Wallops Range Through The Years

2010 Range and Mission Management Office Calendar

Project Mercury

Project Mercury was the first human spaceflight program of the United States. It ran from 1959 through 1963 with the goal of putting a human in orbit around the Earth. The Mercury-Atlas 6 flight on Feb. 20, 1962, was the first Mercury flight to achieve this goal, but Wallops Flight Facility helped pave the way with earlier testing with Rhesus monkeys. The launch of Little Joe 1B was the vehicle that carried the 2nd Rhesus monkey from Wallops on Jan. 21, 1960. The "pilot" was Miss Sam who was the female counterpart to Sam who actually took flight seven weeks prior in 1959. Researchers were studying the effects of stress on Miss Sam. Although she was disturbed by the launch of the vehicle, she came through the flight unharmed. The vehicle was recovered in such good condition that it was used later in a Mercury-Redstone development firing in March 1961.

Miss Sam was identical in appearance to her male counterpart, Sam. The only way to quickly tell them apart was to look at Miss Sam's painted fingernails.

Miss Sam flew to an altitude of 15 kilometers aboard this Mercury capsule sitting atop of Little Joe 1B.

The Mercury capsule is being placed on top of Little Joe 1B just days before its scheduled launch.

Miss Sam is being inserted into her pod by Wallops personnel.

January 2010

Factoids

- 1672 – Wallops Island is named after its surveyor John Wallop who was born in 1641. His birthplace and family ancestry is unknown but Mr. Wallop claimed many land patents, the first being Wallops Neck. In 1672, he received a Crown Patent of a 13-square kilometer island from King Chares II. This island, now known as Wallops Island, was formerly called Keeckotank. It was also known as Accocomoson and Occocomosson Island. Although Mr. Wallop was granted more than 6,500 acres, his Wallops Neck and Wallops Island properties seem to have been his main interest. By the time of his death in 1693, he had disposed of all other lands but these.

- Wallops Directors

1948–1981	Robert L. Krieger
1981	Abraham D. Spinak
1981–1989	Warren Keller
1989–1995	Joseph P. McGoogan
1995–2002	Arnold Torres
2002–2009	John Campbell

- Wallops Through the Years

1945–1958	Pilotless Aircraft Research Station
1958–1974	Wallops Station
1974–1981	Wallops Flight Center
1981–Present	Wallops Flight Facility

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 New Year's Day	2
3	4	5	6	7	8	9
10	11 1949 – First launching of a rocket model employing nonaerodynamic torque from canted rocket nozzles	12	13	14	15	16
17	18 Martin Luther King Day	19	20	21 1960 – Wallops launches Little Joe 1B carrying Miss Sam, the 2nd monkey to fly from the Research Range	22	23
24 31	25	26	27	28 1959 – Nike Cajun Sounding Rocket places 12-foot-diameter balloon 75 miles above Wallops	29	30

Explorer IX Launch

Feb. 16, 1961 ~ The culmination of Wallops expansion came with the launch of the Explorer IX satellite which some called the Eastern Shore satellite. The payload, an inflatable sphere, was designed to study atmospheric density and also became the first payload to ride into orbit atop an all solid-fuel vehicle. The launch made Wallops Flight Facility the 3rd U.S. Range with an orbital capability. This Scout was a four-stage vehicle that stood 72 feet tall and weighed 40 tons. The launch also marked the first time a satellite was placed into orbit to support a purely scientific project.

The sphere satellites were the brainchild of Langley Research Center's science wizard William J. O'Sullivan, sitting here with his 12-foot sphere and a 30-inch sub-satellite. Engineer W.E. Bressette, left, stands beside the 12-foot inflated sphere, and engineer J.L. Mitchell studies the surface of the 12-foot radar target. O'Sullivan was the Langley Research Center Project Scientist for Explorer IX.

Wallops personnel put the Explorer IX payload through its final spin test shortly before launch.

February 2010

Factoids

- Buildings V-65, WEMA Recreational Facility and Building V-70, Observation Tower, are the oldest buildings on base dating back to 1936.
- Feb. 1951 - National Advisory Committee for Aeronautics (NACA), NASA's predecessor, conducted its first flight of a man-carrying, jet-supported platform at Wallops Island in exploratory investigations. In these tests, a person was supported by a jet-thrust device attached to his feet.
- Feb. 27, 1960 - Wallops successfully launched a 100-foot-diameter inflatable sphere to an altitude of 225 miles for the Echo passive communications satellite project. Radio transmissions were reflected via the sphere from Holmdel, NJ to Round Hill, MA.
- The Aircraft office acquired the P-3 in 1991 and started flying science missions in 1993. The Beechcraft B200 Super King Air, also known as NASA 8, started flying at Wallops Flight Facility in 1981.

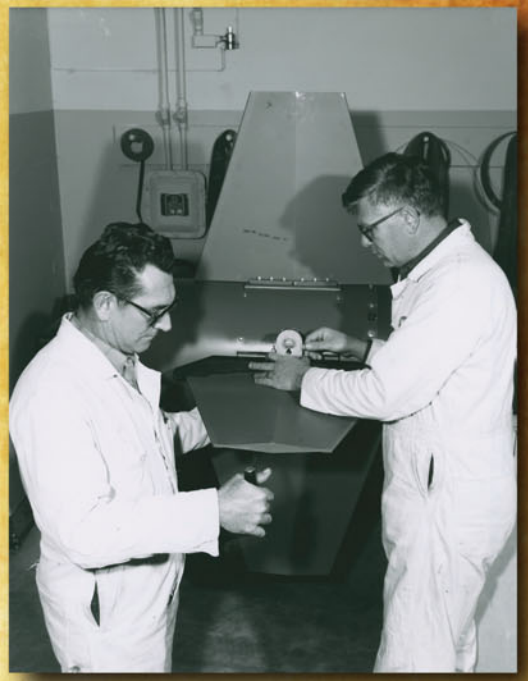
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Groundhog Day	3	4	5	6
7	8	9	10	11 1947 - Wallops launches a Folding-Fin Air Rocket to an apogee of 5 km	12 Lincoln's Birthday	13
14 Valentine's Day	15 President's Day	16 1961 - Wallops becomes 3rd U.S. Range to have Orbital launch capabilities	17	18	19	20
21	22	23	24 1961 - Wallops observers first spot the "Eastern Shore Satellite" using telescopes flying 400 miles over Earth	25	26	27
28						

Solar Eclipse 1970

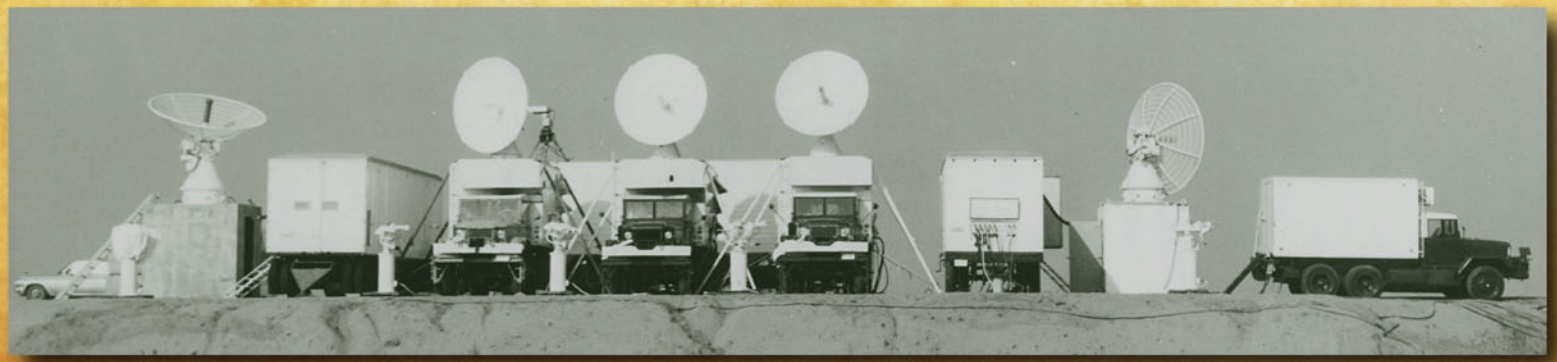
On March 7, 1970, a total solar eclipse engulfed the entire Eastern seaboard. A total of 15 research organizations conducted experiments at Wallops in three disciplines – meteorology, ionospheric physics, and solar physics. A total of 32 sounding rockets were launched during the three-day period.

Wallops launched eight different types of sounding rockets for the solar eclipse – Arcas, Nike-Apache, Nike-Cajun, Nike-Tomahawk, Nike-Iroquois, Aerobee 150, Aerobee 170, and the Javelin.

Scores of visitors including research organizations, local residents, students, and others gather at Wallops to witness the solar eclipse.



Engineers John Sherwin, left, and Howard Kilman check the fins on a booster in preparation for the Solar Eclipse program.



Mobile Control Vans and Radars move into position in preparation for the 1970 solar eclipse.

March 2010

Factoids

- March 3, 1915 – The National Advisory Committee for Aeronautics (NACA) began as an emergency measure during World War I to promote industry, academic, and government coordination on war-related projects. It was modeled after similar national agencies found in Europe. According to one source, "The enabling legislation for the NACA slipped through almost unnoticed as a rider attached to the Naval Appropriation Bill, on 3 March 1915." The committee of 12 people, all unpaid, were allocated a budget of $5,000 per year.

- The first employee at Wallops was Germaine S. Brown whose first day on the job was May 24, 1945. Mr. Brown was a construction engineer from Langley, VA.

- March 21, 1960 – The Causeway and the Bridge officially opened providing Wallops personnel another option for traveling to the island. Construction was completed by Tidewater Construction Corporation.

- In 1965, the National Oceanic and Atmospheric Administration, NOAA, built its Wallops location on 10 acres of land that was once part of a nine-hole golf course belonging to Chincoteague Naval Air Station.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3 1915 – NASA's predecessor National Advisory Committee for Aeronautics – NACA – formed	4	5	6
7 1970 – Wallops conducts massive Solar Eclipse project launching 32 rockets in 3-day span.	8	9	10	11	12	13
14 Daylight Savings Begins	15	16	17	18	19	20
21	22	23	24 1950 – Wallops Island conducts its first successful ramjet research model flight	25	26	27
28	29	30 Passover	31			

Range Control Center

The Wallops Flight Facility Range Control Center (RCC) is the heartbeat of all operations. During TacSat-3 operations in May 2009, NASA , Air Force, and commercial organizations were all represented at various duty stations throughout the center. The RCC's present location is Bldg. E-106 which opened in 1993, but for decades the RCC was located in Bldg. N-159 as shown in photos below.

1961

1969

1988

April 2010

Factoids

- This month in 1945, Congress appropriated funds for an accompanying research station for Langley Research Center. Originally rejected as being too remote, the lure of a base near Langley, with a clear range out over the Atlantic, good locations south along the coast for tracking stations, and the adjacent Chincoteague Naval Air Station proved irresistible for choosing Wallops for NACA's newest research site.

- Wallops workers who lodged on the island before the construction of the causeway had to shake out their clothes each morning to rid them of insects. This caused a great deal of missed work time and led to many resignations.

- April 25, 1947 – Wallops, known as the Pilotless Aircraft Research Station at the time, launches its first rocket-propelled model, AF XF-91, of a complete airplane for performance evaluation. This was followed by flight tests of models of practically all Air Force and Navy supersonic airplanes.

- April 5, 2006 – The Low-Cost TDRSS Transceiver (LCT2), technology developed at Wallops Flight Facility to transmit data from launch vehicles, first flew aboard a sounding rocket from White Sands Missile Range in New Mexico.

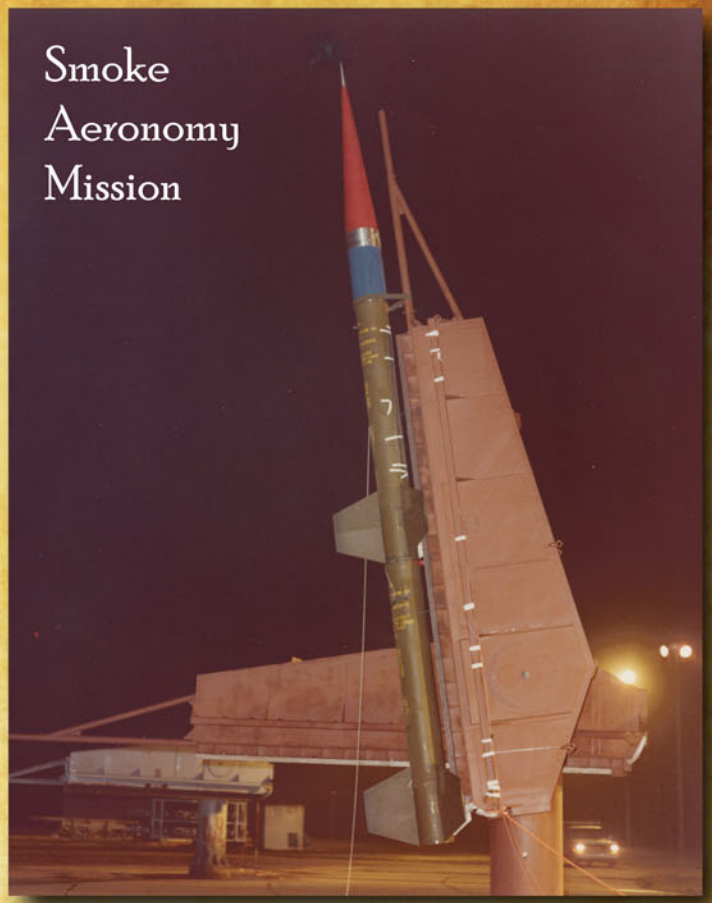
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 April Fool's Day	2 Good Friday	3
4 Easter	5	6	7	8 1955 – Wallops first uses S-band beacon on Nike Deacon sounding rocket. Up to this time only skin tracks were used by Radar	9 1975 – Wallops directs launch of GEOS 3 Satellite from the Western Test Range	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24 2007 – Wallops launches Near Field Infrared Experiment (NFIRE) Satellite for U.S. Air Force
25 1958 – Wallops conducts first successful launching and erection in space of a 12-foot inflation sphere for air density measurements	26	27	28	29	30	

Neil Armstrong at Wallops

On May 6, 1955, Neil Armstrong, NASA pioneer and the first person to walk on the Moon, co-piloted a P-82 Twin Mustang aircraft with Joe Algranti to air launch a T-40 rocket. This operation was conducted from Wallops and was the first time a vehicle surpassed the speed of Mach 5.

This 1956 portrait of Neil Armstrong was taken shortly after completing a mission at Wallops.

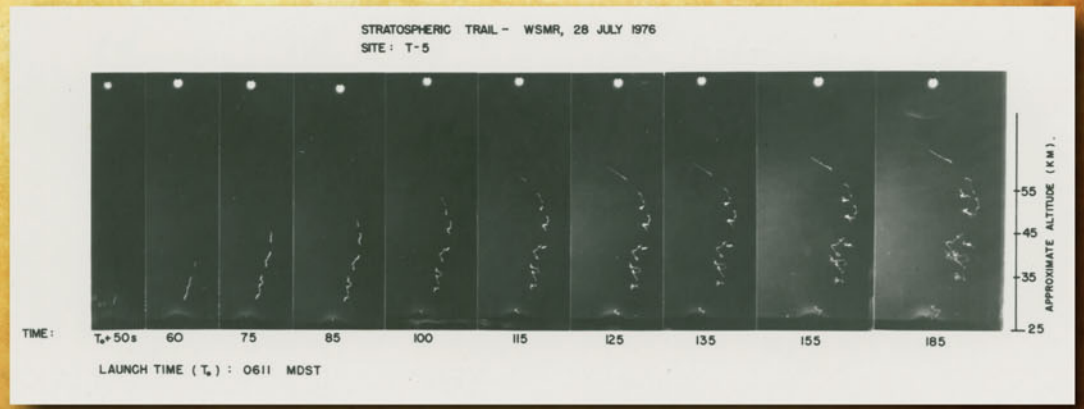
Smoke Aeronomy Mission



On May 22, 1978, Wallops conducted a Smoke Aeronomy Release Mission using this Nike-Nike Sounding Rocket. The bottom image shows the smoke release and its altitude during the mission.

Red Dog

Red Dog took flight from Wallops on May 30 and June 2, 2003, aboard multiple Black Brant XI vehicles. Red Dog was an operation which collected sensor data for the Missile Defense Agency to develop future missile defense systems.



May 2010

Factoids

- May 18, 1951 – For the first time in its six-year history, Wallops invites the media to a tour of Wallops Island. Newport News, VA, reporter Pete Franklin said, "approaching the station, the visitors saw weird looking antennas atop a squat, square-shaped building. The building houses an array of electronic devices, radio apparatus, automatic recorders and a control panel for firing the rockets."

- May 9, 1960 – The first production model of the Project Mercury spacecraft was successfully launched from Wallops to test escape, landing, and recovery systems. Known as the "Beach Abort" shot, the Mercury capsule reached 775 meters in altitude before parachute landing and pickup by a Marine helicopter which returned the capsule to Wallops just 17 minutes after launch.

- Wallops' first director, Robert L. Krieger, was instrumental in the development of a branch of the University of Virginia in 1964. This school was renamed Eastern Shore Community College in 1971.

- In 1980, The U.S. Navy signed a host-tenant agreement to establish a new surface ship weapons engineering facility paving the way for Capt. Eric L. Washam AEGIS Engineering and Training Complex at Wallops.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7 1945 – Wallops was established as a facility under the administrative control of the Langley Aeronautical Research Laboratory	8
9 Mother's Day	10	11 1945 – NACA leases 1,000 acres on the southern end of Wallops Island to begin construction of Wallops Station	12	13	14	15
16	17	18	19 2009 – Wallops launches TacSat-3, a U.S. Air Force tactical satellite	20	21	22
23 30	24 31 Memorial Day	25	26	27	28	29

First Launch

Wallops' first launch was this rocket on June 27, 1945. This operation was to check the tracking station location and operation, check the radar for measuring velocities of missiles, and to gain experience with actual rockets. This rocket was only 3.25 inches wide.

Wallops Main Base

Robert L. Krieger accepts Chincoteague Naval Air Station (CNAS) from Capt. Troth on June 30 ,1959. After Congress rejected a Navy request for $770,000 worth of upgrades to CNAS, the Navy decided to economize by closing the base. At the same time, NASA was looking to obtain acreage to expand.

Conducting operations at Wallops has changed since its early years. Transient personnel who were needed to conduct operations at Wallops had limited access to lodging and food. On May 29, 1945, the NACA Exchange established a branch at Wallops Island which would employ a cook and lodging services on a cost basis. The name "Club 75" was given the "hotel" because a bed or any meal cost 75 cents each.

Club 75

Staff members from Langley at Wallops for a flight operation in October 1945. The group is shown in front of the Wallops Hotel. Back row: J. Stack, I.H. Abbott, H.J.E. Reid, R.R. Gilruth, R.W. Hooker, P.F. Fuhrmeister, C.A. Taylor, T. Haynes, unidentified staff member, R.A. Gardiner, and W.E. Norfolk. Front row: F.W. Baynes, C.L. Seacord, M.J. Stoller, S. Alexander, F.L. Plotz, W. Tracy, R.A. Everett, R.R. Lundstrom, M. Pitkin, H.D. Garner, and S.C. Cavallo.

June 2010

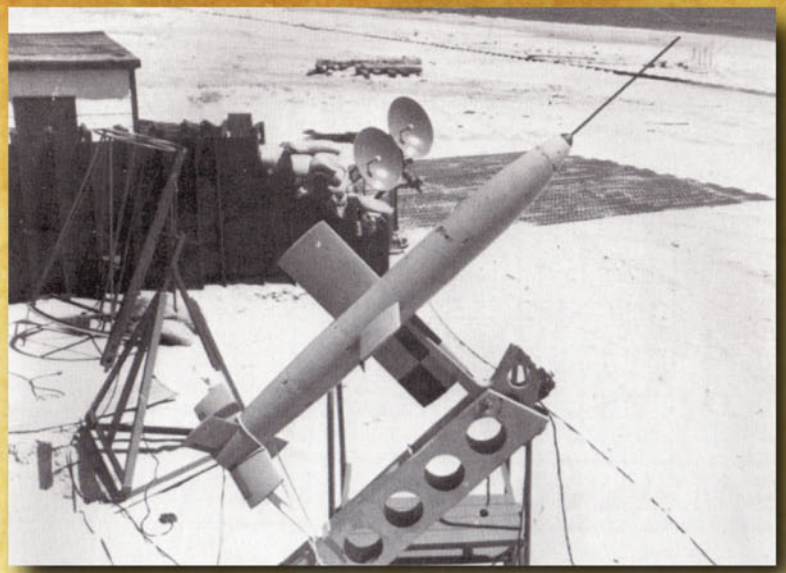
Factoids

- Wallops initial missile program in 1945 included 12 Gorgans, 36 Tiamats, 10 Supersonic Missiles, and a Ramjet Test Vehicle.

- In the early years, living conditions were primitive. There were no roads or transportation connecting the mainland to other parts of the island, and a ferry or seaplane was needed. Wallops Island had no power except for a portable generator, and water had to be ferried in. When the National Advisory Committee for Aeronautics (NACA) began buying land to build permanent facilities after World War II, the state of life improved. However, primeval conditions prevailed, so much that in 1951, Robert L. Krieger, Wallops Director, requested persmission to move himself and his family back to Langley, VA due to the crudeness of life.

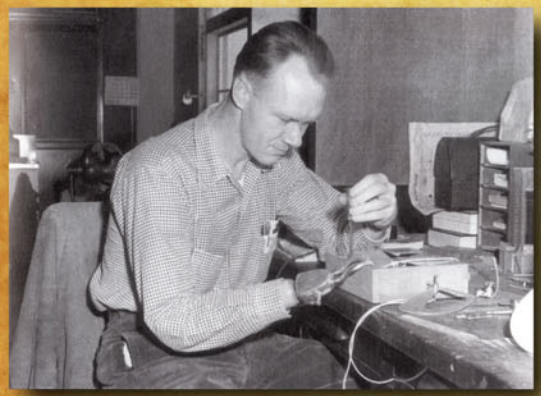
- June 20, 1971 – Wallops launched a Scout carrying the Planetary Atmosphere Experiment Test payload. Ames Research Center used this 137-pound spacecraft to study spacecraft heating and re-entry into Earth's atmosphere.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2 1979 – In partnership with the United Kingdom, Wallops launched a Scout vehicle carrying the UK-6 Satellite	3	4	5
6	7	8	9	10	11	12
13	14 Flag Day	15	16	17	18 1976 – Aboard a Scout D, Wallops launches the Gravity Probe spacecraft	19
20 Father's Day	21	22	23	24	25	26
27 1945 – Wallops launches first rocket, see photo top page	28	29	30 1959 – Robert Krieger, first Wallops Director, accepts Chincoteague Naval Air Station from the U.S. Navy			



Navy Lark Missile

The Navy Lark Missile was a surface-to-air subsonic interceptor missile for the U.S. Navy. Wallops conducted 4 tests with various configurations between May and October 1946. It reached a speed of Mach 0.9 and was credited with "scoring history's first aircraft interception and destruction by a guided missile" per the Guided Missiles Volume and Directory, printed in 1963.



Evolution of Safety

A Deacon booster accidentally fired on Aug. 2, 1951 costing Durwood A. Dereng his right hand. This accident caused a change in procedure to further protect Wallops personnel. Safety was a consideration in the beginning days of Wallops as an engineer, William K. Hagginbothom, suggested the first set of Safety Rules implemented by the Range.

Wallops Initial Safety Rules

1. *Clear target area of boats and people.*
2. *Minimum distance from the launching site for all unprotected personnel not actively engaged in firing shall be a minimum of 150 feet.*
3. *The firing pit shall be cleared of unauthorized personnel at all times during firing operations.*
4. *At all times, during operations, one man shall be stationed at the firing pit to make certain that the firing circuit is shorted out, and that no possibility of contact with the voltage source exists.*
5. *Before each rocket is connected to the firing circuit, a check by means of a circuit tester shall be made to make certain that the firing circuit is dead.*
6. *It shall be the responsibility of the person in charge of the firing to enforce safety.*

First Research Mission Launch

This Tiamat missile was the first research mission launched at Wallops Flight Facility on July 4, 1945. The Tiamat was the Army Air Force's first air-to-air guided missile and was to be developed for combat use. However, the end of World War II changed the scope of the project from weapons to research on automatic control systems. The Tiamat program lasted until 1948 with nine more launches at Wallops.

July 2010

Factoids

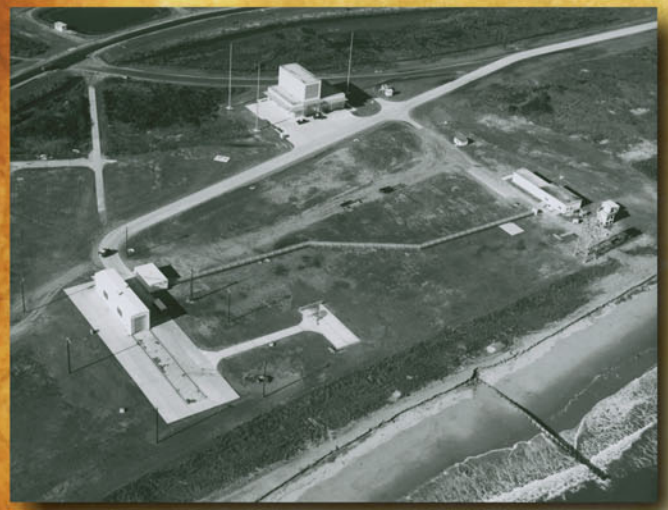
- After the transfer of Chincoteague Naval Air Station to NASA, Robert L. Krieger divided Wallops into three main divisions:
  - Flight Test Division, John. C. Palmer, Chief
  - Administrative Services Division, Joseph E. Robbins, Chief
  - Technical Services Division, William E. Grant, Chief

- The initial operations at Wallops were carried out in accordance with standard Navy rocket firing procedures. Navy personnel handled the actual firing because NACA personnel had no experience with rocket motors. However, NACA realized that they would have to acquire such experience and eventally took over responsibility.

- By 1950, Wallops employed 75 people, a figure that was to remain almost constant until 1959 when Wallops was made a separate Station under the newly established National Aeronautics and Space Administration.

- July 8, 1971 – Aboard a Scout B vehicle, Wallops launches Explorer 44 carrying the Solrad spacecraft. The payload was conducting solar radiation research. The Explorer program was a series of satellites launched by the Jet Propulsion Laboratory for exploration of the space environment.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2 1960 – Wallops launches first complete Scout Vehicle carrying an acceleration and radiation probe	3
4 1945 – Wallops launches first Tiamat research rocket Independence Day	5	6 1956 – Wallops launches first Nike-Cajun sounding rocket	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



Pad 0

Wallops completed construction of Pad 0 in 1969. In the background you can see Bldg. Z-41 and to the right Bldg. Z-40 and Bldg. Z-35 which is Camera Station 2. The small building adjacent to Pad 0 was unearthed by the nor'easter of November 2009.

Pad 1

Pad 1 was used for a number of sounding rockets including the Aerobee and Iris. The rocket would soar from the rail system coming out of the top of the launch structure. Just to the left is Bldg. Z-65, Blockhouse #1.

Pad 2

Blockhouse 2, Bldg. Y-30, was built in 1950 and has been the location where multiple types of sounding rockets have been launched over the decades. This photo was taken in the early 1970s.

Pad 3

Pad 3 consisted of Assembly Shop #3, the Scout Mark II launch pad and the Scout Launch Tower, as seen in this 1963 photo. The Scout Launch Tower was approximately 110 feet tall.

Pad 5

Pad 5 was used to launch vehicles such as the Trailblazer, Shotput and five-stage rockets. In the background is an assembly shop.

Aerial View

This 1971 aerial shot highlights all the launch pads used in the late 60s and early 70s.

August 2010

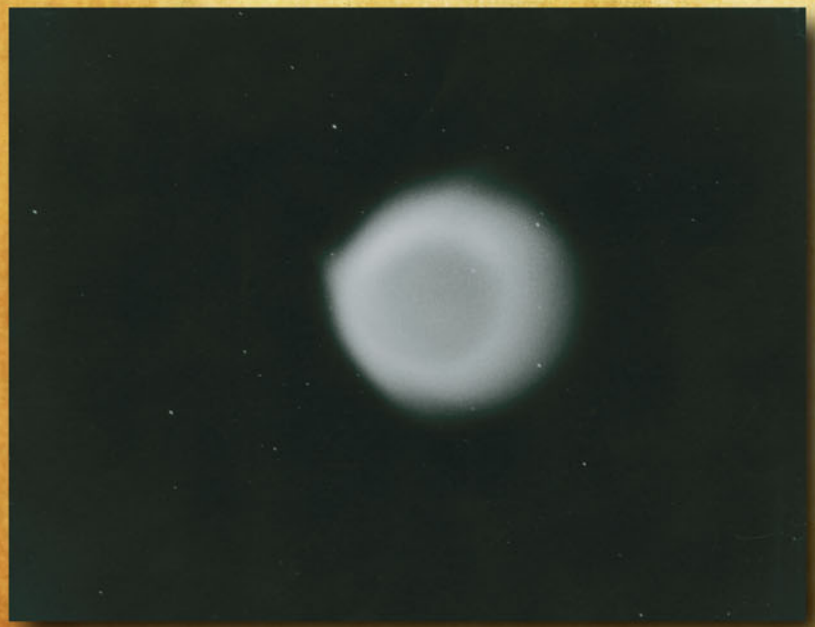
Factoids

- The Wallops Administration Building, F-6, and the Multi-Payload Processing Facility, F-7, were both built in 1946.
- Aug. 16, 1955 – Wallops conducts the first successful demonstration of the Rockair research rocket launched from an aircraft. It was fired from a Navy F2H-2 aircraft to an altitude of 180,000 feet.
- Aug. 21, 1959 – Wallops scrubs the first launch attempt of the Little Joe vehicle carrying the Mercury capsule. The emergency escape rocket fired prematurely 31 minutes before the scheduled launch as the result of a faulty escape circuit.
- Aug. 17, 2000 – Dr. Robert R. Gilruth, whose research efforts in rocket-powered aircraft helped establish the Wallops Island launch range, passed away at the age of 86. As the first director of the new Manned Spacecraft Center, and later the Johnson Spaceflight Center, Dr. Gilruth directed the very first American spaceflights from Project Mercury through Apollo 15.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 1958 – Wallops launches 19, five-stage Argo E5 sounding rockets over a three-week period to study radiation	2	3 1960 – Wallops launches first Sparrowbee sounding rockets for University of Michigan	4	5	6	7
8	9	10	11	12	13	14
15	16	17 1959 – Wallops conducts Sodium Release experiment	18	19	20	21
22	23	24 1945 – First successful use of a telemetry system in a rocket-propelled Tiamat missile	25	26	27	28
29	30	31				

Super Powers Collide at Wallops

While Seoul, Korea was hosting the Summer Olympics in 1988, Wallops Flight Facility was another venue where the two world's Super Powers would face each other in international competition. Between Sept. 30 and Oct. 3, 1988, Wallops was the site for the world's first dual Rocketeer meet. Although U.S. and Soviet rocketeers met in the world championships every two years, it took four years of high-level diplomatic exchanges to secure permission for the first dual meet. The photo to the right is the American team, and is led by Anel Flores who is currently stationed at Greenbelt, MD, and still working Goddard Space Flight Center.



Barium cloud photographed over Wallops Flight Facility.

Barium Cloud Release

Wallops conducts upper-atmospheric research by releasing barium clouds into the upper atmosphere Sept. 24, 1966. The clouds could be seen for hundreds of miles up and down the Atlantic coast. NASA and West German scientists photographed the clouds in an effort to track and measure electric fields and wind motions in the upper atmosphere. A Nike-Tomahawk sounding rocket was used to release the experiment.

Mr. Hans Neuss of the Max-Planck Institute for Extra-Terrestrial Physics, Munich, Germany, conducts a spin and balance test on the barium payload.

September 2010

Factoids

- When the National Advisory Committee for Aeronautics (NACA) purchased the land on Wallops Island in 1945, wild ponies still roamed the area. It was decided to relocate the ponies to Assateague in 1946.
- Wallops A-1 Control Tower was constructed in 1944 and was designated the "A-1 Tower" by the U.S. Navy as early as 1950.
- Sept. 15, 1955 – Wallops launches Honest John as a test vehicle; however, the test was a failure. Honest John was a Tactical Ballistic Rocket that was the U.S. Army's first nuclear-armed surface-to-surface rocket. It was later used as the booster stage for a range of sounding rockets, test vehicles, and other targets.
- Sept. 14, 1998 – The official opening of the Virginia Space Flight Center, now known as the Mid-Atlantic Regional Spaceport.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6 Labor Day	7	8	9 Rosh Hashanah	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25 1964 – Only successful flight of NASA's version of the Tomahawk Sandia launch vehicle
26	27	28	29	30		

Blockhouse 3

Building W-20, otherwise known as Blockhouse 3, was built in 1960. It's a hemispherical, two-story structure which contains electrical ground support equipment necessary for rocket launches. The design was based on the detonation of the equivalent of 25,000 pounds of TNT at zero distance. The building was designed to withstand at least 5 such impulse loadings before repairs or replacement of the major structure would be required.

Photographic Tracking

Optical tracking has always been a staple of operations at Wallops. In 1951, NACA photographer and first Optical Section Chief Donald Foster tracks a research model in flight with a high-speed sequence camera equipped with a 20-inch telephoto lens. This camera, invented by a NACA employee Charles A. Hulcher, was specially built to photograph rockets. Hulcher cameras were used as recently as 2004 at Wallops Flight Facility and some are still in use at other launch ranges.

Conestoga

Oct. 23, 1995 - The Conestoga mission took flight this day only to explode 46 seconds after liftoff. It was concluded that acoustics of low frequency noise caused the guidance system to order course corrections when none were needed. The rocket carried a recoverable capsule and was to conduct microgravity experiments that would occur 12 miles from the shore. The Conestoga was a rocket developed using surplus Minuteman missile stages with additional strap-on boosters.

October 2010

Factoids

- Y-60, or Radar 3, was built in 1953 by NACA and was part of the third phase of NACA construction efforts on the island. Originally known as Station 3, the building has housed radar systems and associated equipment since its inception.
- Oct. 14, 1954 – The first American four-stage rocket was launched by the Pilotless Aircraft Research Station, now known as Wallops Flight Facility.
- Buildings E-104, 105, 106 & 107 were built in 1954 and originally used as an enlisted man's barracks for the U.S. Navy.
- Oct. 1, 1958 – The National Aeronautics and Space Administration began operations, inheriting a handful of facilities from its predecessor, the National Advisory Committee for Aeronautics (NACA), including what remains as its only agency-administered launch range, Wallops Flight Facility.
- Oct. 28, 1959 – Wallops launches a Prototype Echo balloon which was a 30-meter inflatable sphere. The vehicle was a Sergeant-Delta rocket that took the payload into a suborbital trajectory to an altitude of 250 miles. The program was in support of a communications satellite project.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 1959 – First successful launch of Little Joe vehicle carrying Mercury capsule	5	6	7	8	9
10	11 Columbus Day	12	13 1948 – First launching of a rocket-propelled "flying wind tunnel" model which measured roll damping of wings at transonic speeds	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31 Halloween						

Pegasus

Nov. 4, 1996 – Wallops launches the first of several Pegasus XL vehicles to conduct the HETE program. The High Energy Transient Experiment, or HETE, was an international mission led by the Massachusetts Institute of Technology. Its prime objective was to carry out the first multiwavelength study of gamma ray bursts with ultraviolet, x-ray, and gamma ray instruments. A unique feature of the mission was its capability to localize bursts with several arcsecond accuracy, in near real-time aboard the spacecraft. These positions were transmitted to the ground and picked up by a global network of ground stations enabling sensitive follow-up studies.

Frog Otolith

Nov. 9, 1970 – Wallops is well known for launching nonhuman passengers such as the Rhesus monkeys Miss Sam and Sam, but Wallops also conducted an experiment using frogs as primary passengers. On this date, a pair of frogs climbed aboard a Scout rocket so scientists could research a frog's otolith, or balance mechanism under weightlessness and repeated accelerations. This was an initial step in a project in NASA's human factors systems program to investigate the functioning of the primary balance mechanism within the inner ear.

NASA ER-2

Nov. 3, 1982 – This NASA ER-2 sits on the tarmac at Wallops Flight Facility near Hangar N-159 after conducting suborbital flight experiments. The canopy sitting atop the cockpit is to deter satellite espionage. The ER-2, now stationed at Dryden Flight Research Center, operates at altitudes from 20,000 feet to well above 70,000 feet. Depending on aircraft weight, the ER-2 reaches an initial cruise altitude of 65,000 feet within 20 minutes with a cruise speed of 410 knots. The range for a normal eight-hour mission is 3,000 nautical miles, which yields seven hours of data collection at high altitude. The aircraft is capable of longer missions in excess of 10 hours and ranges in excess of 6,000 nautical miles. The ER-2 can carry a maximum payload of 2,600 pounds (1,179 kilograms) distributed in the equipment bay, nose area and wing pods.

November 2010

Factoids

- Buildings X-65 and Z-35, modern day Camera Stations 5 and 2 respectively, were built in 1951 as camera stations and observation sites for launches. Known as Stations 1 & 2, the buildings were part of the first NACA construction efforts.

- Dan Brown features Wallops Flight Facility in his 2001 novel, Deception Point, as a location for his main character intelligence agent Rachel Sexton who meets the President aboard Air Force One. This book was Brown's 3rd novel published between two of his bestsellers, The Da Vinci Code and Angels and Demons.

- 1982 - NASA establishes the Balloon Program Office at Wallops Flight Facility and assumed management of the National Scientific Balloon Facility, NSBF, which was previously managed by the National Science Foundation, NSF.

- Initially, Wallops activities were cloaked in a "need-to-know basis." Many operations were never discussed or acknowledged outside of the launch range.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4 1996 - Wallops launches its first of several Pegasus XL vehicles	5	6
7 Daylight Savings	8	9	10	11 Veterans Day	12	13
14	15	16	17	18	19	20
21 1979 - Busy day on the Range as Wallops launches a total of 12 sounding rockets	22	23	24	25 Thanksgiving	26	27
28	29	30				

Sam experienced weightlessness for three minutes, survived reentry, impact into the Atlantic Ocean and six hours inside the Mercury capsule before being recovered.

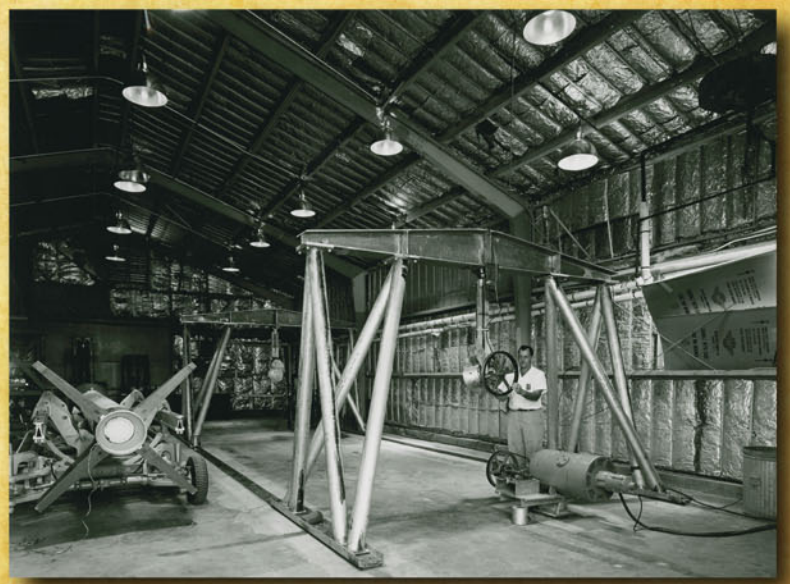
Little Joe & Sam

1959's launch of Little Joe 2 carrying a monkey named Sam was a complete success. Sam was fitted into his own special contoured couch and restraining harness within the biopack which was sealed and had its own life-sustaining atmosphere. In addition to Sam, the biopack contained many other specimens such as insect eggs, larvae, bacteria cultures, and cell tissue. All were included for study under conditions of zero gravity and radiation. Sam came through the flight with flying colors and withstood the forces with no apparent harm. Without a hitch, Sam performed his duty assignment of pulling a lever when a light came on.

The Mercury capsule sits atop Little Joe B during its launch on Dec. 4, 1959.

TacSat-2

Wallops Flight Facility returns to orbital satellite missions with the launch of the Air Force TacSat-2 Satellite. Aboard a Minotaur I launch vehicle, the spacecraft was placed into low-Earth orbit in the early morning hours of Dec. 16, 2006.



Dynamic Balance Facility

In 1961, Wallops personnel conducted testing in the Dynamic Balance Facility on Wallops Island, Bldg. V-55.

December 2010

Factoids

- Wallops Island was owned by a group of Pennsylvania sportsmen in the early 1900s. The land was originally purchased for $8,000 by Philadelphian Weley K. Woodbury. They turned the island into a hunting lodge and summer resort and was operated as such until the beginning of World War II.
- In 1965, Wallops began to coordinate its meteorological research with Argentina and Brazil to create the Experimental Inter-American Meteorological Rocket Network. With NASA Headquarters overseeing the project, and Langley Research Center providing the hardware, Wallops participation in this project enabled comparative analysis of the structure and behavior of the atmosphere in both hemispheres.
- 1958 to 1973 witnessed much change in personnel, testing procedures, rocket designs, landscape and organizational structures at Wallops. The launch range gained a reputation for its brilliant scientific teams, its steadfastness in pursuing projects that at first repeatedly failed, and for its innovations in rocket design.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 Hanukkah Begins	3	4 1959 – Wallops launches Little Joe 2 with Sam, a Rhesus monkey, aboard
5	6	7	8	9	10	11
12	13	14	15	16	17	18 2002 – Wallops conducts SOAREX-2 Technology Mission which was the first test flight of a large hybrid propulsion system
19	20	21	22 1959 – Wallops launches the 1st 4-stage Javelin sounding rocket to measure the intensity of galactic radio noise	23	24	25 Christmas
26 Kwanzaa	27	28	29	30	31 New Year's Eve	

Range and Mission Management Office
2010 Calendar

National Aeronautics and Space Administration
Goddard Space Flight Center
Wallops Flight Facility
Wallops Island VA 23337

For More Information Contact
757-824-1955 or 757-824-1114
or visit our Website at:
www.wff.nasa.gov/code840

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"Images of America Wallops Island" by Nan DeVincent-Hayes and Bo Bennett
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