G, it was reported that the Model DAB (Collins) HFDF equipment installations at both Poyner's Hill and had been completed and required only the services of the company engineer to check them and place them in full operation. The engineer was to be in Winter Harbor on 6 July and, when finished, proceed to Poyner's Hill.

On 6 July, OPNAV requested COMFIVE provide dates of completion for the control circuit requested for Poyner's Hill on 24 October 1941, and the teletype circuit for the IFDF requested on 13 June 1942. COMFIVE replied on 9 July that if installation of both the control circuit and teletype circuit on a recently-installed one-pair cable using ground returns was successful, the circuits would



station personnel in the operation of the equipment. Minor problems still existed with the equipment on 29 June when RMC Kidder departed Poyner's Hill but they were problems which he considered only a Collins' engineer could correct. The month of June also saw the receipt of one RAZ-1 receiver (15-600 KHZ). The station also implemented an HFDF watch at 000, 28 June 1942 using eight men transferred to the station by the DCO COMFIVE for that purpose. The station was assigned the mission of searching between 275 and 350 KHZ using one man with the second man monitoring 500 KHZ. All eight personnel were graduates of radio school and it was necessary to train them in HFDF, procedure and general duties. The station reported a total of 239 bearings to net control. Although not stated, it is presumed that these were all bearings on HF targets reported to the Strategic HFDF Net.

In a 2 July 1942 letter from BUDOCKS to the Commandant of the Norfolk Navy Yard, Poyner's Hill was referred to as a Supplementary Station rather than a Radio Direction Finder Station. However, it was not until near the end of the war that the title Naval Supplementary Radio Station was used in conjunction with Poyner's Hill in correspondence. The title normally used was Naval Radio Station.

In a 2 July 1942 OP-20GX memorandum to OP-20G, it was reported that the Model DAB (Collins) HFDF equipment installations at both Poyner's Hill and had been completed and required only the services of the company engineer to check them and place them in full operation. The engineer was to be in on 6 July and, when finished, proceed to Poyner's Hill.

On 6 July, OPNAV requested COMFIVE provide dates of completion for the control circuit requested for Poyner's Hill on 24 October 1941, and the teletype circuit for the HFDF requested on 13 June 1942. COMFIVE replied on 9 July that if installation of both the control circuit and teletype circuit on a recently-installed one-pair cable using ground returns was successful, the circuits would

be in operation by 15 July. If both wires of the pair were required for the control circuit, another month would be required to run an additional line for the HFDF teletype circuit.

In an 11 July 1942 memorandum, the station reported that RMC Harry Kidder and RMI V. A. Gill had reported for temporary duty and the Collins engineer was due to arrive shortly. Coast Guard linemen had completed stringing the lines for the communications circuits. As soon as the lines were run into the building, the telephone installation personnel would install the oscillator and TWX. It was expected that this would be accomplished and the circuits in operation during the following week. On 14 July, RMC Kidder reported to OP-20GX that the Collins engineers had completed their work on the Poyner's Hill DAB and were to depart the following day for Cedar Rapids. The July Radio Intelligence report states that the DAB was placed in commission on 20 July using the station designator "PI". It was also reported that the control circuit was completed on 12 July as circuit #7004. The HFDF teletype circuit was installed as circuit #7076 but the date of completion was not given. Bearings taken during July totaled 310 of all classes. Series "AM" and "AS" frequencies were apparently on the station's coverage assignment.

On 4 August, RMC Ballastro requested authorization from OP-20GX to decommission the Model DT HFDF equipment because he had received instructions from COMNAVPERS to prepare the DT equipment for shipment to the Washington Navy Yard. The Model DT equipment was decommissioned at 0800Z, 15 August.

Some insight regarding duty at the Naval Radio Direction Finder Station, Poyner's Hill, was given in a 25 August 1942 letter from COMNAVPERS to COMFIVE discussing the subsistence allowance for personnel assigned to the station. According to the letter, the station was located on the sand dunes near Bodie Island Light. Transportation to the station was via boat from Poplar Branch across Currituck Sound; a trip of about one hour. Bad weather would isolate

be in operation by 15 July. If both wires of the pair were required for the control circuit, another month would be required to run an additional line for the IFDF teletype circuit.

In an 11 July 1942 memorandum, the station reported that RMC Kidder and RML V. A. Gill had reported for temporary duty and the Collins engineer was due to arrive shortly. Coast Guard linemen had completed stringing the lines for the communications circuits. As soon as the lines were run into the building, the telephone installation personnel would install the oscillator and TWX. It was expected that this would be accomplished and the circuits in operation during the following week. On 14 July, RMC Kidder reported to OP-20GX that the Collins engineers had completed their work on the Poyner's Hill DAB and were to depart the following day for Cedar Rapids. The July Radio Intelligence report states that the DAB was placed in commission on 20 July using the station designator "P1". It was also reported that the control circuit was completed on 12 July as circuit #7004. The IFDF teletype circuit was installed as circuit #7076 but the date of completion was not given. Bearings taken during July totaled 310 of all classes. Series "AW" and "AS" frequencies were apparently on the station's coverage assignment.

On 4 August, RMC Ballastro requested authorization from OP-20GX to decommission the Model DT HFDF equipment because he had received instructions from BUSHIPS to prepare the DT equipment for shipment to the Washington Navy Yard. The Model DT equipment was decommissioned at 0800Z, 15 August.

Some insight regarding duty at the Naval Radio Direction Finder Station, Poyner's Hill, was given in a 25 August 1942 letter from CHNAVPERs to COMFIVE discussing the subsistence allowance for personnel assigned to the station. According to the letter, the station was located on the sand dunes near Bodie Island Light. Transportation to the station was via boat from Poplar Branch across Currituck Sound; a trip of about one hour. Bad weather would isolate

the station for up to a week at a time.

The month of August saw a significant increase in bearings reported with a total of 464 Class A-C bearings reported as well as 94 in other classes; possibly falling in the general category of no bearing, nil heard, etc.

A 23 September 1942 letter from CHNAVPER to COMFIVE listed the allowance for support personnel at Boyner's Hill as one MM1, one MM1, one SC1 and one SC3. In the September monthly report, it was noted that the TTK-11 transmitter, which had been received in February, was being installed. The purpose behind the installation was to provide a means of emergency communications in the event of a landline outage. Receiving conditions during the month were reported as poor to good with 482 Class A-C bearings and 134 bearings of other categories reported.

October receiving conditions were reported at poor to very poor with continued interference from commercial air transmissions. Bearings reported reflected the conditions with 326 Class A-C and 125 of other classes. Conditions showed little improvement in November with 345 Class A-C and 136 bearings of other classes reported to control.

On 12 December 1942, BUDOCKS forwarded a mailgram to COMFIVE stating the intention to provide \$3,000 for the installation of a Model DAB HFDF and a Model DAJ HFDF equipment.

Receiving conditions during December 1942 continued poor to very poor with 412 Class A-C and 153 other bearings reported. The December material report listed the Model DAB HFDF equipment with a frequency range of 2-18.1 MHz, a TAY transmitter at 300-600 KHZ, and the TBK transmitter at 2-18.1 MHz.

The Radio Intelligence report for January 1943 stated that a site for the DAB and DAJ equipments had been selected. Reception continued to be poor to very poor with only 229 Class A-C and 69 bearings of other classes reported. On 8 January, six men reported for training on the DAB equipment before being transferred overseas.

the station for up to a week at a time.

The month of August saw a significant increase in bearings reported with a total of 464 Class A-C bearings reported as well as 94 in other classes; possibly falling in the general category of no bearing, nil heard, etc.

A 23 September 1942 letter from CHNAVPEERS to COMFIVE listed the allowance for support personnel at Poyner's Hill as one M1, one PH1, one S1 and one SC3. In the September monthly report, it was noted that the TBK-11 transmitter, which had been received in February, was being installed. The purpose behind the installation was to provide a means of emergency communications in the event of a landline outage. Receiving conditions during the month were reported as poor to good with 482 Class A-C bearings and 134 bearings of other categories reported.

October receiving conditions were reported at poor to very poor with continued interference from commercial air transmissions. Bearings reported reflected the conditions with 326 Class A-C and 125 of other classes. Conditions showed little improvement in November with 345 Class A-C and 136 bearings of other classes reported to control.

On 12 December 1942, BUDOCKS forwarded a mailgram to COMFIVE stating the intention to provide \$3,000 for the installation of a Model DAN HFDF and a Model DAJ HFDF equipment.

Receiving conditions during December 1942 continued poor to very poor with 412 Class A-C and 153 other bearings reported. The December material report listed the Model DAB HFDF equipment with a frequency range of 2-18.1 MHz, a TAY transmitter at 300-600 KHZ, and the TBK transmitter at 2-18.1 MHz.

The Radio Intelligence report for January 1943 stated that a site for the DAH and DAJ equipments had been selected. Reception continued to be poor to very poor with only 229 Class A-C and 69 bearings of other classes reported. On 8 January, six men reported for training on the DAB equipment before being transferred overseas.

In February 1943, an RBB-1 (500-4,000 KHZ) receiver was acquired with an RBC-1 (4-27 MHz) receiver to arrive shortly. Work was begun on a new building for the DAJ equipment. RADELEC R. M. Malone, USNR, reported on board on 23 February to service the Model DAJ HFDF equipment. Receiving conditions improved somewhat during the month and were reflected in 467 Class A-C and 153 other bearings reported; about twice that reported in January. Expansion of facilities at Poyner's Hill required the acquisition of additional land which was accomplished by the leasing of some 86 acres of land from the Currituck Shooting Club at a cost of \$1.00 per year.

The monthly report for March reported that construction of the building for the Model DAJ HFDF equipment was about 75% complete. Receiving conditions were reported as fair with 470 Class A-C and 144 other bearings reported. Installation of the DAH and DAJ equipments at Poyner's Hill was not looked upon with favor by the Naval Direction Finder Board due to the sandy soil of the area. Sandy soil was known to have low conductivity and highly porous soils were, "...recognized as large contributors to abnormal polarization errors and unstable bearing deviations." It was further noted that these errors might increase if shifting sand dunes existed in the area. However, the Board made some recommendations for installation if, all factors considered, it was still considered necessary to install the equipment.

Construction of the DAJ building was completed during April 1943 although some wiring remained to be done. Also received during the month were a number of small arms, a 20-foot Diesel boat, and two UHF receivers (an RBK-1 and an RBK-2). Receiving conditions were categorized as poor to very poor as reflected in the 189 Class A-C and 70 other bearings reported.

Conditions improved slightly in May with 310 Class A-C and 77 other bearings reported. Installation plans for the DAJ had been completed and work was expected to commence shortly.

In February 1943, an RBB-1 (500-4,000 KHZ) receiver was acquired with an RBC-1 (4-27 MHZ) receiver to arrive shortly. Work was begun on a new building for the DAJ equipment. RADELEC R. M. Malone, USNR, reported on board on 23 February to service the Model DAB HFDF equipment. Receiving conditions improved somewhat during the month and were reflected in 467 Class A-C and 153 other bearings reported; about twice that reported in January. Expansion of facilities at Poyner's Hill required the acquisition of additional land which was accomplished by the leasing of some 86 acres of land from the Currituck Shooting Club at a cost of \$1.00 per year.

The monthly report for March reported that construction of the building for the Model DAJ HFDF equipment was about 75% complete. Receiving conditions were reported as fair with 470 Class A-C and 144 other bearings reported. Installation of the DAH and DAJ equipments at Poyner's Hill was not looked upon with favor by the Naval Direction Finder Board due to the sandy soil of the area. Sandy soil was known to have low conductivity and highly porous soils were, "...recognized as large contributors to abnormal polarization errors and unstable bearing deviations." It was further noted that these errors might increase if shifting sand dunes existed in the area. However, the Board made some recommendations for installation if, all factors considered, it was still considered necessary to install the equipment.

Construction of the DAJ building was completed during April 1943 although some wiring remained to be done. Also received during the month were a number of small arms, a 20-foot Diesel boat, and two UHF receivers (an RBK-1 and an RBK-2). Receiving conditions were categorized as poor to very poor as reflected in the 189 Class A-C and 70 other bearings reported.

Conditions improved slightly in May with 310 Class A-C and 77 other bearings reported. Installation plans for the DAJ had been completed and work was expected to commence shortly.

On 30 June 1943, the U. S. Naval Radio Station, Poyner's Hill, forwarded a letter to OP-20G discussing personnel, equipment, and coverage assignments. In the letter, RMC Ballastro stated that the station was assigned to cover "...column 4 at the DF at the DAB." The station was still manning the IFDF equipment and, in addition to an experienced operator, there was often a trainee on watch. Personnel checked out on the IFDF would apparently then move up to be trained on the Model DAB HFDF equipment thereby also requiring an experienced operator there in addition to the trainee. In the DF Control, a supervisor and an operator would also cover column 4 and, although not on coverage, columns 5 and 7. RMC Ballastro estimated that the DAJ equipment would be in operation within five weeks and that 16 men would be required to maintain a four section watch on the equipment. In the June monthly report, receiving conditions were reported to be fair to good but activity light as reflected in the 125 Class A-C and 31 other bearings reported.

By the end of July, it was reported that all of the Model DAJ HFDF equipment had been installed in the building. Antennas for Arrays #1, #2, #3, and #4 had been installed although some cables remained to be run and the ground mats around Array #3 was then being installed. Work on the installation of the Model DAH IFDF antenna and counterpoise system had begun and completion was expected in about four weeks. Reception during the month was poor to fair and activity very light with a total of 97 Class A-C and 22 other bearings reported. A notation of 73 "special cases" was contained in the report but no explanation.

A progress report on the DAJ and DAH installations forwarded on 24 August stated that all of the antenna arrays for the DAJ had been installed with the exception of ground mats for Arrays #1 and #4. Problems had been encountered with intermittent shorts in some of the RF cables. Two positions had been repaired and were being used to take check bearings. Both positions were projected to be ready to go into operation within a week. Installation of the DAH



On 30 June 1943, the U. S. Naval Radio Station, Poyner's Hill, forwarded a letter to OP-20G discussing personnel, equipment, and coverage assignments. In the letter, RMC Ballastro stated that the station was assigned to cover "...column 4 at the DF at the DAB." The station was still manning the IFDF equipment and, in addition to an experienced operator, there was often a trainee on watch. Personnel checked out on the IFDF would apparently then move up to be trained on the Model DAB HFDF equipment thereby also requiring an experienced operator there in addition to the trainee. In the DF Control, a supervisor and an operator would also cover column 4 and, although not on coverage, columns 5 and 7. RMC Ballastro estimated that the DAJ equipment would be in operation within five weeks and that 16 men would be required to maintain a four section watch on the equipment. In the June monthly report, receiving conditions were reported to be fair to good but activity light as reflected in the 125 Class A-C and 31 other bearings reported.

By the end of July, it was reported that all of the Model DAJ HFDF equipment had been installed in the building. Antennas for Arrays #1, #2, #3, and #4 had been installed although some cables remained to be run and the ground mats around Array #3 was then being installed. Work on the installation of the Model DAH HFDF antenna and counterpoise system had begun and completion was expected in about four weeks. Reception during the month was poor to fair and activity very light with a total of 97 Class A-C and 22 other bearings reported. A notation of 73 "special cases" was contained in the report but no explanation.

A progress report on the DAJ and DAH installations forwarded on 24 August stated that all of the antenna arrays for the DAJ had been installed with the exception of ground mats for Arrays #1 and #4. Problems had been encountered with intermittent shorts in some of the RF cables. Two positions had been repaired and were being used to take check hearings. Both positions were projected to be ready to go into operation within a week. Installation of the DAH

was underway but only equipment for the antenna system had been received. The receiver, RF and power cables were scheduled to be received in October.

Also in August, RADELEC Malone returned to Poyner's Hill to check out the Model DAB HFDF equipment which had been experiencing excessive bearing deviations. RADELEC Malone reported that a correction he made to the azimuth scale would probably correct minor deviations but major deviations were probably the fault of the equipment site. To correct this problem, if the DAB was to remain in commission, he recommended the installation of a radial ground system of 36 wires extending a radius of 150 feet.

Receiving conditions in August varied from very poor to fair over the month with activity very light as shown in a total of 67 Class A-C and 18 other bearings reported.

The Model DAJ HFDF equipment was placed in commission in the Atlantic HFDF Net at 1557Z, 3 September 1943. The Model DAB HFDF equipment was designated as "P1" and the DAJ as "P2". In a 9 September airmailgram from VCNO to COMNAVEU, Poyner's Hill's coordinates were given as 36-17-16N 75-47-48W and the station designator as "PETER".

Communications continued to be a problem for Poyner's Hill. On 17 September, RMC Ballastro reported that due to moisture, the lines would go out during the night but restore themselves to service as soon as the sun came out and the moisture dried off. He reported that circuits #7076 and #7004 ran north over open wires for about 38 miles (presumably terminating at Virginia Beach) while circuit #7056 ran south for about eight miles and then crossed Currituck Sound over a three mile bridge. The September monthly report stated that the DAJ had been commissioned less position #4 which was awaiting some insulators. Difficulty was being experienced with the sand blowing off of the ground mats; a situation which was hoped would be corrected with the planting of "sea oats" around each array. Receiving conditions were poor to fair with activity very light to light.

0032

was underway but only equipment for the antenna system had been received. The receiver, RF and power cables were scheduled to be received in October.

Also in August, RADELEC Malone returned to Poyner's Hill to check out the Model DAB HFDF equipment which had been experiencing excessive bearing deviations. RADELEC Malone reported that a correction he made to the azimuth scale would probably correct minor deviations but major deviations were probably the fault of the equipment site. To correct this problem, if the DAB was to remain in commission, he recommended the installation of a radial ground system of 36 wires extending a radius of 150 feet.

Receiving conditions in August varied from very poor to fair over the month with activity very light as shown in a total of 67 Class A-C and 18 other bearings reported.

The Model DAJ HFDF equipment was placed in commission in the Atlantic HFDF Net at 1557Z, 3 September 1943. The Model DAB HFDF equipment was designated as "P1" and the DAJ as "P2". In a 9 September airmailgram from VCNO to COMNAVEU, Poyner's Hill's coordinates were given at 36-17-16N 75-47-48W and the station designator as "PETER".

Communications continued to be a problem for Poyner's Hill. On 17 September, RMC Ballastro reported that due to moisture, the lines would go out during the night but restore themselves to service as soon as the sun came out and the moisture dried off. He reported that circuits #7606 and #7004 ran north over open wires for about 38 miles (presumably terminating at Virginia Beach) while circuit #7056 ran south for about eight miles and then crossed Currituck Sound over a three mile bridge. The September monthly report stated that the DAJ had been commissioned less position #4 which was awaiting some insulators. Difficulty was being experienced with the sand blowing off of the ground mats; a situation which was hoped would be corrected with the planting of "seaoats" around each array. Receiving conditions were poor to fair with activity very light to light.

A combined total of 150 Class A-C and 55 other bearings were reported from the DAB and DAJ equipments.

On 21 October 1943, the U. S. Naval Radio Station, Poyner's Hill, North Carolina, (Station Designator PETER) was described as located 50 miles south of Norfolk, Virginia, on a long, narrow, sandy peninsula extending along the coast separated from the mainland by Currituck Sound. The station was located on the seaward side of the peninsula which was only one-half mile wide at the site. The land was mainly sand dunes with scattered patches of grass. Station facilities were described as consisting of a large, main building containing five apartments, a 16-man set of quarters, mess hall, galley, main office, transmitter room, sick bay, repair shop, one building with three apartments and another with two (one of these buildings also housed the IFDF radio room), a power house, a garage, and an old Coast Guard building which had been reconditioned to house 20 men. Away from the main complex was the DAB house, an unused DT house, and the DAJ/DAH control building. Weather was characterized as very hot in the summer, relieved somewhat by the ocean, and erratic in winter varying from mild to zero weather with Northeasters. Sand storms were common both winter and summer. Transportation for the station at the time consisted of a jeep, a pick-up truck and a Model "A" Ford on land and two boats on the sea. The jeep was used to drive to NOB Norfolk along the beach at low tide, the Model "A" for transportation around the station, and the truck was reportedly kept on the mainland for travel to Norfolk when the beach route was unusable. The boats were used to transport liberty parties, mail and supplies between the station and Poplar Branch, North Carolina. Poplar Branch, a small fishing village, was the nearest "liberty port" and basically consisted of 150 people, a small post office and a general store. The nearest town of any size was Elizabeth City, North Carolina, about 27 miles from Poplar Branch. Recreation facilities for personnel assigned to the station consisted of the more popular sports, fishing, hunting, and movies shown five nights per week.

0034

A combined total of 150 Class A-C and 55 other bearings were reported from the DAB and DAJ equipments.

On 21 October 1943, the U. S. Naval Radio Station, Poyner's Hill, North Carolina, (Station Designator PETER) was described as located 50 miles south of Norfolk, Virginia, on a long, narrow, sandy peninsula extending along the coast separated from the mainland by Currituck Sound. The station was located on the seaward side of the peninsula which was only one-half mile wide at the site. The land was mainly sand dunes with scattered patches of grass. Station facilities were described as consisting of a large, main building containing five apartments, a 16-man set of quarters, mess hall, galley, main office, transmitter room, sick bay, repair shop, one building with three apartments and another with two (one of these buildings also housed the IFDF radio room), a power house, a garage, and an old Coast Guard building which had been reconditioned to house 20 men. Away from the main complex was the DAB house, an unused DT house, and the DAJ/DAH control building. Weather was characterized as very hot in the summer, relieved somewhat by the ocean, and erratic in winter varying from mild to zero weather with Northeasters. Sand storms were common both winter and summer. Transportation for the station at the time consisted of a jeep, a pick-up truck and a Model "A" Ford on land and two boats on the sea. The jeep was used to drive to NOB Norfolk along the beach at low tide, the Model "A" for transportation around the station, and the truck was reportedly kept on the mainland for travel to Norfolk when the beach route was unusable. The boats were used to transport liberty parties, mail and supplies between the station and Poplar Branch, North Carolina. Poplar Branch, a small fishing village, was the nearest "liberty port" and basically consisted of 150 people, a small post office and a general store. The nearest town of any size was Elizabeth City, North Carolina, about 27 miles from Poplar Branch. Recreation facilities for personnel assigned to the station consisted of the more popular sports, fishing, hunting, and movies shown five nights per week.

An OP-20G memorandum of 25 October 1943 informed the Radioman in Charge, Station "P", that action had been initiated to obtain a multi-coupler unit (Navy type CFT 50149) for the station which would enable the station to supply up to six receivers from the Model DAL sense antenna without affecting the operation of the antenna. The memorandum went on to state that, where facilities were available, it was intended that the primary search and intercept assignments be conducted at positions remote from the DF equipment so more adequate antenna systems could be employed. The search and intercept activities had been moved from the main building at Poyner's Hill to the DF control building. On 28 October, RMC Ballastro reported that the move had been effected due to better reception at the DAJ building and the fact that the BUSHIPS plans for the DAJ building called for the search and intercept positions to be installed in the building. This was apparently a satisfactory response since later reports showed the same equipment configuration.

The monthly report for October 1943 reported that installation of the DAL IFDF equipment was still held up due to some components not yet having been received. Bearings reported from both the DAB and DAJ totaled 267 Class A-C and 40 other.

The November monthly report cited fair to good receiving conditions with 389 Class A-C and 52 other bearings reported to control. The components holding up installation of the Model DAL IFDF equipment had still not arrived.

On 6 December, RMC Ballastro reported to RADELEC Parker that results from Position #4 of the DAJ were categorized as only fair. Apparently Position #4 covered the upper frequency ranges of the equipment since reference was made to null checks between 14 and 16 MHz and the maximum for the equipment was 18.1 MHz. Various ideas had been tried to improve performance but without success and RADELEC Parker's recommendations were requested.

In a trip report by C. E. Daniels summarizing his visit to Poyner's Hill on

An OP-20G memorandum of 25 October 1943 informed the Radioman in Charge, Station "P", that action had been initiated to obtain a multi-coupler unit (Navy type CFT 50149) for the station which would enable the station to supply up to six receivers from the Model DAL sense antenna without affecting the operation of the antenna. The memorandum went on to state that, where facilities were available, it was intended that the primary search and intercept assignments be conducted at positions remote from the DF equipment so more adequate antenna systems could be employed. The search and intercept activities had been moved from the main building at Poyner's Hill to the DF control building. On 28 October, RMC Ballastro reported that the move had been effected due to better reception at the DAJ building and the fact that the BUSHIPS plans for the DAJ building called for the search and intercept positions to be installed in the building. This was apparently a satisfactory response since later reports showed the same equipment configuration.

The monthly report for October 1943 reported that installation of the DAH HFDF equipment was still held up due to some components not yet having been received. Bearings reported from both the DAB and DAJ totaled 267 Class A-C and 40 others.

The November monthly report cited fair to good receiving conditions with 389 Class A-C and 52 other bearings reported to control. The components holding up installation of the Model DAH HFDF equipment had still not arrived.

On 6 December, RMC Ballastro reported to RADELEC Parker that results from Position #4 of the DAJ were categorized as only fair. Apparently Position #4 covered the upper frequency ranges of the equipment since reference was made to null checks between 14 and 16 MHz and the maximum from the equipment was 18.1 MHz. Various ideas had been tried to improve performance but without success and RADELEC Parker's recommendations were requested.

In a trip report by C. E. Daniels summarizing his visit to Poyner's Hill on

14 December 1943, he reported that the station was unique among those he had visited along the East Coast in that it had no guards. He stated that the need for guards probably wasn't too great due to the isolation of the station, the fact that it could only be reached by sea and the beaches were well patrolled by the Coast Guard. However, he did recommend that the power house be fenced off since the whole station could be crippled by putting the generators out of commission. He also commented on the infrequency of liberty for personnel assigned to the station and the lack of good liberty towns within a reasonable distance of travel. He recommended rotating at least the younger personnel with personnel at other East Coast stations after 12-18 months due to the isolation.

The monthly Radio Intelligence report for December 1943 reported receipt of all of the components for the Model DAM HFDF equipment with the exception of some cable. The "old Coast Guard Building" had been wired for lighting during the period by station forces and a furnace with radiators was to be installed in a week or so. Receiving conditions were fair to good with 211 Class A-C and 34 other bearings reported.

The January 1944 report stated that the DAM cable was then expected to arrive around 15 February. Installation of the furnace in the old Coast Guard Building was completed on 20 January. An increase in station generator capacity was planned with the installation, subsequently completed on 8 February, of two 15 KVA Diesel generators for the Model DAM HFDF equipment. The load on existing generators was causing current fluctuations as equipment around the station was turned on or off and this was affecting the DAM. Receiving conditions continued fair to good with 260 Class A-C and 43 other bearings reported to control via the control circuit and the TWX.

Transportation to, from, and around Poyner's Hill was less than optimum as stated previously. On 1 February, a speedletter from the Norfolk Navy Yard to BUSHIPS requested that an additional motor boat and a carryall truck be author-

0038



14 December 1943, he reported that the station was unique among those he had visited along the East Coast in that it had no guards. He stated that the need for guards probably wasn't too great due to the isolation of the station, the fact that it could only be reached by sea and the beaches were well patrolled by the Coast Guard. However, he did recommend that the power house be fenced off since the whole station could be crippled by putting the generators out of commission. He also commented on the infrequency of liberty for personnel assigned to the station and the lack of good liberty towns within a reasonable distance of travel. He recommended rotating at least the younger personnel with personnel at other East Coast stations after 12-18 months due to the isolation.

The monthly Radio Intelligence report for December 1943 reported receipt of all of the components for the Model DAH HFDF equipment with the exception of some cable. The "old Coast Guard Building" had been wired for lighting during the period by station forces and a furnace with radiators was to be installed in a week or so. Receiving conditions were fair to good with 211 Class A-C and 34 other bearings reported.

The January 1944 report stated that the DAH cable was then expected to arrive around 15 February. Installation of the furnace in the old Coast Guard Building was completed on 20 January. An increase in station generator capacity was planned with the installation, subsequently completed on 8 February, of two 15 KVA Diesel generators for the Model DAJ HFDF equipment. The load on existing generators was causing current fluctuations as equipment around the station was turned on or off and this was affecting the DAJ. Receiving conditions continued fair to good with 260 Class A-C and 43 other bearings reported to control via the control circuit and the TWX.

Transportation to, from, and around Poyner's Hill was less than optimum as stated previously. On 1 February, a speedletter from the Norfolk Navy Yard to BUSHIPS requested that an additional motor boat and a carryall truck be author-

ized for the station to meet the increased demand for boat transportation to and from the station, and for beach transportation to the DAI and DAJ facilities due to additional personnel and the increase in station area. On 23 February, RMC Ballastro reported that he had heard nothing in response to the speedletter. The transportation problem had worsened in the interim because the jeep they had been using had broken down and the Army at Fort Story, where it had been taken for repairs, was having trouble getting parts. Beach transportation was depending solely on the old Model "A" Ford which was termed as being on its last legs. The request for the truck was favorably endorsed by BUSHIPS on 26 February citing the isolation of the station and lack of roads other than Army truck trails as justification.

In the February Radio Intelligence report, it was noted that the RF cable for the Model DAI IFDF equipment had finally arrived but completion of the installation was being held up by heavy rains which prevented the pouring of the concrete base for the center antenna pedestal. At the time, the DAI site was reported under about a foot of water. Receiving conditions during the month were fair to good with 267 Class A-C and 48 other bearings reported as well as 34 "special cases".

Receiving conditions during March were also fair to good with 311 Class A-C and 53 other bearings plus 38 "special cases" reported. Work on the DAI installation had continued but slowly due to heavy rains which had continued from February through March. Perhaps the highlight of the month was the arrival of a 3/4 ton carryall to relieve, somewhat, the station's land transportation problems.

On 1 April, OP-20G directed Poyner's Hill and Dupont (Charleston, South Carolina) to place their Model DAB IFDF equipments in a standby status effective immediately and to man the DAB only in the event of a failure of the DAJ or when directed. In addition, each station was to nominate four qualified DAI operators for transfer to Station "AZ" (Port Isabel, Texas).

ized for the station to meet the increased demand for boat transportation to and from the station, and for beach transportation to the DAH and DAJ facilities due to additional personnel and the increase in station area. On 23 February, RMC Ballastro reported that he had heard nothing in response to the speedletter. The transportation problem had worsened in the interim because the jeep they had been using had broken down and the Army at Fort Story, where it had been taken for repair, was having trouble getting parts. Beach transportation was depending solely on the old Model "A" Ford which was termed as being on its last legs. The request for the truck was favorably endorsed by BUSHIPS on 26 February citing the isolation of the station and lack of roads other than Army truck trails as justification.

In the February Radio Intelligence report, it was noted that the RF cable for the Model DAH HFDF equipment had finally arrived but completion of the installation was being held up by heavy rains which prevented the pouring of the concrete base for the center antenna pedestal. At the time, the DAH site was reported under about a foot of water. Receiving conditions during the month were fair to good with 267 Class A-C and 48 other bearings reported as well as 34 "special cases".

Receiving conditions during March were also fair to good with 311 Class A-C and 53 other bearings plus 38 "special cases" reported. Work on the DAH installation had continued but slowly due to heavy rains which had continued from February through March. Perhaps the highlight of the month was the arrival of a 3/4 ton carryall to relieve, somewhat, the station's land transportation problems.

On 1 April, OP-20G directed Poyner's Hill and Dupont (Charleston, South Carolina) to place their Model DAB HFDF equipments in a standby status effective immediately and to man the DAB only in the event of a failure of the DAJ or when directed. In addition, each station was to nominate four qualified DAJ operators for transfer to Station "AZ" (Port Isabel, Texas).

(RETYPE FOR PURPOSE OF CLARITY)

On 27 April, RMC Ballastro informed OP-206 that completion of the DAI installation was estimated on 29 April and arrangements were being made by the Norfolk Navy Yard for blimp calibration. This completion date was apparently met as the April Radio Intelligence report reported the installation complete. Receiving conditions were poor to fair. A total of 138 Class A-C bearings, 30 other bearings, and 13 "special cases" were reported during the month. Some of the decline in bearings reported could probably be attributed to the Model DAB HFDF equipment having been placed in a standby status at 0315, 2 April 1944. The station transportation problem was also improved with the receipt of a 24-foot boat.

On 9 May 1944, the station reported that the DAI equipment had been satisfactorily calibrated by aircraft (F5Y). Authorization to place the DAI in service and decommission the Model DP HFDF equipment was requested. Approval was received the same day and the DAI was placed in service on 13 May. Reception during May was fair to good with 116 Class A-C and 22 other bearings reported.

Reception during June and July continued fair to good with 170 Class A-C bearings, 39 other bearings and 3 "special cases" reported in June and 143 Class A-C and 34 other bearings as well as 12 "special cases" reported in July.

The August report noted the addition of a 40-foot extension to a small wooden building for use as a cold storage room, pantry, galley and mess hall. A total of 145 Class A-C bearings, 25 other bearings and 7 "special cases" were reported during the month.

On 15 September, the station reported to the Senior Net Control Officer, Atlantic HFDF Net that the DAI had been placed out of service due to bent masts. The DAI equipment, masts and buildings had suffered only light damage. All landlines were out of service with restoration expected within two to three days. A subsequent damage report to OP-206 explained more fully what had happened. On 13 September, preparations for an approaching hurricane were initiated. Winds

On 27 April, RMC Ballastro informed OP-20G that completion of the DAH installation was estimated on 29 April and arrangements were being made by the Norfolk Navy Yard for blimp calibration. This completion date was apparently met as the April Radio Intelligence report reported the installation complete. Receiving conditions were poor to fair. A total of 138 Class A-C bearings, 30 other bearings, and 13 "special cases" were reported during the month. Some of the decline in bearings reported could probably be attributed to the Model DAB HFDF equipment having been placed in a standby status at 0315, 2 April 1944. The station transportation problem was also improved with the receipt of a 24-foot boat.

On 9 May 1944, the station reported that the DAH equipment had been satisfactorily calibrated by aircraft (PBY). Authorization to place the DAH in service and decommission the Model DP HFDF-equipment was requested. Approval was received the same day and the DAH was placed in service on 13 May. Reception during May was fair to good with 116 Class A-C and 28 other bearings reported.

Reception during June and July continued fair to good with 170 Class A-C bearings, 39 other bearings and 2 "special cases" reported in June and 143 Class A-C and 34 other bearings as well as 12 "special cases" reported in July.

The August report noted the addition of a 40-foot extension to a small wooden building for use as a cold storage room, pantry, galley and mess hall. A total of 145 Class A-C bearings, 25 other bearings and 7 "special cases" were reported during the month.

On 15 September, the station reported to the Senior Net Control Officer, Atlantic HFDF Net that the DAH had been placed out of service due to bent masts. The DAJ equipment was normal and buildings had suffered only light damage. All landlines were out of service with restoration expected within two to three days. A subsequent damage report to OP-20G explained more fully what had happened. On 13 September, preparations for an approaching hurricane were initiated. Winds

(RETYPE FOR PURPOSE OF CLARITY)

0042

of 35 mph were estimated at 1300Z, 14 September, and at 1500Z, the Caffey's Inlet Coast Guard station about five miles south of the station reported 88 mph winds with gusts of about 100 mph. Sea water started across from the ocean to the sound some 25 feet from the new mess hall and visibility was reduced to about 50 feet due to blowing sand. At 1705Z, the landlines were out of service and radio communications were established with Norfolk. Damage to the station consisted of four sections of DAI masts being bent and some shingles were blown off three buildings. Landline communications were restored at 2027Z, 16 September. The DAI was restored to service at 1900Z, 26 September. A total of 100 Class A-C and 22 other bearings plus 4 "special cases" were reported during the month.

Although the war in the Atlantic theater had several months to go before its conclusion, plans were being made by CNO (OP-206) regarding the disposition of Atlantic supplementary HFDF stations upon cessation of hostilities. In a 25 October 1944 letter to the Commandant, U. S. Coast Guard, OP-206 outlined its postwar requirements for stations to assist the Coast Guard in planning for its air-sea rescue mission. This letter called for the retention of Poyner's Hill, among others.

The summary for October 1944 reported 58 Class A-C bearings, 16 other bearings, and 31 "special cases" for the month. However, the report also included, for the first time, a report on aircraft bearings forwarded to net control. Totals of aircraft bearings for the month were 107 Class A-C and 7 other. November 1944 saw 51 Class A-C and 9 other bearings plus 15 "special cases" reported to Net Control as well as 119 Class A-C aircraft bearings.

In late 1944, a survey was apparently made looking to the requirements for modernization of the station. One portion of this report more graphically described the transportation problems faced by personnel assigned to the station, "...to get to Poyner's Hill, take highways 170, 34, and 153 from Norfolk for about 45 miles, until you reach the town of Poplar Branch, N. C. There is a station

of 35 mph were estimated at 1300Z, 14 September, and at 1500Z the Caffey Inlet Coast Guard station about five miles south of the station reported 88 mph winds with gusts of about 100 mph. Sea water started across from the ocean to the sound some 25 feet from the new mess hall and visibility was reduced to about 50 feet due to blowing sand. At 1705Z, the landlines were out of service and radio communications were established with Norfolk. Damage to the station consisted of four sections of DAH masts being bent and some shingles were blown off three buildings. Landline communications were restored at 2027Z, 16 September. The DAH was restored to service at 1900Z, 26 September. A total of 100 Class A-C and 22 other bearings plus 3 "special cases" were reported during the month.

Although the war in the Atlantic theater had several months to go before its conclusion, plans were being made by CNO (OP-20G) regarding the disposition of Atlantic supplementary HFDF stations upon cessation of hostilities. In a 25 October 1944 letter to the Commandant, U. S. Coast Guard, OP-20G outlined its postwar requirements for stations to assist the Coast Guard in planning for its air-sea rescue mission. The letter called for the retention of Poyner's Hill, among others.

The summary for October 1944 reported 58 Class A-C bearings, 16 other bearings, and 31 "special cases" for the month. However, the report also included, for the first time, a report on aircraft bearings forwarded to net control. Totals of aircraft bearings for the month were 107 Class A-C and 7 other. November 1944 saw 51 Class A-C and 9 other bearings plus 15 "special cases" reported to Net Control as well as 119 Class A-C aircraft bearings.

In late 1944, a survey was apparently made looking to the requirements for modernization of the station. One portion of this report more graphically described the transportation problems faced by personnel assigned to the station, "...to get to Poyner's Hill, take highways 170, 34, and 158 from Norfolk for about 45 miles, until you reach the town of Poplar Branch, N. C. There is a station

dock at this point. Take the boat across Currituck Sound to the dock on the peninsula, a distance of about 6 miles, then take a car to the radio station, a distance of about 3/4 mile. In adverse weather this 3/4 mile strip is impassable. In addition, tides and freezing weather affect boat passage across the waterway. Under these conditions it is necessary to drive along the beach, south, to a bridge crossing. This is a total of 37 miles to Poplar Branch, which is only 6 miles away..." The problem of drifting sand was noted and it was reported that most buildings had some six feet of sand piled around them. Clothes lines and fence railings around the apartment buildings had been covered with sand. Working parties continually worked at removing sand but the wind soon brought it back. The installation of sand fences and the planting of certain plants were recommended. Water for the apartment building area came from 12 well points to a water tank in the basement. Rain water was also collected in a 15,000 gallon cistern and in two 10,000 gallon tanks, the latter for fire-fighting use. As stated, a 25 October 1944 OP-20G letter listed Poyner's Hill as one of those stations designated for retention after the war. However, this memorandum, which was dated 11 December 1944, regarding the requirements for the station's modernization may have been a factor in OP-20G later deciding to turn it over to the Coast Guard. The memorandum concluded by stating that the cost of the improvements outlined would be considerable due to the remoteness of the station. In addition, maintenance costs for Poyner's Hill were about twice that of a similar station not faced with the necessity of water transportation and the ravages of sand and salt spray. It was recommended that consideration be given to relocating the station which, it was estimated, could be effected for approximately the same cost as the recommended improvements to the existing station. In addition would be the long-term savings to be realized by decreased maintenance and support costs resulting from relocating the station nearer improved roads, power lines and communication lines.



dock at this point. Take the boat across Currituck Sound to the dock on the peninsula, a distance of about 6 miles, then take a car to the radio station, a distance of about 3/4 mile. In adverse weather this 3/4 mile strip is impassable. In addition, tides and freezing weather affect boat passage across the waterway. Under these conditions it is necessary to drive along the beach, south, to a bridge crossing. This is a total of 37 miles to Poplar Branch, which is only 6 miles away..." The problem of drifting sand was noted and it was reported that most buildings had some six feet of sand piled around them. Clothes lines and fence railings around the apartment buildings had been covered with sand. Working parties continually worked at removing sand but the wind soon brought it back. The installation of sand fences and the planting of certain plants were recommended. Water for the apartment building area came from 12 well points to a water tank in the basement. Rain water was also collected in a 15,000 gallon cistern and in two 10,000 gallon tanks, the latter for fire-fighting use. As stated, a 25 October 1944 OP-20G letter listed Poyner's Hill as one of those stations designated for retention after the war. However, this memorandum, which was dated 11 December 1944, regarding the requirements for the station's modernization may have been a factor in OP-20G later deciding to turn it over to the Coast Guard. The memorandum concluded by stating that the cost of the improvements outlined would be considerable due to the remoteness of the station. In addition, maintenance costs for Poyner's Hill were about twice that of a similar station not faced with the necessity of water transportation and the ravages of sand and salt spray. It was recommended that consideration be given to relocating the station which, it was estimated, could be effected for approximately the same cost as the recommended improvements to the existing station. In addition would be the long-term savings to be realized by decreased maintenance and support costs resulting from relocating the station nearer improved roads, power lines and communication lines.

In December 1944, Poyner's Hill was tasked with a special assignment on stations NBI, NBI1 and NAEZ. Intercept logs for the period 5-18 December are available but no explanation of the background for the assignment has been noted. The monthly report for December stated that the station was standing a four section watch with five men per watch, one of whom was an RMI supervisor. The station was tasked with coverage on frequency columns 36, 37, 9 and 10. The LFDF circuit was covered by one man guarding assigned search frequencies and 500 KHZ. It was also reported that the station had 25 Radiomen on board; 20 assigned to watchstanding, one RMC as Radioman in Charge, one RMC as assistant RMIC, one RMC and one RMI for maintenance. The search, communications, and DF equipment of the DAJ and DAM were housed in the same building. The communications and search receivers were connected to the sense antenna of Array #1 of the DAJ through a six circuit multi-coupler. Reference was made to the special assignment on NBI, NBI1 and NAEZ from 2230Z, 4 December through 1600Z, 18 December, which had negative results. During the period, 133 Class A-C and 11 other bearings on regular targets and 92 Class A-C and 2 other bearings on aircraft were reported.

The January 1945 monthly report failed to record any significant changes to station operations. During the month, 110 Class A-C and 17 other bearings, 14 "special cases", and 86 Class A-C and 1 other bearing on aircraft were reported.

On 15 February, a letter listing supplementary radio station properties, how they were acquired and their status of acquisition listed Poyner's Hill as containing 5.7 acres of land which had been transferred from the custody of the Coast Guard on 23 July 1920, and 86 acres of land leased from the Currituck Shooting Club for \$1.00 per year. The lease on the 86 acres could be renewed at the option of the government from year to year but not beyond 30 June 1945.

It was noted in the February monthly report that the station was temporarily on a three section watch with five men per section. This was apparently due to

In December 1944, Poyner's Hill was tasked with a special assignment on stations NBI, NBI1 and NAEZ. Intercept logs for the period 5-18 December are available but no explanation of the background for the assignment has been noted. The monthly report for December stated that the station was standing a four section watch with five men per watch, one of whom was an RMI supervisor. The station was tasked with coverage on frequency columns 36, 37, 9 and 10. The IFDF circuit was covered by one man guarding assigned search frequencies and 500 KHZ. It was also reported that the station had 25 Radiomen on board; 20 assigned to watchstanding, one RMC as Radioman in Charge, one RMC as assistant RMIC, one RMC and one RMI for maintenance. The search, communications, and DF equipment of the DAJ and DAH were housed in the same building. The communications and search receivers were connected to the sense antenna of Array #1 of the DAJ through a six circuit multi-coupler. Reference was made to the special assignment on NBI, NBI1 and NAEZ from 2230Z, 4 December through 1600Z, 18 December, which had negative results. During the period, 183 Class A-C and 11 other bearings on regular targets and 92 Class A-C and 2 other bearings on aircraft were reported.

The January 1945 monthly report failed to record any significant changes to station operations. During the month, 118 Class A-C and 17 other bearings, 14 "special cases", and 86 Class A-C and 1 other bearing on aircraft were reported.

On 15 February, a letter listing supplementary radio station properties, how they were acquired and their status of acquisition listed Poyner's Hill as containing 5.7 acres of land which had been transferred from the custody of the Coast Guard on 23 July 1920, and 86 acres of land leased from the Currituck Shooting Club for \$1.00 per year. The lease on the 86 acres could be renewed at the option of the government from year to year but not beyond 30 June 1945.

It was noted in the February monthly report that the station was temporarily on a three section watch with five men per section. This was apparently due to

personnel losses since a four section watch was to be reimplemented upon the arrival of three men under orders to the station. Bearings reported during the period consisted of 68 Class A-C, 13 other on regular targets, 34 "special cases", and 82 Class A-C and one other on aircraft.

The three section watch implemented in February was returned to a four section watch by March. Activity for the month of March 1945 consisted of 67 Class A-C and 9 other bearings, 5 "special cases", and 93 Class A-C and 2 other bearings on aircraft. Modernization of the Model DAJ HFDF equipment was accomplished during the period 10 through 14 March which changed the designation of the equipment to DAJ-a.

On 5 April 1945, OP-20G informed a number of the Atlantic stations that, due to the low level of enemy U-Boat activity, it was possible to reduce the personnel allowances of the station. Poyner's Hill's new personnel allowance was established at 19 enlisted personnel. During the month of April, 49 Class A-C and 9 other bearings were reported on regular targets with an additional 81 Class A-C and one other bearing reported on aircraft.

In a 310230Z May 1945 message, presumably from OP-20G, the station was informed of tentative plans to transfer the station to the Coast Guard about 15 July since the surrender of Germany had closed out the war in the Atlantic. The month of May saw 41 Class A-C bearings and 3 other bearings on regular targets reported with none reported after 18 May. Aircraft bearings totaled 75 Class A-C and 3 others.

A 050325Z June 1945 message directed several stations, including Poyner's Hill, to secure all German Naval DF coverage at 1200Z 10 June and implement a guard on 8280 KHZ as well as a transatlantic aircraft frequency (4220 KHZ) for distress traffic.

On 15 June 1945, the station was informed that a LT R. S. McAdam and two other Coast Guard representative were authorized to inspect the station's facilities

0049

prior to transfer to the Coast Guard.

In a CNO (OP-20G) letter of 16 June 1945 to COMFIVE, it was officially stated that the U. S. Naval Supplementary Radio Station, Poyner's Hill, North Carolina, would be transferred to the U. S. Coast Guard on 15 July 1945. Personnel and certain electronic equipment were to be transferred to other supplementary activities. Other equipment, including the HFDF and IFDF equipments, would remain and be transferred to the Coast Guard.

The monthly report for June 1945 reported that the teletype circuit #7056 had been discontinued on 20 June leaving no landline circuits to Washington. Radio communications were being used instead. Bearings reported during the period totaled 13 Class A-C and one other bearing on aircraft. On 16 June, all aircraft cases were secured on "this circuit", perhaps meaning the strategic HFDF circuit, with alerts being handled by the ASR (air-sea rescue) circuit #7028.


At 150015Z July 1945, it was reported that the station had been turned over to the Coast Guard at 150000Z.

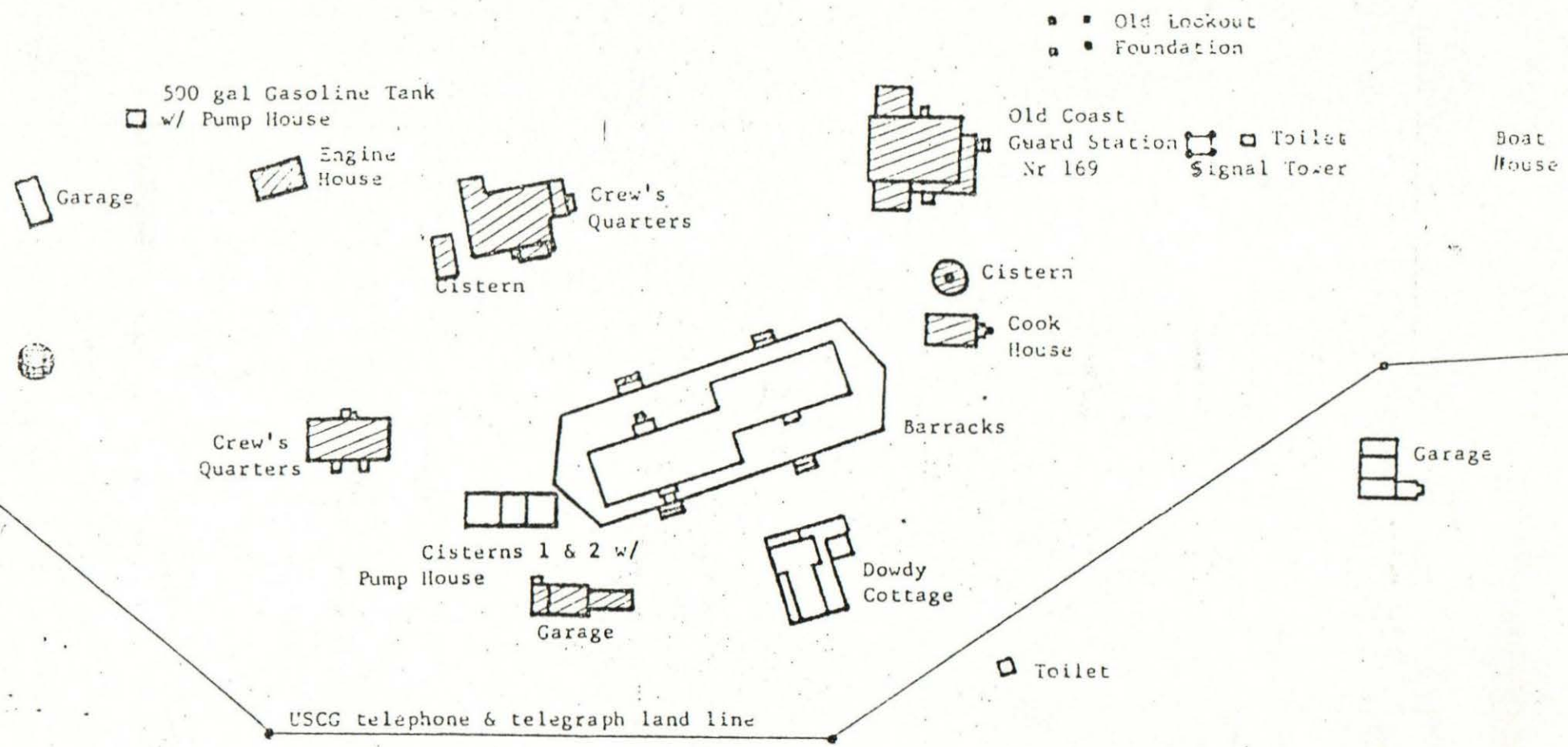
On 11 August, an internal OP-20G memorandum reported that the station designator "P" which had formerly been assigned to the U. S. Naval Supplementary Radio Station, Poyner's Hill, had been reassigned to the U. S. Naval Supplementary Radio Station, Port Lyautey, French Morocco.

-----

For additional information regarding Poyner's Hill, see Appendix A containing some station drawings, Appendix B contains a personnel roster (not complete) reconstructed from available records, Appendix C contains personnel allowance and on board figures for November 1944-June 1945, and Appendix D contains a description of station facilities upon the transfer of the station to the Coast Guard.

U. S. NAVAL RADIO STATION, POYNER'S HILL  
 as of 30 June 1943

 indicates buildings or structures  
 in place as of 30 June 1939



PERSONNEL ROSTER

<u>Name</u>	<u>Rate</u>	<u>Service</u>	<u>Service Number</u>	<u>Reported</u>	<u>Transferred</u>	<u>Remarks</u>
MCLEOD, Henry Murdock	RMC					RMIC
FOWLKES, Everette Gibson	RMC	USN	279-25-00		1 Sep 41	RMIC
WALKER, Perry Appling	RMC	USN	278-91-14	1 Jul 41	11 Sep 41	
PRONIER, Alfred Caesar	RMC	USFR	213-34-11	1 Jul 41	1 Oct 41	
BALLASTRO, Joseph Isadore	RM1	USFR	257-58-04	1 Jul 41	(15 Jul 45)	
	RMC					RMIC
ALEXANDER, George W.	RM1	USN	375-46-88	1 Jul 41	18 Nov 41	
FERRINER, Anthony Joseph	RM1	USN	207-08-90	1 Jul 41	1 Sep 41	
STANLEY, Francis Joseph	RMC	USFR		1 Jul 41	(1941)	
BREEDEN, Charles Walter	RMC	USFR	257-13-02	1 Jul 41	18 May 42	
DOK, Frank Francis	RM1	USFR	257-76-51	1 Jul 41	18 Nov 41	
MITCHELL, Walter Ivan	RM1	USN	261-69-50	1 Jul 41	18 Nov 41	
BOYCE, Edward Giles	RM1	USN	207-06-89	1 Jul 41	18 May 42	
COURSON, James Earl	PHMC	USN	271-40-78	Jun 41	May 45	
TRUXILLO, Bennis Joseph	SC1	USFR	104-69-15	Jun 41	7 Jan 42	
BIEGLOW, Robert Morris	RM1	USFR	111-84-35	Jun 41	13 Dec 41	
JACKSON, Ulrick Alexander	RM1	USFR	310-42-93	17 Sep 39	Oct 44	
	RMC					
MARKLAND, Clement Leo	RM1	USFR	141-60-04		15 Jul 41	
	RMC			14 Dec 42	Oct 44	
TOLER, James V.	RM1	USFR	265-35-29	16 Sep 39	13 Jan 43	
	RMC					
JOHNSON, John S.	RM1	USN	261-72-11		18 Nov 41	
BARTON, Thomas Yancey	RM2	USN	261-42-28	19 Apr 39	7 May 42	
	RM1					
STONE, Clinton Merwin	RM2	USNR	404-86-77		15 Jul 41	
BERNINGER, Charles Glen	RM3	USNR	404-95-77	5 Jan 41	Aug 43	
	RM2					
	RM1					
BITTNER, Edward Joseph	RM3	USNR	404-96-09	5 Jan 41	May 44	
	RM2					
	RM1					
DUSSINGER, Robert K.	RM3	USNR	405-02-45	5 Jan 41	21 Jan 44	
	RM2					
	RM1					
SMITH, Russel Stanley	RM3	USNR	405-00-44		1 Sep 41	
AIKIN, Charles Lee	RMC	USFR	100-28-65	29 Aug 41	2 Oct 41	RMIC
TENNEY, V. C.	YN3	USNR		3 Sep 41	22 Dec 41	

0052

<u>Name</u>	<u>Rate</u>	<u>Service</u>	<u>Service Number</u>	<u>Reported</u>	<u>Transferred</u>	<u>Remarks</u>
COONCE, O. C.	RMC	USN		26 Sep 41	6 Apr 42	RMIC
WILSON, Jack	SC1			7 Jan 42		
MCGRILLIES, James R.	RM3	USN		20 Apr 42	18 Oct 43	
	RM2					
STRICKLAND, Cecil T.	RM3	USN		20 Apr 42	18 Oct 43	
	RM2					
WYSE, Thomas Milford	S2c	USN		20 Apr 42	Oct 44	
	RM3					
	RM2					
	RM1					
TODD, Irby Lee	S2c	USN		20 Apr 42	Oct 44	
	RM3					
	RM2					
UNTERBERGER, Owen	RM3	USNR		19 May 42	17 Sep 43	
	RM2					
WALKER, Lemuel Elmore	RM3	USN		19 May 42	10 Aug 42	to Greenland
SUMMERLIN, Benjamin Franklin	S2c	USN		25 Jun 42		
	RM3					
	RM2					
	RM1					
MURRAY, F. A.	S2c	USN		25 Jun 42	18 Aug 42	
	RM3					
REVELL, L. E.	S2c	USN		25 Jun 42	5 Feb 45	
	RM3					
	RM2					
ERMISH, R.	S2c	USN		25 Jun 42		xrfd to hospital in Jun 42. Not known if returned to station.
BENNINGS, Robert Frederick	S2c	USN		29 Jun 42	Feb 44	
	RM3					
	RM2					
LAVALLE, Girard	RM3	USNR	400-69-70	30 Jun 42	(15 Jul 45)	
	RM2					
BELL, M. H.	S2c	USN		30 Jun 42	18 Aug 42	
	RM3					
HARTSFIELD, J. R.	S2c	USN		30 Jun 42	18 Aug 42	
	RM3					
PERSONNETT, Wilson Gregory	RM3	USNR	626-23-23	8 Jan 43	Oct 44	
	RM2					

0053



<u>Name</u>	<u>Rate</u>	<u>Service</u>	<u>Service Number</u>	<u>Reported</u>	<u>Transferred</u>	<u>Remarks</u>
STORM, Roland Burdette	RM3 RM2	USNR	628-30-67	8 Jan 43	21 Jan 44	
GORDEE, Stanley Arnold	RM3 RM2	USNR	638-27-19	8 Jan 43	Feb 44	
DOMAN, William George	RM3 RM2	USNR	650-35-55	8 Jan 43	Feb 44	
ATKINSON, William Thomas, Jr.	RM3 RM2	USNR	616-20-22	8 Jan 43	21 Jan 44	
LACEY, Joseph Dufour	RM3 RM2	USNR	644-41-56	8 Jan 43	Feb 44	
ARRELL, Bernard J.	RM3	USNR	638-98-50	20 Feb 43	Apr 44	
BICKETT, Gerald Edward	RM3 RM2	USNR	648-42-05	20 Feb 43	Apr 44	
FAGAN, Warren J.	RM3 RM2	USNR	204-61-50	20 Feb 43	Apr 44	
JONES, Floyd George, Jr.	RM3 RM2	USNR	647-94-61	20 Feb 43	Oct 44	
KUNZE, Kenneth Theodore	RM3 RM2	USNR	207-39-50	20 Feb 43	26 Oct 43	
LESKIE, William Albert	RM3 RM2	USNR	244-20-37	20 Feb 43	26 Oct 43	
PEEK, Virgil (n), Jr.	RM3 RM2	USNR	636-72-41	20 Feb 43	Oct 44	
SMARKEY, Thomas J.	RM3 RM2	USNR	650-96-18	20 Feb 43	Oct 44	
SIMMONS, Phillip (n)	RM3 RM2	USNR	611-76-62	20 Feb 43	Oct 44	
SMITH, Max Ervin	RM3 RM2	USNR	669-06-88	20 Feb 43	28 Dec 44	to Toro Point
TERRELL, John Elwood	RM3 RM2	USNR	642-37-04	20 Feb 43	Oct 44	
UPSHAW, Charles Bosworth	RM3 RM2	USNR	636-71-64	20 Feb 43	Oct 44	
BURNS, Harley Melvin	YN2 YN1	USNR	656-29-31	27 Apr 43	13 Feb 45	
STEVENS, Leo E.	RM3 RM2	USNR	204-80-87	May 43	(15 Jul 45)	
BARNES, Thomas Bruce, Jr.	S2c S1c RM3 RM2	USNR	645-37-08	May 43	(15 Jul 45)	

0054

<u>Name</u>	<u>Rate</u>	<u>Service</u>	<u>Service Number</u>	<u>Reported</u>	<u>Transferred</u>	<u>Remarks</u>
HINKLE, George Edwin	S2c S1c RM3 RM2	USNR	653-26-64	May 43	3 Apr 45	
SULLIVAN, William Joseph	S2c S1c RM3	USNR	205-12-44	May 43	(15 Jul 45)	
WADE, Ernest George	S2c S1c RM3 RM2	USNR	203-61-31	May 43	(15 Jul 45)	
WAGNER, C. R.	RM3 RM2	USNR	653-20-54	May 43	(15 Jul 45)	
EHR, William D.	RM3 RM2	USNR	653-28-27	May 43	(15 Jul 45)	
GRAMM, Kenneth Francis	RM2 RM1	USNR	646-62-53	Oct 43	3 Apr 45	
SMITH, David Forbes	RM2 RM1			Oct 43	(15 Jul 45)	
HYMANS, Edward Loomis	RM2 RM1			Oct 43	(15 Jul 45)	
BOERCY, C. M.	RM3 RM2	USNR	646-62-07	Oct 43	3 Apr 45	
SNIDER, Arthur G.	RMC	USN	320-83-64	5 Dec 43	9 Apr 45	
POSEY, E. G.	RMC	USN	406-83-51	Feb 44	9 Apr 45	
KORB, Berner Duane	S1c RM3			Feb 44	(15 Jul 45)	
MOORE, John Michael	RM3 RM2			Feb 44	(15 Jul 45)	
LIVERS, Henry Joseph	RM3 RM2			Feb 44	(15 Jul 45)	
MOSER, Robert Lee	S1c RM3 RM1			Feb 44	(15 Jul 45)	
COURINGTON, R. E.	RM1			15 Mar 44	5 Feb 45)	
PALMER, William Clyde	MM1	USNR	659-11-82		Jan 45	Discharge
RICHARDSON, Bruce Roland	CMOMM	USN	321-25-68		(15 Jul 45)	
LUDEMAN, Kenneth Richard	SC2	USNR	665-56-88		Aug 44	
KNAUF, John Frank	SC3 SC2	USNR	628-80-92		23 Jan 45	
GARRETT, Kenneth Clyde	S2c	USNI	815-18-91		May 45	
DILL, Julian Earl	S2c	USNI	823-10-31		May 45	

0055

<u>Name</u>	<u>Rate</u>	<u>Service</u>	<u>Service Number</u>	<u>Reported</u>	<u>Transferred</u>	<u>Remarks</u>
SMILER, Herbert (n)	S2c Slc	USNI	815-44-73		(15 Jul 45)	
EPPLER, Donald George	S2c Slc	USNI	815-36-73		May 45)	
SLAY, Eugene Cason	SC2 SC1	USNR	655-39-06		(15 Jul 45)	
HARRELSON, Edwin Charles	RM2	USNR	656-18-55	9 Sep 44	(15 Jul 45)	
JANZEN, John	RM2 RM1			Sep 44	(15 Jul 45)	
STAMPS, Henry B.	RM2 RM1			Sep 44	(15 Jul 45)	
JOHNSON, Roy Stuart	SC2	USN	263-64-64	Jan 45	(15 Jul 45)	
BOOTS, R. H.	RM1			23 Feb 45	(15 Jul 45)	
MCKINNEY, Frank Riley	YN1	USNR	670-32-08	6 Feb 45	24 Apr 45	
MURGESSE, Dennis Authur	SC1	USNR	634-24-61	16 Feb 45	(15 Jul 45)	
LAWES, Marvin Alfred	MONM2	USNR	642-86-43	9 Feb 45	(15 Jul 45)	
MITCHELL, J. S.	YN1	USNR	604-26-51	10 Apr 45	(15 Jul 45)	
DENTON, K. E.	RMC	USN	310-65-15	9 Apr 45	(15 Jul 45)	
BARTON, T. V.	RMC	USN	661-42-28	9 Apr 45	(15 Jul 45)	
WHITE, J. D.	RM1	USNR	624-02-55	21 Apr 45	(15 Jul 45)	
O'RILEY, J. T.	RM1	USNR	666-35-75	23 Apr 45	(15 Jul 45)	
NELSON, K. E.	RM1	USNR	638-23-44	23 Apr 45	(15 Jul 45)	
ORENACH, Donald Robert	PMMC	USN	341-94-01	6 Apr 45	(15 Jul 45)	
CASANOVA, Ernest Dominisck	Slc	USNR	852-57-69	7 May 45	(15 Jul 45)	
NICELEY, Robert Paskell	S2c	USNR	855-88-02	7 May 45	(15 Jul 45)	
PANCOAST, Carlton Clarkson		USNR	906-68-10	7 May 45	(15 Jul 45)	
WOLLARD, Efford Edison	Slc	USNR	657-85-85	7 May 45	(15 Jul 45)	

0056

PERSONNEL ALLOWANCE AND ON BOARD FIGURES

		RMC	RM1	RM2	RM3	S1c	S2c	YNC
1944	Nov	6/3*	18/6	9/14	3/3	0/0	0/0	1/0**
	Dec	6/3	18/6	9/14	3/3	0/0	0/0	1/0
1945	Jan	6/3	18/6	9/13	3/3	0/0	0/0	1/0
	Feb	6/3	13/6	4/13	3/3	0/0	0/0	1/0
	Mar	6/3	13/5	4/12	3/3	0/0	0/0	1/0
	Apr	6/3	10/5	4/12	3/3	0/0	0/0	1/0
	May	6/3	10/9	4/8	3/3	0/0	0/0	1/0
	Jun	6/3	10/9	4/8	3/3	0/0	0/0	1/0

\*NOTE: Read allowance/on board

\*\*NOTE: These allowance and on board figures probably represented only the CNO allowance for the station since it is known that several General Service personnel of various ratings were assigned to the station. These General Service personnel may have been out of a COMFIVE allowance.

DESCRIPTION OF FACILITIES UPON TRANSFER TO COAST GUARD

<u>BLDG NR</u>	<u>DESCRIPTION</u>	<u>SIZE</u>		<u>TYPE</u>	<u>BUILT</u>	<u>EST. COST</u>
1	Main Bldg	132'x28'x22'	2-story	Wood	1941	\$70,000
2	Old Coast Guard Building	44'x33'x15'	2-story	Wood	unk	\$15,000
3	Apartment Bldg (3-family)	45'x40'x15'	2-story	Wood	1941	\$11,000
4	DAJ Building	36'x24'x9'	1-story	Wood	1943	\$5,800
5	DAB Building	20'x20'x9'	1-story	Wood	1943	\$1,200
6	Apartment Bldg (2-family)	39'x22'x9'	1-story	Wood	1933	\$3,000
7	Galley & Mess Hall	66'x15'x8'	1-story	Wood	1944	\$5,200
8	Engine Room Bldg	33'x80'x7'	1-story	Wood & concrete	1941	\$2,800
9	Engine Room Bldg	24'x13'x8'	1-story	Wood	1926	\$1,239
10	Garage	29'x12'x8'	1-story	Wood	1935	\$800
11	DT Building	16'x16'x15'	1-story	Wood	1939	\$1,200
12	Fuel Shed	24'x10'x8'	1-story	Wood	1944	\$150
13	Garage & Store Room	16'x16'x9'	1-story	Wood	1942	\$700