

Correspondence Card

Reference

Date

1487

NAVY DEPARTMENT

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OFFICE OF NAVAL OPERATIONS

WASHINGTON

Op-Air
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I-53-GB

Sept. 30, 1918.

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

SUBJECT: Weekly Report - September 30, 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 September 30, 1918:

P A T R O L S .

<u>Stations</u>	<u>Flights</u>	<u>Hours</u>	<u>Min.</u>	<u>Aircraft in Commission</u>	<u>Complement at Station</u>
Cape May	47	119 ÷	2	10 Seaplanes	12 Seaplanes
Chatham	31	52 -		16 "	12 "
Coco Solo	16	50 -		2 "	12 "
Halifax	15	15 ÷	50	2 "	4 "
Hampton Roads	87	303 ÷	11	18 "	24 "
Key West	75	109 -	18	6 "	18 "
Miami	45	99 -	45	4 "	12 "
Montauk	47	116 -	10	12 "	12 "
"	4	12 -		1 Lighter-than air craft	1 Dirigible
Rockaway	98	289 ÷	6	13 Seaplanes	24 Seaplanes
"	9	25 -	59	2 Lighter-than air craft	2 Dirigibles
"	16	3 25 ÷	15	4 Lighter-than air craft	14 Kite Bal.
San Diego				3 Seaplanes	12 Seaplanes
	<u>490</u>	<u>1517 -</u>	<u>36</u>		
Lighter-than-air craft total	29	363	14		
Seaplanes total	461	1154	22		

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 week preceding. Underscoring denotes the best record for the station.

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2. Hours of flying other than patrol obtained during the past week at Naval Air Stations, together with the number of flight and seaplanes in commission and at each station, for the week ending September 30, 1918.

Stations	Flights other than patrol	Hours Min.		Aircraft in Commission	Complement at Station
Akron	55	21	45	1 Kite Balloon	
"	24	39	23	14 Free Balloons	
Bay Shore	696	646	50	20 Seaplanes	42 Seaplanes
Cape May	57	129	50	10 Seaplanes	
"	1		44	1 Dirigible	
Chatham	37	20	52	11 Seaplanes	
Coco Solo	40	56		3 Seaplanes	
Great Lakes	2		45	2 Seaplanes	n 2 Seaplanes
Halifax	15	15	50	3 Seaplanes	
Hampton Roads	53	45	16	23 Seaplanes	m 24 Seaplanes
"	37	23	4	4 Kite Balloons	#15 Kite Bal.
Key West	1067	785	3	22 Seaplanes	36 Seaplanes
North Sydney	No dispatch received.				
Miami	1428	1124	55	34 Seaplanes	72 Seaplanes
Miami Marines	292	293		Airplanes	
Montauk	8	3	15	6 Seaplanes	
"	5	15	25	1 Kite Balloon	#1 Kite Bal.
Rockaway	21	7	55	13 Seaplanes	
"	2	2	25	2 Dirigibles	# 2 Dirigibles.
Pensacola	848	589		68 Seaplanes	108 Seaplanes
San Diego	434	318	15	9 Seaplanes	36 Seaplanes
	<u>5122</u>	<u>4139</u>	<u>32</u>		

	Flights	Hours Min.	
Seaplanes	4706	3743	46
Dirigibles	3	3	9
Lighter-than-aircraft	121	99	37
Airplanes	292	293	

GRAND TOTAL FOR FLYING TIME:

Patrol	490	1517	36
Other than patrol	<u>5122</u>	<u>4139</u>	<u>32</u>
	5612	5657	8

Number at Station

m 18 Experimental

n Great Lakes does not carry on patrolling or training.

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3. The following officers were ordered abroad:

Rockefeller, Wm.	Lieut. (j.g.)	USNRF
Atherton, Harold G.	Ensign	"
Bennett, Hubert D.	"	"
Burgess, Geo. P.	"	"
Burleigh, Lewis A. Jr.	"	"
Delling, Torvald	"	"
Gillies, Frederick M.	"	"
Hallam, Ocean F.	"	"
Hite, Paul E.	"	"
Iile, Charles T.	"	"
Lockwood, Joseph E.	"	"
Tobin, Gregory J.	"	"
Wilcox, Barltes R.	"	"

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

Avery, Theodore Strong
Anewalt, Henry Phillips
Baldwin, Leo Augustus
Bigelow, Eugene Sydney
Blackwell, Winthrop Eric
Brennan Robert Emmett
Brown, Clayton Yates
Bruce, Lyson Alonzo, Jr.
Bullock, John Daniel
Collins, Joseph John
Cromwell, Albert Corvorse
Culbertson, Albert L.
Dickson, Chas. Keith
Dial, Morse Grant
Drew, Harold Delbert
Felton, William S.
Filley, Louis J.
Garnett, William Taylor
Geopert, Karl Theodore
Going, Henri Rochelle
Hardenburgh, Wm. Gabriel
Havel, Fred.
Helm, George Washington
Hickey, Benjamin John
Hunter, Thomas Worden
Hutchinson, Harold De Bond
Iwig, Howard Philip
Jones, Kelley Day
Jones, Saunders P.
Klager, Walter Herman
Keene, Campbell
Kerr, Stephen Fester
Kingsbury, Stanley Martin
Kirby, Harold Lewis

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Kohler, Walter William
Laird, John Evans
Mc Intosh, Wm. Carroll
Mackie, Julian James
Magee, Adam, Jr.
Magennis, Frank Thomas
Manning, Edgar Thompson
Mansford, Berkely
Marshall, Marcus Mc Lemore
Munhall, Alfred Nebb
Munroe, Robert III
Nichols, Alan Gather
Nudd, Thomas Lindsey
Olmsted, Gardner Edward
O'Neill, Neil Jr.
Pass, Richard Henry
Pemberton, Wm. Lyon
Pigon, Chester Henry
Reynolds, Norris Walter
Roe, Harvey Edward
Roehrig, Harold Livermore
Sargent, Dwight S.
Schleuter, Theodore Lloyd
Selvage, Eugene Shattuck
Shuman, Delwin Lennington
Spence, Bernard, Larzlere
Steeves, Dudley Whitney
Strachan, John Richard
Taylor, Roscoe Laughlin
Troxwell, Lynn
Tucker, Gordon
Tuttle, Adolphas Darwin
Wass, Warren Hubert
Whitehead, Van Loan, Jr.
Wigglesworth, Albert G.
Wood, Robert Odiorne
Woolsey, Talfourd John

BAY SHORE - September 21, 1918.

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On September 16th, an HS-2 Emergency Patrol was ordered to leave. Four planes were launched and completed a four hour patrol in formation. HS-2# 1911 made a forced landing due to oil pipe breaking, thereby losing oil. Pilot telephoned Station, and necessary equipment to make repairs was delivered to him by pilot of HS-2No. 1912. The time between pilot's message and completion of repairs was forty five minutes, after which Planes Nos. 1911 and 1912 resumed patrol.

Seaplane No . 501 Aeromarine, being equipped with new wood engine bed, Curtiss CXX Motor and N-9 type pontoon, has proven satisfactory as an instruction type of Aeromarine.

As a precaution against fire due to back fires, breakage in flying or other causes, asbestos cloth has been tacked on upper wing above motor. This cloth has been covered with copper screening as a further protection. Both wire and cloth extend from leading to trailing edge and to within one rib of the starboard and port ends of cut in (for propeller path) in trailing edge. The wire screen and cloth are secured by copper stripstacked to ribs leading and trailing edges. It was found that asbestos cloth without wire screening was insufficient as vibration caused cloth to break and fall off. The copper wire screen has prevented this trouble and is most satisfactory.

ROCKAWAY -

On August 19th, Dirigible A-242, Ensign Packard pilot, made a night patrol flight, starting at 10:13 p.m. and ending 9:40 the next morning. It was a bright moonlight night and it was thought that in case a submarine came up to charge batteries or to fire on some steamer, she could be observed. The region patrolled was outside of the shipping lanes.

The pilot reports that it was very difficult for him to pick up anything outside the path of the moon's rays, but had any submarine fired a gun it would undoubtedly have been seen for miles.

Such night patrols are deemed to be valuable when submarines are known to be about, but it is doubtful if the moon lends assistance to the dirigible as much as it does to the enemy, for the former is well silhouetted. against the sky.

MIAMI - September 14, 1918.

An HS-2L Seaplane was tested during the week with lower aileron controls disconnected and clamped to lower wings. Two flights were made; it was found that the seaplane was sluggish in answering controls, especially in giddy air. Right and left turns were made, and the same sluggish effect was apparent. It is thought that if the lower control is done away with, the upper surface will have to be enlarged somewhat.

MIAMI

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On Friday September 13, 1918. a Hispano-Suiza N-9, #2403, Piloted by Ensign E.H. Wilder, while flying at an altitude of six hundred (600) feet broke a gas lead near the carburetor, allowing the gasoline to run down on the engine. When the engine was throttled preparatory to gliding to a landing, back fire caused the gasoline to ignite, the motor burning all the way down. The speed of the air, however, prevented the fire spreading to the wings of the machine, and the fire partition protected the pilot and assistant pilot from the flames. Upon landing, however, the flames spread to the fuselage and the wings, destroying the fabric on both. The pilot on the way down had cut off the gasoline from the carburetor and upon landing attempted to put out the fire with his Pyrene but was unsuccessful. There being nothing further for the fire to feed upon, it died out of its own accord. Neither pilot nor assistant pilot were injured.

On September 16th, 1918, planes #1823 and #1826, both HS flying boats, while on patrol stopped at North Bemini, Bahama Islands, to secure gas, oil and water. When attempting to start the motor on plane #1826 it was found that the battery was too weak to start same. First Lieutenant, John Sellon, M.C., pilot of #1826, borrowed the battery from #1823 and connected the same in parallel with his weak battery; started motor and after motor was turning over more than seven hundred (700) R.P.M., so that generator was charging battery as well as furnishing juice for ignition, the borrowed battery was returned and both machines took off and completed patrol.

Great difficulty has been experienced in handling Aeromarines on the water in a wind speed of over fifteen (15) miles per hour. Several cases of these planes nosing into the Bay while taxi-ing has been noted of late, so that it has been found necessary to secure these machines in a wind of over fifteen (15) miles an hour.

On the night of Friday, September 20th, 1918 six (6) N-9's and one (1) F boat were used for night flying. There was a full moon and few clouds so that the pilots experienced no difficulty whatever, either in handling the machines in the air or landing them. It is proposed to set aside one night each week, weather conditions permitting, for night flying.

MIAMI-

September 23rd - PIGEONS:

Training of three teams of carrier pigeons was started ten (10) days ago. Two of these teams have nineteen (19) birds each; the other has twenty (20) birds.

The training of the various teams has been over the courses which will be used on patrol. The birds on the Eastern Patrol were taken, the first day, one mile, second day two miles, third day, five miles, and thereafter an increase of one (1) to two (2) miles a day, up to a point of sixteen (16) miles away.

The elapse time for home flight for the sixteen (16) miles varies from twenty one (21) minutes to two and one half (2-1/2) hours. The birds on the Southern and Northern Patrols were transported with a motorcycle and side car, up to an increase of ten miles. The same system of daily increasing in distance was used on all these teams.

It has been noted that with an increase of the distance the birds are carried from the loft, their speed back to the loft increases. Up to date we have had one hundred per cent returns.

Miscellaneous - Sealanes:

Aileron controls on an "H" boat equipped with the new type sheave lasted for one hundred (100) hours. Previously it was necessary to change controls every other day.

HAMPTON ROADS - September 19, 1918.

On August 28, 1918, Lieut. (j.g.) H. Hutchins, USNRF, piloting H-12, A-723, with Ensign R.D. Hively, U.S.N.R.F., as second pilot, made a deep sea patrol lasting eight hours and thirty minutes, without landing, being completely out of sight of land for over seven hours. Four rain storms were encountered during the flight and the wind varied in velocity from fifteen to twenty knots. The plane carried a full war load consisting of two Mark IV bombs, Lewis Machine Gun with ammunition, radio apparatus, anchors, Very's lights, emergency rations and all necessary accessories, with a second pilot, an engineer and a radio operator on board. The plane returned with its full equipment. No extra fuel was carried during the flight.

On September 12th at 4:09 p.m. the station was informed that an enemy submarine was shelling a vessel 43 miles south of Cape Henry and four minutes later the Emergency H-16 had left the water. Within 18 minutes after the order had been received five other planes had left for the same objective and two additional planes were standing by for further orders. Four patrol planes were in the air at the time, in addition to these despatched on the emergency. The "submarine" turned out to be a floating spar.

On September 10th, HS-2, A-1882, was forced to land 35 miles at sea because of a frozen fan pump. The pilot of the machine taxied to the shore and received aid from a Coast Guard Station, five hours and forty-five minutes after the time of landing.

On September 11th an H-16 left the water three minutes and fifteen seconds after an emergency call had been received. On the same day an HS-2 left the water two minutes and twenty seconds after the alarm had sounded. Both of these planes were despatched to a point south of Cape Hatteras and had to be refueled at Coast Guard Stations before being able to return.

On September 9th five HS-2 seaplanes were flown from the L.W.F. Engineering Corporation, College Point, Long Island, New York, to the station, and two of them completed the distance of 300 miles in a non-stop flight of four hours and thirty minutes.

Experimental Squadron:

A great deal of trouble has been experienced in the Experimental and Patrol Squadrons with the intercommunicating telephone sets used in seaplanes, and experiments are now being conducted to overcome the objections of the pilots to their use. A specially constructed helmet with a deep case and a pressure band has been tested and has given very satisfactory results. On September 11th a conversation was carried on between the pilot and passenger which consisted of code numbers and difficult letters. The passenger, who had never been in the air before and had never worn a helmet, experienced no difficulty in understanding and correctly recording the conversation. The development of a satisfactory combination helmet and receiver is considered to be very gratifying, inasmuch as it will appreciably increase the efficiency of both radio and telephone sets used in seaplanes.

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PENSACOLA, FLA - Sept. 18, 1918.

Gunnery School.

Squadron I.

Squadron I has experienced difficulty with the controls of Hispano-Suiza Seaplanes equipped with Scarf-rings for Gunnery. Fortunately no crashes have occurred on account of the fact that the flipper wires have turn-buckles in the rear cockpit with a bolt fastening control wires to the turnbuckle. Students while standing in the after-cockpit, press legs against the side of fuselage and consequently hold control wires close to the fuselage, this resulting in the nut and turnbuckle catching on vertical strut and locking the controls. The occasion of this discovery was made, fortunately, at low altitude and resulted only in a bad landing. This was remedied by removing turnbuckle from its original position and placing it close to bridge, and further by putting in continuous control wires. The same procedure was taken with the rudder wires.

The bridge control is fastened by two small bearings to the seat runner, the bearings will freeze to the bearing surface of the bridge and force the bridge close to seat runner, causing the nut at the bottom of the bridge to catch into the runner seat. This has occurred in practically all machines of this type regardless of the amount of oil used and the remedy in effect is the soldering of the bearing cap instead of brazing.

Bombing School

Squadron IV

Fifty three students were qualified in Bombing for the week. The Squadron, with experience in bombing with F Boats, is constantly improving the system of instructing and although gratifying results have been obtained, still better work is looked for in the future.

Navigation School

Squadron V

On September 13th, HS-2 Number L-1241 was tested by Squadron V. It took off the water more quickly than the HS-1 type and handled very well in the air notwithstanding the fact that controls were extremely stiff. It was found that a complete spiral can be made easily in five hundred feet without having the machine settle when coming out of a spiral, which is unquestionably a great advantage over the HS-1. This type of machine is very steady on the glide and the additional lift allows the loss of excessive speed on landing, which should go a great way toward solving the present hull difficulties existing in the HS-1, which has a high landing speed.

The reinforcing of the hull of the HS-1, 1619, on this station has shown gratifying results as this machine has been used for a solo machine and consequently subject to rather rough usage.

Machinery Division.

We find no difficulty in operating Liberty Engines 100 hours or more and the average flying time for engines removed for overhaul is about 70 hours. We have had enough experience with this type of engine now so that we are having very little operating trouble. It may be of interest, however, that by keeping track of the flying time which engines removed for overhaul have had in, we have been able to determine that it is poor practice to operate these engines longer than 75 hours. Therefore it is standard practice on the station to replace engines after this amount of time has been put in. The reason this is necessary is because almost invariably the babbitt in several of the small main bearings and the upper half of the connecting rod bearings begins to crack after operating for this period of time.

In the operation of Liberty engines, we have found it to be very important to insist that the pilots warm up their engines thoroughly before starting out on flight. All engines are idled for at least three minutes. We find the Liberties in HS-1 planes warm up when taxiing in to the beach. To avoid this, pilots are instructed to come in on the step as much as possible.

We have been carrying on some very interesting experimental work, tipping propellers. This was brought about due to the fact that we have had a great deal of trouble with tips flying off on HS-1 propellers. We first experimented wrapping a blade very tightly with wing fabric similar to the way that a bandage would be put on, using coatings of emallite with the fabric. This method gave promising results. Numerous other propellers were tipped in a manner similar to this, each time making some little improvement. We now have a propeller wrapped in this manner with a very small copper tip over the fabric on the leading edge of the blade. Propellers tipped in this way have been operated for a period of ten or fifteen hours quite successfully before the fabric started to come loose. The several propellers forwarded by the Bureau, one with pigskin tip and one with canvass tip, have been tested out and proven unsatisfactory.

The following is taken from report of an H-16 seaplane Instructor at Pensacola:

"We started a left spiral at about 2,000 feet; the student started out in the spiral all right. After spiralling down to about 1,600 feet, his bank gradually increased. I saw that he was trying to bring the machine out of the bank, and I proceeded to help him out. The machine was rather stiff to control, and while I was helping him to take it out of bank he suddenly reversed the rudder. The machine seemed to slip a bit and then began to spin, making three complete turns. The student pulled the controls up to his chest and seemed to hold them there for a bit. By that time I got my feet on the rudder bar and braced myself well. I shoved the controls all the way to the instrument board, giving slight right rudder. Immediately upon shoving the controls forward, the machine stopped spinning; and I found myself in a vertical nose dive. I then gave it a slight right aileron and began pulling it out of the dive slowly. After pulling it out to a normal glide, I proceeded on to a landing, after which I took the machine in to the beach and made a report of the incident."

On September 21, 1918, an HS-1 caught fire at an altitude of five hundred (500) feet, due to the gas leads from the gravity tank to the carburetor breaking, permitting the gasoline to flow down around the motor, the gasoline being ignited by either back fire from the carburetor or the exhaust from the motor. As in the case of the Hispano, the speed of the descending plane prevented the fire from getting dangerous and spreading, but as soon as the plane was landed the flames spread to the rest of the plane, completely destroying upper and lower right wing section, upper hull and propeller. The pilot and crew having exhausted their hand Pyrenes, filled their helmets with water and threw it over the plane, putting the fire out in this manner. To prevent any reoccurrence of this accident all HS-L's and HS-2's will be equipped with longer gasoline leads from the gravity tank to the carburetor with a couple of annealed coils of from eight (8) to ten (10) inches in diameter, to take up the vibration and relieve the strain on the pipe and fittings.

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KEY WEST - September 23, 1918.

The station record for flying time for one dirigible was made this past week. Dirigible A-236 flew 53 hours and 48 minutes in six days; 50 hours and 36 minutes of this time was on patrol.

On September 21st, Dirigible A-236 was caught in a storm at sea. On returning to Key West the station was enveloped in a storm; an attempt was made to go around the storm but it proved too large. Despite the fact that a 40 mile wind was blowing, a successful landing was effected.

A test of communication between a plane and a ship at night was carried out with excellent results. It was found that by flying around a ship in large circles at an altitude of 150 feet, signals from the plane or ship could be understood quite clearly. On the ship the yard-arm blinker lamps are more easily understood. An Aldis Set was used on the plane.

ANACOSTIA; D. C., September 19, 1918.

Ordnance experiments have been carried out on a Davis Gun mounted on HS-1. A number of officers have fired for the first time from aircraft, using the Davis Gun, and in several cases hits have been made within a radius of twenty (20) feet from center of target, which is a miniature submarine target. Other ordnance experiments have been carried out with Mark IV bombs, using different sights and different types of fuses. Experiments with water flares dropped from F boats have been made.

Some very interesting experiments have been made with leak proof tanks, into which have been fired incendiary bullets and ball cartridges. Other ordnance experiments have been carried out on submarine bombs, to test visibility of white and gray. Two (2) bombs, one gray and one white were dropped from 3,000 feet, 2,000 feet and 1,000 feet altitudes. Gray color was lost after 600 feet; white remained visible for 2,000 feet on first and second tests, and 1,000 feet on third test.

Test of English type shell deflector and self-counting magazine secured to Lewis Gun have been satisfactory.

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FOREIGN NEWS NOTE - August 24, 1918.

An American-built H-16, equipped with Liberty motors and American-built propellers, was flown from the U. S. Naval Air Station, Killingholme, on August 16, 1918, for 6 hours and 40 minutes. This is the longest endurance flight yet made by a flying boat of this type, and is considered a very excellent performance. By increasing the lubricating oil tanks it is expected that increased endurance will be obtained and that these flying boats will be capable of making 8 hour flights.

AIR MINISTRY (BRITISH) WEEKLY ORDERS:

The undermentioned types of aeroplanes and seaplanes have been declared obsolete by the British Air Council:

A. D. Flying Boat	M. Farnam (L.H. and S.F.)
B. E. 2A and B.	Hamble Convert
Bleriot	Hartynside Scout
Bristol Scout	Nieuport Scout
Curtiss J. N.	Nieuport 2-seater
Curtiss R-2	F.B. 7
Curtiss Triplane	Small America
De Hav. 2	Short 166
De Hav. 5	Sopwith Triplane
F. E. 2D	Vickers F.B. 9
F. E. 8	Vickers F.B. 14
H. Farnam	Vickers F.B. 19

J. H. TOWERS,

By direction.