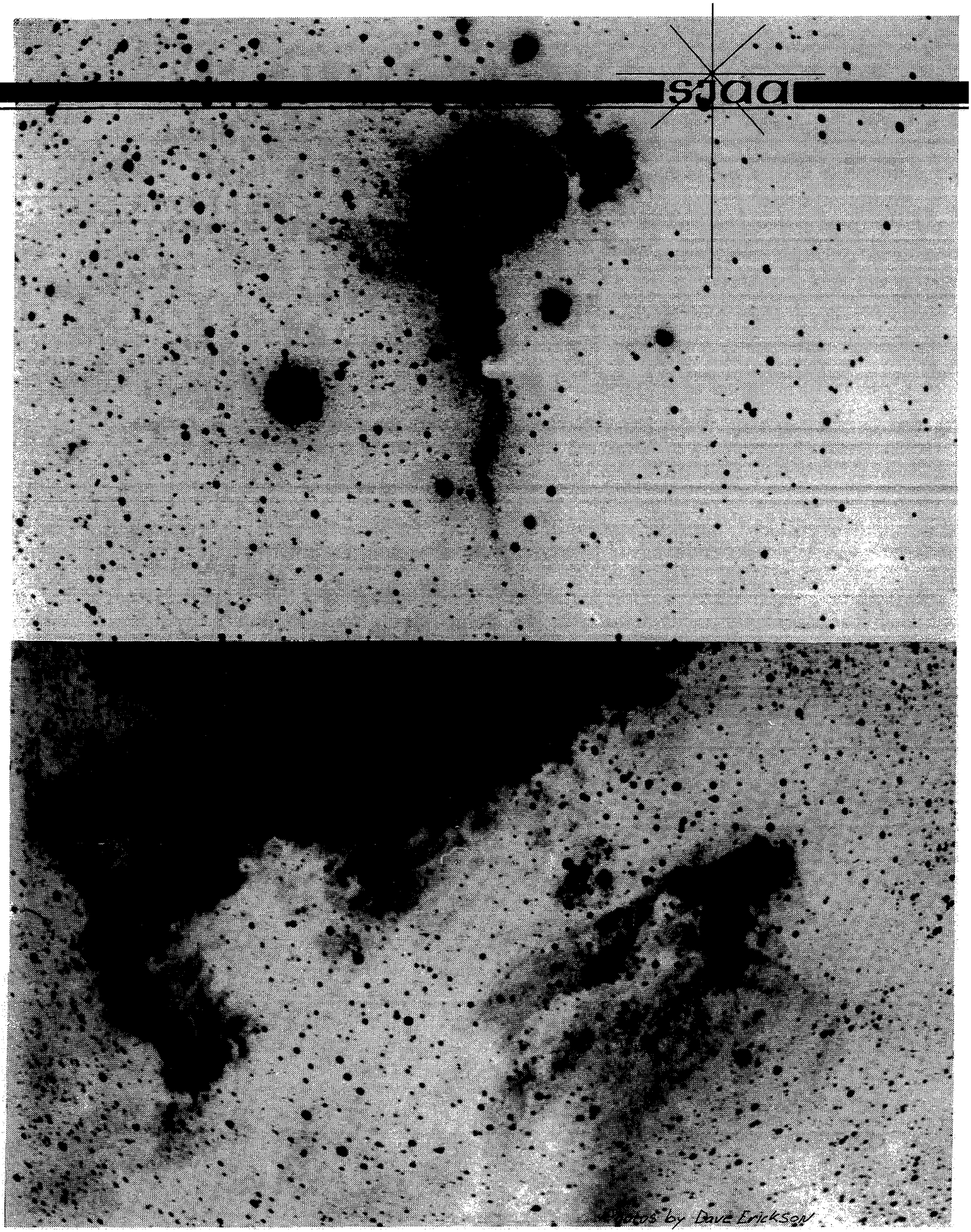


Photos by Dave Erickson

august '76 Bulletin

Jack Zeiders
Editor
292-0107

WHAT'S GOING ON IN THE CLUB:

August 6: Olinder center 7:30 P.M.

The general meeting this month features a slide show of recent acquisitions of the general membership. Please bring a few of your slides to add to the show.

August 7: the valley starparty didn't work out due to the lack of a sight. There will a discussion on possible locations for future use, at the meeting this month.

August 13: Debbie Moore's home 8:00 P.M. Board meeting

August 18-21: Escondido
The 1976 Western Amateur Astronomers convention

A N N O U N C E M E N T S

The club has acquired new leadership!

President: Gerry Rattley 732-0202

Vice president: Allan Meyer 960-0716

Treasurer: John Rhodes 969-2615

Secretery: Bob Malm 941-1343

Due to the club's resignation from the A.A.N.C., I have been informed that we are no longer supposed to receive the information sheets on starparties, therefore these activities will no longer appear in the bulletin. (Sorry, ed.)

Those of you who have not yet renewed your membership will not receive the august issue of Sky and Telescope. This will also be the last bulletin sent to nonrenewals.

Viking: Current status reports for the Mars probe are available from N.A.S.A. call (915) 965-6507

Ads Infinitum: Equitorial mounting and tripod for an 8" home-built. Call Brad Carlson at 268-1580 tue.- fri. after 6:00 or monday and weekends all day.

Please send any correspondance concerning the bulletin to 725 Minnesota Ave. San Jose, Calif. 95125

Rattley Rattles

Rattley rattles again . . . got some important items to pass on!

The following corrections need to be made to my introduction to "The Orbits of Visual Binary Stars" in last months bulletin. First, the first sentence in the first paragraph should read "Rattley Rattles will" instead of "Rattley will", and second the reference to the two part Sky & Telescope article by Jean Meeus was incorrectly given as Jan and Feb, 1970. This reference should instead be Jan and Feb, 1971.

There is also an error in the diagrams that appeared in the July bulletin installment of my article. The "A" (apastron) and "P" (periastron) are backwards as labeled in the drawings. In other words the A should be replaced by a P and the P should be replaced by an A.

Sorry about these errors, but you must realize that I have noone to edit my work except myself, and it is very difficult to catch your own mistakes. I will try to be more careful in the future, but errors will occur, and I would appreciate it if those who notice any let me know so that I can write them in this column and let others know also.

Thank you. By the way, I appreciate the feedback I have so far recieved on these articles. It shows me that they are being appreciated and that makes the whole project worthwhile to me, thank you again.

On to another topic, lunar grazing occultations! Dave Ambrose has recently informed me that he has recieved a new packet of graze predictions and that he will sort them out and send me some if the club wants to do a few of these. I am going to try to arrange at least one of these sometime later this summer, watch this column and attend the meetings to find out more about this.

Dave Ambrose has requested, and I also agree, that a special note of thanks be given to one of our clubs past Presidents, who left us for a job on the staff of Scientific American some years back, Trudy E. Bell. It was through the efforts of Trudy that this club once had and still continues to have a grazing lunar occultation section. Before she left, she passed on the knowledge and USGS maps necessary to run this section of the club to Dave. If we do a graze this summer, it will be done in honor of Trudy E. Bell, and I hope it will turn out half as well as some of those that Trudy lead. We, Dave Ambrose, Jack Zeiders, Debbie Moore and myself, went on a graze last autumn that didn't turn out to well, but I feel we gained much valuable experience for making future grazes possibly turn out more successful. Lets all hope that we can call a successful graze expedition in memory of Trudy E. Bell's past efforts.

Thank you. Trudy has articles in both the July issues of Sky & Telescope and Astronomy Magazines.

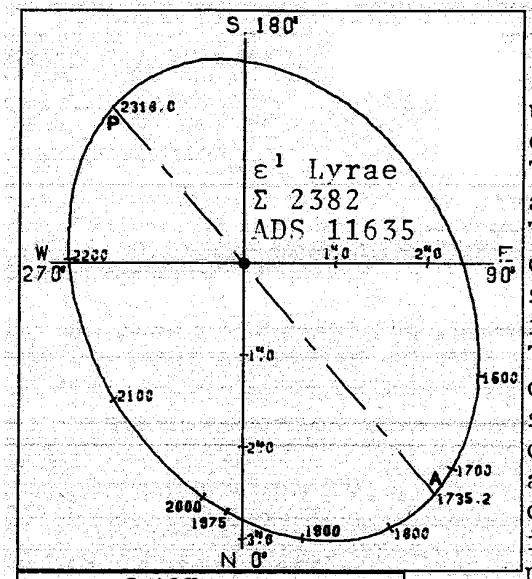
That is about it for Rattley Rattles this time. Good seeing, till next time . . .

Astronomically Yours;
Gerald W. Rattley

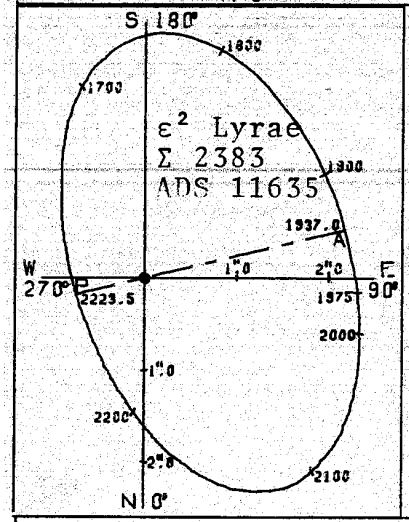
The Orbits of Visual Binary Stars . . contributed by Gerald W. Rattley

Elements of the orbits as listed in the Third Catalogue of the Orbits of Visual Binary Stars by W. S. Finsen and C. E. Worley, 1970.

star name	1975 pos RA	dec	P yrs	T yr	e	a "	i °	ω °	Ω °	authority (computer) name	date
ε^1 Lyr	18 44	+39 39	1166	1152	.19	2.78	138	166	29	(see text)	1956
ε^2 Lyr	18 44	+39 36	585	1645	.49	2.95	121	92	17	(see text)	1956
β 648	18 56	+32 52	61	1911	.25	1.24	115	279	48	(see text)	1939



Epsilon[12] Lyrae; Σ I 37 (ADS 11635); this is the famous double-double, visable to the unaided eye as a funny looking star 1½° ne of Vega, which some people can see as double. These two stars are relatively fixed 208" apart in PA 173° with both stars sharing cpm. The northern star is Epsilon[1], Σ 2382, with components of magnitudes 5.1 and 6.0 and spectra A2 and A5. The brighter component is suspected of being a spectroscopic binary. The southern star is Epsilon[2], Σ 2383, with components of magnitudes 5.1 and 5.4 and spectra of A3 and A5. There is little color contrast in either of these two pairs, with all the components appearing as off-white colors. The authority for these two orbits is U. Guntzel-Lingner. Both orbits are premature as neither star has been observed through an entire orbit as yet. More information about observing the double-double can be obtained from various sources, including Webb's "Celestial Objects for Common Telescopes".



Ephemerides for each of the three orbits:

yr	Σ2382,	ε^1 Lyr	Σ2383,	ε^2 Lyr	β 648,	Lyra
1975	356°.6	2".71	86°.0	2".32	74°.8	0".69
1980	355.4	2.68	83.8	2.34	51.2	1.08
1985	354.2	2.66	81.7	2.36	36.8	1.15
1990	352.9	2.63	79.5	2.38	21.0	1.00
1995	351.7	2.60	77.5	2.40	356.6	0.77
2000	350.4	2.57	75.4	2.42	317.5	0.66

β 648 (ADS 11871) in Lyra; this is a fine rapid binary which is visable to amateur instruments through most of its orbit. The magnitudes of the components are 5.3 and 7.7 with the spectra being G0 and K5, making for colors of yellow and dusky orange. There are two maxima and minima in each revolution of this system, and in the current cycle a minima, 0".4, was passed in 1971 and the other, 0".7, is due in 2000. The maxima are, 1".2, due in 1984 and, 1".3, due in 2019. Apastron will be passed in 2002 and the next periastron passage is due in 2033. The average true separation of the two stars in orbit is about 19½ A.U. (the Sun to Uranus). The authority for this orbit is G. V. Schrutka-Rechtenstamm.