



The South Pole Snow Cruiser Cruises Ohio and Ashtabula County



This Ray Gottfried cover photo shows Byrd's Snowmobile in its true colors. It needed a police escort during its journey across states from Illinois to Ohio to Massachusetts.

The road trip from Chicago to Boston took the Snow Cruiser through northern Indiana and Ohio, following what was then U.S. Route 30, then north to U.S. Route 20 to Erie, Pennsylvania, into New York, and finally, Boston Harbor.

Illinois

Indiana

Ohio

Pennsylvania

Massachusetts

New York

Antarctica!





By November 1937, Admiral Richard E. Byrd had already led two expeditions to Antarctica that he and his backers privately financed. In the Admiral's case, privately financed did not mean limited funds, since wealthy Americans including Edsel Ford and John D. Rockefeller, Jr. as well as the American public contributed generously to raise the more than \$400,000 cost of these the first two expeditions. People in all walks of financial circumstances responded to the Admiral's enthusiasm for his expeditions, charisma, and the lure of the largely unknown and unexplored polar region at the bottom of the world.



Admiral Byrd had attracted generous backers for both his first and second forays into Antarctica. While planning a third expedition to the Antarctic, Admiral Byrd was delighted to learn that the United States government decided to finance an official American Antarctic expedition. He was even more delighted when on January 7, 1939, President Franklin D. Roosevelt endorsed plans for the government to sponsor his third expedition.

In his order of November 25, 1939, FDR possibly with an experienced ear and eye to Antarctica's strategic importance and the war clouds gathering in Europe, directed that they establish two permanent bases. The East Base would be located near Charcot Island, Alexander I Land, or on Marguerite Bay, while the West base would be established near King Edward VII Land or alternatively at a site on the Bay of Whales or near Little America. Eventually, the Expedition established bases off of Little America and Stonington Island, off the Antarctic Peninsula. The expedition members were also directed to explore the Antarctic Coastline while conducting extensive geological, biological, meteorological studies.



When the Byrd's Third Antarctic Expedition left Boston for the Antarctic on November 15, 1939, besides its 125-man human contingent, it had two ships, Admiral Byrd's former ship, Bar of Oakland and the North Star, a 1,434-ton ice breaker and four airplanes. The motorized equipment also included a Light Tank and a Carrier, and an innovative hybridized car transformed into snowmobile with facilities on top for an airplane. The Admiral planned to use the fourth airplane, a single engine Beech craft, with his newest technological toy, the Snow Cruiser.

The North Star



Admiral Byrd's third expedition enjoyed the additional advantage of the experience and expertise of Thomas C. Poulter. Thomas C. Poulter had been his deputy commander of Admiral Byrd's Second Expedition from 1933-1935, which gave him firsthand experience with the problems of motor transportation in the Antarctic. During the Admiral's Second Expedition, second in command Poulter discovered that the crawler tractor, two Ford snowmobiles and three Citroen halftracks that made up the motor pool could move through the snow, but they could not cross the plentiful crevasses. They also were prone to bouts of water condensing and freezing in the fuel lines.





By the time the plans for the Third Expedition were being finalized, Thomas Poulter had become Scientific Director at the Armor Institute of Technology and he resolved to build a vehicle that could handle the conditions in Antarctica. He used his resources, both personal and financial to raise the \$150,000 it cost to build the Antarctic Snow Cruiser in the Chicago shops of the Pullman Company in only eleven weeks during the summer of 1939. The Snow Cruiser, also known as Byrd's Snowmobile, or the Penguin, resembled an elephant or a dinosaur, measuring fifty-five feet, eight inches long and almost twenty feet wide. When the operator extended its wheels, it stood sixteen feet high, with a loaded weight of 75,000 pounds.

The Snow Cruiser carried two 150 horsepower Cummins diesel engines which powered generators to run four seventy-five horsepower electric motors, with a motor driving each wheel. A glance Inside the Snow Cruiser revealed the control cabin, the machine shop, four bunks, a laboratory to practice science, and a combination kitchen and darkroom. The rear of the vehicle contained space for spare parts and other items and 2,500 gallons of diesel fuel to provide for 5,000 miles of travel as well as 1,000 gallons of aviation fuel for the Beechcraft airplane riding on the roof. Enough food for an entire year completed the Snow Cruiser's stores.





The Snow Cruiser's capabilities ranked as impressive as its size in the mind of Thomas Poulter and looked the part on paper projections. It could do thirty miles per hour on a flat solid surface, climb a 37 percent slope and using its four-wheel steering could turn its own length and crawl like a crab at a 25-degree angle. The Snow Cruiser's tires measuring ten feet in diameter were manufactured at the Goodyear Company in Akron, Ohio. Although the tires were as smooth as a silken smile, Thomas Poulter and his crew believed they could and would travel through the Antarctic snow with workman like traction. The Cruiser's wheels were fashioned to retract, and workers attached sled runners to its bottom



According to its creators, when the Cruiser reached an Antarctic downgrade, the operator could retract the wheels and the Cruiser would slide down any challenging hill. Thomas Poulter had firm ideas about crossing crevasses and Snow Cruiser wheels, as well. He set the four huge wheels on the Snow Cruiser with over seventeen feet of overhang at the front and rear. When the Cruiser encountered a crevasse, the operator retracted the front wheels, and the rear wheels pushed the Cruiser halfway across the chasm. Then the operator raised the rear wheels and lowered the front wheels to pull the Cruiser the rest of the way across the gap. The Beechcraft monoplane complete with skis, traveled on top of the Snow Cruiser, ready to perform aerial photography and explore the Antarctic.





Thomas Poulter designed the Snow Cruiser to travel 5,000 miles and self sustain for a year.



Operating
the Snow
Cruiser



Cruising with the Snow Cruiser

Since the autumn season had already progressed into October, and the Snow Cruiser had to be at Boston Harbor by mid-November, Thomas Poulter and his four-man crew did not have time to test their vehicle for snow worthiness. Eager to meet their deadline, on October 26, they climbed into the Snow Cruiser in Chicago and began the first leg of their journey to Boston, Massachusetts. The road trip from Chicago to Boston took the Snow Cruiser through northern Indiana and Ohio, following what was then U.S. Route 30, then north to U.S. Route 20 to Erie, Pennsylvania, into New York, and finally, Boston Harbor. The Snow Cruiser did not travel unnoticed. A machine twenty feet wide and sixteen feet high could not help but attract crowds of curious people in the small towns and cities along the route.



Chicago,
October 24,
1939



Testing
near
Gary,
Indiana



The Snow Cruiser also did not travel trouble free. The Snow Cruiser's height and width made traveling the two lane, often unpaved roads and narrow bridges of 1939 America a sometimes-adventurous venture.



Near Gomer, in Allen County, Ohio, along the Lincoln Highway (Route 30), the Snow Cruiser's hydraulic steering failed, and it ran off the Highway into a ditch, causing a three-day delay in its cross-country trek.



Watching the
Snow Cruiser
pass near
Upper
Sandusky,
Ohio.



Cruising Ashtabula County

Along Route 20, Thomas and his crew had to stop in Painesville, Ohio, for repairs and at one point, rescue it from a muddy field after it ran off the road. After a few days of successful repairs in Painesville, Byrd's Snow Cruiser continued along Route 20, stopping in Perry, Geneva, Ashtabula, North Kingsville, and Conneaut. The Kingsville Library had this photograph of the Snow Cruiser from Ruth Tuttle.





The Snow Cruiser Passes Through Ashtabula on Its Way to Antarctica

Ashtabula Star Beacon

November 4, 1939

Moving slowly between lines of composed of thousands of thrilled spectators, the giant Snow Cruiser built for the United States Antarctic Expedition passed through Ashtabula shortly before noon today.

After days of anxious waiting to view the behemoth of the highway, the crowds had their curiosity satisfied. All through Friday night many had waited, sending telephone calls of inquiry that swamped the Ashtabula Telephone Company switchboards, the Star Beacon Office, City Police Station, and the Highway Patrol headquarters.

Halted at Painesville late Friday by a broken oil line, the Cruiser was repaired and started from that place shortly before nine this morning. Early Friday night announcement was made that the Cruiser would pass through Ashtabula between 10 and 10:45. As soon as this fact was bulletined, telephones began to jingle and automobiles began to fill Route 20 and adjacent streets, every vehicle on its way to claim a position along the route.

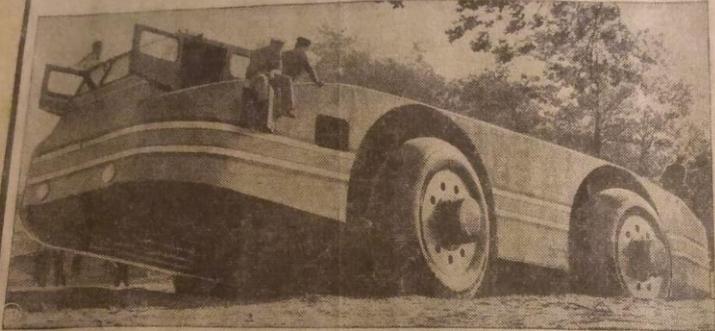




The crowd along city streets, estimated at 15,000, waited. Then came word of the mishap in Painesville delayed the Cruiser's progress. All through the night until 2 a.m., telephone calls continued, and the crowd waited patiently. Then when at 1:30 a.m. word was received that the Cruiser would remain at Painesville over night the crowds started to thin out. But a few hopeful watchers remained in their position until along toward daylight fearing they would miss the Snowmobile.

GIANT SNOW CRUISER USES

AMOCO Diesel Fuel



View Showing Admiral Byrd's 75,000 Pound Snowmobile

In making the long trip from Chicago to Boston AMOCO SERVICE STATIONS enroute were selected as official refueling stations for Byrd's 75,000 pound snow cruiser and the nine cars which are acting as a convoy for the giant machine on its trip to the east coast.

When the cruiser passes through Ashtabula it will make a 10 minute stop at the AMOCO station at 1520 West Prospect Rd.

WHEN YOU NEED GASOLINE

Stop In For A Tank Full of AMOCO

(Produced by the Makers of Amoco Diesel Fuel)

—And Let Us

Prepare Your Car For Winter the Amoco Way

C. F. Tuttle Amoco Service Station

1520 Prospect Rd.

Ashtabula, Ohio

It was eleven twenty this morning when the big machine hove in sight at the westerly end of Prospect Road. The crowds that had waited cheered and rushed for places along the curbs. The crowd was thickest at and in the vicinity of the Amoco Service Station at 1520 Prospect Road where the big machine stopped for ten minutes for a checkup of gasoline and oil.

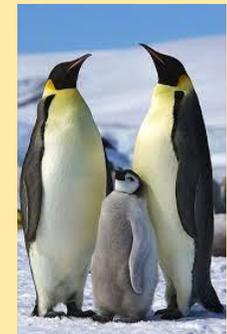
Automobiles were parked on both sides of Prospect Road and filled adjacent streets for blocks near the station and along Route 20 from Painesville to Conneaut.



Dr. Thomas C. Poulter, Chief of the Research Department of The Armor Institute of Technology of Chicago, who designed the machine, said the Cruiser would be taken to the General Electric Plant at Erie where it would lay over night and until two new motors were installed and steering gear was repaired. It is expected the vehicle will not leave Erie on her way to Boston until Monday.

Immediately after the checkup the giant vehicle started to move on its way through the city passing along Prospect Road through Five Points and following Route 20 to Conneaut.

When the machine stopped at the Amoco Station, Dr. Thomas C. Poulter and other members of the crew were greeted by City Manager William H. Flower and members of the Star Beacon staff who were invited inside the Cruiser.





Dr. F.A. Wade, scientist of the United States Antarctic Expedition, who is a cousin of Mrs. W.W. Woodbury of Jefferson, was not aboard the craft when it arrived at Ashtabula. He was recalled Friday and he was sent to Boston to take charge of packing the expedition's equipment. Dr. Poulter said Dr. Wade was disappointed because he had hoped to ride through this county where he has a number of friends, among them City Manager William H. Flower who was a classmate of Dr. Wade at Western Reserve Academy Cleveland.

Despite difficulties encountered, Dr. Poulter who is in charge of the Cruiser, said he believed the machine was a successful engineering and scientific enterprise.

The Byrd Snow Cruiser Passes Through Conneaut Its Way to Antarctica

Conneaut News Herald

October 1939.

Early snow and biting winds have reminded some of the city's residents of an event that attracted so much attention in October 1939 that traffic jams and even pedestrian jams resulted.

The occasion was the arrival of the Snow Cruiser part of Admiral Richard E. Byrd's Antarctic Expedition which passed briefly in the city, enroute from Chicago to Boston where it embarked on its history -making cruise. The huge mobile equipment caused considerable stir on its lumbering way.





Although residents were soon to become accustomed to the convoys of heavy equipment as the war in Europe flamed into action, the approach of the awesome looking behemoth was reason enough for many merchants along Main Street to lock the doors of their establishments and hurry across town in the middle of the afternoon.

Curious Line Streets

As the 75,000-pound cruiser powered by two rather uncommon diesel motors and covering nearly the entire width of Route 20 rolled into the city, cameras clicked like the frantic typing of an overworked secretary.



Snow
Cruiser
makes turn
at State
and Harbor
Streets,
Conneaut,
Ohio.



Pedestrians lined the streets, six deep at some points, and when the cruiser finally appeared at the intersection of Harbor and Liberty Streets, the crush of curious humans nearly overwhelmed the crew members. Several of the more daring citizens took advantage of the crew's departure to a local restaurant to examine the ponderous machinery more closely.

Forewarned of the pending arrival of the cruiser, a throng of motorists jammed the streets of the city late the night before its actual arrival. Police struggled with the crowds, which finally dispersed. However, the police were not finished with the spectators, for the curious citizens continued to telephone the police station as well as the fire department and the newspaper office for information regarding the slow approach of the vehicle. Pranksters and wits took up the banner and the favorite approach of the anonymous caller was, “I’m Admiral Byrd, where is my cruiser?”





As the city settled down to comparative calm the day after the celebrated visit, Erie turned out to view the giant. There, a Boy Scout ovation was extended to Boy Scout Paul Sipple whose grandparents resided in Kelloggsville. Sipple had been selected to accompany Admiral Byrd on his expedition into the unknown wastes of snow and ice.

Admiral Byrd's Antarctic Snow cruiser

Albert Philips of Conneaut, Ohio

I was a boy of four when the famous snow cruiser came through Conneaut, Ohio. I never saw it personally, but I remember my older brother telling my family about it. Gene had peddled uptown on his bicycle from our home on Dean Avenue the day the cruiser finally showed up, and when he got home all excited about having seen it, I was spellbound listening to him relate how this giant monster cruiser lumbered slowly through the city.





My imagination ran wild as I could see this thing just by him describing it, being reddish orange with tires on it as tall as a house,, roaring engine, and so wide it took up the whole road. The date was November 4, 1939, and I was just getting used to our radio which my father had brought home that summer, so imagination was what we were raised on and everyone's was different from everybody else's. In my mind I had formed a picture of what this thing looked like from my brother's description of it, and it was buried deep in my memory and the forgotten, as other things would take its place.

The snow cruiser was the dream of Dr. Thomas C. Poulter. He was second in command of Byrd's Antarctic Expedition II when he came up with the idea of the cruiser. Back at the Research Foundation of Armour Institute of Technology, Chicago, he directed the staff in the manufacture of this huge behemoth, It was 55 feet long, 15 feet wide, with 4 rubber tires made by the Goodyear Rubber Company, which stood 19 feet high and were 3 feet wide.





Each wheel was independently run by an electric motor which got its electric power from two 299 horsepower diesel engines directly connected to generators. These also made power for the radio, electric stoves, heat and the machine shop which was built into the cruiser.

Each wheel was capable of being raised 4 feet so the theory was that it should be able to cross at the most a deep crevasse as wide as fifteen feet. This would be done by raising the two front wheels up, lowering the cruiser on the snow, (it had a solid underside), the back wheels would then push the front part across until the front wheels could be lowered on solid snow, then raising the back wheels and having the front wheels pull the cruiser the rest of the way across the crevasse.

On the back of the cruiser was a ramp for a 5-seat cabin by-plane which was to be used for mapping and exploring a 600-mile strip across Antarctica, with the cruiser as its moving base.

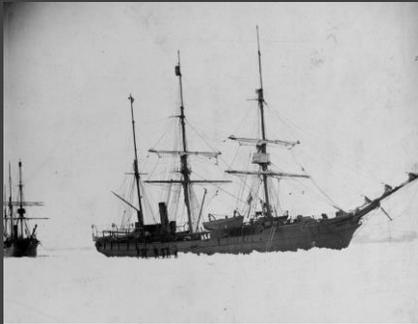




The Snow Cruiser made it through to General Electric in Erie, Pennsylvania, for a few days' worth of more repairs. Finally, the Cruiser and its crew were on the road again, through New York and at long last arrived in Boston, Massachusetts.

People in Massachusetts were just as curious about the Byrd Snow Cruiser as those in Illinois, Indiana, Ohio, Pennsylvania, New York, and the rest of the country. Crowds of people packed the route of the Snow Cruiser. At Framingham, Massachusetts more than 72,000 cars locked hoods and fenders in what the local papers described as “the world’s worst traffic jam.” Finally, Thomas Poulter and his crew of four reached Boston Harbor in early November. With a sigh of relief, Thomas drove the Byrd Cruiser aboard the North Star.





Cruising with the North Star



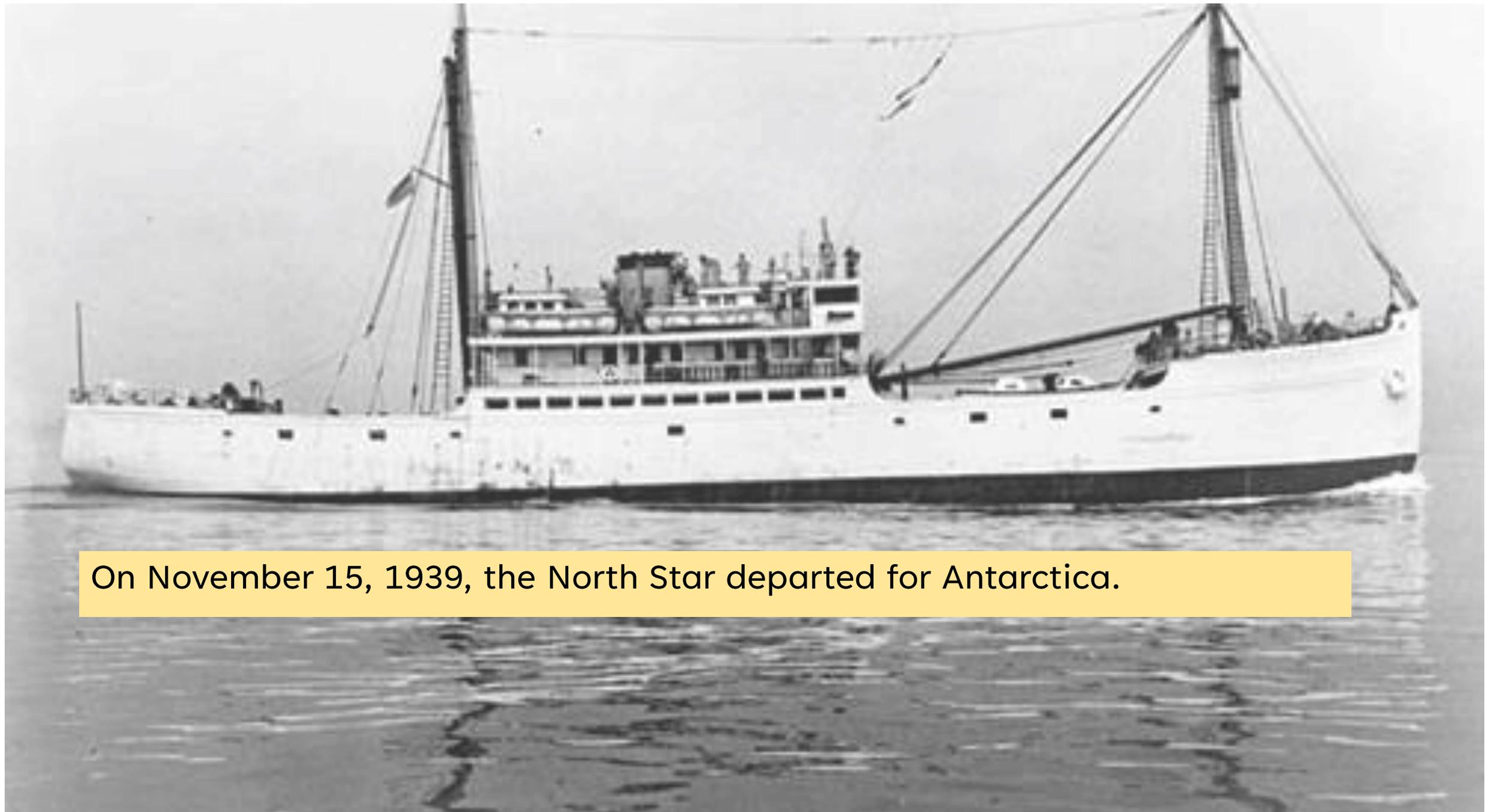
On the dock in
Boston,
November
1939

The Snow
Cruiser rolls
onto the
North Star
at high tide
in Boston
Harbor.





Aboard the
North Star,
November
14, 1939.



On November 15, 1939, the North Star departed for Antarctica.

Arriving in Antarctica



The North Star arrives in Antarctica, moored to ice in the Bay of Whales on January 15, 1940. Here, crew members are waiting for the Snow Cruiser to mount the wooden ramp during unloading.

The Snow Cruiser began to reveal its true operating procedures even before it touched Antarctic ice when the expedition arrived at Little America in the Bay of Whales. The workers had to build a timber ramp to unload it, and as they tenderly guided it toward the base, one of the wheels broke through the ramp. Thomas Poulter, ever protective of his creation, applied full power and the Snow Cruiser lurched across the ice with the cheers of the crew in the background and leaving a demolished ramp in the foreground.



The demolished ramp after the unloading of the Snow Cruiser.





The Snow Cruiser drives away from the North Star after unloading.



The cheers of the crew froze in the air when the Snow Cruiser's smooth, treadless tires would not move it through the snow and ice. They could get no traction, spinning freely, and sinking as deep as three feet in the snow. After trying chains on the rear wheels and attaching the two spare tires to the front wheels, the crew still could not create traction. After more experimenting, they discovered that the tires could achieve some traction when they drove in reverse.





They drove the Snow Cruiser completely in reverse for their 92-mile journey. Besides its lack of traction, the Snow Cruiser could not effectively navigate the ice and snow and crevasses that made up the Antarctic landscape. After the workers dug it out of several snowbanks, Thomas Poulter and his crew decided to make the snow work for the Cruiser. They covered it with timbers and snow and used it as a stationary home base for the scientists to conduct seismologic experiments, cosmic ray measurements and ice core samplings. Thomas Poulter left Antarctica to return home to the United States on January 24, 1940, still convinced that his Snow Cruiser would eventually conquer the conditions in Antarctica.





Members of Rear Admiral Byrd's Antarctic expedition are hard at work loading sleds with supplies from the ship, North Star, (in the background), at the party's west base on March 16, 1940. By this time the Snow Cruiser had been driven off the North Star, proved itself unable to handle the Antarctic terrain, and had been converted into a heated crew quarters.

The crew of the Snow
Cruiser
photographed in
Antarctica on
September 20, 1940.
From left, C.W.
Griffith, diesel
mechanic; F. Alton
Wade, comm.; Felix
L. Ferranto, radio
operator; and T.A.
Petras, pilot of the
Snow Cruiser plane.





After Pearl Harbor, as the United States focused on World War II the government cancelled funding for the project and the Snow Cruiser spent the War buried in a snowbank. After World War II ended, the United States Navy established The United States Navy Antarctic Developments Program in 1946-1947 or Operation HIGHJUMP, which began on August 26, 1946, and ended in late February 1947. Rear Admiral Richard E Byrd, Jr., USN, (Ret), Officer in Charge and his crew were charged with establishing Little America IV as an Antarctic research base.

Eleven years later in 1958, a bulldozer belonging to an international expedition uncovered the Snow Cruiser at Little America III. The expedition members discovered the long bamboo pole that marked the Snow Cruiser's position, but the bulldozer had to dig through twenty-three feet of snow to unearth/unsnow it. The expedition members excavated to the bottom of the Snow Cruiser's wheels and accurately measure the amount of snowfall that covered it since it had been abandoned. When the Snow Cruiser's rescuers looked inside it, they discovered that things were exactly as the crew had left them, with papers, magazines, and cigarettes resting in place.





The expedition team was astonished to discover that it needed only air in the tires and minor servicing to bring it to life again. For a few weeks after turning the ignition and feeling the machine vibrating under their feet, the crew dreamed dreams of an operational Snow Cruiser. Their hopes snapped like a piece of ice breaking from an ice floe when they discovered that the Snow Cruiser still could not get traction and its other disadvantages had not changed during its snowbank burial in World War II. They abandoned the Snow Cruiser to its snowy fate.

Later expeditions could find no trace of the Snow Cruiser. Rumor had it that the Russians had spirited away the Snow Cruiser during the Cold War, but no solid facts supported that theory. More recent scientific theories put the Snow Cruiser at the bottom of the Southern Ocean or buried more deeply under the Antarctic ice. The Ross Ice Shelf constantly moves out to sea and in 1963, a large part of the Ice Shelf broke off and floating away, cutting Little America in half.





Scientists are not certain which side of the ice shelf swallowed the Snow Cruiser, but most believe that it lies deep in the Southern Ocean. The excitement and adventure of the Snow Cruiser also lies deep in the memories of Ashtabula County people who saw her lumber by on Route 20 to places most would never see but would remember in their adventurous spirits.

