

THE NOVAC CORONA

to observe and to
help others observe

THE NOVAC QUARTERLY NEWSLETTER

Issue No. 6

October 1985

President, Nils Thomas 323-7476
Treasurer, John Huggins 644-4331
Secretary, Blaine Korcel 256-4430

FROM THE PRESIDENT'S DESK

Thomas

This is going to be a long winded column so please try not to fall asleep. A year or so after we were founded, I promised the members that constitution and formal organization would occur after we had thirty members. We now have greater than thirty members. Attached to this newsletter is a copy of my version of a constitution. Think about what you would like in a constitution. Propose your own version of a constitution. Here is the method I propose for creating a constitution.

Any and all members may write a version due by November 30, 1985; send them to me! Copies of all versions will be sent to all members by December 15, 1985. A vote will be held by mail ballot commencing January 15, 1986. All returned ballots will be counted on February 28, 1986. The winning constitution takes effect March 1, 1986. This scenerio needs to be approved at the October meeting. Please attend.

On another foot no one, to my knowledge, has seen Halley's Comet yet. Larry Bohlayer thought he did but a comparison of star charts showed the object to be Giacobini-Zinner, I have seen G-Z myself on the morning of the 24th. What's wrong with you people? I thought I would here a dozen reports of Halley's sightings.

One major reminder (you will also receive a phone call), please be at the public observing session on October 11. We need as many commitments as possible. Good luck and good observing.

OBSERVING IN THE CANADIAN ROCKIES

Dr. Gerald Perman

I recently spent a two week vacation in the Canadian Rocky Mountains and brought along my Meade LX3 8" reflector. I thought I would share some of my experiences with you in the event that other club members might consider traveling with their telescopes.

My wife and I flew out to Seattle, Washington where we rented a car for the drive into Canada. I packed the scope in its trunk, using the original styrofoam packing material, and supplemented this with some clean rags. I then packed the trunk in its original cardboard box. I removed the finder scope from its mounting and carried it separately. Also, I brought along my Tuthill "mini-mount" in place of my standard mount, and this served me excellently. We traveled Northwest Orient, and there was no additional fee for taking the telescope along. It would have cost \$20.00 if the scope weighed over 70 lbs. The telescope made the plane flight without incident, except that the finder-scope mounting jiggled loose. On the return flight, I removed this and carried it separately.

We arrived in Seattle the evening of August 10 and there was a beautiful, clear, pollution-free sky. Because of the northern latitude - even more so in Canada - the skies didn't get fully dark until after 10 P.M., c.f. at the North pole in the summer there are six months of daylight. The clear nights we had in Seattle were somewhat unusual, since it often drizzles and is overcast. It is affectionately known by its residents as the slug (as in snail) capital of the world.

We then drove through Kamloops, British Columbia to Jasper, Alberta in the Rocky Mountains of the Canadian National Park. From there, our most northern destination, we drove south through the Columbia Icefields and on to Lake Louise and Banff, from whence we headed back to Seattle. In all we logged 2,200 miles in our rented car. I had been told that my most precious possession on my trip to the Rockies would be a can of insect repellent. This proved not to be the case at all, though I am not sure why. The temperature dipped down considerably at night - perhaps reaching 32 degrees in the Columbia Icefields - and this might have been a factor. It was only after leaving the Rockies that mosquitos became a nuisance. Also, dew was only a problem one night when I was observing alongside a lake next to some woods.

The skies in the mountains were impeccable. The Milky Way stretched from one horizon to the other and was dazzling. The weather proved to be excellent on our trip, raining two days out of the two weeks. Its most notable characteristic, about which we heard ^over and over again, is its tendency to change with extreme rapidity.

I did not bother observing galactic star clusters at all since the concentration of stars was so dense. M-13, the globular cluster in Hercules, and M-31, the great spiral galaxy in Andromeda, were easily visible with the naked eye. The latter took up almost the entire field in a pair of binoculars at 15X. For the first time (although I have only been at this for six months since I was a teenager 20 years ago) I easily saw the Little Dipper and was impressed with how large it actually is. One night I made a list of spiral galaxies, globular clusters and planetary nebulae in Ursa Major, Canes Venatici, Hercules, and Ophiuchus and then picked them off easily one after another, finally stopping because of the cold. These included M101, M108, M109, M3, M51 (quite striking - easily seeing the filamentous arms of the Whirlpool Galaxy, requiring only a pinch of imagination), M63, M94, M106, NGC 4244, NGC 4631, NGC 4656, M91, M9, M10, M14, and M19. I couldn't find the planetary nebula NGC 6210, nor the planetary NGC 6543, at least not on the first night I tried. The latter is described in the Sky and Telescope list of "50 Best Deep Sky Objects",

and when I found that by increasing the power on the hazy bluish-green "star" where the planetary nebula NGC 6543 was supposed to have been, as the size increased, I realized I had actually seen it on my first attempt. I was unable to identify the Veil Nebula, however. I took a number of photographs of the Milky Way star clouds, especially in the region of Sagittarius, piggy-backing my Olympus OM-2S camera onto my LX3 and operating the clock drive from the car battery. Since we had been in Seattle the night of August 11, we observed and took pictures of the Perseid meteor shower. It did not seem to produce the 50-90 meteors per hour that some had predicted, although we watched only from about 10:30 P.M. until midnight, and were on the grounds of a school with some street light interference.

On the return trip, we spent a day in Victoria on Vancouver Island, and visited the Dominion Astrophysical Observatory with their three reflectors, the largest being 1.8 meters. They finished the grinding and polishing of the 3.7 meter mirror for the Canada-France-Hawaii telescope at Mauna Kea, Hawaii. The Dominion Observatory, engaged primarily in spectroscopic research on binary stars, is open to the public on Saturday evenings. Hence, if you are planning to visit Victoria, you may want to time your trip accordingly. On our trip, we stayed mostly at bed-and-breakfast accommodations and I would be happy to provide references to those of you who are interested.

I am awaiting the development of my photos and recommend to any of you planning to visit the Rockies in Canada to "bring your scope."

TREASURER'S REPORT

Huggins

I would like to welcome all the new members to our organization. They are:

W. Larry Bohlayer
Stan Gority
Jenny Gority
Tarrin Lupo
Ray Lupo
Nick Jones
Mike Partain
Jim Liles
Richard Rathael

As of 85/10/10 we have 252.52 dollars in the can. I am going to start to collect dues on a yearly basis instead of every six months. I'll start this next January, therefore DUES ARE DUE JANUARY 1.

I still don't have July '85 dues from some people. I will deal with them personally. Those who don't pay dues will be deleted from the membership.

I am going to open a savings account at Suburban Savings & Loan on November 1. This is to get the money out of my account. This sounds a little strange, but I am sick of receiving checks made out to NOVAC or Northern Virginia Astronomy Club instead of John Huggins. You guessed it, I can't sneak these checks into my account anymore. So for those of you that made this mistake, I still have your checks. They'll be deposited November 1. If you know of a better bank with a low minimum, Call Me Please by Halloween.

HALLEY'S COMET

Korcel

As everyone is well aware, Halley's Comet is approaching the sun very rapidly. I have enclosed more ephemeris data ranging from November through early February. Data for the rest of October can be found in last quarter's Corona. Those persons who are interested in going to the mountains to photograph Comet H on November 16, should call Blaine Korcel and make arrangements. My phone number is listed on the front cover. This will mainly be a photographic session and will last until dawn!

YR	MN	DY	HR	J.D.	R.A. (1950)	DEC.	R.A.	APPN	DEC.	DELTA	DELDTOT	R	RDOT	TMAG	NMAG	THETA	BETA	NO
1925	11	1	0	2446370.5	5 22.281	+21 48.18	5 24.435	+21 50.22	1.07	-48.73	1.92	-24.42	8.8	15.7	136.8	20.7	9	
1925	11	2	0	2446371.5	5 18.354	+21 52.55	5 20.513	+21 54.78	1.05	-48.02	1.91	-24.48	8.7	15.6	138.7	20.1	6	
1925	11	3	0	2446372.5	5 14.175	+21 56.73	5 16.331	+21 59.18	1.02	-47.24	1.89	-24.54	8.6	15.5	140.6	19.4	18	
1925	11	4	0	2446373.5	5 9.717	+22 0.69	5 11.874	+22 3.36	.99	-46.40	1.88	-24.59	8.5	15.4	142.7	18.7	31	
1925	11	5	0	2446374.5	5 4.967	+22 4.33	5 7.124	+22 7.25	.96	-45.50	1.86	-24.65	8.4	15.4	144.7	17.9	44	
1925	11	6	0	2446375.5	4 55.909	+22 7.57	5 2.065	+22 10.74	.94	-44.52	1.85	-24.70	8.3	15.3	146.9	17.0	58	
1925	11	7	0	2446376.5	4 54.523	+22 10.30	4 56.679	+22 13.75	.91	-43.46	1.84	-24.76	8.2	15.2	149.2	16.1	72	
1925	11	8	0	2446377.5	4 48.793	+22 12.41	4 50.948	+22 16.15	.89	-42.32	1.82	-24.82	8.1	15.1	151.5	15.1	87	
1925	11	9	0	2446378.5	4 42.702	+22 13.77	4 44.854	+22 17.80	.86	-41.09	1.81	-24.87	8.0	15.1	153.9	14.0	103	
1925	11	10	0	2446379.5	4 36.232	+22 14.20	4 38.342	+22 18.56	.84	-39.76	1.79	-24.93	7.9	15.0	156.4	12.8	119	
1925	11	11	0	2446380.5	4 29.369	+22 13.63	4 31.516	+22 18.25	.82	-38.33	1.78	-24.99	7.8	14.9	158.9	11.5	135	
1925	11	12	0	2446381.5	4 22.098	+22 11.63	4 24.241	+22 16.67	.80	-36.79	1.76	-25.04	7.7	14.8	161.6	10.2	152	
1925	11	13	0	2446382.5	4 14.410	+22 8.21	4 16.547	+22 13.62	.78	-35.13	1.75	-25.10	7.6	14.8	164.4	8.8	169	
1925	11	14	0	2446383.5	4 6.295	+22 3.08	4 8.426	+22 8.86	.76	-33.36	1.74	-25.16	7.5	14.7	167.2	7.3	183	
1925	11	15	0	2446384.5	3 57.750	+21 55.99	3 59.875	+22 3.16	.74	-31.47	1.72	-25.21	7.4	14.6	170.1	5.7	196	
1925	11	16	0	2446385.5	3 48.777	+21 46.68	3 50.855	+21 53.26	.72	-29.45	1.71	-25.27	7.3	14.5	173.1	4.0	209	
1925	11	17	0	2446386.5	3 39.387	+21 34.93	3 41.443	+21 41.91	.70	-27.30	1.69	-25.33	7.2	14.5	176.0	2.4	223	
1925	11	18	0	2446387.5	3 29.590	+21 20.46	3 31.686	+21 27.66	.69	-25.03	1.68	-25.38	7.1	14.4	177.7	1.0	237	
1925	11	19	0	2446388.5	3 19.411	+21 3.08	3 21.495	+21 10.89	.67	-22.64	1.66	-25.44	7.0	14.3	175.9	2.4	252	
1925	11	20	0	2446389.5	3 8.481	+20 42.57	3 10.952	+20 50.80	.66	-20.13	1.65	-25.50	7.0	14.3	172.8	4.3	267	
1925	11	21	0	2446390.5	2 58.040	+20 18.80	3 0.096	+20 27.44	.65	-17.52	1.63	-25.55	6.9	14.2	169.3	6.4	281	
1925	11	22	0	2446391.5	2 46.935	+19 51.67	2 48.975	+20 7.71	.64	-14.81	1.62	-25.61	6.8	14.2	165.7	8.7	297	
1925	11	23	0	2446392.5	2 35.621	+19 21.16	2 37.645	+19 30.59	.63	-12.03	1.60	-25.67	6.8	14.1	162.0	11.0	312	
1925	11	24	0	2446393.5	2 24.161	+18 47.34	2 26.168	+18 57.13	.63	-9.19	1.59	-25.72	6.7	14.1	159.3	13.3	327	
1925	11	25	0	2446394.5	2 12.619	+18 10.35	2 14.609	+18 20.48	.62	-6.31	1.57	-25.78	6.6	14.1	156.5	15.7	342	
1925	11	26	0	2446395.5	2 1.065	+17 30.42	2 3.037	+17 40.86	.62	-3.43	1.56	-25.83	6.6	14.0	150.7	18.1	357	
1925	11	27	0	2446396.5	1 49.566	+16 47.86	1 51.522	+16 54.58	.62	-0.55	1.54	-25.89	6.5	14.0	146.9	20.5	372	
1925	11	28	0	2446397.5	1 37.189	+16 3.02	1 40.129	+16 14.01	.62	2.29	1.53	-25.94	6.5	14.0	143.0	22.8	387	
1925	11	29	0	2446398.5	1 26.996	+15 16.35	1 28.920	+15 27.56	.62	5.07	1.51	-25.99	6.4	14.0	139.2	25.2	402	
1925	11	30	0	2446399.5	1 16.043	+14 28.29	1 17.953	+14 39.69	.63	7.77	1.50	-26.05	6.4	14.0	135.5	27.5	417	
1925	12	1	0	2446400.5	1 5.379	+13 39.29	1 7.275	+13 50.87	.63	10.37	1.48	-26.10	6.4	14.0	131.7	29.7	432	
1925	12	2	0	2446401.5	0 55.043	+12 49.83	0 56.924	+13 1.54	.64	12.85	1.47	-26.15	6.3	14.0	128.1	31.9	447	
1925	12	3	0	2446402.5	0 45.067	+12 3.33	0 46.940	+12 12.14	.65	15.20	1.45	-26.20	6.3	14.0	124.5	34.0	462	
1925	12	4	0	2446403.5	0 35.476	+11 11.14	0 37.339	+11 23.07	.66	17.40	1.44	-26.25	6.3	14.0	121.0	36.0	477	
1925	12	5	0	2446404.5	0 26.284	+10 22.72	0 28.138	+10 34.68	.67	19.47	1.42	-26.30	6.3	14.0	117.6	37.9	492	
1925	12	6	0	2446405.5	0 17.500	+9 35.26	0 19.347	+9 47.25	.68	21.38	1.41	-26.34	6.3	14.0	114.3	39.7	507	
1925	12	7	0	2446406.5	0 9.127	+8 49.03	0 10.967	+9 1.04	.69	23.14	1.39	-26.39	6.3	14.0	111.1	41.3	522	
1925	12	8	0	2446407.5	0 1.161	+8 4.22	0 2.996	+8 16.23	.70	24.75	1.38	-26.43	6.2	14.0	108.0	42.9	537	
1925	12	9	0	2446408.5	23 53.595	+7 20.97	23 55.425	+7 32.97	.72	26.22	1.36	-26.48	6.2	14.1	105.0	44.5	552	
1925	12	10	0	2446409.5	23 46.414	+6 39.38	23 48.244	+6 51.36	.73	27.55	1.35	-26.52	6.2	14.1	102.1	45.7	567	
1925	12	11	0	2446410.5	23 39.614	+5 59.50	23 41.439	+6 11.45	.75	28.75	1.33	-26.56	6.2	14.1	99.2	46.9	582	
1925	12	12	0	2446411.5	23 33.172	+5 21.37	23 34.994	+5 33.27	.77	29.81	1.32	-26.59	6.2	14.1	96.5	48.1	597	
1925	12	13	0	2446412.5	23 27.074	+4 44.97	23 28.993	+4 56.83	.79	30.76	1.30	-26.63	6.2	14.1	93.9	49.1	612	
1925	12	14	0	2446413.5	23 21.299	+4 10.29	23 23.118	+4 22.09	.80	31.59	1.28	-26.66	6.2	14.2	91.3	50.0	627	
1925	12	15	0	2446414.5	23 15.832	+3 37.27	23 17.650	+3 49.02	.82	32.31	1.27	-26.69	6.2	14.2	88.8	50.8	642	
1925	12	16	0	2446415.5	23 10.656	+3 5.88	23 12.475	+3 17.27	.84	32.94	1.25	-26.72	6.2	14.2	86.4	51.6	657	
1925	12	17	0	2446416.5	23 5.752	+2 36.04	23 7.572	+2 47.46	.86	33.47	1.24	-26.74	6.2	14.2	84.1	52.2	672	
1925	12	18	0	2446417.5	23 1.104	+2 7.69	23 2.924	+2 19.25	.88	33.92	1.22	-26.78	6.2	14.3	81.8	52.8	687	
1925	12	19	0	2446418.5	22 56.699	+1 40.75	22 58.515	+1 52.25	.90	34.29	1.21	-26.78	6.1	14.3	79.6	53.3	702	
1925	12	20	0	2446419.5	22 52.505	+1 15.15	22 54.330	+1 26.58	.92	34.58	1.19	-26.79	6.1	14.3	77.5	53.7	717	
1925	12	21	0	2446420.5	22 48.532	+0 50.82	22 50.353	+1 2.18	.94	34.80	1.18	-26.80	6.1	14.3	75.4	54.0	732	
1925	12	22	0	2446421.5	22 44.748	+0 27.67	22 46.571	+0 38.96	.96	34.96	1.16	-26.81	6.1	14.3	73.4	54.3	747	
1925	12	23	0	2446422.5	22 41.145	+0 5.63	22 42.969	+0 16.86	.98	35.06	1.15	-26.81	6.1	14.3	71.5	54.5	762	
1925	12	24	0	2446423.5	22 37.710	+0 15.36	22 39.535	+0 4.20	1.00	35.10	1.13	-26.80	6.1	14.3	69.5	54.6	777	
1925	12	25	0	2446424.5	22 34.431	+0 35.37	22 36.257	+0 24.28	1.02	35.09	1.11	-26.79	6.0	14.4	67.6	54.7	792	
1925	12	26	0	2446425.5	22 31.296	+0 54.48	22 33.124	+0 43.45	1.04	35.02	1.10	-26.77	6.0	14.4	65.7	54.7	807	
1925	12	27	0	2446426.5	22 28.296	+1 12.74	22 30.125	+1 1.77	1.06	34.91	1.08	-26.74	6.0	14.4	63.9	54.6	822	
1925	12	28	0	2446427.5	22 25.420	+1 30.22	22 27.251	+1 19.31	1.08	34.76	1.07	-26.71	6.0	14.4	62.1	54.5	837	
1925	12	29	0	2446428.5	22 22.660	+1 46.96	22 24.492	+1 36.12	1.10	34.56	1.05	-26.67	5.9	14.4	60.4	54.3	852	
1925	12	30	0	2446429.5	22 20.006	+2 3.03	22 21.839	+1 52.25	1.12	34.31	1.04	-26.62	5.9	14.4	58.7	54.1	867	
1925	12	31	0	2446430.5	22 17.450	+2 18.48	22 19.285	+2 7.75	1.14	34.03	1.02	-26.56	5.9	14.4	57.0	53.8	882	
1926	1	1	0	2446431.5	22 14.965	+2 33.34	22 16.822	+2 22.64	1.16	33.71	1.01	-26.49	5.8	14.4	55.3	53.4	897	
1926	1	2	0	2446432.5	22 12.603	+2 47.69	22 14.442	+2 37.08	1.18	33.35	.99	-26.41	5.8	14.4	53.7	53.0	912	
1926	1	3	0	2446433.5	22 10.299	+3 1.54	22 12.138	+2 50.99	1.20	32.96	.98	-26.32	5.7	14.4	52.0	52.6	927	
1926	1	4	0	2446434.5	22 8.064	+3 14.95	22 9.905	+3 4.46	1.22	32.52	.96	-26.22	5.7	14.4	50.4	52.1	942	
1926	1	5	0	2446435.5	22 5.896	+3 27.86	22 7.737	+3 17.27	.84	32.05	.95	-26.10	5.7	14.4	48.9	51.5	957	
1926	1	6	0	2446436.5	22 3.783	+3 40.68	22 5.627	+3 30.22	1.23	31.55	.93	-25.96	5.6	14.4	47.3	50.9	972	
1926																		

EVENT SCHEDULE THIS QUARTER

October 13, Sunday, Manassas Observation
20, Sunday, Orionid meteor shower associated with Halley's
27, Sunday, End EDT start EST
30, Wednesday, NOVAC MEETING AT KINGS PARK LIBRARY CALL
644-4331 FOR DIRECTIONS

November 9, Saturday, Manassas Observation
16, Saturday, Public Halley Watch at Burke
Halley Photo Session At Skyline Drive

December 13, Friday, Manassas Observation
25, Wednesday, Christmas Day!!!

Handwritten: 179
9/78-5200

1986 OBSERVING SCHEDULE

January 10, Friday,
February 8, Saturday,
March 7, Friday,
April 5, Saturday,
May 9, Friday,
May 10, Saturday,
June 7, Saturday,
July 11, Friday,
August 9, Saturday,
September 5, Friday,
October 9, Saturday,
October 31, Friday,
November 29, Saturday.

COMPUTERS Huggins

For those of you that have computers at home I am interested in obtaining astronomy programs of any kind that I can distribute to others. If you have any, please feel free to give the info number a call at 644-4331 and tell me about them. I have a few of my own that I'm willing to share with anyone that has an Apple II or //e. I have a modem and can download by text files to you.

If you have an idea that you would like to add to the next newsletter, you can download them to me with your modem. Just type the paragraphs with a five space indent on your word processor. Then call me up and we'll arrange a time to transfer files.

The potential of computers is great and applications in astronomy and NOVAC makes them uniquely useful. If your interested in this subject, call.

OBTAINING PROPER POLAR ALIGNMENT

Korcel

Several members have asked me how to get the best and fastest polar alignment. I have decided to share with everyone my method of obtaining proper polar alignment taught to me by our own Richard Lawson. This method with a little practice can give you reasonable polar alignment within one half hour. I have been lucky and have once obtained near perfect alignment in only 15 minutes.

First, you need an illuminated crosshair eyepiece and a lot of magnification, 200X or more, most easily achieved by using a 2X or 3X barlow lens. Next, balance the scope perfectly and roughly align your R.A. axis towards Polaris. Choose a bright star within 10 to 20 degrees of the equator lying near the meridian. Now align your crosshairs west and east. More accurately, shut the drive off and align the crosshairs so that the star drifts parallel to one of the hairs. Next, turn on the drive and adjust the R.A. tracking speed, if your able to, so that the star does not drift east or west. Allow the scope to sit until you can perceive that the star is drifting north or south. If the star drifts northward, your scope is west of the pole. Move your scope slightly in azimuth towards the east. Remember that as your adjustments get you closer to the pole, the star will drift slower and you must wait longer to detect a north-south drift. If the star drifts south, you are east of the pole and you must turn the mount towards the west. Repeat this until no drift can be seen.

After you have passed this test, you must choose a star 20 degrees above the east or west horizon. Now again adjust your crosshairs east-west as you did before so that the star drifts parallel when the drive is turned off.

Suppose you choose a star in the west. If it drifts northward, you are now below the pole. Adjust your scopes altitude upward making sure you do not change the azimuth and repeat until no stardrift is perceived. If it drifts southward, you are above the pole. Lower the scopes altitude and again repeat this test until no drift is seen.

If you choose the eastern horizon, reverse the directions, i.e. southward drift means you are below the pole and you must raise the scope's altitude. Northward drift means you are above the pole.

If your telescope uses an even number of mirrors, such as a Newtonian, the star will appear to drift in the opposite direction than given above, due to the inverted image formed by such. Therefore, where you would be looking at a northward drift, you would actually be seeing a southward drift because of the inverted image.

After you have finished, you will then be ready for photography. Good luck and remember, "Practice makes perfect." Happy hunting!

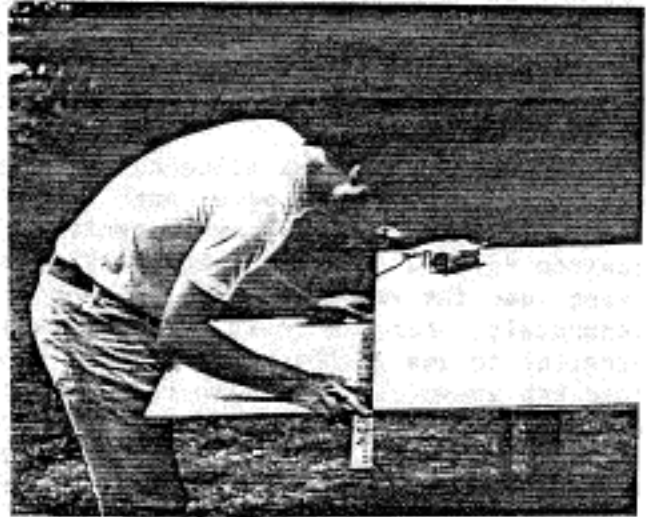
LIST OF BRIGHT STARS

<u>name</u>	<u>RA</u>	<u>Dec</u>	<u>mag</u>
Hamal	2h 10.2m	+23 28m	2.0
Aldebaran	4 35.9m	+16 31	0.9
Rigel	5 14.5m	- 8 12	0.1
Sirius	6 45.1m	-16 43	-1.5
Regulus	10 8.4 m	+11 58	1.4
Vega	18 37.0m	+38 47	0.0
Altair	19 50.8m	+ 8 52	0.8
Markab	23 4.8m	+15 12	2.5

ANOTHER ACHIEVEMENT IN ATM

Thomas

A slightly damaged 12 1/2 inch mirror was given to me. The focal ratio is f/2.5. I put together a "quicky" mount for Halley's Comet. The tube is square and the mount is a Dobsonian. Blaine shot a few photos of the construction. Some of you have seen the results at the past observing session. The telescope has a few problems which will eventually be worked out. The net cost of the materials were approximately forty dollars and it took a total of ten to fifteen hours, spread over a few weeks, to build.



EDITORIAL

Korcel

I am happy to see that our membership has reached 37. With our increasing numbers we have scheduled an increasing number of events both public and private in the hopes of spreading our name and what the club does to more people over a wider area. These events are outlined in the calendar section. Let's see everyone attend.

First, a correction must be made from last quarter's Corona. On the bottom of page 7 it should read, "Reprinted with permission from the Astronomical Calendar." Sorry for the error.

Next, I would like to thank Dr. Gerald Perman for sharing with us his experiences in the Canadian Rockies. We here at the editing "Apple" enjoyed it tremendously.

I have received a number of calls regarding editorial improvements. I hope I have made due improvements this time around. Thanks for keeping me on the ball.

THE NOVAC CORONA may be reproduced with credit given to the Northern Virginia Astronomy Club.

The Corona deadline is the 15th of the preceding month. For more information regarding club activities call (703) 644-4331. Send all material regarding the club including that for publication to Blaine A. Korcel, 5401 Danville Street, Springfield, Virginia 22151.