Naval Ope

IR STATION

RECEIVED DEC 21 1918 9 55 AM

COMMANDANT'S OFFICE

DECLASSIFIED

.16,191

Op-Air
0155-70

NAVY DEPARTMENT

OFFICE OF NAVAL OPERATIONS

WASHINGTON

December 16, 1918.

[redacted]

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

SUBJECT: Weekly Report - December 16, 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 16, 1918:

P A T R O L S

Stations	Flights	Hours	Mins.	Aircraft in commission	Complement at station
Cape May	12	32 -	19	6 seaplanes	12 seaplanes
Chatham	8	8 -	3	15 "	12 "
Hampton Roads	28	116 ÷	30	18 "	24 "
" "	1	3 -	36	1 dirigible	1 dirigible
Rockaway	13	14 -	15	13 seaplanes	24 seaplanes
"	2	5 -	26	2 dirigibles	2 dirigibles
	64	180 -	9		

	Flights	Hours	Mins.
Lighter-than-air total	3	9	2
Seaplanes total	61	171	7

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.

Coco Solo dispatch not received in time for this report.

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 December 16, 1918:

Stations	Flights other than patrol	Hours	Mins.	Aircraft in commission other than patrol	Complement station
Anacostia	51	45	3	5 seaplanes	m 9 seaplanes
Akron	12	20	14	18 free bal.	
Cape May	9	1	6	5 seaplanes	
Chatham	30	6	40	8 "	
Great Lakes	4		46	2 "	
Halifax	5	1	15	1 seaplane	
Hampton Roads	48	40	2	30 seaplanes	m 14 seaplanes
" "	8	7	31	1 dirigible	
" "	7	1	29	1 kite bal.	
Key West	852	723	14	24 seaplanes	36 seaplanes
Miami	1,685	1,259	35	45 "	114 "
Miami Marines	449	411	15	airplanes	
Pensacola	1,133	762	25	68 seaplanes	108 seaplanes
"	56	52	40	2 dirigibles	
"	3	4	39	3 free balloons	
Rockaway	46	23	30	13 seaplanes	
San Diego	711	567	50	19 "	
Rockaway	5	4	45	2 dirigibles	
"	15	30		1 kite balloon	
	5,119	3,962	53		

	Flights	Hours	Mins.
Seaplanes	4,564	3,430	19
Airplanes	449	411	15
Balloons	37	56	33
Dirigibles	69	64	56
	5,119	3,962	52

GRAND TOTAL FOR FLYING TIME:

Patrol	64	180	9
Other than patrol	5,119	3,962	52
	5,183	4,143	1

m - Experimental.

3. The following men were commissioned as Ensign, U.S.N.R.F.

Allen, William R.
Armstrong, Lennox Francis,
Atwood, Clarence C.
Bass, Walter Hickling,
Brady, Richard M.
Buchanan, Walter Gray,
Canby, John Wm.
Carpenter, Charles R.
Collins, Porter Durant
Connelly, Milton E.
Daley, Frederick Mathew,
Douds, John P.
Dwight, Maitland,
Fairlamb, Richard C. Jr.,
Fillebrown, H.M.
Fishback, George Benjamin,
French, Clarence Bates,
Hattemer, Valentine P.
Hensel, Philip,
Heym, Harold C.
Holmquist, Carl W.
Holton, James Harry
Jameson, H.Burton,
Jameson, John T.
Jones, Arthur Lucius,
Jones, Charles A.
Junkin, George,
Kissell, Wm. Thron,
Lankford, Menalcus
McCoil, Kenneth Sprague,
McIntire, Donald Evans,
Nightingale, Winthrop E.
Palmer, Clarence Asa,
Parsley, Clyde L.
Paul, Eugene Robinson,
Penn, Albert Wm.
Preston, Clifford H.
Scandrett, Richard B. Jr.,
Schweitzer, Raymond J.
Snell, Harold Vaughn,
Stevens, James Harold,
Stimson, Thos. D.
Tileston, Edward Murrell,
Tillson, Earnest F.
Tross, Ludwig C.
Waters, Harris M.
Welzant, George Philip,
Williams, Joseph A.
Womer, Porter B.
Wylie, Harold H.

MIAMI - December 10, 1918.

Aerial Gunnery Towed Target has been completed and will be tested out during the coming week on an R-6. A full report will be forwarded as soon as tests are made.

PENSACOLA - December 7, 1918.

Weather for the week was uniformly excellent for flying.

Crashes.

There was one float seaplane crash during the week: A-2503 (Hispano-Suiza) N-9, crashed as the result of a tail spin from an altitude of 150 feet. The plane was brought out of the spin by the pilot, Ensign William B. McGinty, USNRF, but was too low to resume horizontal flight. Both pilot and passenger were uninjured. The machine was sent to the erecting shop for repair.

PENSACOLA - December 7, 1918. Cont'd.

Service Flight School.

Navigation Instruction Flights were carried on every day during the past week. 118 Navigation Instruction Flights were made; total time flown was 213:20; 74 students completed the course. The average error of planes returning to point of departure was five-sixth mile and an average time error of three minutes.

Two students in Squadron VI have soloed in H-16's without a safety pilot. It is believed that in good weather each H-16 pilot can be given one hour of actual solo without a safety pilot, by additional flight instruction of two to three hours.

One H-16 boat seaplane isbeing equipped with a set of Bijur Electric Starters. This is the first time an electric starter has been used at this station. In installing them the radiators have been moved from the front to the rear end of the engines and also have been lowered about six inches.

Gunnery School:

A successful gunnery practice flight with a towed target was made on December 3, 1918, Ensign Izant acted as pilot of the target plane 2483, with Ensign McMurren as passenger. Ensign Harper was pilot of gunnery plane 2497, with a gunner's mate as gunner. About six hits were made. A detailed report will be submitted.

Bombing School:

Squadron IV, which, at the present time is operating F Boats, is setting up HS-1's, which will be ready for use in a few days, and will replace the F Boats.

A dummy bomb struck a dory which was towing a target, and fast work on the part of the dory coxswain and barge crew enabled the dory to be towed to the dock before it sank. The hole was patched and the dory sent to the Station for repairs.

Radio School:

Aero-interphones, type S.C.R. 57 were tested on an (Hispano-Suiza) N-9 seaplane and also on HS-1 seaplane and found to be very satisfactory.

PENSACOLA - December 7th Cont'd.

Radio School

The apparatus consisted of two transmitters, two pairs of receivers and two battery connection boxes. The receivers are a part of a soft helmet. The transmitters are very conveniently adjusted on breast plates. Separate connection cords lead from each helmet and transmitter to its battery box. These cord connections are of the plug-in type.

Communication between an electrician in front seat of N-9 and the Radio Officer in rear seat was maintained from the time the engine was started until it was stopped. In taking off, going with the wind, against it, and across wind, every syllable was distinct and clear. To test the reliability, the electrician was told to take the controls, and although he had not flown before, successfully piloted, for ten minutes, by following directions over phone.

Same type set was installed on HS-1, between pilot and observer, and results were equally good.

This phone is the only type that seemsto have stood a practical working test. The results are considered remarkably good. Durability will be tested.

By connecting 32 volt storage battery to the D.C. side of type A.C.Q. 1115 aircraft radio transmitter with propeller removed, a very good sending apparatus is obtained. Such an outfit isbeing used as an auxiliary set at Camp Bronson. This set radiates about 200 wattsand transmitsthe short distance between Camp Bronson, Camp Saufley and Air Station without causing much interference.

ANACOSTIA - December 13, 1918.

On the afternoon of December 9th a test flight was made with seaplane No. 1907, type HS-2, equipped with the new Magnavox interphone set arranged for three party communication. The test was conducted by the pilot, Ensign Palmer, and by Lieutenant Commander Taylor and Lieutenant Smith of the Bureau of Steam Engineering.

Three sets of transmitters were used, one the old style open diaphragm andtwo of the new protected diaphragm "Anti-Noise" type, one set of the new type being designated for 4-1/2 volts and the other set for 6 volts. Hampton Roads helmets were used by all three parties taking part in the test.

Results were as follows: The new transmitters are slightly better than the old type, and being mechanically

ANACOSTIA - December 13, 1918 Cont'd.

much more robust, must be considered a decided improvement. The 6 volt transmitter turned out to be the best one and will safely stand 10 volts without overheating. 8 to 10 volts is necessary to good communication. It was possible for Lieut. Smith in the front cockpit, and Lieutenant Commander Taylor, alongside the pilot, to repeat numbers of two and three figures back and forth with about 85% accuracy. The names of prominent cities could be repeated with 100% accuracy. On the other hand if unfamiliar names were attempted, the accuracy was very low. Ordinary conversation was carried on without a great deal of difficulty, although quite a few repeats were necessary. The readings of all gauges, and so forth, were repeated back and forth with 100% accuracy. Ensign Palmer, the pilot, did not obtain quite as satisfactory results.

When the plane was put into a slight glide and the engines throttled down, any kind of conversation could be carried on without the least difficulty. It should be called to the attention of pilots and observers using interphone sets, that in case of difficulty in conversation, thiscan always be resorted to in an emergency and occupies surprisingly little time to exchange a large amount of conversation.

Further tests will be made with the same outfit attached to standard Western Electric plane equipment, and it is believed that better results will be obtained, earlier tests with Magnavox transmittershaving been made in this way.

A great deal of flying time has been devoted to the development of a suitable smoke bomb at this station. A great many different types have been experimented with but only about two types have been successful. A sub calibre bomb loaded with special #10 gauge shell (Phosphorus and Black Powder) was dropped from 3000 feet, and a cloud of smoke was plainly seen, in spite of very hazy weather. The test was very successful.

A test has been made of the Kimball Ground Speed Indicator and Bomb Sight which proved very satisfactory.

(a) It is not necessary to know the speed or wind direction as the bomb sight takes care of all this and at the same time is a very good drift indicator.
(b) This instrument isvery simple to operate and can be adjusted very quickly. It is in a round aluminum case about six and a half inches in diameter, four and a half inches in height and weighs four and a half pounds.
(c) It was tried on the side of a fuselage and from the forward cockpit of a flying boat.

HALIFAX - December 7, 1918.

Extraordinary weather conditions still continue in this district, making flying extremely hazardous during the greater part of the week.

In a cold weather motor test with an H-2 Flying Boat during this week, an ascent to 5,000 feet was made with an engine which has run over 60 hours. This engine is equipped with a Paragon propeller. With a temperature of 31 degrees above zero near the surface, the motor turned over 1,550 r. p. m.; at 5,000 feet the temperature was 11 degrees above zero, while the r. p. m. dropped to 1,530. The oil pressure - Mobile L being used - remained at 25 pounds throughout the flight. A water temperature of 170 degrees was maintained throughout the test. This temperature was obtained by placing a nine inch canvas screen over the lower part of the radiator.

CHATHAM - December 9, 1918.

Patrols:

Of the past week only two days were suitable for patrolling, Monday and Tuesday. High winds, rain, fog and snow prevented flying the rest of the time. Invariably patrols leaving this station in clear weather run into fog and haze which makes it impossible to completely cover their assigned courses.

Gunnery:

On Tuesday a Mark IV bomb was dropped from an altitude of 1,000 feet. Two and one half pounds of tetryl was used as a booster charge and the bomb functioned very high order.

Radio:

During the week all calls sent out by the Steamship George Washington with the President aboard, were picked up by this station.

HAMPTON ROADS - December 11, 1918.

Patrol Squadron:

During the past week weather conditions were not at all conducive to good flying, and on two days it was practically impossible to fly at all. The best day's patrol time for the week was 38 hours and 13 minutes on

December 3rd, and the greatest number of nautical miles covered was 2,121 on December 7th. The total for the week was 48 patrols for 114 hours and 53 minutes.

The Washington Mail Service was carried on regularly, except when weather conditions made it impossible to fly. The best time for the mail trip was made on December 2nd, by Ensign Lanpher, in HS-2 No. 1131. He left Anacostia at 2:40 p.m., and arrived at Hampton Roads at 4:52 p.m. This flight was made most of the way through a driving rain storm and a cross wind of between 20 and 25 knots.

During the course of the week the following planes arrived at Hampton Roads from the Naval Air Station, Bay Shore, Long Island, en route to Brunswick, Ga.: 1913, 1936, 2030, 1914, 2031, and 1356. The first two planes arrived with their bottoms in a badly broken condition, requiring extensive repairs, which necessitated delaying procedure of the first three for four days. These, however, have now left for Morehead City, N. C.

The following planes arrived from Montauk, L.I.: 2246, 1360, 2239, 1212, and 2247. 1360 has proceeded to Morehead City, N.C. In connection with the arrival of these planes it should be stated that the Communication Office at Hampton Roads was in touch with the planes from the time they left Montauk or Bay Shore, and followed their course down the coast until they passed out of the jurisdiction of this District. This was accomplished by frequent communication with Bay Shore, L. I., Cape May, N.J., Manteo, N.C., and Morehead City, N. C., and many of the Coast Guard Stations along the Coast.

Experimental Squadron:

Tests were conducted in boat seaplane 1070 (H-16) on the Ajax radiator and Cooper-Servo Motor. The radiator used in the test had been previously employed on patrol service and at one time had been filled with sea water. With throttle wide open, the water boiled in a short time, but the poor results obtained are considered at least in part due to the previous hard usage given the radiator. The performance of the Cooper-Servo Motor was considered satisfactory by all of the pilots who used it. It is compact, light, and has positive action. The fact that it is strictly mechanical and that it can be quickly inspected is another good feature.

A Loening Seaplane has been received from the Loening Engineering Corporation, Long Island City, New York. This is a monoplane of 35 foot span; weight light, 600 pounds; designated as a ship-board scout, to be used by the fleet in fire control. It is to be tested by Ensign James B. Taylor, Jr., who was sent to this Station for that purpose.

KEY WEST - December 11, 1918:

Heavier-than-air.

On Saturday, December 7th, five F-Boats arrived at Key West from Miami, returning to Miami on the following day. No difficulties were experienced and the trip was highly successful.

An advanced navigation course as outlined in the syllabus of training has been inaugurated at this Station, so that no more students will be transferred to Miami for this purpose.

Lighter-than-air:

Continuous high winds during the entire week prevented the operation of Dirigible A-236.

Ordnance:

A new gunnery course for flight officers is planned, the purpose of which is to train the men in aerial gunnery, bombing and the use of the Davis Gun. It is expected that this training will begin in the near future.

Miniature bomb releasing gears have been installed on several HS-2 type seaplanes and have given very satisfactory results.

Communication:

A radio telephone apparatus - type 938 - is being installed on this station. It is planned to install similar sets on seaplanes for the purpose of short range communication.

Type CQ-1115 Radio sets were operated successfully during the past week both on the dirigible and on heavier-than-air types.

During the past week the training of carrier pigeons was continued with much success. Pigeons released from seaplanes averaged eighty miles an hour with a moderate wind in their favor.

J. H. TOWERS,

By direction.