enth-hour effort to wrest transatlantic flight honors from the United States naval 'planes, are flying over a course all their own, figured out last night and this morning with the one object in mind of "how to head off the Americans."

As soon as they had finished breakfast this morning, Hawker and Grieve hurried to the offices of the Royal Air Force meteorologists. Finding conditions improved a little, though not as favorable as they would have demanded had not the Americans been well started on their passage, they went direct to the Mount Pearl plateau, where the Sopwith was waiting in the airdrome, and began preparation for the flight.

They were wholly calm at the start. Methodically, and without the slightest trace of nervousness, they climbed aboard their craft and set to work dispassionately. Hawker's confidence in his navigator and in his engine were absolute, he said quietly.

Opens Throttle to Full

After a preliminary spin of the motor Hawker opened his throttle to the full and the ground crew were forced to call for help to hold the 'plane in place. Hawker throttled "down" again, said a few final words, and then gave the word to knock out the supporting blocks from beneath the craft as he opened wide the throttle.

Hawker followed his announced intention when he dropped the undercarriage of his 'plane. Some persons thought the act was intended as a challenge to his rival, Raynham, and quoted almost the last word of Hawker before he started.

"How about old 'Tinsides?' Tell Raynham I'll greet him at Brooklands, England."

The wireless sent word of Raynham's mishap to Hawker and Mackenzie Grieve after they had put to sea. Opinion here is that one result of the message will be the cutting down of Hawker's speed, as the Sopwith will not be forced to racing speed now that its rival has been eliminated from the overseas contest.

Have Aid of Sun

At the start the sun was only a little over two hours beyond the meridian. The flying adventurers had its aid in navigating for four or five hours as they sped eastward. After that they plunged into darkness over the ocean, with the prospect of starlight and moonlight to break the monotony of sky and sea at night, and to serve as navigation guides.

Mackenzie Grieve declared before the start that the Sopwith would head straight for Ireland.

"If we strike Ireland anywhere we will have found our mark," he said, "but if we hit England we will be nearer home."

Indications to-night were that westerly winds would favor the fliers for the first 1,000 miles of their course. The remainder of the way will be "ticklish" sailing, and it is thought possible that Grieve will have to "bend" his course somewhat south to avoid wind and weather dangers.

A large part of Grieves's work will be in noting observations of air currents encountered.

"Although Atlantic air currents can never be marked," he said, "I hope to compile observations that will make the transatlantic passage possible with fewer uncertainties for later fliers than those which confront pioneers on the trackless way.

"We are relying chiefly on astronomical positions which we plan to obtain by use of the sextant, getting an hourly sun altitude in the daytime and working with the North Star at night. Should thick weather obscure the sky, we are prepared to use the clouds for calculating purposes, although we admit the results would be only approximate."

Not more than sixty people were present to witness the departure of the intrepid airmen and these were chiefly competitors, aviators and newspapermen. Among them were Rear Admiral Mark Kerr, of the British navy, who is to navigate the giant Handley-Page machine in its transatlantic attempt, and his pilot, Major Brackley, of the British Air Force.

Captain Alcock and Lieutenant Brown, who are to pilot the Vickers Vimy bomber now on its way here aboard the steamship Glendevon, also witnessed the start. All loudly praised the manner in which Hawker handled the Sopwith in his take off.

Concentrated rations are being carried on the Sopwith for food. The fuel supply was 340 gallons of gasolene.

Wind Blamed for Wreck

A big factor in the accident to Raynham's Martinsyde 'plane was said to be lack of full wind opposition. He was trying to "take off" on his east-and-west field with a wind exactly north of east. Full head wind is declared to be essential for a rise with a 'plane as heavily laden as Raynham's.

The weight of the plane was nearly three tons, and the great "heft" of it is believed to have brought it down after a rise of a few feet had been gained. The undercarriage was admittedly weak, and collapsed under the strain. Had Raynham been able to fly directly into the wind he probably would have attained flying speed before the axle buckled.

Missed by Twenty-five Yards

Raynham would not add to the statement he made to friends immediately after he had recovered from the temporary collapse he suffered when his craft broke down. This statement was:

"I was just beginning to get a lift. I felt the under carriage weaken, and pulled back on the control stick in an attempt to assist the machine clear of the ground. But the propeller struck, and we spilled. Another twenty-five yards and we would have been away."

Hawker had provided against such a mishap by installing an all-steel under-carriage on the Sopwith for safety in "taking off" and a device for dropping it when well off the ground. Hawker also had installed a detachable primer and hand starting magneto, both of which were left behind when he dropped his under-carriage.

After Hawker dropped his under-carriage his machine was left without any landing gear at all, and should he be successful in crossing the Atlantic, he must risk crashing his machine when landing.

Small steel rails or skids had been provided to help lessen the danger, with which it is hoped the machine may glide along the ground and come to a stop.

There is believed to be but one chance in a thousand that the speedy Sopwith biplane may make the flight successfully, but to insure that once chance every mechanical and meteorological detail must be in favor of the airmen and their machine.

Small Lifeboat Attached

When Hawker and his aide took their places in the small fuselage of the plane they were incased in full length, non-sinkable suits. This, together with the ingeniously constructed lifeboat which forms part of the cowling of the fuselage, is their only means of immediate safety should they be compelled to alight on the ocean in the course of their flight.

This boat is said to possess a considerable degree of seaworthiness and is fitted with provisions and signalling devices. In case he alights on land Hawker had early arranged to release and drop the boat by means of an automatic device controlled by a button near the pilot's seat.

Unlike the huge seaplanes of the American Navy which flew from Trepassey to the Azores on Friday last, the Sopwith machine is a purely land type of airplane. It has no pontoons to keep it afloat or permit of its being towed in case it is compelled to alight on the ocean. It is a small biplane of the scout type with a wing spread of only forty-six feet, and an overall length of thirty-one feet. It is driven forward by a twelve-cylinder Rolls Royce 375-horsepower engine, fitted with a quadruple ignition system.

Depends on 19-Hour Flight

Hawker expected his machine to make an average speed of 100 miles an hour at the start, which he hoped would be accelerated to 106 miles as soon as he released the undercarriage of the machine. A favorable wind might increase this speed. All his calculations, however, were based on a nineteen-hour flight for the 1,900 miles to Ireland.

Hawker and his companion, Grieve, are making their flight as contenders for "The London Daily Mail's" prize of $50,000 to the first successful aviator who flies across the Atlantic while observing the rules of the contest. Under these rules the flight must be completed within seventy-two hours of the start, and if the machine is compelled to alight on the water it must get off again unassisted.

Commander Grieve announced his intention of flying straight out to sea for a distance of 600 miles and then heading the machine into the regular transatlantic steamship lane. The fliers expect to land in the Brooklands aerodrome just outside of London.

Navigate by Sextant

Grieve will depend entirely upon his sextant and compass for navigating the machine for use with which the 'plane carries specially tabulated calculations drawn up before the start.

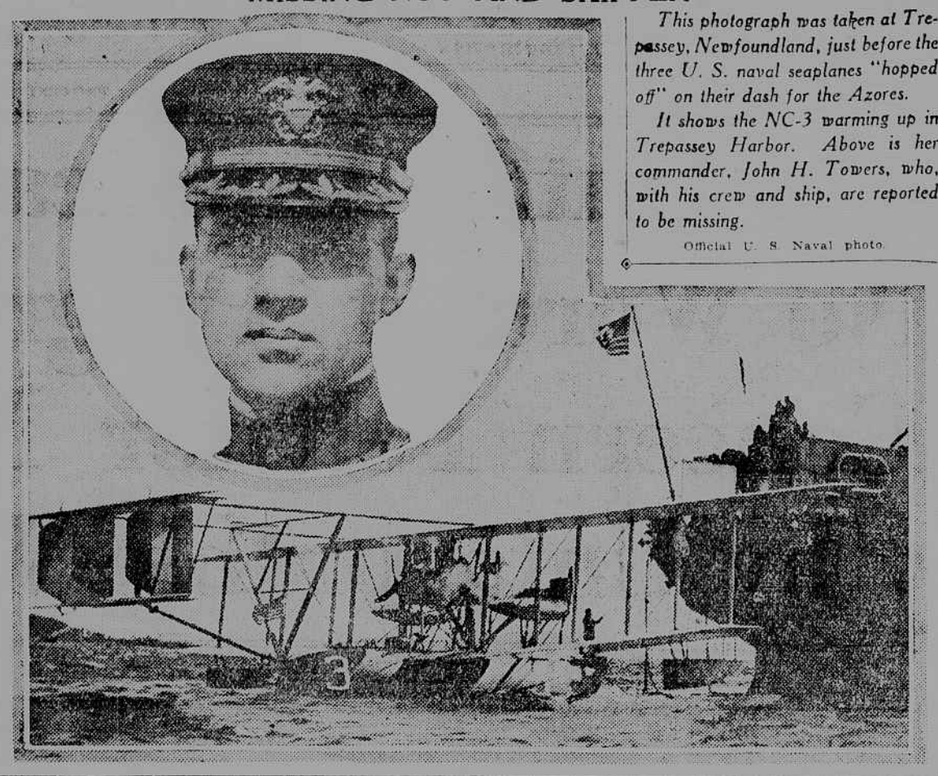
Heading east into the night they expect to meet the sun on its westward path at a time to give them a good observation for their course to approach the Irish coast, as well as to determine their exact position.

During the night Grieve said he would "shoot the stars" every two hours to obtain the position of the biplane and keep it on its course. Hawker expected to fly at an average altitude of 8,000 feet, although he said the atmospheric conditions during the flight would be the determining factor in this matter.

The romantic aspect of the adventurous flight attracted the people of St. John's to the hangar for the take-off. While all expressed admiration for the airmen, fear was expressed on all sides that the pair were riding to certain death in defying the ocean in so frail a craft.

The unknown fate which overtook Andre when he set out in a free balloon to float over the North Pole several years ago was present in the minds of all, as was also Major Wood's disastrous start from England in a Short biplane a few weeks ago. While Major Wood was fortunate in being rescued, it was chiefly due to the fact that his machine fell into the sea so close to land. The chances of Hawker in case of engine trouble are not nearly so good.

MISSING NC-3 AND SKIPPER



This photograph was taken at Trepassey, Newfoundland, just before the three U. S. naval seaplanes "hopped off" on their dash for the Azores.

It shows the NC-3 warming up in Trepassey Harbor. Above is her commander, John H. Towers, who, with his crew and ship, are reported to be missing.

Official U. S. Naval photo.

Many Air Prizes Won by Hawker

Over-Atlantic Dash Is Climax of Notable Career of Australian

Harry G. Hawker, chief of the Sopwith team that flew yesterday for Ireland, is an Australian, 27 years old, who has won fame in the development of aviation. He was one of the few mechanics who rose to the rank of flier under the tutelage of Tom Sopwith, the famous British aviator, since turned manufacturer.

Yesterday's attempt to cross the Atlantic, with its probability of disaster and death for the fliers, was but an incident in the checkered career of Hawker.

Hawker is known throughout the British empire as the man who refuses to fly by the rules of others. He is credited with making his own, defying custom, and usually, at least, accomplishing his purpose. Practically every autograph hunter in the British isles, chiefly among the feminine signature hunters, has his name between the covers of an album.

Hawker first attained world fame, when in August, 1913, he attempted to win the $25,000 prize offered by "The Daily Mail" to the first aviator to encircle the British isles in a hydroplane. The flight was to have been made in seventy-two hours.

The daring avintor ascended from Oban at 6:40 o'clock in the morning before as great a crowd of spectators as ever had witnessed a flight there. He traversed 1,043 of the 1,540-mile course, remained in the air for seven hours and then fell into the sea because of engine trouble. But he broke several records and no bones by so doing, and the judges decided he had accomplished almost as much for aviation by his efforts as if he had completed the trip about the islands.

"The London Daily Mail" agreed to give him a consolation prize of $5,000 for his pains and he was awarded a medal by a group of aviators, who complimented him upon his service to the science of flying.

In competition with the greatest aviators in Europe, Hawker won the British Michelin prize for continuous flight. He created what in 1912 was a new record by remaining in the air for eight hours and twenty-three minutes.

He has made scores of long distance flights in Europe. He made two new world records for long distance. Also he won a prize offered by an aviation organization in London in 1916 for hanging up a new world's record for altitude. He reached an altitude of 28,500 feet under an official test.

Martinsyde Mishap Not Unexpected

Experts Always Doubted Whether Small 'Planes Would Cross in Safety

Neither of the Martinsyde fliers, whose machine was smashed at the start yesterday, set out on their adventure with eyes closed to the dangers that confronted them. That they escaped with as slight injuries as early dispatches indicate came more as a surprise to those who had watched the flight than otherwise.

Before Captain F. P. Raynham and Captain Morgan took to the clouds or as near to them as they got yesterday—wagers were being made as to their ability to negotiate the trip or any part of it without the loss of the life of at least one of the two. The odds always were in favor of death rather than the survival of the fliers.

A dispatch to The Tribune April 16 said:

"Spectators believe the chances of the Martinsyde men escaping death are very slight, owing to the smallness of their machine, the lack of a boat or other life saving apparatus and the strain on the occupants during the long journey."

But Raynham, who had faced death in many forms so often as to have become contemptuous of it, belittled these pessimistic forecasts of disaster. He said the dangers of flying over water were not as great as those of flying over land, that he had remained in the air longer while flying over land than would be required on this voyage and that he had a feeling that he would make the flight without difficulty.

"If we fall in the water there is not the danger of being dashed to pieces that always confronts one in a fall on the ground," he said. "Besides our rubber suits should serve to save us if we fall into the water any distance from the boats."

Destroyers Fail To Find Trace Of Lost NC-3

Continued from page 1

northwesterly wind and rough seas prevailing."

The members of the crew of NC-3 in addition to Commander Towers are: Commander H. C. Richardson, Lieutenant D. N. McCullough, Lieutenant Commander R. A. Lavender and Machinist L. R. Moore.

British Ministry Reports Sky Clear

LONDON, May 18.—Meteorological conditions favorable for a continuation of the transatlantic flight of the American naval seaplane NC-4 from the Azores to Lisbon are reported by the Air Ministry to-day. The statement says:

"Conditions generally are favorable for continuing the flight to Lisbon. The barometric pressure is falling somewhat in the Azores. There is mist at Ponta Delgada, but the winds are light and westerly.

"Conditions on the direct Atlantic route are improving."

PONTA DELGADA, May 18 (By The Associated Press).—The NC-4, which arrived safely at Horta Saturday morning, reported that the weather there early to-day was unfavorable for a continuation of the flight to Ponta Delgada.

At 11:15 o'clock this morning nothing had yet been heard from the NC-3, reported lost in the fog off Fayal.

The cruiser Columbia at Horta, Fayal, reported shortly after noon that she had intercepted messages passing between destroyers to the effect that the missing seaplane NC-3 had been forced to alight between Stations 17 and 18, where the seaplane was last heard from at 9:15 o'clock, Greenwich time, Saturday morning. The Columbia reported that destroyers were searching for the flagship of the seaplane fleet.

A wireless message from the destroyer Harding said the destroyer Fairfax was towing the NC-1 into Horta. The crew of the NC-1, headed by Lieutenant-Commander Bellinger, are expected at Horta to-night on the steamship Ionia, which rescued them ninety-five miles west of Fayal.

The NC-1 was found by the Harding thirty miles from the point where the crew abandoned it at 10 o'clock Sunday morning. The Harding reported the right wing and one pontoon of the NC-1 were damaged and that a propeller had been broken.

The steamship Ionia is probably the Greek ship of that name. It left New York May 4 for Norfolk. Arriving at Norfolk May 6, the Ionia departed the same day for Gibraltar and would have been in the path of the transatlantic flight.

British Bow to U. S. Fliers; Pity Own Men

Grahame-White Says Flight to Azores Is Object Lesson to Admiralty

LONDON, May 18 (By The Associated Press).—Claude Grahame-White, the aviator, although not unduly surprised that the Americans succeeded in accomplishing the most dangerous part of the transatlantic flight, says he is thoroughly delighted with the great enterprise shown. He says that the flight is an object lesson to the British authorities because, as far as the British machines are concerned, the flight means life or death, as there is no chain of destroyers to pick them up if they meet with an accident.

J. A. Whitehead, managing director of the Whitehead Aircraft Company, says that irrespective of nationality the great feat of crossing nearly 1,400 miles of open sea marks a tremendous era in the progress of aviation. The Americans, he says, had the advantage of a patrolled course and, therefore, the probabilities of life and death did not enter into their calculations as they must with the British aviators.

The American flight was a good one in the opinion of Colonel V. L. Henderson, a pilot and member of the House of Commons for Glasgow, but with a trail of destroyers was comparatively easy and without risk to the airmen. He added:

"It makes one sad to think our men should have so little practical assistance from the Air Ministry. Even the Americans admit our men are as good as theirs. There is no doubt our machines are better."

G. Hold Thomas, an authority on aeronautics and who was identified with several flying feats some years ago, attributes the American success to "organization" and "national effort." He added that criticism of the Admiralty is not helping the British contestants. He said his suggestion that destroyers or even captured German submarines be placed along the route from Newfoundland to Ireland met with the response: "The expense is too enormous."

Mrs. Hawker, wife of Harry Hawker, the Australian aviator, said: "Our boys have had no help at all. Even the weather reports are unsatisfactory."

Lt. Parsons Doubts Sea Trade in Air

Pranks of Ocean Must Be Tamed First, He Says; Praises NC's Exploit

The feat accomplished by the NC-4 in its successful flight from America to the Azores will go down in history as one of the most daring exploits of the air, but it is extravagant to think it opens new vistas for commercial ocean flying, in the opinion of Lieutenant E. C. Parsons, a noted aviator, who passed three years at the front and has fifteen German machines to his credit.

Lieutenant Parsons joined the Lafayette Escadrille in 1915 and became a member of the Guynemer flying corps when the former organization joined the American flying forces. He wears two French and two Belgian decorations. When seen at the American Flying Club, 297 Madison Avenue, yesterday, he differed with Major Thomas S. Baldwin, who declared in The Tribune yesterday that the achievement of the NC-4 marks the beginning of ocean travel by air on a large scale.

"I regard the feat of the NC-4 as possibly the most remarkable flying exploit in the history of aviation," he said. It was, however, a combination of daring, good luck and careful preparation. Without the lane of American destroyers it is questionable whether the feat would have been accomplished.

"As far as making airplanes for passenger and freight carrying is concerned, that is quite without the bounds of probability. I understand that hundreds of thousands of dollars have been expended by the Navy Department in preparation for the flights of the NC machines. The cost is too great to make the use of airplanes across the ocean for commercial purposes profitable."

Sees Future for "Blimps"

Lieutenant Parsons was of the opinion that lighter than air machines stand a much better chance of becoming ocean carriers than heavier than air craft. He believes the "blimp" balloons eventually may be perfected to permit their use in passenger travel across the Atlantic.

Lieutenant Parsons thinks the attempt of Harry Hawker, the British aviator, to cross the Atlantic is "nothing short of suicidal."

"If Hawker succeeds," he said, "he will have accomplished something in the way of daring which no human being ever achieved. But frankly I do not see how he can do it. He has none of the protective and guiding features of our NC 'planes and dropped his wheels when he left Newfoundland. Even if he should succeed in crossing he will have a pretty tough time of it in landing on the Irish coast. It is the most devilish-daring thing any aviator ever attempted."

Air Route Maps Over Sea Needed

Now that aero flights have been extended over the Atlantic distance and with an ease which seems to assure future flights over seas in all directions, aeronauts are considering two important projects: mapping of aerial routes over the ocean, as they are now being mapped over land, and establishment of landing fields with special reference to convenience of outbound and incoming transoceanic aircraft.

To the average landlubber the sky may seem sufficiently clear of obstacles to need no special road marking. It used to be the feeling of the early aeronaut that once in the sky he needed no guide posts, but could fly in any direction with complete freedom.

Although this remains true in a sense, it has been found convenient and practical to map out air routes which are just as definite as ocean routes for steamships. It was found that if aeroplanes were to travel long distances and land without loss of time well mapped routes would have to be provided and regular supply stations established.

44,058 Miles of Sky Roads

The work of mapping the routes for the United States army was intrusted to Captain Archie Miller, of the Division of Military Aeronautics, whose work comprised the projected laying out of 44,058 miles of sky roadways. More than 75 per cent of this work already has been accomplished.

As flying over the ocean, accelerated by the success of the flight to the Azores, is extended, it will be necessary, in the opinion of experts, to map the routes over the ocean just as they are now being mapped over the land.

Landing Places Essential

First consideration will be given to distance; aerial routes will be selected with special reference to the nearness of land points between which the flights are to be made. Then will come the question of providing possible landings in midocean. It would not be practicable to mark each air route with a line of warships, as was done in the case of the United States naval 'planes.

Aeronauts believe ocean flying will develop non-stop flying and that in a short time a flight from New York to any part of Europe will not be considered unusual. But meantime, to protect the fliers and to help develop non-stop flying, some means must be found to extend help to any machine that might have to come to the surface of the water in midocean because of a mishap.

It has been proposed that one transoceanic air route be mapped out as an experiment—probably the route from Newfoundland to the Azores. The idea is to mark the route with floating stations where supplies of oil, gas and airplane parts may be had. Scientific data from the men who are now flying the Atlantic will be awaited to determine whether the weather and air conditions over this route warrant its being selected as a permanent air roadway.

Flight Recorded On Log of Navy

Government Advices Report All Details of the Movements of 'Planes

New York Tribune Washington Bureau

WASHINGTON, May 18.—The log of transatlantic flight based on advices received by the Navy Department, follows:

8:54 a. m. from Admiral Jackson: "Following received from NC-4: 'Weather conditions unfavorable. Will not attempt flight this morning. 0318 (4:31 a. m. New York time).

9:37 a. m. from Admiral Jackson: "No information regarding NC-3. Have directed destroyers east of station ship 16 to search and report. 10418 (6:40 a. m. New York time.")

From Admiral Knapp, at London, received 12:35 p. m., May 18: "Following received from British air ministry: 'The air council request that you will communicate to the United States Navy Department their congratulations on the successful flight of the three navy seaplanes from America to the Azores and their good wishes for the successful completion of the transatlantic flight.'"

Following received from U. S. S. Harding from Ponta Delgada at 3:30 p. m. "Report 'plane NC-1 broken lower 'planes badly damaged; pontoon

Continued on next page

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Income Tax Bills

The Governor has signed the New York State Income Tax Bill and the Corporation Franchise Tax Bill.

These two bills have now become laws and are of interest to lawyers, residents who have an income of $1,000 or more, non-residents doing business or employed in the State and employers of non-residents.

Following our usual custom, we have prepared copies of these bills and copies may be had on application at any of the offices of the Company.

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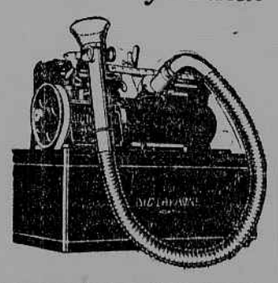

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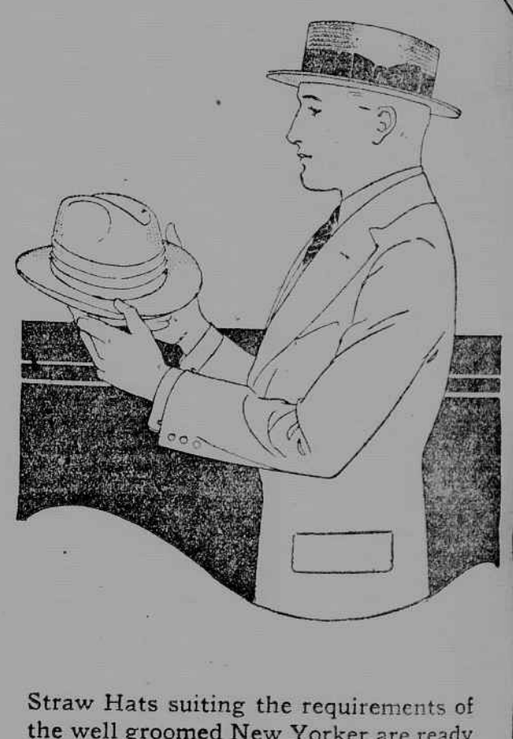

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