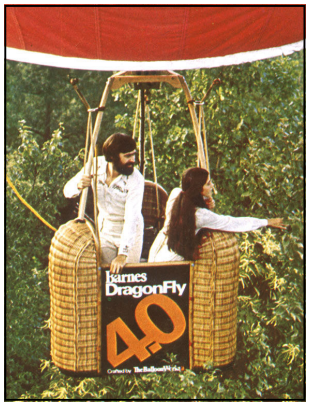
Tracy L. Barnes



Tracy & his 2nd wife Nancy in an early Barnes basket

Barnes' "Solar Firefly" 203,000 cubic foot Tetrahedron

INDUCTED INTO THE U. S. BALLOONING HALL OF FAME
July 27, 2008
By The Balloon Federation of America at the National Balloon Museum, Indianola, Iowa

Above Barnes is shown making his first Hot Air Balloon Flight in "Old Lumpy" on October 13, 1961. He built the balloon from five used army parachutes.

Pvt. Tracy Barnes in the 101st Airborne in 1957

Above Tracy is shown in in the Museum in June of 2008 with his A-3 hydrogen gas polyethylene balloon N66B with plastic light weight foam cabin. Using this balloon he established seven world altitude records in 1964. Later when the FAI increased the number of balloon sizes from 10 to 15 he was awarded 11 records, for this flight. These records still remain unchallenged.

At right Tracy stands in the Barnes basket for the balloon "Fantasia" at the National Balloon Museum in June of 2008.

TRACY LAY BARNES
Born February 21, 1939

Tracy Lay Barnes was born in St. Louis Missouri on February 21, 1939. At age 15 he moved to Wayzata, Minnesota where he graduated from Wayzata High School in 1957. July 1957 he joined the U.S. Army 101ST Airborne Division, assigned to the Meteorological Section as a weather balloon technician. He made over 100 parachute jumps with the first military sport parachute club. He was discharged July 1960. In September of 1960 he was a student of mechanical engineering at the University of Minnesota.

From February to September in 1961 Barnes worked as a technician for the Balloon Project Division, Department of Physics at the University of Minn. He worked under William Hutch on several balloon projects including the development of plastic tetrahedrons. During 1962-1972 Barnes developed and flew a number of promotional balloons and airships in the Tracy Barnes Corporation.

In 1973 he Co-founded The Balloon Works, Inc. with Dodds Meddock and Karl Stefan, as the Director of Development and Design. He was President until he sold the company in 1982. After selling The Balloon Works he took a two year sabbatical and moved to the mountains of Colorado.

In 1984 he returned to Statesville, NC and started a lighter-than-air development company, the Blimp Works (which became incorporated in 1985). The company was started for the purpose of developing blimps and airships. In order to fuel the projects of manned airships he developed a line of tethered and remote control helium blimps to sell to the advertising and photography industries. During the 90's Tracy designed and flew successfully 2 one-manned airships: #1 Skywalker and #2 Whisperships.

Currently Tracy is president of the Blimp Works, Inc., where he is still actively designing. In 2007 he was granted a patent on a new tethered blimp design for the British Military. This blimp design is currently in use by the British in Iraq and Afganistan. It is used as an aerial observation platform to protect the troop encampments. The new design of collapsible tail fin makes it possible for the blimp to be rapidly inflated by a minimum number of troops in high wind conditions.

NOTABLE ACHIEVEMENTS OF TRACY BARNES

On September 23, 1961 Mr. Barnes made a flight to 8,000 feet in an AX3 of his own design and construction. This was the first fully controlled flight in a non-governmentally developed thermal aerostat made of modern synthetic fabric.

On February 4, 1962 he became the Winner of the Piccard Trophy at the St. Paul, Minnesota Winter Carnival Balloon Race. Other competitors were Ed Yost and Don Piccard who flew U.S. Navy hot air balloons. This was the first such race. Barnes also won this race in 1963 and 1964.

In the Spring of 1962 Barnes Designed and flew two AX7 hot air balloons. These were the first non-military natural shaped hot air balloons. (First modern hot air balloon invented and flown by Ed Yost in 1960 was a project of the Navy.)

In the Spring of 1963 he developed the first super-pressure (hot air) captive balloon system and the coated polyester as hot air balloon skin.

In the Fall of 1963 he made successful trial flights of unmanned solar powered balloon.

On May 10, 1964 Barnes designed and constructed a polyethelene A-3 size balloon. The balloon called "Barnes 14A" had a lightweight insulating foam cabin. Barnes' design resulted in an aerostat that weighed less than 250 pounds including envelope, cabin, ballast, instruments, and pilot. On that flight he achieved an altitude of 38,650 feet and established 7 world altitude records. When the FAI later increased the number of balloons sizes from 10 to 15 he was awarded a total of 11 records for this flight for balloon sizes AA-3 through AA-13. It was the first manned hydrogen filled polyethelene balloon. These flight records still stand today.

In 1965 along with Karl Stefan he developed a super-pressure thermal balloon system for oceanographic and marine observation for the U.S. Bureau of Commercial Fisheries and conducted successful experiments in the Pacific Ocean near La Jolla, California.

In the period from April 9 to Sept. 11, 1966 Barnes made the first trans-continental flight by hot air balloon. Barnes flew from San Diego, California/to Cape May, New Jersey, in a series of 34 flights and a total flight time of over 200 hours.

On August 25, 1966, during his Cross Country flight, he flew his "FireFly 90" to 28,585 feet establishing the World Altitude Record for AX 8 and AX 9 hot air balloons.

1969 to 1970 Barnes developed and flew the first hot air super-pressure captive blimp, "Wart-SP" and developed the TBX series of hydrogen mini-blimps.

1971 to 1972 he developed the TBX series of hydrogen mini-blimps.

In the Summer of 1972 Barnes developed the self-sealing valve as a replacement for the rip panels in thermal balloons. This is now known as the "Parachute-Valve".

On May 26, 1973 he made the first flight in an aircraft solely powered by solar energy in the "Solar Firefly" as a 200,000 cu. ft. tetrahedron shaped balloon. This was the 1st manned flight of what is now called a tetroon.

On October 30th, 2007 he was granted a patent for Tethered or Free Flight Blimp with collapsible tail fins.

AWARDS GIVEN TO TRACY BARNES

1964 - Wingfoot Lighter-than-Air Society Achievement Award for his May 10, 1964, A-3 altitude record.

1967 - Wingfoot Lighter-than-Air Society Achievement Award for setting a new official altitude record for hot air balloons of any size, and for his transcontinental balloon flight (with Intermediate landings), the first crossing of North America by free balloon.

1973 – He was awarded the Shields-Trauger Award by the Balloon Federation of America November 21, 1973. This is the highest award of the B.F.A.

a notable flight (first flight of Solar Balloon)
a worthwhile contribution to the science of aerostation (Development of Solar Balloon)
an important contribution to ballooning safety (Invention of the envelope Valve)
Tracy Barnes was the first person to have received the award in all three categories.

1974 – On October 28, 1974 he received the Diplome Montgolfier, the Highest International Ballooning Award, presented by the Federation Aeronautique Internationale for the development and flight of the first solar powered balloon, many other remarkable balloon flights and the establishment of many World Records.

1975 – He received the award for excellence in design of the Barnes FireFly from the National Collection of Fine Arts, Smithsonian Institute and National Academy of Design.

1978 - At the 4th Annual International Balloon Rally in 1978 at Chateau de Balleroy near Bayeaux, France, the Coupe Du Chateau De Balleroy was presented to Tracy for his important contributions to ballooning.

1985 – May 1st was presented the 1st Wirth Medal by the Queen of England, for his contributions for the safety of ballooning. In specific, his contribution of the “Parachute Valve” system of deflation.

July 27th, 2008 Inducted in to the National Balloon Museum Hall of Fame

TRACY BARNES’ WORLD RECORDS

F. A. 1. Diplome de Record, A-3, A-4, A-5, A-6, A-7, A-8, A-9 m "Barnes I4-A", altitude of 38, 650 feet (11,780 meters) from Southport, Minnesota, May 10, 1964.

F.A.I. Diplome de Record, AX-8, AX-9 in "FireFly 90" , altitude of 28,585 feet (8,712 meters) from Tarentum, Pennsylvania, August 25, 1966.