nightwatch
Newsletter of the Pomona Valley Amateur Astronomers

Begin at the beginning and go on till you come to the end: then stop.

Lewis Carroll

We are in Shanahan B460
January 18, 7:30pm.

Volume 39 Number 1 ***nightwatch*** **January 2019**

President's Message

As PVAA continues to celebrate the 50 year anniversaries of so many Apollo Mission accomplishments, please join us on Friday January 18th to hear Bill Little speak on Apollo Command Modules.

In addition, an elderly gentleman in Ontario has donated to the PVAA his 1980s-vintage 8" Meade Schmidt-Cassegrain, with fork mount, tripod, and clock drive. I picked up the telescope and it's all clean and in good condition, but I don't know if it is in good collimation or if the clock drive works. As the Club has no space to store the scope, we are going to offer it to anyone who is interested in as-is condition for $100 or best offer. I will bring the telescope, tripod, and associated gear to the General Meeting Friday.

Hope to see you there.

Matt Wedel

Holiday Party Winner

Kenny Spencer - Age 7

Celestron Travel Scope 70 with backpack -

Photo by Gary thompson.

Club Events Calendar

Jan 18 General Meeting: Apollo Command Module by Bill Little
Feb 2 Star Party – Culp Valley
Feb 13 Board Meeting
Feb 22 General Meeting Apollo 9 – Gary Thompson

Mar 2 Star Party – Afton Canyon
Mar 13 Board Meeting
Mar 22 General Meeting

Apr 6 Star Party – Messier Marathon – Mecca Beach
Apr 10 Board Meeting
Apr 19 General Meeting

May 4 Star Party – Mt Baldy
May 8 Board Meeting
May 17 General Meeting Apollo 10

Jun 1 Star Party – White Mountain
Jun 5 Board Meeting
Jun 14 General Meeting Apollo 11 Ken Elchert

Jul 10 Board Meeting
Jul 19 General Meeting
Jul 27 Star Party – Tejon Ranch

Aug 7 Board Meeting
Aug 16 General Meeting
Aug 31 Star Party – TBD

Delta IV Heavy

Were any of you trying to observe the Delta IV Heavy launch on December 19th? As you may know, that launch still hasn't taken place though it just got a sixth launch date, as I type this anyway, of January 19th at 11:05am. Instead of watching the launch, some of us were treated to what turned out to be a meteor entering the atmosphere instead. Thanks are in order to United Launch Alliance, for getting us out at exactly the right time of night to experience this dramatic event!

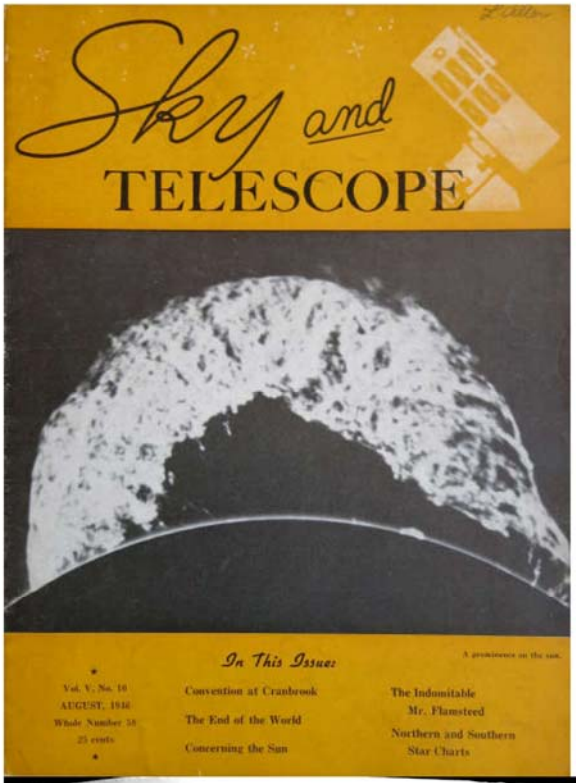
Below are few links Ludd provided in case you missed it:

https://sacramento.cbslocal.com/2018/12/19/did-you-see-the-bright-light-in-the-sky/

https://www.youtube.com/watch?v=oiNPYwtUYMo

Here is my own photo of the event as seen from the Sacramento area.

Claire Stover



August, 1946

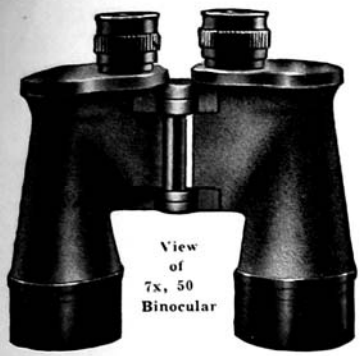
The advertisement below appeared in ***Sky and Telescope*** well after WWII ended and military surplus optics began to flood the market. This early ad was from Edmund Salvage Co., the predecessor to Edmund Scientific which was a staple supplier to the amateur astronomy community for many decades.

From time to time, when parts were available, Edmund would sell complete binocular kits or even finished surplus binoculars. In the decade following the war, it was usual to see finished binoculars sold subject to a federal 20% excise tax. But these optical parts were not subject to this tax. A future ad will show an instance of this.

Making binoculars would not have been a project for the faint of heart. Collimation can get kind of fussy.

UNUSUAL WAR BARGAINS in LENSES and PRISMS

NOW! MAKE YOUR OWN BINOCULARS!



Sorry! No more machined sets of 7X, 50 Binocular Metal Parts. We do have unmachined left and right body and cover plate castings . . . but no other parts. Stock #820-Y ..... $2.50 Postpaid

Complete Set of LENSES and PRISMS from Navy's 7X, 50 Model

SAVE UP TO $150.00!

Here's an unusual opportunity to secure a fine set of Binoculars . . . at a tremendous saving of money. Build them yourself with all of the very same optics contained in the Navy's 7 Power Glasses . . . the Binoculars which received such wide acclaim during the war. If, however, you wish to construct a Monocular (½ a Binocular) you may do so. Monocular Sets comprise ½ quantities of the same optics required for the Binocular. The full Binocular Set comprises the following:- 2 Cemented Achromatic Eye Piece Lenses, 17.5 mms. diam.; 2 Eye Field Lenses; 4 Porro Prisms; 2 Cemented Achromatic Objective Lenses, 52 mms. All Lenses have the new low coating. Complete assembly directi

Stock #5102-Y
Binocular Set of
and Prism

Stock #

All Items Finely Ground and Polished but Some Edges Slightly Chipped or Other Slight Imperfections Which We Guarantee Will Not Interfere with Their Use. Come Neatly Packed and Marked.

TO KEEP POSTED on all our new Optical Items, send 10c and your name and address to get on our regular "Flash" mailing list.

CARRYING CASE WITH STR... BINOCULARS. All leather... new — a regular $10.... Stock #44-Y (P...

BATTE... EL...

IMMEDIATE DELIVERY

SATISFACTION GUARANTEED

ORDER BY SET OR STOCK NO.

EDMUND SALVAGE COMPANY

P. O. AUDUBON, NEW JERSEY

SKY AND TELESCOPE (No. 58) 19

SPECIALS IN LE...

Set No. 1-Y — "O... lenses for $1.6... For copy... pla...

...; low ...uses.

... FUN WITH ... LENSES"
C... ...of projects and fully covers th... ...ses of all Lenses in sets listed abo... ...only $1.00 Postpaid.

RETICLE SET—5 assorted, engraved reticles from U. S. Gunsights. Stock No. 2035-Y..$1.00 Postpaid

35 MM. KODACHROME PROJECTING LENS SET—Consists of Achromatic Lens for projecting,

		F.L. in mms.	Price
		80	$1.00
	25	122	1.25
	26	104	.80
	29	54	1.25
6168-Y	29	76	1.25
6171-Y	32	171	1.00
6173-Y*	34	65	1.00
6176-Y*	38	131	1.00
6177-Y*	39	63	1.10
6178-Y*	45	189	1.50
6179-Y*	46	78	1.25
6182-Y	27	51	1.25
6183-Y	44	189	2.50

*ASTERISKED ITEMS are uncemented, but FREE cement and Directions included with uncemented sets.

...each Postpaid

— HOMEBUILT RIFLE-... Postpaid. List of available ...ses sent FREE with book.

...ROMATIC TELESCOPE OBJECTIVE LENSES — Cemented — Diam. 52 mm., F.L. 8½ inches. Slight seconds.
Stock #6188-Y ..... $3.50 Postpaid

MAGNIFIER SET—5 magnifying Lenses—Powers from 1 to 10.
Stock #1026-Y ..... $2.00 Postpaid

RAW OPTICAL GLASS

An exceptional opportunity to secure a large variety of Optical Pieces both Crown and Flint glass (seconds) in varying stages of processing. Many prism blanks.
Stock No. 703-Y—8 lbs. (min. wt.)—$5.00 Postpaid
Stock No. 702-Y—1½ lbs. .....$1.00 Postpaid

POLARIZING RING SIGHT (Something New in Optics) — Utilizes the interference pattern created by a basal section of calcite or sodium nitrate crystal between crossed polarizers. Diam. 32 mms. — Thickness 7 mms.
Stock #2067-Y ..... $2.00 Postpaid

This article is distributed by NASA Night Sky Network

The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.org to find local clubs, events, and more!

January's Evening Eclipse and Morning Conjunctions

Observers in the Americas are treated to an evening **total lunar eclipse** this month. Early risers can spot some striking morning conjunctions between **Venus**, **Jupiter**, and the **Moon** late in January.

A **total lunar eclipse** will occur on **January 20th** and be visible from start to finish for observers located in North and South America. This eclipse might be a treat for folks with early bedtimes; western observers can even watch the whole event before midnight. Lunar eclipses takes several hours to complete and are at their most impressive during total eclipse, or totality, when the Moon is completely enveloped by the umbra, the darkest part of Earth's shadow. During totality the color of the Moon can change to a bright orange or red thanks to the sunlight bending through the Earth's atmosphere - the same reason we see pink sunsets. The eclipse begins at 10:34 pm Eastern Standard Time, with totality beginning at 11:41 pm. The total eclipse lasts for slightly over an hour, ending at 12:43 am. The eclipse finishes when the Moon fully emerges from Earth's shadow by 1:51 am. Convert these times to your own time zone to plan your own eclipse watching; for example, observers under Pacific Standard Time will see the eclipse start at 7:34 pm and end by 10:51 pm.

Lunar eclipses offer observers a unique opportunity to judge how much the Moon's glare can interfere with stargazing. On eclipse night the Moon will be in **Cancer**, a constellation made up of dim stars. How many stars you can see near the full Moon before or after the eclipse? How many stars can you see during the total eclipse? The difference may surprise you. During these observations, you may spot a fuzzy cloud of stars relatively close to the Moon; this is known as the "**Beehive Cluster**," **M44**, or **Praesepe**. It's an open cluster of stars thought to be about 600 million year old and a little under 600 light years distant. Praesepe looks fantastic through binoculars.

Mars is visible in the evening and sets before midnight. It is still bright but has faded considerably since its closest approach to Earth last summer. Watch the red planet travel through the constellation Pisces throughout January.

Venus makes notable early morning appearances beside both **Jupiter** and the **Moon** later this month; make sure to get up about an hour before sunrise for the best views of these events. First, Venus and Jupiter approach each other during the third full week of January. Watch their conjunction on the 22nd, when the planets appear to pass just under 2 ½ degrees of each other. The next week, observe Venus in a close conjunction with a crescent Moon the morning of the 31st. For many observers their closest pass - just over half a degree apart, or less than a thumb's width held at arm's length - will occur after sunrise. Since Venus and the Moon are so bright you may st1ill be able to spot them, even after sunrise. Have you ever seen Venus in the daytime?

If you have missed **Saturn** this winter, watch for the ringed planet's return by the end of the month, when it rises right before sunrise in Sagittarius. See if you can spot it after observing Venus' conjunctions!

By David Prosper

*Have you ever wondered how eclipses occur? You can model the Earth-Moon system using just a couple of small balls and a measuring stick to find out! The "**yardstick eclipse**" model shown here is set up to demonstrate a lunar eclipse. The "Earth" ball (front, right) casts its shadow on the smaller "Moon" ball (rear, left). You can also simulate a solar eclipse just by flipping this model around. You can even use the Sun as your light source! Find more details on this simple eclipse model at **bit.ly/yardstickeclipse***

You can catch up on all of NASA's current and future missions at nasa.gov