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NAVY DEPARTMENT
 OFFICE OF NAVAL OPERATIONS
 WASHINGTON

Op-Air
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DECLASSIFIED - DOD DIR 5200.9,
 27 Sep 1958

November 13, 1918.

From: Director of Naval Aviation.
 To : All Naval Air Stations, Aviation Detachments,
 Bureaus and Naval Districts.

SUBJECT: Weekly Report - November 13, 1918.

1. Hours of patrol obtained during the past week at Naval Air Stations, together with the number of flights and seaplanes used for patrol, for week ending November 13, 1918:

PATROLS:

<u>Stations</u>	<u>Flights</u>	<u>Hours</u>	<u>Mins.</u>	<u>Aircraft in Commission</u>	<u>Complement at station</u>
Cape May	51	112 +	53	3 seaplanes	11 white balloons 12 seaplanes
" "	1	5 +	40	1 dirigible	1 dirigible
Chatham	24	55 +	24	11 seaplanes	12 seaplanes
Coco Solo	10	25 -	13	2 "	12 "
Hampton Roads	60	137 -	39	27 "	31 "
Key West	71	32 -	43	3 "	3 white balloons 11 seaplanes 3 dirigibles 4 white balloons
Miami	44	33 +	53	2 seaplanes	
Montauk	4	7 -	13	4 "	12 seaplanes 3 dirigibles
Rockaway	55	275 +	15	4 white balloons	3 white balloons
"	33	255 -	43	12 seaplanes	12 seaplanes
"	5	23 +	33	2 dirigibles	2 dirigibles
San Diego	2	53 +			
	<u>373</u>	<u>1247 +</u>	<u>22</u>		

	<u>Flights</u>	<u>Hours</u>	<u>Mins.</u>
Lighter-than-air total	41	799	25
Seaplanes total	332	347	57

NOTE - The sign + indicates that the record for the week is greater, the sign - indicates that the record for the week is less than for the preceding week. Underlining denotes best record for that time.

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3. Hours of flight other than patrol obtained during the past week at Naval Air Stations, together with the number of flights and seaplanes in commission and at each station, for the week ending November 13, 1918:

Stations	Flights other than patrol	Hours	Mins.	Aircraft in commission other than patrol	Complement at station
Anacostia	15	37	37	5 seaplanes	n 9 seaplanes
Anson	3		36	1 dirigible	
"	18	14	30	1 kite balloon	
"	17	71	9	19 free balloons	
Bay Shore	517	405	30	34 seaplanes	48 seaplanes
Cape May	17	4	13	"	
"	8	1		1 dirigible	
Carthage	18	7	13	13 seaplanes	
"	2	5	17	1 kite balloon	
Coco Solo	31	30		4 seaplanes	
Great Lakes	5	1	50	3 "	
Hampton	7	5		4 "	
Laguna Beach	34	51	9	31 "	n 14 seaplanes
"	5	4	42	1 dirigible	
"	13	3	34	4 kite balloons	
Key West	342	770	32	22 seaplanes	73 seaplanes
"	10	13	53	1 dirigible	
Miami	1571	1530		56 seaplanes	114 seaplanes
Naval Air Station	664	553	31	airplanes	
Portsmouth	9	7	25	12 seaplanes	
Pensacola	2013	1253	20	44 "	103 seaplanes
"	139	32	75	2 dirigibles	
Rockaway	33	14	45	12 seaplanes	
"	4	3	1	2 dirigibles	
"	4	3		4 kite balloons	
San Diego	433	573	25	15 seaplanes	
	<u>3434</u>	<u>4972</u>	<u>5</u>		

	Flights	Hours	Mins.
Seaplanes	5601	4225	17
Airplanes	664	553	31
Balloons	36	90	16
Dirigibles	<u>133</u>	<u>107</u>	<u>1</u>
	<u>3434</u>	<u>4972</u>	<u>5</u>

GRAND TOTAL FOR FLYING TIME:

Patrol	375	1247	22
Other than patrol	<u>3434</u>	<u>4972</u>	<u>5</u>
	<u>3857</u>	<u>3219</u>	<u>27</u>

n - Experimental

65

7
3. The following were co-adjutors
U.S.A.A.A. :-

Abbott, Boyd Rieman
Alward, Edward E.
Barnett, Daniel W. Jr.
Bresnahan, Maurice E.
Bowen, John B.
Connell, Edward M.
Connell, Byron J.
Daugherty, Willis V.
Davis, Dwight S.
Develin, Jas A.
Foy, Byron C.
Foust, Chester A.
Hammond, Harold C.
Hammer, Thorvald F.
Harris, Frederick H.
Hicks, Wm. Paul.
Hood, Chas. C.
Ludlum, Theodore T.
McGinty, Wm. Byran.
Macy, Edgar W.
Mann, Yulee Ware.
Mingle, David B. Jr.
Nolan, Micheal David
Robins, John Quitman
Satterwhite, Robt. L.
Sidlo, Chas. T.
Smith, Chester C.
Stevenson, Markley
Symes, John P.
Thomas, Chas. Neil
Wales, Leonard A.
Wessell, Walter B.
White, Sibley L.

4

Dispatches sent out by Bureau of Navigation:-

Nov. 13, 1918.

Decision has been made to continue training of all Student Flight Officers now under instruction. This includes men already in Ground Schools or under instruction at Flight Stations and in addition those selected for retention on the Receiving Ships attached to Ground Schools in accordance with Bureau's letter W7-MSB-C5901-3073, of November first. Commandants and Commanding Officers will have the following classification of men made in order to assist the Bureau in determination of its policy as to future needs of the Naval Aviation Service: Class A will include all Student Flight Officers enlisted in the Regular Navy for the period of four years. Class A will be given complete course. Instructions as to further disposition will be issued later; Class B will include all Student Flight Officers of the Reserve Force desiring to complete the course through elementary flight instruction. Class B will be placed on inactive duty at the completion of elementary flight training as Quads; Class C will include all Student Flight Officers of the Reserve Force who desire to complete the advanced training at Pensacola. Class C will be commissioned and designated as Naval Aviators and placed upon inactive duty upon satisfactory completion of the course; Class D will include all men who do not desire to continue flight training. Class D will be continued under training for the time being and further disposition will be determined upon at a later date. Commandants and Commanding Officers will at once report by dispatch the number of men in each class and will forward complete lists of all the men in each class at the earliest possible date. The above instructions do not include a separate Marine Corps personnel under instruction.

Nov. 13, 1918.

Decision has been made to continue training of all Student Ground Officers now under instruction and awaiting instruction. Commandants and Commanding Officers will have the following classification of men made in order to assist the Bureau in determination of its policy as to future needs of the Naval Aviation Service: Class A will include all Student Ground Officers enlisted in the Navy for a period of four years. Class A will be given complete course. Class B will include all Student Ground Officers of the Reserve Force desiring to complete

65

5

the course through elementary ground school instruction. Class B will be placed on inactive duty on completion of elementary ground school instruction as CQ's. Class C will include all Student Ground Officers of the Reserve Force desiring to complete advanced ground school instruction. Class C will be commissioned and placed on inactive duty upon satisfactory completion of course. Class D will include all Student Ground Officers who do not desire to continue training. Class D will be continued under training for the time being and further disposition will be determined upon at a later date. Commandants and Commanding Officers will at once report by despatch the number of men in each class and will forward complete lists of all men in each class at earliest possible date.

65

BAY SHORE - November 12, 1918.

The new F Boat #2346 which was recently delivered to this Station, was tried out during the past week, and the general opinion of those who flew it is that as an instruction machine it has few, if any, advantages over the old machine and several disadvantages. It is believed that the V shaped bottom makes it more seaworthy in rough weather and makes it easier to land but it appears to be hard to take off the water in particular when it is rough. It is tail heavy with one man aboard. The rudder action is sluggish and there is apparently a need of more vertical fin or tail surface. In gliding an apparent lack of horizontal stability is noticeable. It seems inclined to nose down under applied power and up when same is removed. Also it seems to lack directional stability. The hull construction is not as strong as in the old boat and room in the cockpit is less. As regards the special wind shield erected on the nose of the boat, it was found very satisfactory as regards the wind deflection, but it is believed that if it were made of wood instead of fabric, it would be less liable to injury and more convenient in entering boat.

Compasses:

In compensating the Navy Standard I Compass, it was found that the smallest correcting magnet furnished deflected the compass needle five degrees. To correct for a less amount it is necessary to break the magnet. The magnet holder consists of a round hollow block with holes fore and aft and thwartship. The short pieces of magnet fall down into the center of this block and take any position. To correct this, copper tubing has been placed through the holes and the magnets are inserted in these tubes.

HAMPTON ROADS - November 13, 1918.

Patrol Squadron:

Three new HS-2 seaplanes were delivered in good order at the station during the week. Ensign K.L. Young, USNRF, left the Gallaudet Factory, East Greenwich, L.I., on November 3rd, at 10:20 a.m. and landed at Assateague, Va., at 6:50 p.m., having stopped en route at Rockaway. He brought the new plane No. 2250, to Hampton Roads the following day. Ensign F. L. Tracey, USNRF, left the Standard Aircraft Factory, Bayonne, N. J., in plane No. 1449 on November 3rd, at 11:10 a.m. refuelled at

71
HAMPTON ROADS - November 13, 1918 (cont'd.)

Assateague, and arrived at Hampton Roads at 5:09 p.m. same day. Plane 1450, Ensign T. W. Rea, USNRF, left Bayonne on the 4th of November at 12:05 p.m. and arrived at Assateague same date at 5:45 p.m. Owing to the unfavorable weather conditions, plane 1450 did not proceed to Hampton Roads until November 8th.

Tests have been made with regard to the method of liberating pigeons from seaplanes, and it has been found that if the birds are launched from the front cockpit, it is proper to throw them up in the air, and at the same time to throttle down the motor. If the birds are launched from the pilot's seat, they must be thrown downward. Owing to the fact that hampers have not yet been received, birds are not sent out on regular patrols. However, two tests have been made. On November 8th, twenty-five birds were liberated at Assateague, a distance by air line of 78 miles from the station. The first bird to return to the station completed the trip in one hour and twenty-five minutes. On the following day twenty-five birds were again liberated at Assateague at five minute intervals. The first bird to return to the station completed the distance in one hour and thirty-three minutes.

Experimental Squadron:

A new Curtiss triplane has been set up at this station and given preliminary trial. In this plane, which is a school type, the pilot and passenger sit side by side. Result of preliminary trial was very satisfactory. Performance tests have not yet been conducted.

This station was visited by the new NC-1 from Rockaway. Among those on board were Commander H. C. Richardson, Commander Atkins and Lieutenant Mc Cullough. After spending the night at Hampton Roads, the NC-1 proceeded on its way to Rockaway.

Communication
A flight was made to test the Adams Morgan key and to make (compass) tests between the Western Electric telephone transmitter and the Magnavox transmitter on the interphone system. The key proved satisfactory. The Magnavox transmitter was found to be far superior to the Western Electric transmitter. During this same flight test was made to determine how far ~~(telegraph)~~ signals could be transmitted between planes. Communication was carried on satisfactorily up to a distance of 35 miles, when the receiving set on one of the planes developed trouble and test was discontinued.

65

71

CHATHAM - November 11, 1918.

Patrols:

Patrols were carried on every day except Wednesday when rain prevented them. On Sunday Ensign Jordan who was lost at sea for 35 hours, reported back from Provincetown, Mass., where he had been towed by an S.P. boat, together with the motor and instruments from his plane which he had been able to salvage.

The deck plan of a submarine has been staked out on one of the sand bars near the station, and on Saturday some of the miniature smoke bombs were dropped successfully, several direct hits being made.

Kite Balloons:

About 15 flights were made with the kite balloon, in order to test out the new winch which so far has performed very satisfactorily. On Thursday morning Frank J. Kelley, MM2c USNRF, made a parachute jump at an altitude of 800 feet, and landed successfully. A parachute was also dropped with 160 pounds of ballast attached to it, and it was noticed that this amount of weight made the parachute sway very badly during the descent.

Radio:

The permanent radio installation is now completed. This consists of a 2-KW spark transmitter, a radio telephone transmitter, two short wave receivers, an extra short wave receiver, and a radio telephone receiver. Some additional wiring remains to be done, but the station is now in regular operation. Messages are received from all parts of the world. Daily press is received from Washington, San Francisco, and Berlin. Cordova, Alaska, Honolulu, and Nauen, Germany come in well. Signals from England have been read, by the help of the loud speaker, at a distance of about 200 feet from the radio house. On account of the shortage of apparatus only about one-half of the seaplanes at the station are equipped with radio. One plane so equipped is sent out with each patrol, and the station is constantly informed of the position and operations of every machine in the air.

17
HALIFAX, N.S.- 9 November 1918.

On November 7th, a Kite Balloon was secured to the winch of the British Steamer "Acadia", which has been attached to this Station, for operation in lighter-than-air work. A successful cruise of several hours was made and the station is now prepared for Kite Balloon work at sea.

Vice-Admiral Storey visited this Station on November 7th. He was given an exhibition of seaplane formation flying and kite balloon work. Ensign Stromeyer made a successful parachute descension from a kite balloon, at an altitude of 1000 feet.

Two of our planes worked in conjunction with the Canadian fortification just opposite our station, in great-gun practice. The range was 9000 yards, and every shot fired was accurately observed by our pilots -- our reports agreeing exactly with those made by the spotters at the fort and on boats in the vicinity of the target.

MIAMI - November 13, 1918.

Navigation planes were sent out recently, manned by students from the Navigation Department, to search for a Patrol plane which had not been heard from for some thirty-six hours. The plane proceeded in a zig-zag track to Carysfort which is about fifty miles from Miami. Using this point as a basis for checking all calculations, the planes then zig-zagged in a general easterly direction until within fifteen miles of a small island where one of the planes was forced to land due to motor trouble. The remaining plane proceeded to the island and landing, made inquiries for the Patrol machine for which they were searching. They also arranged a set of signals with the inhabitants, so that if it became necessary to tow in the disabled plane, the remaining plane would be able to signal to the island to that effect.

Upon leaving the island, they flew to the spot where the disabled plane had last been seen but found that the plane was not there. Assuming that the disabled plane had finally succeeded in overcoming its trouble, they proceeded to North Bemini, a distance of 20 miles where they found both the formerly disabled Navigation machine and the Patrol machine for which they were searching. After putting all three machines in commission, they set out for Miami, a distance of fifty-two miles in a westerly direction.

MIAMI -November 13, 1918 (cont'd.)

The observers did all the Navigation, checking their course from time to time. In flying the entire distance of fifty-two miles the pilots held the compass course given by the observers so that, upon coming in sight of land and checking their position, it was found that they were less than one and one half miles off with a strong wind on their quarter and flying fifty two miles at sea is a sample of what the average observer can do.

Great annoyance has been caused to pilot and assistant pilot of the Alexandria F Boats by having spray and even waves break over the bow of the machine while taxi-ing, the occupants usually coming in drenched. Splash boards have been provided which have proven very satisfactory as a protector from this annoyance. These boats appear to be very quick on the controls, especially the elevators, so much so, in fact, that it has not been deemed advisable to allow any but the most experienced pilots to fly them. A-5248, after twenty-five hours flying, broke the engine bed struts, which are evidently designed to take up the thrust and which run from the rear end of the engine bed down to the same fittings on the deck which secure the forward vertical engine struts. As this is a dangerous weakness, these machines have been laid up pending the strengthening of these members. In a recent speed test over a measured course a speed of eighty-four and two-tenths (84.2) miles per hour was attained, but inasmuch as the wind was not directly fore and aft, it is believed that a greater speed can be developed, probably about eighty seven miles per hour.

Ensign P. H. See, in an HS-2L, A-2227, recently made a ceiling test in which it is believed some records were broken. Two passengers of normal weight were in the machine with the pilot and 100 gallons of gasoline were carried as well as all standard equipment. The following is a summary of the details:

<u>Time</u>	<u>Altitude</u>	<u>Motor R.P.M.</u>	<u>Air Temperature</u>
10:35	0	1525	78
10:40	1200	1525	75
10:50	4100	1525	66
11:00	6100	1525	57
11:10	7200	1525	49
11:20	8900	1525	48
11:30	9400	1500	48
11:40	10000	1500	46
11:50	10400	1500	45
12:00	10900	1490	42
12:10	11200	1475	42
12:20	11300	1475	42
12:30	11300	1475	42

MIAMI - November 13, 1918 (cont'd.)

The ceiling evidently was 11,300 feet as the plane was flown for ten minutes at various angles at that height without any gain in altitude and with an appreciable loss on turns. Three barographs were carried, one of which showed an altitude slightly in excess of 11,300 feet. The machine climbed quite readily up to 9,000 feet but after that most of the gain was accomplished by "zooming". After 9,000 feet, all the flying was done over land.

KEY WEST - November 12, 1918.

Radio:

The Communication Officer reports excellent results in the operation of Type CQ-1115 sets with which radio seaplanes at this station are equipped. Operators reported periodically the seaplane's position and all changes of course. The average radiation was about 1.6 amperes. Difficulty in receiving was experienced through the interference of the Navy Yard Station at Key West.

Miscellaneous:

On Saturday November 9th, two seaplanes, HS-2L type, arrived on a visit from Miami. They returned to Miami the following morning. No difficulties were encountered on either trip.

ANACOSTIA, D.C. - November 15, 1918.

The NC-1 arrived at this station November 7th, on its way from Rockaway to Hampton Roads. It was piloted by Lieutenant Mc Culloch with nine passengers on board, among whom was Commander Richardson, who is responsible for the design of some of the parts.

(a) As this is the largest machine completed in the Navy up to this date, and as it can be classed as a single pontoon machine rather than a boat, it was a source of great interest.

(b) The NC-1 is a biplane tractor with three Liberty motors and can carry enough fuel for fourteen hours flying; its flying weight is eleven tons.

(c) The pilot's Nacelle is behind the center motor and has a dual control. Above this on the top of the upper plane is a machine gun nest for one observer. The wing spread is 126 feet larger than the Palace boat or Port boat built by the British.

(d) Word was received here from the Bureau of Operations, Aviation, that officers would come aboard the station for an inspection of this machine, among whom were: Admiral Taylor, Admiral Griffin, Admiral McKeen, Captain Steele, Captain McAtee, Commander Atkins, Commander Dyer, Commander Hunsaker, Commander Richardson, Lieutenant Commander Fulton and Lieutenant Commander Read.

ANACOSTIA, D.C., November 18, 1918 (cont'd.)

(e) After a tour of inspection by the Bureau, the machine was gotten ready for flight, the officers were put aboard one of the station boats and taken down the river that they might see her get away. The NC-1 took the air at 2:54 p.m., leaving the water as she came alongside the Station boat with the Bureau officers aboard, starting on her way to Hampton Roads with eleven passengers. She has a carrying capacity of thirty people.

New Argon Gas for Balloons:

A target balloon was filled with hydrogen gas and fired into, using two incendiary bullets which hit the balloon about eight inches apart. The hydrogen gas instantaneously ignited; the gas escaping through bullet holes burned for a second or so, then the entire body of gas inside the balloon burst into flames and the balloon burned down before flames could be extinguished.

(a) A second target balloon was filled with Argon gas and fired into, using ten incendiary bullets. All the bullets passed through the balloon, yet the new Argon gas did not catch fire.

(b) A third balloon was also filled with Argon gas, and fired into, using eight incendiary bullets; five passed through the balloon, but gas again did not catch fire. Several matches were held to escaping gas which blew the matches out.

(c) While this gas would not ignite, the lifting power was not as great as hydrogen gas. A target balloon weighing 4-1/2 lb. was filled with hydrogen gas and a bucket containing sand was attached to balloon, the sand was taken out in small quantities until the balloon lifted the bucket. The weight lifted was 4-1/2 lb. The balloon was then filled with Argon gas and the test carried out as above; the weight lifted by the Argon gas was 3 lb.

Sperry Automatic Machine Gun Sight:

Sperry Automatic Machine Gun Sight manufactured by the Sperry Gyroscope Company was mounted on a Lewis gun and connected to a 20-volt battery for test. Four shots were fired and all were a little high of their mark.

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07
ANACOSTIA, D.C. - November 15, 1918 (cont'd.)

(a) This automatic sight is so constructed that when battery is connected, by keeping the enemy plane in line of vision of telescope, the sight makes the necessary allowance for speed of own and enemy plane, also for drift and range.

(b) One hundred-eighty four shots were fired to test steadiness and strength of sight which proved to be all right.

J. J. [Signature]

By direction.
