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NAVY DEPARTMENT
OFFICE OF NAVAL OPERATIONS
WASHINGTON

I-32-L RECEIVED

NAVY AIR STATION
PENSACOLA, FLA.

November 11, 1918.

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

DEC 2 1918 8 56 AM

SUBJECT: Weekly Report - November 11, 1918.

COMMANDANT'S OFFICE

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 11, 1918:

P A T R O L S:

<u>Stations</u>	<u>Flights</u>	<u>Hours</u>	<u>Mins.</u>	<u>Aircraft in commission</u>	<u>Complement at station</u>	
Coco Solo	16	46 -	50	2 seaplanes	12 seaplanes	
Cape May	27	84 -	59	8 "	12 " 1 dirigible 1 kite bal.	
Halifax	15	27 ÷	30	2 "	4 seaplanes	
Hampton Roads	65	210 -	8	21 "	24 " 6 kite bal.	
Key West	86	132 ÷		8 "	18 seaplanes 2 dirigibles 4 kite bal.	
Montauk	30	98 ÷	42	11 "	12 seaplanes	
"	6	20 ÷		2 dirigibles	2 dirigibles	
North Sydney	5	4 ÷		4 seaplanes	4 seaplanes 2 dirigibles	
Rockaway	103	277 ÷	40	15 "	24 seaplanes	
"	1	1 -	25	1 dirigible	2 dirigibles	
"	23	246 -	30	4 kite bal.	6 kite bal.	
	<u>377</u>	<u>1149 -</u>	<u>24</u>			
Miami Despatch not received				<u>Flights</u>	<u>Hours</u>	<u>Mins.</u>
				30	267	55
				347	881	29

Lighter-than-air craft total
Seaplanes total

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 station.

4473

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 November 11, 1948:

<u>Stations</u>	<u>Flights other than patrol</u>	<u>Hours Mins.</u>		<u>Aircraft in commission other than patrol</u>	<u>Complement at station</u>
Akron	3	12	20	1 Dirigible	
"	11	7	5	1 Kite Balloon	
"	43	62	54	10 Free balloons	
Bay Shore	775	651	30	27 seaplanes	48 seaplanes
Cape May	7	3	43	8 seaplanes	
Chatham	14	5	18	11 seaplanes	
Chatham	17	8		1 Kite balloon	
Coco Solo	12	6	20	4 seaplanes	
Halifax	33	41	45	4 seaplanes	
Halifax	2	2	50	1 free balloon	
Hampton Roads	76	49	6	31 seaplanes m	14 seaplanes
Hampton Roads	1		47	1 dirigible	
Hampton Roads	40	7	16	4 kite balloons	
Key West	1044	1030	29	22 seaplanes	36 seaplanes
Miami Marines	820	780	47	airplanes	
Montauk	5	1	20	11 seaplanes	
Montauk	4	12	45	1 kite balloon	
North Sydney	25	22	5	4 seaplanes	
Pensacola	2600	1595		*	108 seaplanes
Pensacola	87	61	25	1 dirigible	
Rockaway	30	13	20	15 seaplanes	
Rockaway	3	4	23	1 dirigible	
Anacostia	70	22	4	5 seaplanes m	9 seaplanes
	<u>5722</u>	<u>4402</u>	<u>12</u>		

	<u>Flights</u>	<u>Hours Mins.</u>	
Seaplanes	4691	3442	
Airplanes	820	780	47
Balloons	117	100	30
Dirigibles	94	78	55
	<u>5722</u>	<u>4402</u>	<u>12</u>

GRAND TOTAL FOR FLYING TIME:

Patrol	377	1140	24
Other than patrol	<u>5722</u>	<u>4402</u>	<u>12</u>
	6099	5542	36

m- Experimental -

3. The following officer has been ordered abroad:

Davis, F. Hamilton, Lieut. (j.g.) U.S.N.R.F.

4. Ensign Commissions have been requested for the following men:

Archer, F. J.	Jacobs, M. S.
Atkins, W. L.	Kendig, C.H.
Bakewell, B.P.	Loidig, D.H.
Blossom, F. McC.	Libby, P. A.
Boedfeld, B. S.	McFernan, E. K.
Caldwell, H. W.	MacElwee, A. T.
Clark, W. H.	Mall, B.
Coon, S. G.	Nelson, F. C.
Cross, G. M.	Page, H. M.
Davis, S.	Raney, A. G.
Dickey, L. R.	Rex, W. E.
Edwards, T. E.	Rogers, H. L.
Fay, R. R.	Ruckeyser, W. A.
Goodell, E. B. Jr.	Sharp, M. P.
Hahn, A. M.	Stille, H. W.
Hall, K. V.	Spithers, J. W.
Harris, W. P.	White, C. W.
Hewitt, L.	Wills, B. W.

"From: Chief of Naval Operations (Aviation),
To: Commanding Officers all Naval Air Stations.

SUBJECT: War Service and Wound Chevrons.

Reference: (a) General order No. 422 of September 25, 1918.

1. Commanding Officers of Air Stations will interpret General Order No. 422, Paragraph 3-1, 'War service chevrons to be worn upon the lower half of the left sleeve by all persons in the Naval Service who have served on Aviation duty in the United States making actual flights in search of enemy vessels since May 25, 1918.' As follows:

Only those officers and enlisted men who have been regularly assigned and detailed to duty and considered available for duty that actually involved flights in aircraft in search of enemy vessels since May 25, 1918, and who have actually made at least six such flights totalling at least thirty hours while so assigned and detailed.

/s/ G. W. Steele, Jr.,

By direction.

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Attention is invited to an error in the Weekly Report of November 4, 1918. The news item on page 7 and half of page 8 of this report is under Chamham and should be under Cape May.

MIAMI - November 2, 1918.

Numerous reports have been made previous to this date concerning the breaking of cam-shaft housing and cam-shaft gears on Liberty Motors. Whether this trouble is due to faulty design or to faulty material and poor workmanship or both, the writer is unable to determine. However, a large percentage of the Liberty Motor trouble is due to the breaking of cam-shaft housing and cam-shaft gears. It not only causes the loss of material in regard to the parts mentioned, but also causes the loss of time and labor in changing motors and laying up of machines. In addition to the above losses, these breaks frequently occur while on patrol, and in one case flying parts of the housing struck the propeller causing it to throw its tips.

On October 25th, Ensign G. I. Smith, in plane HS-2 A-1921, while on patrol at a point about 70 miles north of this station, had one cam-shaft gear and housing break, causing him to make a forced landing in a very rough sea. He was blown and drifted ashore on the ocean beach about three miles south of Palm Beach. When about a mile off shore Ensign Smith endeavored to anchor his ship outside the breakers, as the sea was running very high, and to go ashore on this beach meant almost certain destruction to the ship. The attempt was unsuccessful and the plane drifted ashore. Assistance was immediately procured in the form of a team of mules and about 30 men; same succeeded in dragging plane out of surf upon beach before it was totally destroyed. It was necessary to dismantle plane and haul it back to station on motor trucks, and it will be out of commission for several weeks, due to the fact that both hull and wings will have to be extensively repaired by the C. & R. Department.

On October 31st, plane A-2044, while making bombing practice flight, stripped a cam shaft gear. This motor was taken out and a new one installed.

On November 2nd, plane A-2044, First Lieutenant Gove Compton, pilot, had a cam-shaft gear strip, main cam-shaft drive gear break, causing generator drive shaft to break crank case and loosen generator, while on patrol. At the time he was at a point 30 miles north of this Station. There was a 12 foot sea running but pilot succeeded in making landing without damaging plane. Landing was made not more than two miles off shore and at a point near Lake Mabel Inlet (Ft. Lauderdale), and before the surf could do any damage to plane, it was taken in tow by a small motor launch and secured inside the inlet.

MIAMI - November 2, 1918 (Cont'd.)

This plane is being held under guard at that point until the very high seas which have been running for the past several days subside enough to make it safe to tow plane to station.

Steps should be taken to correct faults in Liberty Motor cam-shaft gears and cam-shaft housings.

ANACOSTIA, D.C. - November 1, 1918.

Bracket for Winchester Shot Gun:

A new style bracket to secure Winchester shot gun to scarf ring mount has been tested by firing fifty twelve-gauge shells, using clay pigeons for targets.

(a) The bracket binding on the barrel caused the shells to jam several times. This was due to supporting ring over barrel being too tight to allow clearance for recoil action but is easily remedied.

(b) This bracket and mounting should give the pilots and observers on active stations a very good chance to improve their machine gun shooting and become more accustomed to working gun on scarf ring.

A two story aero-dynamic Engine Test House and Test Stand will be erected at this station.

(a) When completed this will be the largest Engine Testing Plant and Laboratory in the Navy, where every type of motor and appliance will be tried out under the observation of the heads of the different departments.

HAMPTON ROADS - November 2, 1918.

Patrol Squadron -

On October 29th, two HS-2 Seaplanes, A-1897 and A-1909, were operating on patrol about thirty miles south-east of Cape Henry. They had just climbed out of a fog at an altitude of 1500 feet, when something broke on the motor of A-1909, severing the gas lead from the gravity tank, and setting the plane afire. The Pilot, Ensign Irvine, immediately put the plane in a nose dive and landed.

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As soon as the plane touched the water, the motor, wings and pilot's cockpit were enveloped in flames. Efforts with a pyrene from the front cockpit being of no avail, and the danger of explosion from the main tanks being so great, the three occupants of the plane jumped overboard. The accompanying seaplane, A-1207, Ensign Tracy, pilot, having just emerged from the fog when the accident first happened to A-1209, followed it down, landed, and after some maneuvering, picked up the three men in the water and started towing towards home, but were picked up by an S. C. Boat and towed in some time later. A-1209 burned to the water's edge, and sank about twenty minutes after landing.

At 1:30 p.m. on October 30th a telephone message was received from the re-fuelling station at Assateague, from the pilot of a patrol seaplane, that his accompanying plane, HS-3 No. 1195 had been lost sight of a few miles off shore, and that it had probably made a forced landing. Owing to a thick bank of fog and his own shortage of gasoline, he had been unable to make an extended search before returning to Assateague. The wind was then off shore, about 35 knots. Immediately two H-12's and four HS-3's were dispatched from Hampton Roads to search for the missing plane. All the Coast Guard Stations were notified to keep a sharp lookout, and the 5th Naval District sent out a broadcast to all vessels giving the information that a plane was down, and stating its position. Also the 4th Naval District was notified, and the Naval Air Station at Cape May. Two destroyers were sent out and six sub-chasers. The search was continued the rest of that day and all the following day, by the boats mentioned, seven seaplanes from Hampton Roads, four seaplanes from Cape May, and four seaplanes en route from the Gallaudet Aircraft Factory to Cape May and Hampton Roads, a total of eight surface craft and fifteen seaplanes. No trace, however, was found of the plane, and it was not until the morning of the third day that the pilots reported by telephone from Hoboken, N. J. It developed that A-1195 had landed out of gasoline,

HAMPTON ROADS - November 2, 1918. (Cont'd).

in a thick fog. The plane drifted from 11:00 a.m. October 30th until 11:30 a.m. October 31st, when it was picked up by an Army Transport Tug, which was not equipped with wireless. During the night these vessels approached the seaplane, but as soon as the pilots fired Very's lights, the vessels immediately put out all lights and disappeared. The 4th District reported a 50 mile wind, and the pilots reported that there was a heavy sea running, but that the plane rode well by using all the controls and the sea anchor. When this carried away, the tin pail was substituted with good results. The tug which picked up the seaplane took it in tow, but before long the sea gradually broke up the wings, so that the plane turned over and sank. The sea was too rough to make it possible to save the motor. Great credit is due to the Cape May Naval Air Station for their cooperation in the search, and their assistance in taking care of both seaplanes and pilots from this station during the time they were operating in the Cape May district.

The best seaplane record for service rendered, which has yet been made on this Station, was made during the month of October by Seaplane A-1160 HS-2 Type. The plane made 22 flights in a total of 79 hours 43 minutes, without a single report of any difficulty, whatever,

An F-5 has been put in service in the Patrol Squadron and has made a few patrols, but no propellers have yet been found which are satisfactory under service conditions. Spray strips are being attached, and it is hoped that this may, to some extent, remedy the difficulty.

An interesting discovery was made recently, when the navigating officer was compensating a horizontal compass attached to the instrument board of an "HS" boat. He found that the metal clip in one of his puttees, when his feet were on the rudder bar, threw the compass out 20 degrees. It is not believed that all such puttees are highly magnetized, but it is considered desirable for the individual pilot to investigate the possibilities.

Experimental Squadron -

A three motored Caproni Biplane has arrived at this station for some special tests which are being conducted under the supervision of Captain H. C. Mustin, U.S.N. It landed in the dirigible field, piloted by Lieut. (j.g.) L. T. Barin, U.S.N.A.F.

HAMPTON ROADS - November 2, 1918. (Cont'd).

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HAMPTON ROADS - November 2, 1918 (Cont'd)

A jig has been developed for the use of the Wire Shop for forming loops at the ends of aviator strand wires. This device is interchangeable and can be used for forming loops on 19 wire strand or flexible control cable in all sizes from 1/8 to 1/4 inch. Plans of this jig have been made up and are available.

This station has developed a range finding device for use on kite-balloons. This consists of a telescope combined with enclosed pendulum. The telescope is directed on the target and the range is calculated from the known height of the balloon and the angle indicated by the pendulum with respect to the telescope.

During a test of direction finder coils on an H-16 flying boat, an effort was made to reduce electrical noises from the engine by using choke coils in grid circuit without success. Tests were made to determine audibility necessary for direction finding purposes. Results indicated that an audibility of the order of 2000 was required on ground with engines stopped, corresponding by trials to an audibility of 12 at full speed, and 30 at cruising speed. Audibilities were actually measured in air with audibility meter.

KEY WEST - November 5 1918.

The Mark III pilot directing bomb sight delivered and explained by Ensign Farthing of Ordnance Department is very much liked and has been tried out with satisfactory results. Its value lies not only in accuracy as a bomb sight, but also as a means of finding the direction and velocity of the wind.

Radio -

The jumping from the stationary electrode to grounded generator frame has caused a good deal of trouble. Moving the stationary electrode to about a thirty degree angle, which puts it in a position near the top side of the streamline; lengthening the lead to the electrode and resynchronizing the spark have worked very satisfactorily. Radiation is about two amperes.

BAY SHORE - 3 November 1918.

November 1, a patrol left this station at 2:00 P.M. getting off the water in square formation. As they passed Fire Island they lined up in single file proceeding thus up the coast past Chinnecock Light and out to sea. In all, the patrol covered a distance of 190 miles and was executed in an orderly and systematic manner. The area prescribed was searched thoroughly and no mishaps were experienced. In addition to the radio equipment the leading plane carried eight (8) carrier pigeons which were released at intervals. Four of these returned that afternoon in good time and the value of this means of communication was thus demonstrated in spite of the comparatively little training they have had to date. The planes returned at dusk and good landings were made in rather poor light.

CHATHAM - 4 November 1918.Visit of the Commandant.

On Tuesday afternoon Rear Admiral Spencer S. Wood, Commandant First Naval District, accompanied by Captain Edgar, Lieut. Commander Van Dyke, and Ensign Macdonald, made an inspection of the station.

Hydrogen

On Tuesday of this week Ensigns Pardee and Barnes from the Bureau of Steam Engineering, Washington D.C. reported at Chatham to superintend the installing of an Ingersoll Rand Hydrogen Compressor. This is the first compressor of the vertical type to be installed at any of the Naval Air Stations. It is driven by a gasoline motor and has a 1500 cu.ft. per hour capacity. A charge of about 3000 feet of gas was run into a nurse balloon, which served as a container to suck the gas to the compressor. The gas passes from the compressor to cylinders which are attached to a manifold, and is compressed to 1800 lbs. per square inch, each bottle containing approximately 180 cu.ft. of gas. The compressor was very successfully operated and good results were obtained.

HALIFAX 3 November 1918

A long patrol flight between this station and North Sydney a distance of 225 nautical miles, was successfully carried out on October 20th. The planes left North Sydney for the return trip to Halifax at 8:45 A.M. October 22nd. Shortly after leaving, clouds and rain squalls were encountered and the planes flew through rain for the remainder of the trip. Moreover vision was obscured by the fog and low hanging clouds and navigating by compass with the aid of an occasional

HALIFAX - November 3, 1918 (cont'd.)

glimpse of the shore line, was necessary. A tremendous increase in wind velocity, the gusts registering 53 miles per hour, made greater the difficulty of navigation; but previous compass calculations worked out remarkably well. The planes reached here at 12:30 o'clock noon.

Trouble was experienced with the breathers on the gravity tank permitting a stream of gas, when the tank was full, to rush out of the breather, causing both loss of gas and danger of fire. This trouble has been eliminated by substituting a valve type of breather, which permits the air to enter the tank but prevents gas from leaving. Drawings of this breather will be supplied if desired.

Pump frame gear housing and support has been incased in light brass, so arranged that the gearing runs in a continual oil bath. This bath is maintained at a constant level by arrangement of the baffle in housing. In place of the aluminum gear frame, light bronze has been substituted so that in place of bronze bushings forming bearings for the gears, the frame itself acts as the bearing. The frame bearing is cut with oil grooves, so that the gear shafts are at all times properly lubricated and cannot freeze fast in the bearing. Light machine oil is placed in the sump and proper level is maintained without the addition of fresh oil for 48 hours. This change in design has been thoroughly tried out on this station and has given perfect results, as all trouble due to freezing of the gears has been eliminated. In place of the steel fan pump, four-blade design, a wooden four-bladed propeller, as manufactured by the Paragon Propeller Company for fan-pump use, has been installed and gives much better results, as the speed of the pump is reduced and adjustment facilitated. All pumps when received are repacked with one-quarter inch braided hemp packing, and a few drops of medium lubricating oil daily applied to this packing prevents the packing from becoming dried out, and retains the gas seal.

J. H. Towers,

By direction.