Op-Air
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NAVY DEPARTMENT
OFFICE OF NAVAL OPERATIONS
WASHINGTON

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DECLASSIFIED

October 7, 1918.

[redacted]

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

Subject: Weekly Report - October 7, 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 October 7, 1918:

PATROLS

Stations	Flights	Hours	Min.	Aircraft in commission	Complement at station
Cape May	37	91 -	15	10 seaplanes	12 seaplanes
" "	3	21÷	10	1 dirigible	
Chatham	49	117 ÷	20	16 seaplanes	12 "
Coco Solo	16	47 -	30	2 seaplanes	12 "
Halifax	12	30 ÷	45	2 seaplanes	4 "
Hampton Roads	81	367 -	10	28 seaplanes	32 "
Key West	71	88 -	49	5 seaplanes	18 "
Miami	41	85 -	55	3 seaplanes	12 "
Montauk	35	96 -	15	9 seaplanes	12 "
"	7	26 ÷	55	1 dirigible	
Rockaway	124	354 ÷	55	12 seaplanes	24 seaplanes
"	15	43 ÷	30	1 dirigible	
"	30	342 ÷	50	4 kite balloons	
	521	1599 ÷	17		
Lighter-than-air craft total	55	439	25		
Seaplanes, total	466	1,159	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 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 flights and seaplanes in commission and at each station, for the week ending October 7, 1918:

Stations	Flights other than patrol	Hours.	Min.	Aircraft in commission	Complement at station
Akron	10	5	46	2 dirigibles	
"	20	7	55	1 kite balloon	
"	19	39	30	14 free balloons	
Bay Shore	719	602	20	38 seaplanes	42 seaplanes
Cape May	26	12	22	10 "	
" "	6	5	8	1 dirigible	
Chatham	21	2	54	12 seaplanes	
Coco Solo	34	50		3 seaplanes	
Halifax	15	32	10	3 "	
"	6	2	19	1 kite bal.	
Hampton Roads	62	53	26	21 seaplanes	m 24 seaplanes
" "	33	10	45	4 kite bal.	# 15 kite bal.
Key West	883	716	50	32 seaplanes	36 seaplanes
" "	11	15	23	1 dirigible	
Miami	1,479	1,161	20	35 seaplanes	72 seaplanes
Miami Marines	306	293	43	airplanes	
Montauk	8	3	35	9 seaplanes	
"	5	18	5	1 kite bal.	# 1 kite bal.
Rockaway	27	11	45	12 seaplanes	
"	6	6	31	1 dirigible	# 2 dirigible
"	5	45		4 kite bal.	
Pensacola	2,906	1,399	55	67 seaplanes	108 seaplanes
"	31	23	30	1 dirigible	
San Diego	437	330		12 seaplanes	36 seaplanes
	7,074	4,850	2		

	Flights	Hours	Min.
Seaplanes	6,617	4,366	27
Dirigibles	64	56	18
Lighter-than-air craft	151	179	53
Airplanes	306	293	43

GRAND TOTAL FOR FLYING TIME:

Patrol	521	1,599	17
Other than patrol	7,074	4,850	2
	7,595	6,449	19

Number at station
m 18 Experimental
n Great Lakes does not carry on patrolling or training.

3. The following officers have been ordered abroad:

Ferrone, F. N.	Ensign, U. S. N. R. F.
Hill, R. A.	" "

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

Andrews, L. B.
Atha, K.
Badger, J. M.
Barse, H. H.
Bond, M. A.
Butz, E. A.
Bryant, R. C.
Burnett, C. E.
Cashin, E. J.
Carson, E. T.
Cline, J. T.
Culkin, W. A.
Cushman, R. J.
Cutter, J. F.
Curry, C. G.
Dunham, C. A.
Ellicott, W. W. H.
Emrich, R. L.
Floyd, G. P.
Fuller, R. L.
Geddes, W. J.
Gromley, J. V.
Hadley, H. S.
Hazen, H. T.
Harlan, J. L.
Higbie, M. B.
Himes, B. T.
Holt, E. D.
Hunter, R. L.
Hughes, J. W.
Hukill, E. W.
Johns, H. Van D. Jr.
Jones, W. F.
Jordan, R. D.
Junell, J.
Lorimer, R. E.
Leonhard, E. R.
Loy, N. M.
Maxam, S. R.
Mc Connell, R. P.
Miller, H.
Miller, J. W.
Miller, G. F.
Neal, A. W.
Newhouse, R. W.
Newsome, T. W.
Oakley, G. T.
Patillo, T. B.
Pearson, P. C.
Potter, J. W.
Porter, W. L. R.
Post, C. F.
Rea, T. H.
Roden, H. W.
Ronaldson, G. M.
Shafer, C. G.
Smith, R. M.
Sonnakend, A. M.
Sommers, J. E.
Stephens, F. H.
Shotel, C. E.
Trabucco, J. E.
Watts, W. B.
Wentz, W. W.
White, R. M.
Kiser, F. B.
King, W. C.
Laverty, L. F.

ANACOSTIA, D.C., October 3, 1918.

Test of Leak Proof Tanks:

Two (2) leak prook tanks were tested for leak proof qualities. Both tanks, 140 gallon capacity, were made of English framework and covering.

First tank had eleven (11) straight ball bullets, three (3) incendiary and one (1) tracer bullet fired into it. The first shot caused small leak which soon healed up but the last three shots caused such ragged holes that it did not heal.

Second tank, covered with the double rubber covering, tank fired into, using straight ball bullets and fifteen tracer bullets; this tank stood the test exceptionally well, as several holes were made by the entrance and exit of the bullet, but all of these holes soon healed.

Third tank was fired into with forty shots, using one (1) straight and one (1) tracer. Several small leakages were caused by the entrance and exit of the bullet, some of which did not seal.

Fourth tank was not tested.

September 27th.

Test of Lewis Gun on De Haviland (4) Plane, belonging to Bolling Field:

Two (2) Lewis guns were mounted on a double mounting and put in the rear cockpit of the De Haviland, new type shell deflector was attached and no trouble was experienced, while going at the rate of 138 miles per hour. The guns were fired over the side of the fuselage, which is the worst possible position. Great difficulty was experienced in maneuvering scarf ring while in the air, due to great wind pressure. It is of importance that a balance scarf ring be made for use on this type of plane.

A new propeller was installed on a Liberty Engine, mounted on a test stand, to test leather tips for use in place of brass ones now being used. Tests were conducted as follows: new propeller put on motor, having new leather tips. Motor was speeded up to 1,550 R. P. M., then a fine spray of fresh water was directed against propeller for one (1) minute. After running for one (1) minute the motor was stopped. After examination it was found that leather tip was so mangled that tests could not be continued.

PENSACOLA - September 25th.

BOMBING:

A periscope will be used on the disappearing surprise target, thereby increasing the efficiency of this work.

NAVIGATION SCHOOL - Squadron V:

A record for flying time on this station was broken on September 17th by Squadron V, operating 9 serviceable HS-1 seaplanes, as the flying time on this date exceeds by six hours the best record made since this Station has given Advanced Training Work. The 9 machines started flying at 8:25 a.m. and secured at 6:55 p.m., with no delays except for change of pilots and fuel. Three of these planes were used for navigation instruction flights while the others were doing instruction work. These seaplanes averaged 7 hours and 30 minutes each.

PENSACOLA -

ADVANCED GROUND SCHOOL

The full new advanced ground school course was put in operation during the week and students are being instructed in ground work at the same time while taking their air work. This is made possible by using the starboard and port watches. The third week includes seven hours cutter drill under the direction of experienced Chief Boatswain Hates. All the more important simpler knots are to be included in the students' final examination of seamanship.

Short quizzes are given at the end of each navigation lecture and a close record kept of students progress each day. Students showing unsatisfactory results must do outside work until grades have shown improvement. The length of the final examination has been increased to two hours and the standard of questions made especially rigid.

ENGINES.

Two Hispano-Suiza engines in N-9 seaplanes are being operated with magnetos having a 30 degree advance instead of the usual 20 degree. These engines seem to run cooler and with less vibration. These accelerate readily and give no trouble in starting.

ROCKAWAY - September 27th.

On September 5th Airship A-242 equipped with two Mark IV bombs, as described in our letter of September 3rd, to Bureau of Construction and Repair, ascended. Both bombs were released at the same time, and, according to observers on the ground, fell together. The explosion which followed was greater than usual, so that it is presumed that both bombs went off. No great shock was experienced by the airship, which was at 1,000 feet. It is considered to be safe to drop two bombs this way from 800 feet or above.

HAMPTON ROADS - September 25, 1918.

It is noted with interest that although during the last two months the number of patrols has been more than doubled, the number of forced landings has been exactly halved.

On September 30th, HS-2 number 1160 made a routine patrol lasting 6 hours and 10 minutes.

On Monday September 16th, seaplane number 1271 HS-2 type with Lieutenant (j.g.) J. M. Vorys, U.S.N.R.F. pilot started an extended trip of inspection on the part of Commander Stott and Lieutenant Commander Stone of the Bureau of Ordnance, who accompanied the pilot as passengers. All of the Coastal Air Stations between Hampton Roads and Chatham, Mass., were inspected. The trip was entirely successful in every way and no trouble of any description was experienced with the seaplane.

During the week the starboard watch of Division "B" removed a Liberty motor from an HS-2 and had a new one running in 4 hours and 18 minutes.

KEY WEST, FLA. - October 1, 1918.

On Sunday, September 27th, HS2-L 1828, reconstructed in accordance with specifications from Bureau of C&R, was forced to land at sea. A forty knot wind resulted in very rough seas, running unusually high. Attempts to tow or anchor the craft were unsuccessful, causing damage to the wing sections and wing pontoons. The flying boat was cut adrift from its tow and after twenty four hours exposure to weather conditions as described, was finally anchored safely. Upon examination, it was found that the ribs of the hull were all intact,- despite the strain to which the hull had been subjected,- proving the strength of construction of the hull.

MIAMI, FLA. - October 1, 1918.

Quite a bit of trouble is still being experienced by the cracking and breaking of the left cam-shaft housing on Liberty Motors. All breaks have been exactly in the same place and in the same manner. Upon examination it has been found that the casting is considerably thinner at this point than is the balance of the casting, and also that the greatest strain is exerted in this place.

The Paragon propeller which was retipped with the tip extending further toward the hub of the propeller, has been given a test on the test stand. On this test it proved very successful. One of these retipped propellers has been installed on an "H" boat.

A Liberty motor in the 8th Squadron has run over one hundred hours and is still in operation. This motor is still giving excellent service.

Because of lack of Mobile "B" Oil which has been found to be the most efficient for Liberty Motors, various other oils and combinations of oils have been tried. The best substitute for Mobile "B" has been found to be a heavy grade of Veedol.

Considerable trouble is still being experienced with the propellers used on Liberty Motors throwing their tips. On September 23rd, 1918, 1st Lieutenant Gove Compton left on Patrol at 6:30 a.m. in HS-1 1742. Then about fifty miles Southeast of this Station and about ten miles off Cat Key (Bahama Islands) at an altitude of fifteen hundred feet, with the motor turning up 1500 R.P.M., the propeller threw two tips causing pilot to make a forced landing. No ships or other objects were sighted from the time of landing, 9:10 a.m. September 23rd, 1918, until 5:00 p.m. September 24th, 1918, when two "H" boats were seen flying Easterly in the direction of Cat Key and about five miles North of plane 1742. One plane appeared to be at about an altitude of one thousand feet and the other at an altitude of six hundred feet. The pilot in 1742 states that it was very stormy and with frequent showers and at this time a heavy storm, approaching from the South with low hanging black clouds made it very difficult for a plane, drifting on the water, to be seen from a point many miles to the North.

Up to this point plane 1742 drifted and sailed in an almost due west course from the point where it was forced to land. There was a strong wind blowing from the Northeast and

Miami, Fla. (Cont.)

an improvised sail was made by stretching motor and cockpit covers from strut to strut between the wing panels. At this point, about eight (8) miles due east of Fowey Rocks Light, the wind changed to the south and with the approaching storm was blown further out to sea and in a northerly direction. This storm was a cloud burst with heavy wind from the South and the Southwest and lasted about five hours.

About 8:00 p.m. the 24th, just before the storm struck, the crew fired about one hundred fifty (150) rounds in bursts of five from the machine gun, it being dark enough at this time to see the flame burst from the muzzle of the gun in a streak of flame eighteen (18) inches long. Later several star shells were fired from the Very Pistol, both Red and Green, but failed to attract attention from any source.

After the storm the wind changed to Southeast and the plane was blown ashore on the ocean beach at a point about two (2) miles north of Coast Guard Station #209 at 5:30 a.m. September 25th, 1918. The pilot left the crew with machine after securing same the best they could, and walked to the Guard Station from where he phoned the location and condition of plane.

The boat had drifted for forty five (45) hours on the water. The boat contained a mid-day lunch of two sandwiches for each person and emergency rations of two (2) cans of Boston Brown Bread and two (2) cans of Baked Beans. Three canteens of fresh water were also carried. The sandwiches were consumed about noon on the 23rd, and after that time no one cared to partake of the emergency rations and same were not opened; and only about one half the water was consumed.

The lower right aileron was broken loose by the sea, also the fabric in lower right wing panel. This aileron was secured before entirely breaking away and was used part of the time as a water rudder and part of the time as additional sail surface.

At the time of landing on beach sea was at low tide and the surf was high and strong. Immediately upon receiving report from pilot, an officer and two (2) men were despatched by auto to relieve the pilot and crew as they were in an almost exhausted condition. A working party of twenty (20) men with trucks, line, tackle gear, and so forth arrived

about an hour and a half later. As the sea was fast breaking up the machine, the officer and two men began to disassemble the machine immediatoly upon arrival. The left wing and tail surfaces were taken off and saved, but before the working party arrived and before the right wing could be taken off, the surf snapped it in two, nothing but the wires holding it. Before the wires could be cut and wreckage pulled out ofthe way, surf had driven it through right side of hull, tearing great holes in hull with every wave. Just before this happened an effort was made to turn the boat around, getting either the nose or tail on the beach, but the hull was leaden with water and sand to such an extent that it could not be budged.

About this time the working party with truck and gear arrived but the hull and wing were too far gone to be of use. The motor was taken out of plane and entire wreck was loaded onto truck and returned to Station where same was salvaged with hull and one wing less fittings remaining a total loss.

Much trouble has been experienced with Aeromarines in the course of storms. In one case, an Aeromarine having landed and the wind having gotten underneath the wing, the machine nosed over. The wrecking barge was sent out and righted the machine and while being towed back to the beach the wind again caught the plane throwing it over on its nose the second time. These machines have been found to be very unsafe in rough or windy weather.

Coco Solo - September 14th.

On September 13th, patrol flight of three R-9 seaplanes was made along the Panamanian coast to Bocas del Toro, a short distance from the Costa Rican boundary, a distance of approximately 180 miles, against a strong head wind, in 4 hours 35 minutes flying time. The Commanding Officer's plane, piloted by Lieutenant (jg) P.S.Fuller, USNRF, was in the air 4 hours 40 minutes - a record on this station for an R-9 seaplane.

On arrival at Bocas del Toro the Commanding Officer paid an official visit on the American Consul and the British Vice-Consul. This was the first time in history that the natives in this part of the country had ever seen an aeroplane, and consequently the excitement was very great.

Two submarine chasers had been sent out - the evening before, one standing by half way up the coast, and the other carrying sufficient gasoline, oil and other necessary supplies awaited the planes at Bocas del Toro.

The return trip was in exactly 3 hours with the wind. No trouble of any kind was experienced.

The next day, Friday the 13th, three R-9 seaplanes were despatched on patrol flight to the Gulf of San Blas, the home of the famous San Blas Indians, a distance of about 110 miles. A landing was attempted near Porvenir Island (the Governor's home) but two planes struck submerged reefs and a great deal of trouble was experienced in keeping them afloat, but were finally towed to the beach. The other plane landed successfully and after doing all that could be done, returned to the station.

Submarine chaser was immediately despatched with seaplane crew, pontoons and necessary equipment. The afternoon of the following day two planes were despatched to San Blas Gulf, one of them carrying an extra propeller tied to the side of the fuselage over the lower engine section panel. The trip was made very successfully and it was found that a great deal of difficulty was being experienced in fitting new pontoons to the damaged seaplanes, due to lack of facilities. It was found the only way this could be done was to fill the pontoons with water, sink them and secure them to the struts while submerged. On the morning of September 15, the two seaplanes at Porvenir Island were placed in commission and the return flight made successfully.

HALIFAX - September 29th.

Ensigns Hinton and Dietrich have successfully landed in ten foot waves. Landings in these cases were necessary because of the stopping of the motor in a glide. To overcome this defect, stop cocks are now being put in the overflow line from the gravity tank and when the sea plane is put into a glide the cocks are closed, thus preventing the gasoline from uncovering the carburetor feed line opening in the rear end of the tank.

SOURCE O.N.I. (Cont.)

planes) were observed with distinctive marks placed at the extremity of each wing; these marks consisted of a black iron cross, surrounded right and left by a red band.

In Germany - September 6, 1918.

A new type of huge triplane was commenced a few months ago: 90 feet spread, three 300 H.P. motors, capacity for 8 men, 4 machine guns, has a great lifting power, large bomb capacity, speed 80-90 miles per hour. Residents along the Swiss side of Lake Constance state that during the past three or four weeks they have seen one of these large planes in the air on the German side of the Lake at least three or four times a week, and at a height of about 3000 m. More recent information secured indicates that from 4 to 5 of these new triplanes were being turned out weekly in August last.

RADIUMMASSA - FOR GERMAN LUMINOUS SIGHTS.

Radiummassa is a German war metal, the export of which has been strictly prohibited. When mixed with lime it is used on the sights of chronometers and rifles, and also on aeroplane registers to facilitate night firing. It is also used on aeroplanes and airships at night so that German machines can be distinguished from aircraft of the Allies. The metal is very luminous and is applied on top of glue. In Germany the price is 80 marks per gram.

French Naval Aviation made 4348 anti-sub patrols covering a distance of 485,620 knots; 438,890 knots, by seaplanes, 52,440 knots by dirigibles; 19 submarines sighted - 14 attacks; 12 mine groups discovered. All during July, 1918.

/s/ J.H. Towers

By direction.