



Island Access



Wallops celebrates
70th anniversary
on June 27
Page 3

FTX-19
Rockets help DoD
targeting systems
Page 6

**Women's
History
Month**
Women of Wallops
tell their stories
Page 8



March Calendar

25 | **Women's History Month lunch time event**
11:30 a.m.-1 p.m. in the Chincoteague Room, presented by the Women of Wallops

26 | **"Truth, Beauty, and Heliocentrism"**
Part 3 of the Modern Perspectives on our Solar System Lectures, 12:15-12:45 pm, E-100 Auditorium

27 | **RockSat-X Launch**
NASA Terrier-Improved Malemute launch with RockSat-X program university student experiments; Launch window 6:45-10 a.m.; Backup days are March 28-30

April Calendar

1 | **Safety Awareness Day**
8 a.m.-noon, E-100 Auditorium

2 | **"Deducing the Laws of Motion"** Part 4 of the Modern Perspectives on our Solar System Lectures, 12:15- 12:45 p.m., E-100 Auditorium

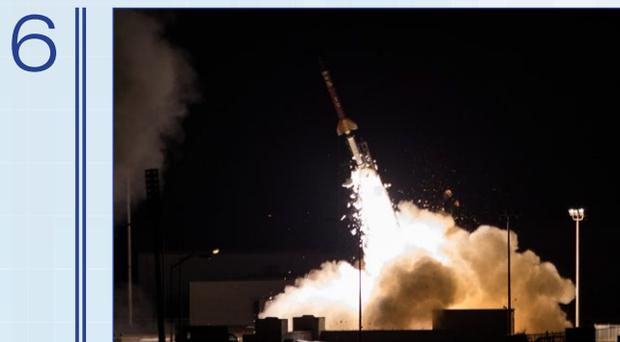
2 | **"Planetary Predictions and Scientific Theory"** Part 5 of the Modern Perspectives on our Solar System Lectures, 12:15- 12:45 p.m., E-100 Auditorium

What's inside

3 | **The Director's Cut**
70 years of Wallops

4 | **What's up @NASAWallops?**
RockSat-X Launch, FCLP flights

5 | **New Zealand Balloon Flight**
Balloon Program Office prepares for potentially record-breaking flight



FTX-19 Launch

Rockets help DoD targeting systems

7 | **Science on the Shore**
Volunteers help NASA scientists with Eastern Shore precipitation research



Women's History Month

Women of Wallops tell their stories, both past and present

Island Access

Bldg. E-104, room 204

34200 Fulton Street

Wallops Island, VA 23337

Email: Wff-information@mail.nasa.gov



www.facebook.com/NASAWFF



www.twitter.com/nasa_wallops

The Wallops Island Access is published monthly by the Wallops Office of Communications and Optical Systems Group. To submit photographs or articles, email wff-information@mail.nasa.gov.

The Director's Cut

March is a month for history lovers. Foremost, we observe Women's History Month by recognizing and celebrating the extraordinary contributions of pioneering women throughout our nation's history. Closer to home, the Women of Wallops have contributed immeasurably to the growth and success of our facility, taking us to new heights and breaking glass ceilings along the way. In this month's issue of *Island Access* we highlight some of our very own pioneering women—take a moment to check it out!

Earlier this month on March 3 we marked an enormous milestone for the agency in celebrating the 100th anniversary of NASA's predecessor, the National Advisory Committee for Aeronautics. The NACA's early work quickly advanced the United States' position in aeronautics, which helped enable victories in World War II while also advancing civil aviation and ground laying work in supersonic flight.

Wallops' own history dates back to 1945 and the NACA. Harold Wallace in his book *"Wallops Station and the Creation of an American Space Program"* lays out the beginnings of Wallops by discussing the nation's need to test early missile designs. Langley Research Center conducted much of the early missile design research in wind tunnels, but eventually, the time came to build a launch range from where they could fully test missile guidance and propulsion systems.

Wallace talks about how Cherry Point, N.C., was first considered, but the proposal was met with a number of challenges and objections. From there, the Langley team reconsidered a site previously considered too remote: Wallops Island. Congress appropriated funds for the research station in April 1945, and on June 27, 1945, launch operations began. And the rest, as they say, is history.

This June 27 marks the 70th anniversary since our first launch and we plan to mark that event with an open house celebration. More details will follow in the coming weeks, but rest assured, it's going to be an event to remember. Hope to see you there.



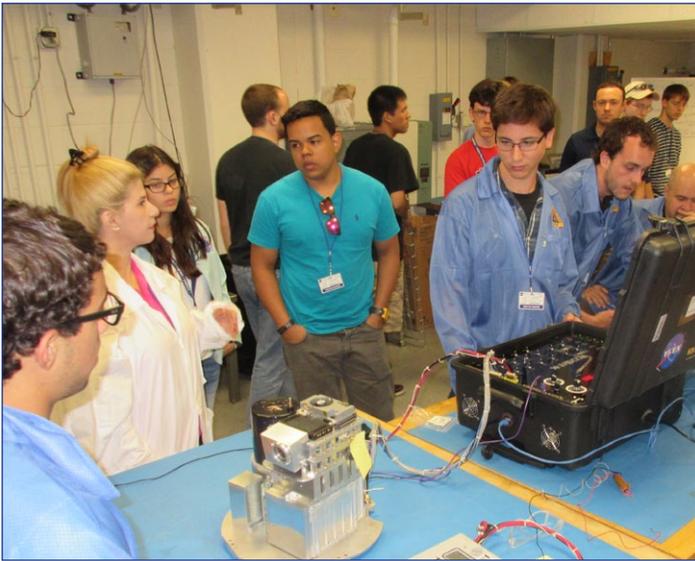
on the
COVER

From left, technicians William Ferguson, Harry Bloxom, and Nat Johnson make final arrangements for launching E17 drag-research model with Bell X-5 research airplane wing in sweptback position from Wallops Island. Photo taken on May 17, 1951. Photo and caption as seen in *"A New Dimension - Wallops Island Flight Test Range: The First Fifteen Years"* by Joseph Shortal

**Tiamat Launch
July 4, 1945.**



What's up @NASAWallops?



The University of Puerto Rico RockSat-X experiment undergoes testing at Wallops in the summer 2014. Photo Credit: Colorado Space Grant Consortium

RockSat-X to fly six student experiments

WALLOPS ISLAND — NASA will fly six university experiments developed by undergraduate students examining technology development, microgravity science and searching for life in the upper atmosphere and near space on a Terrier-Improved Malemute sounding rocket, which will launch between 6:45-10 a.m., March 27, from Wallops Flight Facility (WFF) in Virginia.

The experiments were developed through the RockSat-X program with the Colorado Space Grant Consortium at the University of Colorado at Boulder.

“We are pleased to work with the Colorado Space Grant Consortium in providing students from institutions across the United States the ability to fly their experiments in space,” said Phil Eberspeaker, chief of the sounding rocket program office at WFF.

“This is the fourth flight of RockSat-X experiments,” Eberspeaker said. “The quality of the experiments developed by the students shows they are prepared for science, technology, engineering and math (STEM) careers.”

Other participating universities include Northwest Nazarene University, Nampa, Idaho; the University of Puerto Rico; the University of Nebraska, Lincoln; and Virginia Tech University, Blacksburg.

The backup launch days are March 28-30.

Wallops hosts seasonal Craft Brew Night

WALLOPS ISLAND

— The seventh seasonal Craft Brew Night was held March 19 at the F-3 Rocket Club and boasted a Saint Patrick's Day theme.



Tickets were \$5 for unlimited food and beer tastings. Virginia Space provided traditional Irish food including beef stew, corned beef and cabbage, and colcannon, as well as modern items with an Irish twist, like corned beef and cabbage spring rolls with tater tots and Reuben pasta salad. The WEMA/MAC Craft Brew Night planning group featured a wide range of commercial craft beers, from white ales to imperial red ales, to Murphy's Irish Stout. Guinness Draught was also on hand, but used to make ice cream floats using Island Creamery vanilla and their new Guinness chocolate ice cream.

Wallops homebrewers were out in full force, presenting their beers for sampling, including competitive Irish beers and naturally green beers. “Celebrewty” judges made the trip to judge these offerings, including representatives of 3rd Wave Brewing Company (Delmar, Del.), Ocean City Brewing (Ocean City, Md.), Xtreme Brewing Beer & Wine Making Supplies (Laurel, Del.), Tall Tales Brewing Company (Parsonsburg, Md.), and even Dogfish Head Brewery (Milton, Del.).

These intrepid professional brewers traveled quite a few miles, brought a considerable amount of swag and their own brews for sampling, and courageously tasted all that the Wallops homebrew community had to offer. In the end, NSROC cleaned up in the competitions, with Ernie Josh Owens producing the best green beer, Nate Wroblewski placing third in best Irish beer, Herb Haugh claiming second, and Ernie Bowden winning best Irish beer and “Best in Show”, and sharing the People's Choice award with Nate Wroblewski. A few of the 110+ attendees were winners too, claiming clothing, gift cards, and glassware through a free raffle.

What's Up? continued on Page 14

Balloon Program prepares for New Zealand launch

WANAKA, NEW ZEALAND — NASA is now targeting no earlier than Saturday, March 21, to launch a heavy-lift Super Pressure Balloon (SPB) from Wanaka, New Zealand, due to poor weather in the South Pacific.

Tropical Cyclone Pam, a powerful storm impacting the South Pacific, has created conditions in the stratosphere resulting in an unacceptable predicted trajectory for the balloon.

“The team has done an incredible job getting us to this point for this potentially record-breaking flight,” said Debbie Fairbrother, chief of NASA’s Balloon Program Office (BPO). “Now we’re simply waiting on the final ‘go’ for launch from Mother Nature.”

The team will assess weather conditions and make a day-to-day call whether or not to proceed with a launch attempt. A Saturday, March 21, launch would occur between 2-6 p.m. EDT, which is Sunday, March 22, between 7-11 a.m. in New Zealand.

Once launched, the pumpkin-shaped balloon, made from 22-acres of material and as large as a football stadium when fully inflated, will ascend to a constant float altitude of 110,000 feet. The balloon will travel eastward carrying a 5,000-pound payload consisting of tracking and communications instruments. NASA expects the SPB to circumnavigate the globe once every one to three weeks, depending on wind speeds in the stratosphere.

Anyone may track the progress of



From left, rigging team members Alec Beange, Josh King, and Derek Dolbey install the ripstitch, which will reduce the shock load on the super pressure balloon (SPB) payload at flight termination. Dolbey is one of two crew chiefs on the launch team from NASA’s Columbia Scientific Balloon Facility (CSBF). Beange is an operations safety supervisor for CSBF and a native of New Zealand. Photo Credit: Balloon Program Office

the flight, which includes a map showing the balloon’s real-time location, by visiting the [Columbia Scientific Balloon Facility tracking website](#).

NASA seeks to fly the balloon for an ultra long duration, potentially up to 100 days, at a stable float altitude. The current record for an SPB flight is 54 days.

The science and engineering communities have previously identified ultra long-duration balloon flights at stable altitudes as playing an important role in providing low cost access to the near-space environment for science and technology.

This March test mission is set to validate the SPB technology, which

has been under development by NASA for 15 years, according to Fairbrother.

NASA’s scientific balloons offer low-cost, near-space access for scientific payloads weighing up to 8,000 pounds for conducting scientific investigations in fields such as astrophysics, heliophysics and atmospheric research.

NASA’s Wallops Flight Facility in Virginia manages the agency’s scientific balloon program with 10-15 flights each year from launch sites worldwide.

For more information on the NASA Scientific Balloon Program, visit the [Balloon Program Office website](#).

Rockets help DoD targeting systems

WALLOPS ISLAND — NASA's Wallops Flight Facility supported the successful launch of three Terrier-Oriole suborbital rockets for the Department of Defense between 2:30-2:31 a.m. Tuesday, Feb. 24, from NASA's Wallops Flight Facility.

The three short-range ballistic missile targets were launched near-simultaneously, while two Aegis Ballistic Missile Defense (BMD) system destroyers successfully acquired and tracked the targets, with another destroyer participating in associated operations.

The Missile Defense Agency (MDA) and Sailors aboard the USS CARNEY (DDG-64), USS GONZALEZ (DDG-66), and USS BARRY (DDG-52) successfully completed a flight test involving the Aegis BMD weapon system. Using this data, the Aegis BMD ships conducted simulated Standard Missile-3 (SM-3) Block IB guided missile engagements with the Distributed Weighted Engagement Scheme (DWES) capability enabled. The DWES provides an automated engagement coordination scheme between multiple Aegis BMD ships that determines which ship is the preferred shooter, reducing duplication of BMD engagements and missile expenditures while ensuring BMD threat coverage. Several fire control, discrimination, and engagement functions were exercised. Since no SM-3 guided missiles were launched, the test did not include an attempted intercept.

This test was designated Flight Test Other (FTX)-19. This was the first flight test to assess the ability of the Aegis BMD 4.0 weapon system to simulate engagements of a raid consisting of three short-range, separating ballistic missile targets. This was also the first time Aegis BMD 4.0 ships used the DWES capability with live targets.

The MDA will use test results to improve and enhance the Ballistic Missile Defense System and support the advancement of Phase 2 of the Phased Adaptive Approach for missile defense in Europe to provide protection of U.S. deployed forces and our European allies and partners.

Aegis BMD is the naval component of the MDA's Ballistic Missile Defense System. The MDA and the U.S. Navy cooperatively manage the Aegis BMD program.

— *This story was compiled from NASA and MDA reports.*

Three Terrier-Oriole suborbital rockets launched from NASA's Wallops Flight Facility in rapid succession on February 24. The second stages are shown in the far upper left of the photo. Photo Credit: NASA/Allison Stancil

Citizen science helps NASA researchers on the shore

By Dr. Tiffany Moisan

Scientist at Wallops Flight Facility

WALLOPS ISLAND — NASA's Wallops Visitor Center hosted a "Science on the Shore" community event "When it Rains...: Citizen science helping precipitation satellites" from 1-4 p.m. on Saturday, February 28, featuring presentations by Dr. Walter Petersen, Dr. Tiffany Moisan, Brian Campbell and Noah Newman.

The educational event showcased volunteer observers from the Delmarva Peninsula who help NASA researchers by conducting citizen science for the Global Precipitation Measurement (GPM) Mission.

Dr. Tiffany Moisan, along with the Community Collaborative Rain, Hail and Snow (CoCoRaHS) Network, distributed rain gauges to citizens to assist Dr. Walt Petersen, GPM deputy project scientist for ground validation, with his extensive calibration and validation network on the Eastern Shore. A group of more than 100 volunteer observers in the Delmarva Peninsula are using simple rain gauges to provide high-quality data to aid the GPM mission. GPM is an international satellite mission which will provide next-generation observations of rain

and snow worldwide every three hours. The GPM Core Observatory was launched on February 27, 2014, carrying advanced instruments that will set a new standard for precipitation measurements from space. CoCoRaHS, a grassroots volunteer network of backyard weather observers around the U.S. and Canada, has partnered with NASA to make measurements for the GPM mission in the Delmarva Peninsula for the last two months.

The February 28 event at the Visitor Center provided CoCoRaHS volunteers and the general public an opportunity to speak with scientists and learn more about the Global Precipitation Measurement Mission and the new Soil Moisture Active Passive Mission. One of the CoCoRaHS volunteers noted that his measurement strategy is a fine hobby and structures his day. Others noted that it is fun to see their measurements in real time and to know that their measurements for CoCoRaHS are used by a wide variety of scientific organizations

Science continued on Page 14

Below: CoCoRaHS volunteers with Dr. Walt Petersen, far left, Dr. Jackson Tan, third from right, and Dr. Tiffany Moisan, far right. Photo Credit: Submitted/Jennifer Seay





Pam Pittman



Linda Wiles

Women of Wallops then and now

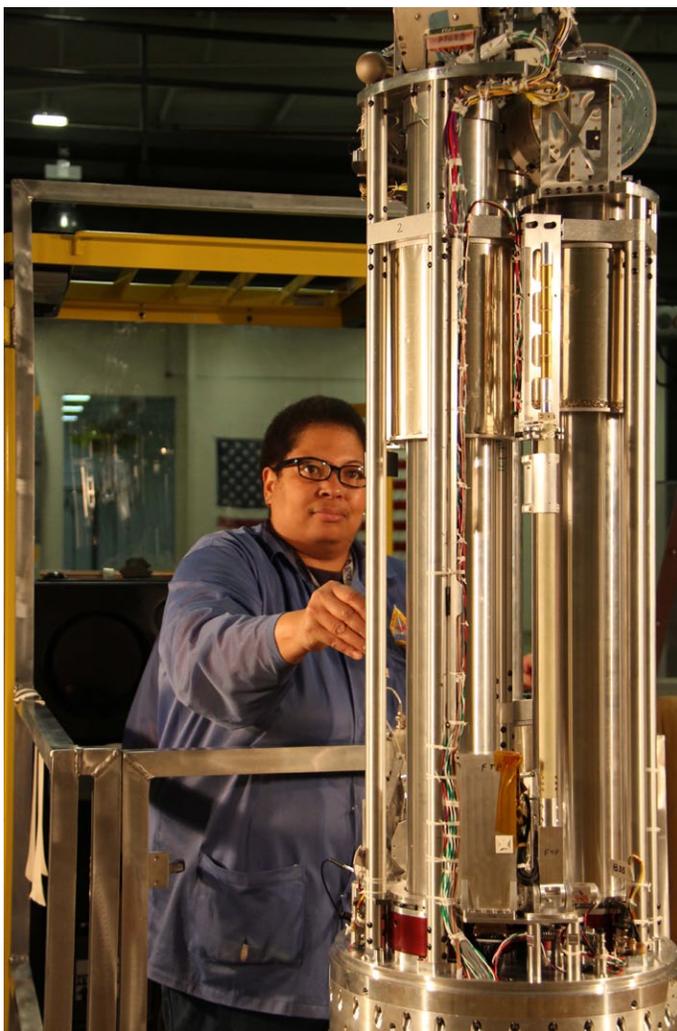
WALLOPS ISLAND — March is Women's History Month, and NASA's Wallops Flight Facility celebrates with events to commemorate this year's theme, "Weaving the Stories of Women's Lives," sponsored by the Women of Wallops and the Goddard Women's Advisory Committee. *Island Access* caught up with some of the women of Wallops to hear about what it was like, as a woman, to work at NASA's Wallops Flight Facility, then and now. Enjoy their stories and photos that give us a glimpse at some of their very cool work here at Wallops.

Pam Pittman

Here's an old photo from when I first started here in 1986. Seems like a million years ago!

A lot has changed in the 28+ years I've been here – the pace and visibility and “formality” of the work has increased quite a bit. What hasn't really changed is the “we can do it” attitude and the sense of teamwork and camaraderie at Wallops. I think that's grounded in an enthusiasm for our mission. Everyone here is genuinely excited about what we're doing and why it matters. That enthusiasm shows in our commitment to getting things done that other places won't or can't do. And that's what I love about working here.





Bernita Justis

I grew up in Accomac, Va. I attended Onancock High School in Onancock, Va., for three years and graduated in the first graduating class from Nandua High School in Onley, Va., in 1985 after they combined Onancock High and Central High School. In 1987, I graduated from the Eastern Shore Community College (ESCC) with a degree in Electronic Technology. In 1990, I graduated from Salisbury State College with a degree in Physical Science.

I started working at Wallops during the summer of 1986 under the NASA student aid program, and continued with the student aid program working 20 hours a week from 1987-1990. After graduating from college I started full time with Computer Science Corporation in October 1990 in the calibration lab. During a series of layoffs in 1996 I transferred to the Sounding Rocket program.

I am very thankful for a very caring guidance counselor, the late Mr. Gene Trent who asked the question when I got to ESCC, "What are you going to major in?" My answer was: "I have no idea." He immediately said, "How about we try the electronics program?"

I most like interacting with the universities and principal investigators during the sounding rocket projects at Wallops. It is fascinating to see some of the science aspects that we study and to see how the systems that we provide enhance the lives of others.

Sarah Roth

I grew up in Akron, Ohio, born and raised, and spent most of my days in the band hall. I received my Bachelors of Music in instrumental music education in 2008 from Bowling Green State University and am currently attending The University of Akron, pursuing a Masters in chemical engineering.

I taught band for grades 5-12 in Akron Public Schools, as well as performing in the Cleveland area for a few years. I even went on tour a few times with a jazz band. I joined the Navy in 2011 as a machinist mate – nuclear. I was discharged due to injury and went to work for a local coatings company (APV Engineered Coatings). They mentored me in my pursuit of a new degree and helped me get where I am now.

What I like the most about working at Wallops are the people I work with in the Balloon Program Office. I'm not sure exactly where I'm headed from here. I've stopped making plans and I'm now just going where the wind takes me (much like the balloons I'm working on now). I'm just hoping for fair winds.



Debbie Parks

“I grew up in Wattsville, Va., less than 3 miles from Wallops. I still live there!”

I started at Wallops in the 1980 as a summer intern in the Math and Data Analysis section. I returned as a summer intern in 1981 in the radar section. I was hired by CSC in a full-time computer programming position after I graduated from Salisbury State College in 1982 with a degree in

math with a concentration in statistics and a minor in physical science. I started my full-time job on my 23rd birthday! My first few years were spent working on software, first in the data analysis section and then in the sounding rocket performance and analysis section. In 1989, I was hired by NASA and began working in the control center and data reduction group. I stayed there until Wallops re-organized and I moved to Code 500. After a couple of other reorganizations, I am now happily settled in the Code 589 Wallops Systems Software Engineering Branch where I hope to stay until retirement in a few years.

When I think back over the past many years, I have had some great mentors, one being my good friend Linda Thompson, who I had the pleasure of working with for several years during the development of flight software and control centers for the CREAM balloon project. Another mentor is Pam Pittman, my supervisor. She has a great deal of respect for balance between work and personal life, and has always been very supportive when I need time off for the good and the bad that life throws our way!

The highlight of my time at Wallops is meeting my husband, Jamie Parks in 1993. I will always be grateful to Wallops for bringing us together! We are proud parents of four children and grandparents of two little grandsons.”



Sharone Corbin

“I was born and grew up here on Virginia's Eastern Shore. I attended Accomack County Public Schools and later attended Eastern Shore Community College.”

My foster mother, Susie Ethel Ayres Conquest, was the most influential person in my life. She was a lady with a limited educational background, yet she supported me in furthering my education. She taught me the value of hard work and encouraged me to always do my best. When it came to the simplest house chore, if I did not do my best, I had to redo it. I have applied this concept to my career life at Wallops.

I came to Wallops in 1992 through the NASA Co-op Program and started with the Wallops Safety Office in July 2013. Working at Wallops has afforded me the opportunity to be exposed to the most intelligent and greatest group of people. It has also proven that you don't have to leave the Eastern Shore to be a success.



Venus Quinones

“I am a Journeyman Technician for the Sounding Rocket program. I grew up in Puerto Rico and enlisted in the Navy. After serving during 9/11 in my first enlistment, I got out and went to Aircraft Maintenance Tech School where I obtained an FCC license. I worked for the Airlines as an Avionics tech where I

received most of my electrical experience. I started working at Wallops in 2008 on an aircraft contract and received an opportunity to work for the NSROC contract in 2011. One of the things I like about Wallops is that it's a small community, it's almost like a family. Everyone here is very friendly and willing to work together.”



Linda Wiles

I grew up in Somerset County Maryland in the Mount Vernon area and graduated from UMES with a Bachelor of Science in Math and Computer Science, 1986.

What I like most about working at Wallops is that we launch rockets and balloons! How neat is that? We get to travel to remote areas on the globe to conduct scientific missions and see and experience things few people ever imagine. We are blessed to have wonderful opportunities to perform our jobs in different cultures and set examples for others. We have opportunities to inspire others and ourselves.

I have been here 25 years and travelled to Kwajalein, Puerto Rico, Fairbanks, Alaska, Brazil, Antarctica/New Zealand, Australia, Hawaii, Sweden, and Fort Sumner, N.M. as a wind weighter or a Mission Range Safety Officer. I have worked on sounding rocket missions, balloon missions, orbital missions, drone missions, and drop model missions over the years. I have served in multiple roles over the years with the Safety Office, not only wind weighting but performing risk analyses on balloon missions primarily but sounding rockets as well, serving as assistant flight safety officer for early ELV and drone launches, surveillance officer and most recently training as a sky screen operator.

Mobile campaigns are wonderful because you become aware of the fact there are multiple elements to fit together to conduct a mission, not just your area or the people you get data from, or the people you send data to. You begin to grasp 'The Big Picture' and the fact it does fit together. We do work together to achieve a common goal-to safely and successfully accomplish the mission.



Bonnie Maxfield

I grew up, from age 8 to 18 in Asheville, N.C. My first degree was in Horticulture. I worked at Magnolia Plantation & Gardens in Charleston, S.C., at a greenhouse in Pineola, N.C., and at May Mac Nursery in Raleigh, N.C. I started working at Wallops in August 1983, after attending school at North Carolina State University, both times: Bachelor of Science in Horticulture, 1978 and a Bachelor of Science in Mechanical Engineering, 1987.



I worked at NASA Wallops as a performance analyst, a machinist apprentice, a launch support technician, a mechanical engineer, a propulsion engineer, a sounding rocket project manager, an aircraft project manager, a shuttle small payloads project manager and, for the past six years, a ground safety officer.

The things I like most about working at Wallops is No. 1 the people; we have really nice people here; very, very few jerks, compared to other places I've worked. I also really like the things we do — launching rockets and studying things in space is a pretty cool business.

Sandy Bowden

“I came to work at Wallops in January 1983, after working a few years at Dahlgren Naval Weapons Center. For the first couple months I worked as a secretary for Frank Moore who was the Associate Director of Management Operations. This was a temporary assignment. Once this job was filled from within, I headed to the trouble desk for several months. It was there that I learned the Eastern Shore lingo of which I was totally unaccustomed. I learned that a hopper was a toilet and a squall was an upcoming storm. I learned that many on the shore, when addressing you, called you (both men and women) baby or babe. This was only a part of the shore lingo and this was never to be taken offensively.”



In the fall of 1983, a permanent job came open in Accounting. This was the opportunity of a lifetime since I loved working with numbers... so I rolled up my sleeves and soaked up whatever I could learn, becoming involved in every aspect of the Accounting Office.”

Tiffany Moisan

“I grew up all around the world, including Louisiana, Virginia, Washington D.C. and Italy. I have been at Wallops for 15 years in Code 610.W. Before coming to Wallops I worked at The University of California. I went to school at Texas A&M and then as a Ph.D. student, I attended the University of California, San Diego.”



There are many things that I like about working at Wallops. My work has taken me on oceanographic cruises in the coastal waters of the Atlantic. I have been fortunate to experience a mixture of biology, physiology, and optics. I have experienced interdisciplinary work between biology and engineering to study the ocean's ecosystem to understand Ocean Color Remote Sensing.”

Deborah Stanley

“I began my career at Wallops in June 1985, approximately one year after I graduated from Salisbury State College (now Salisbury University) in 1984 with a degree in Mathematics. My first job was with CSC as a wind-weighter/programmer analyst in the Wallops Safety Office. I was responsible for calculating launcher settings for various rockets based on the direction and speed of the wind at different levels. There were very few women in the branch at the time so most of my time was spent working with men. This did not surprise me since there were not many women in my classes at college. There were mainly men studying to be engineers.”



My next job was in the software engineering branch. It was here that I teamed up with other women, Debbie Parks and Charlotte Teter, along with Linda Thompson. We took physics courses that were being offered here on the base to enhance our engineering skills. In my next job, I worked in data quality and data reduction. Once again there were few women in the group, but I got along well because I was accustomed to working mainly with men. I then went back to safety as a civil servant. By this time there were more women in the branch. I am currently working in 589/ Systems Software Engineering branch.”

Lisette Martinez

I was born in New York, but I grew up in Yauco, Puerto Rico, a southern town in the Island of Puerto Rico.

I started working for Wallops as a college student in the Cooperative Program (now Pathways) in 1991. After graduating from the University of Puerto Rico with a Bachelor's degree in Electrical Engineering and from Old Dominion University with a Master's in Engineering Management, I started working in the Electrical Mechanical Branch. I am currently the Associate Branch Head for Code 569 Wallops Electrical Engineering Branch which is the same Branch, after many reorganizations over the years, that I started working in many years ago.

What I enjoy the most of Wallops is the ability that you have to work on different projects throughout your career and be a part of many great missions and projects. I also like the Wallops "can-do" attitude that permeates the workforce. I feel blessed to work with an amazing group of people who give their best, day in and day out, and are truly committed to NASA.



WALLOPS HISTORY

Working at Wallops in the '80s

By Sandy Bowden



- Everyone's work schedule was 8 a.m.-4:30 p.m. with 30 minutes for lunch. You would hear the intercom "BUZZ" to begin your work day, a buzz to go to lunch, and a buzz at the end of the day to go home. No one left before the buzzer went off, or you had to charge the appropriate leave.
- Everyone's birthday was announced on the intercom system.
- We had a dial phone. All meetings were coordinated by calling all parties that would be participating. Sometimes you may have to call the participants several times in order to get everyone's schedules to work.
- All phone calls came through a central switchboard in Building F-6. Miss Jenney Lee kept the operators on their toes, as they pulled the connector cords in an out of the switchboard.
- Emails were unheard of. All letters were typed on a manual or sometimes an electric typewriter and mailed to the appropriate party.
- Smoking on the job (in your office/at your desk) was not only permitted, but fully accepted.
- All of our other accounting work was given to keypunch operators who entered all the data into a data entry (computer system). The data was sent to a huge computer in the back of the building. The system had reels of tape that the data was collected on. It was so noisy that you could hardly hear anyone speak inside the room.
- We maintained a petty cash of \$5,000 that was kept in a locked vault. So, if someone had to go on travel, the traveler was allowed an advance to pay for their meals, hotel, etc. When the petty cash got low, we would request a replenishment of the funds (manually). The Treasury would send us a check. We were then escorted to the credit union by an "armed" security guard to cash the check and bring it back to the vault. The guard stayed with us until all money was safely locked away.
- We actually had a shuttle service. If we needed to go to another building for any reason, we called the shuttle service and they got you there and back.
- Many of the men would have their hunting guns in a rack in their vehicle behind their seats and would go hunting immediately after work.
- The women wore dresses or dress slacks, most men wore dress pants, dress shirts and ties.



Kristen Weaver, education specialist, talks about precipitation and the water cycle with visitors. Photo Credit: Submitted/Jessica Beebe

Science continued from Page 7

and individuals.

Participants also spoke with Education Specialists Dorian Janney and Kristen Weaver of NASA's Mesoscale Atmospheric Processes at the GPM Mission table which showcased a LEGO model of the satellite and other information about the mission. Young attendees were encouraged to use plastic blocks to graph precipitation data for different locations and to make and test their own rain gauge as an engineering challenge.

At the Soil Moisture Active Passive (SMAP) table, Brian Campbell, an Outreach Specialist for the

Sciences and Exploration Directorate's Field Support Office, showed real soil measuring devices and how the GPM and SMAP missions relate. SMAP has teamed up with the Global Learning and Observations to Benefit the Environment (GLOBE) Program (www.globe.gov) to develop a new soil moisture measurement protocol (SMAP Block Pattern Soil Moisture Protocol) which has students from around the world taking volumetric soil moisture measurements, just like the SMAP spacecraft. SMAP scientists can then use this student data as a way to validate the soil moisture data being received by the satellite. SMAP is working with GLOBE to further this soil moisture data collection to allow for citizen scientists to collect and enter data as well. Stay tuned for this in the near future.

The Science on a Sphere film "Water Falls" was also featured at the event. This film tells the story of the movement of water throughout the planet on a spherical screen — literally giving a 360-degree view of water, including a reminder of the local snowfall outside.

One of the neat things about participating in this network is knowing that you have made an important contribution that helps others. By providing daily observations, citizens help scientists to fill in a piece of the weather puzzle affecting many across the region. NASA Wallops scientists and engineers enjoy partnering with volunteers of all ages using their eyes on the ground to support the intricate satellite network in the sky.

What's Up? continued from Page 4

Overall, the event was a great success. Look for the next Wallops Craft Brew Night sponsored by WEMA/MAC as early as this summer.

Navy FCLP training flights continue on the Wallops Airfield

WALLOPS ISLAND — The U.S Navy has resumed flight training at WFF, conducting a Field Carrier Landing Practice (FCLP) detachment operations March 9-26. The E-2 Hawkeyes and C-2 Greyhound propeller-driven aircraft are conducting training activities intermittently between 10 a.m.-midnight.

The practice is conducted at ashore facilities to provide pilots the opportunity to simulate carrier-landing operations in an environment where the risks associated with at-sea carrier operations can be safely managed. Field Carrier Landing Practice

is required flight training that precedes and qualifies pilots for carrier-landing operations.

In order to prevent injury or damage to personnel and vehicles due to aircraft rotor wash, Harpold Street, from Building D-101 to O'Reilly Street, will be periodically closed to both vehicles and pedestrians during FCLP aircraft ground activities in the area east of Building D-1. Roadblocks will be in place during these periods, but personnel in the area should be vigilant at all times.

NASA's Wallops Island Visitor's Center includes a small Naval Aviation Museum with historical information about the former Naval Auxiliary Air Station Chincoteague and current information on the Navy's FCLP program at NASA Wallops Flight Facility.

Questions or concerns about the Navy's FCLP practice should be addressed to the U.S. Navy at 1-855-628-9247.