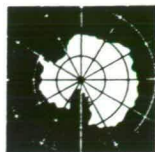


ANTARCTIC TREATY
XVIIth CONSULTATIVE MEETING

TRAITÉ SUR L'ANTARCTIQUE
XVIIème RÉUNION CONSULTATIVE



VENICE
11-20 november 1992

TRATADO ANTÁRTICO
XVII REUNIÓN CONSULTIVA

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EDUCATIONAL PROGRAM ON TOURIST VESSELS TO ANTARCTICA

(Submitted by IAATO)

International Association of Antarctica Tour Operators
(IAATO)

Educational Program on Tourist Vessels to Antarctica

A key ingredient of tour-ship cruises to Antarctica is an educational program that is designed to inform passengers as fully as possible of the abundance and vulnerability of wildlife and other physical aspects of the tours. The widely publicized Guidelines for Visitors are repeatedly referred to in briefings during the cruises, and experienced naturalists/lecturers provide onboard lectures and guided tours ashore.

The material which follows is an example of part of an information packet provided to all passengers on cruises to be operated in Antarctica in 1992-93 by one of the IAATO member companies on the KAPITAN KHLEBNIKOV, a Russian icebreaker.

An account of the maiden voyage of the ship with its first complement of tourists is attached, and will be distributed to all passengers on the coming cruises in order to acquaint them with the capabilities of the vessel. Biographies of some of the onboard naturalists/lecturers are also attached, as further examples of the content of information packets for passengers. In addition to lectures on the sites and wildlife experienced by the passengers, onboard videos include content on the environment and existing protective ATS legislation (such as the U.S. National Science Foundation film "Behold Antarctica", and others).

All IAATO members conduct comparable lecture programs in efforts to educate passengers on tours to Antarctica.

Draft of Manuscript submitted to Polar Record
FIRST TRANSIT OF THE NORTHWEST PASSAGE BY RUSSIAN ICEBREAKER

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In a voyage beginning July 24 in Ulsan, South Korea, and ending in St. Petersburg, Russia, on September 21, 1992, the icebreaker Kapitan Khlebnikoy successfully completed an unassisted transit of the Northwest Passage, from Bering Strait on the west to the North Atlantic Ocean on the east. The ship was chartered jointly by Polar Schiffahrts-Consulting, Hamburg, Germany; Blyth & Company Travel, Toronto, Ontario, Canada; and D.G. Wells Marine Ltd., Ottawa, Ontario, Canada, and was marketed for tourists, some of whom traveled the entire distance of 14,120 nautical miles. The Khlebnikoy was the first Russian vessel to make this transit and the fifty-third of all vessels since Roald Amundsen completed the first transit in 1906, as confirmed by the office of Coast Guard Northern, Ottawa, Canada. (The Khlebnikoy transited Route 3 in Figure 1 of Pullen and Swithinbank, 1991, in which the first 50 transits are tabulated.)

The Khlebnikoy was built in 1981 at Wartsila Shipyard, Helsinki, Finland, and has a displacement of 15,000 tons. She is powered by diesel-electric motors to drive three screws, and with 22,000 horsepower can maintain a speed of 19 knots in open water. Her length is 132.5 meters, breadth 26.5 meters, and loaded draught 8.5 meters. Two MI-2 helicopters were aboard for ice reconnaissance purposes. A number of standard crew cabins and suites were made available for passengers and cruise staff. The 58 Russian officers and crew, under the direction of Captain Peter Golikov, were experienced in ice operations and navigation as part of their missions in the Russian Arctic. The ship is based in Vladivostok and is one of a commercial fleet of ships owned by the Far Eastern Shipping Co. (FESCO) engaged in worldwide cargo operations. Captain Patrick Toomey, Canadian Coast Guard (retired), served as ice pilot for the voyage from Ulsan as far as Nuuk, Greenland (8 September).

The Khlebnikoy was fitted with new lifeboats and davits in Ulsan, South Korea, in order to conform to international passenger ship standards, where the voyage for the first of the passengers began. As a result of delays in procurement and delivery of components required for this work, a replacement ship, the much smaller icebreaker Magadan, was contracted from her port at Vladivostok for the open water section of the voyage, which began from Ulsan with 11 passengers on July 24, 1992. Captain Viktor Schletz was in command of the Magadan. In addition to Captain Toomey, the cruise staff included the authors as naturalists/lecturers (from Ulsan through St. Petersburg).

The Magadan made scheduled and impromptu stops between Ulsan, South Korea, and Provideniya, Russia, while the Khlebnikoy completed the work in Ulsan of being fitted with new lifeboats and davits. The Khlebnikoy then proceeded directly to Provideniya and arrived at about the same time as the Magadan. This plan worked well, with the Magadan making stops in eastern Russia before passengers were transferred to the Khlebnikoy at Provideniya on August 8. The Khlebnikoy was refueled there from the Magadan and the icebreaker Ernak and sailed that day. There were no further refueling stops until St. Petersburg. Table 1 lists the timetable and events for the entire voyage from Ulsan to St. Petersburg. After refueling, the Khlebnikoy went on to Bremerhaven, Germany, to be refitted in October for passenger use in a series of cruises to Antarctica in the 1992-1993 austral summer.

First ice for the trip was seen in northern Bering Strait, and broken pack was first encountered near Barrow, Alaska. Shortly after, the Khlebnikoy escorted the Canadian ice-strengthened ship Canmar Supplier III, which was making slow progress in heavy pack, for some 4 hours, thus saving her perhaps 100 tons of fuel and 4 days of difficult travel to cover some 50 miles. Ice conditions thereafter varied from open water to moderate pack, broken and unbroken, for the duration of the voyage to Resolute Bay, NWT, between Axel Heiberg and Ellesmere Islands, and most of Nares Strait. The ship handled ice well, as expected, and was challenged most in Nares Strait by multi-year ice. The last ice of the cruise consisted of small floes and icebergs in Prins Christian Sund, southern Greenland, before heading for Iceland.

After the transit through Arctic Canada, the Khlebnikoy made two side-trips in Canadian and Greenland waters, as shown in Figure 1. Because the cruise was planned in a series of stages, passengers boarded the ship and left at a number of ports, including Barrow, Alaska; Tuktoyaktuk, Cambridge Bay and Resolute Bay, NWT; and Nuuk, Greenland. The largest complement of passengers numbered 55 for the eastern part of the Northwest Passage from Cambridge Bay to Nuuk. A Canadian helicopter (Bell Jet Ranger) and pilot boarded at Tuktoyaktuk to provide flying services for passengers through Canadian waters as far as Grise Fiord, Ellesmere Island (after the return from Tanquary Fiord), at which time the pilot flew to another project.

This cruise was unique in several ways. Not only was the Khlebnikoy the first Russian icebreaker through the Northwest Passage, but it also carried passengers farther north than any others on a ship in this part of the Canadian Arctic and Greenland. The leg from Resolute Bay went between Ellesmere and Axel Heiberg Islands to as far north as the limit of navigation in Tanquary Fiord, Ellesmere Island (81° 25'N, 76° 56'W), and on the following leg went into Nares Strait as far as 81° 38'N, 63° 04'W, within sight of Fort Conger, Ellesmere Island, before being forced back by time constraints. Various segments of the cruise, shore stops and helicopter flights included a variety of animal sightings, including polar bears, walrus, musk oxen, seals, whales, Arctic foxes, Arctic hares, and many bird species (see enclosed list of birds and mammals).

Following itineraries in Greenland, the Khlebnikoy headed east for stops in Iceland, the Faroes, Denmark, St. Petersburg (major refueling) and Bremerhaven.

Reference

Pullen, T.C. and Swithinbank, C. 1991.

Transits of the Northwest Passage, 1906-1990.

Polar Record: 27 (163) : 365-67.

Figure 1. Route of the Icebreakers Magadan and Kapitan Khlebnikoy.

Table 1. Timetable and events for the Icebreakers Magadan and Kapitan Khlebnikoy.
July - September, 1992

<u>DATE:</u>	<u>LOCATION:</u>	<u>CUMULATIVE DISTANCE (N.M.):</u>	<u>NOTES:</u>
<u>A. Magadan</u>			
July 24	Ulsan, South Korea	- 0 -	Start of voyage with passengers; <u>Kapitan Khlebnikoy</u> fitted with lifeboats and davits.
July 27	Korsakov, Sakhalin Island		Pier stop.
July 29	Iturup Island, Kuril Islands		Anchorage, village of Kuril'sk.
July 30	Kimashir Island, Kuril Islands		Shore stop, village of Yuzhno-Kurilsk.
Aug. 2	Petropavlovsk Kamchatskiy		Shore stop.
Aug. 4	Bering Island, Commander Islands		Shore stop.
Aug. 7	Provideniya, Russia	2,902	Shore stop; end of voyage on <u>Magadan</u> , passengers transferred to <u>Khlebnikoy</u> . <u>Khlebnikoy</u> refueled from <u>Magadan</u> and <u>Ermak</u> . <u>Khlebnikoy</u> departed Aug. 8.
<u>B. Kapitan Khlebnikoy</u>			
Aug. 9	Barrow, Alaska		Standing offshore for boarding passengers; east of Barrow, escorted <u>Canmar Supplier III</u> .
Aug. 10	Herschel Island, Yukon Territory		Shore stop.
Aug. 11	Tuktoyaktuk, NWT		Standing offshore for boarding passengers; Canadian helicopter and pilot came aboard.
Aug. 12	Franklin Bay		Cruising to view Smoking Hills.
Aug. 12	Sachs Harbour, Banks Island		Shore stop.
Aug. 14	Cambridge Bay, Victoria Island	4,914	Passenger exchange.
Aug. 17	Resolute Bay, Cornwallis Island		Passenger exchange, provisions and supplies aboard.
Aug. 17	Beechey Island		Shore stop.
Aug. 18	Pond Inlet, Baffin Island		Shore stop; brief stop at Bylot Island.

Aug. 19	Grise Fiord, Ellesmere Island		→ From Ellesmere Island National Park Rangers boarded; Canadian helicopter moved two local residents to town after they were stranded by ice breakout.
Aug. 21	Tanquary Fiord, Ellesmere Island		Shore stop at north end of fiords (limit of navigation); farthest north at 81° 25'N, 76° 56'W.
Aug. 22	Mokka Fiord and Geodetic Hills, Axel Heiberg Island		Shore stops.
Aug. 23	Jones Sound (cruising)		Canadian helicopter and pilot departed.
Aug. 24	Grise Fiord		Shore stop.
Aug. 26	Ilulissat (Jakobshavn), Greenland		Shore stop.
Aug. 27	Sisimiut (Holsteinsborg)		Shore stop.
Aug. 28	Nuuk (Godthab)	8,010	Shore stop; passenger exchange.
Aug. 29	Ilulissat (cruising)		
Aug. 30	Upernavik		Shore stop.
Sept. 1-2	Nares Strait, Hall Basin		Farthest north at 81° 38'N, 63° 04'W.
Sept. 3	Qaanaaq (Thule)		Shore stop.
Sept. 5	Uummannaq, Qilakitsoq		Stop at Uummannaq aborted because of ice in harbor; shore stop across strait at Qilakitsoq.
Sept. 6	Qasigiannugit (Christianshab) and Jakobshavn Isfjord		Shore stop. Zodiac tour.
Sept. 7	Qeqertarsuaq (Godhavn)		Shore stop.
Sept. 8	Nuuk (Godthab)	10,854	Shore stop; passenger exchange.
Sept. 9	Hvalsey Fjord, near Qaqortoq (Julianehab)		Shore stop at ruins of Norse church.
Sept. 10	Prins Christian Sund (cruising)		
Sept. 12	Reykjavik, Iceland		Shore stop and land tour.
Sept. 14	Thorshavn, The Faroes		Shore stop and land tour.
Sept. 17-18	Kalundborg, Denmark		Land tour.
Sept. 21	St. Petersburg, Russia	14,120	End of voyage; ship refueled; city tours.
October	Bremerhaven, Germany		Refitting for Antarctic season.

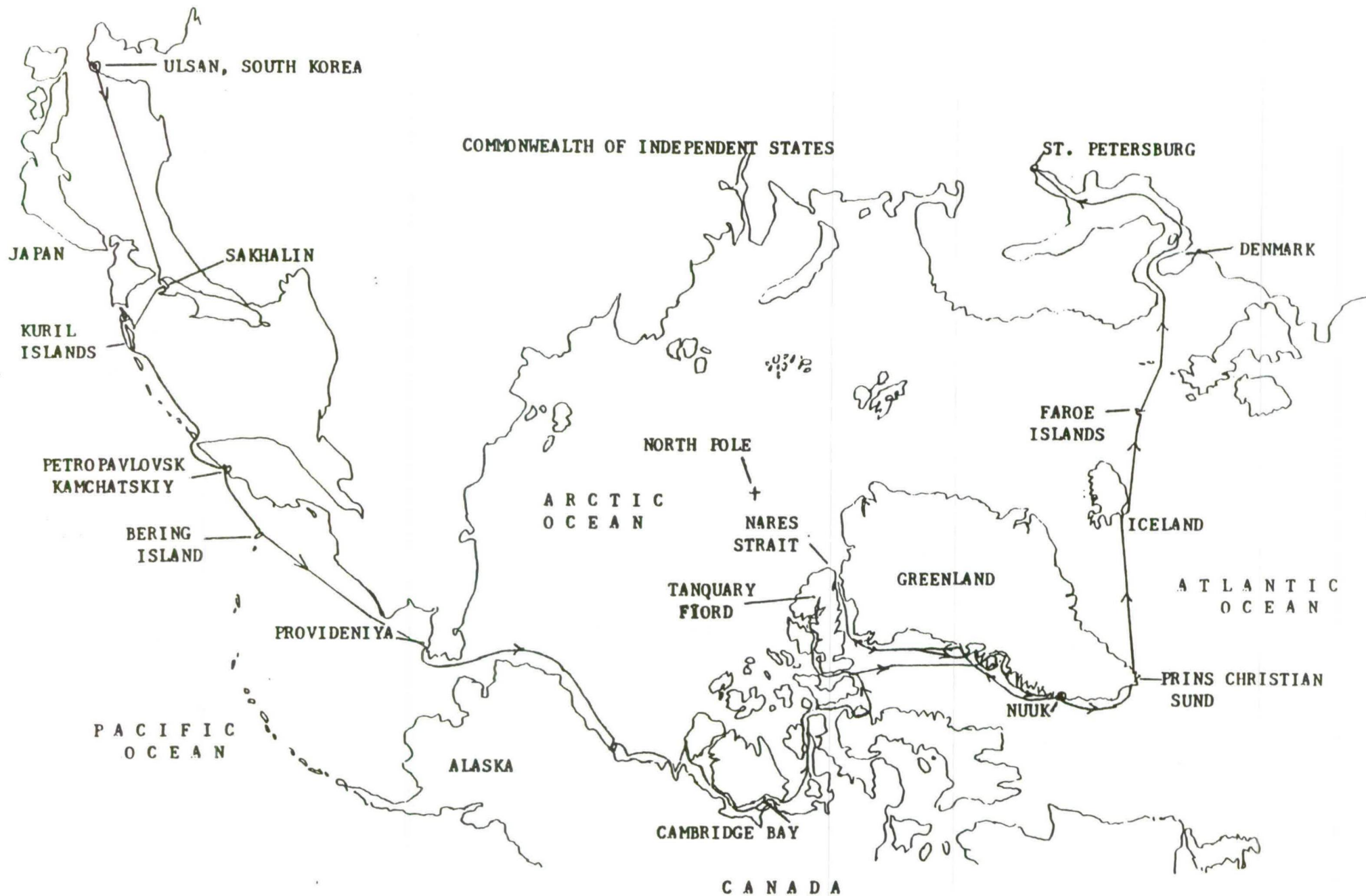


FIGURE 1. Route of the Icebreakers Magadan and Kapitan Khlebnikov.

ROBERT KEITH HEADLAND

Archivist and Curator of the Scott Polar Research Institute, University of Cambridge and an Editorial Associate for the journal *Polar Record*, Robert Headland's principal interests involve historical geography and associated studies. This has largely concerned human effects on polar regions--especially the smaller islands and archipelagos. The archival details and other historical records from earliest expeditions to recent events have allowed him to provide data for studies of long periods of climatic variation, glaciological and biological changes in polar regions.

Some of the many consequences of history and human contact with both the Arctic and Antarctic are questions of sovereignty and administration. Thus the significance of the territorial disagreements, with the treaties and other international protocols established, have also become part of his research.

● He has traveled extensively having begun biogeographical studies in Australia, continued in Asian (particularly Himalayan) and American regions. For the last 15 years, he has been involved with the Arctic (particularly Svalbard) and Antarctic; mainly with the Institute and several governmental expeditions.

Mr. Headland is an adviser to several expeditionary organizations, departments of government, and a Fellow of the Royal Geographical Society. He delivers lectures for several courses at the University. In 1984, he was decorated with the Polar Medal and is a member of both the Arctic Club and Antarctic Club.

ROD LEDINGHAM

Rod was brought up in Inverness in the North of Scotland where he spent his spare time mountaineering and skiing. He graduated as a geographer in 1966 with a main interest in glacial geomorphology at Aberdeen University before joining the British Antarctic survey as a meteorologist at Adulate Island on the Antarctic Peninsula.

After qualifying as a cartographer in 1970, he joined a mining company and prospected for nickel copper and uranium all over Western Australia. Realizing that the bush was too far from civilization he left for Macquarie Island for the winter of 1977 as an officer in charge of the scientific base, and with his wife Jean as the doctor. This was repeated in 1980 at Commonwealth Bay. As a result of tagging quite a number of leopard seals on Macquarie, Rod spent a year at the Scott Polar Research Institute in Cambridge working on a diploma in polar studies, part of which included a thesis on leopard seals.

From 1981 he has been employed as a field equipment and training officer at the Australian Antarctic Division where he is responsible for the field training of about 200 expeditioners each season. He has led summer expeditions to Stilwell Hills near Mawson, Bunge Hills near Casey, Heard Island, Scullin Monolith and Prince Charles Mountains. He has also been voyage leader on Australian Antarctic ships resupplying Mawson, Casey, Davis and Macquarie Island. Recently he was a guest lecturer on a cruise to the Ross Sea and New Zealand Sub-Antarctic islands.

At home in Tasmania he sails, skis and is attempting to grow wine grapes with the idea of becoming self sufficient in at least one major staple.

LECTURER BIOGRAPHY

JOHN SPLETTSTOESSER

John Spletstoesser is a geologist with extensive experience in Antarctica over the last 30 years. He is a native of Minnesota, where he received his Bachelor of Science in geological engineering at the University of Minnesota. He did his graduate work in industrial engineering at the University of Nebraska - Lincoln. Since 1960, he has made eight trips to Antarctica on research projects. He has been a guest lecturer on 26 tourist cruises to Antarctica since 1983 and eight tourist cruises in the North Atlantic and Arctic since 1987. He has done geologic research in Alaska, Greenland, Lapland, Spitsbergen, the Faroe Islands, Iceland, and the Canadian Arctic. For more than 22 years, he held administrative positions at the University of Minnesota, University of Nebraska, and Ohio State University. He was lead instructor for the Teachers' Institute on Antarctica at Hamline University, St. Paul, Minnesota in 1988, 1989, and 1990. He also taught geology in 1991 at College of the Atlantic, Bar Harbor, Maine. His research has taken him to more than thirty countries and all seven continents. One of his continuing research projects involves the aerodynamics of wind erosion of rocks and the formation of ventifacts, for which he has done field work in Antarctica, Greenland, Israel, Australia, and the Falkland Islands. His work in Antarctica has also included ice-core drilling, mineral potential, and an assignment as National Science Foundation representative at helicopter-supported field camps.

John is editor or co-editor of four books on polar subjects: Geology and Paleontology of the Ellsworth Mountains, Antarctica (1991, Geological Society of America), Mineral Resources Potential of Antarctica (1990, American Geophysical Union), Geology of the Central Transantarctic Mountains, Antarctica (1986, American Geophysical Union), and Ice-Core Drilling (1976, University of Nebraska Press). He is author of more than 20 articles in professional journals and books, 22 book reviews, and 20 papers presented at professional society meetings. He is presently on the American Geophysical Union Public Policy Speaker Program.

Two geographic features, a glacier and a mountain pass, are named for him in Antarctica, as well as a fossil snail species of the late Cambrian Age. He was awarded the U.S. Antarctica Service Medal in 1968 and the Soviet Polar Medal by the U.S.S.R. Academy of Science in 1974. John lives in Rockland, Maine, where he has formed a consulting practice specializing in polar earth sciences and logistics, mineral potential in Antarctica, and free-lance writing, editing, and teaching.

FRANK S. TODD

Frank Todd was for 16 years Corporate Vice President of Animal Service/Aviculture and Research with Sea World, Inc. and is currently a Senior Research Fellow at the Sea World Research Institute/Hubbs Marine Research Center in San Diego, California. He is Executive Director of Ecocepts International.

In recent years, Frank devoted himself to the highly publicized "Penguin Encounter" project. This historic undertaking was the first successful establishment of breeding colonies of High Antarctic penguins outside their native habitat and the first successful breeding colony of Emperor penguin outside of Antarctica. In recognition of his work, Frank was awarded the "Academy Award" of the Industry, the Bean Award of the American Association of Zoological Parks and Aquariums in 1980, 1981 and 1983.

Although Frank is best recognized for his penguin work, he is a renowned waterfowl specialist who has been awarded many Outstanding Propagation Awards as well as the 1977 International Wild Waterfowl Association award for the most significant contribution to duck propagation. He is also a noted expert on marine mammals.

Among Frank's many publications are the books, Waterfowl: Ducks, Geese and Swans of the World and Penguins, and he is working on a major volume on the natural history of the penguins of the world, and a book on brown pelicans. Frank has traveled widely in Central and South America, Antarctica, the Arctic and elsewhere throughout the world, collecting animals and furthering his research.