AMUNDSEN WILL CHAT WITH REST OF WORLD WHILE DRIFTING OR FLYING OVER NORTH POLE

Intrepid Norwegian Expects to Learn Secrets of Storms in Five Years' Trip Into Frozen Fastnesses; Will Make Greatest Gift to Science if Successful

BRAVE CREW SAILS FROM SEATTLE UPON CROWNING TRIP OF EXPLORER'S LIFE

Man Who Discovered South Pole Will Climax 30 Years of Battling With Elements at Earth's End by Journey to Uncover Mysteries of Arctic Sea by Airplane Flights

WHEN Captain Roald Amundsen set sail from Seattle this month on the good ship Maud, he embarked on the most romantic adventure the world has ever seen.

He will be gone from three to five years, possibly longer. It is his plan to lock his ship in the ice and drift across the top of the world. If lucky, he will land in Norway—and be home. He will pass the Pole en route.

Such is the purpose of the most intrepid living explorer of polar regions—an explorer and scientist whose contributions to the knowledge of life and physical conditions there promise to surpass in extent and importance those of all his fellows who have gone before.

Discoverer of the South Pole, holding medals for first forcing the northwest passage between the Atlantic and the Pacific, and later the northeast passage, he has spent his life in the ice. He laughs at his perils and hazards. It is all in the day's work with him.

Now, to cap thirty years' experience in the Arctic and Antarctic regions, Amundsen has started north again. This time he goes as the scientist rather than the explorer. He will chart ocean and wind currents rather than coast lines. And he will have, to aid him and relieve the tedium of the trip, the benefit of scientific inventions and discoveries not available to his predecessors.

Will Get Radio Concerts While in Frozen North

From the depths of the silent Arctic, Amundsen will keep in touch with civilization by radio. His ship is equipped with a powerful wireless set and radio telephone equipment. He will send daily weather reports from the day he starts until the day his journey ends. And he will listen, at the top of the world, for cheering messages from the world's most powerful radio stations, and for the news of the day

And while the ship slowly drifts across the polar sea, Amundsen and his party of eight will gather important meteorological data, take scientific observations and soundings, and record the rise of the tides and the movement of ocean currents. His field of operations will be the endless white waste where life cannot normally exist. As the ice pack moves, airplanes operating from the deck of the Maud will be used for observations.

Only a limited group of scientists are familiar with all of Amundsen's hopes. But it can be said that if all goes well, and his theories work out, the farmer in Kansas and the vineyardist in France may benefit from his venture. The influence of air and ocean currents on climate has only been suggested by the studies of these subjects to date. Amundsen, when he returns to civilization, may be able to tell the world of science where, when, how and why storms originate; how the ocean flows, and how the flow of the polar currents—air and water alike—affects the affairs of the earth. It is from these studies, and the plans for conducting them, that the project derives its importance. Beside what Amundsen may discover on his present trip with respect to the workings of physical laws, the mere discovery of either the North or South Pole would pale into insignificance except as a tribute to human hardihood and courage.

When he comes out of the North three or five years hence he hopes to have explicit and comprehensive data on the dead calms of the polar night, the aurora borealis, magnetic storms, the origin and course of hurricanes and the affinity of the seas. This knowledge, linked with that already available on similar subjects, will prove or disprove theories that have long been a source of controversy and study, as well as prove of the utmost practical value in itself.

Stanch Little Ship Home of Nine Men

All this contemplates and is contingent on the survival of the stout little 300-ton, egg-shaped ship which Amundsen will lock in the ice as the home of himself and associates for the next few years. It is built for use in the Arctic. It is constructed to escape the crushing force of polar ice. It has proved its worth in the past, having gone through the northwest passage. But its most severe test is to come. It will be called on to resist the pressure of icebergs weighing millions of tons, as they shift about in the sea. And the airplanes which the party carries for its observations must withstand the force of hurricanes which move the icebergs about, which sometimes travel thousands of miles and which some authorities hold to be a part of the basic forces which cause the earth's great storms.

There are chances to be taken, but they are all in the game. An explorer's life is not one of ease or safety. Yet Amundsen laughs at its hazards. His own life and those of his companions, he declares, are safer than that of a Chestnut street stroller.

Amundsen planned his present trip twelve years ago. This was before he drove for the South Pole and discovered it December 6, 1911. Prior to that, in 1903-06, he had forced the northwest passage, the first to do it. And in 1918-21 he forced the northeast passage, the first time it had been done. That completed his circumnavigation of the Arctic archipelago. He has circled the Arctic ocean. He hopes now to drift across it.

In this attempt he has no rivals or competitors. He is not engaged in a race. It is secondary whether he crosses the North Pole. If the ice drifts the way he thinks it does, he will cross it. If not—he may try again! But probably not, for Amundsen is getting along in years. And trips to the Pole take time.

In the next few weeks he will pass through Bering Strait, the gateway to the Arctic, and the North will swallow him up. After that only the radio will keep him in touch with the world. His course will be set for Christiania, Norway—up one side of the world and down the other—where Camilla and Cakonita await him. Camilla and Cakonita are two little girls from the Arctic whom Amundsen adopted. They are members of the Tsjuktsji tribe. They accompanied him to New York when he came to this country to study and confer with scientists and make arrangements for his trip prior to his departure. Then they returned to Norway. There they will await the return of their foster-father and benefactor from the grip of the frozen North. They fully believe he'll come back. Still—few have ever done it.

Tells of Great Things Explorer May Find

Henry Woodhouse, president of the Aerial League of America, friend of Amundsen and one of the organizers of his present polar expedition, says concerning the venture:

"No one has ever drifted with the Arctic ice across the top of the world!

"While it is known that the Arctic ice drifts, there are no data available regarding the speed and exact direction of drift. The Amundsen expedition on the Maud may be carried by the drifting ice from a point north of Bering Strait, in the vicinity of Wrangell Island, across the North Pole to the Greenland Sea, but no one may anticipate exactly when the drift will be and how long it will take. On one of the maps he marked for me the approximate distance he expects will be covered each year, but that is to be a secret.

"Captain Amundsen anticipates that it will require at least four years to drift across the top of the world, and the expedition is equipped for seven years. While the ship is drifting there will be made scientific observations and soundings and airplanes will be used to conduct surveys and take aerial photographs of the Arctic area about which nothing is known today.

"It is a revolutionizing expedition in many ways—revolutionizing the most ancient branch of science—exploration. Only one-seventh of the earth's surface has been accurately mapped, and two-thirds have been mapped only from rough sketches, and the remainder has not been surveyed at all.

"Our present knowledge of the earth, its form, size, the configuration of its surface features, their measurements and representations on maps as we see them today is the result of many centuries of strenuous endeavor and conquest over obstacles. Yet, at the present time, only one-seventh of the earth's land surface has thus far been accurately mapped, and it would take at least two hundred years to complete the task—with the usual methods.

"Aircraft will make it possible to do in twenty years what would require two hundred years with the usual methods.

Ready to Use Airplane If Ice Crushes Ship

"The Amundsen expedition has two airplanes, but only one, the metal J1, can be used to fly to the mainland in the event the ship is crushed by the ice, the radius of the other being inadequate for such long flight. It is intended for use for observation and flights of a few hours' duration.

"The metal airplane was selected because it made a non-stop flight of twenty-six hours and nineteen minutes in the bitter cold weather of December 29-30, 1921, and has been flown to Northwest Canada as far as Fort Norman, near the Arctic Circle.

"Modifications were made to carry sufficient fuel to permit a non-stop flight of over two thousand miles, so that Captain Amundsen and an aviator and a mechanic can fly out of any place where they may be in the unknown Arctic regions. The distance from any point to the mainland in any direction is within two thousand miles and can be made by this airplane if nothing interferes. There are a number of big problems in this if—but Amundsen has carefully figured out how he can solve them."

Woodhouse tells a story to illustrate the sacrifices an explorer makes in "losing" himself in the unknown for periods of several years. They were "seeing" New York and talking of various things, when Woodhouse asked:

"What did you think when you heard the Atlantic had been flown?"

"What did you say?" Amundsen asked, puzzled.

The question was repeated, but Amundsen professed not to understand it.

Didn't Know Airships Had Crossed Atlantic

"When will it be flown?" he asked. As Woodhouse tells what followed:

"Don't you know it was crossed four times—once by our navy's flying boats; once a non-stop flight by the British aviators, Alcock and Brown, and twice by the British dirigible, the R-34?"

"Without stop—across the Atlantic?" he loked at me incredulously. I told him the details of these four epochal flights. He was amazed.

"Without stop?" he kept repeating. Then he proceeded to explain how it happened that he did not know about these three-year-old achievements.

"I was at Cape Chelyuskin when it happened. I have been in the United States six months since my return from making the northeast passage and have been so busy with my next expedition that I have not been able to find out what has happened."

To friends, afterward, Amundsen replied when asked what he would use the radio for:

"We are not going to appear to be simple-minded ignoramuses any more."

"What if the ship is crushed?"

"Then we will be again primitive explorers cut off from the civilized world," Amundsen told friends. "We may tell the world before the radio plant sinks with the ship. The airplane may take three of us back to civilization. We would get up an aerial expedition to rescue the others. Nothing else could get to them."

One Native to Go With Eight White Explorers

Captain Amundsen is in command. The personnel of the expedition is:

Oscar Wistnig, master; H. U. Sverdrop, scientist; G. Olonkin, engineer; N. Syvertsen, engineer; Lieutenant Omdal, J. Fullerton and Sergeant N. Dahl, aviators and radio operators, and Cakot, a native.

Amundsen's first scheme was to enter the ice east of the New Siberian islands. If this had succeeded, it would have taken the party across the Pole in the course of three years. But had it been unsuccessful, he held, then he dared not try again. In entering the ice at Wrangell Island he figures on four, perhaps five, years, with a greater chance of success.

The wireless radius from the Maud is 2000 miles. The Stavanger wireless station will be able to reach him the whole of his absence, if nothing goes wrong. Amundsen will send weather reports, which will be transmitted by way of Washington to Christiania. On part of his trip, at least, he will be in touch by wireless with stations in Alaska, Bering Sea and Norway.

While in New York in March Captain Amundsen said of the radio:

"We cannot ignore the possible benefits of the radio telephone on this trip. Advances in radio have been so great in the last few years, particularly in the field of wireless telephony, that it is probable that a voice from the silent North may call out each day to tell the known world what lies locked within the ice of the polar seas."

A powerful radio telephone set bought in this country is linked up on the Maud with the 200-mile Marconi wireless set carried by the vessel.

The monoplane which he carries is equipped with wheels, pontoons and skis for landing and taking off on land, water or snow. The machine itself weighs about 2400 pounds, has a thirty-foot wing spread and is capable of carrying 3000 pounds, or one and one-quarter times its own weight.

"I feel this is going to be the crowning achievement of my life," he said recently. "The north polar basin is included in a territory of some millions of square miles which have never been visited by scientists. There is no way to penetrate that region by vessel because of the drifting ice. We will take our metal plane hundreds of miles away from the mother ship and operate independently. We will use the smaller plane for scout purposes and to show us the best course over the ice."

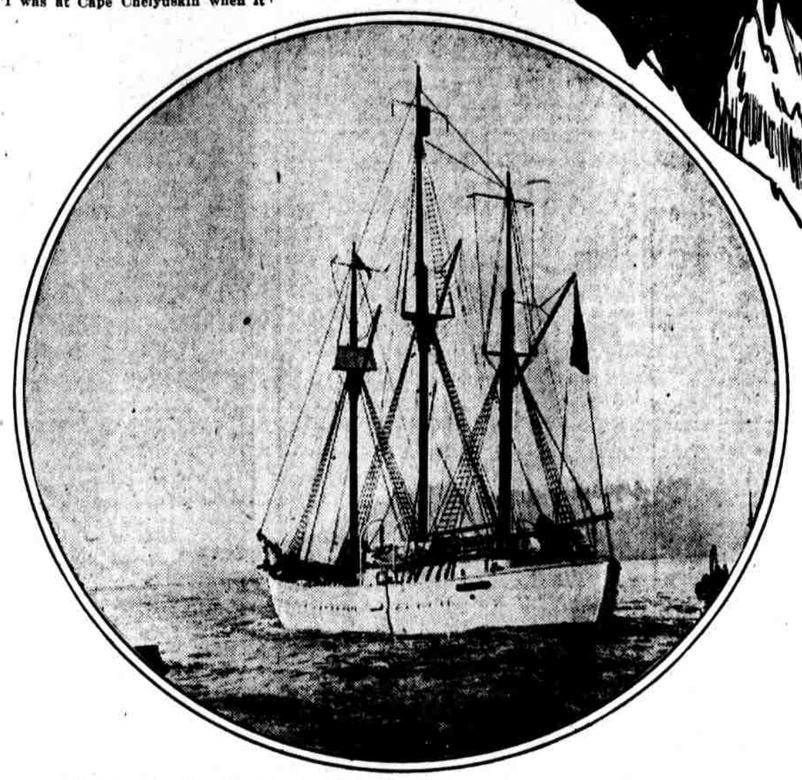
Lieutenant Omdal, of the Norwegian navy, is the chief air officer of the expedition. The element of danger in their plans to survey the polar basin from the air is suggested by the fact that Amundsen, Omdal and three flying companions narrowly escaped death in April when this same metal monoplane, in which they were flying from New York to Cleveland, was forced down in a field near Clarion, Pa. Its occupants were scratched and bruised. Captain Amundsen attributed the accident to an overheated motor, which forced him to descend after he had reached an altitude of 6000 feet. In making the landing the plane turned over.

Amundsen Doesn't Hope to Colonize the Pole

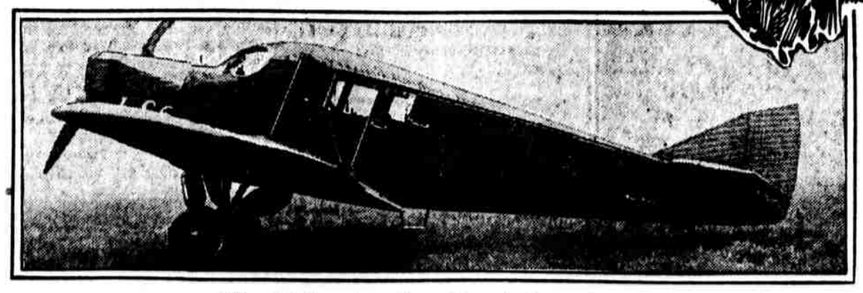
There is slight possibility that the expedition will point the way to utilization of the Arctic or to the introduction of civilization into those regions, as Captain Amundsen views it. He is convinced that habitability of regions above the eightieth parallel is doubtful, and above the eighty-fifth parallel impossible. No less an authority than Nansen, when he drifted across the polar basin back in the 90's, found no evidence of life above the eighty-fifth parallel. Below that Captain Amundsen thinks there might be a possibility of inhabitation to a limited degree, but his own observations in the North compel him to agree with Nansen that conditions above that are too severe for human beings to live there.

As to resources, such as coal and minerals, there might be quantities untouched and undiscovered in the Far North, but the conditions naturally preclude their development, in his opinion. The shifting character of the ice, he holds, would make it impossible to operate even in territory which is occasionally accessible. This condition convinces him that regions which might be habitable one year would not be found so consistently.

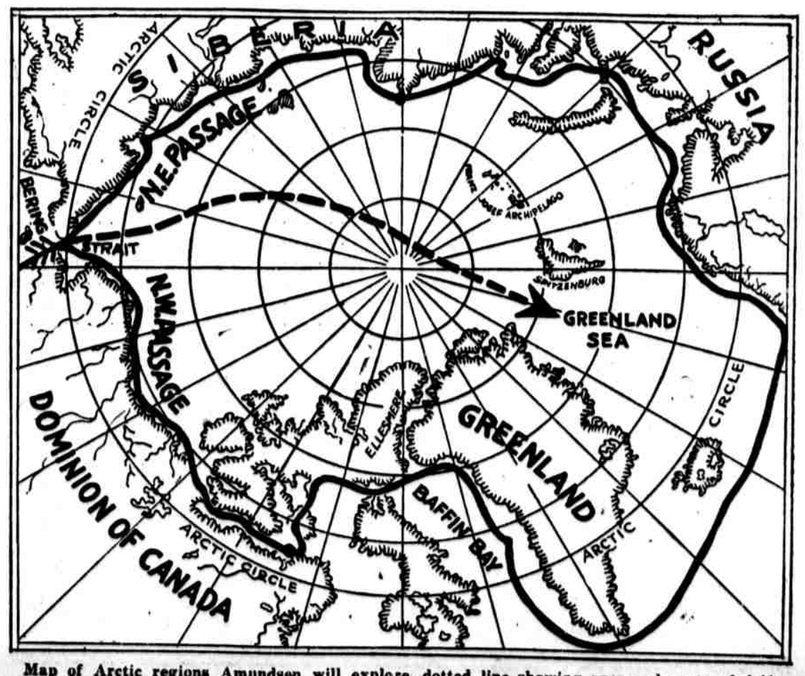
At Nome, Alaska, the Maud will stop to take on dogs—a smaller number than Captain Amundsen usually takes. For food he expects to use seal, bear and other animals, as well as fish, though insisting that the expedition will carry food supplies for a seven-year absence.



Amundsen's ship, the Maud, sailing from Seattle



All-metal plane Amundsen will use to fly over ice fields



Map of Arctic regions Amundsen will explore, dotted line showing proposed route of drift toward and over Pole

Amundsen at wheel of his ship

Conferred in America With Noted Scientists

Before departing for the North he spent eight months in the United States preparing for the trip. He made several trips to Philadelphia. On January 16 last he visited the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, to complete arrangements for co-operative work between the department and his expedition in terrestrial magnetism and atmospheric electricity. During his Northeast Passage (1918-21) the Amundsen expedition made a series of highly valuable magnetic observations at more than fifty points. While in this country he also paid a visit to the non-magnetic ship Carnegie, and discussed with a group of scientists his plans to obtain scientific data relating to geography, oceanography, meteorology, gravity, terrestrial magnetism and atmospheric electricity.

Dr. Sverdrup, his chief scientific assistant, associated himself with the Carnegie Institution last October to complete the reduction and publication of the magnetic observations obtained in the earlier Arctic expeditions.

Although the expenses of the expeditions are paid by the Norwegian Government, it is generally acknowledged that American scientists and supporters have contributed in important measure to the success of the expeditions.

Dr. Sverdrup intends to devote his time particularly to investigations of the physical condition of the Arctic Sea. On account of the connection between the Polar Sea and the Northern Atlantic, it is of far-reaching importance to determine the temperature, currents, salt per cent and other conditions of the Polar basin, and the facilities for scientific observations along this line should be most excellent, in so far as the vessel drifts with the ice over the Polar Sea in its entire length. Other investigations planned include the magnetic observations to be carried on in co-operation with the Carnegie Institution, and collection of zoological material and meteorological observations. The latter will be of special importance.

Dr. Sverdrup voiced great enthusiasm for the spirit of helpfulness and good will demonstrated by this and other scientific institutions in Washington. The Department of Terrestrial Magnetism has placed at the disposal of the expedition instruments for air-electrical observations, electrical thermometers for determining the temperature of the ice and other valuable scientific tools. Important services have likewise been rendered by the United States Weather Bureau, the Smithsonian Institution, the United States Coast and Geodetic Survey and others.

For his previous explorations Captain Amundsen has been feted, decorated and honored in many ways. The Hubbard Medal was bestowed on him by the National Geographic Society in 1907 for forcing the Northwest passage and the definite relocation of the Magnetic Pole. The society also bestowed a special gold medal in 1913 for his Antarctic achievement resulting in the attainment of the South Pole.

When word was flashed that he had discovered the South Pole the National Geographic Magazine, official publication of the National Geographic Society, said concerning his exploit:

"Many geographers had feared that Amundsen would yield to the temptation of following, for a considerable part of the way to the South Pole the route previously discovered and opened by Shackleton, but his account shows that he was not satisfied to do this, and in consequence he has made discoveries and surveys that are entirely new.

"The whole distance traversed by him—approximately 700 miles from his base, where he moored his ship to ice-front—to the pole itself appears to have been across previously untraversed and unknown ice and land. He has defined the Eastern and Southern boundaries of the Great Ice Barrier, that vast plain of floating ice which flows down from the great Antarctic Continent, and whose Western boundary had been defined previously by Shackleton. This enormous glacial ice plain is one of the wonders of the world. It is a solid mass of ice, floating for the most part, approximately 800 to 1600 feet thick, and covering an area of about 100,000 square miles, or considerably larger than New York, Massachusetts, New Hampshire and Vermont combined.

"Amundsen found traveling across the barrier comparatively easy. He marched 382 geographical miles due South across the plain until he was confronted by the high mountains. Here he was so fortunate as to find a glacier route up to the inland plateau easier than the Beardmore Glacier, which was used by Shackleton to ascend to the inland plateau three years before.

"Amundsen and four companions accomplished the ascent from the ice plain to the plateau, 10,500 feet, in the marvelously short time of four days. He was now about 275 miles from the Pole, and thence onward his greatest difficulties were encountered. The rare atmosphere at this high elevation made breathing difficult. Storms delayed them, but they pushed on and reached the Pole December 14, staying there for three days. The pole is at an elevation of 10,500 feet. Amundsen reports a lofty chain of mountains, some attaining 15,000 feet, extending southeastward as far as he could see. The chain is probably an extension of the lofty range seen by Shackleton, and probably stretches across the South Polar area to Waddell Sea.

Amundsen's Skill in Ice Ranked Next to Peary's

"Shackleton in 1909 reached a point so near the South Pole that we have known pretty accurately the conditions at that extreme point, so that the part of Amundsen's narrative dealing with the Pole itself, while highly entertaining, is not so important or novel as it would otherwise have been.

"Amundsen owes his success to his very carefully prepared equipment, to his splendid dogs and his skill in handling them, and to many years of experience in battling with the ice and snow of the far North. Next to Peary he is the most experienced traveler on ice in the world."

The following notes from his cable to the New York Times illustrate the minute care with which every detail was anticipated:

"Washing was a luxury never indulged in on the journey, nor was there any shaving; but, as the beard has to be kept short, to prevent ice accumulating from one's breath, a beard-cutting machine which we had taken along proved invaluable. Another article taken was a tooth extractor, and this also proved valuable, for one man had a tooth which became so bad that it was absolutely essential that it should be pulled out, and this could hardly have been done without a proper instrument.

"For food we relied entirely on pemmican, biscuits, chocolates, powdered milk, and, of course, dog meat. The dogs were fed on pemmican.

"In my opinion we had the best and most satisfying provisions possible. In fact, from the beginning to the end of the journey we never felt an undue craving for something to eat or any feeling of not having had sufficient nourishment."