

THE FACTS
ON THE FIRST
TRANSPOLAR
VOYAGE



FROM
PACIFIC
TO
ATLANTIC

USS NAUTILUS

NAUTILUS ARCTIC FACTS



1. Schedule

Departed Honolulu	2:00 AM EDT	23 July
Transited Bering Strait		29 July
Went under Arctic pack off Point Barrow, Alaska	8:37 AM EDT	1 August
North Pole	11:15 PM EDT	3 August
Emerged from pack on Greenwich meridian at 79° North	9:54 AM EDT	5 August
Arrived off Iceland	2:00 AM EDT	8 August

2. The first transpolar voyage by a ship in history, Honolulu to Europe, will take NAUTILUS 19 days and cover 8146 miles at an average speed of over 17 knots.

3. When NAUTILUS reached the North Pole at 11:15 PM Eastern Daylight Time on 3 August more men - 116 - were assembled at the Pole at one time than ever before.

4. NAUTILUS is equipped with a closed television network with the camera pointing up for observing ice.

5. NAUTILUS traveled 1830 miles in 96 hours from Point Barrow, Alaska to the Atlantic Ocean between Greenland and Spitsbergen.

6. NAUTILUS is equipped with 10 separate sound equipments for detecting ice above and 3 for measuring the distance to the ocean floor below.

7. One NAUTILUS crew member, James R. Sordelet, Electrician's Mate First Class, became the first Navy man in history to reenlist at the North Pole.

8. In 1957 NAUTILUS traveled 1383 miles under ice in three separate trips totaling 5.5 days and reached a latitude of 87 North, 180 miles from the North Pole.

9. Polar ice is on the average 12 feet thick although some ridges extend down 50 feet and even further.

10. NAUTILUS is equipped with four compasses of various types.

11. The water at the North Pole was measured with a precision fathometer to be 13,410 feet deep. This is 1927 feet deeper than the maximum measured by others who have reached the pole.

12. Prior to NAUTILUS 1957 Arctic trip no ship had ever been north of 83 degrees 21 minutes North under its own power -- a Russian icebreaker in 1955. The FIDM under Nansen had drifted locked in the pack ice to 85 degrees 57 minutes North in 1895.

13. NAUTILUS on arrival in Europe will have traveled 129,000 miles on nuclear power -- 62,560 miles on the first charge of nuclear fuel and over 66,000 so far on the second charge.

14. The water deep in the Arctic Ocean is about 32° Fahrenheit although north of Spitsbergen a branch of the Gulf Stream brings it up to about 40° Fahrenheit.

15. NAUTILUS' nuclear power plant performed perfectly with no casualties on the transpolar voyage. It operated more efficiently in the cold water. The power plant in the past has operated continuously for as long as 47.5 days.



16. NAUTILUS obtained a continuous record of water depth and ice thickness all the way across the Arctic Ocean. This record will provide our scientists and hydrographers with much information not previously known. Over 11,000 individual soundings were obtained in the relatively uncharted Arctic Basin.

17. A contest was held to design a suitable flag for the ship commemorating the transpolar voyage with the prize a 3 day liberty in Europe.

18. NAUTILUS has now steamed 91,049 miles submerged, 72% of her time underway. 36,498 miles of these miles were on the first nuclear charge, 57.5% of the total mileage and 54,551 miles on the second charge, 85% of the total mileage.

19. NAUTILUS is equipped with automatic control gear for holding her exactly on course and depth.

20. NAUTILUS traveled within 30 miles of the so called Pole of Inaccessibility, geographic center of the Arctic ice pack.

21. The Arctic Ocean is bisected by a 9000 foot submerged mountain range, the Lomonosov Ridge, running from Canada to Russia. This ridge comes within 2500 feet of the surface. Many uncharted bottom features were discovered.

22. Prior to NAUTILUS operations in 1957 the most total mileage for a U.S. submarine under ice was 50 miles by the Redfish in 1952.

23. NAUTILUS is the first combatant ship with an inertial navigation system. Such a system works as well at the North Pole as anywhere else, unlike an ordinary gyro compass.

24. The temperature inside NAUTILUS during the entire trip was 72°. The relative humidity was 40-50%.

25. 93% of the trip from Pearl Harbor to Iceland was made submerged. The small time on the surface was used in surveying the ice pack edge.

26. Ice in the Arctic Ocean is constantly in motion due to the ocean currents and the wind. Water openings are always present even in the dead of winter although unbroken ice sometimes stretches for 10 or more miles.

27. People on board NAUTILUS during her transpolar trip will have the title of PANOPO -- Pacific to Atlantic via the North Pole.

28. NAUTILUS carried 75 days of food for 116 men. The meal served after the North Pole crossing was steak, french fries, creamed peas and carrots, fresh fruit salad, fresh bread and North Pole cake.

29. 38 movies were shown during the trip. Chess, cribbage and acey-ducey tournaments were held. The juke box (free) played almost continuously.

30. 11 NAUTILUS crew members were qualified in nuclear submarines at the North Pole.

31. The submerged voyage from Honolulu to Bering Strait (2901 miles) was made at an average speed of almost 20 knots. This is a record for a long submerged voyage.

