

Dear Don & Family;

My Mr & I made a trip to

Maria Horvath, the great, for

the making of my daughter

Trudy to Grand Canyon. A great

ride, much pleasure taken.

My sister Dorothy, and her spouse,

Norma Cunningham, were guests

of the women citizens' club

at the Kennedy Space Center for

explorers left-off. My sister &

siblings are present.

I attended my 50th High School

Reunion, approx. in Oct,

then two weeks later I re-

turned of High School. I believe it

was a very good & much enjoyed

as we participated in many of the

reunions & activities for years &

thought you would enjoy the  
mild winter of Arizona &  
the "All Country" selection.

May

every happiness

be yours

through Christmas

and the

New Year

Love of yours

Elizabeth

WHEN SENT  
NORMAL SENT  
VISA PICTURE

SEE ATTACHED  
WHEN SILLIWHAN  
TO NASA  
PROBABLY OCT 84

In 1993, Dr. Sullivan left NASA to accept a Presidential appointment to the post of Chief Scientist at the National Oceanic and Atmospheric Administration (NOAA). Here she oversaw a wide array of research and technology programs ranging from climate and global change to satellites and marine biodiversity.

From 1996 to 2006, Dr. Sullivan served as President and CEO of COSI (Center of Science & Industry) in Columbus, Ohio. Under her leadership, COSI strengthened its impact on science teaching in the classroom and its national reputation as an innovator of hands-on, inquiry-based science learning resources.

Dr. Sullivan is currently located in Columbus, Ohio, at the John Glenn School of Public Affairs, Ohio State University, where her passion for igniting in others the wonder and importance of science, math and technology is focused at The Battelle Center for Math & Science Education Policy.

**NASA EXPERIENCE:** Selected by NASA in January 1978, Dr. Sullivan became an astronaut in August 1979. Her Shuttle support assignments since then include: software development; launch and landing lead chase photographer; Orbiter and cargo test, checkout and launch support at Kennedy Space Center, Florida; extravehicular activity (EVA) and spacesuit support crew for several flights; and capsule communicator (CAPCOM) in Mission Control for numerous Shuttle missions. A veteran of three space flights, Dr. Sullivan was a mission specialist on STS-41G (October 5-13, 1984), STS-31 (April 24-29, 1990) and STS-45 (March 24-April 2, 1992).

Joining NASA, Dr. Sullivan's research interests were focused on remote sensing. She qualified as a systems engineer operator in NASA's WB-57F high-altitude research aircraft in 1978 and participated in several remote sensing projects in Alaska. She was a co-investigator on the Shuttle Imaging Radar-B (SIR-B) experiment, which she flew on Mission STS-41G.

**SPACE FLIGHT EXPERIENCE:** STS-41G, launched from Kennedy Space Center, Florida, on October 5, 1984, with a crew of seven. During their eight-day mission, the crew deployed the Earth Radiation Budget Satellite, conducted scientific observations of the Earth with the OSTA-3 pallet (including the SIR-B radar, FILE, and MAPS experiments) and large format camera (LFC), conducted a satellite refueling demonstration using hydrazine fuel with the Orbital Refueling System (ORS), and conducted numerous in-cabin experiments as well as activating eight "Getaway Special" canisters. Dr. Sullivan and Commander Leestma also successfully conducted a 3-1/2 hour Extravehicular Activity (EVA) to demonstrate the feasibility of actual satellite refueling, making her the first U.S. woman to perform an EVA. STS-41G completed 132 orbits of the Earth in 197.5 hours, before landing at Kennedy Space Center, Florida, on October 13, 1984.

In April 1990, Dr. Sullivan served on the crew of STS-31, which launched from Kennedy Space Center, Florida, on April 24, 1990. During this five-day mission, crew members aboard the Space Shuttle Discovery deployed the Hubble Space Telescope, and conducted a variety of middeck experiments involving the study of protein crystal growth, polymer membrane processing and the effects of weightlessness and magnetic fields on an ion arc. They also operated a variety of cameras, including both the IMAX in-cabin and cargo bay cameras, for Earth observations from their record setting altitude of 380 miles. Following 76 orbits of the Earth in 121 hours, STS-31 Discovery landed at Edwards Air Force Base, California, on April 29, 1990.

Dr. Sullivan served as Payload Commander on STS-45, the first Spacelab mission dedicated to NASA's Mission to Planet Earth. During this nine-day mission, the crew operated the twelve experiments that constituted the ATLAS-1 (Atmospheric Laboratory for Applications and Science) cargo. ATLAS-1 obtained a vast array of detailed measurements of atmospheric chemical and physical properties, which will contribute significantly to improving our understanding of our climate and atmosphere. In addition, this was the first time an artificial beam of electrons was used to stimulate a man-made auroral discharge.

With the completion of her third mission, Dr. Sullivan logged over 532 hours in space.

MARCH 2009

This is the only version available from NASA. Updates must be sought direct from the above named individual.