Op-Air
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NAVY DEPARTMENT

OFFICE OF NAVAL OPERATIONS

WASHINGTON

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September 23, 1918.

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

Subject: Weekly Report - September 23, 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 23, 1918:

PATROLS

Stations	Flights	Hours	Min.	Aircraft in commission	Complement at station
Bay Shore	5	19 ÷		6 seaplanes	6 seaplanes
Cape May	25	70 -	19	10 "	12 "
Chatham	27	59 ÷	30	14 "	12 "
Coco Solo	17	55 -		2 "	12 "
Halifax	9	11 ÷	25	2 "	4 "
Hampton Roads	98	301 ÷	38	18 "	24 "
Key West	92	163 -	52	9 "	18 "
" "	11	50 ÷	36	1 lighter-than air craft	2 dirigibles
Miami	62	134 -	53	4 seaplanes	12 seaplanes
Montauk	50	125 -	35	11 "	12 "
"	6	21 ÷	55	1 lighter-than air craft	1 dirigible
Rockaway	80	268 -	25	12 seaplanes	24 seaplanes
"	11	37 ÷	15	2 lighter-than air craft	2 dirigibles
"	25	292 ÷	40	4 lighter-than air craft	14 kite bal.
San Diego	1	2 -	21	2 seaplanes	12 seaplanes
	519	1,614 ÷	24		
Lighter-than-air craft total -	42	365	11		
Seaplanes total	477	1,249	13		

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.

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 September 23, 1918:

Stations	Flights other than patrol	Hours	Min.	Aircraft in commission	Complement at station
Akron	2	2	30	dirigibles	
"	10	7	20	kite balloons	
"	10	18	10	free balloons	
Bay Shore	662	581	45	26 seaplanes	42 seaplanes
Cape May	22	18	58	10 seaplanes	
Chatham	24	9	14	8 seaplanes	
Coco Solo	137	55		3 seaplanes	
Great Lakes	7	2	40	2 seaplanes	n 2 seaplanes
Halifax	10	12		2 seaplanes	
Hampton Roads	104	393	1	25 seaplanes	m 24 "
" "	12	2	46	4 kite bal.	# 15 kite bal.
Key West	1,066	843	48	26 seaplanes	36 seaplanes
" "	2	3	12	1 dirigible	# 2 dirigibles
North Sydney	9	8	5	3 seaplanes	
Miami	1,794	1,425	10	32 "	72 seaplanes
Miami Marines	226	200		airplanes	
Montauk	6	5	5	11 seaplanes	
"	8	38	35	1 kite bal.	# 1 kite bal.
Rockaway	14	9	10	12 seaplanes	
"	4	3	29	2 dirigibles	# 2 dirigibles
"	4	6		4 kite bal.	# 14 kite bal.
Pensacola	1,851	1,212	15	69 seaplanes	108 seaplanes
"	72	60	20	1 dirigible	# 3 dirigibles
"	39	6	40	1 kite bal.	# 3 kite bal.
"	1		30	10 free bal.	# 10 free bal.
San Diego	349	227	35	11 seaplanes	36 seaplanes
	6,445	5,153	18		

	Flights	Hours	Min.
Seaplanes	6,055	4,803	46
Dirigibles	80	69	31
Lighter-than-air craft	164	149	32
Airplanes	226	200	

GRAND TOTAL FOR FLYING TIME:

Patrol	519	1,614	24
Other than patrol	6,445	5,153	18
	6,964	6,767	42

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

3 . The following officers were ordered to Canada:-

Best, H.W.	Ens.	USNRF.	Lally, F.J.	Ens.	USNRF
Chilton, W.E.	"	"	Meany, R.E.	"	"
Clark, C.D.	"	"	Paul, J.G.	"	"
Diemer, R.P.	"	"	Postle, W.E.	"	"
Elward, H.H.	"	"	Reichelderfer, F.W.	"	"
Griffin, P.V.R.	"	"	Rhodes, R.R.	"	"
Groom, H.B.	"	"	Robinson, A.J.	"	"
Hansen, F.G.	"	"	Scott, W.B.	"	"
Hathaway, G.D.	"	"	Smith, B.L.	"	"
Hartshorne, R.D.	"	"	Van DeWater, L.	"	"
Long, G.R.	"	"	Van Hulstein, J.M.V.	"	"

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

Barber, E.G.	Johns, W.L.
Bunt, J.H.	Lush, H.I.
Dempster, R.N.	Stone, G.W.
Honodle, H.S.	Whitted, J.A.
Keith, G.K.	

5. During three weeks this past summer, British aircraft in home waters on anti-submarine work flew 562,121 miles.

During the three weeks this summer ending Sept. 14th, American aircraft in home waters flew approximately 265,000 miles on anti-submarine work.

KEY WEST, FLA - Sept. 17, 1918.

Patrols for the week of Sept. 7th, to Sept. 15th were out a total of 230 hours and 39 minutes covering a track of 16,139 miles. The average visibility was 17.5 miles so the total area covered was 564,865 sq. miles. The patrol time per day was 32 hours and 57 minutes. Area covered per day was 80,695 sq. miles.

Gas pump fans on HS-2L's vibrate to such an extent that it has been necessary to reduce the pitch of the blades and reduce the R.P.M.'s. An extension bushing on the aft end of the main drive shaft long enough to hold two braces, also helps to decrease the vibration.

The following changes have been made on an HS-1 type plane and have proved very satisfactory where lack of beach prohibits removing planes from the water at night or where prompt drainage while on the truck is necessary.

(a) Hand hold plates installed in the fins just forward of the step on the fin (approximately on the line with the entering edge of the wing) to permit of inspection and removal of water from the fins while afloat and allow ventilation.

(b) Enlarging of the limber holds through the hull to permit of more complete draining of sections between the ribs.

(c) The installation of one inside drain plug under driver's seat, one inside plug under the gasoline compartment and one outside plug in first and second compartment aft the gasoline tanks.

Tests were made during the week to determine the approximate ceiling of the B2 Hispano-Suize training seaplanes with overhauled motors.

These flights were made, two by Ensign Moore, in Seaplane A-2489 and A-2491 respectively, and one by Ensign Arnold in Seaplane A-2495. The following altitudes were obtained:-

Seaplane A-2489	14,800 feet
Seaplane A-2495	12,900 "
Seaplane A-2491	15,500 "

Average ceiling was 14,400 feet.

COCO SOLO - August 27, 1918.

On August 27th, three R-9 Seaplanes made a reconnaissance flight to Povenir Island, Gulf of San Blas, and visited the Governor and the Chief of the San Blas Indians. On August 28th, the station was visited by Commander V.E. Speranza, British Naval Attache, West Coast of South America, who was later taken on a flight across the Isthmus, landing at Balboa, C.Z.

MIAMI, FLA. - September 7, 1918.

The Eighth Squadron reports that 106 hours were obtained from a Liberty motor which had been overhauled at the Station. Above motor was turning over 1675 R.P.M. with Liberty stick when pulled.

Ninth Squadron. An interesting record in changing a motor was obtained by the Ninth Squadron when seaplane A-351 developed motor trouble on the beach. Plane was taken to hangar, motor changed and plane in air again in exactly 2 hours and 40 minutes.

PENSACOLA FLA. -

On Sunday September 8th, a practice Aerial combat was tried out; an H-16 flying boat being attacked by two Hispano-Suiza motored N-9 Seaplanes at an altitude of approximately 3,000 feet. The Speed of the H-16 Flying Boat proved too great for the N-9 Seaplanes, and the gooseneck gun mounts on the flying boat proved inferior to Scarf-rings. A complete report on this combat is being forwarded in a separate letter.

Squadron IV

Tests of Lang modified propellers were made during the week on F. boats. On September 6th, F boat #2336, equipped with one of these propellers and piloted by Ensign R.V.Cassidy, showed unsatisfactory results; on September 7th a second test with the propeller turned to a less pitch was made and although the results were better, this propeller does not favorably compare with the Curtiss propeller.

Navigation School.

Squadron V.

This Squadron has had considerable trouble with the tails of HS-1 Seaplanes becoming out of alignment and as a solution of the problem, a device has been made which seems to work out successfully. When an HS-1 Seaplane is placed on a truck, the rear of the latter comes just behind the step of the hull, thus leaving the tail with no means of support and the action of a lever is formed; this tends to crush the ribs that are over the rear of the truck. For this reason we have had a jack made for each machine, similar to a jack used on a wagon, and one is placed under the sand skid of the tail and the latter raised about 1/2 inch. This of course tends to relieve the downward pressure and will permit the men to climb to the flippers to inspect the wires, clean the fabric etc. These jacks are placed under Seaplanes each night when they are in the hangar.

Squadron VI.

A test flight of #A-4050, one of the new H-16 Flying Boats was made on September 5th and resulted favorably; it was observed that the boat took off the water unusually quickly. This would seem to show an improvement over the older boats. The aileron controls on the new H-16s will have to be geared down for instruction purposes as the students have experienced difficulty in getting out of a

bank unaided with the present method of rigging ailerons.

In general.

During the past week there were five days on parts of which Navigation flights were possible; the total flying time for the week was one hundred fifteen hours and thirty minutes, and thirty-three students were graduated from the Navigation Course, making a total to date of 404 men. During the week there were gen HS-1s, twenty three H-12s and two H-16s assigned to Navigation work.

The gunnery work was carried on as usual on all Navigation flights during the past week and some excellent shooting was done, one observer accounted for a porpoise with a well directed burst of fire.

SOURCE - O.N.I.

Austrian Tor pedo Airplanes.

The following information has been received from the French Naval Information Service:

"The Austrians have three torpedo-carrying seaplanes. It is said that these machines alight on the water, pretending to be damaged, and then launch their torpedo which is housed underneath the hull. It is said they are painted in various colors, checkered.

This information has been supplied by two Austrian aviators who surrendered, with their machine, to the Italians at Fano.

The German Navy appears to have given up torpedo-carrying seaplanes. The Austrian Navy no doubt expects to be able to effect a surprise by the unexpected use of this arm.

Browning Aircraft Gun.

"The Browning Aircraft Machine Gun, recently tested successfully at high altitudes in England, fires at the rate of from 900 to 1200 rounds per minute as now designed. In ground tests in the United States the gun was fired at the rate of approximately 1500 rounds per minute, and it is thought that it could be fired at the rate of 2000 rounds per minute. Such rates are exceedingly high in comparison with the standard practice, so that at what future rate the gun is to be regulated is a question of importance. The present German aircraft synchronized gun fires at approximately 400 to 600 rounds per minute.

"Therefore, during an aerial combat the Browning would pour 20 rounds or more per second into the German plane, while in the same time the German gun is capable of returning from 8 to 10 rounds into the American plane.

Vickers Gun.

"In view of the great successes obtained with the Vickers gun, which has during the last three or four months been speeded up to fire at the rate of approximately 1,000 rounds per minute, the outlook is extremely optimistic.

Depth Charges - Position at which to be dropped relatively to Oil or Air Bubbles on the Surface.

"Several experiments have been carried out with a view to ascertaining the correct spot on which to drop depth charges when bubbles of oil and air are appearing on the surface.

"Varying results were obtained.

"It has been found that bubbles come up with different velocities, according to their size, with the result that when bubbles of different sizes are coming up a trail is formed on the surface, the largest bubbles being nearest the submarine.

"It must not be too readily assumed that the sudden appearance of a fresh volume of oil after dropping a depth charge is evidence that the submarine has been hit, for the reason that, if the depth charge is dropped between the submarine and the point where the bubbles are appearing a quantity of the oil which is on its way diagonally to the surface will be suddenly and rapidly forced to the surface, due to the explosion of the depth charge underneath it.

"Allowance has been made for the drift of the depth charge.

"Tables are calculated for bubbles the size of a tangerine orange and below, which is found to be the most frequent size.

"It is recommended that in all cases a buoy attached to a sinker should be dropped where the bubbles appear, to ascertain whether the submarine is drifting; then a line of depth charges dropped 'up tide'."

/s/ J.H.Towers.

By direction.

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