

Finding Your Voice In Our Hobby

MIKE HOTKA

How many of you like to:

- ▶ Read about where others are going to observe?
- ▶ Know what kinds of observing projects other people are doing?
- ▶ Listen to astronomically themed presentations?
- ▶ Learn a new skill that would benefit you in our hobby?

How it Began for Me





Write a Blog

Mike Hotka's Adventures

Tuesday, February 19, 2019

Headed to Clayton Lake State Park

During the 3rd quarter to new moon weeks at the end of February, 2019, I am headed to Clayton Lake State Park in northern New Mexico for a couple of nights of observing. I plan to stay at the Super 8 in Clayton and observe till moon rise for the two nights. I have 331 more Herschel 2500 objects to view to complete looking at all 2502 objects, real and unknown. I hope to bag a few more during this trip.

Posted by Unknown at [9:11 AM](#)

No comments:



Wednesday, October 10, 2018

Starting another Astronomical League Observing Program

As you might guess from looking at all the Astronomical League Observing Program awards I have received, I really like these Observing Programs (OP). One thing is they provide list after list of things to observe. All I need to do is to find an Observing Program I want to explore and voila...I have a list of objects to look at.

I have completed all but 4 of these OPs. One of the remaining OPs that I would like to complete is

Blog Archive

▼ 2019 (1)

▼ February (1)

[Headed to Clayton Lake State Park](#)

► 2018 (2)



Uncle Rod's Astro Blog

A quiet little spot where Rod Mollise shares his adventures and misadventures...

About Me



Name: [Rod Mollise](#)

Location: Mobile, Alabama,
United States

[View my complete profile](#)



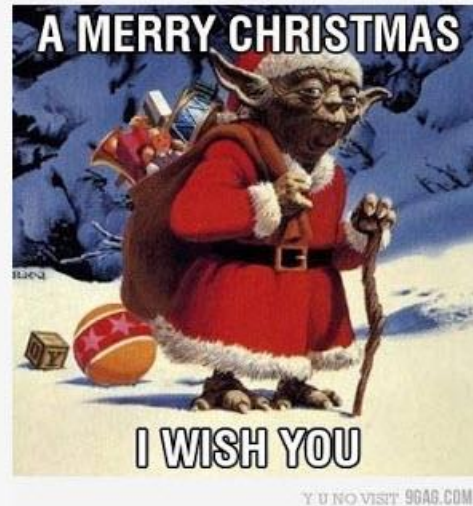
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Links

[Index to Uncle Rod's Astro Blog](#)
[Rod's Amazon Home Page](#)
[Rod's SCT User Group](#)
[Uncle Rod's Used SCT Guide](#)
[Choosing and Using a New CAT](#)
[Choosing and Using an SCT](#)

Tuesday, December 25, 2018

Merry Christmas 2018 from the Astro Blog!



I'm busy with a new book (and maybe a revised edition) for *Sky & Telescope* with some regularity, and don't have time to update my old blog right now. However, I couldn't let Christmas go without a short post.

What's been going on here astronomy-wise? Clouds and rain for the days leading up to THE BIG DAY, I did get a few nights of clear sky, dragging my 10-inch Dobbie, Zelda, into the backyard. The Dobbie has been used much in the last year, and I was curious to see how she'd do over her three-and-a-half years down the line.

Why did Zelda, a basic solid-tube Zhumell (GSO made) stay with me in 2015 (can it really have been that long)? It was a hallowed truss tube reflector, Old Betsy, who was my first telescope owner in the winter of that year. Betsy had become unusable and I could handle thanks to a back injury I'd sustained. One afternoon I

booted up her computer, a Sky Commander DSC rig, and the last date in it indicated she hadn't been used since 2015. I was a little bit of a

DeepSkyMike's Homepage



My New 12.5" Telescope

Michael Hotka
 Amateur Astronomer
 Deep Sky Marine
 NPS Dark Sky Ranger
 JPL Solar System Ambassador
 Broomfield, Colorado USA
[Contact Me](#)



♥ Barbara, My Best Friend ♥

Buy My New Book Exploring Amateur Astronomy Goal Oriented Observing

WWII Honoree	New Telescope	Astronomy Biography	Astronomical Accomplishments	Walk Down Memory Lane
Equipment	My Astro Buddies	Observing Lists	Observing Logbook	How I Do What I Do
Awards Page	First Astronomical League Certificate	My Useful Astro Links	My Software Patent	Resume
My Blog	Event Blogs	Other Great Astro Links	Retirement Opportunities	Publications
	Recommended Books	Snowberry Observatory	Astronomy Introduction	

Astronomical League Observing Programs Status

Observing Club Name	Status	Observations
First Telescope Observation	Certificate December 26, 1965	
Messier - Basic	Received March 6, 1988	
Messier - Honorary	Original Certificate Updated Certificate #762	To Be Added
Double Star	Certificate #166	Log of Observations
Lunar	Certificate #391	Log of Observations
Messier Binocular	Certificate #574	To Be Added
Deepsky Binocular	Certificate #172	To Be Added
Sun Spotter	Certificate #75	Log of Observations
Venus Transit	Certificate Received 7/27/04	Log of Observations
Herschel 400	Certificate #303	Log of Observations
Planetary Observing	Certificate #31	Log of Observations
Caldwell Silver Certificate	Certificate #68	Log of Observations
Globular Cluster	Certificate #2	Log of Observations
Urban Astronomy	Certificate #68	Log of Observations
Observer Award	Certificate	
Master Observer Award	Certificate #34	
Advanced Observer Award	Certificate	
Master Observer - Silver Award	Certificate	
Master Observer- Gold Award	Certificate	
Master Observer - Platinum Award	Certificate	
Northern Constellation Hunter	Certificate #19	To Be Added
Earth Orbiting Satellite	Certificate #16	Log of Observations
Lunar II	Certificate #1	Log of Observations
Basic Outreach	Certificate #7-0	Log of Observations
Stellar Outreach	Certificate #7-S	Log of Observations
Master Outreach	Certificate #7-M	Log of Observations
Silver Comet Club	Certificate #17	Link to Observations
Gold Comet Club	Certificate #11	Link to Observations
Meteor Watching	Certificate #31	Link to Observations
Universe Sampler	Certificate #68 (T)	Log of Observations
Herschel II	Certificate #54 (M)	Log of Observations
Open Cluster	Certificate #17	Log of Observations
Planetary Nebula - Basic	Certificate #10	
Planetary Nebula - Advanced	Certificate #14	Log of Observations
Arn Peculiar Galaxies	Certificate #60-V	Log of Observations

Binocular Galileo Certificate	Certificate #3	Part of completing the Galileo Observing Program
Galileo's TOES	To 12/16 Events Complete Europa 7/16 Event Complete Ganymede 10/16 Events Complete Callisto 0/16 Events Complete	Log of Observations
Occultation	0/7 Asteroid 0/15 Total Lunar 0/3 Grazing Lunar	Log of Observations
Nova - Silver Award	Certificate #2	Log of Observations
Nova - Gold Award	Certificate #4	Log of Observations
Herschel Society - Silver Award	Certificate	Log of Observations
Herschel Society - Gold Award	Certificate	Log of Observations
Herschel Hustle	0/74 Observed	Log of Observations
Astronomy Before the Telescope	0/14 Activities	Log of Observations
Mars Observing Program	0% Complete	Log of Observations

Other Lists of Objects Status

Project Name	Number Seen	Observations
Comet Observations	47 Recorded	Log of Observations
Kepple and Sanner 400	Certificate #2	Log of Observations
View 1000 Galaxies	Complete May, 2010	
View 5000 Unique Celestial Objects	Goal Reached 4/7/2016	Count of Objects
Unique Celestial Objects Observed	5996	Count of Objects
Wagoner 100	NGC 1032 - NGC 1243 57% NGC 1314 - NGC 1439 67% NGC 3779 - NGC 3881 53% NGC 4231 - NGC 4336 59%	
Volunteer 1000 hrs at RMNP	120/1000 hrs	As of 7/30/2016
Herschel 300	Complete	Log of Observations
Herschel 2500	Complete	Log of Observations
Mitsky's Double Stars	151/822 Seen	Log of Observations
My Double Stars	228/3651 (6%) Seen	Log of Observations
S&T Lunar 100	0/46 Left	
Northern Arps Left	1	
Southern Arps Left	59	
Local Galaxy Group Left	17	

<u>WWII Honoree</u>	<u>New Telescope</u>	<u>Astronomy Biography</u>	<u>Astronomical Accomplishments</u>	<u>Walk Down Memory Lane</u>
<u>Equipment</u>	<u>My Astro Buddies</u>	<u>Observing Lists</u>	<u>Observing Logbook</u>	<u>How I Do What I Do</u>
<u>Awards Page</u>	<u>First Astronomical League Certificate</u>	<u>My Useful Astro Links</u>	<u>My Software Patent</u>	<u>Resume</u>
<u>My Blog</u>	<u>Event Blogs</u>	<u>Other Great Astro Links</u>	<u>Retirement Opportunities</u>	<u>Publications</u>
	<u>Recommended Books</u>	<u>Snowberry Observatory</u>	<u>Astronomy Introduction</u>	

[Heavens-Above](#) - Satellite Prediction Program

[Sun/Moon Rise/Set Times for One Day](#)

[Moon Rise/Set Times for Denver, CO](#)

[Nautical Twilight Times for 2019](#)

[Moon Rise/Set Times for 2019](#)

[Rise/Set/Transit Times for Major Solar System Bodies](#)

[Moon Phases - Monthly Calendar](#)

[29 Days of the Moon](#)

[Celestial Events Calendar](#)

[In-The-Sky](#)

[2019 Almanac](#)

[Local Sidereal Time Clock](#)

Out Reach Links

[Astronomy from the Ground Up](#) - Online Interpretation Forum

[Sharing the Universe Resources](#)

[Night Sky Network](#)

[Skywatchers Pronunciation Guide](#)

[Ian Ridpath's Sky Tales](#)

[Constellations of Words](#)

Lakota Sioux Sky Lore

[Sioux Legends](#)

[Lakota Sioux Astronomy](#)

Maps

[US Wind Map](#)

[Dark Sky Finder](#)

Weather at My Favorite Observing Sites

[My Weather](#)

Lunar Grazing Occultation Events

[IOTA Website](#)

Jupiter Moon Events

[S&T Tool](#)

[Shallow Sky Tool](#)

[Moon Events Date/Time](#)

Asteroid Information

[Minor Planet Center](#)

[MPC Observing Guides](#)

[MPC Bulletins](#)

[How to Observe Asteroids](#)

[Current Asteroid Target List](#)

[Lowell Observatory's Asteroid Predictions](#)

[International Astronomical Search Collaboration](#)

DSO Imaging and Tools

[In-The-Sky.org](#)

[iTelescope Observatory Network](#)

[Skynet Perth Observatory](#)

[Recent Supernovae](#)

[Deepsky Object Browser](#)

Manuals

[Meade LX200 Alpine Observatory Manual](#)

[DSS C-14 References](#)

[Sky Safari Manual](#)

[Argo Navis Manual](#)

Database Programs

[The NGC/IC Project](#) - Nice Astronomical Database Program

[The Sky Live](#) - Current Solar System Summary

[WikiSky](#) - Interactive Sky Atlas

[Solar System Ephemeris Generator](#) - Get Asteroid Ephemeris

[Hubble Legacy Archive](#) - Find and view any Hubble Image

[Digital Sloan Survey](#) - Nice Picture Chart Maker

[Extragalactic Database](#) - NASA/IPAC Extragalactic Database

[Weekly Bright Comets](#) - Weekly Information about Bright Comets

[What's Up in the Sky](#) - SkyHound includes Current Comets

[Paul Asling's Close In Galaxy Finder Charts](#)

[Adventures In Deep Space](#)

Double Star References

[Spirit of 33](#)

[Eagle Creek Doubles](#)

[Tonight's Sky](#)

Weather at My Observing Locations

My Backyard Broomfield, CO Local Forecast Hourly Key Weather Indicators Broomfield Clear Sky Clock	Denver DSS Deer Trail, CO Local Forecast Hourly Key Weather Indicators DSS Clear Sky Clock
Berthoud LTO Berthoud, CO Local Forecast Hourly Key Weather Indicators Berthoud Clear Sky Clock	Pawnee Grasslands Keota, CO Local Forecast Hourly Key Weather Indicators Pawnee Clear Sky Clock
John Martin Reservoir State Park Lamar, CO Local Forecast Hourly Key Weather Indicators	Clayton Lake State Park Clayton, NM Local Forecast Hourly Key Weather Indicators
Iowa City, IA Iowa City, IA Local Forecast Iowa City Web Cam	Three Rivers Commanche Springs Observatory Crowell, TX Local Forecast Hourly Key Weather Indicators Commanche Springs Clear Sky Clock
Okie-Tex Star Party Kenton, OK Local Forecast Hourly Key Weather Indicators Okie-Tex Clear Sky Clock	Texas Star Party Fort Davis, TX Local Forecast Hourly Key Weather Indicators TSP Clear Sky Clock

Create an Observing Program

Observing Programs and Awards Arranged Alphabetically

Special Activities

Astronomical League Herschel Society

Master Observer Progression

Outreach Recognition

Observing Programs and Awards (alphabetical)



Active Galactic Nuclei Observing Program



Advanced Binocular Double Star Observing Program



Advanced Observer Award



Analemma Observing Program



Arp Peculiar Galaxies Northern Observing Program



Arp Peculiar Galaxies Southern Observing Program



Asterism Observing Program



Asteroid Observing Program

No pin

Astronomy Before the Telescope



Beyond Polaris Observing Program



Binocular Double Star Observing Program



Binocular Master Observer Award



Binocular Messier Observing Program



Binocular Variable Star Observing Program



Bright Nebula Observing Program



Caldwell Observing Program

A New Observing Program Proposal

Overview

Do you have an idea for an observing program that the Astronomical League should offer to its members? And, you are willing to develop and maybe even act as coordinator? You have come to the right place.

The first thing you should do is check out the list to see if someone is already working on a program on that topic. The easiest way to do that is to contact one of the National Observing Program Coordinators: Aaron Clevenson or Cliff Mygatt.

Then understand how the process works...

New programs are reviewed and approved by the AL Council at an annual convention (ALCON), typically held in July or August. Submissions should be made to the AL officers and the AL National Observing Program Coordinators at least a month before the convention. This gives time for the AL Secretary to add your proposal to the agenda for the meeting of the Executive Council and gives time for members of the Council to review your proposal and to be prepared for the meeting. It also gives them time to ask questions and it gives you time to make any changes that they recommend. A proposed program must be a complete package when it is submitted.

New programs must add to the existing observing program. This might be a program that explores a new class of objects or one that investigates a new feature of the universe. More advanced forms of existing programs are also an option (Lunar II, Herschel II, etc.). Some overlap with objects in existing programs is acceptable, but it should be as small as possible. The new program must also be of interest to a large group of the membership. It should be comprised of objects that would be accessible to members using their backyard telescopes.

The AL National Observing Program Coordinators are available to help you throughout the process. Please contact one of them through email, and they will work with you towards successful adoption of your new club.

Here are the Steps to Submit a Proposal

1. Identify your idea for a new AL observing program.
2. Check with a National Observing Program Coordinator to see if that program is already under development.
3. Submit your topic to one of the AL National Observing Program Coordinators. They will add it to the list on the website and will communicate it to the AL Officers.
4. Develop your list of objects. This list varies from program to program, but the typical program has about 100 observations. You should note the object's designation, common name (if it has one), constellation, right ascension, declination, object type (whatever is appropriate for your list), magnitude, and any other pertinent information about the object (class, classification, color, etc.).
5. Fill in the [Observing Program Proposal](#) form. This form will provide all of the information that is required by the AL Council to make a decision on the new club.

The Astronomical League Herschel Society

Herschel Society

Herschel Society Coordinator:

Cliff Mygatt
P.O. Box 8607
Port Orchard, WA 98366
360-265-5418
cliffandchris@wavecable.com



Introduction:

William Herschel (November 15, 1738 - August 25, 1822), with the help of his sister Caroline, was one of the truly great astronomers. Together they created amazing (and sometimes very large) telescopes, made major contributions to observations of double stars, and also discovered great detail in many deep space objects. The Astronomical League's Herschel Society has been created to honor his accomplishments and to recognize those members of the League who have pursued his passion.

Are you a member of the Herschel Society yet? If you are among the many who have earned the [Herschel 400 Observing Program](#) certification, or the [Herschel-II Observing Program](#) certification then you are already a member. Congratulations!

If not, then we look forward to you joining us. To earn these certifications, go to their web pages for instructions, information, and contact information for the Coordinators.

The Herschel Hustle:

There are two versions of this certification. One is for anyone who attempts the Herschel Hustle. It may be downloaded directly from the [AL Downloadable Certificates web page](#). The second certification is for those who attempt and succeed at completing the Herschel Hustle. Information about the objects and requirements for the Herschel Hustle certification can be found on the [Herschel Hustle web page](#). You can use the Herschel Society object checklist.

Note: NGC 4209 is unknown, but may be the star visible with NGC 4185. For the Herschel Hustle certification we are using the star.

The Herschel Society Silver Certificate

Once you have completed the Herschel 400 and Herschel-II Observing Programs you only need to observe 400 more objects on the Herschel observing list. You do not have to earn the two Herschel Observing Program certifications, but you do need to have observed a total of at least 1200 objects on the Herschel observing list. You should use the Herschel Society checklist.

Note: NGC 4209 is not part of the list for the Silver or Gold certifications. It is unknown, but may be the star visible with NGC 4185.

The Herschel Society - Gold Certificate

For observing the 2379 objects on the Herschel observing list you will earn the Herschel Society - Gold Certificate. You should use the Herschel Society checklist.

Note: NGC 4209 is not part of the list for the Silver or Gold certifications. It is unknown, but may be the star visible with NGC 4185.

Master Observer Progression Coordinator:

Cliff Mygatt
P.O. Box 8607
Port Orchard, WA 98366
360-265-5418
cliffandchris@wavecable.com

Links:

[Herschel Hustle downloadable certificate](#)
[Herschel Hustle web page](#)
[Herschel Society - Herschel Object Checklist \(Excel spreadsheet\)](#)

Astronomy Before the Telescope Observing Certificate

Astronomy Before the Telescope Observing Certificate Coordinator:

Steve Boerner
2017 Lake Clay Drive
Chesterfield, MO 63017
(636) 537-2495
E-mail: sboerner@charter.net

Introduction

In a 2006 article in the Journal of the Royal Astronomical Society of Canada, Robert A. Egler aptly stated:

"In modern astronomy, it is astrophysics that dominates, with its emphasis on analyzing celestial objects for what they are, how they work, what they are made of, and how they evolve.

The pre-telescope instruments were all designed to find the position of celestial object in relation to the great celestial sphere and each other, and to determine their motions. In short, these instruments are not for analyzing the heavens, but rather for measuring the heavens."

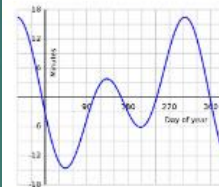
The early instruments were invented to answer important questions like when it would be time to plant crops for best success, when migrating herds might return, when seasonal flooding might occur, when religious days were to be held, what direction to go to get to a specific place, or where things in the sky were likely to appear. The instruments helped develop systems to measure both yearly cycles (calendar) and daily time (clock) as well as determine directions (compass). The ancient people who developed these instruments relied on what they could observe on the ground and in the sky with the Sun, the moon, and bright stars to point the way.

Quick View of Requirements	
Astronomy Before the Telescope Certificate	
Uses Eyes	Yes
Uses Binoculars	
Uses Telescopes	
Must be an AL Member	Yes
Date Deadline for Submission	
Minimum Instrument Size	
Manual Observations Required	
Go-To Telescopes Allowed	
Remote Telescopes Allowed	
Number of Observations	
Option for Imaging	
Special Equipment Required	Yes
Equipment Must Be Constructed	Yes
Observations Must Be Submitted to an On-Line Database	

cover so it can cast a shadow. When the clock time hits your local noon, the shadow points north. Make a mark and it can be used to align your scope again in the future.

At what time at your normal observing site does an object cast a shadow due north on your birthday? If you have an equatorial mount you may wish try this method of daytime alignment.

4. Time - Equation of time:



Two of the above activities have made use of the equation of time but how is it determined? It is one of the things done in the Astronomical League's Analemma Program. To see how it is done find a telephone pole, street light, other tall straight object, projection on your house, or drive a pole into the ground. You just found a gnomon. Go out weekly for a month or two at exactly the same time of day (Standard Time) and note where the sun casts the shadow of the tip of your gnomon. If possible place a mark for reference so you can see all your points at once. You'll find the shadow will move the most between observations if you are working in the spring or fall. Graph your results with days (x) and the shadow's distance from your gnomon (y). Do it for a year and you will get a graph that resembles the picture. Consider following the better instructions on the Astronomical League's Analemma page and completing the program there.

5. Telling time - Nocturnal: It isn't nearly easy to tell the time at night as it is in daylight. One early instrument was a nocturnal, an instrument used to determine the local time based on the relative positions of two or more stars in the night sky. The first nocturnals were described in the 12th century. Internet DIY's for nocturnals aren't particularly easy to find so two possibilities can be found at:

- <https://www.instructables.com/id/2d-Nocturnal-Celestial-Stardial-TJT16/>
- <https://www.skyandtelescope.com/astronomy-resources/make-a-star-clock/>

Make a simple nocturnal and try it out at least three times when you are observing. Make note of the nocturnal time and clock time. How well does it work?

6. Yearly Calendar Predictor:



(Public Domain)

A trip to an ancient site like Chaco Canyon National Historic Park in New Mexico is a very rewarding experience. Scientists and Anthropologists have discovered the ancient inhabitants created predictors for the solstices and equinox by noting when the sun would rise or set behind features on the horizon. One of the most famous at Chaco Canyon is Anasazi Sun Dagger. Chaco Canyon has other features like doors, windows, and hallways that align with the Sun at certain times during the year. Chaco Canyon isn't unique. In Great Britain places like Stonehenge and Avebury, or Ireland's Newgrange and Egypt's pyramids and Nabta Playa show alignments with astronomical objects.

Your task is to find a place where you live where on the winter or summer solstice you can view the rising or setting Sun behind an object on the horizon (how might your astrolabe be able to help with this activity?). Take a picture that shows the event.

While it would take much too long for the benefit, the same method could be used to find the length of a year. Here you would count the number of days until the sun came up behind the object again. If you keep observing you'll note that after a few years your object won't exactly be in front of the sun when it rises or sets. This is because a year is really more than 365 whole days long and that a leap-year

Created the Globular Cluster OP (2004)

THE ASTRONOMICAL LEAGUE

You are here: [Observing Programs](#)

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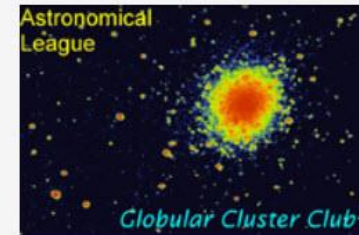
Globular Cluster Observing Program

Globular Cluster Observing Program Coordinator:

Bob Kerr

8516 Virginia Road
Bloomington, MN 55438
952-944-7743

E-mail: kerr_comm@hotmail.com



Introduction

Welcome to the Astronomical League's Globular Cluster Observing Program. This Observing Program has been updated to include an imaging option and three categories for member participation.

[Observers new to the Visual Program \(V\)](#) *Certificate and pin.*

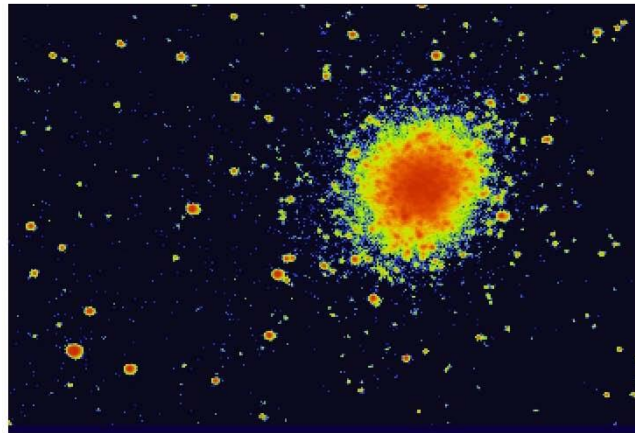
[Observers new to the Imaging Program \(I\)](#) *Certificate and pin.*

[Previous observers of either the Visual \(V\) or Imaging \(I\) Programs.](#) Those who have already received a certificate and pin for Globular Clusters and now wish to

Quick View of Requirements

Globular Cluster Observing Program	
Visual / Imaging	
Uses Eyes	
Uses Binoculars	
Uses Telescopes	Yes
Must be an AL Member	Yes
Date Deadline for Submission	
Minimum Instrument Size	8 inch
Manual Observations Required	

Globular Clusters



Guide to the Globular Cluster Observing Club

Longmont Astronomical Society

September 2008

THE FINE ART OF OBSERVING—THIRD OF A SERIES

Part 3: Observing open clusters; preparation and execution

By Michael A. Hoika

I have been participating in the Astronomical League's observing clubs since 1988. In that time, I have finished 24 of them, with 3 more soon to be completed. I really enjoy these clubs and they have led me to many celestial objects that I otherwise would not have seen.

My equipment is a 12.5-inch, f/8 telescope. I try to find the darkest skies and often drive almost 2 hours to get there. The photograph below shows a picture of my setup taken shortly before sunset on the Pawnee Grasslands in northeastern Colorado.

Recently, I completed the Open Cluster Observing Club. I chose this one because I thought looking at star clusters would be fun. As it turned out, it was, but also a bit of work. After all, how does one

distinguish an open cluster from the numerous background stars in the heart of the Milky Way?

I began by organizing the open cluster list so that I could easily find the clusters in my star atlases. Preplanning your observing trip is a must. You do not want to waste a nice, clear night by spending time determining what you will look at. When you leave for the observing site, you should have your object list already prepared along with any references you will need to aid you in finding elusive open clusters.

The bright Messier open clusters can spoil you. Clusters, like M11, are easy to distinguish from background stars because the density of the stars within them is obviously greater than that of the general field stars,

even in an 8-inch telescope. Please refer to *Figure 1*. Often, these Messier clusters stand out in my 8x50 finder scope because they resemble a bright nebulous glow or a tiny knot of stars that stands out in a star-poor region. When you progress to those open clusters that contain few stars, this observing

club becomes more fun.

I use the star-hopping method for finding objects. With this technique, once I arrive at the correct star field, the object will be there. I have found that, if you get to your desired location in the sky and don't find the object that you are looking for, 99% of the time you are in the wrong part of the sky.

My first attempt at locating dimmer open clusters, such as some of the Trumpler's or King's, immediately showed that my current techniques would not suffice. On my next attempt, I took printed star charts that showed enough details so that I could tell exactly where each open cluster was located. I also had a picture of the open cluster for reference so that, once I was in

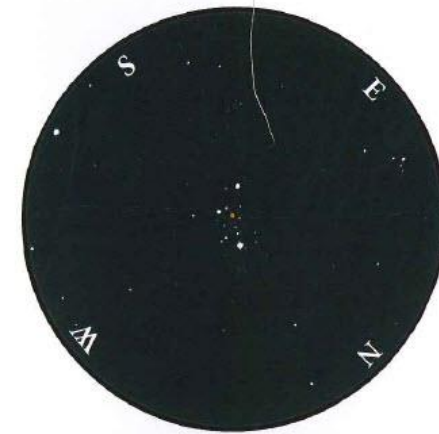


Figure 1: Appearance of M103, a relatively easy open cluster, through an 8-inch telescope. It has a higher density of stars than in the surrounding field. Note that north is not "up."



September 2011

Have you ever asked yourself the question, what am I going to observe tonight? Even worse, did you ask yourself this question after you have your scope set up and evening twilight is ending?

If you are working towards an **Astronomical League Observing Club** certificate, you will have the answer to this question. There are currently **111** Astronomical League members, active and past, who have completed 10 or more observing clubs to receive the **Master Observer Observing Club** certificate. Ten current Astronomical League members have received 20 or more observing club certificates, three of those with 30 or more certificates. The top observing club certificate holder has 36 observing club certificates to his name.

Why should you complete more observing clubs? Here is how the top 10 certificate holders answered a questionnaire sent to each.

When asked "What motivates you to start and complete so many Observing clubs?" **Brad Young** (Astronomy Club of Tulsa) said, "the structure of the clubs allows me to plan, set goals, and feel accomplishment when I am finished." **Robert Pitt**, (Birmingham Astronomical Society) liked "the challenge of the club requirements which gives direction to my limited viewing opportunities."

Mike Ramirez (Northeast Florida Astronomical Society) said, "By



What am I going to observe tonight?

By **Brad Young and Mike Hotka**

to see it all! The problem is there are thousands and thousands of things to see. Where do I begin? The observing club lists obviously." **John Goar** (Olympic Astronomical Society) said "There is something exciting about hunting down a list of related objects." "Without the observing clubs I would be stuck in the mode of observing the same things over and over again," said **Young**. For **Kranz**, "The observing clubs keep me looking at new and off-the-beaten-track objects."

When the top 10 certificate holders were asked, "What observing club did you like the best?" — **Brown** likes the **Messier Observing Club** the best. For **Young**, he liked the **Earth Orbiting Satellite Observing Club**, while **Hotka** liked the **Lunar II Club**. "I had no idea you could see all kinds of subtle features on the lunar surface if the Sun angle was low enough. Shadows reveal a ton of

see every time I look into the eyepiece." **Kranz** liked the **Globular Cluster Club** the best. For **Goar**, "the **Comet Observers Club** was my favorite." **Jim Ketchum**'s (Astronomical Society of Kansas City) "favorite was the **Globular Cluster Club**. It was relaxing, enjoyable and I'm partial to Globular Clusters."

Most of these ten observers all started out by receiving their **Messier Certificate** first. Since then, they have kept on going. And by completing more and more observing clubs, these people have become seasoned observers. Each observing club has something to teach you, whether you are more enlightened about the subject/objects or you learn new observing techniques to aid in your observing efforts.

When asked: What club taught you the most? — **Hotka** said, "the **Open Cluster Observing Club**. It taught me to make sure I have what I need

stranger to the Sun either, for I had been casually observing the Sun for years. Doing the **Sunspotter Club**, however, opened up new questions for me and I became more interested in the mechanics of sunspots and the solar cycle. It made me a much bigger fan of our star." "The **Earth Orbiting Satellite Observing Club**, although the **Dark Nebula Club** was a very close second," said **Young** as he "had ignored both before the clubs were announced." **Ketchum** liked "both the **Lunar** and the **Lunar II** for they taught me so much about our closest neighbor. There is such a rich array of craters, mountains and plains that you can readily see and appreciate." **Goar** was able to "hone my star-hopping skills the most by completing the **Herschel 400 Club**. But just about every club taught me a unique skill, which I think is the most valuable thing about completing these programs."

"The **Messier Club** primarily because it was my first attempt to learn how to use charts and star hopping techniques. It taught [**Ramirez**] to become proficient in navigating the night sky." According to **Pitt**, "both the **Planetary Observer's** and **Open Cluster Observing Clubs** taught me the most about those objects. I liked the observing guides for these clubs and the descriptions of the characteristics to be documented. I appreciated the variety of these objects much more after gaining a better understanding

Set Some New Observing Goals this Year

By Mike Hotka

Years ago, I learned of an amateur's goal of observing 5,000 unique objects in the Universe. I thought this was a commendable goal, so I adopted it for myself. To date, I have observed 3,432 unique objects towards my goal.

This single goal drives my thirst to find new objects each time I go out observing. I never tire of old Messier favorites, but am always looking for objects off the beaten path. While completing 37 of the Astronomical League's observing programs, I was provided with list after list of objects I had never seen. There are generally more objects on an observing program list to observe than are required for the certificate. After looking at the required number for the certificate, I will continue to observe the remaining

objects on the list. All these new objects contribute to my 5000 unique objects observed goal.

When looking for observing programs to try, I look for programs that interest me. Recently, two new programs were added that caught my eye: the Hydrogen Alpha Solar Observing Program and the Bright Nebulae Observing Program.

Hydrogen alpha solar observing was something I had wanted to do for years. When I found this new program, I started looking for a H-alpha solar telescope. I really did not want to spend almost \$500 for a Coronado PST telescope. I made a couple of inquiries and learned my local astronomy club had a PST I could check out. I was then ready to complete this program.

I have always liked looking

at bright nebulae. The Bright Nebulae Observing Program gave me the push I needed to start observing more of these beautiful objects. I used my 8-inch f/6 Newtonian for this program. With eyepieces giving magnifications of 51x, 81x, and 122x, along with my ultra-high contrast and O-III filters, I was able to complete the required 100 observations. I found the objects on the list easy to find and observe.

When not working on observing programs, I observe double stars on Dave Mitsky's Double Star list. I am also looking at all the Herschel objects that William Herschel looked at. After reading the article "The Herschel Project" by Robert Naeye in the June 2012 *Sky & Telescope* magazine, I was hooked on observing these objects. I have read books about William and Caroline Herschel, which adds to my

viewing enjoyment. All these Herschel objects will add to my 5,000 unique objects observed goal.

I really appreciate the Astronomical League and all that it does for us amateur astronomers. Their observing programs are a great resource, for not only do they take you off the beaten Messier path, but you learn new observing techniques with every program you complete. These techniques allow you to see fainter objects with a telescope, introduce you useful astronomical resources that you can use in the field, teach you to *study* the object you just found in the eyepiece, and have you observe a breadth of different kinds of objects, just to name a few.

Set your first 2014 goal to complete the Messier Observing Program. Once you complete it, you will have a good command of the sky and be able to navigate amongst the constellations. While

looking at the Messier objects, note which ones you like the best. Your next goal should be to see more of these kinds of objects. The League has an observing program that will help you achieve this next goal. For example, if you liked galaxies, choose the Herschel 400 and Herschel II Programs. Similar observing programs exist for every other kind of object in the Messier list: bright nebulae, planetary nebulae, globular clusters, and open clusters.

Start out 2014 by setting some personal observing goals. Then look to the Astronomical League's observing programs to help you achieve these goals. ✨

Mike Hotka has been an Astronomical League member since 1986. He has completed 37 of the League's observing programs. His website, mikehotka.com, contains a wealth of observing information. Contact Mike at astroleague.org/roster/contact/383.

Publications Link

<u>WWII Honoree</u>	<u>New Telescope</u>	<u>Astronomy Biography</u>	<u>Astronomical Accomplishments</u>	<u>Walk Down Memory Lane</u>
<u>Equipment</u>	<u>My Astro Buddies</u>	<u>Observing Lists</u>	<u>Observing Logbook</u>	<u>How I Do What I Do</u>
<u>Awards Page</u>	<u>First Astronomical League Certificate</u>	<u>My Useful Astro Links</u>	<u>My Software Patent</u>	<u>Resume</u>
<u>My Blog</u>	<u>Event Blogs</u>	<u>Other Great Astro Links</u>	<u>Retirement Opportunities</u>	<u>Publications</u>
	<u>Recommended Books</u>	<u>Snowberry Observatory</u>	<u>Astronomy Introduction</u>	

My Publications

If you need an Acrobat Reader to view my observing logs, please download



[Back to Home](#)

[September 2008 - Observing Open Clusters](#)

[September 2011 - What Am I Going to Observe Tonight?](#)

[June 2014 - Set Some New Observing Goals this Year](#)

Local Newspaper Articles

- ▶ A short monthly article of what is in the sky for readers to see that month
 - ▶ Wrote for 15 years
 - ▶ Was in 8 local newspapers
- ▶ What Santa should know about giving a telescope for Christmas?
- ▶ Special celestial events like lunar or solar eclipses

Gave Talks at Star Parties

Okie-Tex Star Party 2016

Visual Astronomy 101

Mike Hotka

Texas Star Party 2010

32 Astronomical League Awards
or

How I Do What I Do

By Mike Hotka



2017

ASTROCON CASPER, WYOMING

TOTALITY - FEEL THE SHADOW

Visual Astronomy 101

Mike Hotka

What Drives My Desire to Observe?

- ◉ Set a Goal
- ◉ Then Set Intention(s) to Achieve Goal

First Astronomical Goal

- ◉ Astronomical Goal
 - > To Observe 10,000 Unique Celestial Objects
 - 5661 Unique Objects Observed Already
- ◉ Intentions
 - > Herschel 2500
 - 477 left to observe
 - > Complete Dave Mitsky's Double Star List
 - 151 of 822 observed so far

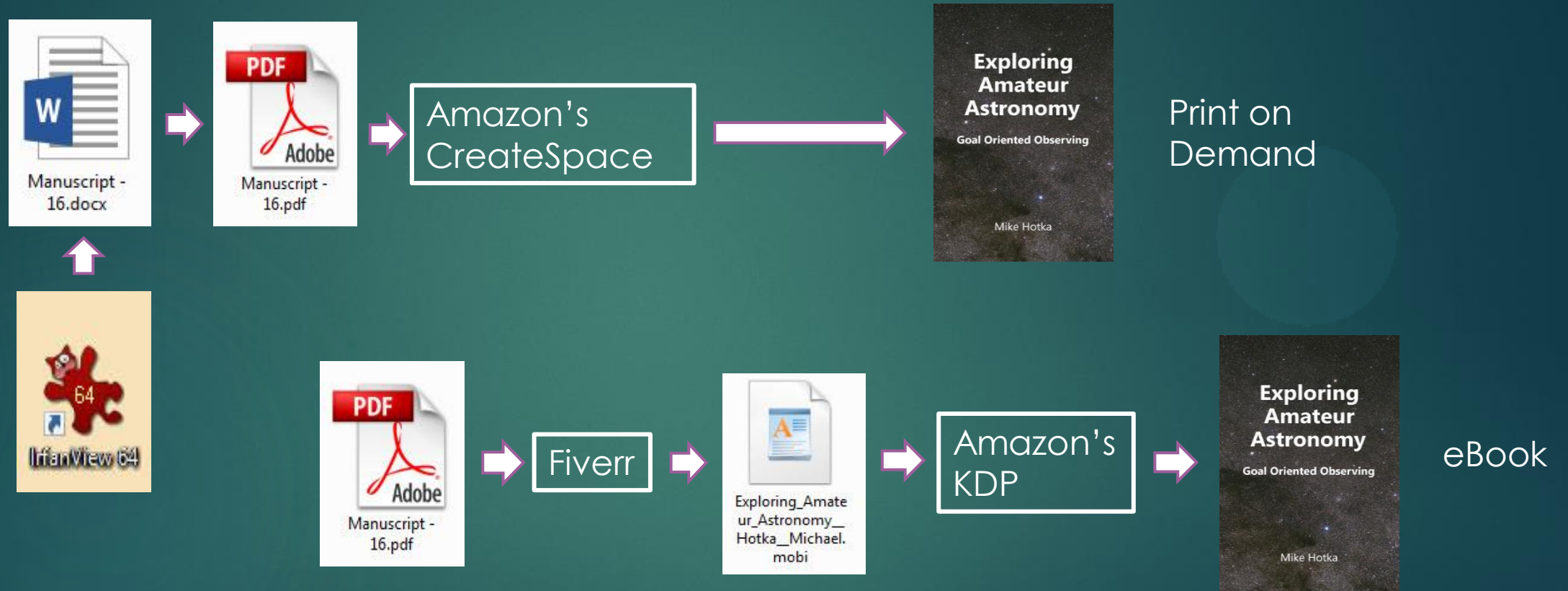
Wanted to Share My Knowledge More

- ▶ Found out people visited my website
- ▶ ALCON talk was an outline for my book
 - ▶ ALCON 2017 Presentation link on my website
- ▶ Started Sept 2017
 - ▶ Took me about 2 months to write
 - ▶ Took me 9 months to edit
 - ▶ Comments from several amateurs
 - ▶ 15 Revisions
 - ▶ Looking for Typos
 - ▶ Correcting my colloquial phrases
- ▶ Published in Aug 2018

What I Decided to Write About

- ▶ Discussed my observing process
- ▶ Introduced Goal Oriented Observing
- ▶ Chapter for each Observing Program I've completed
 - ▶ Some ALOPs have a steep learning curve
 - ▶ You learn from the pains I took to overcome and make observations
 - ▶ Open Clusters
 - ▶ NEO
 - ▶ Asteroids

Process of Self-Publishing



What Story Do You Have to Share?

- ▶ Share what you know with others
 - ▶ Mentorship
- ▶ Participate in Public Star Parties
- ▶ Give a presentation to your club
 - ▶ Reach out to your local library or major star parties
- ▶ Write articles
 - ▶ Your Clubs' Newsletter
 - ▶ Reflector Magazine
- ▶ Write an observing manual
- ▶ Write a book

This Presentation is on my Website

<u>WWII Honoree</u>	<u>New Telescope</u>	<u>Astronomy Biography</u>	<u>Astronomical Accomplishments</u>	<u>Walk Down Memory Lane</u>
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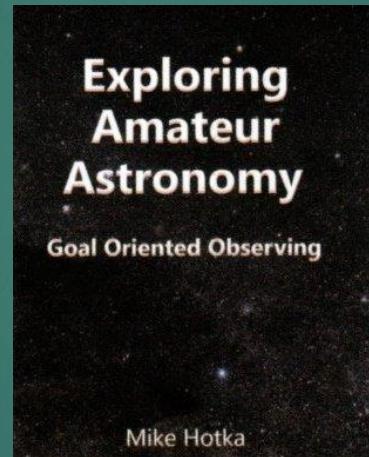
<u>2012 Our Holiday Lights</u>	<u>2011 Okie-Tex Star Party</u>	<u>Spring Break 2018</u>	<u>2005 Texas Star Party</u>
<u>My Sky Diving Adventure</u>	<u>2016 Okie-Tex Star Party</u>	<u>ALCON 2017</u>	<u>2010 Texas Star Party</u>
<u>2016 OzSky</u>	<u>2017 Okie-Tex Star Party</u>	<u>Ashton Observatory</u>	<u>2019 Texas Star Party</u>

Pick Up My Cards



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**Exploring
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Astronomy**
Goal Oriented Observing

Mike Hotka

Learn how to use your telescope and train your eye to see the beauty of the universe.

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Thank You For Listening to Me

- ▶ This saying drives my desire to reach out to people

Find your voice
and

Touch A Mind

Questions/Comments

