

Air and Space this Week

Item of the Week

Wallops Flight Facility at 75

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July 4, 2020, is the 75th anniversary of the establishment of the NASA launch facility at Wallops Island, Virginia. Over 60,000 rockets have been launched there, and the WFF is also supports elements of NASA’s Airborne Science Program.

The DelMarVa Peninsula, the part of the eastern Chesapeake shore where Delaware, Maryland, and Virginia come together, is an interesting mix of pine forests, coastal islands, inlets, and marshes (and, oddly, these terrains lie atop the eroded roots of a large impact structure). One island there, Chincoteague, was made famous as the setting of a popular 1950’s children’s book, *Misty of Chincoteague*, its follow-up stories, and even a movie. The island is home to a number of ponies whose line goes back to earliest Spanish visitation, and the annual festival built around them attracts thousands (the 2020 event was cancelled due to the Covid-19 crisis). Tourism is a big component of the island’s economy, but is very seasonal, pretty much summer-only.

The Chincoteague area is also home to an interesting NASA base, the Wallops Flight Facility, managed through NASA Goddard. Over 60,000 rockets have launched from there. Most were for upper atmosphere research, but a few were sent as far as the Moon. The WFF is home to NASA’s [P-3 Orion research aircraft](#), and they otherwise support NASA’s [Airborne Science Program](#). The WFF also supports science missions for NOAA, and conducts electronics/systems research with the U.S. Navy.

The total solar eclipse of 2017 was of particular interest to many because it had been a number of decades since the last eclipse crossed the USA mainland. The best prior to 2017 was on **March 7, 1970**, which sliced up the southeastern part of the USA. It was my first total solar eclipse, and I was well-positioned, on the centerline east of Goldsboro, NC. Wallops Island was just off the eclipse track in the DelMarVa. They launched rockets all that day to monitor meteorological and other changes caused by the passage of the Moon’s shadow; it was their most active launch day before or since.

Wallops also has a wonderful [Visitor Center](#). The area makes for a pleasant visit!

My exposure to Wallops came when I was detailed from NASM to NASA HQ to help with public outreach activities. One of the launches I worked was that of the *Lunar Atmosphere and Dust Environment Explorer* (LADEE – pronounced “Laddy” not “Lady”) mission to the Moon. Its primary goal was to observe the very tenuous lunar atmosphere and to assess the degree to

which dust-sized particles are levitated and moved by electrostatic and other forces. *LADEE* also carried a demonstration version of a laser-based communication system, rather than the present radio-based. Unlike the other launches and events I worked with NASA, [LADEE](#) was going to launch from Wallops Island.

I was looking forward to it. My teacher read passages from *Misty of Chincoteague* to my fifth-grade class, and now I was going to get to see the place. More importantly, NASA was expecting a large audience, and we had some very cool support programming set up that was going to be fun to work. Even better: The rocket being used was not particularly large, but we would have a great view of it going up, and, the launch was going to be at night, so it was quite an exciting time.

We were not disappointed. The upward trajectory was spectacular, and we had a good view of the first staging. The second stage fired perfectly as the spent first fell away, dripping residual flame as it fell toward the ocean. We were even able to see the next staging as the rocket flew out of sight.

The *LADEE* launch was wonderful. The NASA crew working the launch, and our WFF contacts, were a delight to work with and a fun bunch after hours. Everything worked as planned, and the *LADEE* mission proved to be a great success.

The locals loved us, too. Normally, the summer tourism season at Chincoteague ends with a big finish on Labor Day weekend, with most businesses closing or severely curtailing hours on the Tuesday following. NASA brought in a large number of people for the launch, which came on the weekend after that. The launch also attracted a number of tourists that would otherwise not have been there. Needless to say, the local businesses loved it; I had one restaurant owner tell me that they had done more business after they would normally be closed than they did during their big Chincoteague Pony weekend earlier in the year.

And, of course, every story has a ‘coda.’ The NASA HQ folks working the event had arranged to stay long enough in town to be able to cover the launch if it had to slip one day. The launch went off on schedule, so my wife and I had time to look around town the morning after.

My wife has always been a “cat person,” and we had recently lost our cats of long standing to natural causes. I’d been warned that, “someday, a kitty (or two) will find me, and we will have cats again!” [Foreshadowing; cue ominous music]

We found an indoor shopping building and went in. One of the shops was a pet store, and had a covered cage out in front. Spider sense tingling, I approached, and saw the cage cover had a small sign, “Traumatized kittens within. Do not disturb.” I suspect it is no surprise to you that Paula immediately lifted the edge of the cover. Two tiny sets of eyes stared back. In very short order, the two joined our lives, a little boy kitten and a little girl kitten. Naming them was easy. They came to us while I was working the *LADEE* launch, and my next launch would be the *MAVEN* Mars orbiter, and so *MAVEN* and *LADEE* they were, and they are still going strong. [*MAVEN* the spacecraft is too, but *LADEE*’s mission was successfully concluded and the spacecraft crashed on the Moon. *LADEE* the cat was characteristically indifferent.]

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