

## *Growing Up Wallops: A Personal Reflection*

By Mark "Bunny" Bundick, NAR President

My boyhood home gave me a front row seat outside NASA's Wallops Island, right at the peak of its flying activity. During the 1960's, Wallops flew hundreds of rockets annually. The rumble of rocket takeoffs was so common, local farmers and workers rarely gave them second notice. However, for a young model rocketeer, a religious watcher of Walter Cronkite's coverage of manned space travel, glued to every issue of National Geographic that had photographs from the space race, this was "kid in the candy store" stuff. Having a father who worked in the range control center also meant that I got advanced notice of launches, printed materials on the rockets flown there, and the inside skinny on what really went on there.

Wallops was founded to solve a problem for the National Advisory Committee on Aeronautics (NACA). Without supersonic wind tunnels, Langley Field's engineers could not decipher the aerodynamic mysteries brought home by high-speed flight. The only way to find out what happened at supersonic speeds was to mount an instrumented model on a rocket booster and record the data. Flying rockets out of the densely populated Hampton Roads area of Virginia was out of the question and a variety of compromises put Langley's rocket operations at the remote Virginia barrier island. After an initial launch in 1945, Wallops grew and expanded to its current physical size by 1959.

Despite initial hardships imposed by primitive facilities, the data gathered at Wallops helped design many post World War II aircraft. Wallops engineers and technicians skill in gathering information from rockets and tailoring their flight profiles turned out to be useful in other areas. Utilizing surplus Nike and other boosters, excellent range telemetry and radar, and some clever technicians who could hold their own with model rocket kitbashers, Wallops churned out consistent results that were of high quality. Scientists interested in exploring the upper ionosphere found that Wallops could do what other rocket ranges would take too long or charge too much to do. Much initial research into reentry problems started at Wallops, too.

Not all the flights went perfect. Many longtime NAR members will recall seeing some footage at various NAR events of a Nike-Arcas that exploded on the pad and then raced up and down the beach before finally settling down next to a building. (My father once commented to me "I thought we got rid of all the film of that flight.") Wallops' most spectacular prang occurred during the launch of a Scout, a 72 foot tall four stage vehicle capable of placing 200 pounds in low earth orbit. When the roll program failed, the RSO ordered a destruct, but the second stage ignited anyway, power pranging in spectacular fashion at the north end of the island. The resulting fire burned off a lot of brush and white pine, but did no permanent damage to either facilities or the ego of employees.

After I got a drivers license, and with Dad in the Range Control Center, I had two options to watch launches. One was simply to wait at home for a scheduled launch, then phone Dad 30 or so minutes prior to liftoff. If the shot was delayed, he' d call back at around T minus 5, and then we' d wandr out into our front yard. Literally 5 miles from the launch pads, we' d see a intense orange trail rip skyward, then wait for the rumble. Many of my earliest memories of launches were of chemical releases into the ionosphere; about 5 minutes after liftoff, the chemical clouds released at peak turned spectacular colors when ionized.

My second option was to drive over to the station, past the security guard (we always had entry passes in our family cars), park outside Building N-159 and walk up to the second story where the Control Center was. My attendance there was pretty frequent, and many of my father' s colleagues would simply greet me and my brother with "Hi, guys. Here to watch the shot?". Watching from the range control center meant missing the fire and smoke, but you got to watch the real time telemetry coming in via radar. You could track the progress of the vehicle as it went about its business on giant plot boards in the front of the room. By comparing the actual trajectory against predrawn mission expectations, you could get an idea of how good (or bad) things might be going.

Sport rocketeers the world over have Wallops connections. Many of the scale models flown on ranges trace their prototype connection to the sand strewn launch pads next to the Atlantic. A host to two national championships and one international exchange contest, Wallops was also the first place I saw model rockets flown, at NARAM-6, back in 1964.

While many of the rockets and aircraft I saw flown at Wallops left lasting impressions on me, today, when I reflect on what it meant to be part of NASA' s Wallops Island, I think of the people employed there.

Many Wallops Island employees either recognized my passion for things rocketry, or put up with the persistent young fellow asking all those questions. Those employees applied the same patience and steady work toward the sounding rockets flown there as they did to the inquisitive young man. One encouraged my rocketry activities when few others in rural Virginia did. Another was my Little League baseball coach, and taught me that persistence and practice could pay off in my life.

Most of all, I owe a huge debt my father, Emmett. A dedicated civil servant who spent over 30 years at Wallops, he was known for his steady presence in the Range Control Center, a conductor with deep knowledge of the Wallops facility, personnel and operations. Somehow, he found time to let his second son sneak in the back door to peek in, brought home publications and photographs to show, and shared many of the inside stories of both the triumphs and disasters of technology development of NASA's Wallops Island.

Thanks a million, Dad.