

Early NASA Memories/Stories by John Neilon

Here is a note that may bring back some memories of what it was like to be a part of NASA's Unmanned Launch Operations. We had a great team, and we left a legacy for everyone!

The NASA/General Electric LANDSAT-1 (launched on July 23, 1972) was an outstanding technological achievement. However it stands out in my memory after twenty-five years for several reasons that have little to do with the magnitude of that achievement. As Launch Director for that mission, I remember some nonscientific things that made that mission stand out even after twenty-five years.

First, it was retroactively renamed. It started life as ERTS-A (Earth Resources Technology Satellite-A) and lived in orbit as ERTS-1 for several years before being rechristened LANDSAT-1. As a matter of fact, the January 1974 NASA Press Kit for LANDSAT-2 (alias ERTS-2) still referred to both the new spacecraft and the one in orbit as ERTS.

I have never heard the official reason for the renaming. Several of us have speculated that "ERTS" was far from a pleasing sound but "LANDSAT" is not receiving any prizes for euphony either. Others guessed that by the time of ERTS 2, there was an ocean scanning spacecraft in the works; it was eventually named SEASAT possibly because calling it Ocean Resources Technology Satellite would have turned out to be ORTS in our acronym-driven space talk. The prospect of an ORTS along with an ERTS might have been too much. Maybe this was a foreshadowing of political correctness; if there was to be a SEASAT, it would be necessary to have a LANDSAT!

Before someone with a long memory takes me to task on this, let me say that I realize that many spacecraft were renamed on reaching orbit. The Explorer series is a good example of this. Craft like the Interplanetary Monitoring Platforms, the Geodetic Satellites, and the Radio Astronomy Experiments were all renamed Explorers after successful launch, but I maintain that the ERTS/LANDSAT situation was much different than that.

Secondly it was one of the few NASA launches from Vandenberg Air Force Base in California that attracted much press attention. Allow me to digress to explain why I even mention this. Whenever we launched from Cape Canaveral there was always a large press contingent which caused us to have a pre-launch briefing, to have a well-patronized press viewing area, and to conduct a post-launch conference. For reasons I have never fully understood, that seldom happened at VAFB.

Maybe since most of the launches from there were classified military launches, there was not much incentive to maintain a resident press corps there like the one at KSC/Cape Canaveral. I do recall that for ERTS-1 we did have a pre-launch briefing (although it was held in the Los Angeles area rather than at the launch site) and there were press representatives on site for the launch. Whether or not we had a post-launch press conference escapes me.

The third reason for remembering ERTS especially requires going back even further in time to the previous DELTA launch from Vandenberg. The McDonnell Douglas DELTA-88 was scheduled to launch the TD-1(Thor-Delta-1) an astrophysical research satellite for the European Space Research Organization (ESRO) in March of 1972. DELTA 88 was the last of a series designated DSV-3L which used three solid strap-on CASTOR motors and utilized the Western Electric radio guidance system. ERTS-1 was scheduled to be the first of new DELTA series designated DSV-3N, which was to be the first DELTA to use nine strap-on solids and the new inertial guidance system called DIGS (Delta Inertial Guidance System).

A day or so before the final countdown was to begin, we were told by NASA Headquarters to delay the launch pending something called 'Program Review' or some such unfathomable term. All of us at the launch site were perplexed but did as we were instructed -- including trying to explain this delay to our equally perplexed ESRO clients. The next day we received permission to launch and on March 11, 1972, DELTA-88 and its TD-1 payload were successfully launched into polar orbit.

I never received a straightforward explanation of the mysterious delay. Piecing together several bits of information, and possibly misinformation, some of us conjectured that, at the last minute, someone came to the realization that the much heralded ERTS-1 would be riding on a new and untried first of a kind DELTA configuration and that it might be worth looking into the possibility that it should go on the tried-and-true DSV-3L.

Of course, it would not have taken long to learn that the DSV-3L could not handle the ERTS mission, whose weight and desired orbit required the additional performance of the DSV-3N with its additional solids. As I said I never really discovered, nor did I try very hard to discover, what caused the mysterious delay. The conjecture probably makes a better story than the undisclosed facts.

It was almost anticlimactic that ERTS-1 was successfully launched into its designated polar orbit on July 23, 1972 after a two day delay due to vehicle problems.

John Neilon, July 1997 (Note the date!)