


# FOCAL POINT



Newsletter for the *Milwaukee Astronomical Society* January, 1994

## From The Editor

Hopefully, you'll receive this newsletter on time, with names spelled properly and all the facts straight.

I'm following in the footsteps of a very dedicated and hardworking editor. I hope that I can continue the fine job that he did.

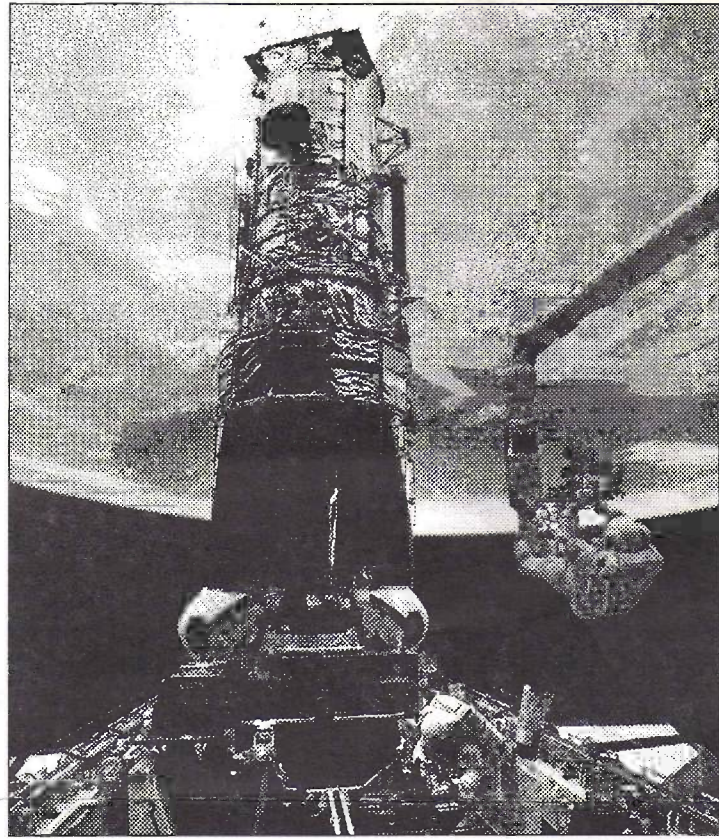
There won't be too many changes, except that I'll be using more photographs. As a photo editor at the *Milwaukee Journal*, and a novice astrophotographer, my bias in this area will show. So please submit any photos you might have to me by mail or by modem.

I'm most interested in photos of recent events, or of objects that will be rising during the month of the publication. And I love casual observing from light polluted locations, (like my backyard) so any tips or reflections on how to observe under these conditions would be welcomed.

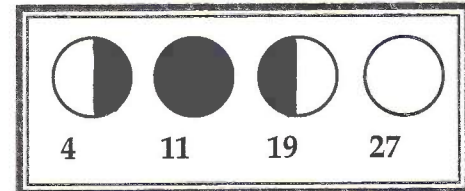
--Ernie Mastroianni

## Mission a success

Astronaut Story Musgrave, anchored to the space shuttle arm, and astronomer/astro- naut Jeffrey Hoffman, in the payload bay, pre- pare to install protective covers on the magneto- motors of the Hubble Space Telescope during their third space walk on Dec. 9. The scope is cur- rently undergoing tests to see if the repair was suc- cessful.



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## Calendar of Events

Jan 9, Monday.....	MAS Board Meeting 7:30 pm-home of Sally Waraczynski 3725 S. 71st St.
Jan 21, Friday .....	Program-Meeting 8:00 pm-Regency retirement home, 13750 W. National Ave.
Feb. 2, Wednesday.....	First Wednesday Meeting 7:30 pm, at the Observatory
Feb. 14, Monday.....	MAS Board Meeting 7:30 pm-home of Tim Burrus, 3325 Meadowcroft Ct., Brookfield



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## Library News - by Sally Waraczynski

Mary Ann and Virgil Tangney have donated several books from their library to the Society's collection.

*Observing the Sun* - Peter O. Taylor, 1991. Vol. 3 of the Cambridge University Practical Astronomy Handbooks. Gives background and equipment needed to observe sunspots and flares; with a chapter about eclipses.

*Watching the World's Weather* - W. J. Burroughs, 1991. Outlines the basics of earth's weather machine and details the value of satellite observations in revealing complexities and making forecasts.

*The Anthropropic Principle* - James Lovelock, 1988. Views Earth as a living organism which can tolerate a great deal, but not infinite, abuse from her human component.

*The Dark Side of the Universe* - James Trefil, 1988

*The Fifth Essence* - Lawrence M. Krauss, 1989. Explores what is known about the earliest moments of the creation of the universe and subsequent distribution of matter. Specifically, they discuss dark matter, which is thought to make up the bulk of the universe.

*Superstrings: A Theory of Everything?* Edited by Davies and Brown, 1988. Introduction to particle physics and featuring interviews with advocates and critics of this theory, which proposes a unification of the four fundamental forces.

*Reading the Mind of God: In Search of the Principle of Universality* - James Trefil, 1989. Universality is the idea that the laws of nature are true everywhere in the universe and for all times. The difficulty lies in our inability to observe the simplicity within the complex.

Mike Almamallecky has donated another winner:

*The God Particle* - Leon Lederman, 1993. Lederman was director of Fermilab from 1979-1989 and writes with an entertaining style that might be considered irreverent in someone of lesser credentials as an educator and experimenter. He offers a skillful distillation of many scientific investigations of the past that gradually led to today's understanding of quantum physics. The God Particle of the title refers to the Higgs boson - as yet theoretical, but the quarry of the unfortunately canceled Superconductor Supercollider in Texas. Lederman hints that the Higgs boson might be God's little joke on the universe.

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## Double Clicks

- by Lee Keith

MAS members should by now be aware of the MAS Computer Group that meets periodically to look at the new crop of powerful astronomical software and computers that are becoming widely available. This column will also appear periodically to help those who could not attend or who are contemplating buying software or computer equipment aware of what the MAS Computer Group looks at.

*Distant Suns for Windows 2.1* - by Virtual Reality Labs. No computer or software can or should be all things to all people. Software aimed at beginners will bore old-timers, and complex software will frustrate beginners. *Distant Suns* is a package aimed at the commercial mass market. This can be a tough sell due to the wide range of astronomical expertise and expectations of potential customers. While the packaging is attractive and will get the attention of a beginner, it is a disappointment to the more advanced astronomer. In its defense, it was one of the more reasonably priced packages at about \$40 for the diskette version.

Without constellation lines, even the more experienced observers in the group could not tell the constellations from the clutter because the bright stars were not bright enough.  
—See "Computer", page 4

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## Observatory Committee - by Jim Kube, Observatory committee Chairperson

The Observatory Committee discussed the proposed new building size and location on the MAS property. We decided on Saturday, Dec. 12, to stake out the building perimeter in the southwest corner of the property.

The location will make the building accessible to the handicapped and easier to reach in the winter. Included in the L-shaped building plans are a lecture hall with a ten foot ceiling and will be larger in area than the quonset hut. The library will be in the small leg of the L. The bathrooms will be in the back of the lecture hall. The committees looking toward a 1995 ground-breaking. So please volunteer your time and effort. The MAS will need your help.

The Z-Scope, according to Gerry Samolyk and Paul

Borchardt, is progressing nicely. Samolyk used this analogy: It's like a new home; when the rough carpentry is completed, which only takes a few days, the home looks like you will be moving in right away. But the finishing work takes much longer and you have to wait until it's finished.

The Z-scope is a complicated instrument that requires an enormous amount of finishing work, which is progressing. Now is the time for the people who promised to complete the electronics and mechanical functions to keep their word so the Z-scope project can be completed.

In my 'scope, a 35 mm eyepiece gives a beautiful wide-angle view of the heavens. But in the Z-scope,

—See "Z-scope", page 4



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## Z-scope, continued

that same eyepiece is a high power eyepiece that gives closeup views. this has to do with the very long focal ratio of the Z-scope. What is needed is a 150 or 200 mm eyepiece to get the wide angle views of the heavens.

The committee also discussed CCD imaging. We all agreed that the CCD's are like purchasing a camera for astrophotography. CCD imaging has to be tailored to one's own wants and needs.

Where is the volunteer electrician for wiring the furnace in the quonset hut? MAS will have to hire an electrician soon if a member does not donate his or her time. And while you're at it, the light above the blackboard should be moved five feet north, to give guest speakers a softer light. Presently, the light casts very harsh shadows.

Samolyk would like to concentrate on finishing the Z-scope project. MAS would like mechanically inclined people, one designated for the A-scope, one designated for the B-scope, to be on call to service the respective telescopes when parts break. They could also motorize the slits, for easier use by all. This will free Samolyk so he can concentrate on the Z-scope. My wife says that I'm at the age where I'm more mechanically *inclined*.

What should happen to the quonset hut after the new building is in use? We would like to hear your suggestions. Samolyk envisions (after the hut is demolished) a garage and office structure attached to the north side of the A dome. It will have a large garage overhead door so the 18" Richard Wiesen Memorial Telescope and the portascopes on cars can be wheeled into the yard.

Want to get into some serious astronomy programs? See Samolyk on the first Wednesday of each month. Operation of the observatory is also discussed. All it will cost you some of your time and a few questions.

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## Computer, continued

and the dim stars were too bright. The display lacked the dynamic range of star brightness that the real sky has. Also it is hard to get your bearings since the display is always oriented along right ascension and declination lines, even if the actual horizon is visible. You should be able to view the sky with the horizon at the bottom as if you were outside, looking at the sky.

On the plus side, there are about 40 images of planets and space missions to complement the star charts. Unfortunately, the images have many flaws resulting in horizontal white lines on the image. Also, each Messier object has a small window of information attached to it. Merely clicking on the M-object will bring up information relating to the object, including a small digitized photo and history behind the object.

There is also a small set of animations of eclipses and conjunctions. The one of the June, 1991 conjunction of Mars, Jupiter and Venus is my favorite.

The manual does an excellent job of explaining the basics of astronomy, but when I showed some of the better features to group members, all I got were yawns. The group rates *Distant Suns 2* on a scale of five, with five being the highest.

# MAS INFORMATION

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