

NAVY DEPARTMENT

Op-Air
0155-67

OFFICE OF NAVAL OPERATIONS

I-32-GB

WASHINGTON

December 2, 1918.

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

SUBJECT: Weekly Report - December 2, 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 December 2, 1918:

P A T R O L S .

<u>Stations</u>	<u>Flights</u>	<u>Hours</u>	<u>Mins.</u>	<u>Aircraft in operation</u>	<u>Complement at station</u>	
Cape May	13	45	+	37	5 seaplanes	12 seaplanes
"						1 kite bal.
"						1 dirigible
Chatham	8	16	-	48	15 seaplanes	12 seaplanes
Coco Solo	5	11	-	20	2 seaplanes	12 seaplanes
Halifax	8	6	+	50	4 seaplanes	
Hampton Roads	52	167	-	37	23 seaplanes	24 seaplanes
"	3	9	+	2	1 dirigible	1 dirigible
"						8 kite bal.
Montauk	7	4	-	50	4 seaplanes	12 seaplanes
"						2 dirigibles
Rockaway	13	160	-	20	3 kite ball.	6 kite bal.
"	17	19	-	50	15 seaplanes	24 seaplanes
						2 dirigibles
	126	442	-	14		

Flights Hours Mins.

Lighter-than-air total 16 169 22
Seaplanes total 110 272 52

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.

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3. Hours of flying 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 December 2, 1918:

Stations	Flights other than patrol			Aircraft in commission other than patrol	Complement at station
	Hours	Mins.			
Akron	37	13	45	1 kite balloon	
"	42	58	51	19 free balloons	
Bay Shore	178	158	15	24 seaplanes	48 sea-planes
Cape May	5	1	20	5 seaplanes	
"	1		30	1 dirigible	
Chatham	21	17	28	11 seaplanes	
Coco Solo	17	11	20	4 seaplanes	
Hampton Roads	64	57	15	30 "	m 14 sea-planes
"	3	3	40	1 dirigible	
"	24	3	33	1 kite balloon	
Key West	923	723	34	21 seaplanes	36 seaplanes
"	11	50	3	1 dirigible	
"	39	15	33	1 kite balloon	
Miami	1269	1105	20	42 seaplanes	114 seaplanes
Miami Marines	419	466	3	airplanes	
Montauk	12	18	42	14 seaplanes	
"	1	4	15	2 dirigibles	
Pensacola	769	526	10	75 seaplanes	108 seaplanes
"	28	25	45	2 dirigibles	
"	6	48		1 kite balloon	
Rockaway	22	11	10	15 seaplanes	
"	2	1	54	2 dirigibles	
"	1	13	45	3 kite balloons	
San Diego	357	283		16 seaplanes	
Anacostia	51	42	17	5 seaplanes	m 9 seaplanes
	4302	3666	34		

Flights Hours Mins.

Seaplanes	3688	2960	51
Airplanes	419	466	3
Balloons	149	153	33
Dirigibles	46	86	7
	4302	3666	34

GRAND TOTAL FOR FLYING TIME:

Patrol	126	4-8	14
Other than patrol	4302	3666	34
	4428	4108	48

m - Experimental

The following men have been commissioned Ensigns,
U.S.N.R.F.

Allbright, Norman Jacobs.	Hager, Robert Jr.
Andrews, George Lyon.	Higler, Paul Frank.
Bradley, Tudor Whiton.	Hicks, Philip Marshall.
Briggs, Landrum Overby.	Hutts, Melvin Kenneth.
Britton, Roswell Sessoms.	Johnson, Archie Cadwell.
Brown, Lawrence W.	McDowell, Richard.
Burry, William Jr.	McMillan, Herman George.
Cheney, Ernest Clyde.	Owen, Scipio Aristotle.
Conger, Kenyon B., Jr.	Paxon, David Willet.
Criswell, John R.	Post, Leon Abbott.
Crocker, Frank Weyman.	Robertson, Thomas James.
Davies, Orville.	Rothschild, Richard Chas.
Deane, Andrew.	Standers, David Gordon.
Dearborn, Alexander R.	Shallow, Edward Byrne Jr.
Dominick, Everett.	Shepherd, Samuel Roswell.
Doyle, Jesse Irwin.	Snowalter, Wilbur H.
Dry, Morris Ensley.	Strand, August Leroy.
Erni, Chester P.	Studley, Barrett.
Finley, William Jesse.	Treffe, Harry Haws.
Fish, Albert Earl.	Verner, Eyvind Melson.
Fowler, Leroy Atsett.	Vial, Malcolm Dennison.
Garver, Irwin Leonard.	Walker, Donald.
Giles, Hanegan B.	Waelan, Thomas Joseph.
Greene, Alfred Earl.	Wolf, James Edwin.
Gregory, Howard Charles.	Woods, Thomas Francis.
Guinn, Thomas Duval.	Wright, James Norman.
Hackney, Wm. Loretz.	

ANACOSTIA - November 22, 1918.

Because of failure of Hampton Roads mail plane reaching its destination Thursday, owing to motor trouble, an HS-2 L seaplane was despatched from this station to maintain the aerial mail service.

(a) This machine was equipped with S.E. experimental oiling and vacuum gasoline systems and the new Philbrin battery ignition. These systems worked excellently during entire round trip.

An interesting flight was made from Hampton Roads to this station on November 21st by an F-5 seaplane No. 3560, with the double purpose of testing radio apparatus and of carrying the mail. Communication was maintained both with Hampton Roads and the Navy Yard, Washington during the entire trip. Seven passengers were carried.

SAN DIEGO, - November 18, 1918.

Right Rudder Torque Counteracting Spring:

(a) It has been found that HS-2L flying boats are very markedly affected by the torque of the engine,

SAN DIEGO, - November 18, 1918. Cont'd.

causing the boat to steer to the left very strongly making it necessary for the pilot to exert considerable pressure upon the right rudder bar. It is often necessary to use both feet as it is very tiring when only one foot is used.

(b) In order to counteract the aforementioned torque and make it unnecessary for the pilot to exert other than normal pressure, the Flight School Engineer Officer has devised the scheme of installing a stiff spring as herein after described:

(1) The spring in use is made of 1/8" round brass spring wire and is closely wound on a 1" arbor. It is 6-3/4" long exclusive of looped ends when collapsed entirely and when installed with the rudder in the neutral position its length is 16" and exerts a tension of approximately 22 pounds.

(2) It is fastened at one end to the base of the hand gasoline pump and at the other end to the end of the right rudder wire. An alternate method in installation would be to fasten the spring to the left rudder and extend it to the rear and fasten conveniently.

(3) The effect of the spring has been entirely satisfactory and in accordance with expectations. With the spring installed as above described, it is not now required to exert pressure any greater than that required in the piloting of an N-9 seaplane.

Special Patrol Demonstration

On Thursday, November 14th, a demonstration was made for the benefit of Congressman Wm. H. Kettner, Congressman from this District, and member of the House Naval Affairs Committee, to demonstrate the quickness with which a training machine could be transformed into a fully armed patrol machine.

Without previous warning, the patrol siren was sounded and an HS-2 Boat, which had just returned from a training flight, was designated for the experiment; and while the machine was in the water, it was fully equipped with bomb releasing gear, two boxes, scarf ring mount, machine gun, and ammunition, and left the beach, fully equipped for patrol flight, in twenty-five minutes.

PENSACOLA, FLA. -November 23, 1918.

Cunnery School

On 22 November 1918, Standard Lewis gun No. 5086, equipped with new barrel fired, 2880 rounds with out two stoppages and one jamb, a double feed. This gun, J.C. Carl QM2c in charge, had previously fired 45,000 rounds with one new barrel.

Bombing School

Another fire was started in an "P" boat by the radio set. It was decided that the type of radio equipment used is too dangerous, so it has been removed and signals are given by Very's pistol.

Divided Radiator for HS-1 and HS-2L flying boats for instruction purposes.

In order to permit frequent landings in HS-1 and HS-2L flying boats without damage to the engines from overheating, a standard type Livingston radiator was cut in half and mounted on special brackets attached to the engine bed, distance between centers of the two sections being 31-1/16 inches. The sections were cross-connected top and bottom.

The results obtained were most satisfactory. The engine cooled better in the air but the improvement was most noticeable while taxiing on the water. With a standard radiator the water temperature while taxiing ranged between 185 and 200°F. With the divided radiator under similar conditions, the range was between 145 and 165°. By retarding the spark, the temperature was raised to 210°F. the boat was then put on the step with the spark advanced and in fifteen seconds the temperature fell to 180° and remained at that point.

This change was made without any structural alteration and it is felt at this Station that the arrangement has many points of vantage.

No effect on the speed of boat when in the air was discernable.

CHATHAM, MASS. - November 25, 1918.

Patrols.

Tuesday and Friday of the past ^{week} were the only two days on which regular patrols were sent out. Rain, fog and high winds held up patrols the remainder of the time. On Saturday, November 23rd, two HS-2 flying boats were flown from Bayonne, N.J. to Chatham, Mass. The pilots, Lieut. (jg) A.W. Hudson and Boatswain E.E. Reber made the trip without stop in three hours and three minutes, distance 203 miles. Average miles per hour 69.03. This is considered to be excellent time as a Northwest wind averaging twenty-two miles per hour was encountered during the whole trip.

Radio.

A new long wave aerial has just been constructed at this station. This is expected to give excellent results in receiving. Messages have been received from all Pacific coast stations and the Canal Zone. The press from Horsea, England, is received daily at 11:00 A.M.

Pigeons.

The loft is at present stocked with fifty-three birds. Of these twenty-one are fully trained, four are partially trained, and twenty-eight untrained, the latter having been received but two weeks ago. The high winds encountered on the Cape, especially at this time of the year, are unfavorable for the flying of pigeons and training progresses slowly. Of six birds liberated from disabled seaplanes during the past week, four returned. One of these birds was liberated toward nightfall, and the second had been confined in the crate about fifteen hours before being released, which facts may explain their failure to return.

KEY WEST - November 26, 1918.

On November 23d, Ensign T.B. Null USNRF and Ensign T.E. Maythan USNRF piloting Dirigible A-236 with J.H. Collier CCM on board ascended on an endurance flight which lasted thirty-two hours before a landing was made.

The ship carried a full load consisting of radio apparatus, anchors, ballast, emergency rations, drinking water, Very pistols, flashlights, extra gasoline, oil and all necessary accessories.

The motor was run continuously at regular cruising

speed (1000 rpm) except on the morning of November 24th when a twenty knot south wind required 1325 rpm before any noticeable headway could be made. The motor was not stopped at any time.

During the first ten hours the ship became about three hundred pounds light because of the consumption of gasoline. This was compensated for by dropping to within fifty feet of the sea and scooping up water by means of a bucket and line.

A course of approximately seven hundred and fifty miles was covered, during which time the wind blew from all points of the compass at an average speed of fifteen knots. A leak in a thirty-two gallon gas tank, temporarily repaired, together with an increasing wind and a threatening northeast storm compelled the discontinuation of the flight. Sufficient gasoline and oil remained in the tanks to last eight hours longer.

HAMPTON ROADS- November 27 1918.

Patrol Squadron.

The Patrol Squadron in spite of unfavorable weather conditions continued routine operations and made a total of 202 hours and 54 minutes. All patrols have consisted in searching for mines in conjunction with surface craft of the District, and the location of the area to be searched is such that patrols of practically the same length as previously, are being carried out.

Experimental trips have been made between this station and Anacostia, carrying official mail and passengers between Hampton Roads, Va. and Washington D.C. These seaplanes are scheduled to leave at each end of the route at 1:00 P.M., thus enabling them to reach their destination and deliver their mail before dark. So far these trips have been very successful.

HAMPTON ROADS - November 27, 1918. (Cont'd.)

On November 25th, owing to a break down there were no planes in Washington to make the return mail trip to Hampton Roads, and accordingly two planes were despatched for Washington at 10:41 AM to make the return trip in the afternoon. The planes arrived at Anacostia at 1:43 PM and left on the return trip, carrying the mail, at 4:05 PM. From 5:30 PM to 5:55 PM the planes kept track of each other by the exhaust from the motor, but after that it became so dark, that to avoid collision they separated, steering by compass for an hour at the end of which time they picked up Cape Charles light. Good landings were made due to the aid of the powerful searchlight at Fortress Monroe and both planes beached at 7:00 PM.

A Minesweeper buoy was sighted by one of our planes on Friday November 22nd and its location fixed. The same day Morehead City planes sighted a mine about ten miles northwest of Wimble Shoals.

Experimental Squadron

A sheet metal timing bat has been made for checking the timing on Liberty motors. This device affords a quick approximate method of placing motors on dead center, and has been found useful on the beach.

HALIFAX, N.S. - November 23, 1918.

No. 60 mesh brass wire has been placed over the asbestos located in the upper wing section. This wire mesh acts on the principle of the Davy's Miner Lamp - - breaks up all flame propagation, absolutely preventing charring of the asbestos and eliminating the danger of fire, caused by the oil film thrown by the engine upon the upper wing section.

MIAMI, FLA. - November 23, 1918.

On Monday, November 19, 1918, Ensign Lynch in HS-2L A-2235, had an unusual experience. He was flying at an altitude of about twelve hundred feet with two passengers, on a test hop. Upon making a fairly sharp left turn, he felt something snap in his aileron controls. Upon turning the wheel, he found that his ailerons did not respond, and that the wheel turned freely.

he attempted to bring the plane out of the bank by nosing down to gain speed, and at the same time rudder out of the bank. He was partly successful in this attempt, and had he had three hundred feet more would probably have straightened the plane altogether, but as it was, he failed to bring the machine out of the bank altogether, and struck the water with his left wing low, causing the plane to swerve to the left upon hitting the water and almost destroying the hull and left wing.

Upon investigation it was found that the aileron chain on the yoke had broken, one of the links having pulled out of the stud, rendering the ailerons absolutely useless. These chains, as well as the wheels on the twenty-two hundred series of HS-2 boats seem to be entirely too weak for the strain put upon them.

Thursday November 21, 1918, HS-2L A-2036 piloted by Ensign Swineford on an instruction hop caught fire when a few feet off the water. The plane was landed immediately pilot and both passengers attempting to put the fire out with pyrenes. This proved unsuccessful, and Ensign Swineford immediately put on full power, and flew the plane back to the beach, a distance of about five miles, at a low altitude. A perfect landing was made in front of the beach, and plane brought in in excellent style, whereupon the fire was fought for some time by the beach crews before it was controlled. Upon investigation it was found that the gasoline lead running from the sediment well to the after carburetor had broken, allowing the gasoline to escape and ignite. The practice of making a single coil in this pipe has proved to be inadequate to take up the vibration, so that these pipes are now being equipped with rubber hose at each end, which it is believed will rectify this trouble.

FLIGHT OF NC-1 AT ROCKAWAY L.I.

Service men and civilians in the vicinity of Rockaway were given a treat on November 27th when the NC-1 was put through her tests. This latest addition to Aviation was designed and built entirely by the Navy. It is something of a cross between the float-type seaplane and a flying boat, incorporating many of the features of both. The net weight is 13000 lbs. while the gross weight is 22000 lbs. Several long distance flights have been made between Washington, Hampton Roads, Philadelphia and New York, at an average speed of approximately eighty miles per hour. In the recent tests at Rockaway a complement of fifty passengers was carried; this being the world's record.

/s/ J.H. Towers

-9-

By direction