The years 1924 and 1925 were eventful both for aerial Arctic exploration and for Richard Byrd. In 1924, President Calvin Coolidge authorized a plan according to which a U.S. Navy dirigible, the *Shenandoah*, would fly from Point Barrow in Alaska, pass over the North Pole, and then land at Spitzbergen in Norway. Scientists and veterans of polar exploration like Captain Robert Bartlett, who had accompanied Robert Peary in 1909, lobbied for the attempt. The expedition was the project of the Navy Bureau of Aeronautics and Admiral William Moffett. Byrd, who reported to Moffett, was responsible for planning the expedition and doing the navigating. Unfortunately, in January storms damaged the *Shenandoah*, and the expedition ended before it began.

Byrd and Bartlett, undaunted, continued to plan for an aerial expedition to the north. Because Congress seemed reluctant, they decided to raise the money from private backers, as Peary and Cook had done. Bartlett agreed to find a suitable vessel and generous donors; Byrd's job was to ask the Navy for seaplanes and help with fund-raising. Byrd went to Detroit, met with Edsel Ford, and won his promise of $15,000. John D. Rockefeller contributed a similar amount, and the expedition seemed likely to become a reality.

Byrd and Bartlett were not without competitors. In 1924, Roald Amundsen, who had reached the South Pole by dogsled in 1911, planned to fly airplanes into Greenland and the Arctic. Amundsen allied himself with Commander Lincoln Ellsworth, the son of an American millionaire, to purchase planes and begin an expedition in 1925. Byrd had originally volunteered to join Amundsen, but he was rejected.

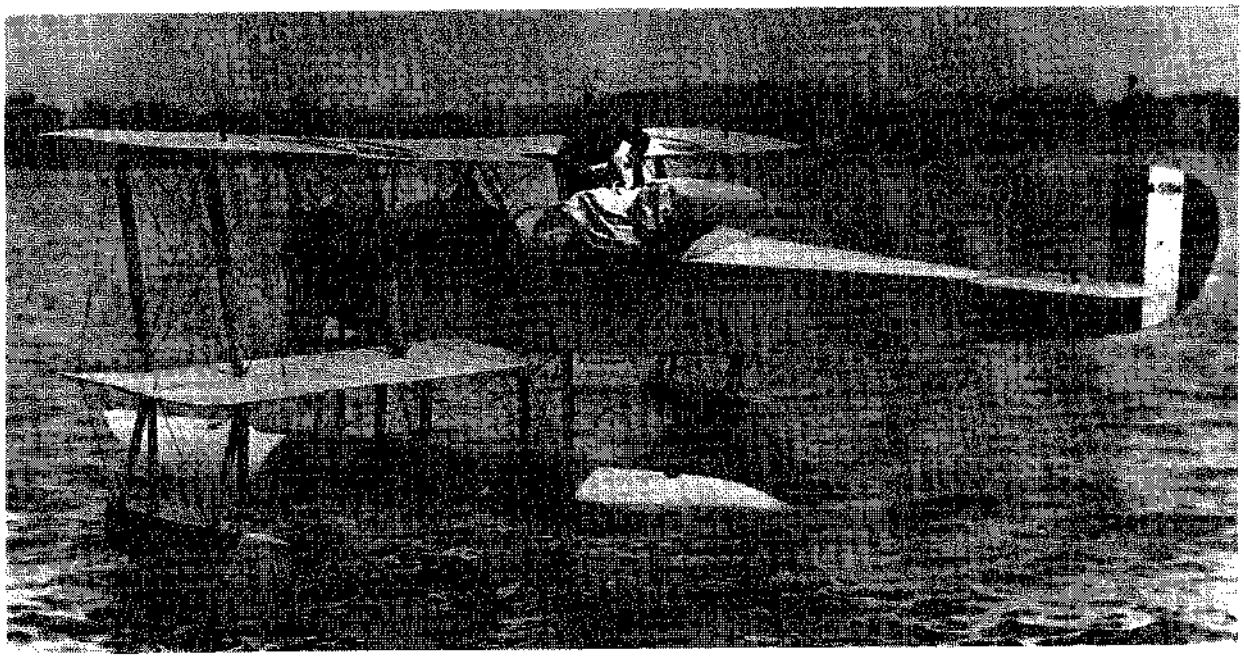
Another competitor and a veteran polar explorer was Don-

ald MacMillan. MacMillan and Bartlett had both been members of Peary's last expedition to the North Pole in 1909. MacMillan had remained active in exploring Labrador, Greenland, and the Arctic, and he had the kind of backing from universities and scientific organizations that Byrd lacked. Between 1913 and 1917, for example, the American Museum of Natural History, the American Geographical Society, and the University of Illinois had helped finance his explorations of northern Greenland, which disproved the existence of "Crocker Land." His expeditions included extensive work in geology, botany, ornithology, meteorology, ethnology, and anthropology.

In 1923 and 1924 MacMillan returned to Greenland and explored Cape Sabine and Ellesmere Island, again with the support of prominent institutions and organizations, including the Carnegie Institution and the National Geographic Society (which had given Peary large subsidies). With the help of the National Geographic Society, MacMillan proposed to return to Greenland in 1925. This time he planned to use seaplanes to extend his area of exploration, and he asked the U.S. Navy for assistance.[3]

MacMillan's request created a dilemma. The Navy had only three seaplanes available, certainly not enough to supply both Byrd's and MacMillan's expeditions. A decision to help out only one explorer would have been difficult to make—and probably controversial. On the one hand, MacMillan had earned the respect of universities and scientific organizations for his work. On the other, Byrd was an expert in navigation, a retired naval

3. Everett S. Allen, *Arctic Odyssey: The Life of Rear Admiral Donald B. MacMillan* (New York: Dodd, Mead, 1962), 314–21.



Byrd inflating a new raft especially designed for the MacMillan expedition, 1925. (BP, folder 7708)

officer, and a man who had wanted to stretch the limits of flight and aeronautical navigation for some time. Byrd also had some political influence both in Congress and among men of wealth, as well as a brother who had been elected governor of Virginia.

The result was a compromise. The Navy lent three airplanes and eight officers, mechanics, and pilots—under Byrd's command—to MacMillan, who was in charge of the expedition as a whole. In this way the Navy could take credit, through Byrd, for any accomplishments in the air, while pleasing both men's sponsors.

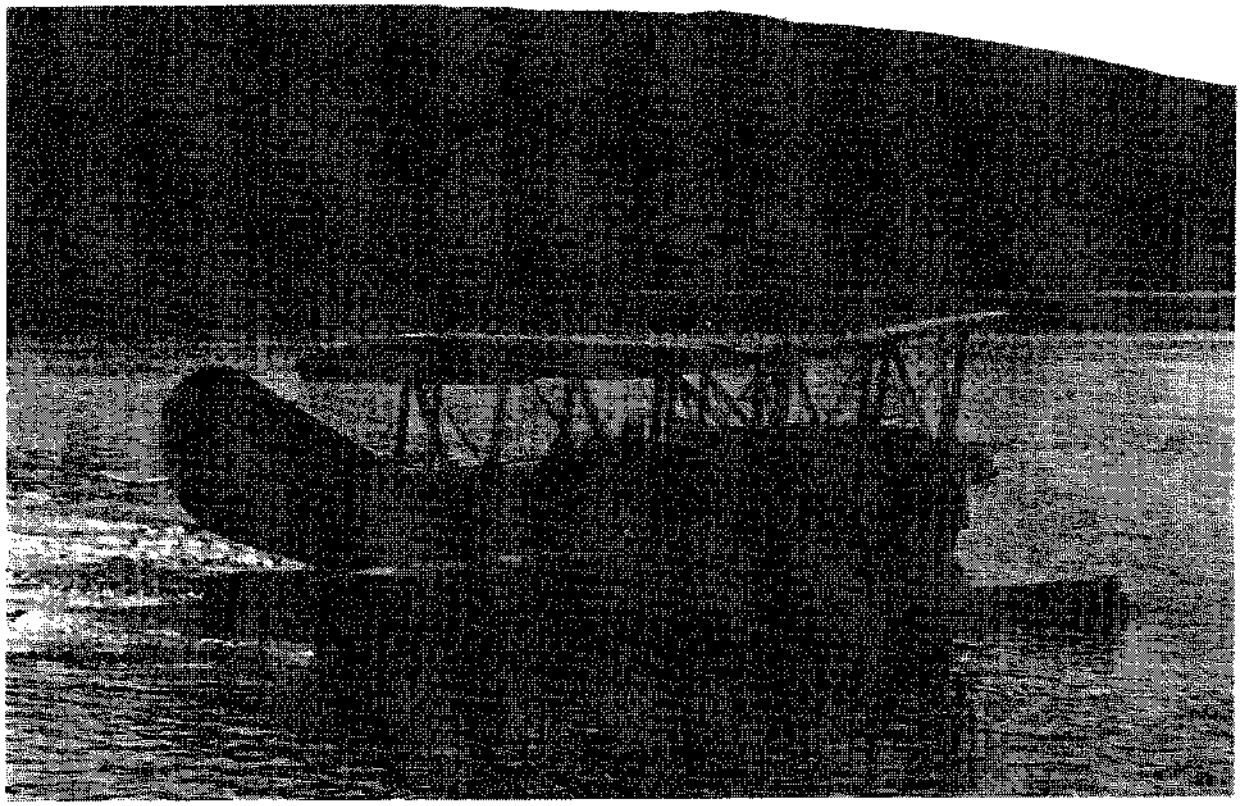
The expedition of two ships that left Wiscassett, Maine, on June 20 of 1925 proved to be an unhappy one. MacMillan commanded the USS *Bowdoin*, which he had specially designed for exploration in the Arctic. Byrd and his planes, three amphibious planes, NA-1, 2, and 3 (for "Navy Aircraft"), sailed on the

USS *Peary*, which was commanded by Lieutenant Commander Eugene F. McDonald. McDonald was a successful businessman, the president of the Zenith Corporation, and an investor in the expedition. He expected to be able to test his shortwave radio as an instrument for communication in the Arctic.

Byrd was often at odds with both McDonald and MacMillan. As the chief representative of the U.S. Navy, he had expected to be second-in-command of the expedition, a position that MacMillan accorded to McDonald. McDonald refused to observe U.S. Navy protocols in the use of the radio for communication, which naturally brought him into conflict with Byrd. The Navy insisted that its long-wave set be used when the planes were in the air. McDonald's shortwave set was to be used only when no planes were in use. Byrd also disagreed with both MacMillan and McDonald over the ships' speed, their course, and the proper conditions for air exploration. Much to Byrd's disappointment, on only fifteen days was the weather suitable for flying. He complained that MacMillan was too cautious.

As if conflicts arising from personality differences and leadership issues were not enough, Byrd and MacMillan also had fundamentally incompatible objectives. Byrd's goal was to test aircraft in the Arctic and, if possible, make a flight over the North Pole. MacMillan had less interest in the North Pole and more in the scientific investigation and survey of northern Greenland and the Arctic. The diary documents Byrd's points of view and his frustrations.

Despite problems, the three months' expedition managed to accomplish a great deal. MacMillan established a tidal observatory station at Etah in northwestern Greenland, conducted important ornithological studies, and took the first natural



Amphibious aircraft used during the MacMillan expedition. (BP, folder 7708)

color photographs in the Arctic. McDonald demonstrated that shortwave radio could be used in the Arctic for long-distance communication.[4]

Byrd and MacMillan continued to feud throughout the expedition, and at the end they also drew different conclusions about the use of fixed-wing aircraft in the northern Arctic. MacMillan wrote to his sponsors at the National Geographic Society, "I am more convinced than ever that far northern

4. Allen, *Arctic Odyssey*, 258. The photographer was Jacob Gayer of the National Geographic Society. See also Donald B. MacMillan, "The MacMillan Arctic Expedition Returns," *National Geographic Magazine* 48, no. 5 (November 1925): 515.

Arctic work will never be done by heavier than air machines simply because landing places are uncertain and caches of food and gas cannot be depended upon. A fiord is free today and ice bound tomorrow. . . . The lighter than air machine can do the work and should do it at the earliest opportunity."[5]

Byrd, however, as commander of the aviation unit, continued to have faith in fixed-wing aircraft for polar exploration, despite disappointing weather and mechanical breakdowns. To the readers of the *National Geographic Magazine*, he reported, "We were all depressed that we could not go on with our work, for we were learning the location of the few water landing places and we never gave up the hope of accomplishing our mission. With more time and a better season, I am confident that the unexplored area could have been reached."[6]

For Byrd himself, the expedition set the stage for his 1926 flight to the North Pole in several ways. First, it confirmed his stature as a leading navigator in the new field of aviation, and as an innovator in that field. The plans for the flight appeared in Byrd's article "Flying over the Polar Sea," in the *United States Naval Institute Proceedings* in August 1925. Second, as a result of the expedition, he was able to establish ties with the National Geographic Society, which had assisted the expedition in matters of navigation in the Arctic. Albert Bumstead, the cartographer of the National Geographic Society, had developed a special sun compass that magnetic fields did not affect, and

5. Donald MacMillan to National Geographic Society, August 20, 1925, BP, folder 4228.

6. Richard E. Byrd, "Flying over the Arctic," *National Geographic Magazine* 48, no. 5 (November 1925): 519.

it was successfully put to use on this expedition for the first time. In November 1925, the *National Geographic Magazine* published accounts of the expedition by both MacMillan and Byrd. The National Geographic Society later became a prominent supporter of Byrd and his expeditions. Finally, the 1925 expedition allowed Byrd to forge links to people—for example, Floyd Bennett, his pilot to the North Pole in 1926, and wealthy supporters like Edsel Ford and John D. Rockefeller—who would be critical to his future success.

This portion of Byrd's diary also includes several references to his wife, Marie, and to his son, Richard Byrd Jr. By all the evidence in Byrd's papers, their marriage of forty-two years was close, even though the circumstances of polar exploration separated them for years at a time. Filled with frustration over the weather and his disputes with McDonald and MacMillan, Byrd sought peace when he wrote privately in his diary, "To have Marie in the midst of chaos, that is enough." There are many letters between Byrd and his wife and children in his papers at Ohio State, and it is clear from them that the publicly ambitious Byrd took an active interest in the news and birthdays and anniversaries of family life in Washington and Boston.

Marie Ames Byrd raised their four children—Richard, Katharine, Bolling, and Helen—managed the household, and in the frequent absences of her husband also took charge of their financial investments. The letters between Marie and her husband show that the explorer looked to her for practical advice and judgment as well as emotional support. On more than one occasion he counted on her to look into problems of expeditions while he was away.