

My Soapbox

By Ann Knudson
The case for space

A high school teacher was discussing current events with her class and mentioned President Bush's space initiative. She told them he plans to finish the space station, replace the shuttle with a newer vehicle, and put people on the moon by 2015. A smart alec kid quipped, "He probably wants to drill for oil up there!"

The class laughed, but there was a grain of truth to it. President Bush is known for exploiting resources, not for throwing money away. If he supports a space program, it's because he expects to get something out of it. What could that something be?

In the first place, putting people in space requires research, and space research has already paid off in a dozen ways.

Take weather forecasting. The Galveston hurricane of 1900 killed at least 6,000 people, maybe as high as 10,000. The Great Lake Okeechobee hurricane of 1928 killed over 2,000. We have a lot more people today than we had back then but Hurricane Isabel, last year, only killed 40. Why? Because we have weather satellites that watch storm patterns develop and give us plenty of warning.

Take communication. It used to be, if you slid in the ditch, you had to wait for somebody to come by, and hope they got there before you froze. Nowadays, if you slide in the ditch, you can call a tow truck on your cell phone before your wheels stop spinning. Last year our son was on a ship in the Mediterranean. Mail was slow. Yet, by satellite phone, he was only a second away.

Then there's search and rescue. Anybody with a GPS unit can figure out exactly where they are, day or night, in spite of rain, fog or blizzard. For drivers, sailors, fishermen, hunters, or anybody moving around outdoors, this gadget can help keep them from getting lost, and help rescuers find them if they need help. Truck companies can use it to track loads. Railroad companies can use it to track cars.

Take computing. I have a little calculator that fits in my purse. It cost \$5, and it can add, subtract, multiply and divide. Fifty years ago, a computer that could do that would have been as big as a car, and would have cost as much, too.

Take medicine. Every one of you probably knows somebody who has had a CAT scan or an MRI. Those were developed from the space program.

How many of you have nonstick pans in your cupboards? Those coatings came from space research.

Robotics, electronics - the space program has spun off benefits in a lot of places. Further research is bound to lead to more spinoffs, things we haven't even thought of today.

The second reason for going to space is the resources. Did you know that Alaska was once called "Seward's folly" and a "useless icebox"? It was far away, and expensive to get to, and the climate would kill you without special protective equipment. Well, it turned out there was gold there, and oil, and a lot of other things. Does anybody want to give it back to the Russians?

We don't know that there's gold on the moon. We do not know for sure that there is iron in the asteroids. We do know there's vacuum, and low gravity, and solar power 24/7. Processes that are expensive on Earth, because they need vacuum, will be cheap on the Moon. Processes that are too dirty, or too dangerous, to do on Earth, might be better done on the Moon, where there is nothing to hurt but rock. Processes that are impossible in gravity, like growing special crystals for electronics, are very possible in a space station. We won't need oil on the moon to power all this industry - just put out solar collectors. Americans are very good at making things pay. I'll be surprised if we can't figure out ways to make a profit out of space.

Then there's the gravity. Cripples wouldn't need their wheelchairs in zero gravity. They could become useful workers again on the space station. Old people might throw away their walkers on the moon, or might find their failing hearts good enough for years more of life. Women who can't carry babies to term in Earth's gravity might find it possible on the Moon.

In addition to the spinoffs and the resources, there's another reason for going to space: not putting all your eggs in one basket. About 87 million years ago, a large asteroid slammed into the Gulf of Mexico. Water boiled, clouds covered the sun, and the dinosaurs died. There are a lot more rocks whirling around in the asteroid belt. Little ones hit us every day. You can see them yourself on any clear night - just step outside and look for "falling stars." If a big one headed for us now, we couldn't stop it any more than the dinosaurs could. As long as human beings live in only one place, we are vulnerable to extinction. If we spread out to live on the moon, on Mars and in the asteroid belt, then one rock could no longer wipe out the human race. Furthermore, we could develop the means to see one coming and push it aside.

The final argument is for space as a frontier. America was settled by the restless, the rootless, and the wanderers. They were risk-takers who left everything familiar and safe to stake their lives and their families on something different, scary and unknown. Their descendents don't always fit well into a tame, constricted, civilized life. However, now that the West has been won, where is there a wilderness for them? Young men and women could find enough adventure in exploring space to keep them busy for generations.