

First Antarctica Crossing In a Single Engine Aircraft

First Pole-to-Pole Circumnavigation of the Globe in a Single Engine Aircraft

Overview

The simple single engine aircraft, private aviation industry is in trouble. A combination of events have cast a negative pale on the future of single engine aircraft sales, service support systems, ancillary products, and infrastructure.

The Need

Positive media attention is required to capture the public's acceptance and accelerated interest in the important role that simple single engine aircraft provide to the economy, and the important role they play in various aspects of society.

The Benefit

There is a large and growing segment of prosperous American consumers with the resources and capacity to engage in private aviation if their interest is sufficiently peaked and the obtaining of VFR and IFR licenses seem reasonably obtainable and ownership of private aircraft appears within reach and attractive.

The Project

Focus the media on the positive aspects of private aviation through the catalyst of a solo, non-commercial pilot attempting to establish a new "first" for a simple single engine aircraft. A steady stream of progress reports made to media provided by a closely linked publicist will be designed to capture the public's attention and emphasis that there is nothing unusual or particularly difficult about anyone in America securing a private pilot's license in reasonably short order to participate in the thrill and freedom of private aviation.

The assistance of the "Aircraft Owners and Pilots Association", the participation of "Earthrounders", the involvement by the "National Aeronautic Association" and assistance from the U.S. Air Force Air National Guard (the operational authority over much of Antarctica) has been forthcoming. The Federal Aviation Administration has not yet been approached due to their distraction with terrorism issues.

Sponsors

Sponsors will be sought to provide aircraft modification for fuel bladder installation, GPS-Satellite phone, advanced weather radar, special clothing for arctic crossings, mechanical maintenance team assistance, ground and air support services. Significant media exposure will be available for those providing financial and materials support. Appropriate and continual news releases regarding the project and its supporters will be widely distributed.

Budget

A preliminary review of costs associated with the entire pole-to-pole circumnavigation suggests a cash budget of approximately \$250,000, assuming specially needed equipment is donated, such as weather radar, fuel bladders, satellite phone, and special arctic survival gear. Operational funds are now available.

Cash costs include support maintenance flights, fuel, food, accommodations, media distribution and publicity support services. The largest cost consideration is the aircraft itself, which is already paid for and immediately available. The pilot and aircraft owner are prepared to carry the uninsured risk portion of the trip --- which will be the majority of the flight.

Continent and Climate

- Antarctica is the fifth largest continent, larger than Australia and the subcontinent of Europe.
- It is approximately the 1.5 times the size of the United States and twice the size of Australia covering an area of 14 million square kilometers.
- The sun never rises during the six winter months and during the summer the sun never fully sets providing for 24 hours of severe ultraviolet light.
- Antarctica is the most isolated continent. It is completely surrounded by the stormy Southern Ocean.
- South America is 1000 km away, Australia is 2500 km across unpredictable seas and the southern tip of Africa is 4000 km.
- Antarctica is the coldest continent, recording the world's lowest temperature; it is colder than the Arctic.
- It is the highest continent, with an average elevation of over 7,000 feet.
- Antarctica is the windiest continent and is widely considered the most critical component, next to the sun, in weather production worldwide.
- Antarctica is dome shaped and almost circular, sloping from the center above 13,000 feet average out to sea level.
- When the air is clear and the sky overcast there are no shadows and no horizon making it impossible to judge height or distance; walkers stumble and aircraft and even birds crash into the snow.
- There is only a trace of precipitation, usually less than 2 inches per year.
- The actual South Pole station is at an elevation of 2,000 meters but with the equivalent pressure elevation based on polar atmospheric conditions, it may range from 3,300 to 4,000 meters.

The Pilot

Terry L Neal has extensive long-distance flight experience as a VFR private pilot and has owned five single-engine aircraft and two twin-engine airplanes since 1972. During the 1970's, Terry Neal, his wife Maureen, and their eight children moved to Vancouver Island, British Columbia Canada for two years so that their youngest son could attend a special treatment center for the pre-school handicapped child --- Timothy Neal was born legally deaf. During this time Terry flew back and forth from Vancouver Island, Canada, to Tacoma, Washington USA, each week or more often in his C-172 and/or C-337 aircraft, in order to pursue business activities. During this time he also logged extensive flights up and down the famous Inside Passage with repeated visits to the San Juan Islands of Northern Washington State and numerous remote island locations along the remote BC coastline all the way to Alaska. After a two year stint in Canada the family moved to Colorado Springs, Colorado where Timothy attended the deaf and blind school and the family purchased a home on a private airstrip from where Terry was able to commute via routine and continued VFR flights to pursue his business career.

Although Terry Neal took and passed his IFR written exam in the mid 1970's he felt he was too busy to accommodate the dual instruction at that time. After twelve years of private flying he "hung-up" his wings for a time while focused on the growing needs of a large family, and various business concerns. After most of the children were grown with seven married and six with children of their own, and after a thirteen year flying hiatus, Neal returned to private aviation in order to negotiate travel amongst small island nations in the Caribbean West Indies where he and his wife reside a part of each year.

Of course there were new and more complex aviation regulations one had to become familiar with, but flying a light single engine airplane is intrinsically easy. During 2001 Terry logged 280 hours in a Millennial Edition C172 flying in the Caribbean, in addition to thrice flying the trip from St Kitts, West Indies to Portland, Oregon. In late 2001 he secured a C182TC. For half of each year Neal flies weekly from Portland, Oregon to Reno, Nevada before returning to the Caribbean where frequent trips are required up and down the island chains from the Bahamas to Grenada. Pressed by his wife, who is now a pilot as well, Terry formerly logged the dual time hours required for his official IFR rating, notwithstanding using IFR resources for years. Total flight time has now passed 10,000 hours in the left seat.

The Genesis of the Project

In order to log needed cross-country IFR flight time Terry's wife suggested that her flight instructor fly commercially to the West Indies and return with Terry as he flew the new C-182TC to Oregon for the 2001 Thanksgiving holidays. During the 32 hour, three-day flight, Delcy Palk, a captain in the U.S. Air Force reserve, a figure skater, and Certified Flight Instructor, suggested that Terry do something

to support private aviation and attempt to be the first to make a South Pole crossing in a single engine aircraft. She referred to Terry's "butt power," her term for the amount of hours he could sit quietly and fly under all types of weather conditions.

Facilities

Sixteen national governments have a total of twenty-seven stations that provide occasional landing facilities on ice for either helicopters or aircraft. Nineteen of these will support aircraft; none are paved, all are on ice flows. At least two and probably three of these must be identified and stocked with LL100 aviation fuel to accommodate the transcontinental trip. There are 100 weather stations; some manned others remotely controlled, which routinely provide weather information directly over the Internet.

Departure Date

The heart of the Antarctica summer is the only reasonable option for a single engine aircraft crossing of the continent. Weather conditions are critical so decisions to fly will be made on short notice and must be very flexible. Preparations for the flight will begin immediately, with the trip to Chile scheduled for October 2002 and the flight across Antarctica and on to New Zealand to take place sometime during November to January based on weather and refueling accommodations.