

# OSU/NASA Education Projects: Aerospace Education Services Program (AESP) Archive

Oklahoma State University-Stillwater, Oklahoma

## Spacemobiler #2 by Al Hulstrunk. Written 2001

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Let me begin by telling you about my start as Spacemobiler #2, just 40 years ago on January 4, 1961. After interviewing with John Simms, Herman Weinstein, and a few others in mid December, they accepted me. At that time, I was the Science Supervisor for the Schenectady Public Schools and the presenter of a half hour, weekly (for 5 years) 'Science Adventures' program for public TV (just starting). I had degrees in Science Education and Paleobotany and had just finished designing and building a 30 ft. dome Planetarium for a local museum. Prior to this, and my schooling, I was a glider pilot in the Army toward the end of WWII.

I trained with Jack Callow (#1) for one week in Alexandria, Virginia schools and than out into the wilds with one of the new, blue Chevy side-door vans. These were full of big blue boxes containing the models and demonstration(s) materials. A virtual fairyland on wheels, at the time.

The usual routine was to set up in an auditorium, do a big Ra!Ra! show and tell, punctuated with some, for that time, pretty dramatic demonstrations.

This was a fast paced stage show that would be followed into the science, math classrooms or labs, or even into lower grade areas. Some of the demonstrations included radio wave bounced off a large Mylar "Echo" balloon, a CO2 line flier, the comparison of solid and liquid fuels and some other dynamic space material samples.

About 6 (?) others joined the traveling band (7 spacemobile astronauts?) And we all dispersed to varying parts of the country, not usually home territory. The lack of adequate educational support material prompted me to start a series of descriptive sheets that could be utilized by the educational community (to take up the boring nights). In a few years, these became the compiled work, "Experiences in Space Science" that formed the basis for the first NASA explanatory materials.

After uh-la miles and a gazillion programs (and a few great informational experiences with astronauts and at facilities), I was sent to Seattle to help set up the "Century 21" Exposition NASA exhibit. What a great collection of hardware, box exhibits, and visuals. It was a pleasure to be one of the "important" people of the world, at that time. Because Herman Weinstein's Educational Services had the operational contract, we were able to rent a "Spacemobile" house for use by any of the visiting lecturers.

The entire show was "big." It moved from Seattle to Cleveland (sponsored by the "Cleveland Plane Dealer" in the civic Auditorium and Convention Center. After a few months, it moved on to the Museum of Science & Industry in Chicago. We saturated the area schools surrounding these sites. All of the "Spacemobilers" or Space Science Consultants had a chance to be involved.

With the new tracking stations, auxiliary landing sites or other operational support facilities being built around the world, the selling of "space science" to these areas became a duty assignment for many. Because of the sub-orbital testing activity in the orbital paths and recovery sites, the Caribbean and central and northern South America were very much impacted. I was loaned, in a cooperative NASA/AAAS venture, as an initiator for their intensive tour of the major universities and colleges of the region. My assignment, for the next two years, was the introduction of the space process to the National education people and the teachers themselves, based out of Interamerican University at San Herman. PR, my "Spanish" counterpart, and I traveled throughout the region, operating an extensive teacher training process at all levels. All of this was interspersed with convention and conference appearances and the introduction of our training process in institutions throughout the U.S.

After being selected as the NASA Educational representative at Goddard, I felt the need for a change in personal venue (& money), and became a settled down operations administrator and weather modification researcher with the Atmospheric Sciences Research Center (ASRC), SUNY at Albany.

These early days, the Mercury, Gemini, and early Apollo times, were exciting, different, and invigorating. It was a time of learning new concepts, redeveloping processes within a diverse context and really exploring the future through time and space.

There was no limit to thoughts and imagination and even reality. We were going to the Moon, out to the Planets, and then out into the Cosmos. The great adventure was just beginning, and we, the spacemobile people, were there to explain the details and sell the idea. This was a "little golden age" of expanding thought that was supported by the NASA Administration, accepted by the educational community, and admired by the public – a time of enthusiasm.

One Anecdote ---- Of Many

In the early 60's, we provided programs at the NASA facilities to show the personnel our input into the PR and educational process. From Washington, I drove to Wallops Island to do an evening program. At noon, I dropped off a large "Dewar" flask at a liquid air plant to be filled with LOX. Ate lunch, picked it up, and went on my way.

With everything going just fine, I came to the comparison between liquid and solid fuel demonstration. The black powder flared in its usual burst of energy. The burning alcohol, as I poured LOX on it went – out! With a bit of chagrin and red-faced fumbling I relit and tried again, with the same results. OH! – the "dawn," as I explained to the people at the "gas" shop thought that I was a dumb H.S. science teacher asking for LOX. They did me a favor and put in liquid Nitrogen for the freezing of my banana and grape demonstration. Wallops never saw the LOX demonstration. That may be why they have never used (?) anything but solid fuel! (Ho! Ho!)