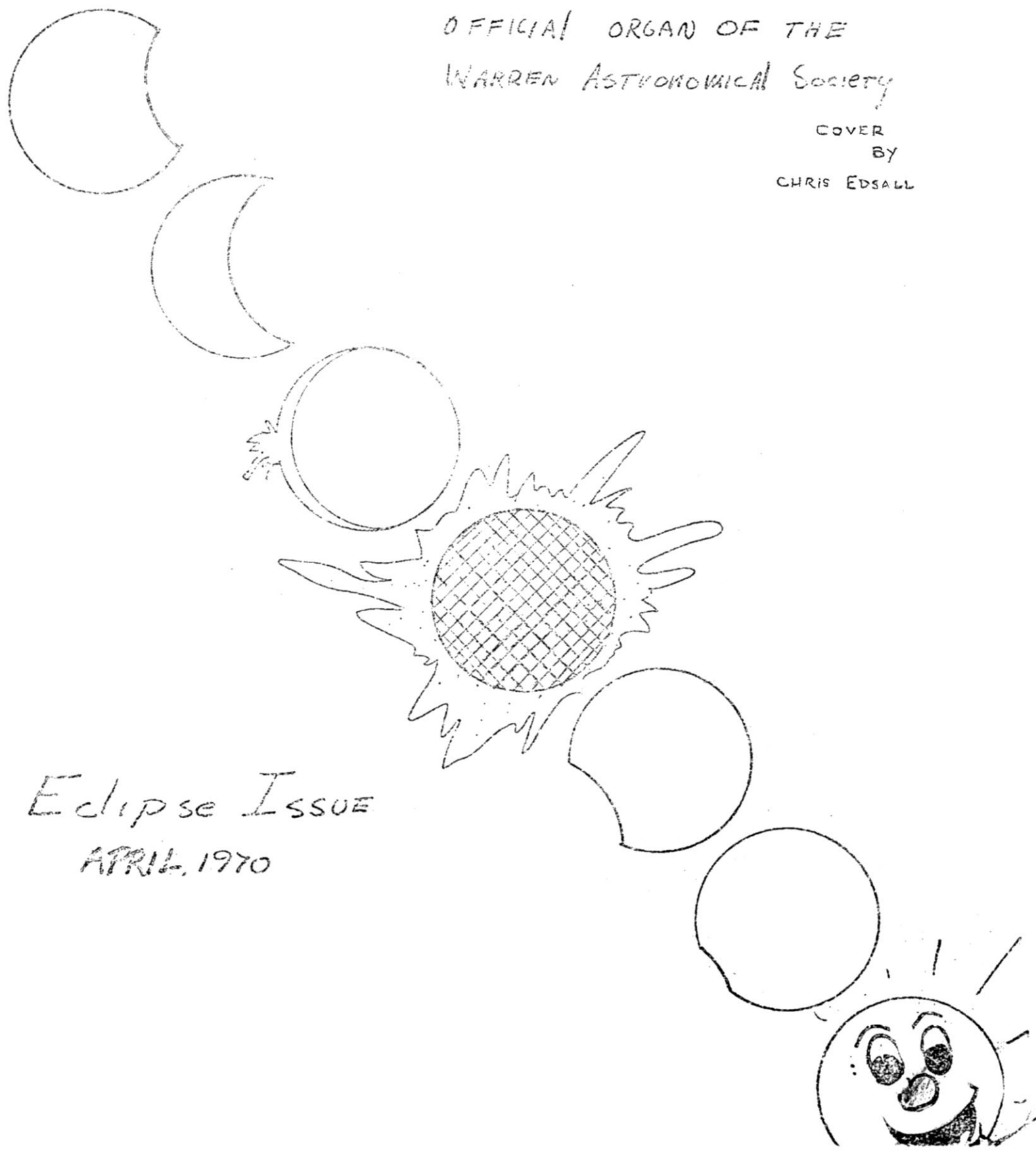


THE WASP

OFFICIAL ORGAN OF THE
WARREN ASTRONOMICAL SOCIETY

COVER
BY
CHRIS EDSALL



Eclipse Issue
APRIL, 1970

RADIO TELESCOPE REPORT

by James Trombly

The radio telescope the club knows has proved its efficiency in Perry, Florida. During totality the sun dropped its radio flux by one-half for the meter wave length, but it only dropped one-eighth in my recordings. This was due to the fact that my antennae had limited gain. My antennae had excellent resolving power and this helped conditions.

The happenings of the eclipse will be described in detail at the presentation.

INTERPRETATION OF CHART

LEFT: after first contact

UPPER RIGHT: approaching second contact

BOTTOM LEFT: approaching totality

BOTTOM MIDDLE: totality

BOTTOM RIGHT: after totality

MEYER WAREHOUSE

Total

SALES

CHANGE NOTED

2000

ADDITIONAL RESTORING

OF

CON

74455

MEYER

SLOW LECTURE

0.5

METER UNAVAILABLE

Total

CASH ON HAND

2500

ADMINISTRATIVE COSTS

1000

Box 1000
NEW YORK
STREET

0.1

LATE NEWS FLASHES

By Martin Miron

PERRY, FLA., Biological experiments with animals and during the recent solar eclipse, to determine possible effects of the phenomenon upon terrestrial life forms have yielded no conclusive results as yet. The only noticeable reaction to the eclipse was the tendency of most of the animals to fall asleep and the plants to fold their blossoms. Three chipmunks in Mexico even began to burrow into a stale enchilada to hibernate.

These observations turned out to be caused by the belief of the not-too-intelligent creatures that night had fallen, so they only doing what comes naturally. No cases of illness or abnormal behavior among the test subjects were recorded.

However, the records of the ABM Memorial hospital in Perry, Florida revealed that immediately after the eclipse, fourteen of the researchers were treated for retinal burns inflicted by staring at the sun. Three required first-aid for cuts and scratches from stumbling over shuttered mirrors and broken beer bottles in the darkness and two more suffered serious laceration when they became entangled in the antenna wires of a homemade radio-telescope.

WASHINGTON D.C. - President Nixon today revealed NASA plans for an unmanned "grand tour" of the outer planets of the solar system. Because of recent budget cuts in the space program, Nixon explained that the mission will be financed through a 6% potato chip tax, and the sale of astronaut bubble gum cards.

The president was disappointed when he learned that the flight would be unmanned, as he planned to send Vice-President Agnew along on a fact-finding tour. Space officials agreed that such an arrangement would not be feasible in any case, since Mr. Agnew's presence would undoubtedly cause the spacecraft to swing far to the right.

Camp Rotary, MICH - An unconfirmed UFO sighting was reported here today, as record gale force winds swept through the central section of the state. Mr. B. S. Goldwater was tying down his small single engine plane when he claims to have seen "a silver dome shaped thing" traveling in a wobbly arc over the surrounding meadows.

Goldwater also said that he saw two strange creatures near the UFO. In his own words: "Them critters, there was two of 'em, and they was chasin' that flyin' thing like it musta got away from 'em while they was lookin' around for some people to fry.

They was prob'ly fixin' to fry 'em with these long shiny white tube things they was carrying – disseminator rays, or somethin' like that. Well, I figgered if they saw me lookin' at 'em, they'd fry me, too, so I ran and hid just as fast as I could.”

Upon further questioning, Goldwater admitted that the creatures he saw did resemble human figures, but said that he was too far away to make a positive identification. Authorities also became concerned over the presence of corn liquor on the observer's breath, but he insisted that the intoxicant was imbibed after the incident.

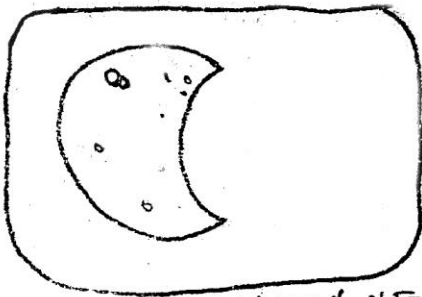
A preliminary report by a team of scientific investigators from Selfridge Air Force Base and Macomb County Community College stated that the probable cause of the entire incident was sewer gas, escaping from an abandoned gopher hole. The team had planned to gather data over an extended period of time, but had to leave early, to attend an eclipse in Perry, Florida.

HOUSTON, TEX – In light of recent investigations into possible health hazards presented by unregulated foods and additives, astronaut diets are being revised to exclude such substances, until tests are completed.

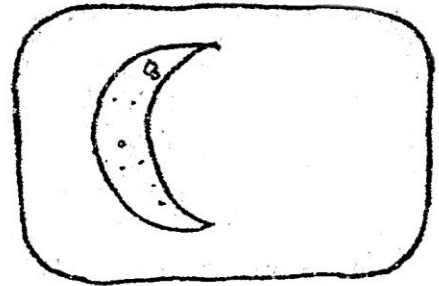
Among the banned items are cyclamates, MSG, saccharin, iodized salt, sugar, cranberries, tune fish, vegetables sprayed with DDT, and diseased or tainted meat.

Dr. C. D. Cook, chief NASA dietician, suggested that spacemen consume nothing but bread and water during flight. But t ws pointed out that yeast, leavening, and bleched flour were all suspect ingredients, and that the ovens used dangerous microwave radiation to bake the bread. Water was accepted by most officials, on the condition that it be purified, distilled, and stored in sterile containers.

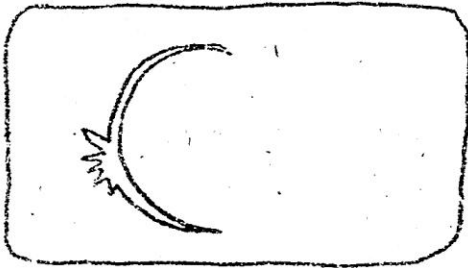
THAT'S ALL, FOLKS



"THE CBS TELEVISION NETWORK IS PROUD TO BRING YOU THIS LIVE BROADCAST OF THE 1970 TOTAL SOLAR ECLIPSE"



"THIS IS A VERY SPECIAL EVENT FOR MOST AMERICANS, AS THE NEXT ECLIPSE VISIBLE IN THE US. WON'T OCCUR FOR ANOTHER 54 YEARS"



"ONCE AGAIN WE REMIND VIEWERS NOT TO LOOK— WAIT! THERE'S THE BEAUTIFUL 'DIAMOND RING', WHICH MEANS THAT TOTALITY IS ONLY THREE SEC..."

AND NOW FOR A WORD FROM OUR SPONSOR

MM

OTHER ASTRONOMICAL BIGGIES FOR 1970

April 1- Flxnjaaft, Jupiter will experience a total eclipse of the Earth, as Titan, a moon of Jupiter, passes between the planets.

July 10- Phobos and Deimos collide. Amateur astronomers should watch for this one.

November 22 - Earth is destroyed by Halley's Comet. A once* in-a-lifetime experience. Don't miss it!

OBSERVATIONAL ASTRONOMY

SOLAR ECLIPSE

(The Trip I Can Never Forget)

The trip I am going to write about was one I can never really expect you to understand unless you have previously witnessed such a spectacle. It was a thing of beauty, astonishment, excitement, and utter confusion.

Our expedition consisted of Mr. Dyer, Mike Conroy, Tom Dignal, Rick Mouse and myself (Please forgive misspelling of names if there are any) I want to thank Mr. Dyer for making it possible for me to go.

We started out that Thursday night around 7:30 or 8:00. The following day we stopped at the Appalachian Trail in Tennessee. Later during the day we arrived at an airport in North Carolina called Ashland or Ashford, I'm not completely sure of the name. We found out the weather forecast there and we were discouraged from going to Perry. The weathermen suggested the coast and the best place was actually Greenville, North Carolina. No clouds were to move in till after 10 a.m. and even those were only to be high cirrus clouds which would not affect us. We drove on Friday night to Raleigh airport where the earlier report was confirmed. No clouds for Greenville! We arrived at Greenville at approximately 2:30 a.m. and slept the rest of the morning. We arose early Saturday morning and after having a quick breakfast we were on our way to find a spot to set up. We drove over to East Carolina University where the school was playing the event up big. Boy Scouts and members of the University passed out programs on the eclipse and told us where we could set up.

The morning started off warm and the atmosphere was that of excitement. It was hard to realize when I took a fast look at the sun, that the moon was right next to it pressing eastward. It was a morning in which Mike, Tom and I were almost unable to talk without the tone of our voices showing the excitement which was to come. We then left the university where we were to go to the University's football field a mile and a half away. When we arrived the sun appeared to march higher in the sky and the day became warmer. I was proud to represent the W.A.S. and so was Mike and Tom, and it was good to shake hands with people from Virginia, New York, Pennsylvania, Massachusetts, and still see people from Ohio, Minnesota and one car was from California. When we shook hands, it seemed we gained a sense of pride to display our club and state while it was the same for them. Telescopes and instruments were of all kinds, shapes and sizes. One man from Raleigh, N.C., used a ten inch reflector with a hand carved equatorial mount. Another man won an award in Sky and Telescope for building the best telescope and, recognizing the scope, Mike and I

went to talk to him. There were refractors from 4 inches to the smallest possible. Also set up were the shadow band screens, one of which was advertised in Sky and Telescope and Review of Popular Astronomy.

As the time flew by, I was set up with my 4½" reflector and a tripod mounted 35mm single lens reflex camera confident of my project and how I would carry it out. The time finally came when WWV and CH4 were giving off their signals and one man hollered, "First contact three minutes!" There was the scurrying and excited chatter of the spectators and camera bugs getting ready for the first sign of the coming spectacle. People manned their telescopes; others such as the spectators got their boxes with a hole in each and sat on the ground with them over their heads. Like a love sick pup I watched everyone instead of going to my scope. I heard someone holler "there it is!" I hurried to my scope to see a small crescent missing from the disk of the sun. I prepared my camera and telescope, excited for my first picture of the sun. This was my first time alone to operate a camera and I wasn't even sure my pictures would come out. The moon passed swiftly over the sun's surface yet not so swiftly that I couldn't do other things. The day became dimmer, the eerie sky was very evident. The temperature dropped a few degrees and though the sun rose higher in the sky the temperature was cooler than what we felt earlier. I changed from a t-shirt to a sweatshirt and before totality, a jacket. The sun was three fourths gone and again as in the first contact, the murmuring and rustling of people in their excitement was noticed. The sky grew darker and colder. I could see the bus load of kids from New York getting ready. News men and people from Sky and Telescope ended their picture taking of the people. The sky was a weird burnt yellow and the sun, when I looked at it, was a thin bright beacon of light. I hurried to set my tripod and camera to the eyepiece and snapped a couple of crescent shots of the sun. The excitement was almost unbearable, the sky was growing darker and it was happening fast. People began running and the noise was louder than ever, because they were so excited and dumbfounded. Most people didn't know really what was to happen -- it was almost frightening. I hurried to stand by my camera and scope. I began to shake like a leaf. I kept starrng at my eyepiece. I had taken the filter off for totality. What was left in my eyepiece was a small bright image, which told me it was still not time to look through and start shooting. I was almost scared half to death when as if something supernatural had descended on me—Shadow Bands!! Hundreds, maybe thousands! I never knew I would see these things, but there they were, flying across my feet. I was stunned. People screamed, "Shadow Bands!" I heard the words echo from every direction, then I heard Mr. Dyer holler, "Take your pictures. What are you waiting for, it's happening!" Yet I knew I couldn't because of the bright speck left in my eyepiece.

I looked up and it was beautiful, that's all I can say. Then the crowd broke into an astonished gasp and began to applaud as if it was natural instinct for them to do so. Instead of gawking at it, I began my work. I again was greeted with a fantastic surprise, there through the eyepiece and camera were the corona but most of all, there were the bright pink red prominences and flares which stuck out all over the hidden disk of the sun. I wish I could have had the chance over again to photograph. I shot pictures in rapid succession. I threw away the camera mount after I shot the corona and started shooting prominences. It was a spectacle I can never expect you to understand unless you have witnessed one, but it was majestic and breathtaking. I shook from head to toe, my heart beating like a boxer hitting a punching bag. I took my shots, looked up and saw the sun again. I raised my camera to shoot the sun, I saw Venus from the corner of my eye and as I pushed the button, the sun broke and it ended up lighting the sky faster than it had taken the light away. It was the fastest 2 minutes and 47 seconds of my life.

Frank McCullough

(Pictures
on
next
page)

NEW MEMBER TO JOIN W. A. S. ! ! ! !

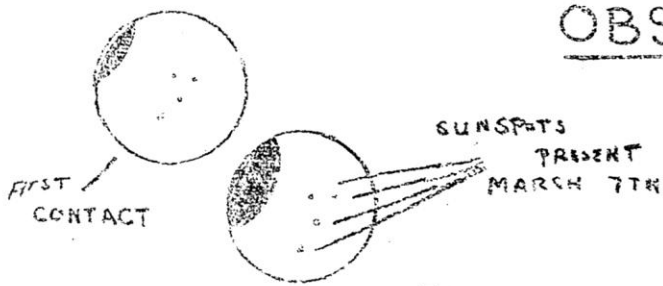
The Club would like to extend its congratulations and best wishes to Mr. and Mrs. Larry Kalinowski on the birth of their son Mark. We are confident that young Mark will grow up to be a great asset to the Warren Astronomical Society.

As a gift, the Club would like to present Mark with a subscription to the W.A.S.P. until he is old enough to say whether he wants to continue his subscription (or cancel it).

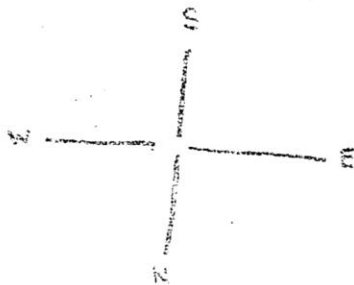
OBSERVATIONAL

ASTRONOMY

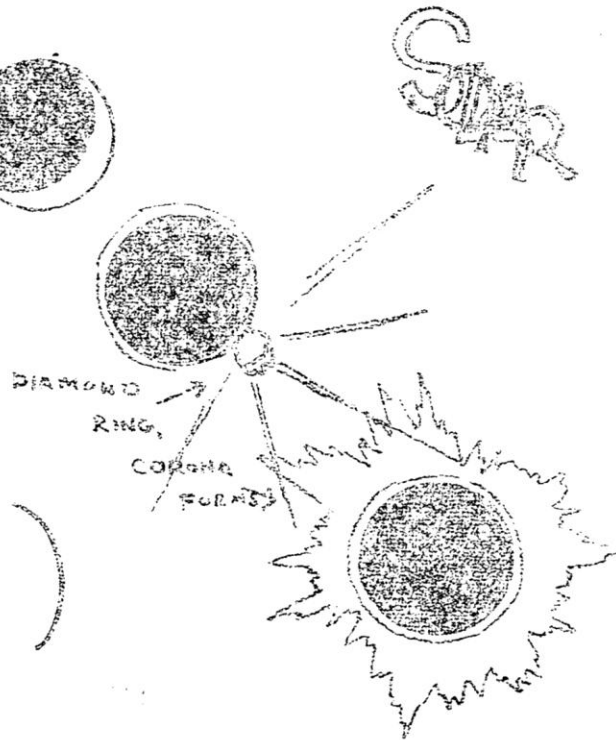
"Special Edition"



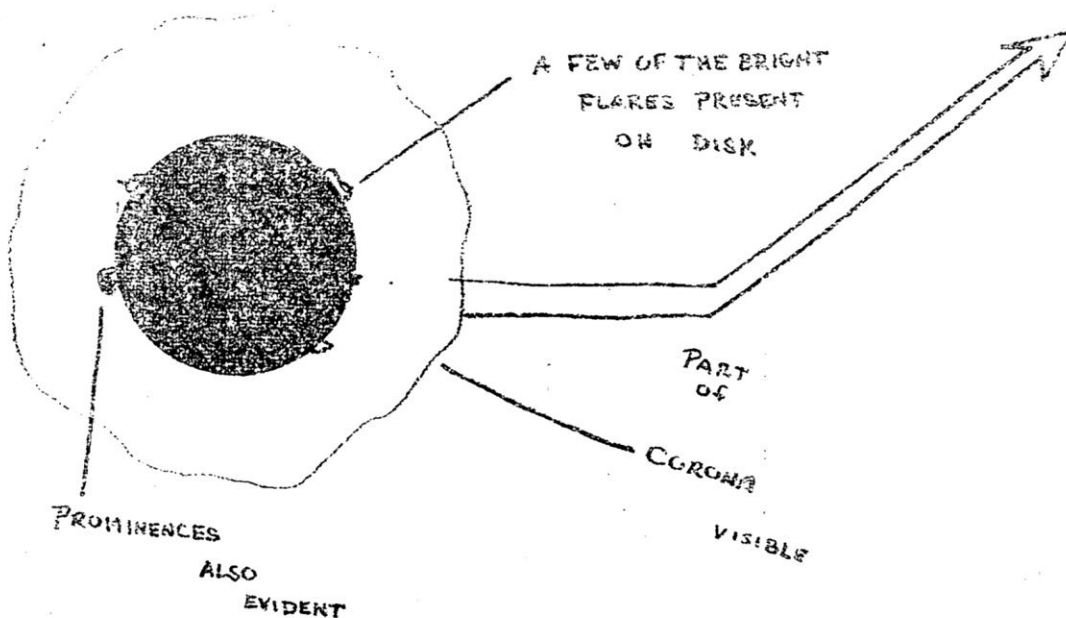
"PHASES of MOON and SUN BEFORE TOTALITY"



AS SEEN THROUGH A SMALL TELESCOPE AT LOW POWER



Star
Eclipse
1970



SIZE of DISK AT 45 4 1/2" REFLECTOR

PINK RED PROMINENCES and FLARES and PART of BRIGHT CORONA and CHROMOSPHERE

Frank McCullough

Eclipseville, USA

Through the Moon's shadow have you been?
If you ever go that way,
See if someone's in.

When we did, Jim Trombly, myself, and Dave Blake from the DAS rolled into beautiful downtown Perry in the afternoon of the Thursday before the eclipse. We agreed that the pouring rain felt good until we started one long hour of trying to pitch a tent in it.

Before getting into details of the expedition and experiments, something should be said for the town of Perry, Florida. Like the mystical town of Brigadoon that comes to life a single day every hundred years, we soon realized that the eclipse in Perry was the biggest thing that happened there since the town drugstore stopped selling Playboy magazines. They had been planning the activities for Saturday, March 7 for two years. Everyone in Perry, from the manager of the bowling alley on down had helped with the projection campaigns. Rumors were rolling around that Elvis Presley was going to perform at the dance Saturday night and that he would be staying at the hotel across the street from ours. That, we figured, was a little far out since the group that actually played was a local band called the Creamcheeze and that there was no hotel across the street from ours.

Friday was everyone's biggest day. More than half of our expedition had shown - up by then. Equipment was set up, adjusted and tested during the three rehearsals we had that day. The weather was warm and the sky was clear. By late that afternoon we were getting rather annoyed by all the crazy reporters that needed interviews. We were filmed (**missing text**)

(cont)

Any scale. They did two film stories on us. Part of one of them was shown on the Frank Reynolds evening news that night and the rest on their eclipse special on Saturday afternoon.

By this time, three other groups had set up at the Perry High School football field where we were. A portable dome with professional equipment owned by the Air Force in it was rolled in. They were set up to do prominence and flash spectrum photography. Three guys from Omaha were camped there with their equipment along with some people from Minnesota. The expeditions from Switzerland, England, Germany and Japan were said to be elsewhere in Perry.

Most of the people from the DAS were doing photography with many kinds of scopes, telephotos and cameras. Some of our other experiments were:

Temperature and barometric pressure variation readings

Overhead Light intensity variation

flash spectrum photography

Shadow Band photography

Radio emission from the corona and Sun's disk

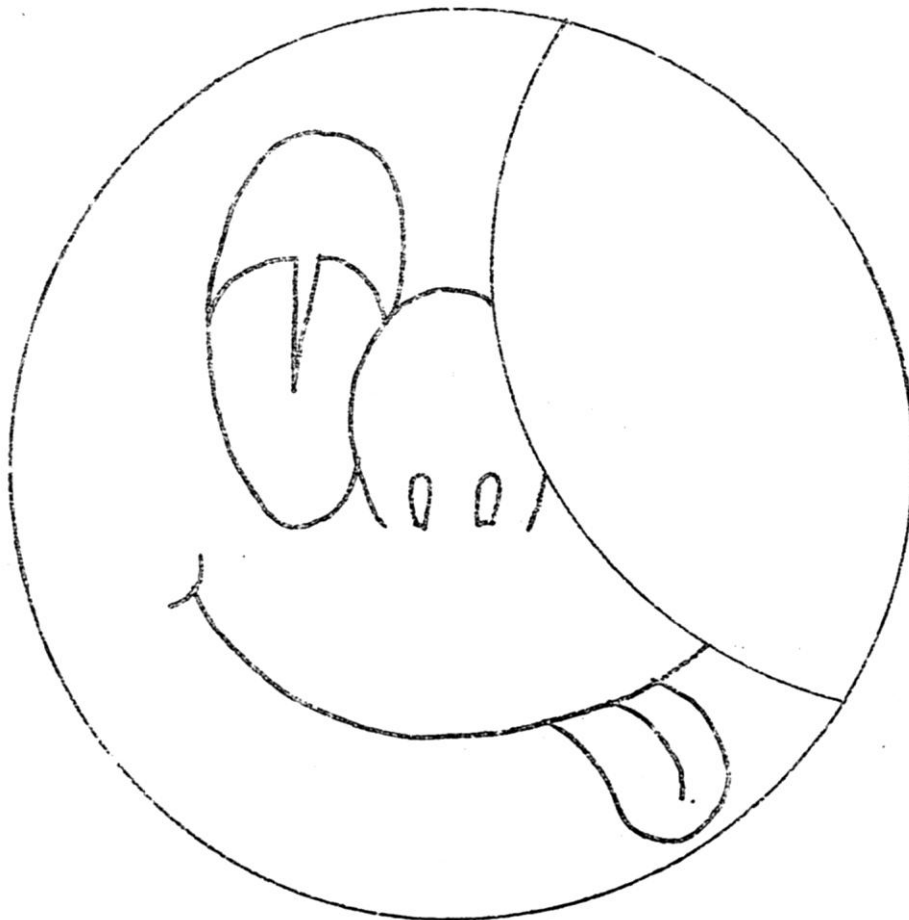
The radio emission experiments were conducted by Dave Blake operating in the (?)meter band and Jim Trombly with his interferometer at about 100MHz in the FM band.

We asked for it. By setting up all these experiments and putting years of work into them we had incurred the wrath of Murphy's Law, to wit:

"Anything that can go wrong will go wrong. And if it can happen at the worst possible time that is when it will happen."

Needless to say, the sky was beautiful the entire night. However, after my alarm clock had gently nuzzled us from our reverie. I knew that Mr. Murphy had been hard at work that night. At first I tried not looking at the sky at all but the light reflected from the gray mass of flocculence above told me that I would be bringing it all back home sooner than I expected.

Chris Edsall



Perry, Florida

Mr.King of the world.

Trouble Maker, Stacker of Money.

Player with Astronomers and the Nation's Eclipse Center;

Puny, Cheap, Victorian,

City of the Flabby Shoulders:

They tell me you are wicked, and I believe them; for I have seen your painted gas
lamps luring the pros from Japan and Italy.

And they tell me you are crooked, and I answer: Yes, it is true I have seen the clouds
rain and go free to rain again, in Perry.

And they don't have to tell me you are brutal, and my reply is:

On the faces of amateur astronomers I have seen the wanton disappointment, sultry
despair, and the rain from your sky.

And having answered so I turn once more to those who sneer at this, thy city, and I
give with them the sneer and say to them:

Come and show me another city with lifted head singing so loud, and I'll show you a
city that is off key.

Flinging magnetic curses (along with a few bricks) amid the haze of piling cloud on
cloud, here is a city with a heavy overcast on eclipse day set dimly against the
big cities where it was clear.

Baldheaded, Wrecking, Plotting, Breaking, Rebreaking.

Under the haze, dust all over the place, laughing at the crazy scientists.

Under the terrible burden of destiny laughing as Don Rilckles laughs,

Laughing even as Spiro Agnew laughs who has never won a battle,

Bragging' and laughing that under his thumb is the AAVSO and under his foot
members of the Detroit Astronomical Society's Eclipse Expedition.

Laughing?

Laughing the puny, cheap laughter of the Sun King, Trouble Maker, Stacker of
Money, Player with Astronomers, and Eclipse Center to the Nation.

Un Tableaux De la Eclipse Sans Merci

Come watch, you who would prophesize the end,

And see that we all are one and one

Is none

For if you had doubts about

How we would feel when an end came and the existence

Just faded away into a new darkness,

Now replace with testimony.

It has been said, but we could not accept

That the simple yet intractable physical entities could

Even approach the many wonders

Of our more spiritual existence.

Though it is us now who understand only

That we are still much too small,

And feeble,

And young

To see the darkness clearly over our own

random-rhythmic; life patterns.

(the ones we call complex)

The once and future Lords of Earth

Stand of no entity now.

No night- No day.

No anytime at all-

Totality.

Chris Edsall

March 1970

The Lunar Eclipse

by Jim Trombly

As the way it usually goes, nature takes on a tricky way of catching an individual off guard, especially when it comes to amateur and professional astronomers. At 10:15 p.m. the moon begins to be eclipsed, with an exceptionally clear sky and cool breeze along with the gleeful little crickets in the night. No you said anything about this personal phenomenon. The moon now attempts to approach almost half eclipse. It's 10:40 p.m., now and you notice a slight receding in the moon's eclipse. Not common, but you at least say you saw the eclipse, unprepared, but it has got to get worse against you. Something that of a cirrus cloud or strangled haze shows up above the front of your house (north). It is strictly confined to the north. The haze extends itself over the northern azimuth, in different designs and flow. You now realize it's the good old northern lights. The color is white only to you. You now appreciate it very much because you've never seen anything like it before. And so it comes, the thing magnifies. You see now a two dimensional curtain which is luminous very much at the base and less luminous as it gets higher. Designs change like shimmering Japanese curtains. One chain of light thickens and widens all over and this whole dancing occurs over the north, You are astonished and awed. You've never seen anything like it in Macomb County.

And now the whole half celestial sphere is covered with this phenomenon! The closer you get to the zenith the dimmer your chain gets.

You are surprised they cover so much. Streaks running horizontal and vertical. Where in the heck is your 35mm. White, whiter and more white. This is what many W.A.S. members saw, and it's incredible. How many people really know this would happen? Let's go over some of the ideas of this freaky thing.

- 1- The eclipse began about 10:00p.m.
- 2- The auroras oddly were maximum themselves as the eclipse was leaving full contact.
- 3- The auroras seemingly were maximized when full luminosity occurred only 45 degrees above the horizon.
- 4- The auroras factually maximized at 10:45 p.m., clear up to the north.
- 5- Horizontal lights were visible mostly at the zenith.
- 6- A dramatic 2 dimensional chain occurred near the Big Dipper.
- 7- Strong luminosity was near the lower northeast.
- 8- Blends of horizontal and vertical chains appeared many times.
- 9- Fading occurred while still strong luminosity occurred.
- 10- A unique observation was seen ONLY IF YOU LAY BACK OR WERE BENT OVER LOOKING CAREFULLY.
- 11- What appeared as almost invisible fringe patterns (like a grating) resembling shadow bends (except shadows would be substituted by the light). Crossed horizontally (east to west) over the stationary predominant curtains, which were mostly vertical. It was like waves or ghosts passing in ordered succession.
- 12- The boundaries were obvious. It went from 180 degrees from east to west to the constellation Cassiopeia, Cygnus and Altair (star).
- 13- The further north you got the more luminous the light became. The light seemed to arc to the center of the constellation Cygnus with finally a total disappearance.

14- The strange theory about this is the invisible fringe patterns that passed over the curtains. An aurora is defined as protons and electrons from the sun interacting with the gases or ions in our atmosphere. The interaction causes the spewing of these curtains supposedly. Perhaps the invisible fringe patterns may be intermittent pulses of the sun's plasma as it bombards the gases, with the curtains being the resultant.

15- The most remarkable thing I have realized was that I turned on my radio to check ionospheric conditions (AM) and I noticed pulsing static over the radio, between stations. This I never hear. Is it possible that the radio pulses were in synchronization with the moving light waves or invisible fringe patterns and is directly the sun's plasma doing this?

P/S The radio telescope's result from Florida has verified as being the direct observations of the sun and it looks "I have observed the eclipse". The theory and goal of the trip have been accomplished: Amateur radio equipment works on solar emission and the radio sun at long wavelengths has a smaller drop in flux at the centimeter wavelengths.