The Prairie Astronomer

Lincoln Ne Volume 25 Number 8 August 28 1984

Space Stations, love them or leave them. With the increasing success (not lately) of the space shuttle, it has brought new interest to the space station concept. Let's take a look at some of the aspects of the station.

It is certainly not without its critics. The Presidents own science advisor George Keyworth II, the Pentagon, and the Office of Management and Budget to name several. Some of the scientific community would like to see some of its money spread over numerous planetary missions rather then one station project.

The stations commercial role may represent things to come in the future. But how soon this future? Large corporations are beginning to study the possiblity of space manufacturing. Drug production has always been a possibility, high quality production of micro chips, and biological materials production are also on the list.

McDonnell Douglas and Johnson and Johnson are looking to space for help in the development of pharmaceuticals. A process called electrophoresis, a gravity free environment to purify biological materials, will help Johnson and Johnson develope 30-40 new products. These include insulin and interferon.

IBM has scrubbed a 20 year earth based project and looked to the station to help produce a new generation of gallium arsenide superchips.

The station interest has generated excitment amoung venture capitalists also. Several ex NASA people are looking at start up company's to get in on this. Fairchild Corp. is looking at orbiting their own platform and McDonnell Douglas may be their first customer.

Now with all this positive upbeat news could there be a negative side? Let's take a look at just some of the specifics on the other side of things. Before we start at the "top" let's look at the "bottom", the bottom line that is. Profits for any company dealing with space manufacturing are out of the question for the near future. The crystals for the IBM superchips for example will cost $30,000 per ounce to manufacture. Couple that with the fact the station is 10

years away from orbit and the computer industry changes as rapid as my wife's mind and you can see the problem.

The risk factor is much greater. Space launches are like the pass-no pass classes you took in college. They either make it or they don't. Just ask the Westar and Palapa people what achieving only a so-so orbit means.

The venture capitalists have a surprise in store. Where before they invested $100,000 to 500,000 in a project they will now have to dig down to the tune of $100,000,000 for projects.

The communities scientists are alarmed not at the possiblity of failure of the space station but at its success. Why? With yearly budget cuts the station funding will have to come from other projects ear marked funds. We all know what has happened to the planetary mission workload.

It's important that we all take a hard look at the station's feasibility. Not plunge headlong into it for the sake of "progress". We have already fine tuned our planetary missions. To cut them short now would be a shame. As astronomers we need to be concerned about launcing space telescopes and keeping them running for long periods of time. We still can look forward to the 1986 launch of the Hubble Space Telescope. This will allow us to look seven times deeper into space then we can now.

Maybe refining what we have rather then funding what we don't may be the order for the near future at least.

Russ Genzmer - 421-3484 - March 26
Lee

President's Message

I hope all of you are reflecting back upon a good summer as fall approaches and the days begin to shorten. I know that when the daylight starts dimming earlier and earlier I begin feeling a bit sad at losing the warm weather and the sunlit evenings when you could stay out until 9:30. But what am I saying? Even as the non-astronomer part of me mentions the above words, the astronomer part of me (which is much bigger) shouts for joy as the nights get longer. Stars appear earlier, the evening skies are more stable as the air begins to cool, and some of my favorite constellations again start to rise. No. I guess it's nice to see the fall approach.

John Lortz

For those of you who missed the last meeting, we have decided to have another annual star party on Saturday, September 22nd starting at 5:30pm. Because of a breakdown in communication we had a very bleak attendance at the July star party (and the skies were reported to be outstanding!). So, we are going to try it again. Letters are going out to our neighboring clubs so we are hoping to have a good turnout. Please mark the date on your calender now so you can be sure to attend. We'll talk more about it on Tuesday night at the meeting. See you then!

Observe Report

Remember the club picnic and ever popular star party? It has been scheduled for Saturday, September 22nd at 5:30pm at Wagontrain Lake so bring your food and your telescopes for a night of fun.

The northern Milky Way has many hidden observing treasures which take some searching ut which are well worth the effort. In southern Vulpecula about seven degrees south of Alberio is a small group of stars known as the coathanger. Visible to the unaided eye as a fuzzy spot, the cluster is beautiful in binoculars or a rich field telescope, showing about 15 stars and looking very much like an upside down coathanger. For those with six inch or larger telescopes, look on the eastern end of the coathanger for the tiny faint open cluster NGC 6802. It looks like a faint galaxy in a six inch with my eight inch showing a few stars, but in a ten inch the sluster becomes a nice group of three subclusters all in a line.

In Cygnus, the Vail Nebula is a must for those with six or eight inch instruments. The brightest portion of this super-nova remnant is two and one half degrees south and two degrees east of Epsilon Cygni and appears as a faint curved arc of light over a degree in lenth. This object responds particularly well to the use of the Lumicon U.H.C. filter and the visibility of the western portion which runs through the star 52 Cygni is vastly improved using the filter.

Two degrees south and one degree east of 41 Cygni is the beautiful cluster NGC 6940. It shows up well in most telescopes as a large group of about 100 stars in a rich background field.

As a note to all shortwave listeners, the Astronomy program "Skyline" is broadcast on Thursday evenings at 10:00pm CDT at 6.185 Mhz on the station known as "Radio Earth".

David Knisely

The Prairie Astronomer is published monthly by the Prairie Astronomy Club.
Membership structure--
1. Newsletter subscriber only, $6.00 per year.
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3. Regular Member $19.00.
4. Family members $21.00.
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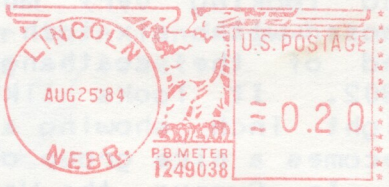
The Prairie Astronomer
c/o PRAIRIE ASTRONOMY CLUB, INC.
P.O. Box 80553
Lincoln Ne. 68501



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