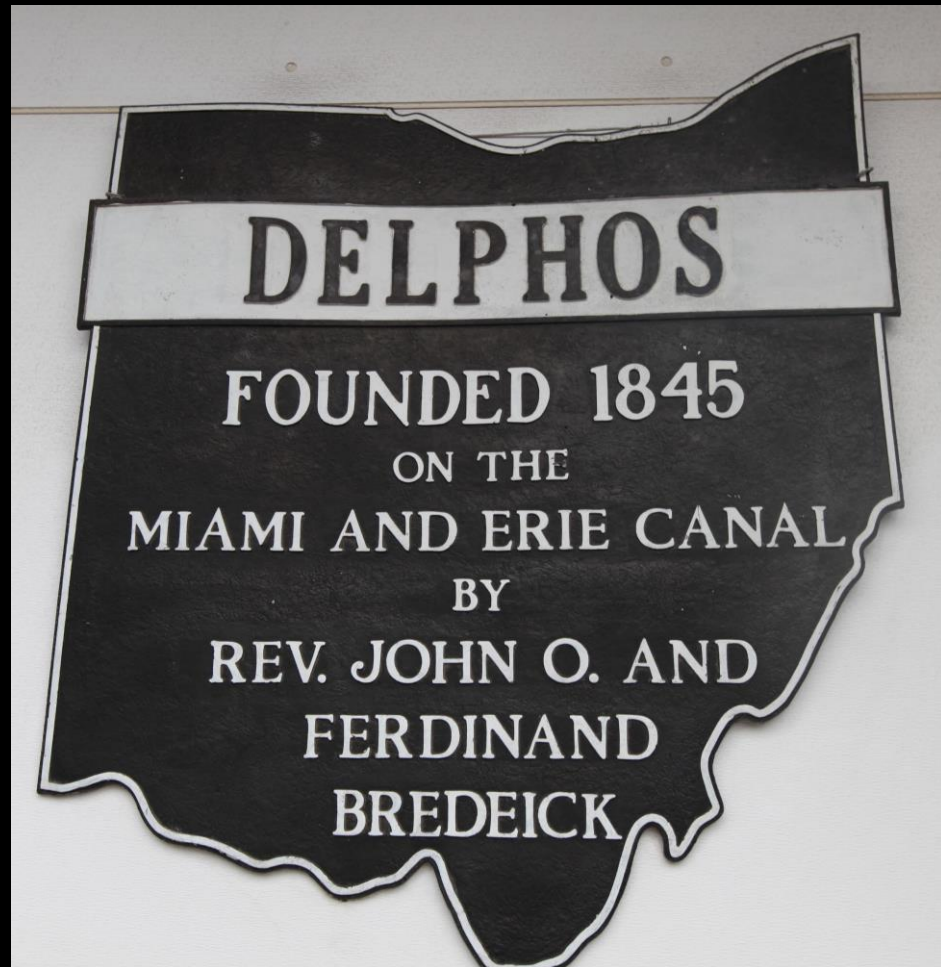


Leslie Peltier

... and Amateur Contributions to Science



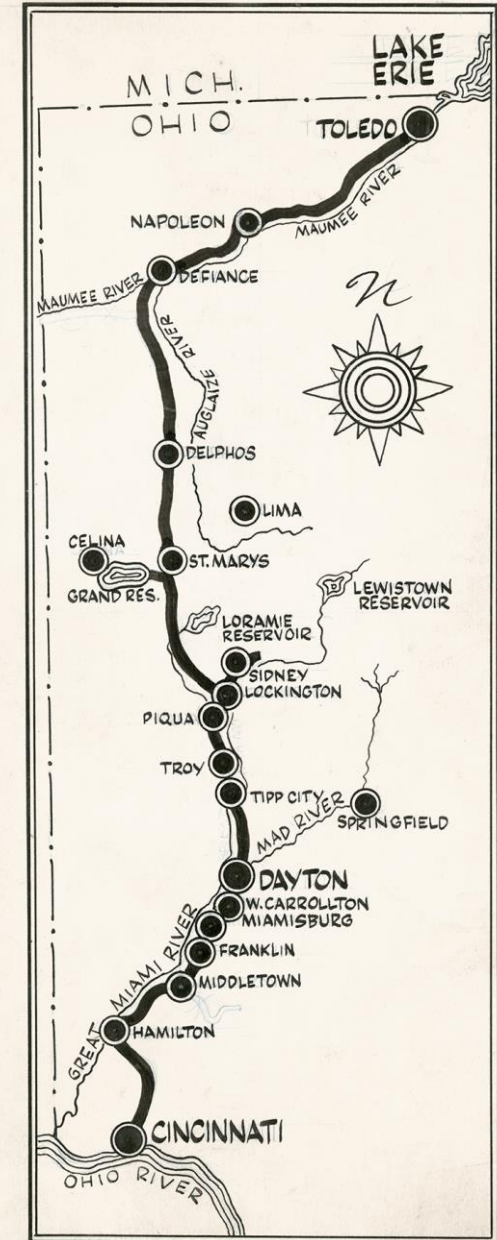
Delphos, Ohio



Ohio



Miami & Erie Canal



CANAL LOCK





DELPHOS CANAL COMMISSION MUSEUM

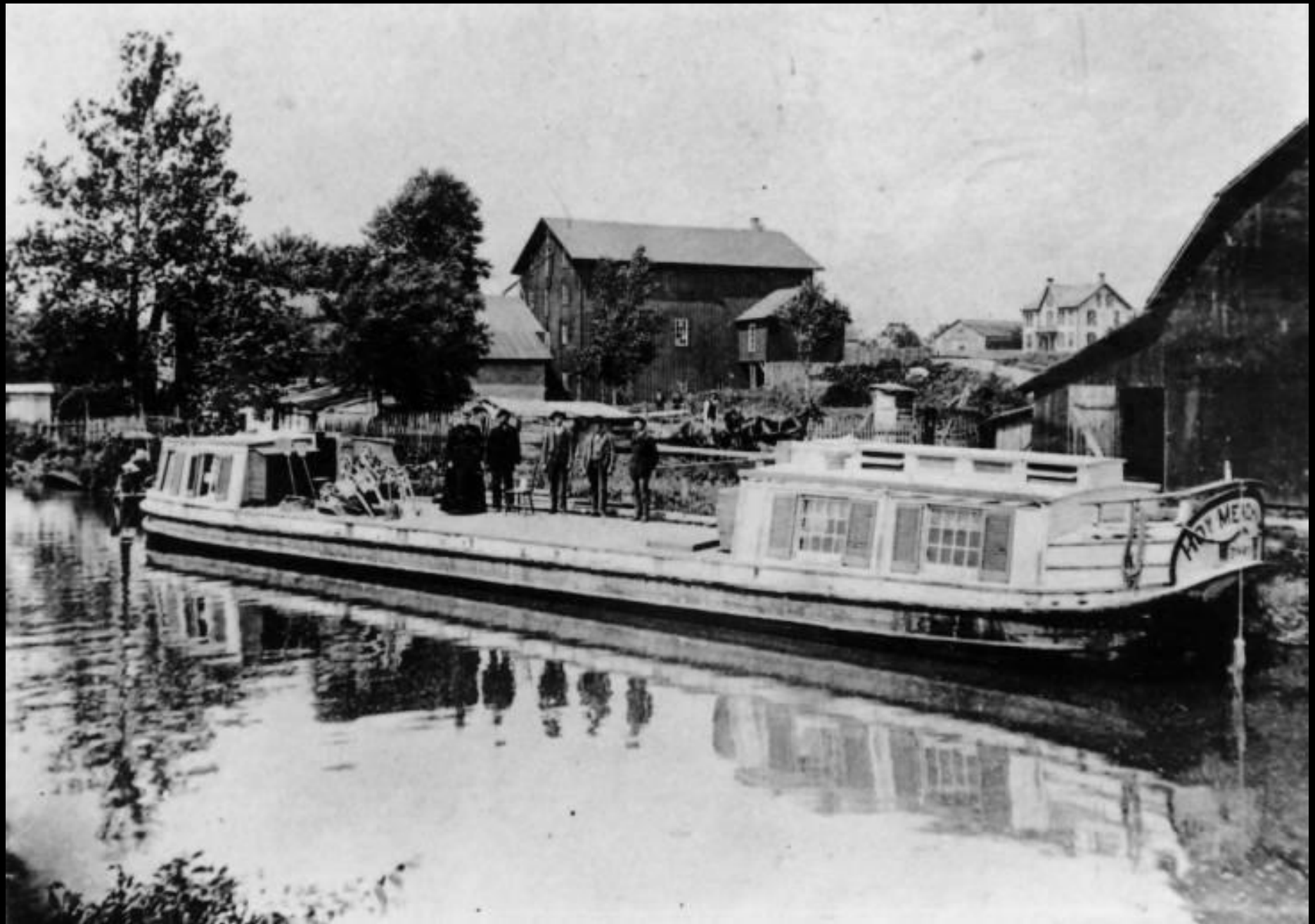
DELPHOS
FOUNDED 1845
ON THE
MAINE AND DELPHOS CANAL
BY REV. JOHN O. AND
FERDINAND
BREDECK

BREDECK'S
LAND
15
Home Port
of
Mariners

THE COMMERCIAL BUILDING CO.

V









PELTIER GALLERY

When I to write out my procedure
in the laboratory of some name of the
well made manner of making it
I would read the text
The gentle dose of
Starlight to be taken
each year might just
before retiring
— John Peltier

D. L. PELTIER
D. L. PELTIER





The “Daylight Comet,” 1910a



Halley's Comet May, 1910



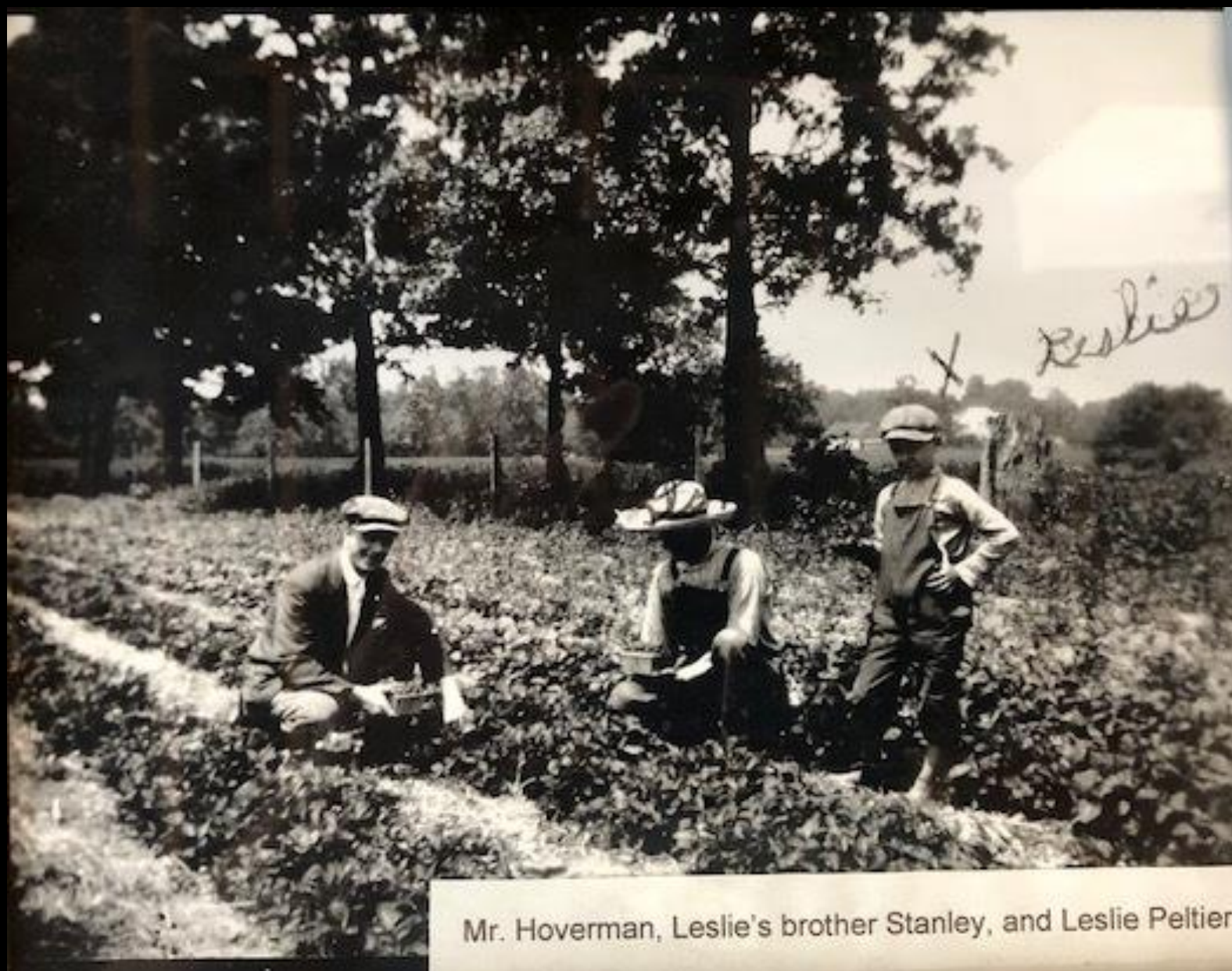


The Friendly Stars

How to Locate and Identify Them

*Martha Evans Martin &
Donald Howard Menzel*

*A New Edition of an Astronomical Classic
With new illustrations by Ching-Sung Yu*



Mr. Hoverman, Leslie's brother Stanley, and Leslie Peltier



William Tyler Olcott

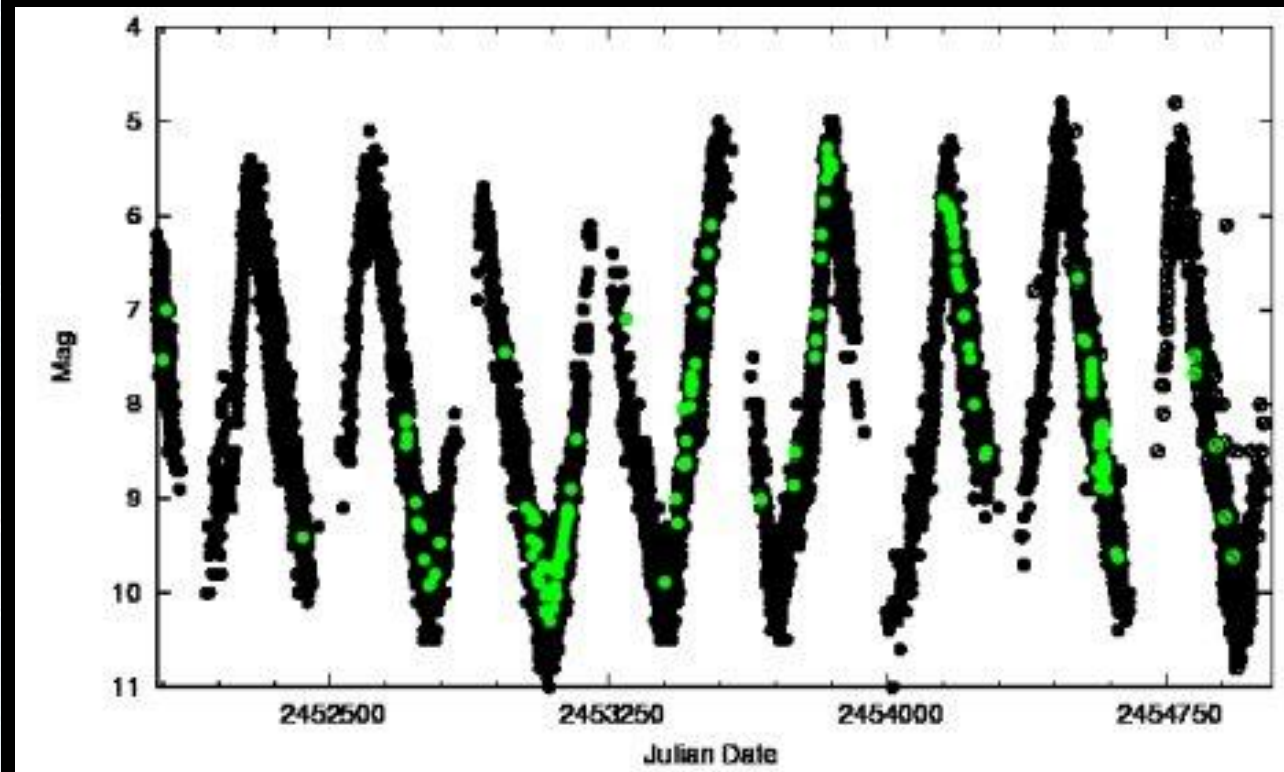
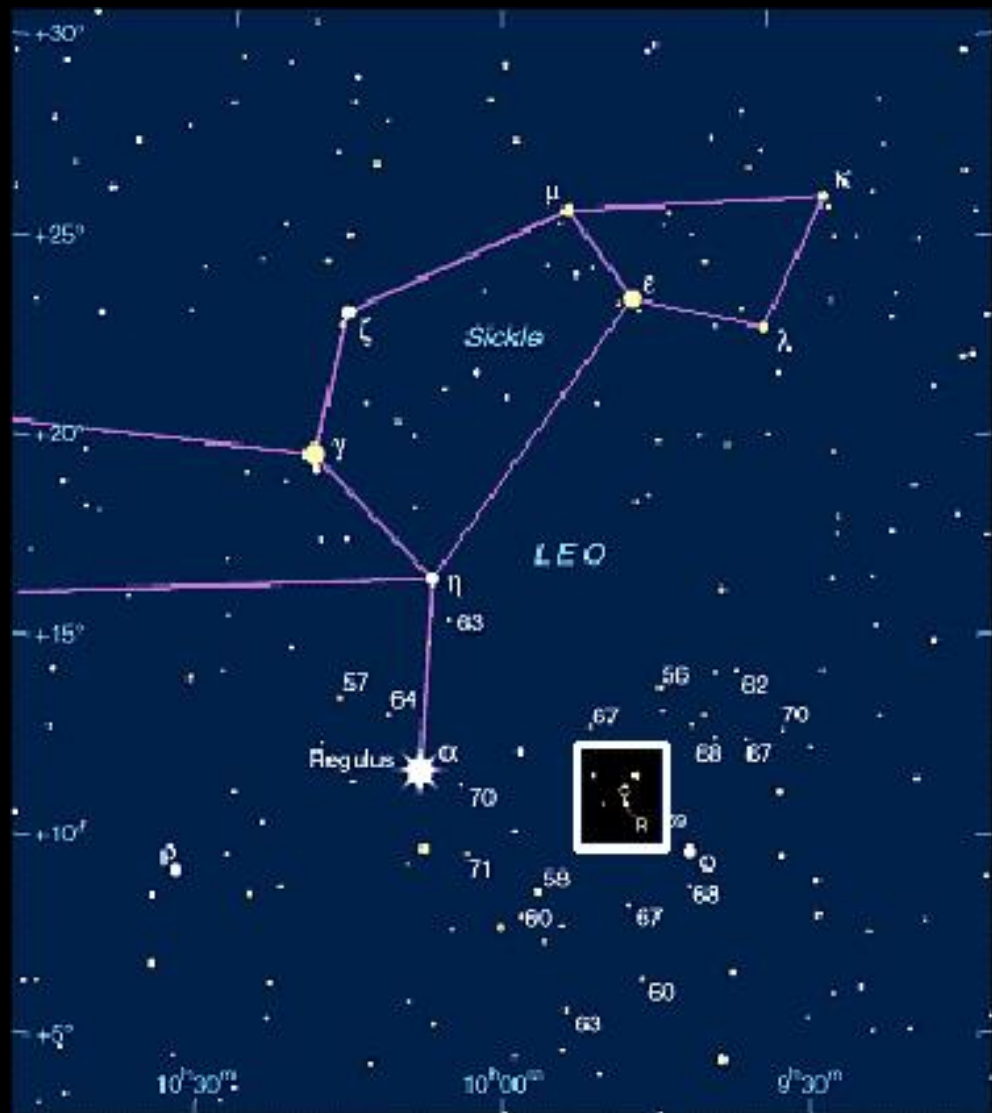
A Field Book of the Stars

outlook

STAR ATLAS
—
UPTON

GLEN & COMPANY

R Leonis



Code	Value	Day	Code	Value	Day	Code	Value	Day
T Caut	88	7	3 CrB	135	7	SW Del	121	8
X	110	7	3 CrB	108	7	SW Del	132	8
R Aur	136	7	RU Kib	136	7	R Caut	125	8
S	90	7	SX Mir	101	7	S Aft	105	8
T Ori	100	7	R CrB	61	7	RW	95	8
S Cam	84	7	nova	as, 52	7	Z	108	8
R Aur	424	7	R Sur	94	7	RS Cyp	72	9
N Aur	135	7	V CrB	110	7	R Del	105	9
S Uran	100	7	RR Kib	117	7	SX Cyp	136	9
N M	126	7	R2 Leo	110	7	WX	116	9
Z Aur	99	7	N Ser	109	7	N	80	9
X	112	7	RU Her	101	7	Z Del	90	9
SS	426	7	SX	81	7	SZ Cyp	96	9
R Mir	105	7	RS Leo	100	7	ST	126	9
S Lyn	131	7	W CrB	134	7	V Del	90	9
N Mon	117	7	V Oph	87	7	S Del	96	9
V Linn	120	7	N Her	120	7	V Cyp	93	9
S Crui	103	7	SS	119	7	T Del	101	9
T	100	7	T Oph	91	7	V Cyp	81	9
N	97	7	W Her	130	7	T	76	9
N Linn	433	7	R Dra	120	7	RZ Cyp	131	9
R Cus	77	7	RR Oph	101	7	X Del	117	9
V	78	7	S Her	100	7	R Del	103	9
RT Hya	77	7	RS	131	7	RS Cyp	100	9
X Uma	104	7	Z Oph	115	7	R Cyp	106	9
S Hya	78	7	171723	1074	1130 NE	T Del	82	9
T	97	7	"	301	1131 NE	RR Cyp	116	9
T Cus	86	7	RS Her	101	7	X Cyp	105	9
X Hya	130	7	RR Oph	122	7	S Cyp	94	9
R Linn	69	7	R3	111	7	RR Cyp	83	9
R Leo	78	7	R4 Her	117	7	SS	117	9
V Hya	63	7	V Dra	102	7	RV	69	9
R Uma	108	7	T Her	82	7	RR Cyp	163	9
V Hya	81	7	RR Oph	114	7	RT	112	9
W Kio	120	7	nova	c130	7	220613	1174	15.30 E
S	116	7	W Lyr	80	7	Z Cyp	120	9
R Comal	86	7	X Oph	86	7	RS	115	9
SU Vir	85	7	R Del	59	7	S Lac	128	9
T	102	7	nova Del	114	7	R	104	9
R Cor	83	7	R Del	104	7	RX And	417	9
T Crui	98	7	RR Dra	103	7	T Ori	100	7
T Linn	127	7	T Del	103	7	S Uran	100	7
R Mir	88	7	W	111	7	N Linn	424	7
RS Uma	82	7	W	111	7	SS Aur	426	7
S	94	7	S Lyr	127	7	Z	100	7
RU Mir	126	7	X	86	7	R CrB	61	7
W Vir	120	7	Z Dra	100	7	SX Her	80	7
R Hya	69	7	T Sgr	125	7	SZ Cyp	96	7
S Vir	67	7	R	117	7	R CrB	61	7
R Com	102	7	S	104	7	SS Aur	410	7
RR Mir	137	7	RU	67	7	Z	101	7
N Linn	126	7	T2 Cyp	101	7	R CrB	61	7
S Boo	115	7	N Del	111	7	SX Her	79	7
V	98	7	RT Del	125	7			
R	98	7	R Cyp	91	7			
N Fil	87	7	RT	71	7			
S	119	7	T2	90	7			
			X Del	146	7			
			X Cyp	68	7			
			nova Cyp	122	7			
			Z	88	7			

.001

.002

.003

.005

.006

1918 Total Solar Eclipse

ALL AMERICA STOPS WORK TO WATCH ECLIPSE

AMERICANS AND FRENCH CONTINUE OFFENSIVE IN REGION OF CHATEAU THIERRY

ENEMY DRIVEN BACK OVER SIX MILE FRONT TO DEPTH OF TWO AND HALF MILES NEULLY LA POTERIE AND BOURBOSCHER CAPTURED—TORGUEY FALLS TO AMERICAN MARINES. TWENTY-FIVE OF WHOM DROVE OUT TWO HUNDRED GERMANS

June 7.—There has been an lull in the offensive of American and French troops against the Germans northwest of Chateau Thierry, where in the past few days severe defeats have been inflicted on the enemy and the American Marines have won great praise for their valiant fighting.

Battling shoulder to shoulder over a six mile front, the Americans and French captured Neully la Poterie and Bourboscher and made progress all along the front. Previously Torguey had fallen into American hands. The marines everywhere declined to take a backward step, going forward against the enemy even when the latter were superior in numbers. The losses to the enemy are thus far declared to be extremely heavy, and the terrain they lost is stated to be strategically valuable.

The plans of the American command did not include the capture of Torguey, but when the Marines reached the objective assigned to them, their order could not be restrained and they kept on until the village was in their hands. Twenty-five marines drove out two hundred Germans from Torguey. Hard held in other sectors from Soissons to Chateau Thierry, the Germans after heavy bombardments caused attacks on the Marines from near

WILL SUN'S BLOT SWING BATTLES? SINN FEIN-HUN PLOT IS O'LEARY AND ACCOMPL

THIS IS HOW IT WILL HAPPEN



MRS. HOWELL GETS LIFE SENTENCE FOR HER CRIME

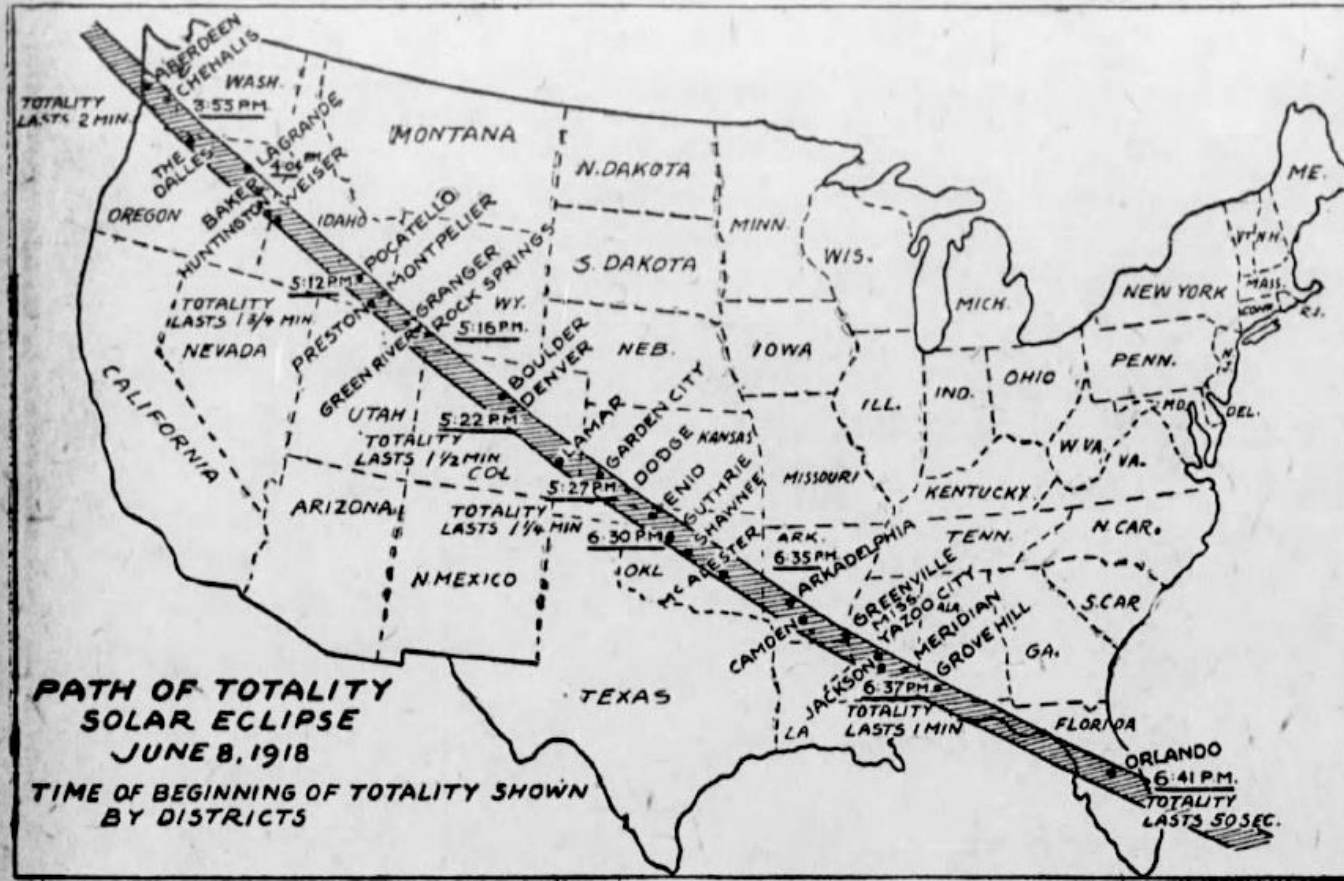
U. S. AND ARIZONA...
 Mrs. Howell...
 sentenced to life...

PALM BEACH COUNTY AUTOMOBILE ANNUAL MEETING WEDNESDAY

...
 ...
 ...

AMERICA MEETS

TOTAL ECLIPSE OF THE SUN JUNE 8, VISIBLE IN AMERICA



Nova Aquilae



Mogey 4-inch









Mrs. Dorotha "Dottie" Peltier holds the first telescope Leslie used to star-gaze. He purchased the telescope with money he made picking strawberries when he was a sophomore in high school. He referred to it as his "Strawberry." It is part of a display at Delphos Public Library which will run for the next two and one-half weeks honoring the 100th anniversary of his Jan. 2 birth.



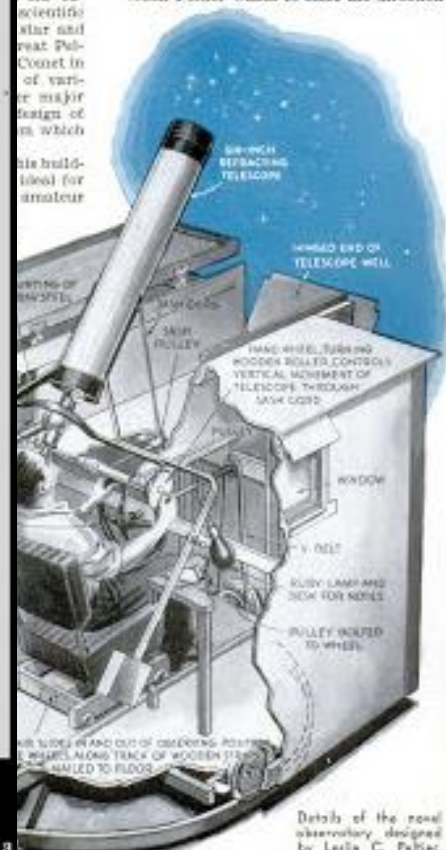
Standing Horse Rocking Horse
Lester Fisher, Maple, working for
a toy designer, Boston in 1934 as
the rocking horse. Notice the stars on
the rocking horse. Considerable?



Merry-Go-Round

of its kind
 "Merry-go-round"
 bed and
 Delphi, amateur
 old ob-
 scuring
 star and
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 Comet in
 of var-
 e major
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 of in which

When Peltier wants to shift the direction
 of his build-
 ing for
 amateur



Details of the novel observatory designed by Leslie C. Peltier. Turning a wheel makes the structure rotate

Leslie Peltier.

In 1933, Peltier built a novel observatory to aid him in his comet hunting. This observatory rotated on a child's merry-go-round rack and housed the optics from a 6-inch, f/8 telescope on loan to him from Princeton University. Peltier discovered his last five comets from this observatory

Observatory

ACE AMATEUR STARGAZER
 STALKS COMETS WITH A
 NOVEL TELESCOPE MOUNT
 HE BUILT FOR HIMSELF



Peltier shows how the lid is lifted from the telescope well. The inside of the structure is painted a dead black to minimize light reflection



Exterior of the midget observatory, and its base framework with circular track. Wheels are from a child's merry-go-round

close to the opening that fully a
 tooth of the starry scene is vis-
 ible—a great advantage to stu-
 dents of meteors, or to those
 who like to see a whole constel-
 lation to find their way about in
 the sky. At the right hand of
 the observer stands a convenient
 desk, illuminated by a ruby
 lamp. To minimize reflections,
 the whole interior is painted
 dead black.

Midget is steel, Peltier's home-
 made observatory measures only
 six feet square and five feet high.
 By exercising his ingenuity, the
 designer found his materials easy to obtain.
 The four roller-bearing wheels and the circular track on which the building rotates are stock parts for a children's merry-go-round. A pair of water-pump pulleys, one bolted to a wheel and the other mounted on a pipe welded to the steering wheel, provide a V-belt drive. A central bearing admits an electric cord for the lamp and, in severe weather, for an electric heater. Structural items include a base framework of two-by-four's bolted together, a floor of plywood, siding of pressed-wood composition board, and a steel-metal covering for the roof.

of his telescope, he turns a steering wheel, and the whole observatory revolves. A small control wheel in his other hand raises or lowers the instrument. Thus, sitting in a comfortable upholstered chair, he can quickly sight upon any object in the heavens. As the telescope moves from the horizon to the zenith, its eyepiece describes an arc that he can follow merely by tilting his head. Thanks to clever placing of the bearings on which the counterweighted framework pivots.

In a conventional astronomical observa-
 tory, the observer sees only a narrow strip
 of the sky, but in Peltier's design he sits so

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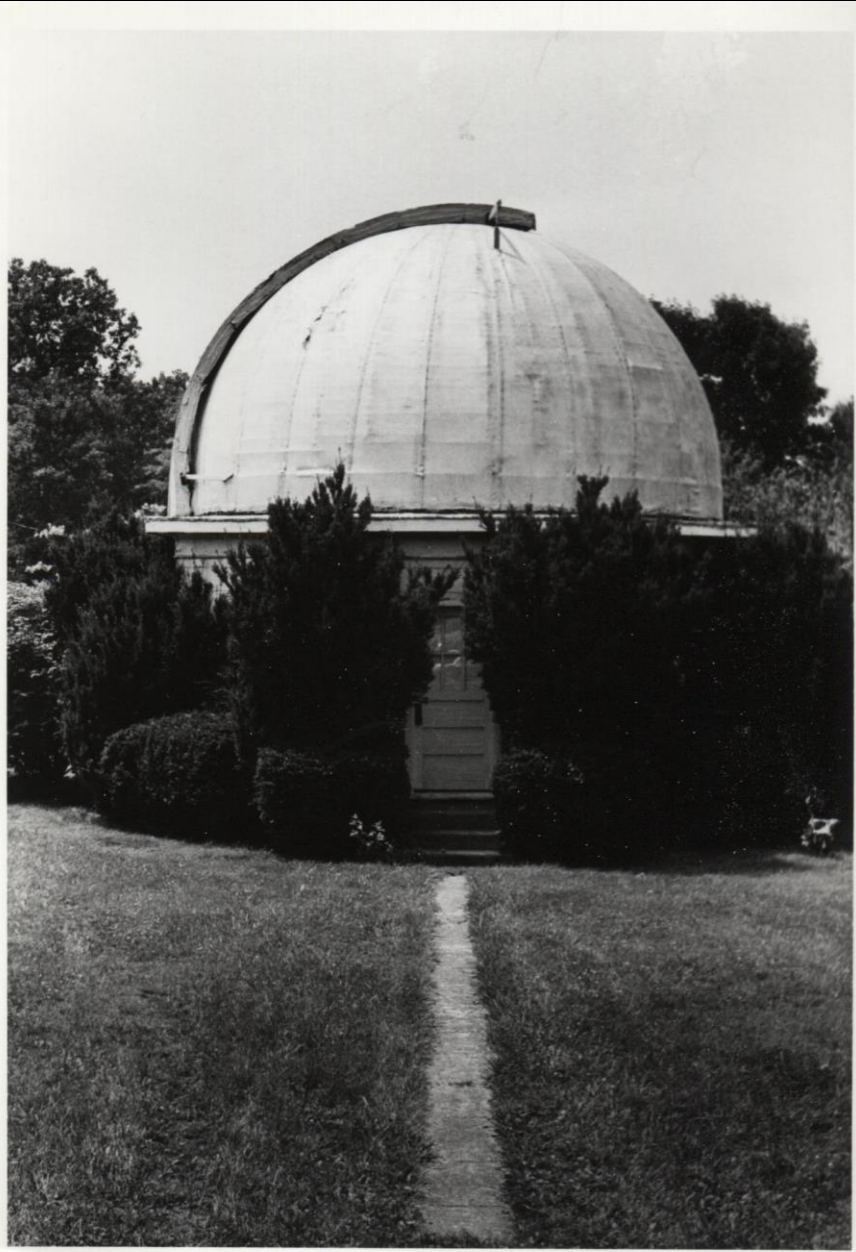


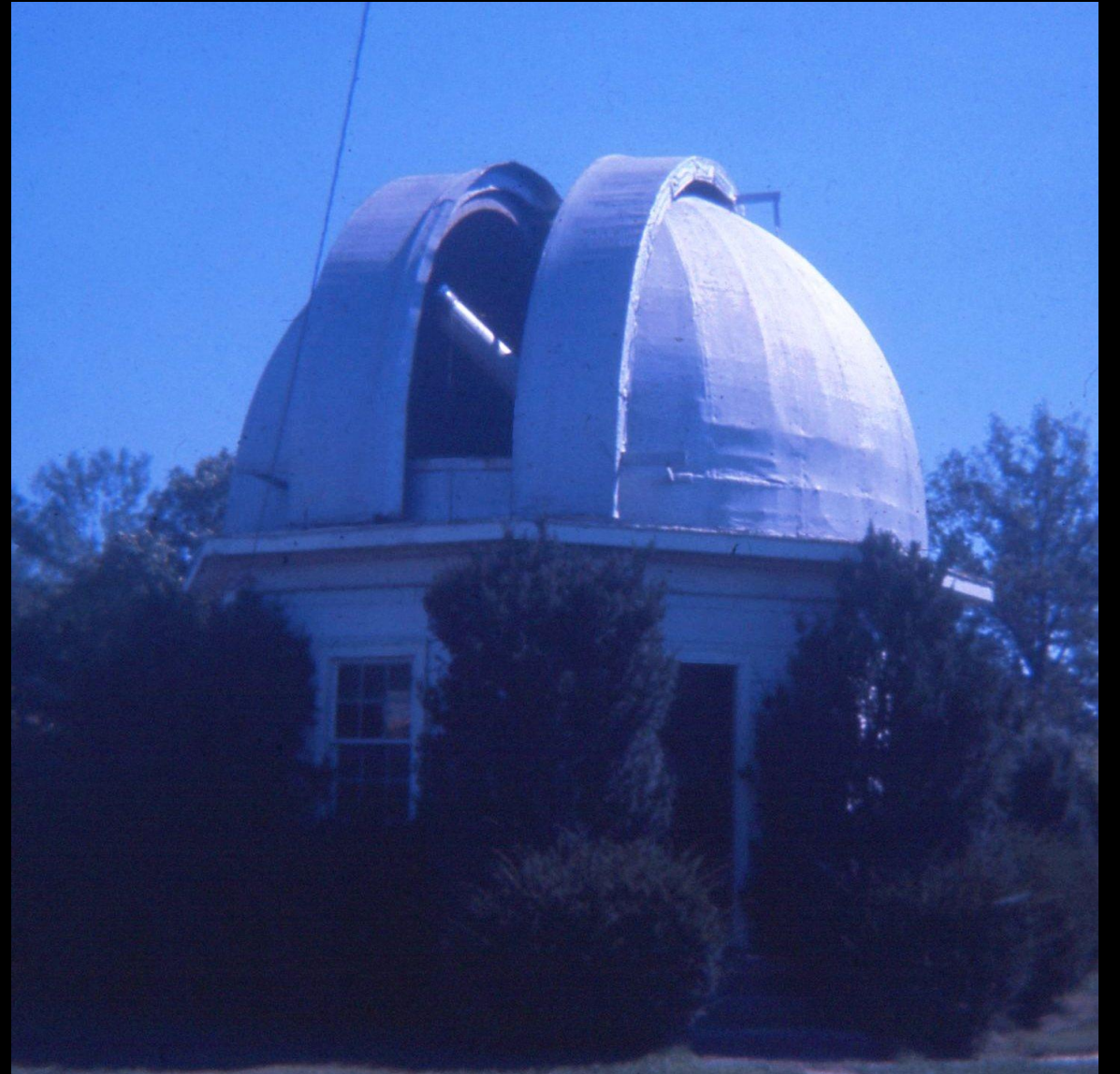
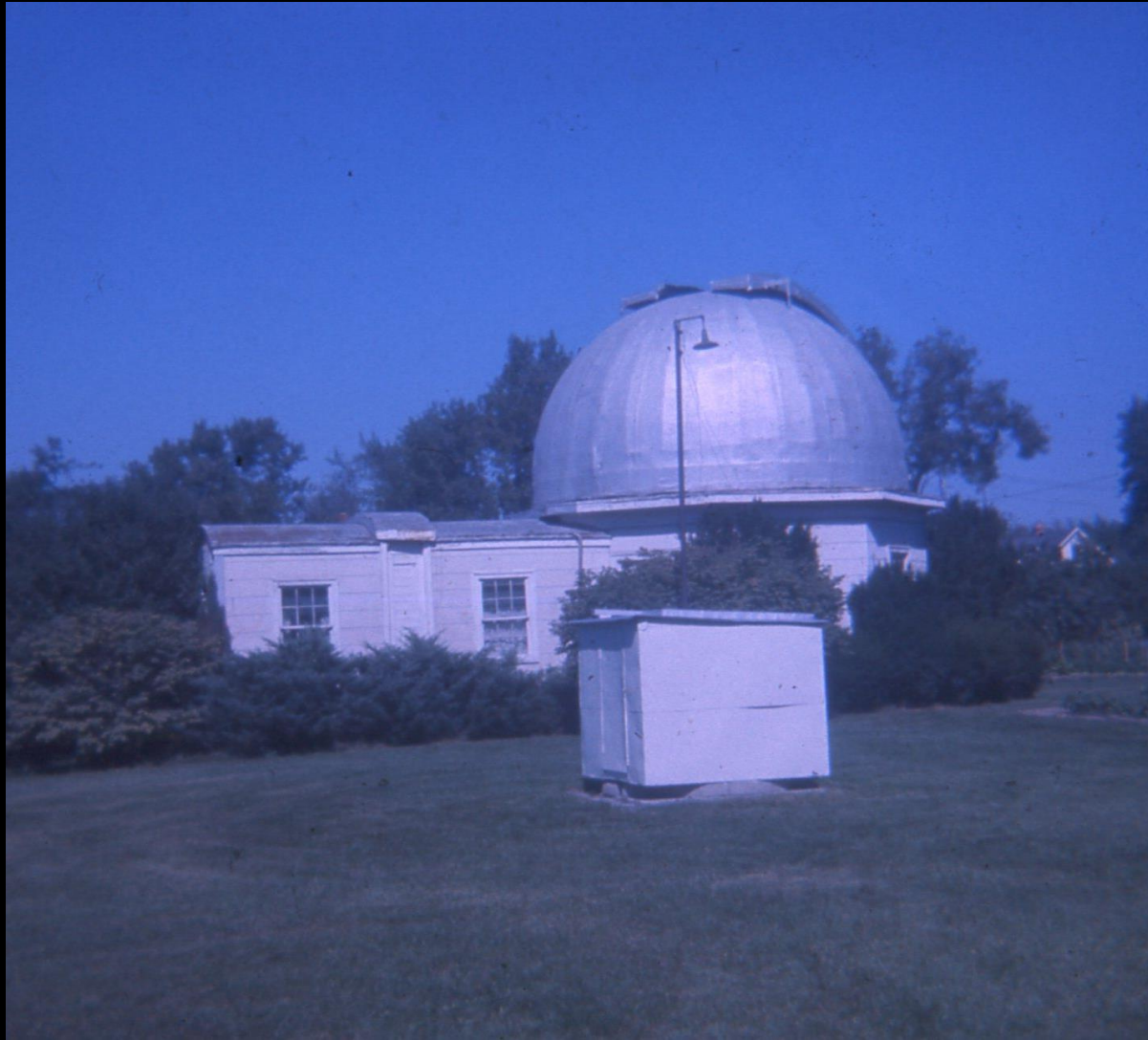


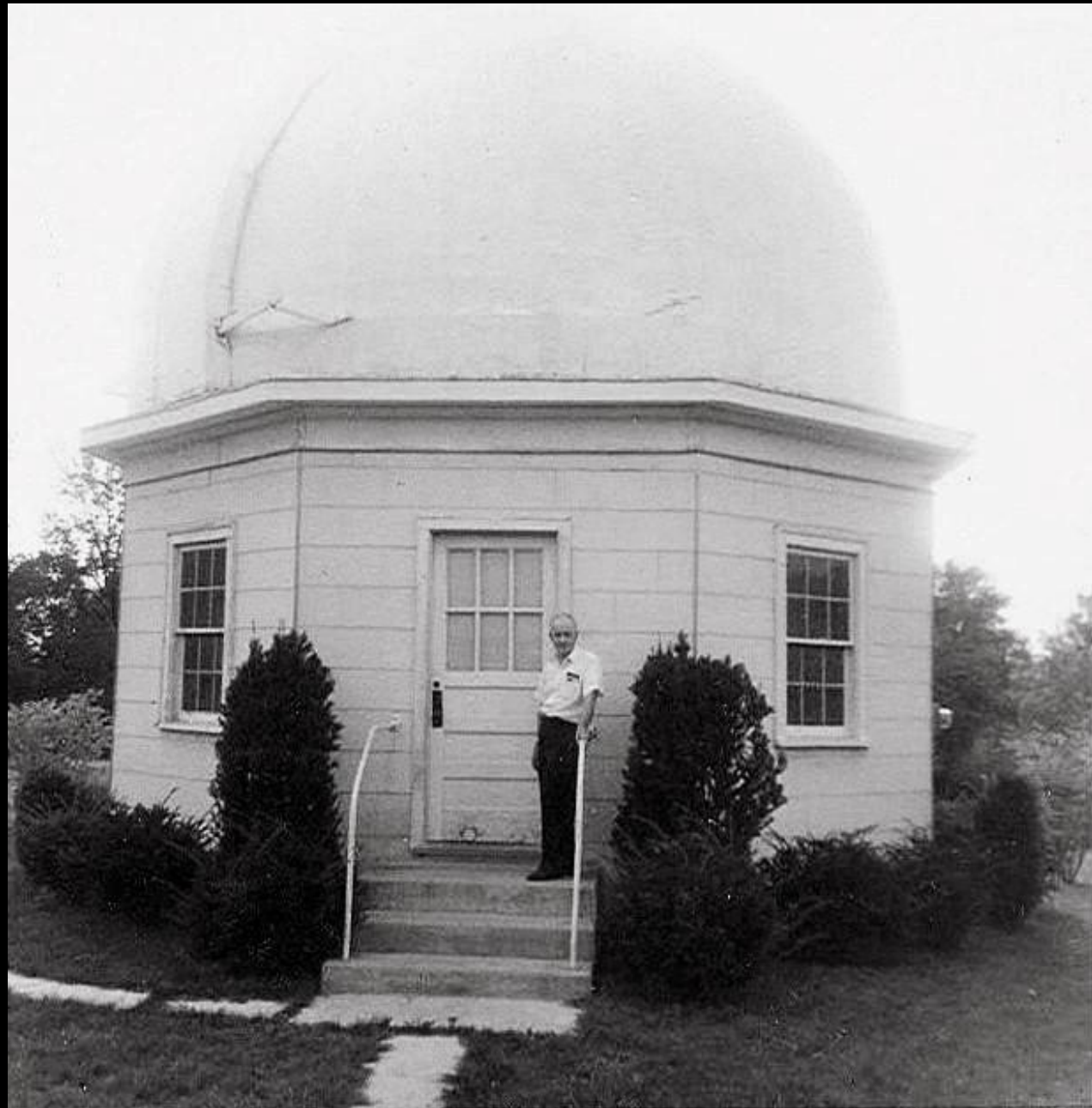


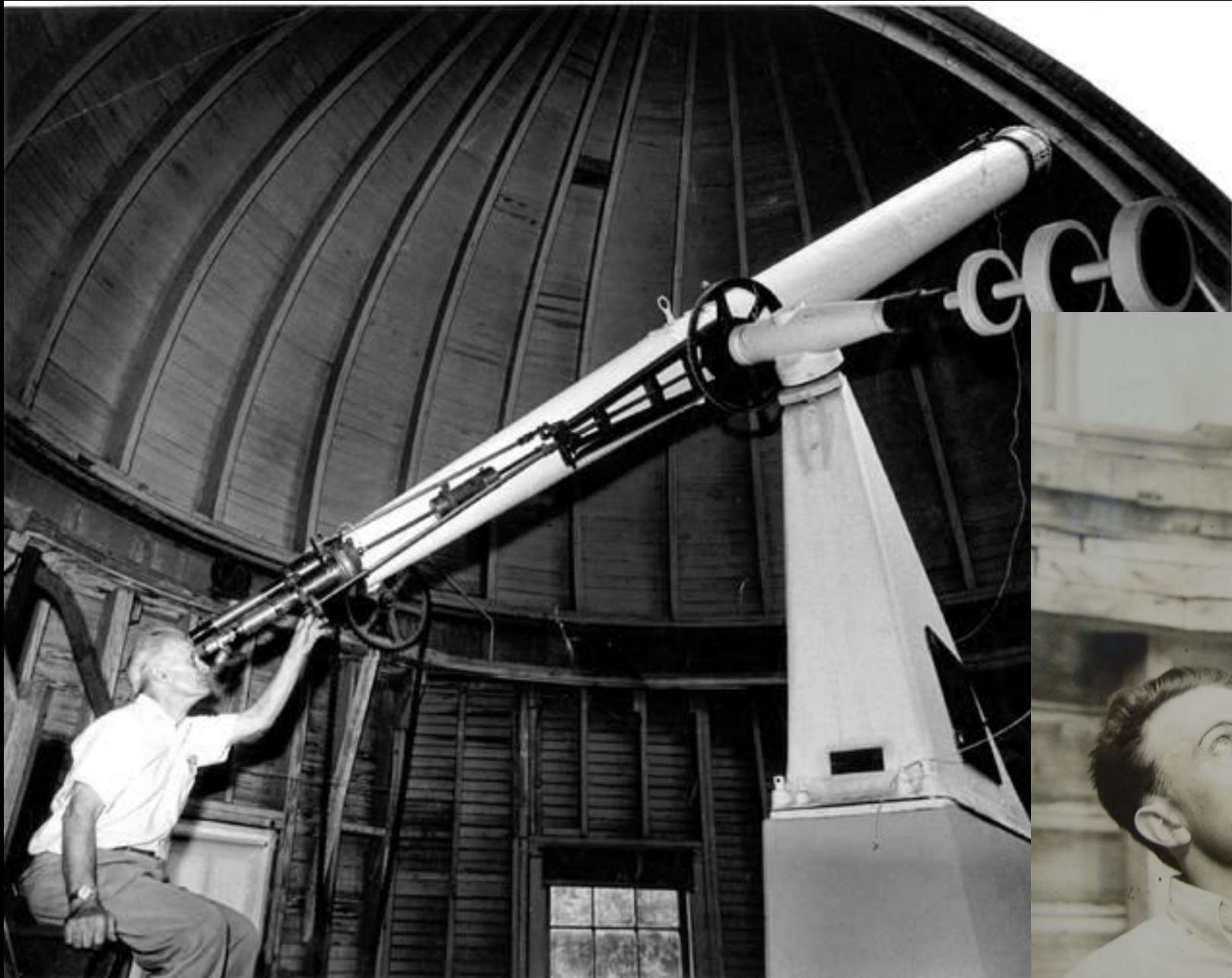












Garage Worker Finds Another Comet

That's Number Five for Amateur at Home-Made Observatory

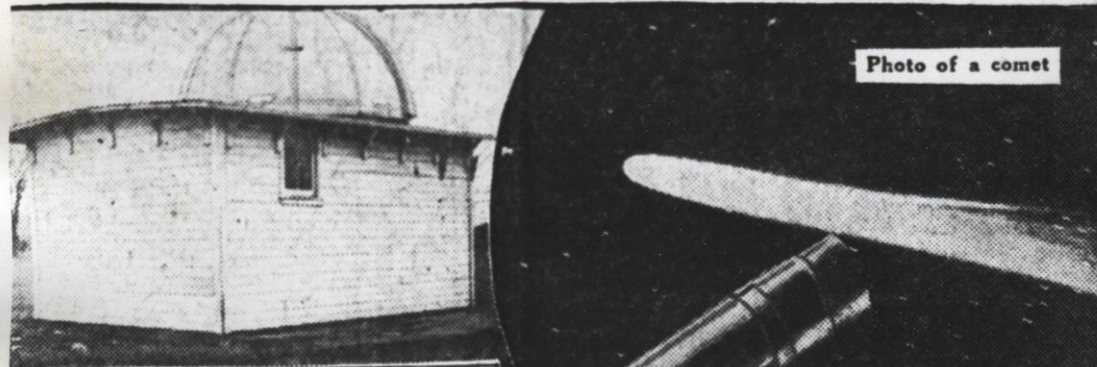
PELTIER NEW

Delphos, O., — In his home-made observatory on his family farm, Leslie C. Peltier, 25, is star-gazing every time he works on the farm, but as soon as his eye is glued to a telescope, he is an astronomer.

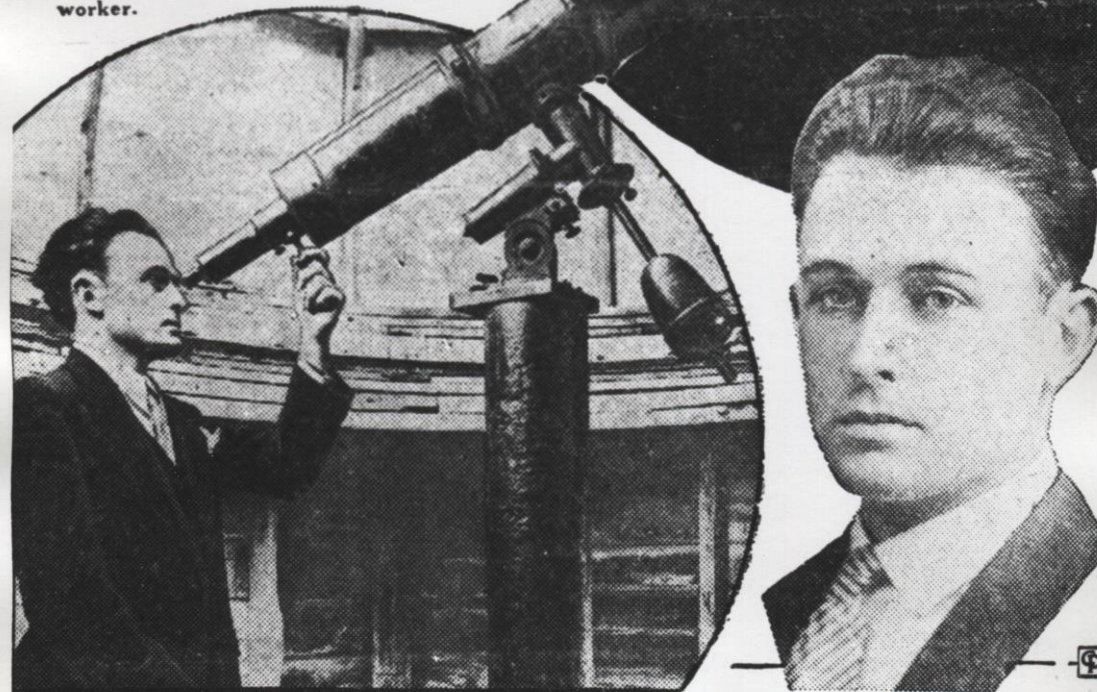
For five years, Peltier has been his hobby. His work is now a full-time job in his name.

He found it spilling the news in the skies November 1921. He sent his findings to the University of Cincinnati, which notified that it was "the body was Peltier's Comet."

Peltier is 25 years old and has been in Delphos, Ohio, since he was a child. He has been scouring the skies during the past few years for a comet.



Peltier's observatory where many noted astronomers have visited the Ohio garage worker.



Peltier, garage worker by day and astronomer by night, in his observatory gazing at the heavens.

LESLIE C. PELTIER

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days
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Univer-

1930
1931
1932
1933
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1936
1937
1938
1939
1940





PELTIER

LESLIE C.
JAN. 2, 1900
MAY 12, 1980

DOROTHA M.
MAY 21, 1910
DEC. 1, 2008







OHIO
HISTORICAL
MARKER

LESLIE C. PELTIER

A farm boy with a tenth grade education, Leslie Peltier, born near Delphos in 1900, achieved fame as one of the most famous astronomers of the twentieth century. In 1916, he raised \$18 dollars by picking 900 quarts of strawberries on his father's farm in order to purchase his first telescope. His stargazing abilities led Harvard Observatory's Dr. Harlow Shapley to proclaim him "the world's greatest non-professional astronomer." During his 65 years of stargazing, Leslie Peltier discovered 12 comets and two novae and made 132,000 variable star observations. Peltier made his discoveries on his homemade "merry-go-round" observatory that rotated on a child's merry-go-round track and housed the optics from a 6-inch, f/8 telescope on loan from Princeton University. To recognize his achievements, the Astronomical League created the annual Leslie C. Peltier Award in 1980 to recognize an amateur astronomer who contributed to astronomy observations of lasting significance.

OHIO BICENTENNIAL COMMISSION, THE LONGABERGER COMPANY
PEOPLE OF DELPHOS
THE OHIO HISTORICAL SOCIETY
2003



5-81

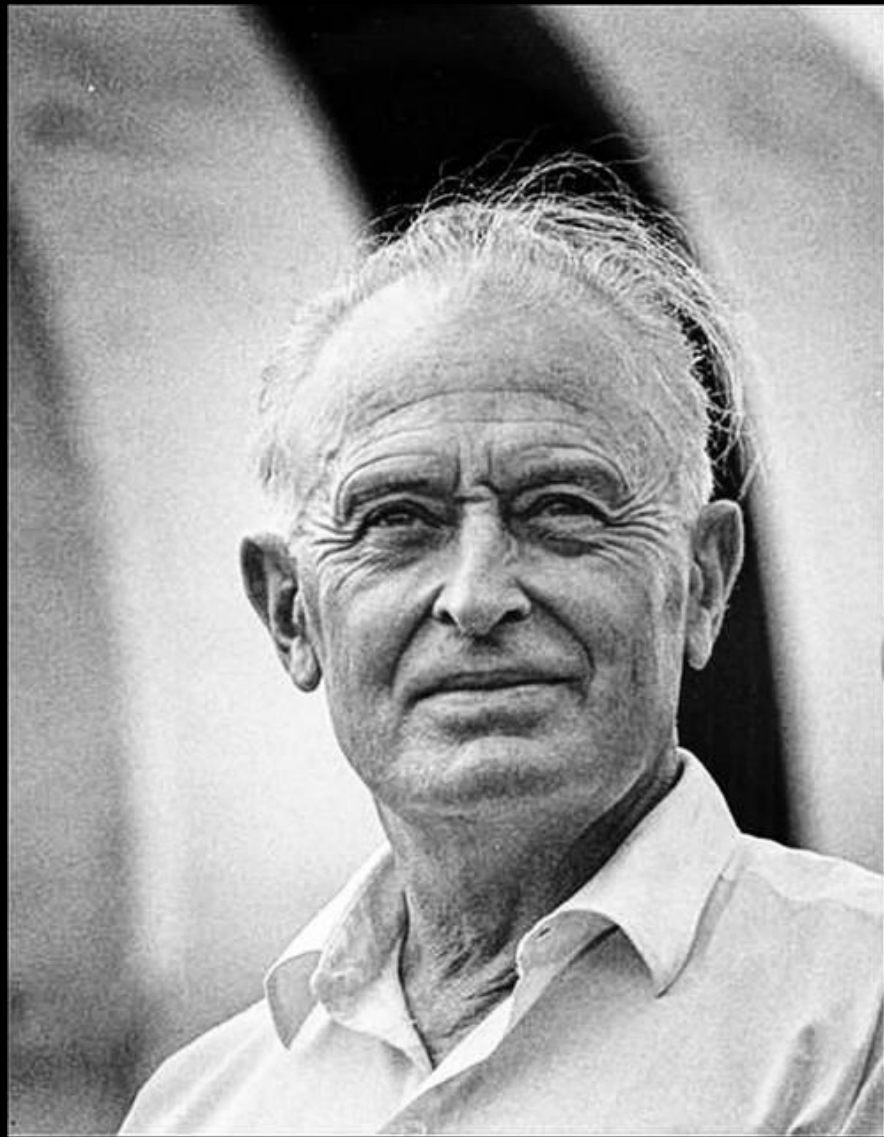
Starlight Nights

The Adventures of a Star-Gazer

The
Place
on
Jennings
Creek

Leslie C. Peltier

by Leslie C. Peltier





1922

Your Delphi
Observatory # 1969



Within the same is a brick
Telescope - used by Leslie Peltrie
to observe the movements of

Heavenly Bodies.
at Scott's Spring





**“The World’s greatest amateur astronomer”
- Harlow Shapley**

Leslie Peltier Remembered

CAROLYN HURLESS

American Association of Variable Star Observers

“THE WORLD’S greatest nonprofessional astronomer” is how Harlow Shapley, former director of Harvard Observatory, described Leslie C. Peltier, who was born in Delphos, Ohio, during the first month of 1900 and died there this May. As a farm boy he had picked strawberries to pay for his first telescope, a 2-inch brass refractor. With this, he made his first observation of a variable star (R Leonis) on March 1, 1918.

This was the start of a remarkable career which made the Ohio amateur world famous. Peltier became the discoverer of a dozen comets and two novae; he was a member of the International Astronomical Union and the American Astronomical Society, an honorary member of the American Association of Variable Star Observers (AAVSO), the Astronomical League, the Amateur Astronomers Association, and the Lima Astronomy Club of Lima, Ohio.

My long friendship with Leslie Peltier began in the autumn of 1958, when the Lima club took a field trip to his observatory at Delphos, 14 miles away. This unusual structure was a compact rotating shelter in which the observer remained comfortably seated while turning the building and telescope to point to any part of the sky. This merry-go-round observatory contained a 6-inch rich-field refractor on loan from Princeton University. Of that meeting, I can remember that Leslie

was a very shy person, and the only object we viewed that evening was Vega.

Some days later, I brought my newly finished 8-inch reflector to the Peltiers’ home and began to receive his instruction in the art of variable star observing. This was the start of two decades of friendship and cooperative variable star work. My husband Don and I soon began coming to Leslie’s to observe on the first clear night of every week. And if the week didn’t have a clear evening, Don and I were expected regardless on Friday to visit with Leslie and his wife Dottie.

Leslie was an enthusiastic observer who made use of every clear night. Over the years, he contributed over 132,000 magnitude estimates of variable stars to the AAVSO. With his phenomenal memory, he knew all his variable star fields and comparison star magnitudes by heart, and could work without charts. Sometimes he would not write down his estimates until the next morning. From 1918 until his death no month passed without his sending the regular monthly report of his observations to AAVSO headquarters.

About 20 years ago, when a heart attack kept Leslie in a Lima hospital for a while, he took along binoculars to avoid missing a variable star report. Put at his request in a northern room, he noticed one dark evening that there was a bright auroral display. When he asked to have his bed moved closer to the window to watch it, an



Leslie Peltier (1900-1980), outstanding American amateur observer of variable stars and discoverer of comets.

attendant told him there was nothing to see in the street and summoned the head nurse, who said, “Oh, go to sleep, you can see it in the morning!” Leslie finally convinced her and, after he was moved, watched the northern lights and made some variable star observations.

In 1959, Leslie was offered the gift of a 12-inch Clark refractor, building dome, and a transit instrument from Miami University in Oxford, Ohio. (This was the same 12-inch telescope that Alvan Clark had made for Wesleyan University in Middletown, Connecticut, in 1868, and was sold to Miami about 1920 when Wesleyan acquired a 20-inch refractor.) When the 12-inch was installed at Delphos, Leslie used it especially for observations of dwarf novae (U Geminorum and Z Camelopardalis stars). With this telescope he could see stars down to magnitude 16 on very clear nights.

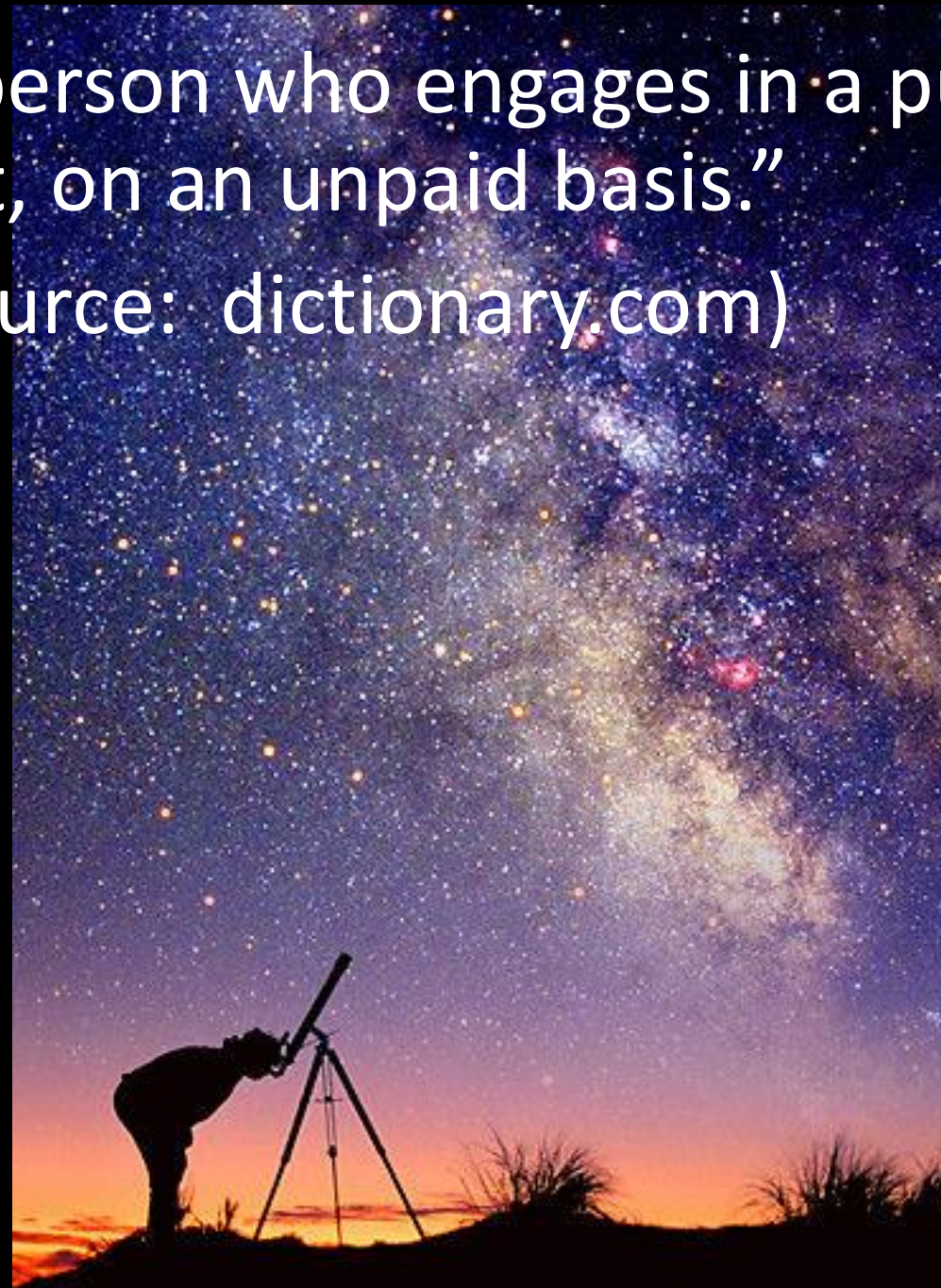
When U Geminorum was faint, between its explosive outbursts, the eclipses that it shows every four hours were a favorite observing subject with the 12-inch for Leslie and myself. Don would be stationed at the desk with a red lamp and a timer, while we would perch on the observing ladder and at regular intervals call out our magnitude estimates for him to record. It was quite a thrill to watch that star fade from 13.9 to the 15’s and brighten again, all within a little more than 30 minutes. Because of the erratic changes in the light curve from one eclipse to the next, we could never be sure what was going to happen, which appealed greatly to Leslie.

His special interest in comets was kindled as a small boy, when within a few months he saw two great comets, 1910 and Halley’s. He began comet hunting in earnest in 1922 when he received the



The dome of Peltier’s last observatory housed a 12-inch Clark refractor, given to him in 1959 by Miami University. The bright star trail right of center is Arcturus in this photograph by Douglas Brown.

Amateur "A person who engages in a pursuit, especially a sport, on an unpaid basis."
(source: dictionary.com)



Comets

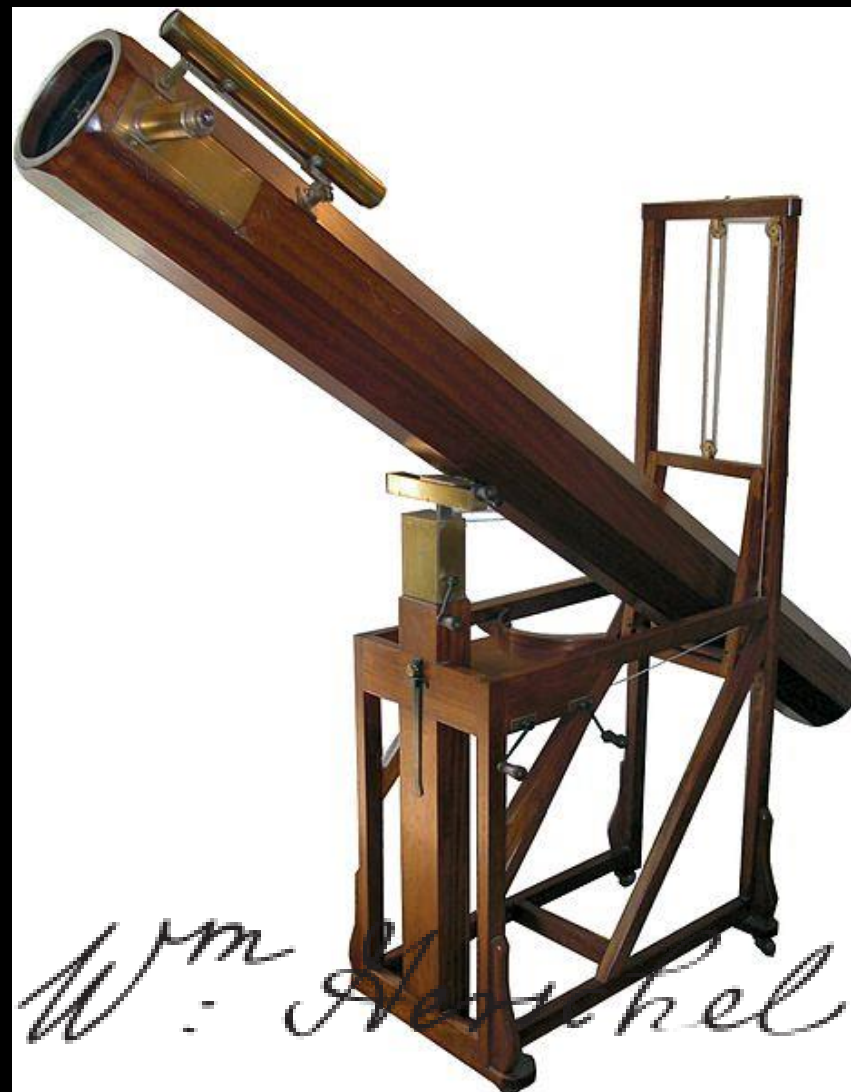


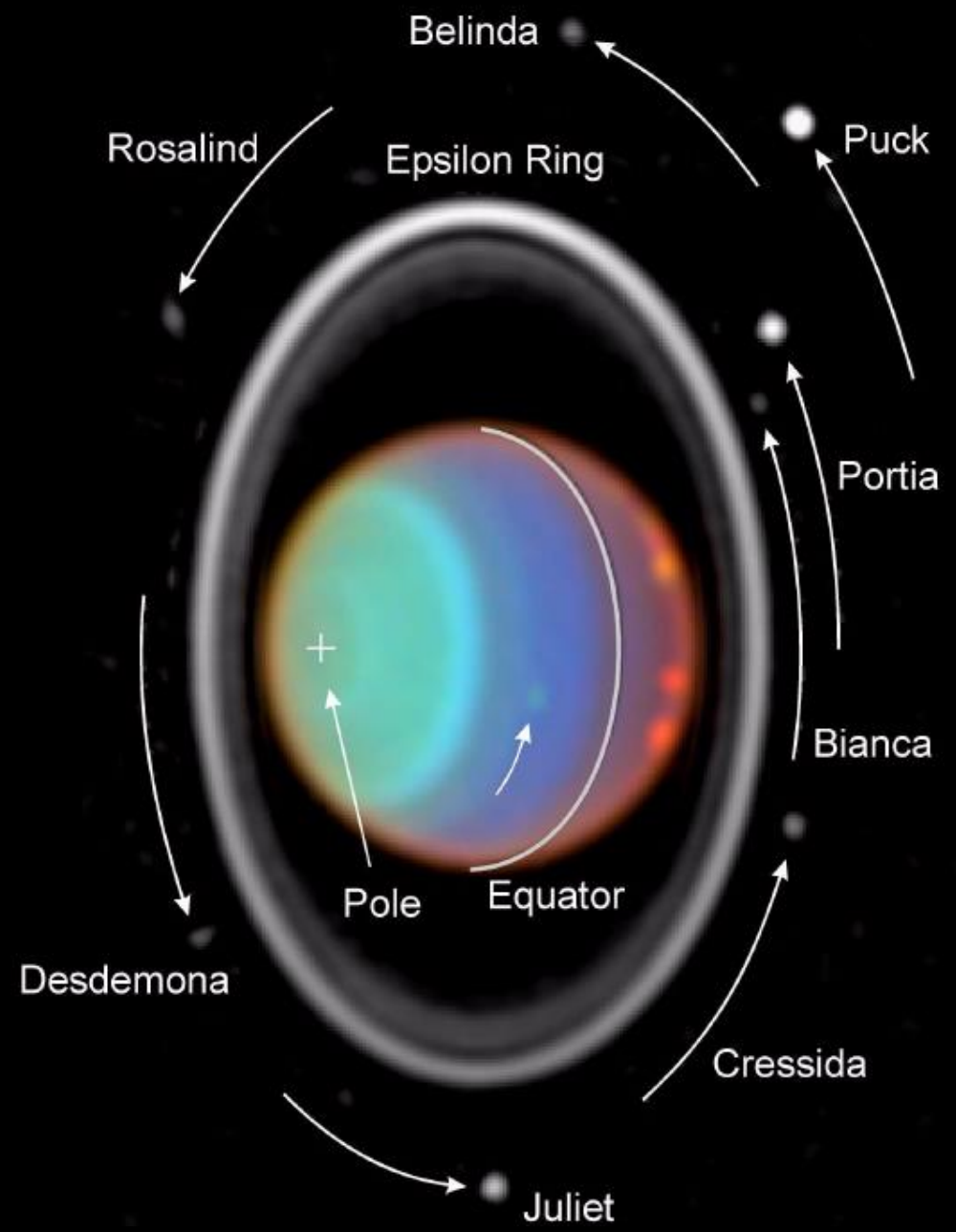
Meteor Showers



Wm Herschel

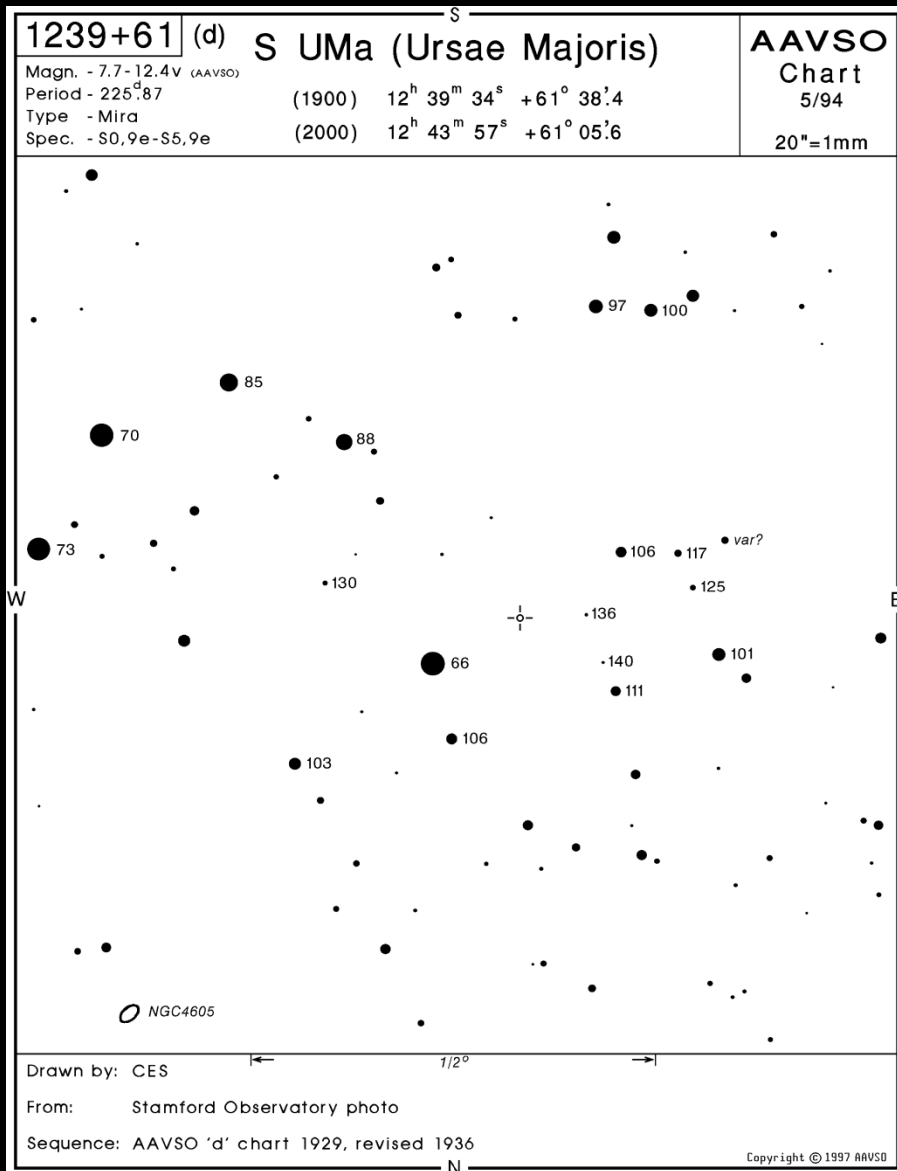
Planets



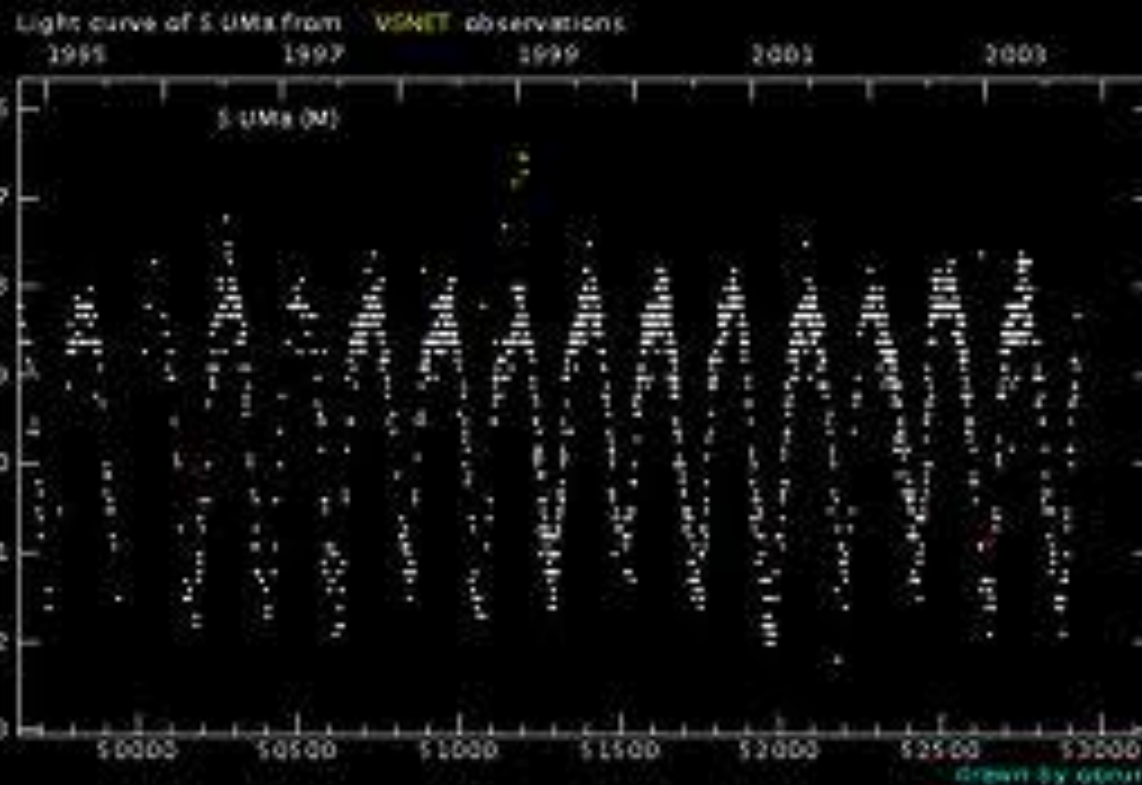




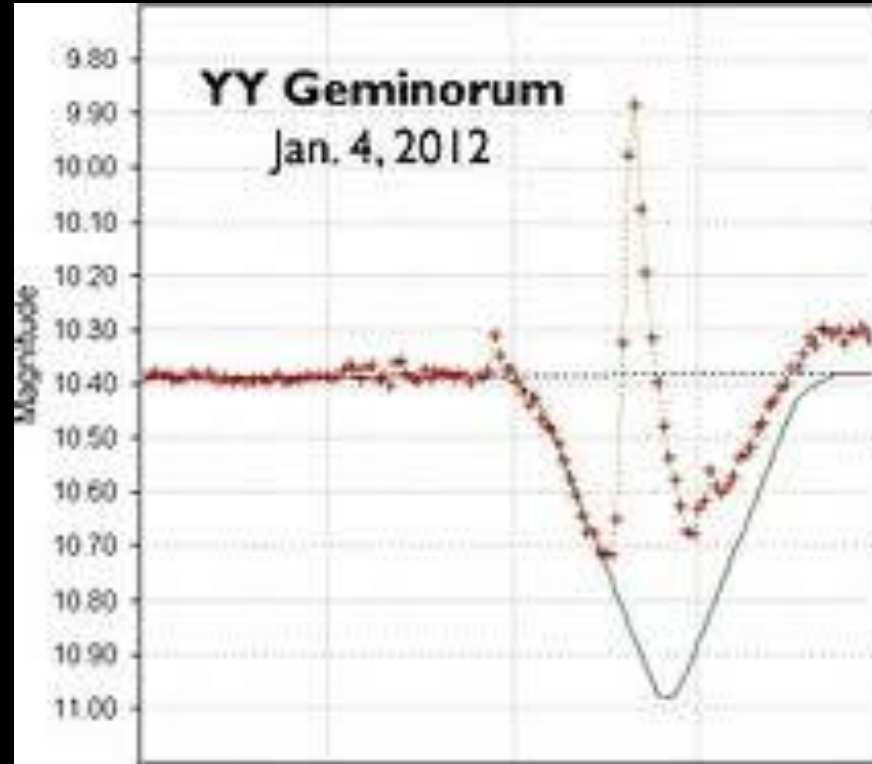
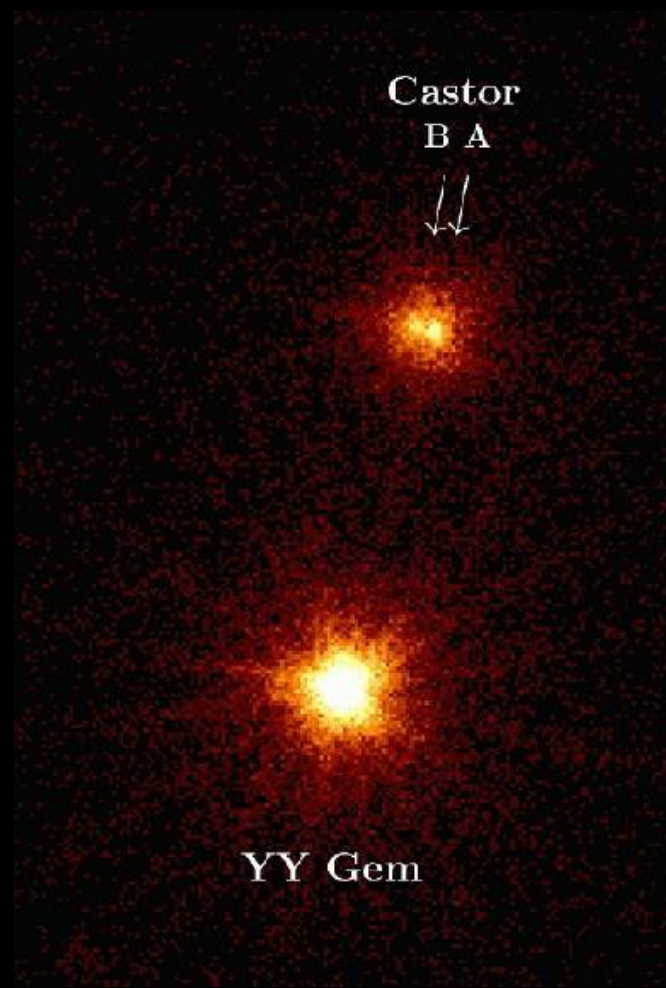
Saturn 14 Dec 2010 18:31.8 Z CMIII:265.0
Anthony Wesley, Murrumbateman Australia



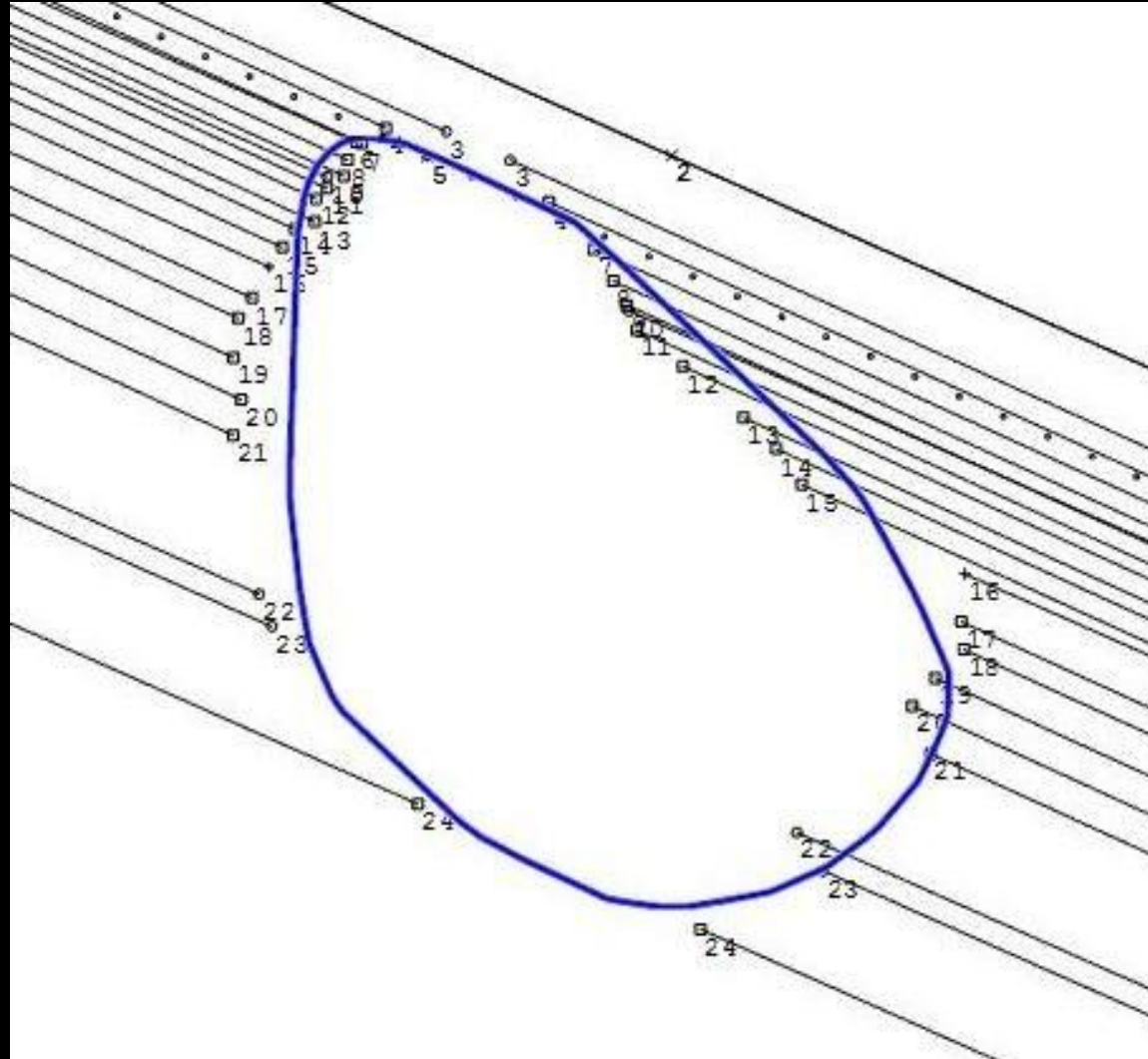
AAVSO



YY Gem

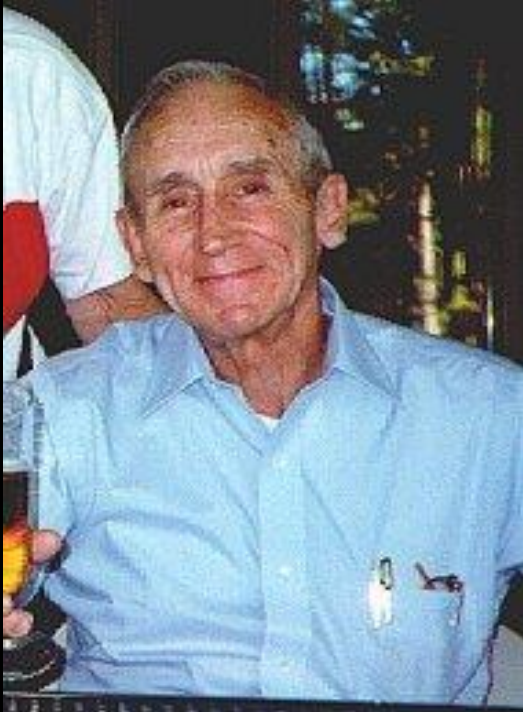


Occultations



Robert Fried (1930-2003)

- Delta airlines pilot
- Joined astro club
- Braeside Obs in Flagstaff



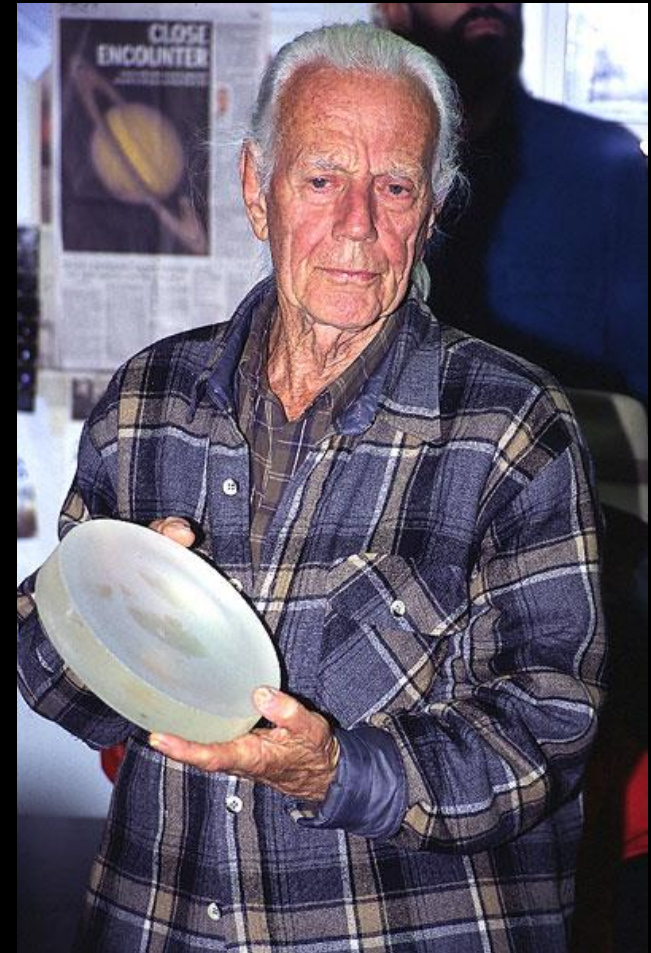
David Levy

- Discovered 22 comets (including SL9)
- Authored 35 books
- “Sharing the Sky Foundation”



John Dobson (1915-2014)

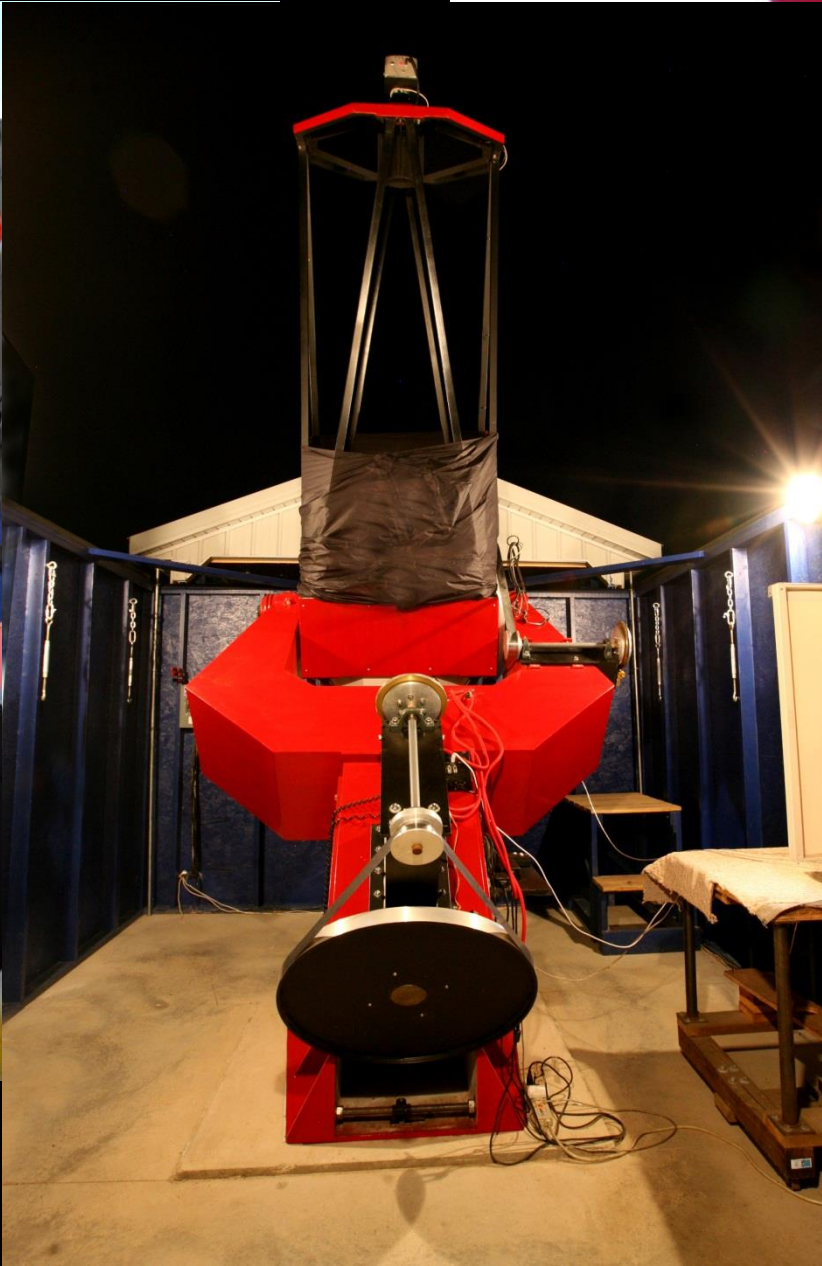
- Born in China
- Vedantan monk (to 1967)

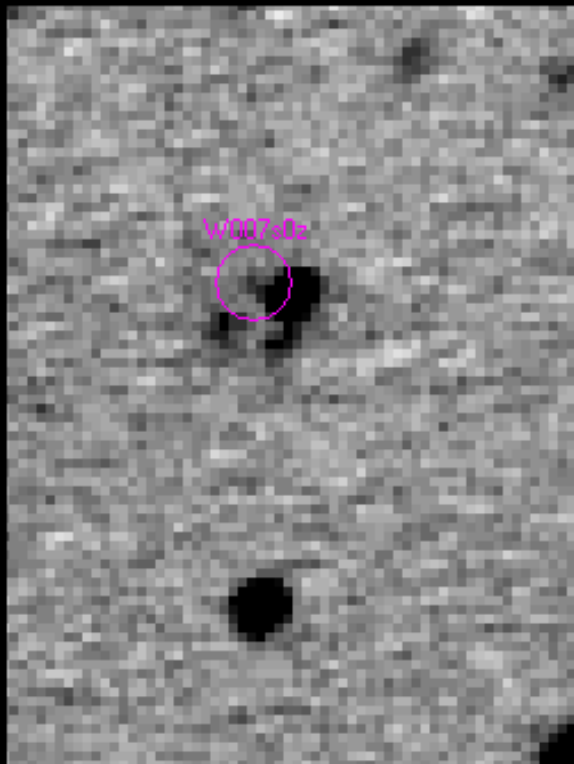
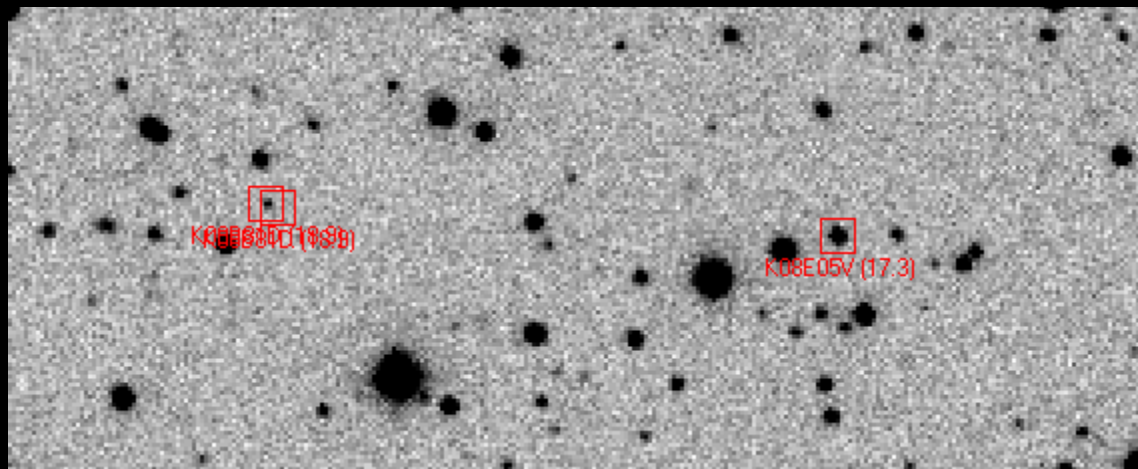


Bob Holmes, Charleston









Kelsie Krafton



- Senior, Sturgis Public School, Hyannis, MA
- Discovered 2 asteroids
- One of 240 schools using Bob's data

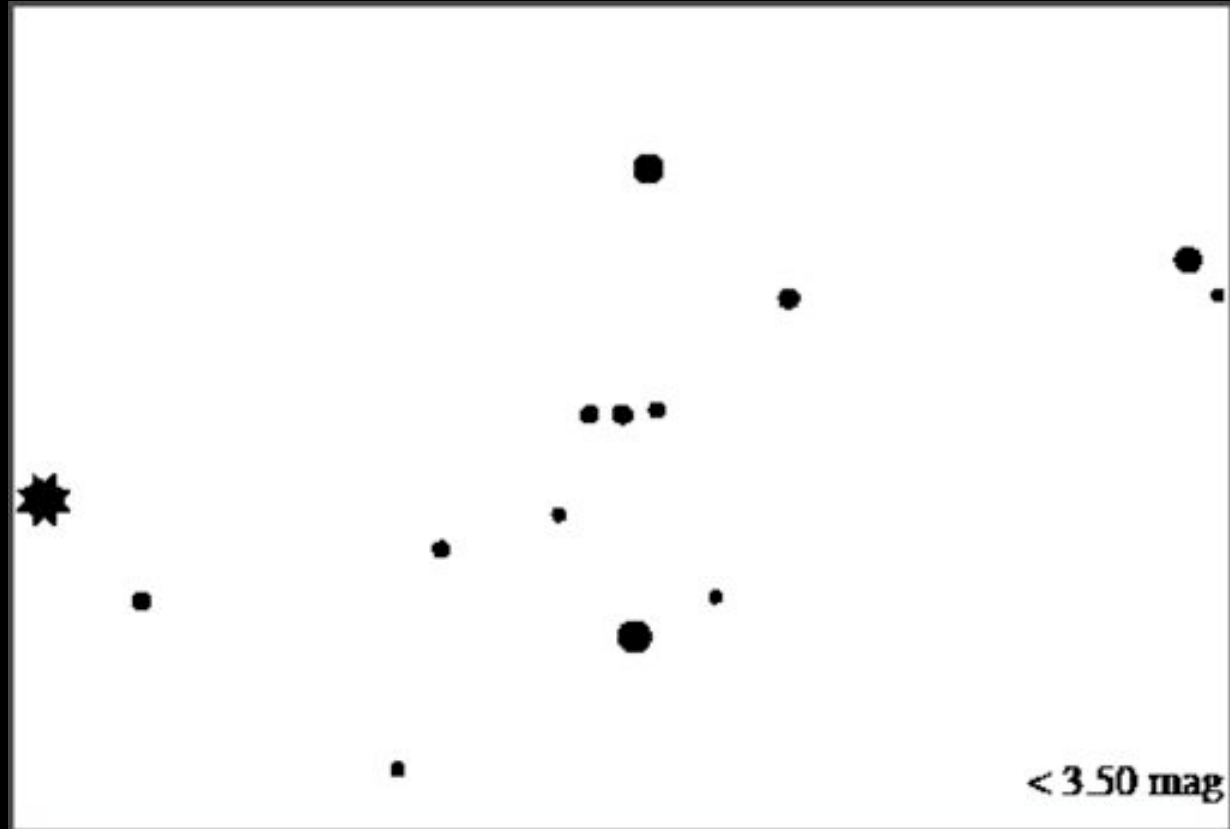
“Citizen Science”

- Amer. Assoc. of Variable Star Observers
- Int’l Occultation Timing Association
- Globe at Night
- Galaxy Zoo
- Seti@Home
- Milky Way Project
- Hands-On Universe
- Extra-solar planet hunters
- Center for Backyard Astrophysics





- Impact of light pollution (world map)
 - So far in 2020 . . .24,775 observations






Citizen Science

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NASA's citizen science projects are collaborations between scientists and interested members of the public. Through these collaborations, volunteers (known as citizen scientists) have helped make thousands of important scientific discoveries. Want to work on some real NASA science? Click on one of the projects below to get started. Projects with the  icon can be done by anyone, anywhere, with just a cellphone or laptop.

Key

 All Projects  Universe  Solar System  Sun  Earth

For Researchers

- > [Citizen Science Policy Document](#)
- > [Information on ROSES Funding for Citizen Science](#)
- > [NSPIRES](#)
- > [Federal Citizen Science Page](#)

For Everyone

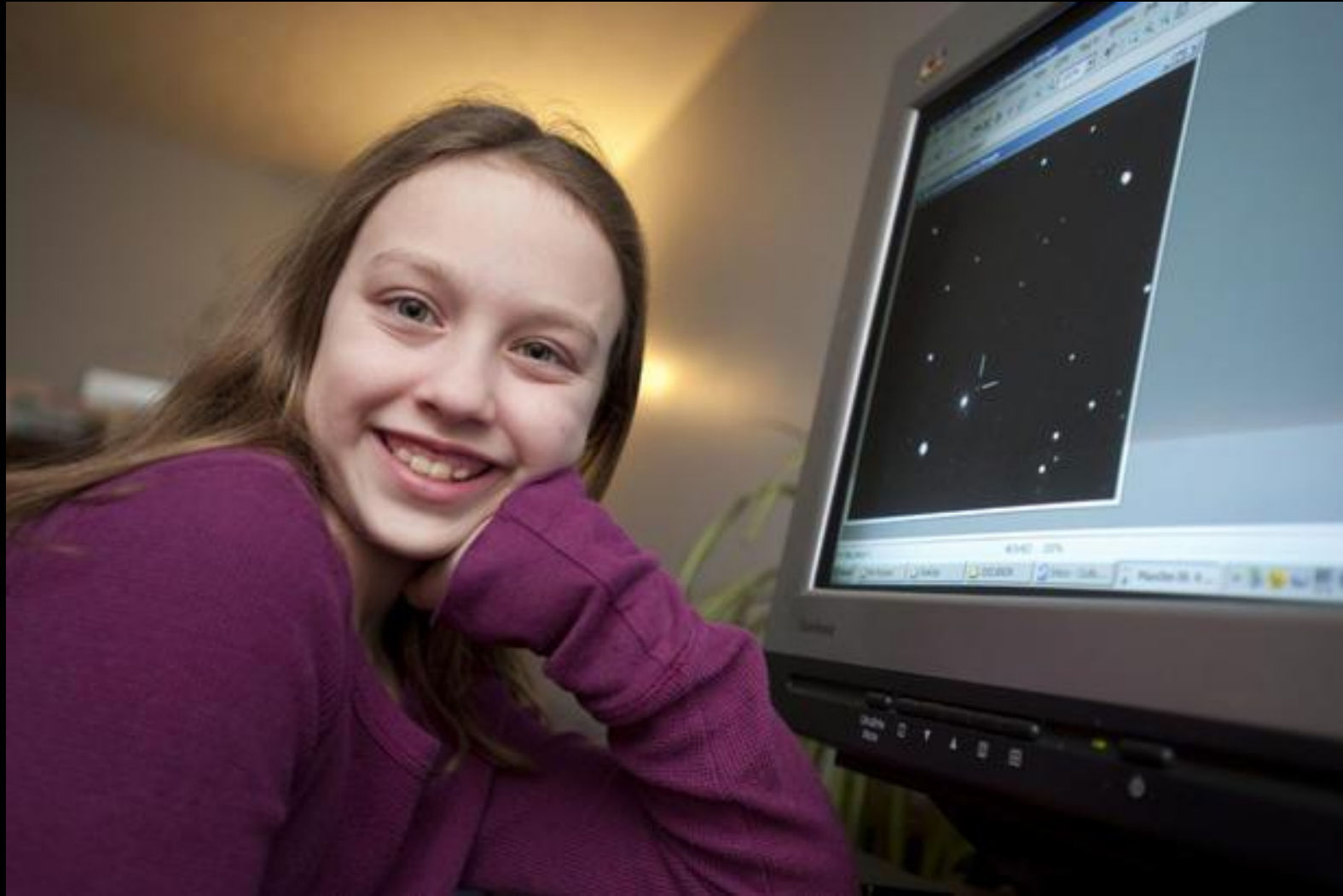
- > [Sciencing with NASA Facebook Group](#)
- > [NASA Citizen Scientists Named as Co-Authors on](#)

Rev. Robert Evans (1937-)

- Minister in Australia
- Discovered 42 visual supernovae and one comet!
- Started in 1955 with a 10-inch telescope



Supernovae

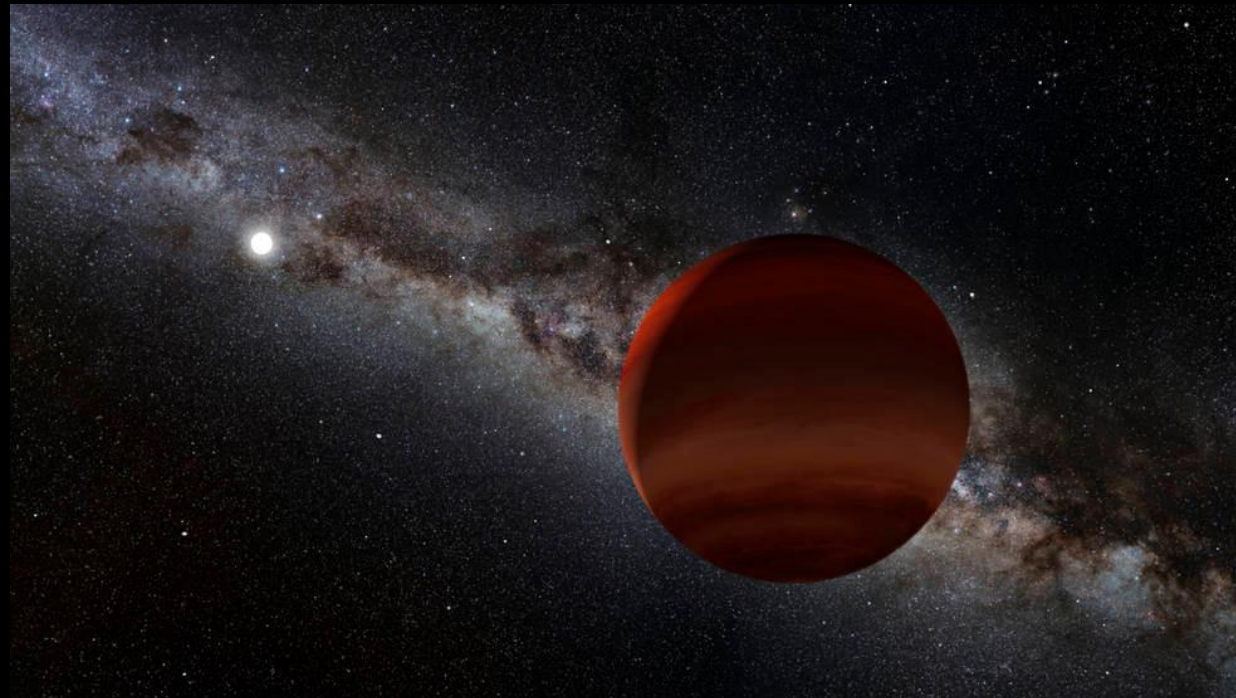


Aug. 18, 2020

Citizen Scientists Discover Dozens of New Cosmic Neighbors in NASA Data



We've never met some of the Sun's closest neighbors until now. In a new study, astronomers report the discovery of 95 objects known as brown dwarfs, many within a few dozen light-years of the Sun. They're well outside the solar system, so don't experience heat from the Sun, but still inhabit a region astronomers consider our cosmic neighborhood. This collection represents some of the coldest known examples of these objects, which are between the sizes of planets and stars.



Here's how 2 Indian schoolgirls discovered a 'Mars-Crosser' asteroid

By [Meghan Bartels](#) August 17, 2020

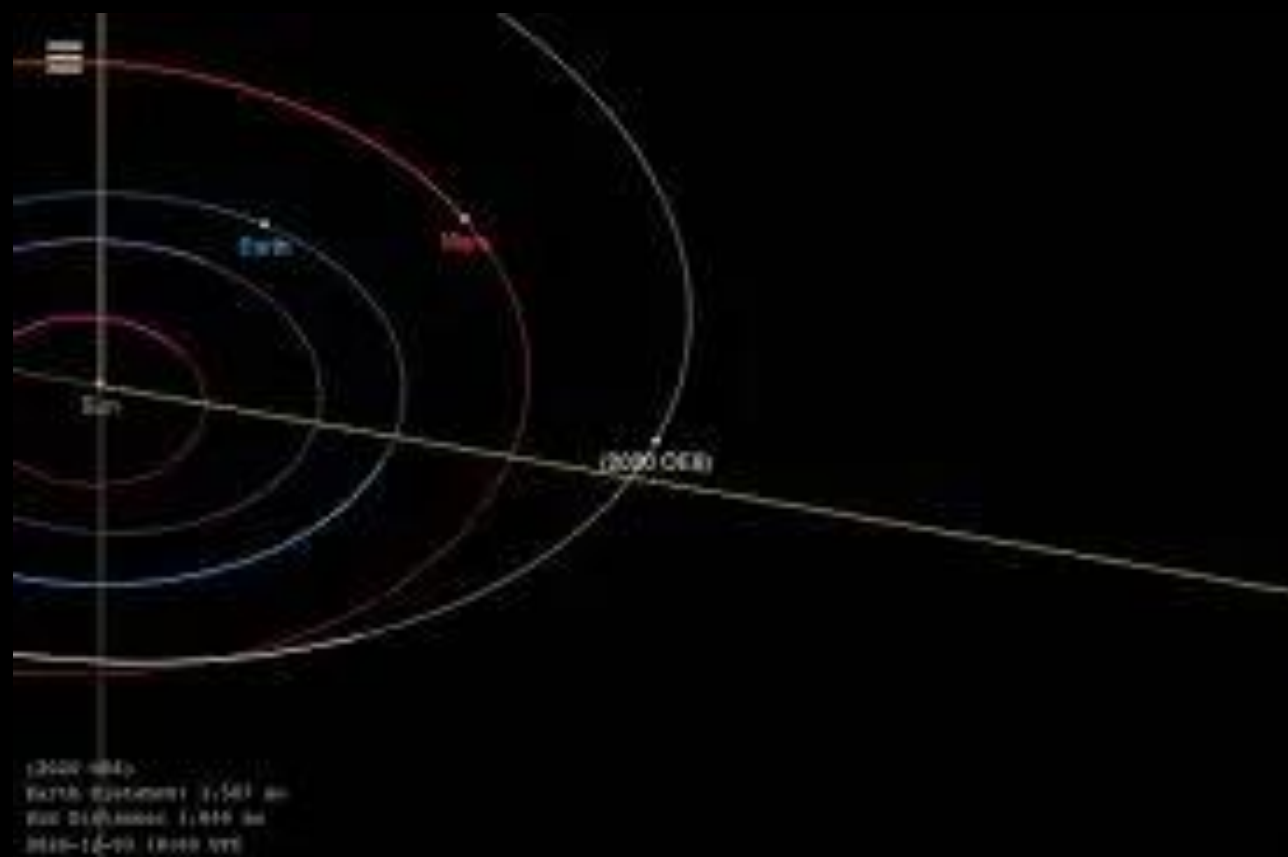


VAIDEHI VEKARIYA
SANJAYBHAI



RADHIKA LAKHANI
PRAFULBHA

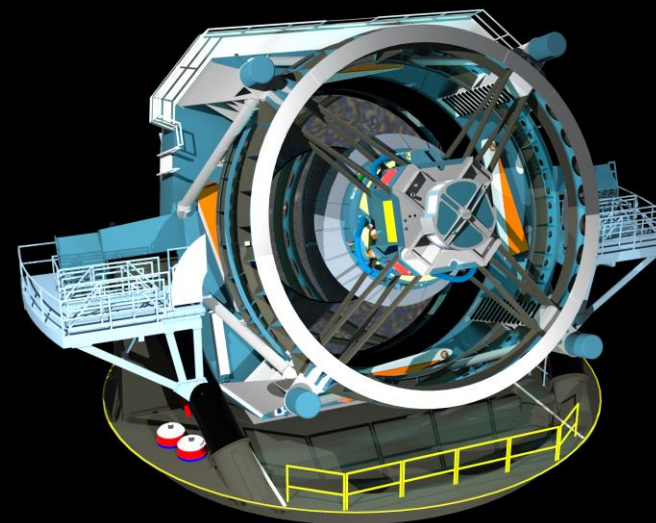
School: P.P. SAVANI CHAITANYA VIDYA SANKUL
(CBSE), SURAT, GUJRAT



Vera Rubin Telescope (2021)



- Mirror – width of tennis court
- 3200 Megapixel camera
- Each image – width of 40 full moons
- 20 Tb data *each night!*



Astronomy Clubs



www.cuas.org







Thank you!

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www.cuas.org