



May and June 2009

Milwaukee Astronomical Society

Edward A. Halbach – 100 Years
Gerry Samolyk

On April 5, our longest-term member celebrated his 100th birthday. Ed Halbach is the most significant member in the history of the Milwaukee Astronomical Society. In fact, Ed was one of the significant armature astronomers of the twentieth century.

When Ed Halbach graduated from college and began his engineering career, he looked for an activity to occupy his free time. He felt that most hobbies were way too passive, however in 1932; Ed saw an advertisement in the Milwaukee Journal announcing the formation of an astronomical society. Here Ed found an activity where he could channel his energy.

Ed started observing variable stars using the old blueprint charts (see photo) and a 13" reflector located in the backyard of MAS founder Lavern Armfield. Ed would continue to observe variables for the next 70 years making about 100,000 visual observations. The society was also active in observations of meteors at that time.

In 1936 construction began of the MAS observatory in New Berlin. Ed would play a key role in this project. At the height of the depression there was little money available, so the members passed a hat and managed to collect \$100 that was used to purchase some used lumber. One of Ed's many talents was the ability to obtain donated material for observatory construction projects (as he used to say "you need to know how to scrounge"). Concrete for the pier and steel for the dome were obtained.

In 1942, Ed took on the job of observatory director, a position he would hold for the next 35 years.



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During the Second World War, Ed ran an optics shop in the 'monastery' building to produce prisms for bombsights. This qualified MAS members extra gas-ration coupons for observatory access, however observatory use was down during the war.

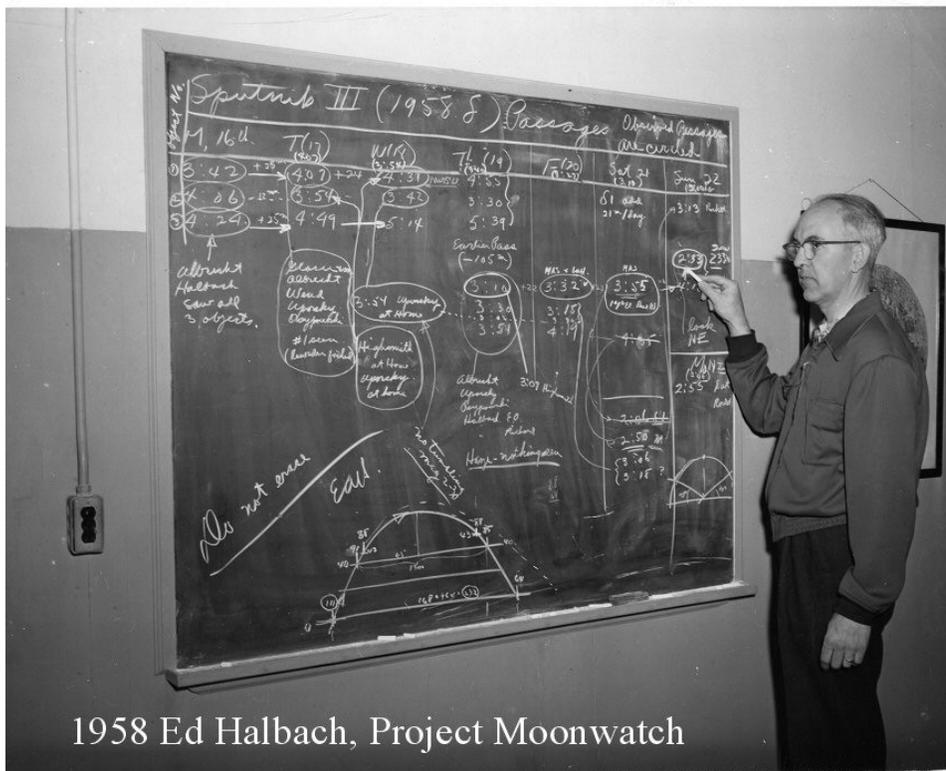
In 1947, Ed was involved in the formation of the Astronomical League and served as the first president of that organization.

Ed married Jane in 1942. Despite all of Ed's activities, he always found time for his family. He designed and built a camping trailer so he could take Jane and their six children on cross country trips.

were featured in a 1949 issue of National Geographic article on the subject.

In the late 1940's and 50's, Ed became involved in an air force project using solar eclipse timings to link the North American datum with the coordinate grids of other continents. This work took him on eclipse expeditions all over the world. The results of much of this work remained classified for a long time.

With the dawn of the space age, NASA recruited armature astronomers to help with tracking satellites in a project called Moon watch. Ed got the MAS involved and modified the 'monastery' building with a pier and slide off roof to house three satellite tracking scopes (the building then became known as the satellite shed). As a result of this work, the MAS predicted and observed the reentry of Sputnik IV in 1962.



1958 Ed Halbach, Project Moonwatch

Armatures became involved in studying the relationship between solar events, aurora, and the magnetic field of the Earth. By comparing observations of solar flares, aurora, and ground currents, Ed was able to predict interruptions in power and communications caused by solar events. This work enabled power companies to prevent interruptions of this type. The MAS was part of a network of astronomers coordinating observations of these phenomena. Cornelius Prinslow, Bill Albrect, and Ed Halbach, of the MAS

Observations of lunar occultations had been going on for a decades, but it wasn't until the late 1960's that computers became fast enough to accurately predict lunar grazing occultations. Ed got involved with this program at the start. In the process he designed and oversaw the construction of a two mile cable and chart recorder system to facilitate easy recording of these observations. In the early 1970's he led a project to design the 10" portascopes. This allowed us to bring larger aperture scopes to these events. These scopes were also heavily used in the observation of eclipsing binary and RR Lyr stars from the 1970's thru the 2000's. Ed received the Astronomical League Peltier award for his work in lunar occultations.

Ed and Jane decided to retire and move to Estes Park CO in 1977. The house that Ed had designed included a rooftop observatory with a 16" cassegrain scope on a modified springfield mount. He would spend much of his retirement working on this project (Ed always needed to

have a project to tinker with). While working on this scope, Ed used a portable 10" scope in his backyard to continue his occultation and variable star observing.

In addition to Ed's observing, Ed and Jane enjoyed extensive world travel during their retirement. Ed also did volunteer work with habitat for humanity. He continued this work until he was in his mid 90's



There are many facets to Ed's legacy. His engineering talent and creativity was at the genius level. He could find an economical solution to almost any problem. His innovations kept the MAS observatory thriving thru the depression and a world war. He designed and crafted the drives and setting circles on both A and B scopes that are still in use today. Those domes continue to function after decades of use.

Ed always looked for opportunities for armatures to contribute to the science of astronomy and related fields. His energy and enthusiasm was contagious. In 1988, Ed had also received the AAVSO merit award for his long service to that organization.

A significant part of Ed Halbach's legacy was his role as a mentor to other observers. In 1933, Ed met a high school student named Bill Albrect. Ed took Bill under his wing and it was the start of a close friendship that has lasted for over $\frac{3}{4}$ century. Over the decades that followed, several generations of

observers as well as a few professional astronomers were mentored by Ed. At the 2003 spring meeting of the AAVSO, Ed received the William Tyler Olcott award in acknowledgment of this effort. At the same meeting, Jane was credited for "putting up with Ed" during more than 60 years of marriage.

2009 Schedule of Events

May 15, 2009

Board Meeting: 7:00 PM

Membership Meeting: 8:00 PM

June 20, 2009

Public Observing - The Sun

July 24 to 26, 2009

WOW 2009

August 14, 2009

Public Observing - Perseid Meteor Shower

September 11 to 13, 2009

MAS Campout

September 18, 2009

Board Meeting: 7:00 PM

Membership Meeting: 8:00 PM

September 25, 2009

Public Observing - Jupiter

October 9, 2009

Public Observing - Fall Galaxies

October 16, 2009

Board Meeting: 7:00 PM

Membership Meeting: 8:00 PM

November 20, 2009

Board Meeting: 7:00 PM

Membership Meeting: 8:00 PM

December 4, 2009

MAS Holiday Party

Greeting fellow MAS Members.

Well we are coming up to the end of another MAS year and our annual elections are scheduled for the May 15th meeting. In addition I have decided not to seek another term as MAS president so this will be the last time I will write for the newsletter.

I have been the MAS President for the last 3 ½ years and feel it is time to hand off the leadership of the club to someone else. In fact there are multiple board and officer positions open. If you are interested in helping out with the future of the organization then please run for one of the positions. Even if you are not interested in running for a position, please come to the meeting. It is your club and as a member your voice should be heard about where you would like to see the club progress.

In addition to the elections, Dan Yanko would also like to conduct a brainstorming session to solicit ideas from the members to help move the club forward. His goal is to develop a five year plan to address some major issues that need to be addressed.

Although I will not be in a leadership role, I will continue to stay as a member of the MAS and continue to support the hobby of amateur astronomy. Also, a special thank you to the officers, board members and volunteers that have supported me and the MAS over the last 3 ½ years! I hope to see all of you at the May meeting.

Clear Skies.
Steve Diesso



NASA Images of the Hubble Servicing Mission STS-125



Launch Day

The launch of space shuttle Atlantis from Launch Pad 39A at NASA's Kennedy Space Center in Florida is viewed from behind Launch Pad 39B. On pad 39B is space shuttle Endeavour. Atlantis' 11-day flight will include five spacewalks to refurbish and upgrade the Hubble Space Telescope with state-of-the-art science instruments that will expand the telescope's capabilities and extend its operational lifespan through at least 2014. The payload includes the Wide Field Camera 3, Fine Guidance Sensor and the Cosmic Origins Spectrograph.

Image Credit: Photo courtesy of Scott Andrews (Used by Permission)



Hubble

The Hubble Space Telescope stands tall in the cargo bay of the space shuttle Atlantis following its capture on Wednesday, May 13, 2009. The STS-125 mission began a series of spacewalks the following day to service Hubble. Over 11 days and five spacewalks, Atlantis' crew will make repairs and upgrades to the telescope, leaving it better than ever and ready for another five years—or more—of research.

Image Credit: NASA

Bill Albrect 1917 - 2009

A long time MAS member, Bill Albrect, passed away on Apr 25. The MAS would like to extend our condolences to Bill family. Bill was a very warm and friendly person who was very dedicated to astronomical studies and the MAS.

Bill joined the MAS as a high school student in 1933. There he met Ed Halbach and began a friendship that lasted over 75 years. Bill was involved the construction projects at the observatory for many years. He used to joke, "Sometimes, astronomy was something that was done with a shovel and a wheelbarrow". Bill was a talented designer as well as fabricator. The A and B domes along with the MAS portascopes are among the many projects he was involved in. Much of the mount on Z scope is based on designs Bill made shortly after the mirror blank was donated.

After serving in the US Navy during WWII, Bill returned to Milwaukee. He continued to participate in the observing projects with the MAS. Bill spent many nights studding auroras at the observatory, while total solar eclipse expeditions took him to some unusual parts of the world. He participated in most of our grazing occultation expeditions and was always interested in any opportunity to observe any unique event. One of the many events that I observed with Bill was the occultation of Epsilon Gem by Mars in '74. It was fascinating to watch the star fade in the atmosphere before the occultation. It was like watching a sunset on Mars.

Much of Bill's life involved the observatory, so it was only fitting that he met his wife, Anne, at one of the public nights held there. Anne latter served at the MAS treasurer. In addition to all the work that Bill did for the MAS, he also provided financial support. When the Z scope project was in it's infancy, Bill donated a sum of money to get the telescope fund started. Much more recently, Bill donated \$1000 to start a fund so the MAS can someday purchase a darker sky observing sight. That fund is now called the Albrect fund.

In the late 1970's, Bill and Anne moved to Pahala, HI. Bill had an old 11" Celestron set up in his backyard. Because of his latitude (19 degrees N) Bill had to install a wedge and counterweight so he could reach the southern horizon without the scope hitting the fork. From this location Bill made over 80,000 variable star observations, working both with the AAVSO and the RASNZ. Being located in the middle of the ocean, Bill was often the only observer in position to make a critical observation. Bill did engineering work in support of the CFH observatory and had several nights per month on a 24" scope on top of Mauna Kea allocated for his personal use. In addition to astronomy, Bill spent much of his time in HI doing volunteer at the volcano observatory at Kilauea.

When Anne passed away in 2001, Bill moved back to WI. At that time, a whole new generation of MAS members got to know Bill as he attended meetings and picnics. The Albrect observatory (located between the A and B domes) was dedicated to the service that both Bill and Anne gave to the MAS. Although the building was built in 2000, the original pier footing, installed by Bill in 1935, is still in place.



Bill Albrect received the AAVSO Directors Award at the spring 2002 meeting in HI

Saturday Night Key Holder

On Saturday nights the MAS opens its New Berlin facilities to all its members. If interested in using an observatory on the following nights, the following key holders will be on hand. Please contact them in advance to ensure access.

May

2	Scott Laskowski	414-421-3517
9	Bob Manske	608-849-5287
16	Jill Roberts	414-587-9422
23	Terry Ross	262-784-2093
30	Becca Setzer	262-707-7478

June

6	Tom Schmidtkunz	414-352-1674
13	Neil Simmons	262-889-2039
20	Dan Yanko	262-255-3482
27	Paul Borchardt	262-781-0169

July

4	Tim Burrus	262-369-1022
11	Steve Diesso	262-641-0331
18	Brian Ganiere	414-961-8745

MAS Membership is open to anyone interested in enriching their knowledge of Astronomy and related topics.

Yearly Membership Dues:

Student (under 18)	\$13		
Resident (Milwaukee and adjacent counties resident)		Non-resident	
Individual	\$36	Individual	\$23
Family	\$42	Family	\$27

Members can get subscriptions to *Sky & Telescope* (©) and *Astronomy* (©) at a club discount.

For more information contact:

Bob Manske, 404 Prospect Road, Waunakee WI 53597
Phone: (608) 849-5287
Email: manske@tds.net

Name that Ewok, any guesses? That's right it's Teebo!



MAS Officers / Staff

President:

Steve Diesso (262) 641-0331

Vice President:

Rebecca Setzer (262) 707-7478

Treasurer:

Brian Ganiere (414) 961-8745

Secretary:

Henry Gerner (414) 774-9194

Observatory Dir:

Gerry Samolyk (414) 529-9051

Newsletter Ed:

Rebecca Setzer (262) 707-7478

MAS Observatory:

NOW WORKING (262) 542-9071

Loaner Telescopes

These telescopes are available to members for local use.

Scott Jamieson (Waukesha)
(262) 896-0119 8"

Paul Borchardt (MAS site)
(262) 781-0169 6" & 8"