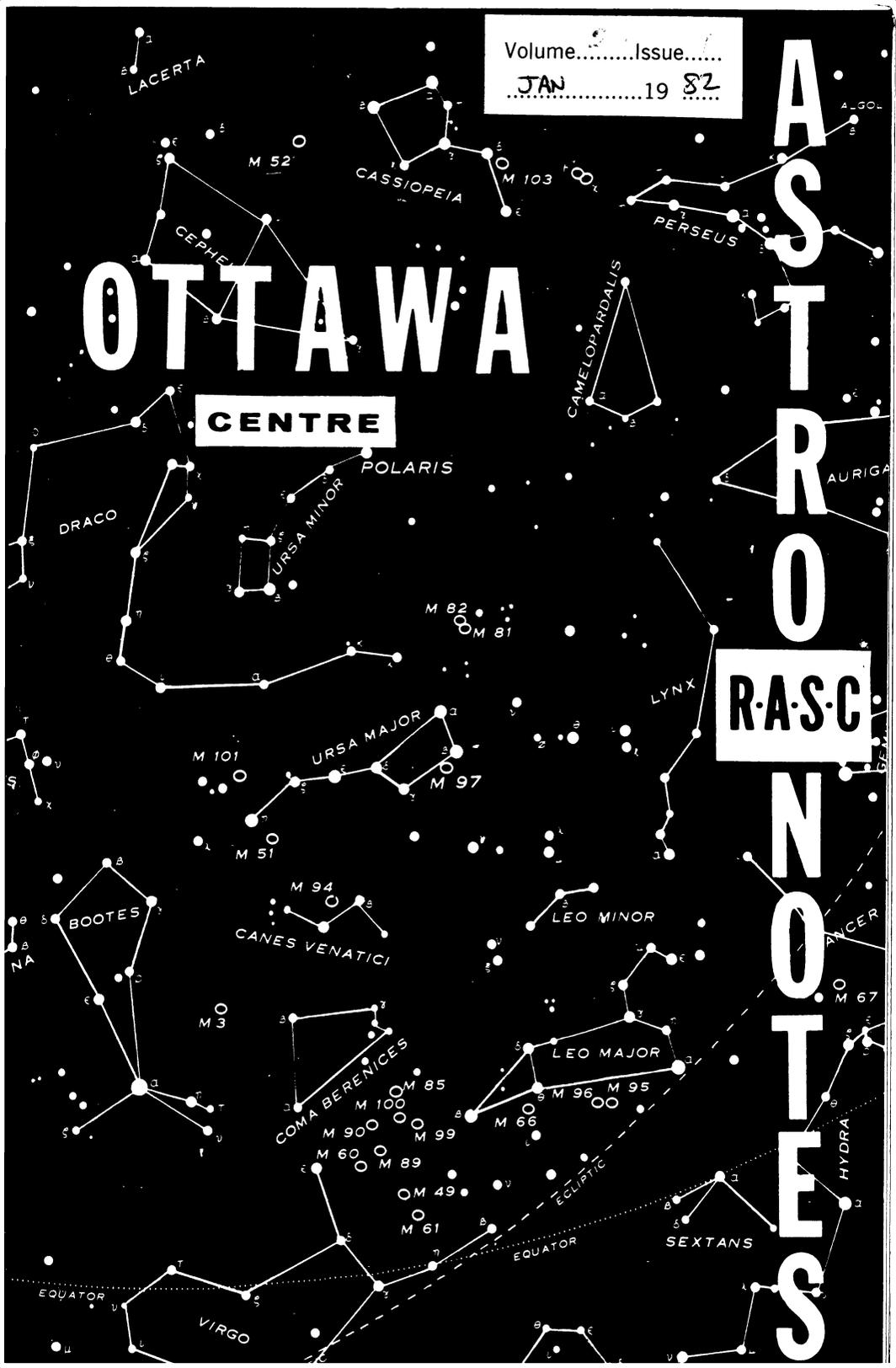


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OBSERVER'S GROUP MEETING - DECEMBER 3, 1981

Susan Argue

Brian Burke opened the final Observer's Group meeting of the year at 8:17 pm with 55 people in attendance, 46 of whom were members. The second flight of the space shuttle Columbia was mentioned in the introduction.

Brian had some slides from the Grande Star Night, showing the hamburgers being cooked, served, and eaten. There was also a slide showing the presentation of a picture of the Dumbell Nebula to Fred Lossing by Frank Roy, and the revealing of the plaque on the telescope for dedication of 10 years' usage.

Art Fraser stood up for a moment to let everyone know that the 1982 Observer's Handbook was available to members.

Alan Reddoch spoke of the November 11 aurora as he saw it from Beacon Hill North. It was a full moon and yet some colour showed up, and a few people reported seeing red.

Frank Roy was up next with slides. Among them were the Pleiades, the North American Nebula, M 35, the Double Cluster in Perseus, the Horsehead Nebula, M 31, the Orion Nebula, and Venus at sunset.

Rob McCallum was up as Variable Star Coordinator. He is attempting to come up with a couple of eclipsing binaries for people to observe.

Jamie Black had some slides and an analytical rundown of the constellations and stars in them. Included were Venus, a slice of the moon, Cygnus, Cassiopeia, Lyra, Orion, Andromeda, the Pleiades, and then a series of the sun from October 22 to 31.

Rob Dick showed his graph of solar activity containing all recorded data since last January. He said that there had been some activity before November 11 and that there was lots more coming up. He went over his new filter

system for his telescope and discussed the benefits of different coloured filters.

Ken Tapping gave a small talk about whistlers. These whistling nodes follow the earth's magnetic field, created by magnetic storms. He went over the equipment required to record them, and told a few stories of experiences attempting to do so. By calculations, he showed that he must be about 170 miles from hydro lines in order to eliminate their interference. He played a recording made in Antarctica of whistlers, so we all got to hear them.

Brian was back up to finish off the meeting with an announcement of a grazing occultation on December 14, and read some reasons why occultations are funny.

The meeting closed at 10:15. I now hand over the recording job to Dave Fedosiewich. Good luck, Dave.

OBSERVER'S GROUP AWARDS - Part 1

Ted Bean

Traditionally, during the Annual Dinner Meeting of the Ottawa Centre, awards are presented to two happy members of our Observer's Group in recognition of their observational activities during the past year. A third award, honouring a member who has given outstanding service to the group over a period of time is infrequently presented.

The awards listed below are in the original wording of the sponsor. If known, the sponsor and the date of the motion are included.

Observer of the Year Award Sponsor unknown. 1965

Moved: "The distinction **Observer of the Year** be awarded annually to the member of the Observer's Group who has contributed most to the advancement of astronomy in group."

An article by Fred Lossing, Instrumentation Coordinator, in **Astronotes** for March, 1967, states that the purpose of the award is to stimulate a keener interest in observational astronomy among members of the group. The article further suggests that selection of the award-winning member should be based primarily on that member's actual observations and their value to our group as observers. Of secondary consideration, the construction of a useful piece of apparatus; capable of producing results of scientific value, together with the communication of such results to the proper authorities in the case of certain observations, or to the Observer's

Group in other cases; should also be considered a valuable contribution.

The award - a nicely-designed, and suitably-engraved small pin.

In the concluding paragraph of his article, Fred recommended the appointment of a selection committee of three members from the group. This committee would then make a choice from among the members who aspired for an award. Each aspirant would be required to submit a 2 or 3 page summary of his or her observational and other records of achievement to the committee, before a deadline specified by the group chairman.

The reason for the date deadline is to give the committee time to choose award winners, and to pass on their choice to the council via the group chairman, in order that the awards may be presented during the Annual Dinner Meeting.

In December, 1972 **Astronotes**, Rick Lavery published a listing of the various award winners for the years 1965 to 1971 inclusive. Since no updated listing has been published since 1972, it is time that the readers of **Astronotes** see a complete list of the dedicated award winners who have added so much to the lustre of the group.

Here is the updated listing of **Observer of the Year Award** winners from 1965 to 1981 inclusive:

- 1965.....Rick Salmon
- 1966.....Les MacDonald
- 1967.....Rick Lavery
- 1968.....Steve Craig
- 1969.....Ken Hewitt-White
- 1970.....Allen Miller
- 1971.....Rolf Meier
- 1972.....Ken Hewitt-White
- 1973.....Doug Welch
- 1974.....Cathy Hall
- 1975.....Doug Welch
- 1976.....Doug Welch
- 1977.....Rob Dick
- 1978.....Rolf Meier
- 1979.....Frank Roy
- 1980.....not awarded
- 1981.....Rob Dick

That is all for now. In the next issue will appear Part 2 of the Observer's Group Awards.

* * *

The year 1981 began with an observing session at the Springhill Meteor Observatory immediately following the January meeting. We managed to observe part of the Quadrantid meteor shower over a four-hour period with the temperature at about -35° C. Two other members had the right idea; they observed the Quadrantids from the southwest U.S.

The **Observer's Manual** went on sale at the April meeting. The aim of the 77-page book is to introduce astronomy to new members. I would like to thank all the members that helped write and put together the manual.

Star nights were very successful in 1981. The star nights at IRO in February and March were great due to the very pleasant weather for that time of year. We also had public star nights at the Observatory during the summer with the August one being the most successful. There were more than 70 people at the August star night, most of whom came to see Steve Dodson's 22-inch f/7 Newtonian.

Steve's telescope won an award for mechanical design at Stellafane. Other winners from Ottawa were Dave Penchuk who won awards for mechanical design and construction for his 6-inch Newtonian, and Neil Hunt who won the Porter Youth Award.

There were not any Observer's Group members at this year's General Assembly in Victoria, but Frank Roy sent a display of observations made with the radio telescope at IRO.

The Solar Coordinator, Rob Dick, presented his observations and photographs of the sun and kept the group informed of any solar activity. He also compared visual observations with those made at radio wavelengths.

At last we observed a grazing occultation last year. Although we did not expect much success in observing the marginal graze, three events were observed by Ravi Mahta during the mid-April graze. There will be future graze expeditions planned and more participants are always needed.

Fred Lossing introduced the concept of hypersensitizing film to reduce reciprocity failure. This technique is very useful for photographing deep sky objects which require a very long exposure.

Throughout the year, Frank Roy displayed many excellent photographs he had taken using the 16-inch telescope. Frank compared the results obtained when using hypersensitized film with normal film. He also illustrated the difference obtained when using different brands of

film.

At the September meeting, Pat Brewer described the adventures that he and two other members had when they travelled to Siberia to observe the total solar eclipse at the end of July. Pat showed the group many photographs of the Soviet Union and of the eclipse. He also compared the July eclipse to the 1980 eclipse in Kenya.

We celebrated the 10th anniversary of the Centre's 16-inch telescope with a Grande Star Night at the Indian River Observatory on October 24th. A plaque attached to the telescope was unveiled at that time. The plaque is dedicated to those that took the dream of a large telescope and an observatory for the Ottawa Centre and made it into a reality 10 years ago. The telescope has undergone some changes over the past 10 years with the most recent being the addition of a digital display for R.A. and Dec. This new display was built by Frank Roy and Fred Lossing.

At the Annual Dinner Meeting, the winners of the Observer's Group awards were announced. The **Observer of the Year Award** winner was Rob Dick and the **Variable Star Award** winner was Rolf Meier.

Although the quality of articles in **Astronotes** remained high, the quantity was low throughout most of the year. Perhaps one of the best issues was the May, 1981 issue in terms of both quality and quantity of articles. I am sure more issues can be like the May issue with a bit more effort from more members.

Finally, there are plans within the group to build a photoelectric photometer for use at the observatory. You will hear more about this in the months ahead.

Thus 1981 was an enjoyable year for me as Chairman and it was great to see many members continue to be very active although greater participation by more members is always encouraged.

* * *

SOLAR REPORT

Rob Dick

Once again radio data is the basis of this month's solar report. I don't want to alienate the budding solar observers by continually referring to radio data, but when the sky is cloudy it is the only information that is up to date.

Between November 10 and December 9 (29 days) there has been a fairly constant level of radio activity. At visual

(continued on page 9)

FIGURE 1

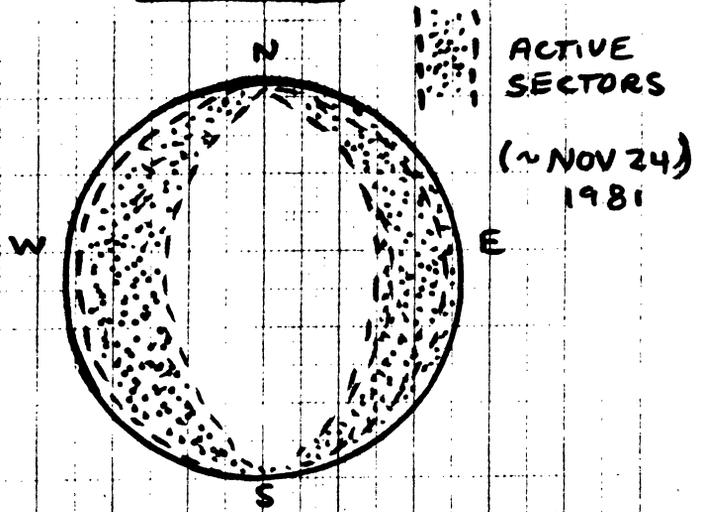
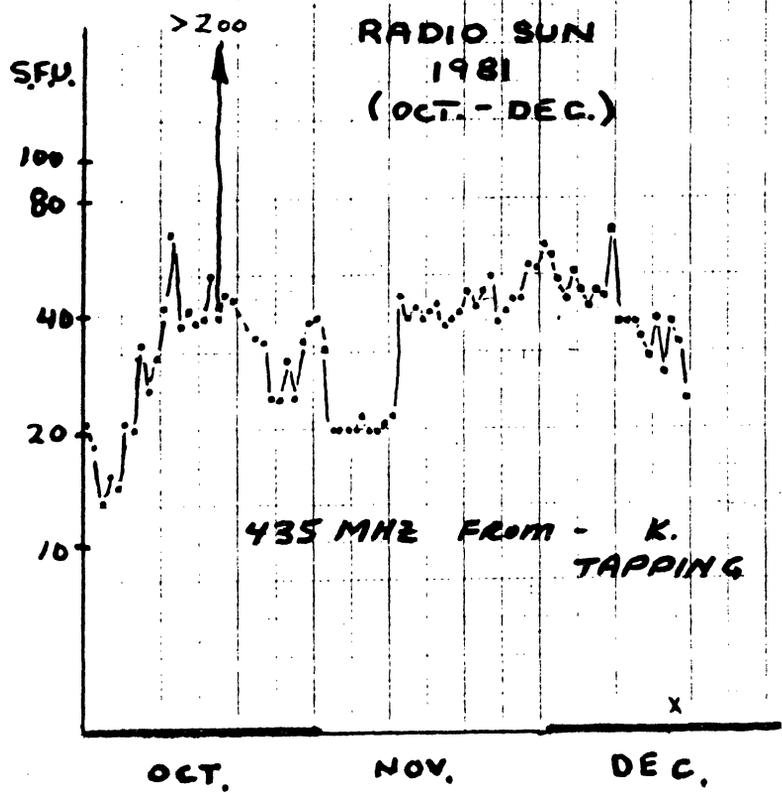


FIGURE 2



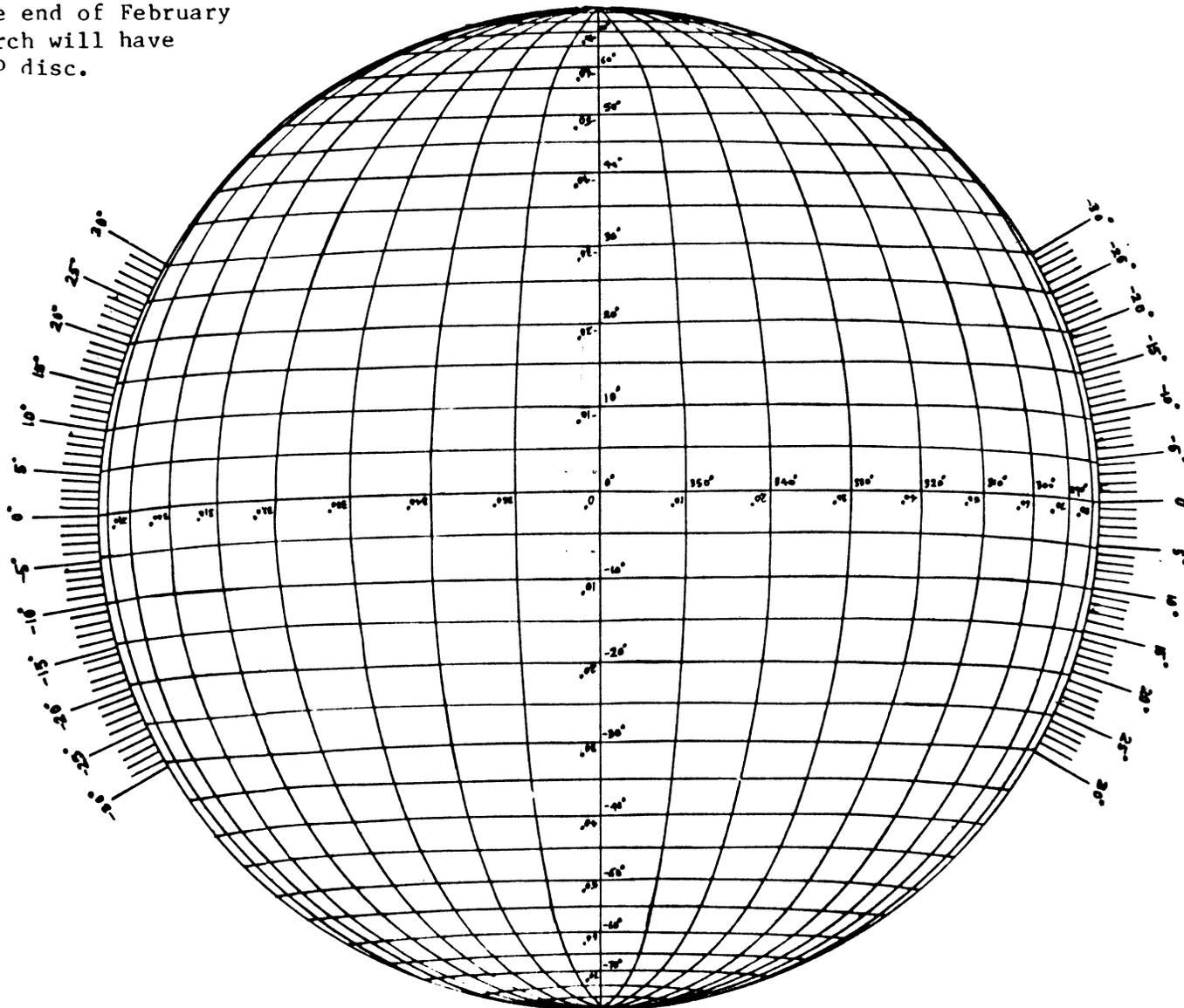
This is the final disc in the series which started in the May, 1981 issue of **Astronotes**. The 2^o disc will be of little use in January. This month you will need the discs for beta = 3, 4, 5, and 6. (July to November issues contain these discs.)

The disc for beta = 7 is not available so observations for the end of February and beginning of March will have to be fitted to a 6^o disc.

$\beta = -2^\circ$

Catalog for Discs

May '81	40
June	10
July	40
Aug	60
Sept	50
Nov	30
Dec	00
Jan '82	20



$\beta = -2^\circ$

wavelengths it was evident that this activity was due to two large active sectors separated by approximately 60° of longitude (see figure 1). The reception from the leading (western) sector faded as the radio emissions from the trailing sector became "visible" in Ken's radio telescope. The slight dip in radio reception (about November 24) may have been due to the overlapping of signals from these sectors (see figure 2).

Doug Welch reported seeing an aurora in Toronto on the night of December 17/18, 1981. Although it wasn't a bright display it was extensive, that is, visible over much of the sky. The time of this aurora is marked on figure 2 as an "x".

Around this time there were several small sunspots approaching the centre of the sun's disc. There were a few scattered filaments on the disc on both the western and eastern limbs. Several prominences were seen in H-alpha light. These prominences on the eastern limb may be signs of still more activity for the month of January.

* * *

Articles for the February issue of Astronotes are due by January 22.

* * *

THE ARO RESULTS

Paul Feldman, Frank Roy

Last October I had the opportunity to use the Algonquin Radio Observatory's 46-metre radio telescope. Paul Feldman and I observed several variable stars at 6390 MHz with a 139 MHz bandwidth.

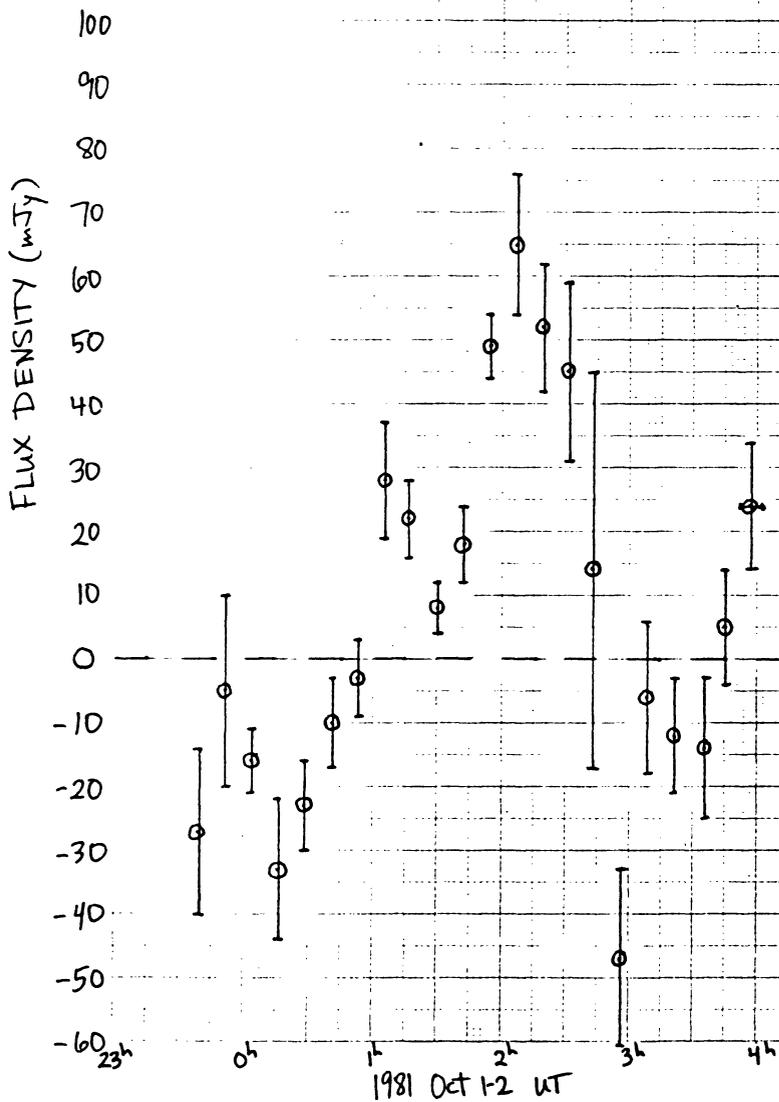
In the first graph, II Pegassi reached 65 mJy. Anything below 30 mJy is considered noise, so it is highly probable that II Pegassi was detected and produced a burst. The vertical line for the plotted point indicates the probable error, and the points with the large probable error indicate bad weather and instability in the receiver.

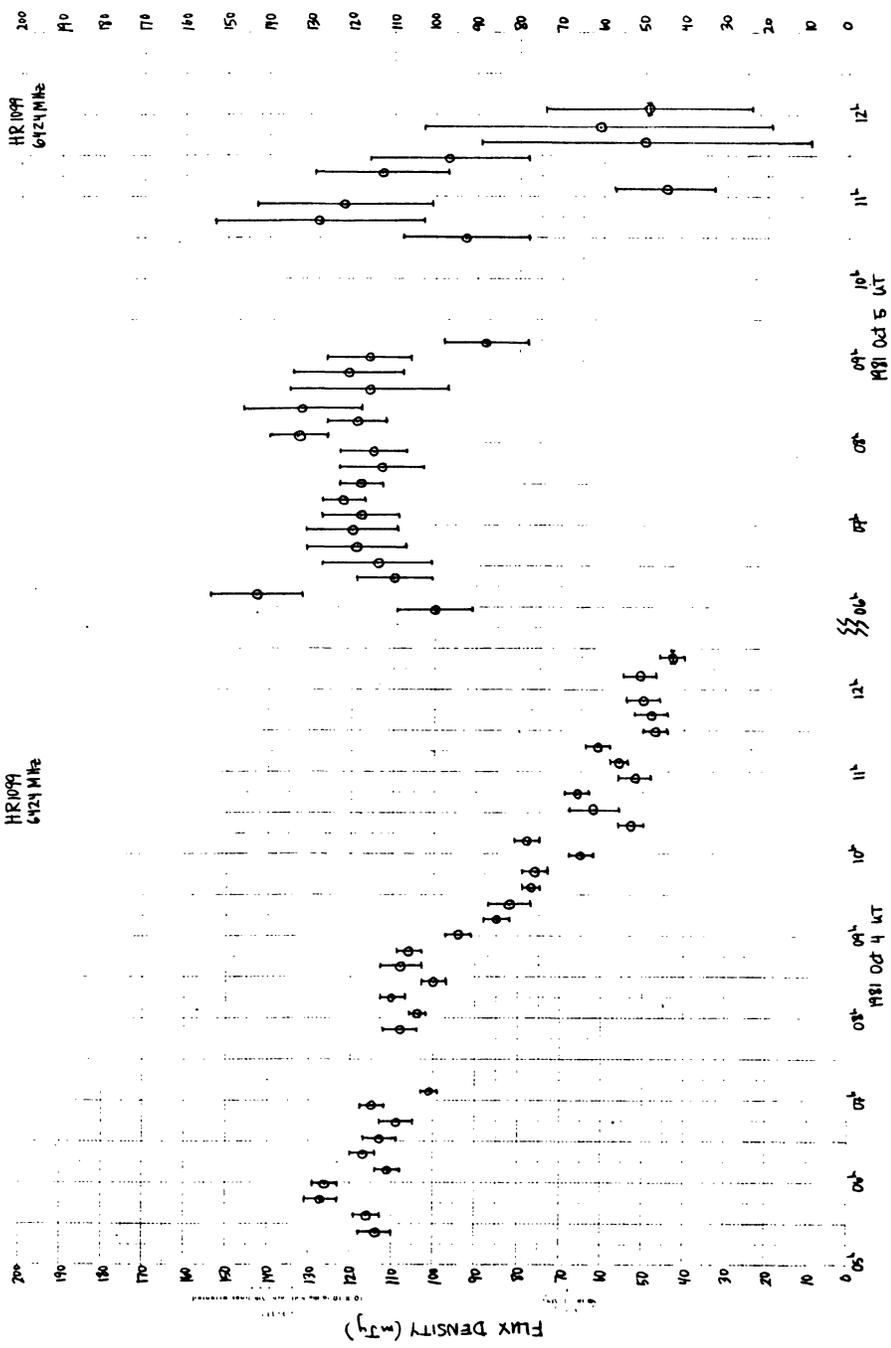
On graphs 2 and 3, HR 1099 produced several small bursts reaching 200 mJy. The last graph is a summary of all the observations of HR 1099.

Thanks go to Paul Feldman for producing the graphs.

* * *

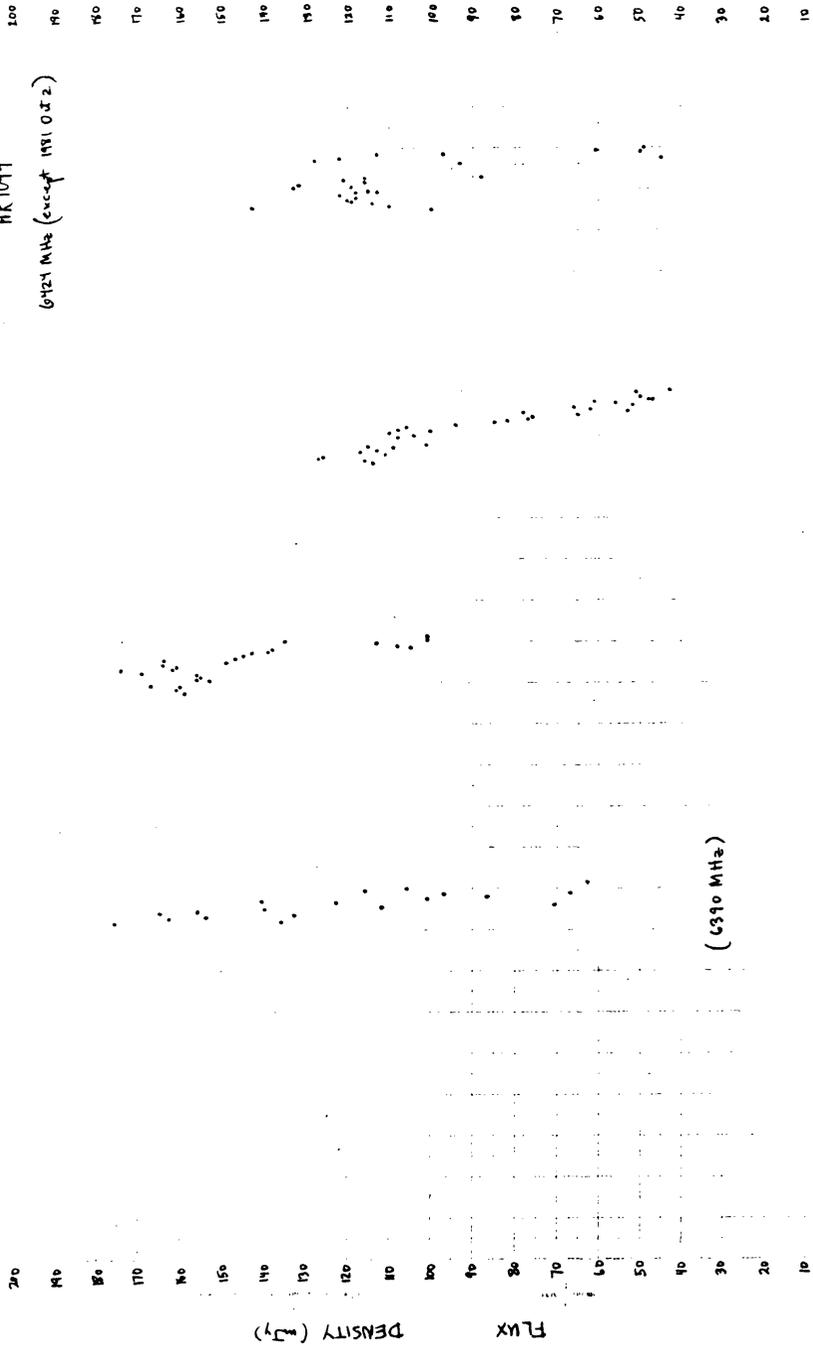
II Peg
6390 MHz





HR 1099

6424 MHz (except 1981 Oct 2)



0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200

1981 Oct 1 UT
1981 Oct 2 UT
1981 Oct 3 UT
1981 Oct 4 UT
1981 Oct 5 UT

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