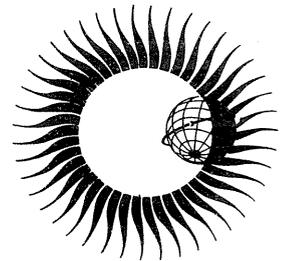


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SYNOPTIC OBSERVATIONS
OF THE SOLAR CORONA DURING
CARRINGTON ROTATIONS 1580 - 1596

(11 October 1971 - 15 January 1973)
[Reissue with Quality Reproduction of Images]



January 1976

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REPORT UAG - 48A

SYNOPTIC OBSERVATIONS OF THE SOLAR CORONA DURING CARRINGTON ROTATIONS 1580 - 1596 (11 October 1971 - 15 January 1973)

[Reissue with Quality Reproduction of Images]

by

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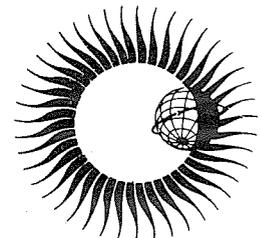
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Editor's Note for Reissue of UAG-48 as UAG-48A with Quality Reproduction of Images:

The quality of reproduction of the OSO-7 images (pp. 8-159) in the original Report UAG-48 turned out to be less than would be desired for users interested in undertaking fine detailed analyses. We are therefore reissuing the report as Report UAG-48A on higher quality paper and with special attention given to resolution and improved gray scale range. To achieve this we have had to change the format: White Light Coronal and XUV images are no longer side-by-side but are on facing pages. The U.S. Naval Research Laboratory has also reworked all the computerized White Light Coronal images in an effort to achieve a better final product. They now mark heliographic North and South on these images by tiny dots at the top and bottom, respectively.

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SECTION I. EXPLANATORY TEXT

1. Introduction

Before the successful launch of NASA's OSO-7 (Orbiting Solar Observatory No. 7) on 29 September 1971, the outer white light corona of the sun was observable only (a) during natural eclipse, (b) during flights of stratospheric balloons or high altitude rockets which carried coronagraphs above the earth's light-scattering atmosphere [Tousey, 1965; Newkirk and Bohlin, 1965; Dollfus *et al.*, 1968] and (c) during sunrise and sunset from the surface of the moon [Norton *et al.*, 1967; Bohlin, 1971]. With OSO-7, day-to-day observations of the outer corona became available from the Naval Research Laboratory (NRL) White Light Coronagraph experiment on board. In addition to the white light images from this instrument which covered the corona from 3 - 10 solar radii (R_{\odot}) we were also receiving other daily data for the inner corona. These were ground-based High Altitude Observatory (HAO) K-coronameter records at elongations from 1.1 - 2 R_{\odot} , and NRL ultraviolet coronagrams (recorded also from OSO-7) in the wavelength band 171 - 630 Å. These latter images showed the XUV corona lying above active regions, either projected onto the solar disk or extending some distance beyond the solar limb.

The purpose of this report is to present a day-to-day summary of these three sets of coronal data for the first 15 months of OSO-7 operation (11 October 1971 - 15 January 1973).

We hope the material presented will be useful for comparison with other manifestations of the changing sun (positions of radio noise sources, magnetic field configurations, etc.), for study of evolution of discrete active regions, and for correlation with various interplanetary phenomena (solar wind parameters, magnetic field reversals).

In Part 2 of this section we describe briefly the three observing instruments. The data recorded by these instruments have been reduced to pictures and graphs which are described in Parts 3 and 4 of this section. In Section II the pictures and graphs are reproduced.

For further information and data we invite interested persons to communicate directly with the authors.

2. Description of Experiment Instruments

2.1 OSO-7 White Light Coronagraph

A detailed description of this coronagraph, including construction, calibration and in-orbit operation, has been given elsewhere [Koomen *et al.*, 1975]. A brief description is given here. Essentially, the instrument is a telescopic system of 193 mm effective focal length and 26 mm aperture. A circular occulting disk is held in front of the aperture at the end of a spar 760 mm (30 inches) long. This disk shields the aperture from direct sunlight and artificially eclipses the sun. This arrangement, plus several additional features which minimize stray light, allows the faint outer corona to be recorded against the dark sky at orbiting altitudes.

* The National Center for Atmospheric Research is sponsored by The National Science Foundation.

Because the occulting disk is relatively close to the instrument objective, the disk of the sun cannot be occulted cleanly as in a lunar eclipse, and considerable over-occulting must be tolerated. The corona is recorded, in the OSO-7 instrument, beyond approximately 3 solar radii to an outer field limit of 10 solar radii (measured from sun center).

The presence of the occulting disk produces a very steep radial vignetting function in the inward direction, i.e., the periphery of the field receives more light than areas near the optical axis. The parameters in the OSO-7 coronagraph are such that the vignetting function approximately compensates the radial decrease in brightness of the corona and produces an approximately uniform illumination over the entire faceplate of the vidicon.

The focal plane detector is an SEC vidicon, which is scanned in a square raster of 256 lines with 256 points per line. Thus each picture point subtends approximately 1.25 arc min. The intensity of each picture point is converted to a 7-bit intensity word (128 intensity steps) for telemetry transmission. An optional mode of time-compression of telemetered data is provided at the expense of spatial resolution by not transmitting the data for those picture points whose intensities fall within an established corridor relative to the previously transmitted element. Corridors of various widths are selectable by ground command and can be used when several images in rapid succession are desired. A few of the white-light images in Section II show the coarse resolution which is characteristic of the corridor mode.

The field of the instrument is calibrated in units of mean solar disk brightness.

2.2 OSO-7 Extreme Ultraviolet (XUV) Coronagraph

The extreme ultraviolet "coronagraph" or heliograph is a Herschelian reflective system utilizing an off-axis parabolic telescope mirror of 750 mm focal length. In the focal plane of the mirror is a circular aperture 20 arc sec in diameter, and behind it a channel electron multiplier.

The instrument has no spectral dispersion, but depends upon the reflectance of the platinum-coated mirror and the ultraviolet transmittance of thin aluminum films for limitation of the response to a broad band of XUV wavelengths which spans roughly the region 170 - 630 Å [Hass *et al.*, 1974; Hunter *et al.*, 1965]. The films are unbacked, and approximately 1000 Å thick. Two films are located immediately behind the instrument aperture, which is a 29 x 29 mm square opening. The films are supported on fine mesh electroformed nickel screens. A final filter is placed near the detector pinhole. The serial filter arrangement is used because the films are delicate and subject to small pinholes and local ruptures. Since these defects are not likely to occur in the same place in all filters, the integrity of the total pass band is preserved in spite of the fragile nature of the filters.

An XUV image is generated by commanding the OSO-7 spacecraft into "large-raster" mode, wherein the XUV instrument is scanned back and forth by the spacecraft in a raster pattern to build up a picture of the sun and corona point by point. The dimensions of the raster are 60 x 60 arc min, and the pattern consists of 64 parallel scan lines spaced on 56 arc sec centers. The 20 arc sec scanning aperture does not, therefore, cover the entire sun in the direction normal to the scan lines, but leaves gaps 36 arc sec in width. Along a scan line, raster motion is continuous and the data collection interval of 160 milliseconds results in averaging across an element 75 arc sec in length. The raster picture element therefore subtends approximately 1 x 1.25 arc min. The intensity count, up to a maximum count of 32,768, from the channel multiplier plate is compressed into an 8-bit telemetry word using a quasi-logarithmic scheme which results in a relative error of about 3%.

2.3 Mauna Loa White Light Coronagraphs

The brightness distribution of the innermost corona (approximately 1.1 through 2.0 R_{\odot}) during this same time period was determined with ground-based coronagraphs operated at the Mauna Loa Station of the High Altitude Observatory (HAO). These instruments are photoelectric polarimeters attached to conventional Lyot coronagraphs which measure the quantity "pB" as the telescope scans around the perimeter of the sun at a selected height above the solar limb; "p" is the polarization tangential to the limb and "B" the radiance of the corona in units of 10^{-8} the radiance of the center of the solar disk.

The circular polar plots of the corona at a height of 1.5 R_{\odot} (Section II-2) were made with the K-coronameter [Wlérick and Axtell, 1957] and the synoptic maps of the coronal isophotes at heights of 1.1 and 1.5 R_{\odot} (Sections II-3 and -4) were taken from measurements with the Coronal Activity Monitor [Garcia *et al.*, 1971].

3. Description of Data Displayed in Section II

3.1 Images of the White Light Corona Between 3 and 10 Solar Radii

In Section II-1, OSO-7 photographs of the white light corona and the extreme ultraviolet corona *are presented side-by-side for each day.* Many of the white light images have appeared earlier in the

* See Editor's Note on page ii for rearrangement of photographs in this reissued edition, Report UAG-48A.

Solar-Geophysical Data, (U.S. Department of Commerce, Boulder, Colorado 80302, U.S.A, 332, Part I, April 1972 to 360, Part I, August 1974), though these were derived from quick-look telemetry data. The present daily images have been chosen from the best of the several available for each day. Data errors and permanent field blemishes have been removed where possible.

The central dark area in each picture is an out-of-focus image of the coronagraph's external occulting disk. It occults the corona to about $3 R_{\odot}$, measured from sun center. The outer field limit is approximately $10 R_{\odot}$. The white circular spot, which has been introduced in the reconstruction process, shows the size and position of the occulted sun. The image of the disk support is also out of focus and produces a broad shadow extending radially outward. This shadow rotates slowly during the year as the spacecraft rolls about the solar direction, and is seen generally in the western half of each photograph. The position angle actually ranges from SE to NW.

A segmented polarizing filter was cemented to the vidicon faceplate. The effect of the filter can be seen as the two concentric annular rings. In these rings the polarization of the filter is approximately radial. All other places in the field of view are covered by a "concentric" polarizing filter, which admits everywhere the electric vector perpendicular to the solar radius. The filter is described elsewhere [Koomen *et al.*, 1975].

The outward decrease in brightness of the corona is compensated by the radial vignetting function in the coronagraph, so that the final image has approximately uniform radial brightness. The images therefore have the same characteristics as modern eclipse pictures taken with radial gradient filters, in that the brightness scale is altered. However, the visual impression is somewhat akin to that obtained when viewing natural eclipses, where the eye compresses the large brightness range which is actually present. The images thus give a good record of the spatial structure of the corona and give a qualitative idea of polarization. Since the television image is relatively coarse (1.25 arc min resolution elements), it is assumed that unresolved fine structure may sometimes be present.

The date and universal time of each image is given. In the few cases where a time interval is given, the coronal image has been taken in separate sectors which were later assembled into a final photograph. The time of exposure of the first and last sectors are given.

3.2 Solar XUV Coronagraphs

As in the case of the white light coronal images, these are reconstructions of telemetered data. Some of these images, in their quick look form, have been published in *Solar-Geophysical Data* (U.S. Department of Commerce, Boulder, Colorado 80302, U.S.A., 340, Part I, December 1972 to 354, Part I, February 1974). The present images have been reprocessed and improved, using the best available data. The instrument characteristics and data-taking methods have been discussed in Section I-2.2. It will be repeated here that the response of the instrument is confined to the band 170 - 630 Å. It is estimated that 20 - 30% of the total signal is chromospheric (He I and II). The remaining signal comes from high temperature coronal ions.

The images themselves are recorded by a 20 arc sec detector, but the resolution element is effectively 1×1.25 arc min (see Section I-2.2) scanning in a raster pattern measuring 60×60 arc min. Only the central portion of the raster, showing XUV plages and coronal emissions over the disk and outward to 1.5 solar radii, is reproduced.

In interpreting the images, it should be noted that the tiny square picture elements (19×19 arc sec) are considerably smaller than the basic resolution element. This effect (matrix expansion) is introduced during processing. Brightness scaling of the image has also been employed for two reasons: first, to reproduce most satisfactorily the large intensity range in the telemetered data, and second, to compensate for in-orbit changes in the aluminum film filters. The exact nature of the filter changes is not known, but the net effect was a slow change in signal level and image contrast. The scaling was therefore adjusted to give a good overall reproduction of coronal structure. For quantitative work with the images it is necessary to consult the numerical data.

The time listed with each image is the starting time of each raster frame.

3.3 Daily Polar Plots of Coronal Brightness at 1.5 and 4 Solar Radii

These white light data are presented in Section II-2. The observations were taken respectively with the HAO Mauna Loa K-coronameter and NRL coronagraph aboard OSO-7. For both heights the brightness is plotted radially versus position angle, with distance outward from the limb of the central circle linearly proportional to the brightness.

Brightness curves for 6 or 7 consecutive days are superposed on a single plot, so that the data for a single solar rotation occupy a single page. The day of the month is indicated on each curve. Plots for $1.5 R_{\odot}$ occupy the left side of each page and can be compared with similar plots for $4 R_{\odot}$ on the right.

Several properties of the corona are immediately apparent by inspection of these superpositions:

- Within the integrated spatial resolution of the coronagraph and K-coronameter (approximately one arc minute), the general brightness distribution of the corona changes relatively slowly from day to day;
- Some well-defined features at $1.5 R_0$ (such as the NE quadrant of 6-9 January 1973) are not detected at $4 R_0$;
- But on the other hand, other features (such as the structure directly over the east limb on 22-26 December 1972 (probably transequatorial arch [Hansen *et al.*, 1972]) and the high-latitude helmet streamer in the SE of 31 December 1972 - 1 January 1973) are clearly identifiable from both sets of measurements.
- Several of the structures seem to be quite long-lived, making successive limb passages over time periods of several months (such as W of 10-15 November, E of 22-28 November, and W of 6-12 December, E of 20-26 December 1972) and will thus serve as tracers for determinations of coronal rotation rates [as Hansen *et al.*, 1969].

3.4 Synoptic Maps of Coronal Brightness at 1.1, 1.5 and 4 Solar Radii

Daily plane-of-sky data at heights of 1.1 and $1.5 R_0$ from Mauna Loa and $4.0 R_0$ from OSO-7 have been transformed into synoptic charts for Carrington rotations 1580 - 1596.

The synoptic maps for $4.0 R_0$ were derived solely from east limb observations with the NRL OSO-7 coronagraph, because the image of the external occulter support obscured part of the corona over the west limb. Preparation of the charts therefore consisted simply of mapping coronal brightness on a grid whose coordinates are east limb passage date and position angle north or south of the equator. Brightness contour levels were then drawn, to delineate the generally prevalent equatorial band of enhanced corona and the localized bright streamers. It should be emphasized that the brightness data have not been deconvolved and that the contours therefore do not represent accurately the cross sections of streamers. The numbers on the contours give coronal surface brightness in units of 10^{-11} solar disk brightness. Both east limb and central meridian passage (CMP) dates are given at the top of the map (assuming a 7 day lag between east limb and CMP at all latitudes). Carrington longitude of the underlying meridian on the solar disk is given at the bottom of the map.

The synoptic maps for 1.1 and $1.5 R_0$ were prepared in the same way as those for $4.0 R_0$, using ground-based data from the HAO Mauna Loa Coronal Activity Monitor. Ordinarily, observations are made on approximately 250 days/year (0.60-0.70 probability for each day) but there were unusually extensive gaps during the 1972 time period due to cloudy weather, equipment failures, etc., and it was necessary to average east limb and west limb observations (when available) for 7 days earlier and 7 days later, respectively, than the indicated CMP dates. Even so, some gaps remained, as indicated by solid bars at the top of the isophotal maps for 1.1 and $1.5 R_0$. We have interpolated where one or two days are missing, but for more than two days gaps are left in the isophotal maps.

Contour levels are in units of pB and were chosen arbitrarily to emphasize the generally prevalent equatorial band of enhanced corona and the more localized bright streamers and condensations. Successive levels (in equal pB increments) are contoured by: Light line, heavy line, cross-hatching, and with still higher levels within the hatched areas. In addition, the maps at $1.1 R_0$ have a dashed contour showing regions substantially below the average intensity; these are the so-called coronal holes (see Withbroe *et al.*, [1971] for a comparison of holes with XUV spectroheliograms, and Hansen *et al.*, [1975] for a comparison with geomagnetic indices).

For the most part, the data used here were taken from daily survey observations made during the morning hours at Mauna Loa (approximately 1700-2100 UT). The brightness distribution is assumed to have evolved only slowly in time. That is, variations in appearance of the corona over the limb from day to day are due principally to solar rotation as individual coronal structures are brought into and out of the plane of the sky (see for example the discussion by Hansen *et al.*, [1969]). These assumptions are known to be not entirely correct because large regions of the inner corona have been found to be abruptly depleted, usually in association with flares or ascending prominences [Hansen *et al.*, 1974], as discussed in Section I-3.7 below, but the synoptic data serve as a reasonable first approximation to a description of the average properties of the inner corona.

3.5 "Compressed" Synoptic Maps of the Corona at 1.5 Solar Radii

The figure of Section II-4 is a set of highly compressed synoptic maps derived from HAO K-coronal data at $1.5 R_0$ for nearly four years during the declining phase of the solar cycle, that is, from February 1971 through August 1974 (from Hansen *et al.*, [1975]). The part of the map covering the period October 1971 - January 1973 was prepared from the same data presented in Section II-3, described above. As in those more detailed maps, the K-coronal data from east and west limbs for a given CMP date have been averaged. Time progresses from right to left (thus for each Carrington rotation, longitude increases from left to right).

Several rather general statements can be made about the corona during the year 1972:

- Particularly around the time of the great August 1972 activity, the corona was quite bright at $1.5 R_{\odot}$, in comparison with the adjacent years 1971 and 1973.
- Most of the bright streamers were concentrated at low latitudes, near the plane of the equator (in contrast, during 1974, the brightest streamers appeared at latitudes as high as $50-60^{\circ}$).

At these particular isophotal contours, the overall structures do not appear to be very stable from rotation to rotation, especially when compared to features in the southern hemisphere in 1973 and the overall corona of 1974.

3.6 Use of the Synoptic Charts

One intent of the present synoptic charts is to permit comparison of the OSO-7 and Mauna Loa coronal observations with solar magnetic and chromospheric data presented in the same form -- in particular the Mt. Wilson synoptic maps, the *Cartes Synoptiques* from the Meudon Observatory, and the $H\alpha$ synoptic charts prepared by P. McIntosh which have been published in *Solar-Geophysical Data*, 348, Part I, August 1973, (U.S. Department of Commerce, Boulder, Colorado 80302, U.S.A.) and later issues.

Comparisons should be made with some reserve, however, because implicit in our synoptic charts is the assumption that the structure of the white-light corona is reasonably stable over the time period of 7 days or more and that the coronal intensity distribution at both limb passages is indeed representative of what it would be near central meridian. On the basis of several studies of the larger coronal structures [Bohlin, 1970a, 1970b; Hansen *et al.*, 1972] where it was found that they slowly evolve over a period of several months, this seems to be a reasonably valid approximation.

However, it is now known that the sun's corona frequently undergoes abrupt transient changes, whose time scale is hours or less, corresponding to plane-of-sky expulsion speeds of 100-1000 km/sec.

3.7 Coronal Transients

A list of white light coronal transients observed during this period is given in Section II-5. These disturbances usually manifest themselves in the observations between 3 and $10 R_{\odot}$ as outward-moving plasma clouds, rapid brightenings or structural changes in the corona [Tousey *et al.*, 1974; Gosling *et al.*, 1974]. Included are several coronal brightenings which may be classed as fast evolution, since the time scale was comparatively long and since the events did not clearly consist of outward expulsions of material through the corona. In several instances depletions in the inner corona were observed at Mauna Loa simultaneously with or just preceding the outward moving plasma clouds observed by NRL. These events have been described by Koomen *et al.*, [1974], Stewart *et al.*, [1974a, 1974b] and Hansen *et al.*, [1974].

In one instance, material in the low corona was apparently transferred from one structure to another at higher latitude, accompanied by a green line coronal "whip", described by Wagner *et al.*, [1974].

In some cases the coronal changes were found to be temporary. Some appeared to be homologous, for example the flare-spray events of 11 January 1973 with accompanying plasma expulsions. On 14/15 May 1971 a large coronal streamer observed in the low corona by HAO reformed in the same gross configuration within 24 hours of the expulsion [Gergely and Kundu, 1974]. However, some of the transient disturbances apparently produced permanent, evolutionary changes.

In addition to outward-moving transients which take place in a matter of hours, OSO-7 has observed the rapid brightening and fading of individual streamers on a time scale of a day or two, faster than can be expected from the effects of solar rotation alone. An example is the sudden appearance of a very bright SE streamer on 21 October 1972. At low heights in the corona, sudden brightenings have also been observed by HAO in corona directly over active regions.

Various estimates put the frequency of major depletions of the inner corona at several per month [Hansen *et al.*, 1974] and disruptions of the outer corona at 10 or more per month [Tousey *et al.*, 1974; Gosling *et al.*, 1974].

4. Summary

We present in this report synoptic observations of the white light corona from 1.1 to $10 R_{\odot}$ in several formats, together with daily disk observations of the extreme ultraviolet.

Because the three-dimensional corona is recorded as a two-dimensional structure in the plane of the sky, because of the possibility of rapid coronal rearrangements, and because even fast transients

may leave long-term evolutionary changes in the corona, the isophotal contours cannot be a totally accurate representation of the structure which is projected toward the earth seven days from the time of observation. By the same token they cannot represent with complete accuracy the coronal structures which overlie H α and other solar features presented on synoptic maps made from observations of the solar surface. However, our observations show that, while the corona has dynamic and everchanging features, there is also a stable large-scale structure, slowly evolving over periods of many months, which can be studied in connection with solar surface features and interplanetary phenomena.

5. Acknowledgements

Because complex orbiting experiments are the work of so many individuals, it is quite impractical to list all those who made a key contribution to the orbital data presented here. However, it is appropriate to note that the instruments and data reduction of the NRL OSO-7 were fully funded by NASA and of HAO by NSF. All phases of the spacecraft were managed by the NASA OSO Project Office under John Thole and Robert Pickard.

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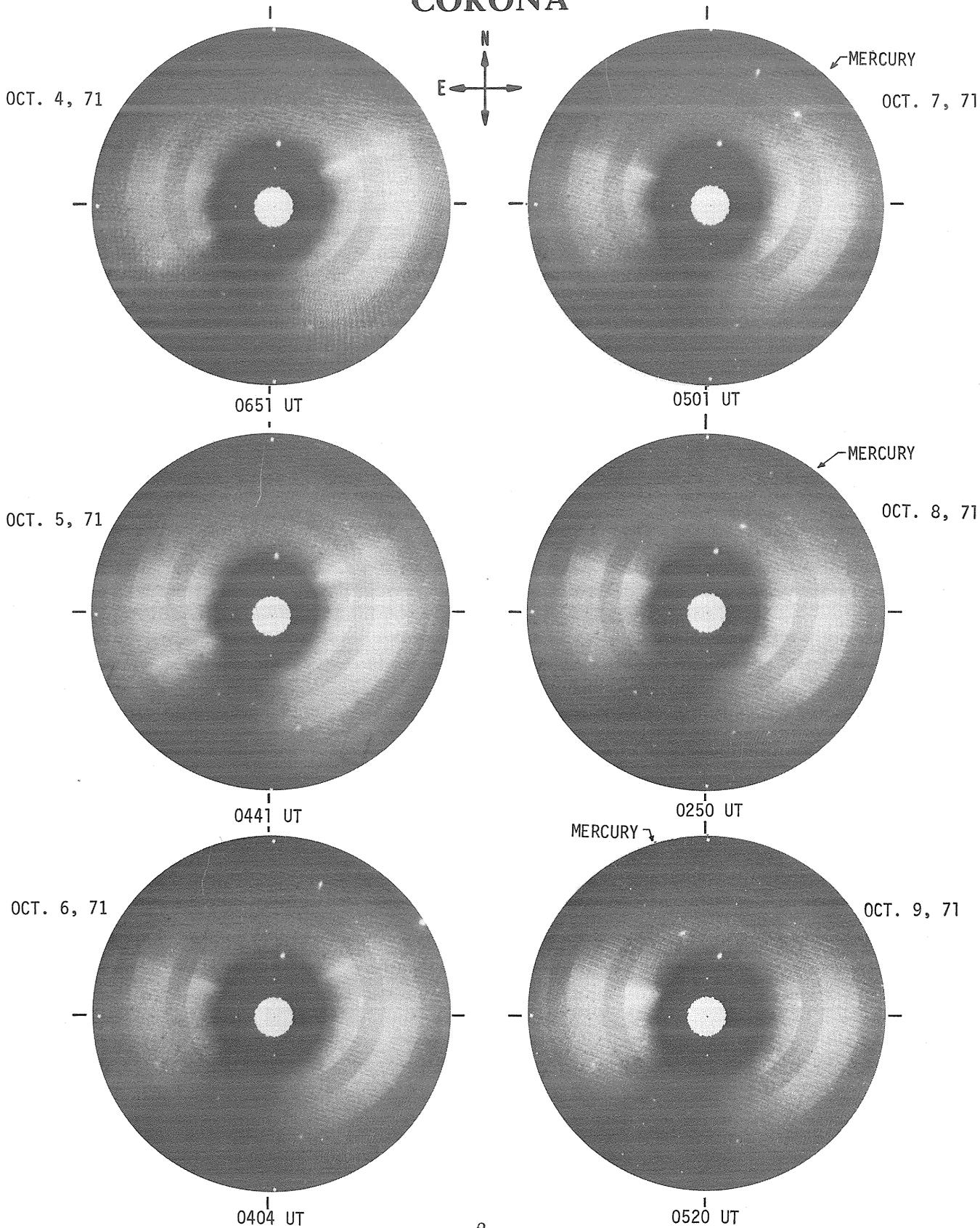
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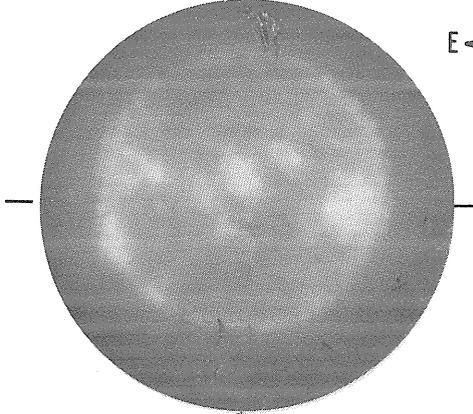
1. Daily OSO-7 Images

WHITE LIGHT CORONA

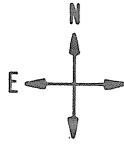


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171-630Å

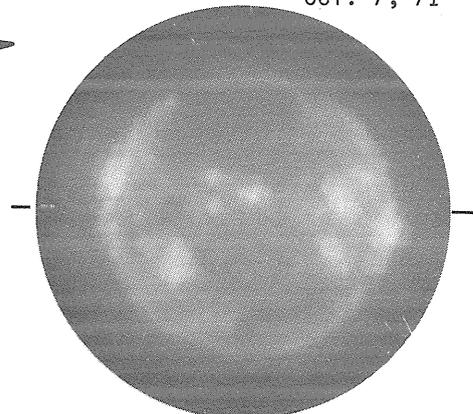
OCT. 4, 71 |



1331 UT

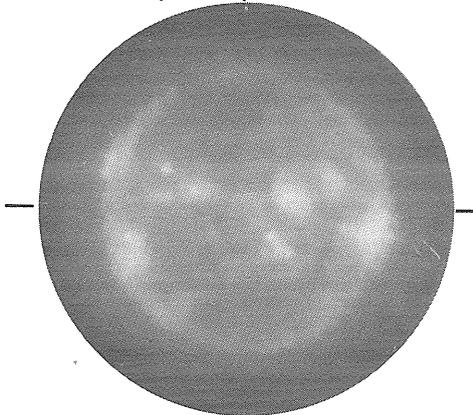


| OCT. 7, 71



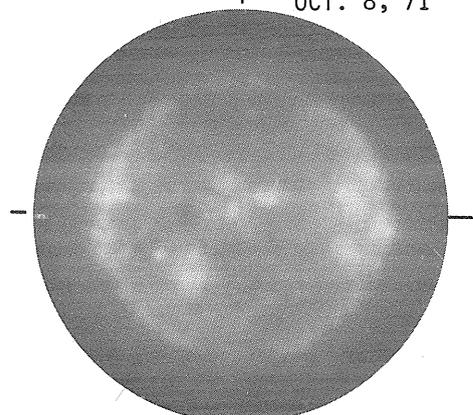
1731 UT

OCT. 5, 71 |



2359 UT

| OCT. 8, 71



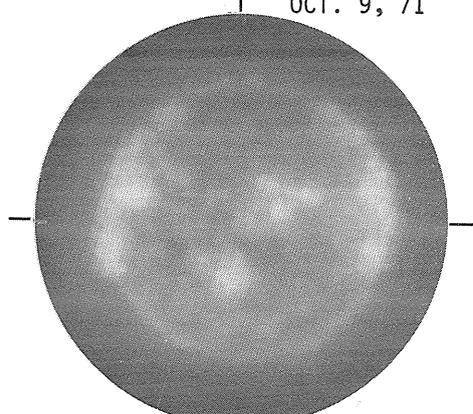
1048 UT

OCT. 6, 71 |



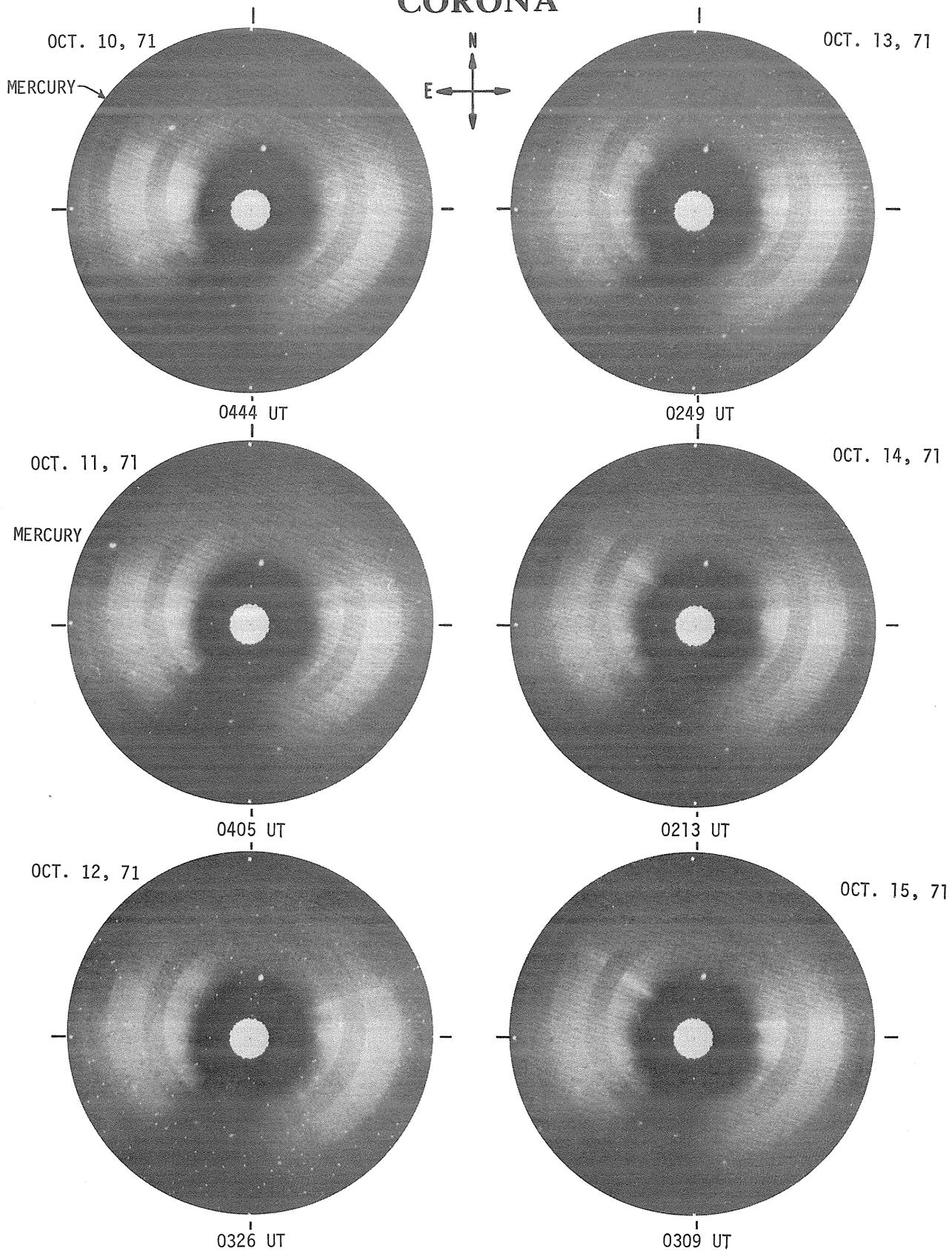
1534 UT

| OCT. 9, 71

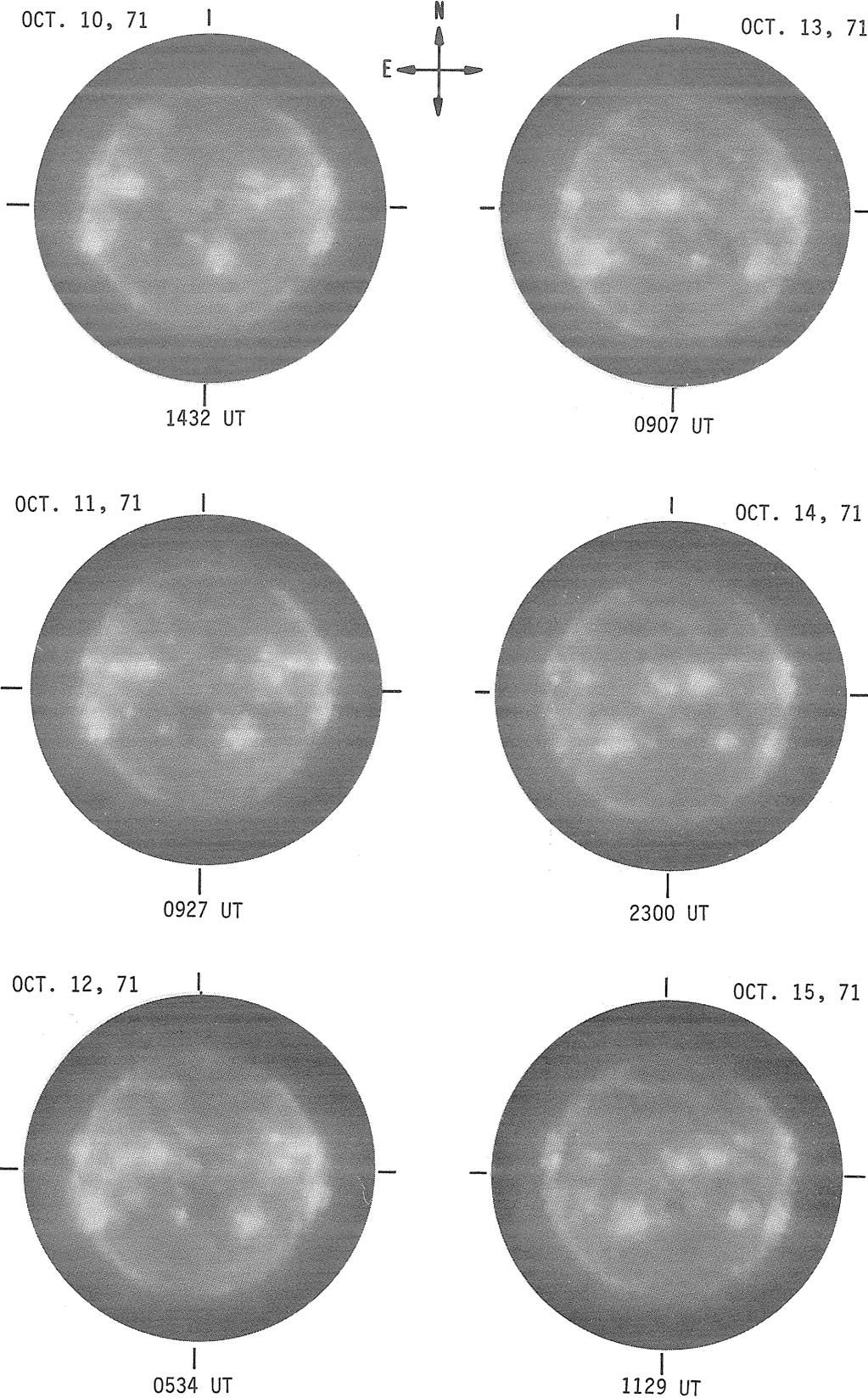


1348 UT

WHITE LIGHT CORONA

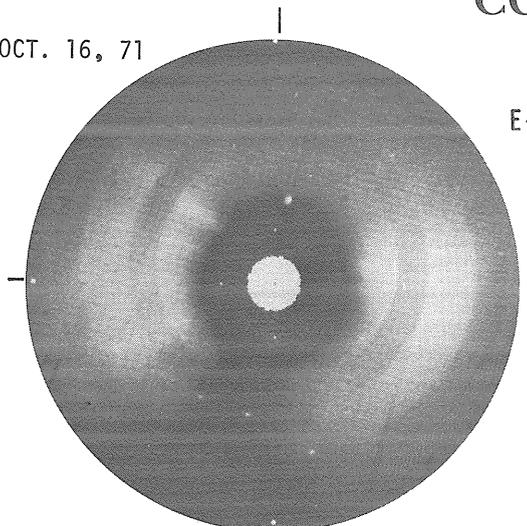


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171-630Å



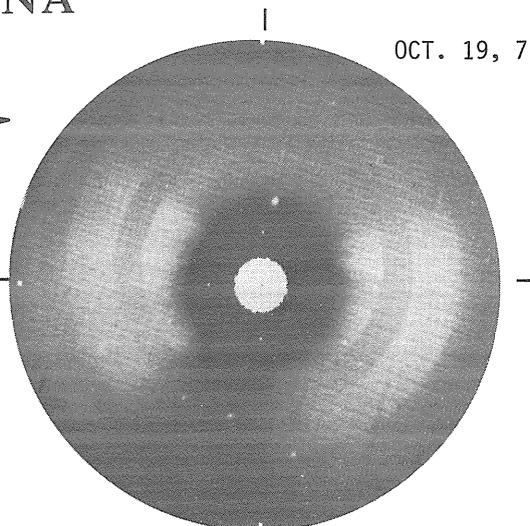
WHITE LIGHT CORONA

OCT. 16, 71

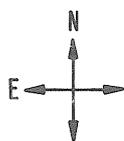


0409 UT

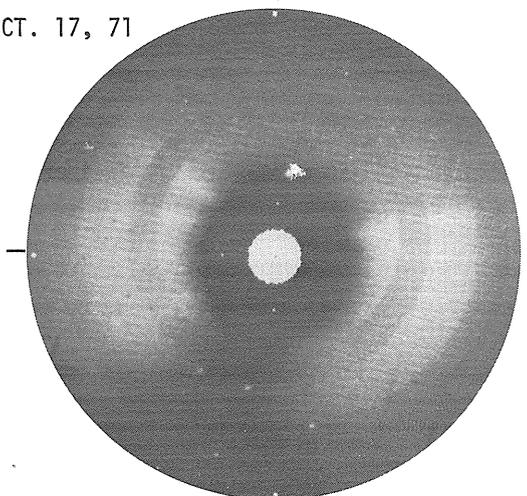
OCT. 19, 71



0051 UT

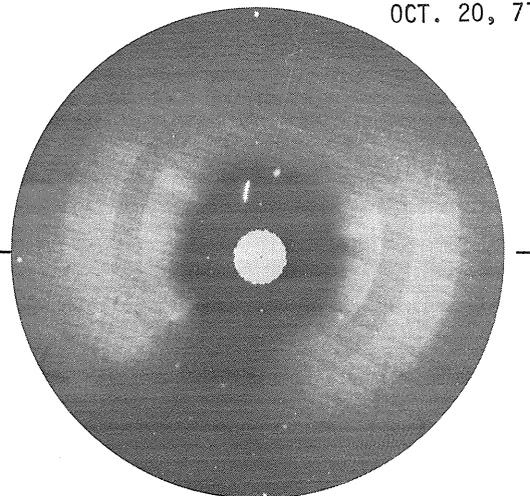


OCT. 17, 71



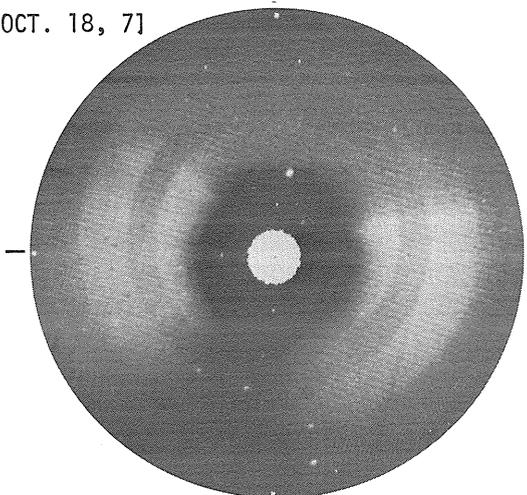
0329 UT

OCT. 20, 71



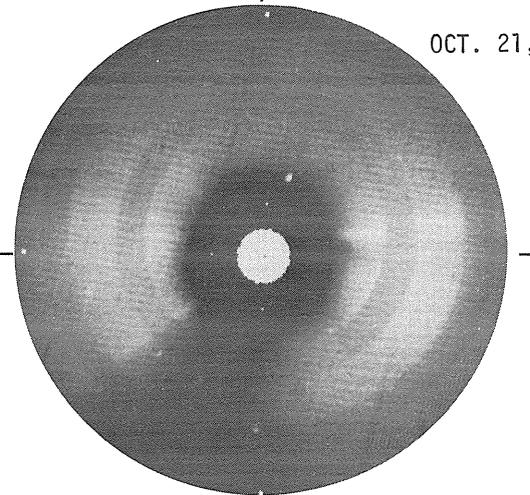
0307 UT

OCT. 18, 71



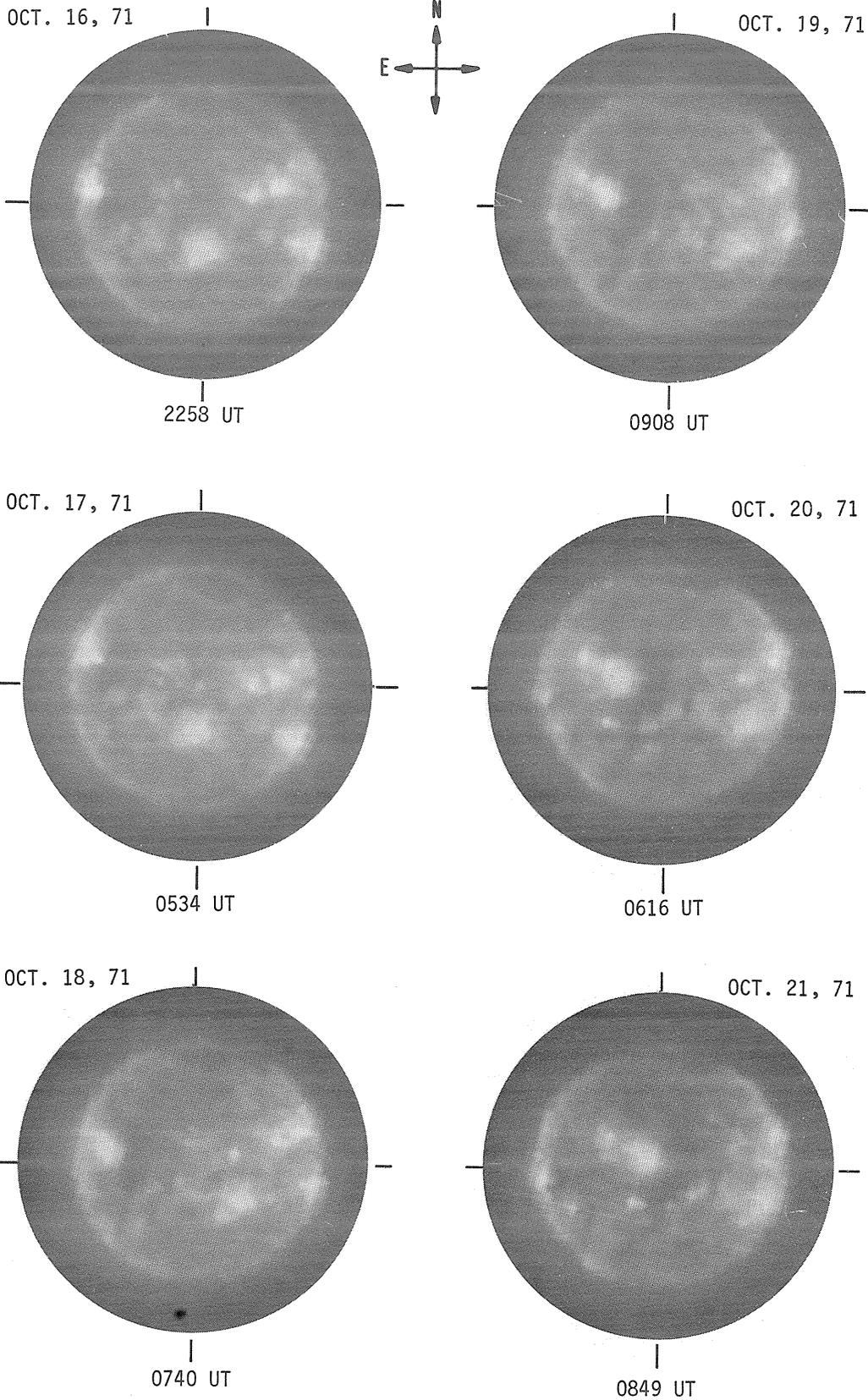
0249 UT

OCT. 21, 71



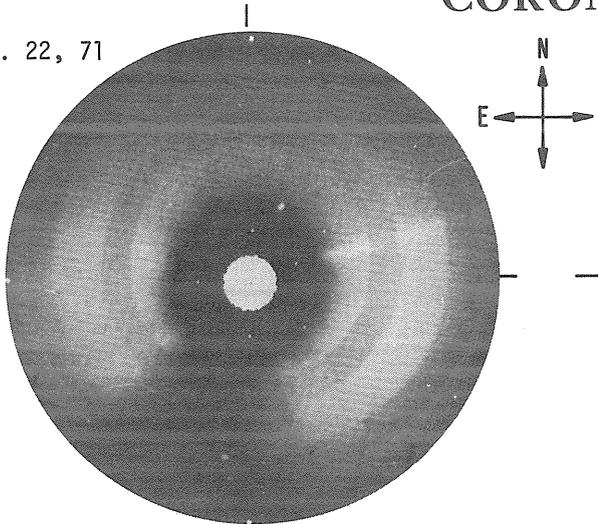
0229 UT

XUV
171-630Å



WHITE LIGHT CORONA

OCT. 22, 71

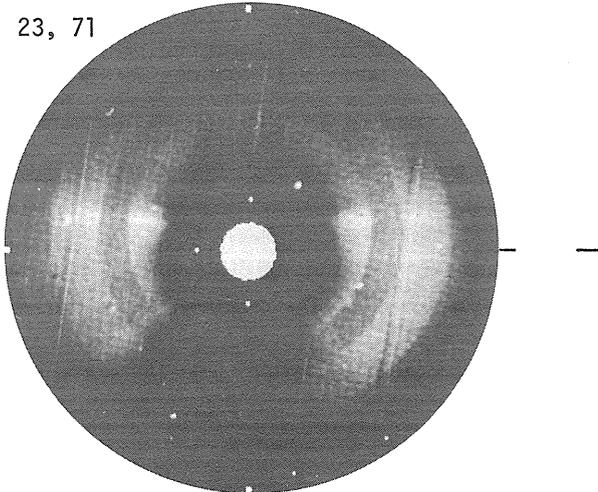


0325 UT

OCT. 25, 71

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OCT. 23, 71

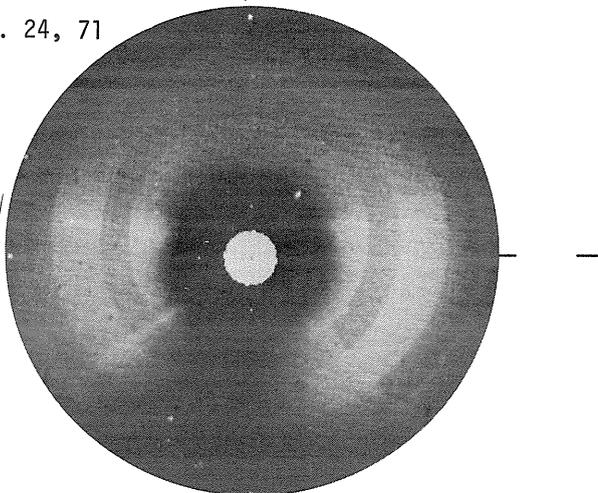


2129 UT

OCT. 26, 71

NO DATA

OCT. 24, 71



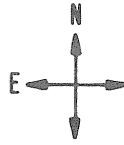
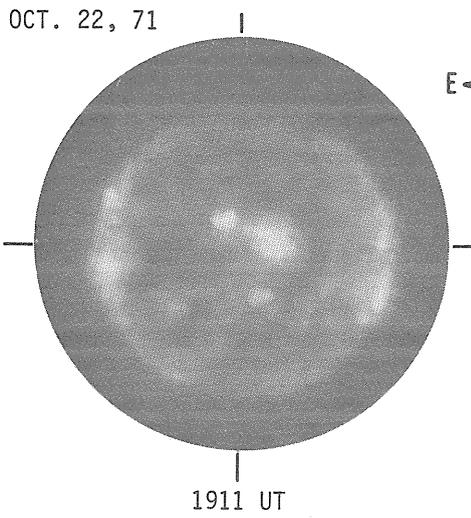
0651 UT

OCT. 27, 71

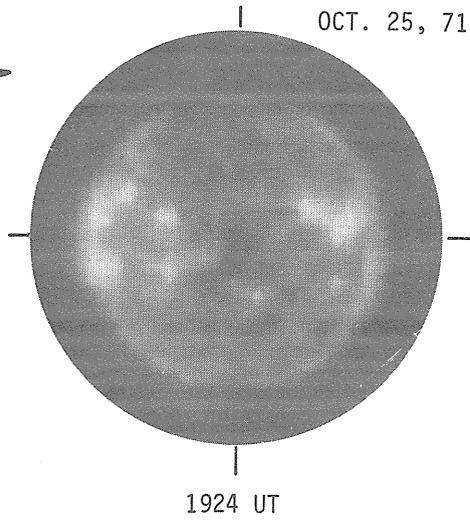
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XUV
171-630Å

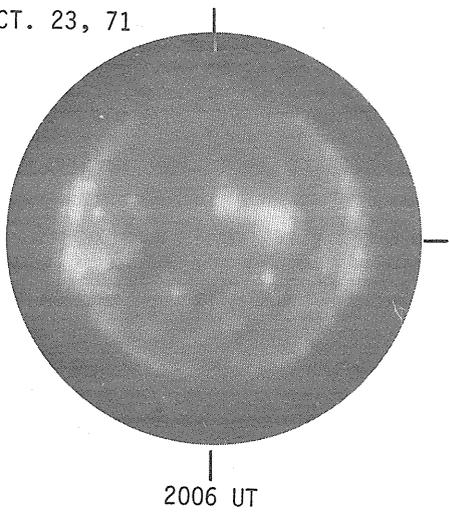
OCT. 22, 71



OCT. 25, 71



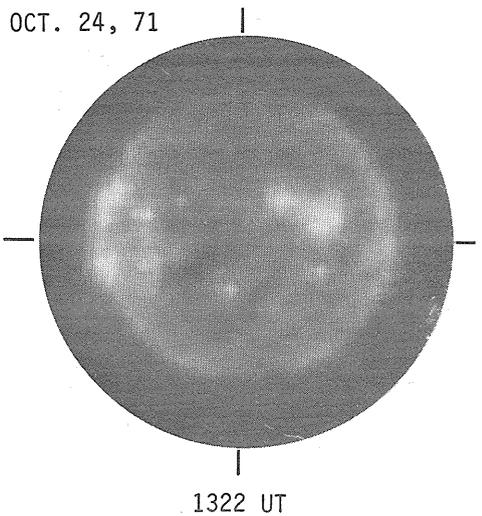
OCT. 23, 71



OCT. 26, 71

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OCT. 24, 71

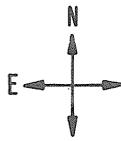


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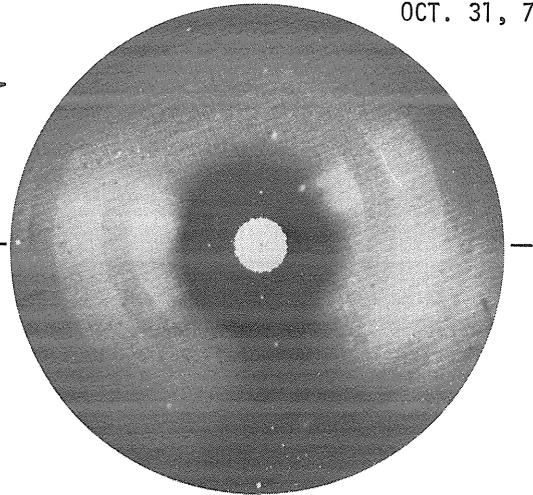
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WHITE LIGHT CORONA

OCT. 28, 71



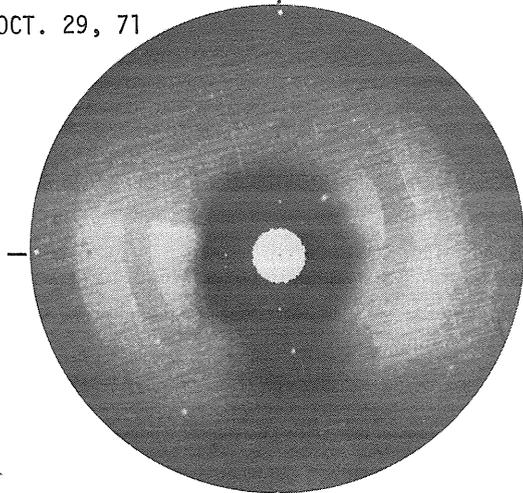
OCT. 31, 71



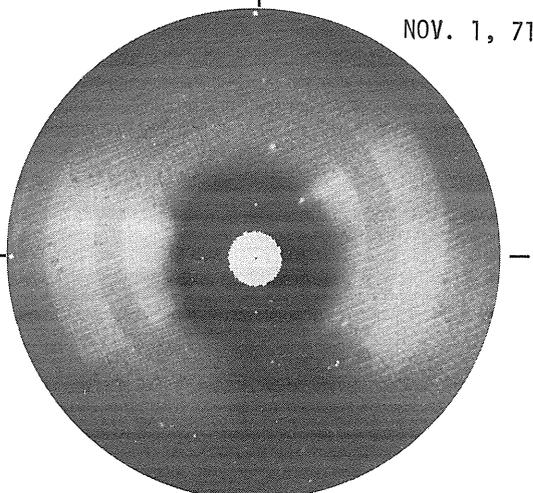
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0711 UT

OCT. 29, 71



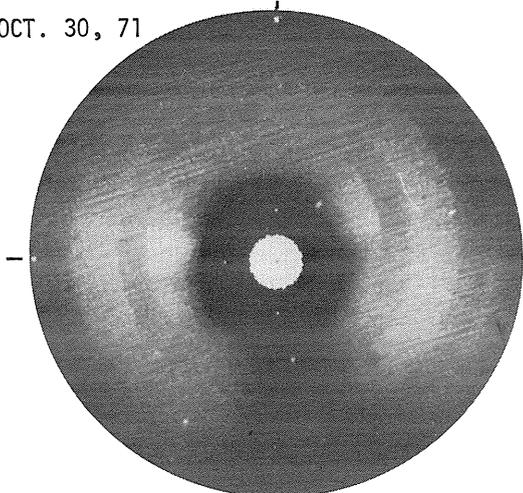
NOV. 1, 71



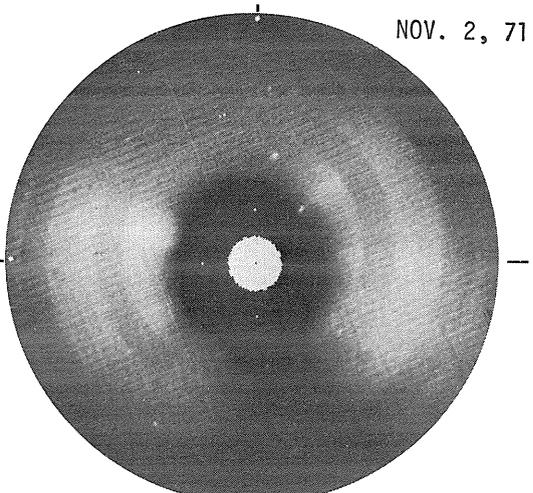
1815 UT

0020 UT

OCT. 30, 71



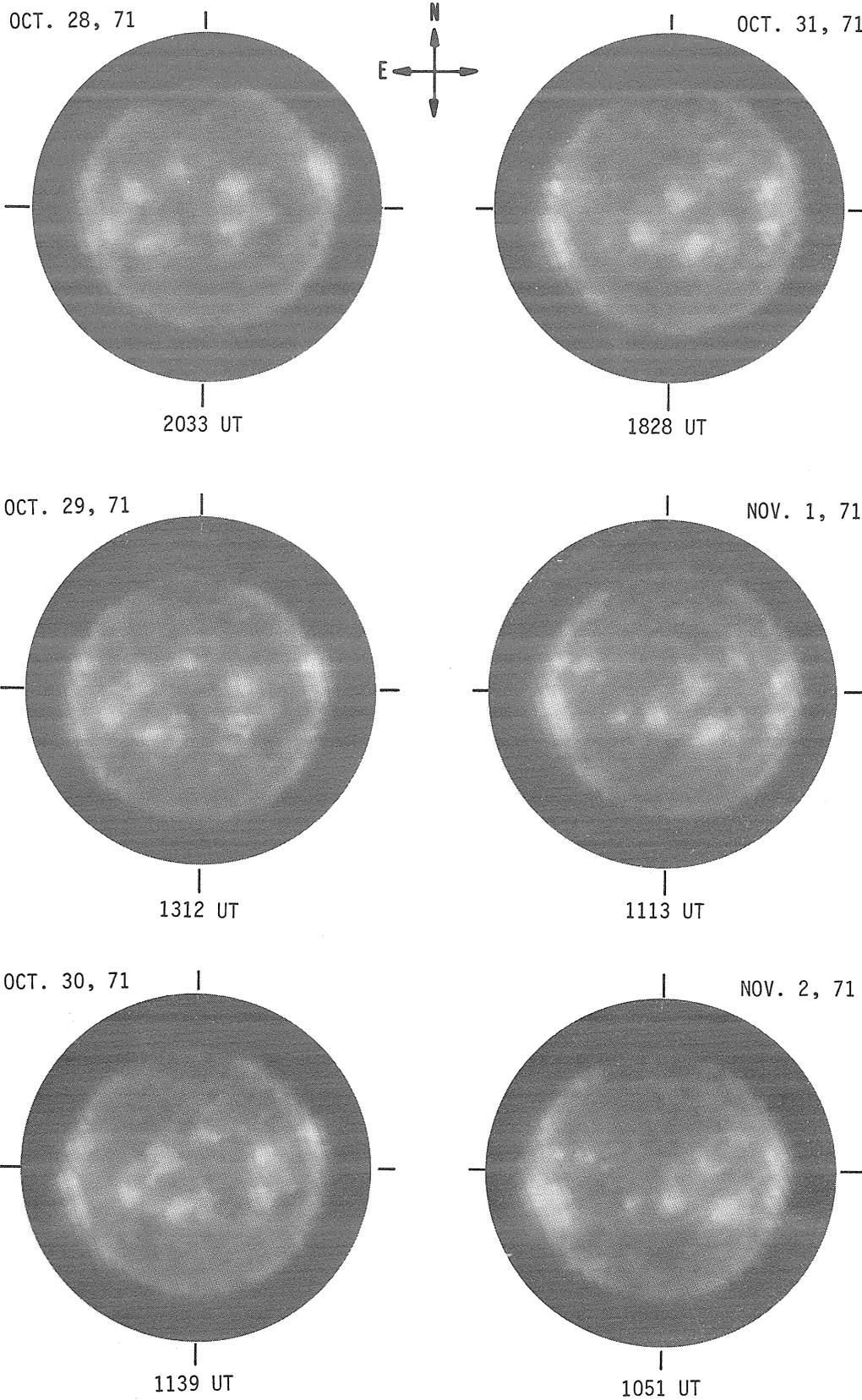
NOV. 2, 71



0458 UT

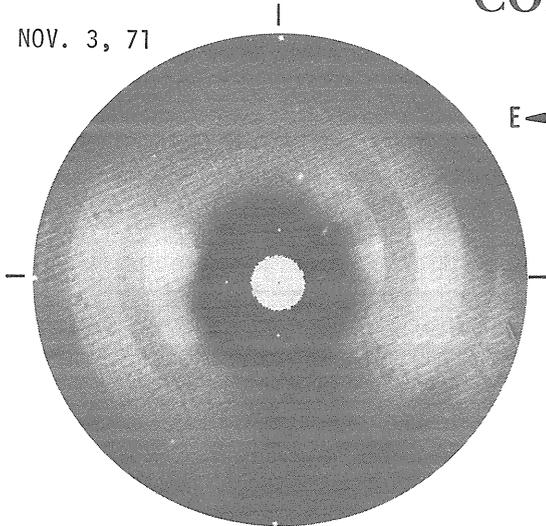
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XUV
171-630Å



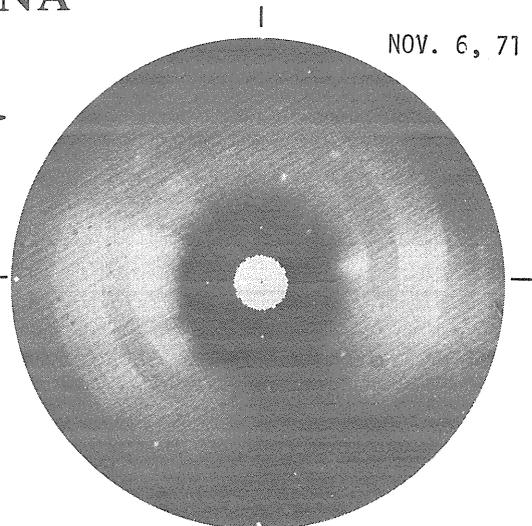
WHITE LIGHT CORONA

NOV. 3, 71



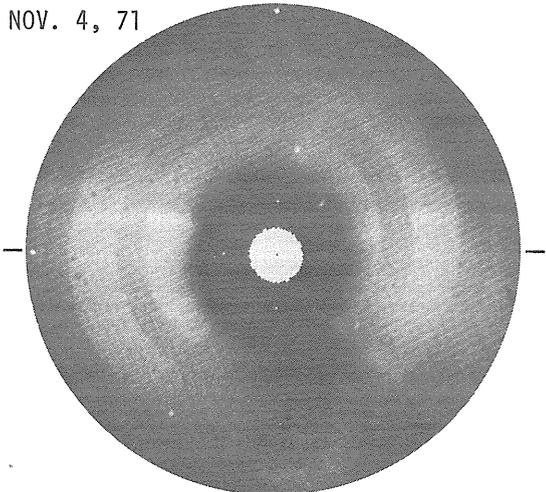
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NOV. 6, 71



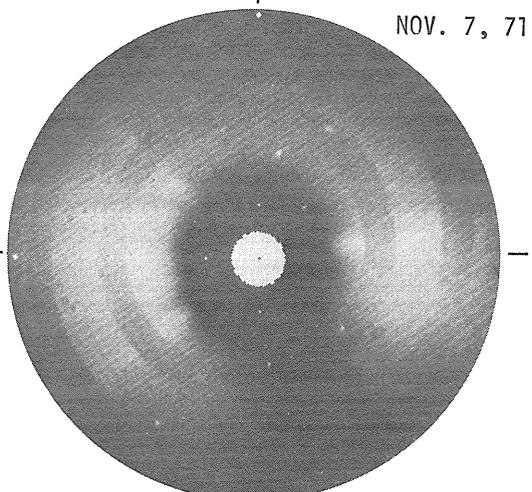
2342 UT

NOV. 4, 71



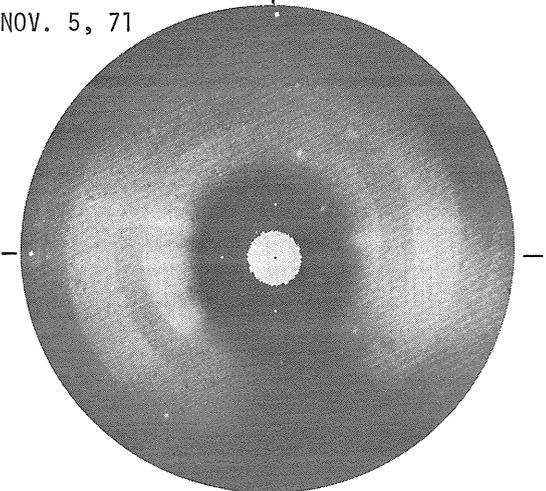
0616 UT

NOV. 7, 71



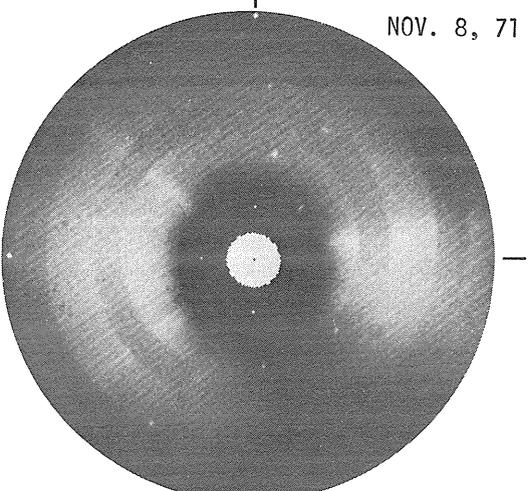
2304 UT

NOV. 5, 71

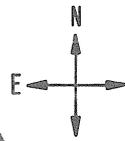


2246 UT

NOV. 8, 71

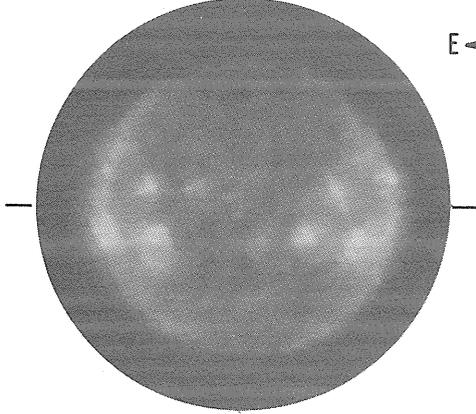


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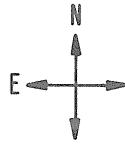


XUV
171-630Å

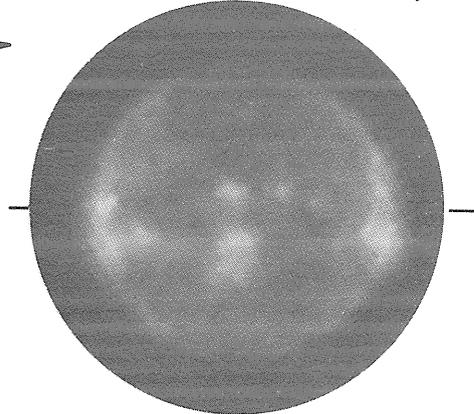
NOV. 3, 71



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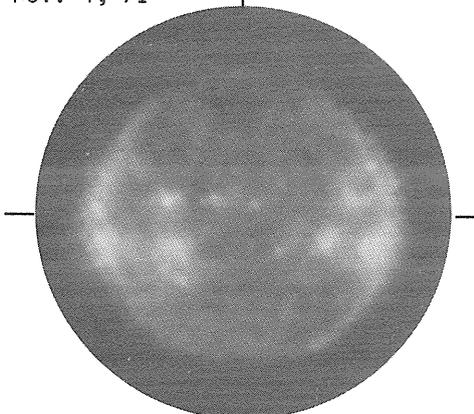


NOV. 6, 71



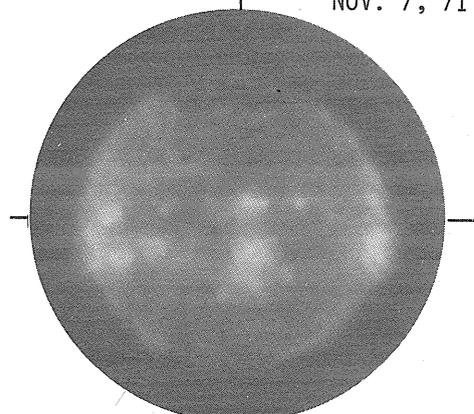
1444 UT

NOV. 4, 71



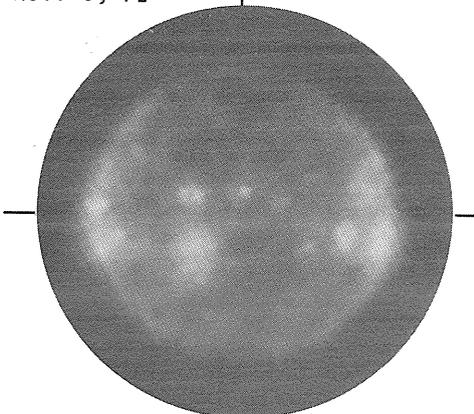
1139 UT

NOV. 7, 71



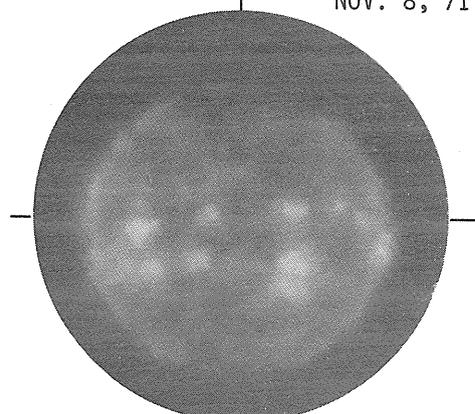
0938 UT

NOV. 5, 71



0855 UT

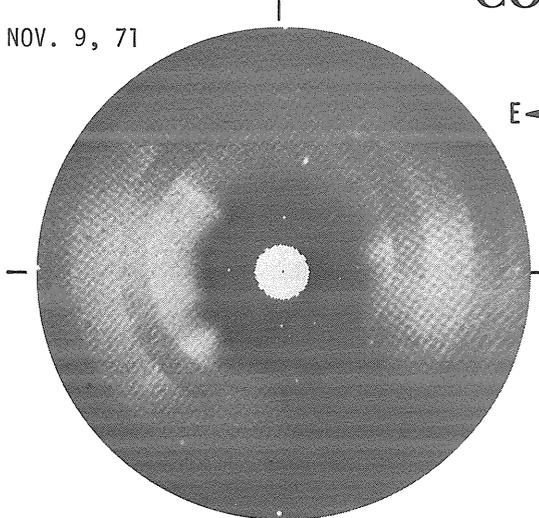
NOV. 8, 71



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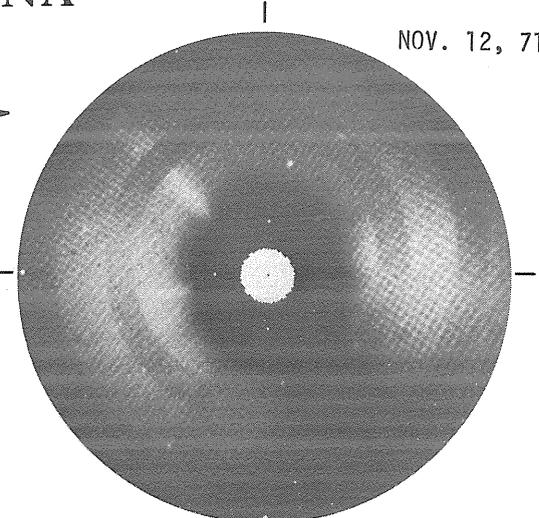
WHITE LIGHT CORONA

NOV. 9, 71



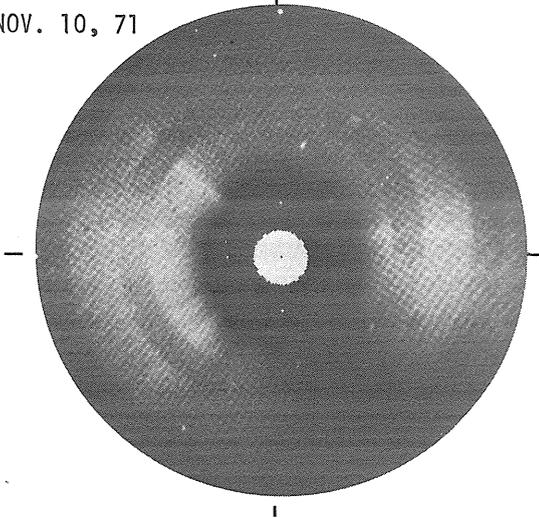
2321 UT

NOV. 12, 71



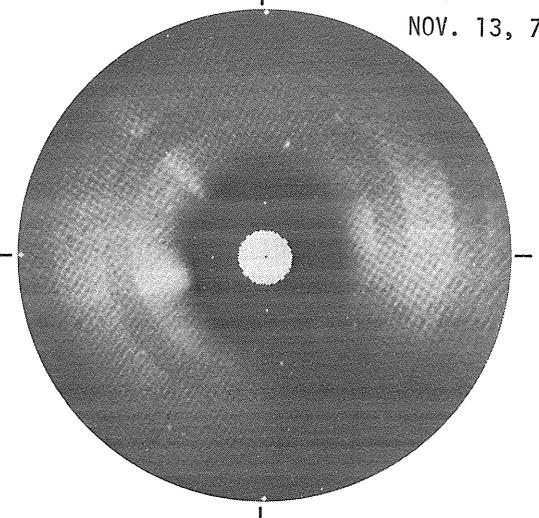
2126 UT

NOV. 10, 71



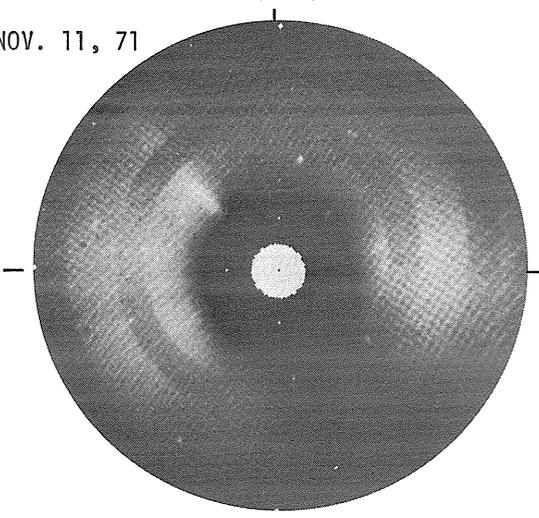
2243 UT

NOV. 13, 71



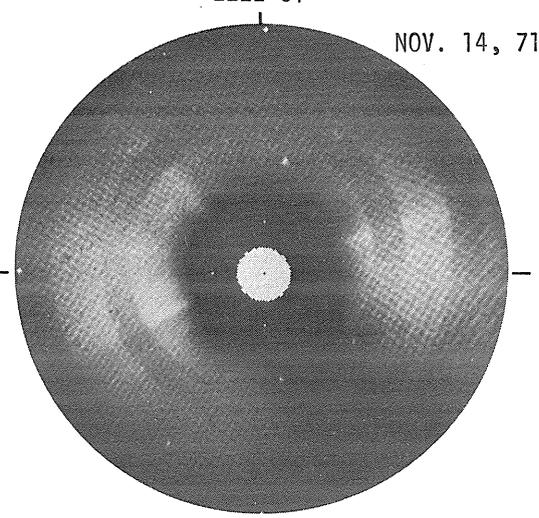
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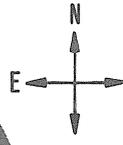


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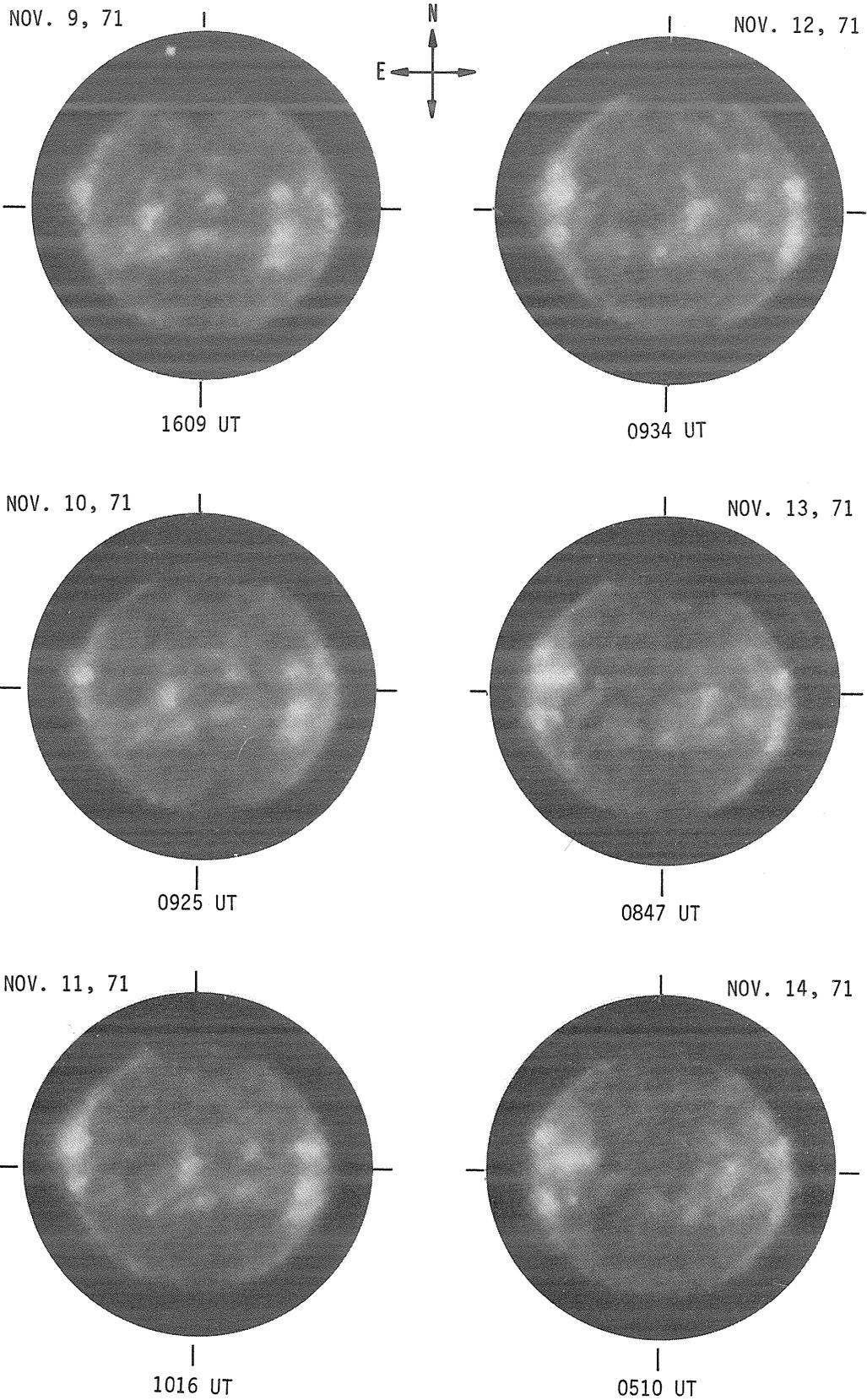
NOV. 14, 71



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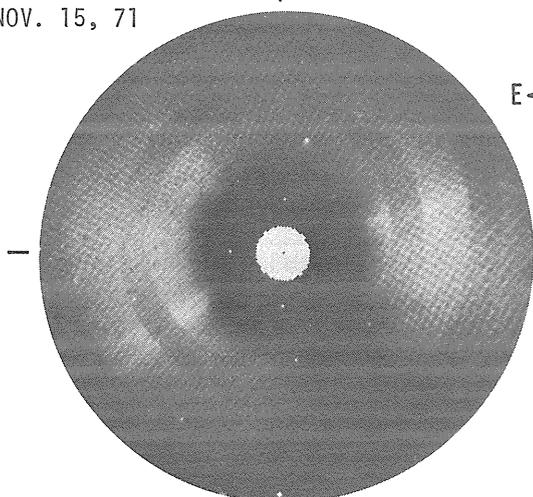


XUV
171-630Å

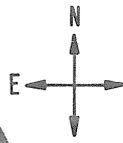


WHITE LIGHT CORONA

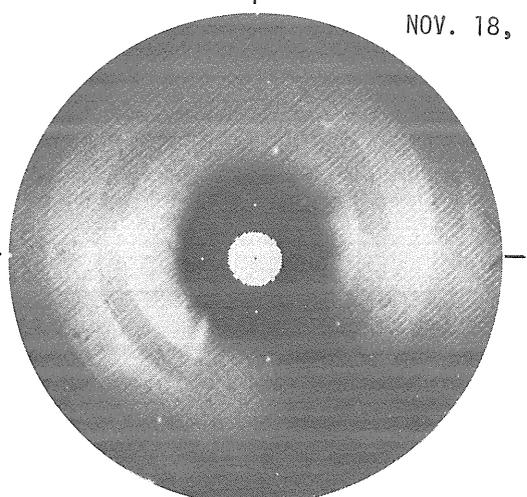
NOV. 15, 71



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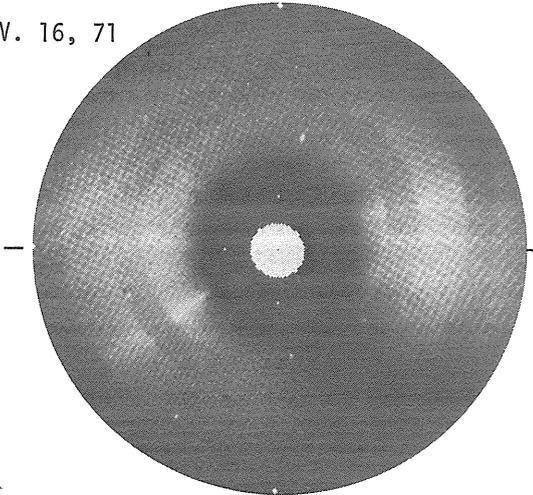


NOV. 18, 71



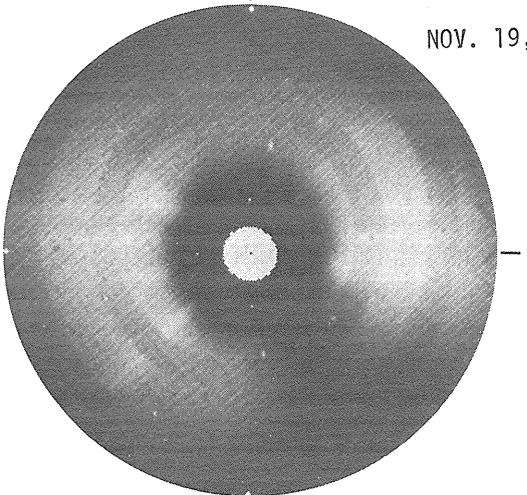
2350 UT

NOV. 16, 71



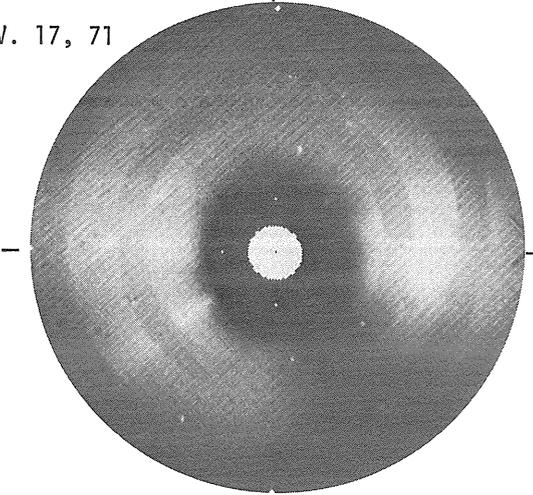
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NOV. 19, 71



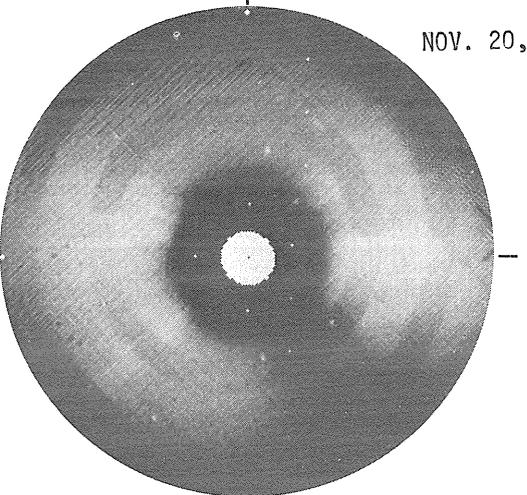
2312 UT

NOV. 17, 71



1948 UT

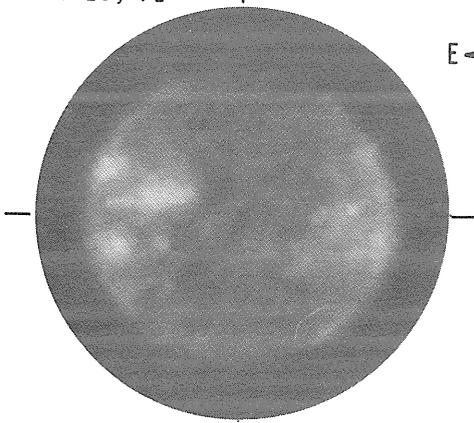
NOV. 20, 71



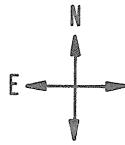
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171-630Å

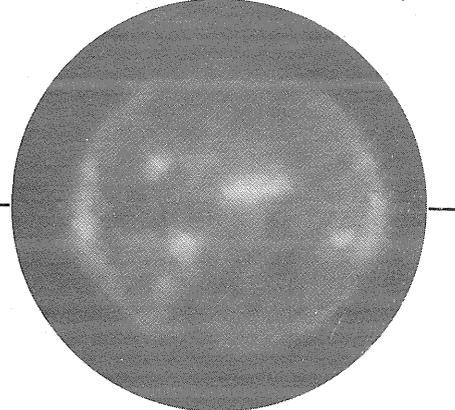
NOV. 15, 71



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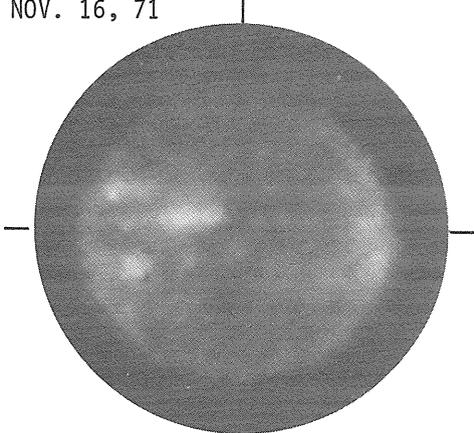


NOV. 18, 71



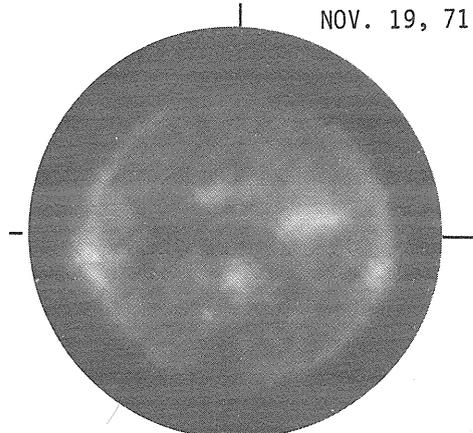
0711 UT

NOV. 16, 71



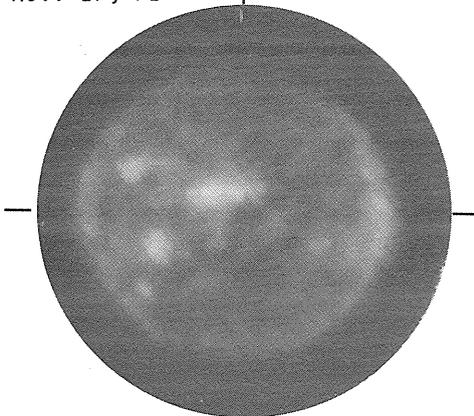
0402 UT

NOV. 19, 71



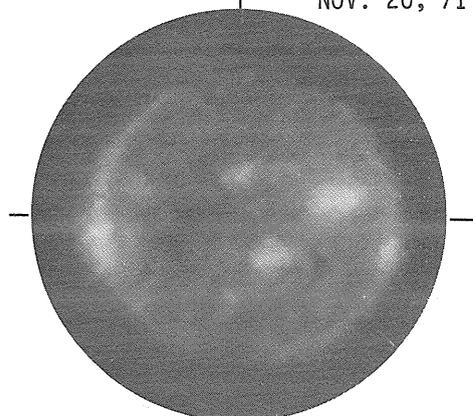
1606 UT

NOV. 17, 71



0321 UT

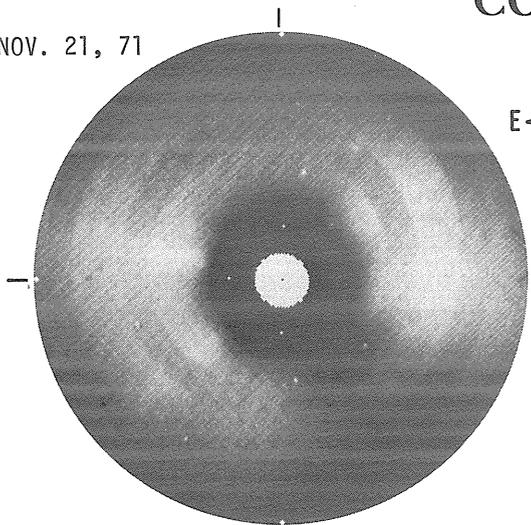
NOV. 20, 71



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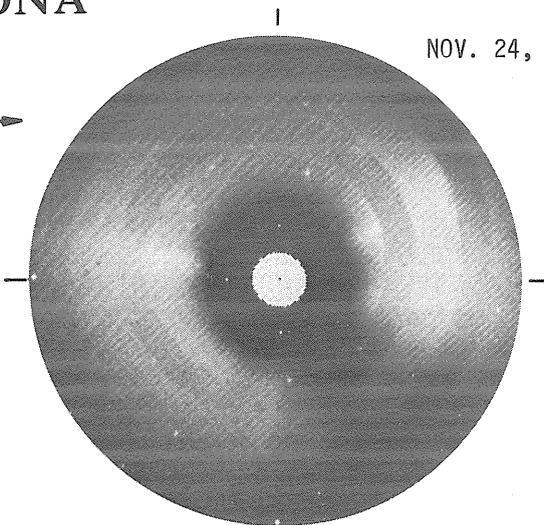
WHITE LIGHT CORONA

NOV. 21, 71



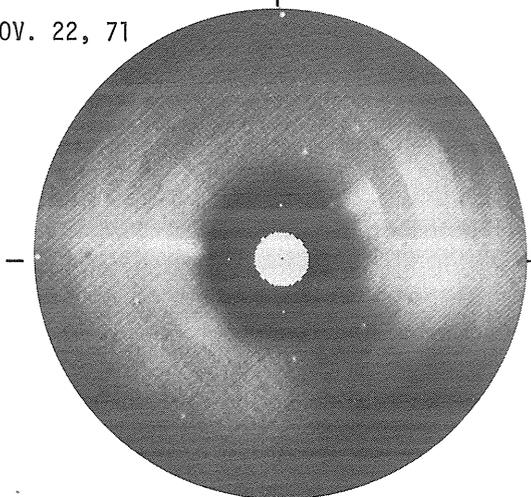
2329 UT

NOV. 24, 71



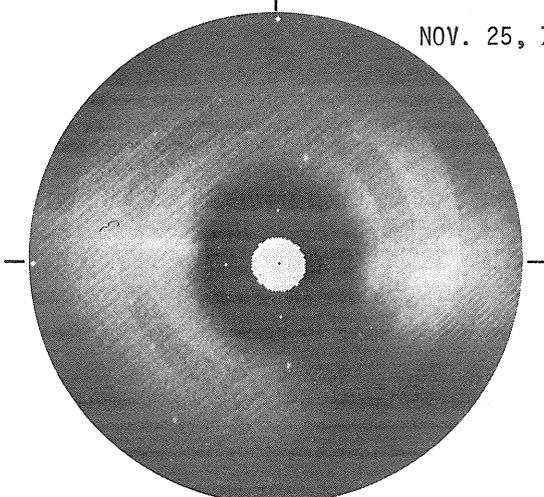
2134 UT

NOV. 22, 71



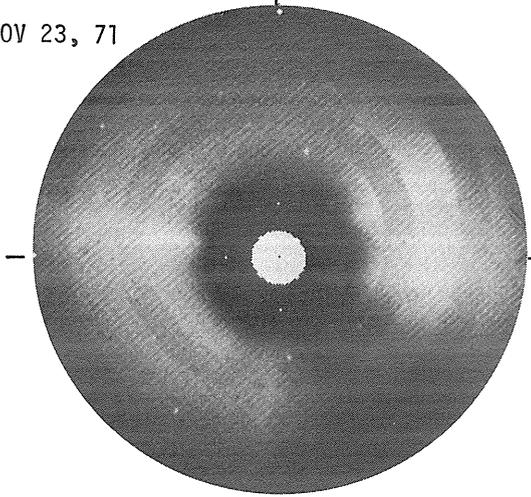
2251 UT

NOV. 25, 71



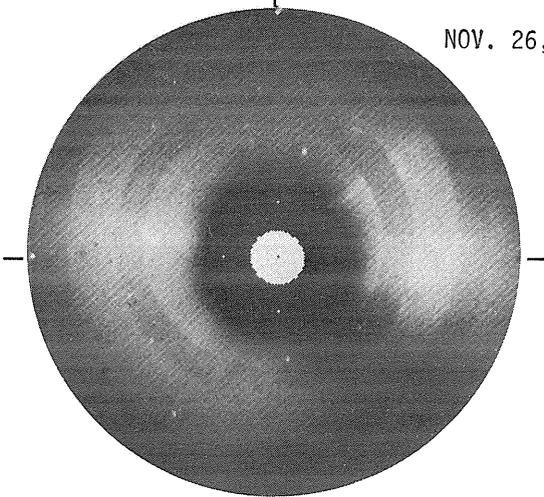
2104 UT

NOV 23, 71



2212 UT

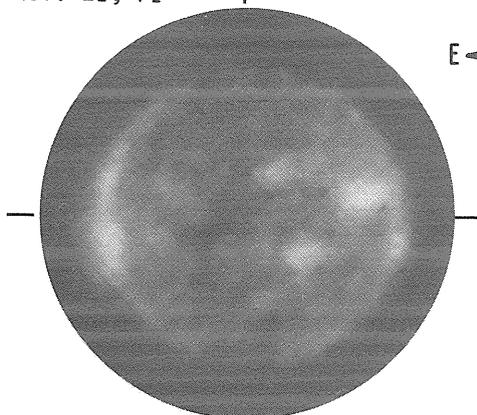
NOV. 26, 71



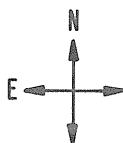
2025 UT

XUV
171-630Å

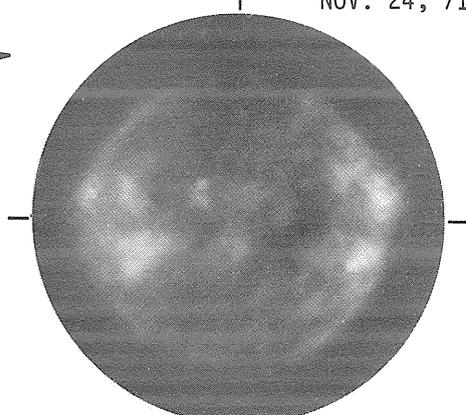
NOV. 21, 71



0347 UT

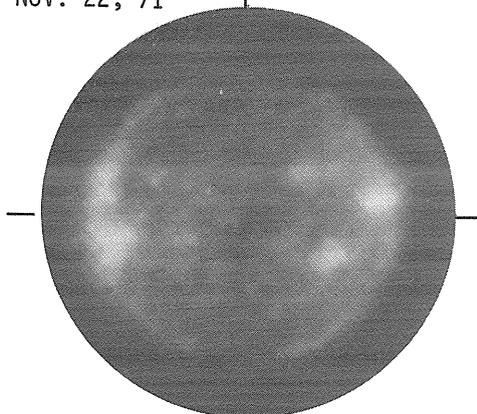


NOV. 24, 71



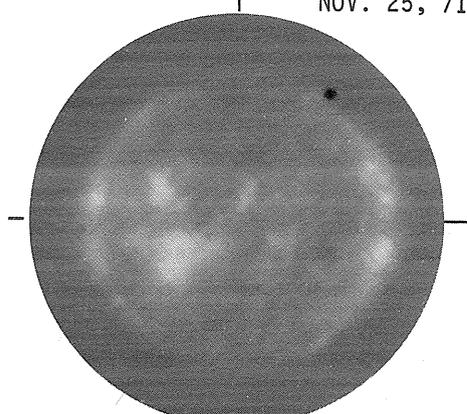
0333 UT

NOV. 22, 71



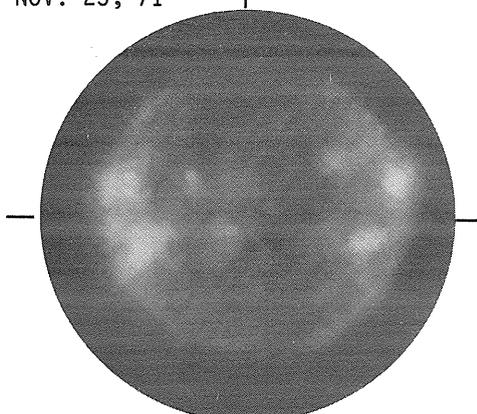
0932 UT

NOV. 25, 71



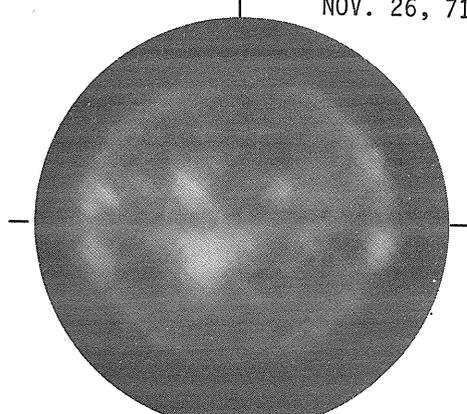
0859 UT

NOV. 23, 71



0529 UT

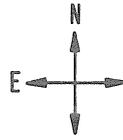
NOV. 26, 71



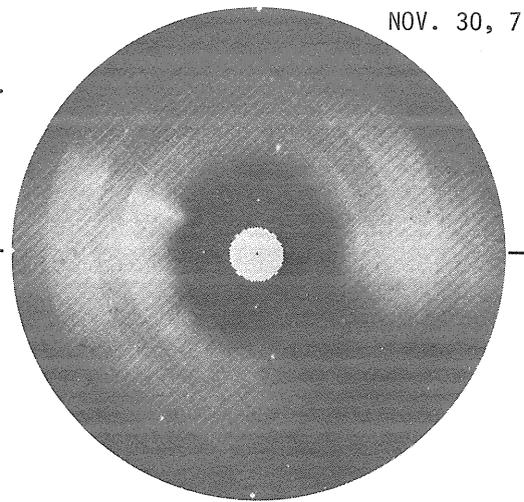
0933 UT

WHITE LIGHT CORONA

NOV. 27, 71

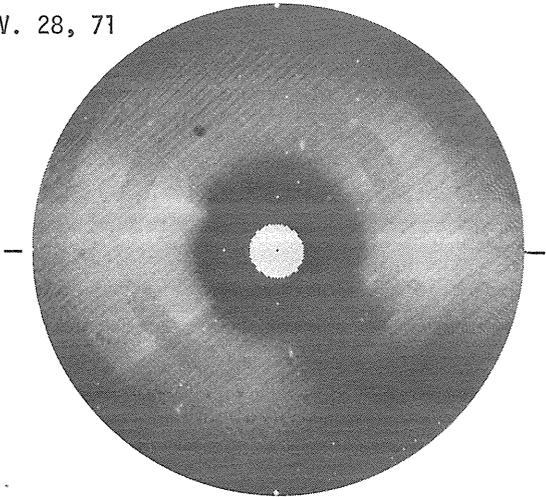


NOV. 30, 71



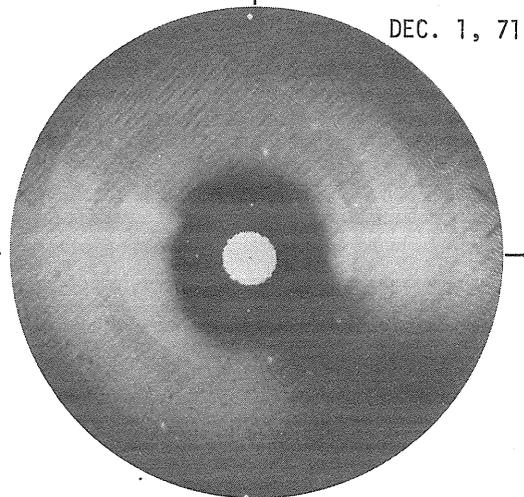
NOV. 28, 71

NO DATA



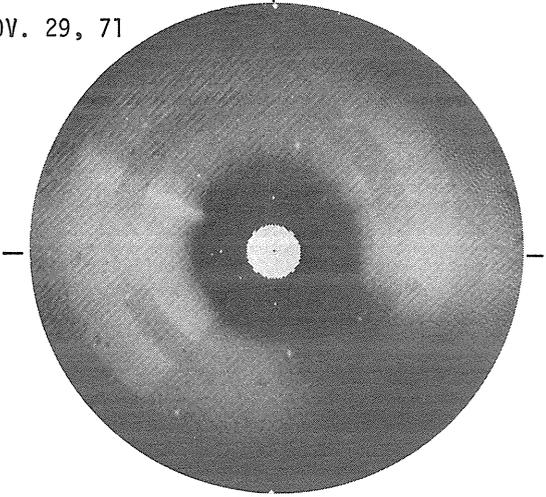
2354 UT

DEC. 1, 71



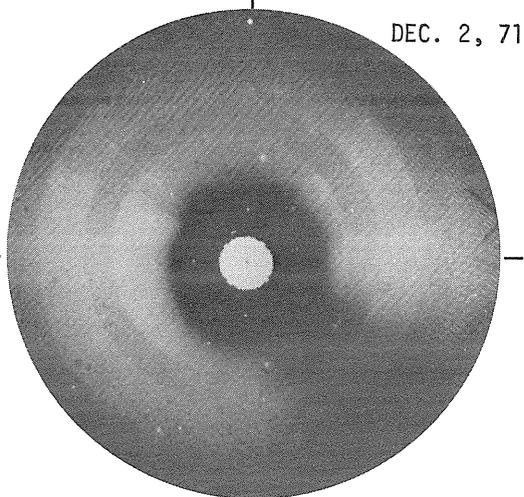
2339 UT

NOV. 29, 71



2315 UT

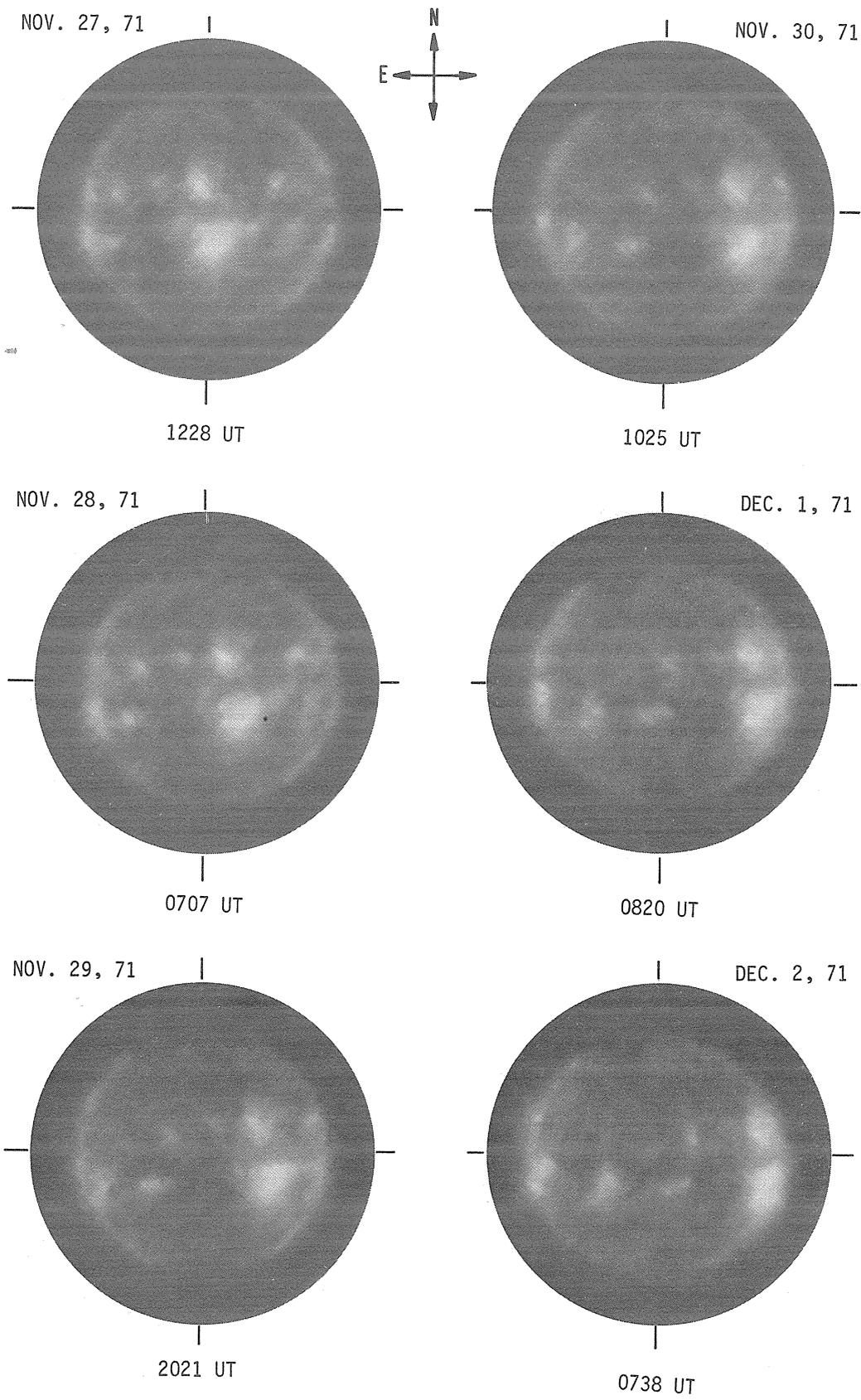
DEC. 2, 71



2300 UT

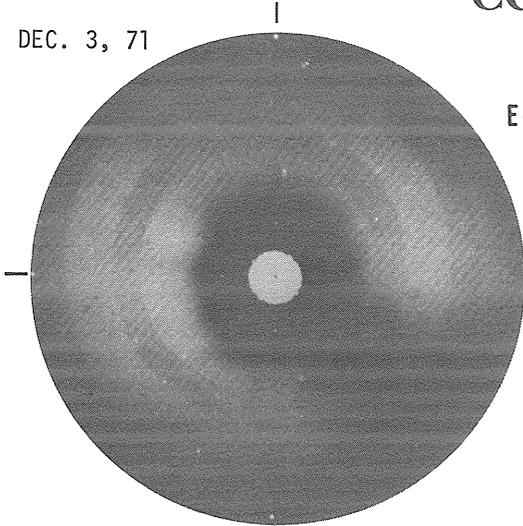
2236 UT

XUV
171-630Å



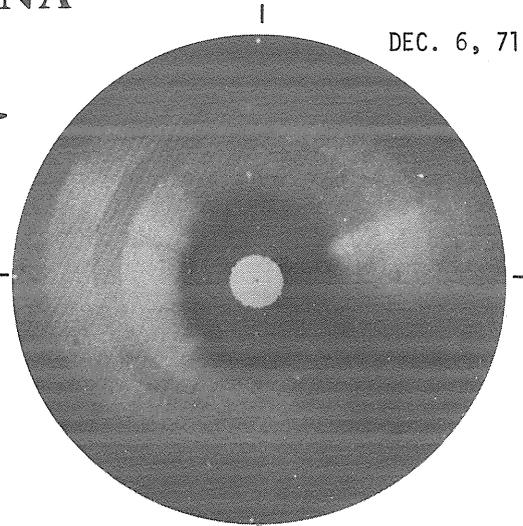
WHITE LIGHT CORONA

DEC. 3, 71

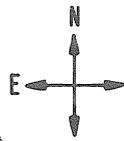


2330 UT

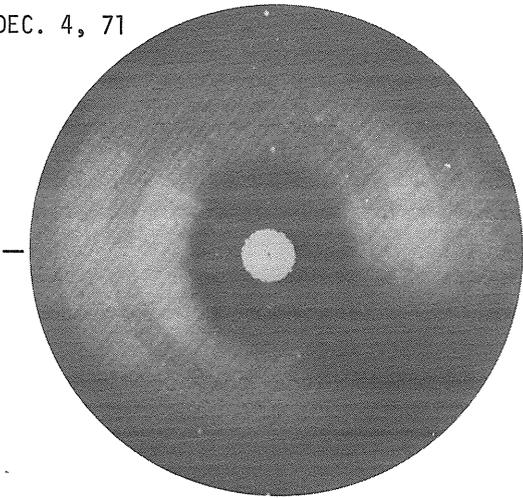
DEC. 6, 71



2132 UT

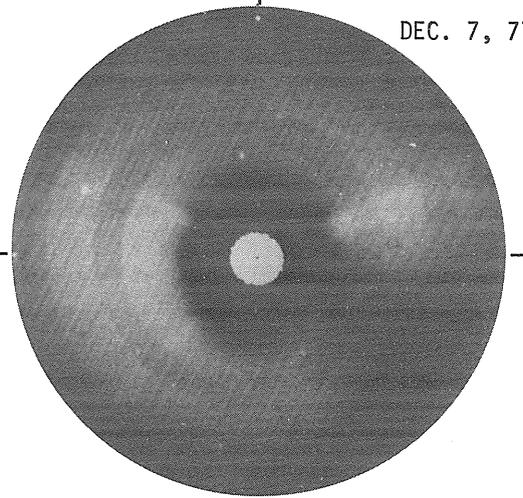


DEC. 4, 71



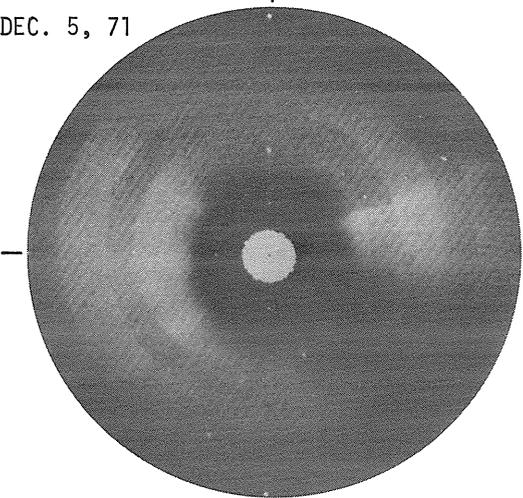
2251 UT

DEC. 7, 71



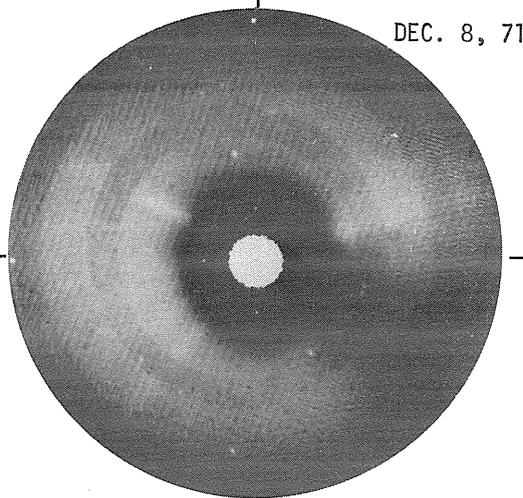
2226 UT

DEC. 5, 71



2211 UT

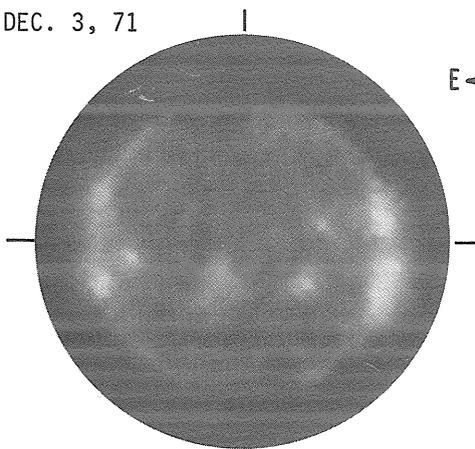
DEC. 8, 71



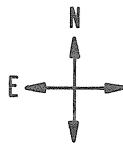
1845 UT

XUV
171-630Å

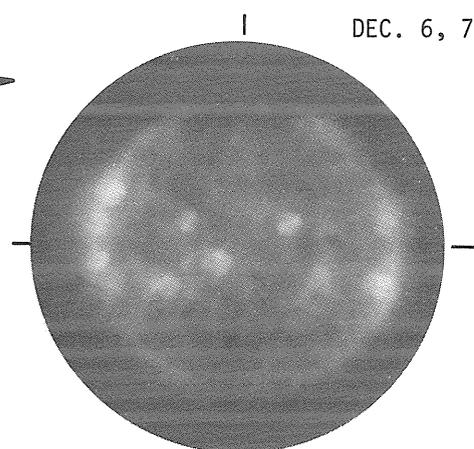
DEC. 3, 71



1005 UT

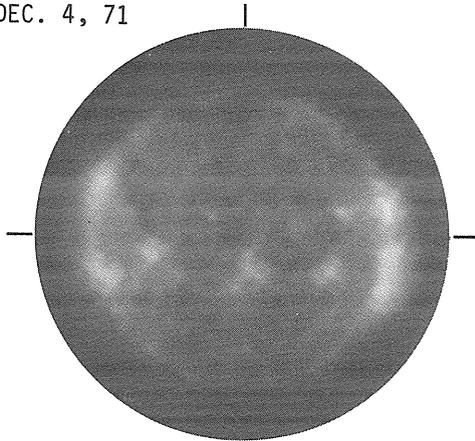


DEC. 6, 71



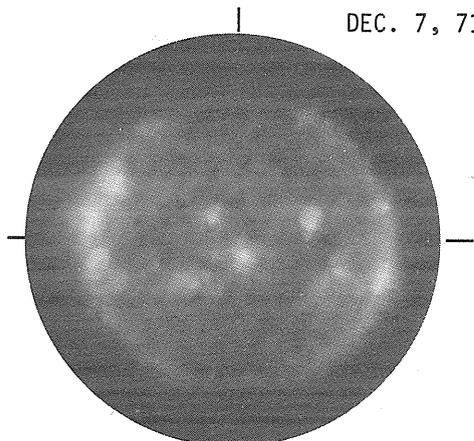
0750 UT

DEC. 4, 71



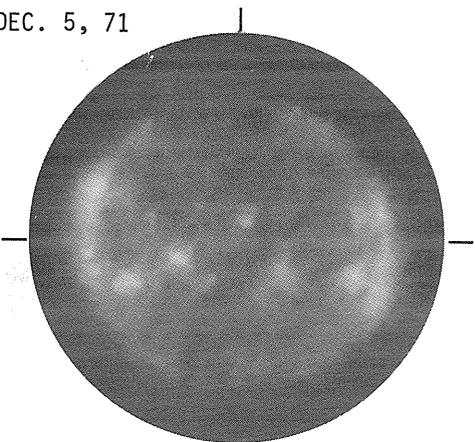
0615 UT

DEC. 7, 71



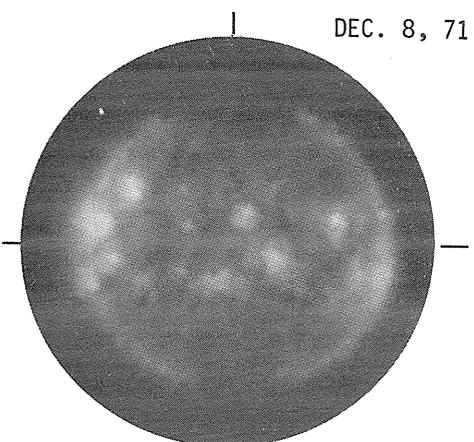
0600 UT

DEC. 5, 71



0830 UT

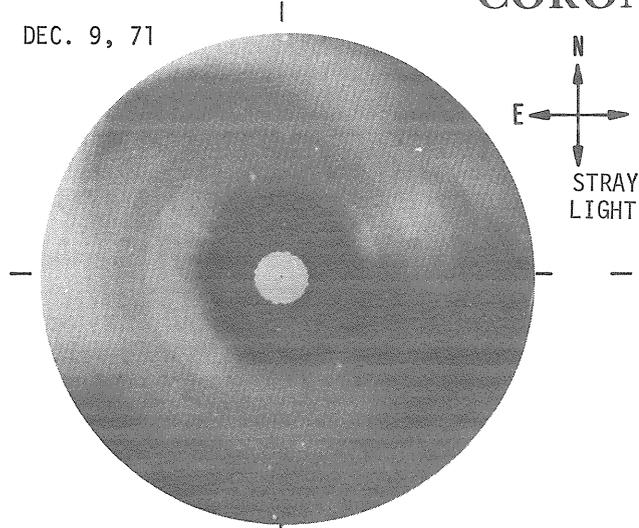
DEC. 8, 71



0512 UT

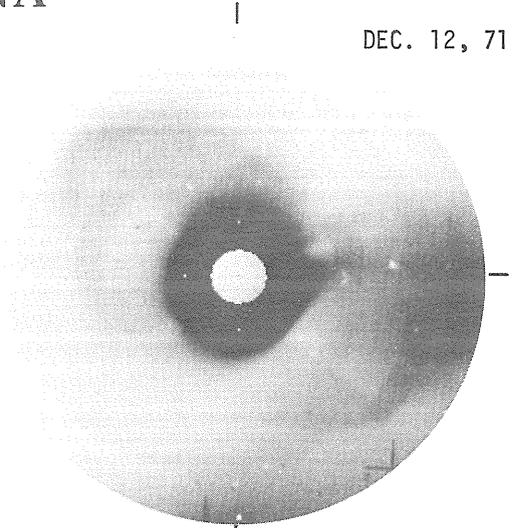
WHITE LIGHT CORONA

DEC. 9, 71

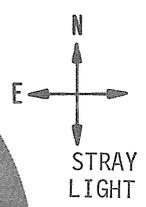


2108 UT

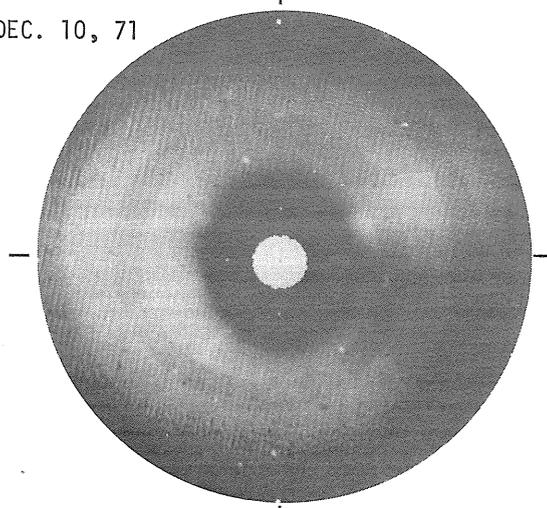
DEC. 12, 71



0337 UT

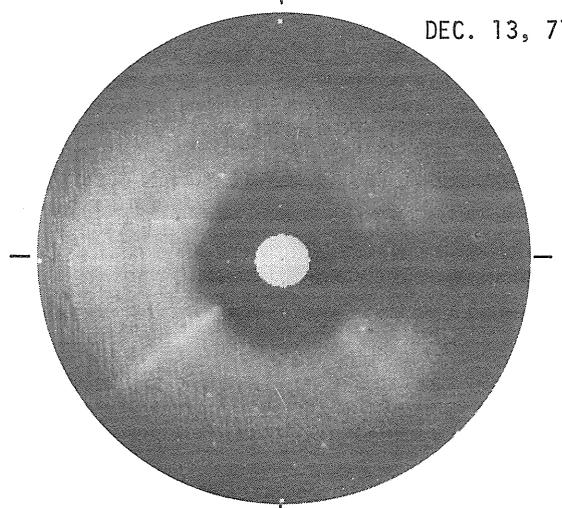


DEC. 10, 71



0155 UT

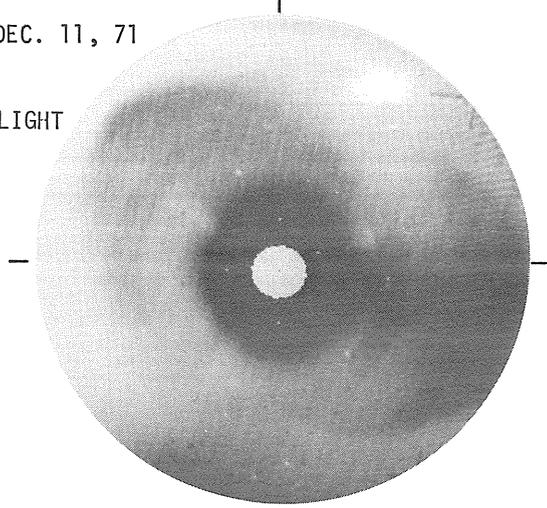
DEC. 13, 71



0503 UT

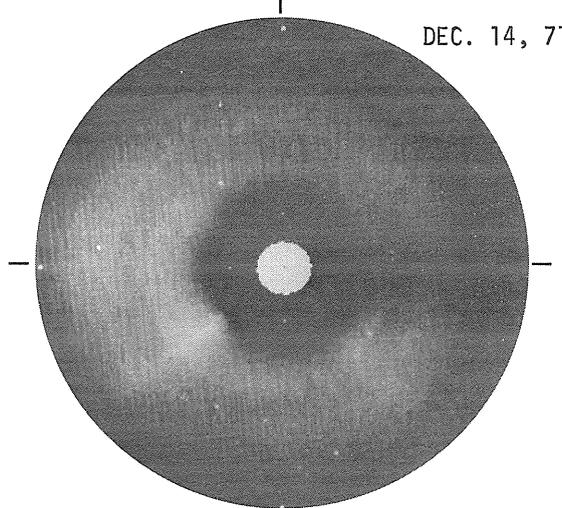
DEC. 11, 71

STRAY LIGHT



0109 UT

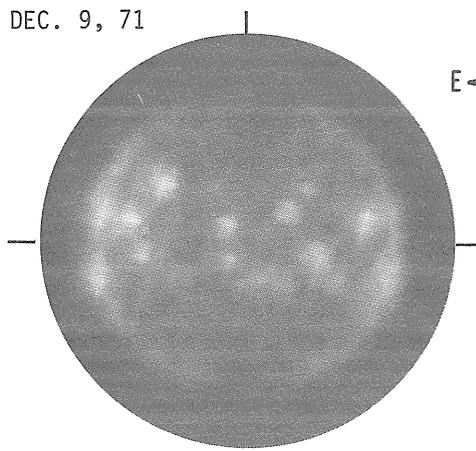
DEC. 14, 71



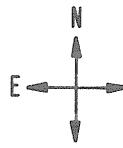
0239 UT

XUV
171-630Å

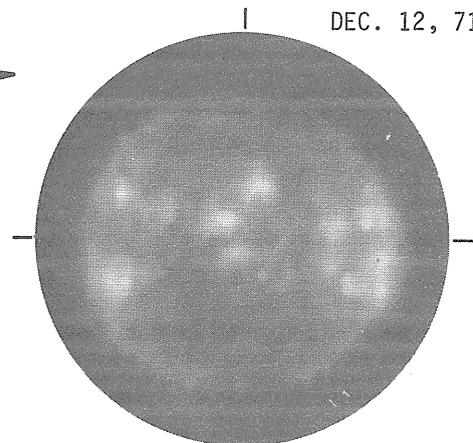
DEC. 9, 71



0430 UT

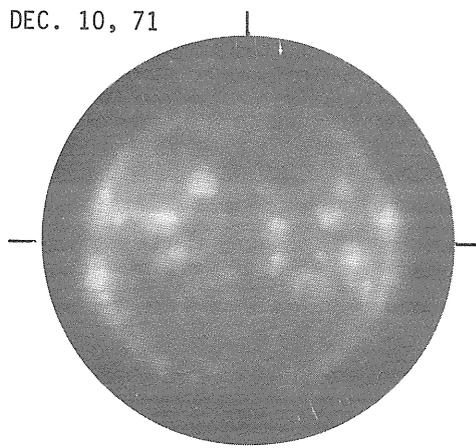


DEC. 12, 71



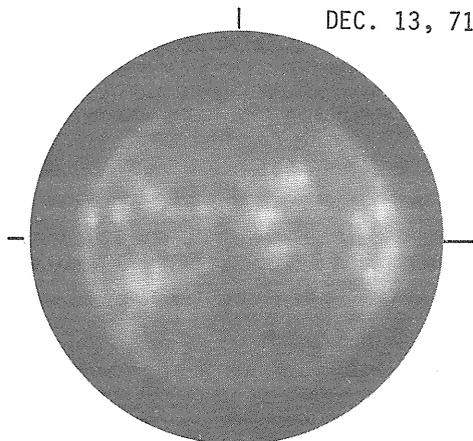
1317 UT

DEC. 10, 71



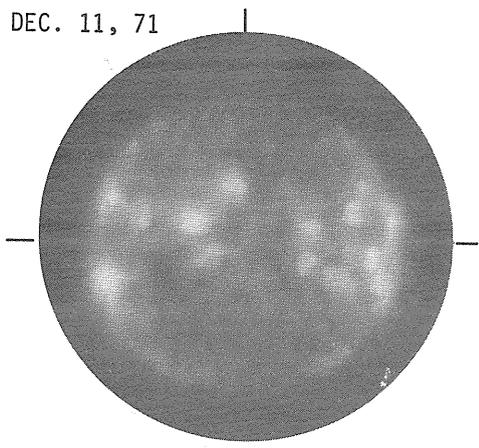
1434 UT

DEC. 13, 71



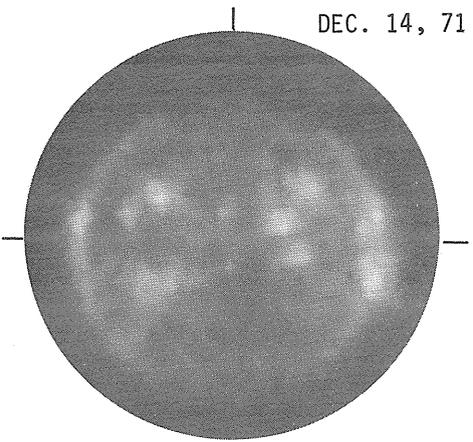
1608 UT

DEC. 11, 71



1242 UT

DEC. 14, 71

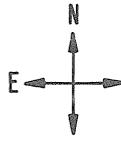


1212 UT

WHITE LIGHT CORONA

DEC. 15, 71

DEC. 18, 71

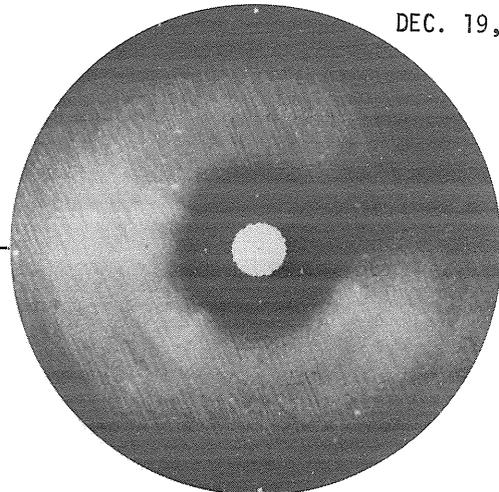


NO DATA

NO DATA

DEC. 16, 71

DEC. 19, 71



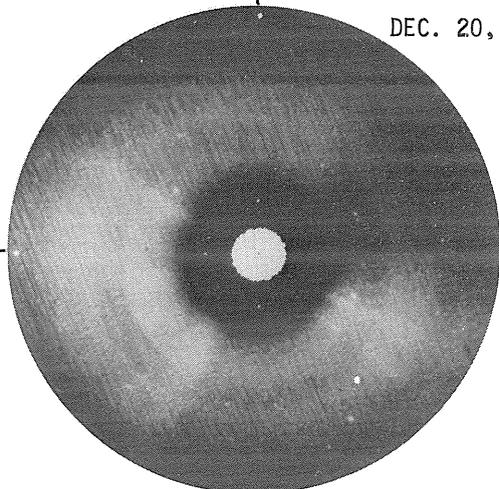
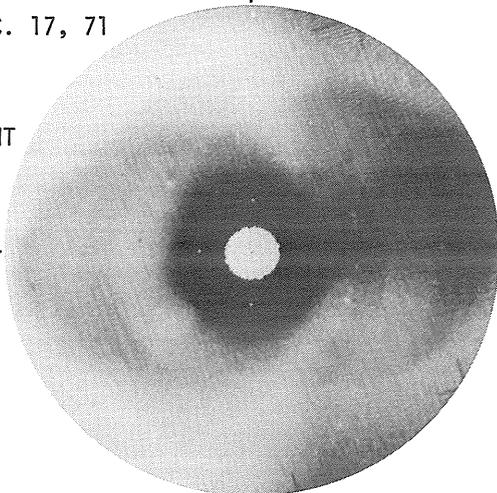
NO DATA

0411 UT

DEC. 17, 71

DEC. 20, 71

STRAY LIGHT



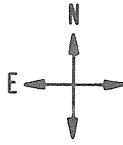
0510 UT

0038 UT

XUV
171-630Å

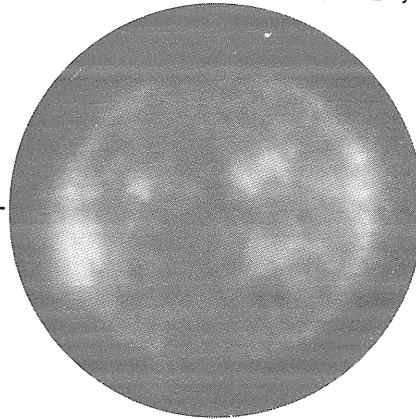
DEC. 15, 71

|



DEC. 18, 71

|

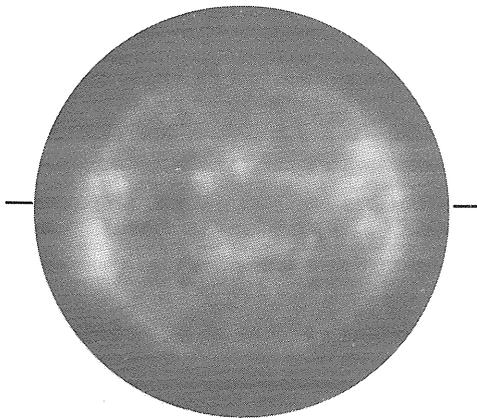


1240 UT

NO DATA

DEC. 16, 71

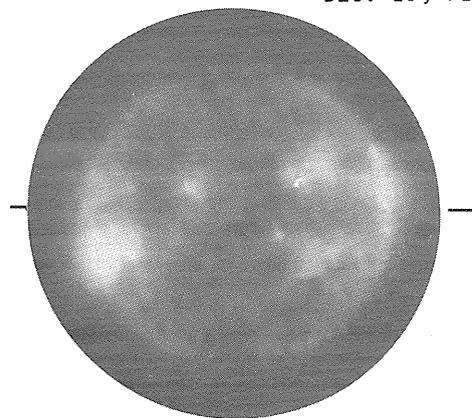
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1230 UT

DEC. 19, 71

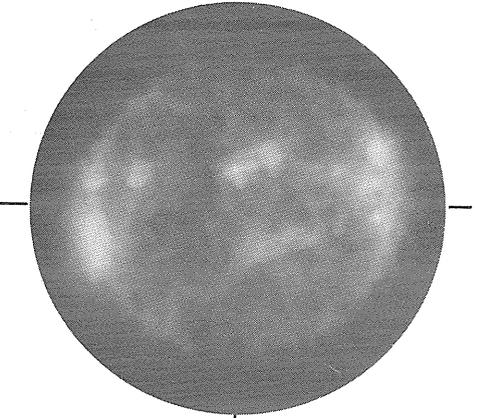
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1218 UT

DEC. 17, 71

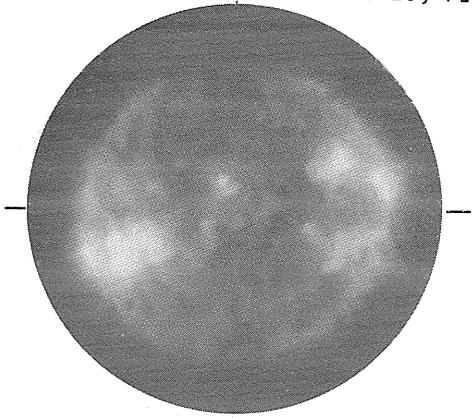
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1330 UT

DEC. 20, 71

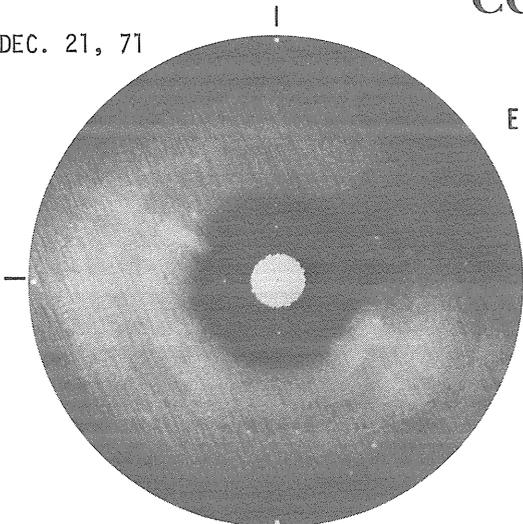
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1253 UT

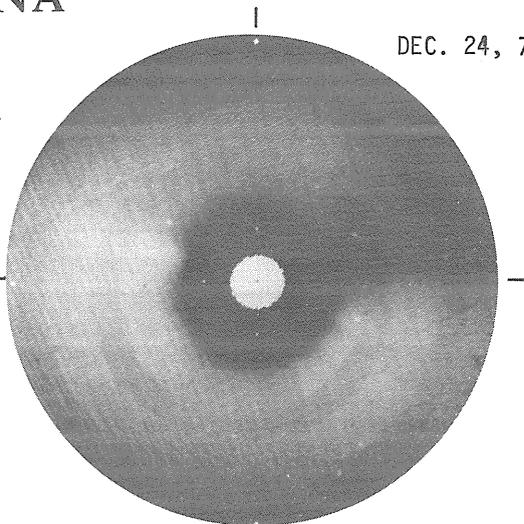
WHITE LIGHT CORONA

DEC. 21, 71

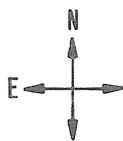


0118 UT

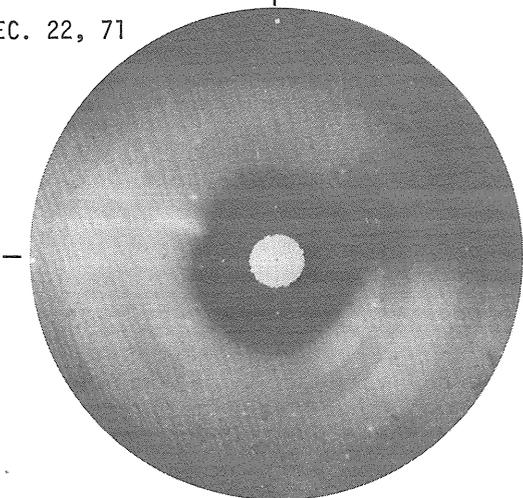
DEC. 24, 71



2053 UT

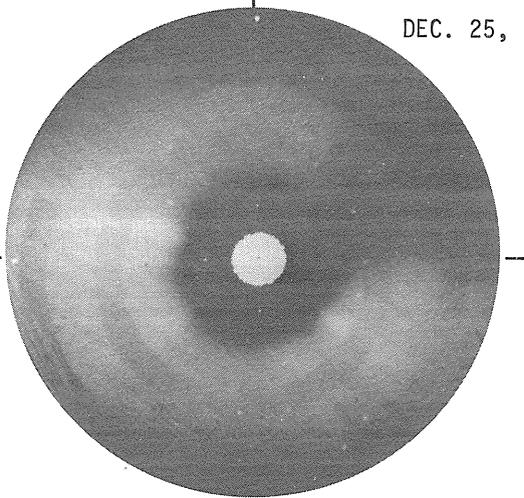


DEC. 22, 71



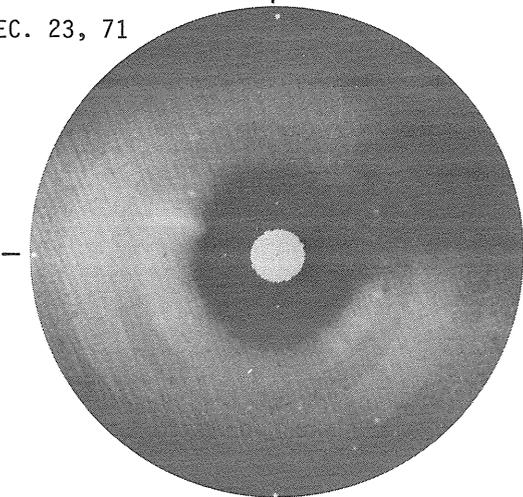
0025 UT

DEC. 25, 71



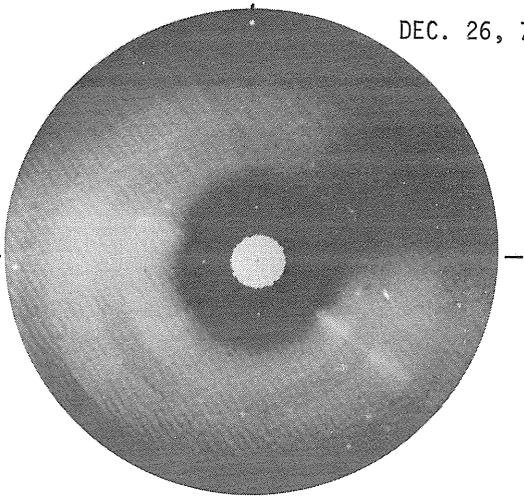
2321 UT

DEC. 23, 71



2133 UT

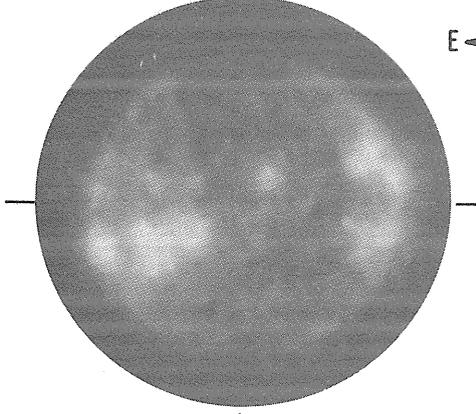
DEC. 26, 71



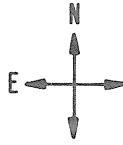
2241 UT

XUV
171-630Å

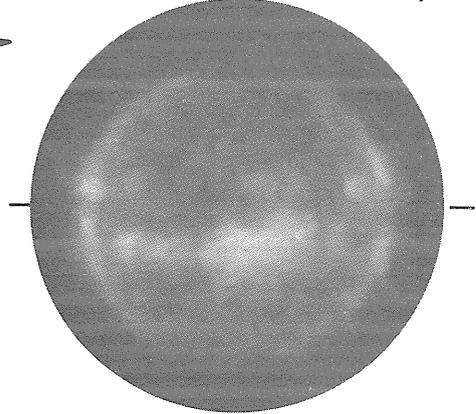
DEC. 21, 71



1051 UT

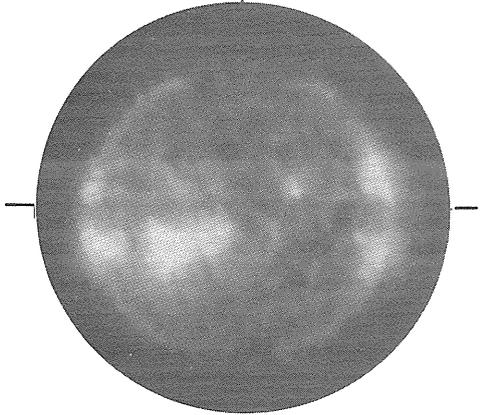


DEC. 24, 71



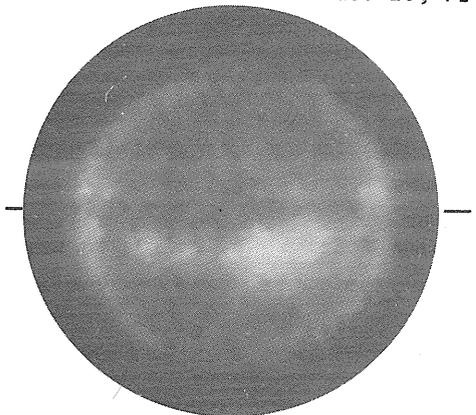
1632 UT

DEC. 22, 71 UT



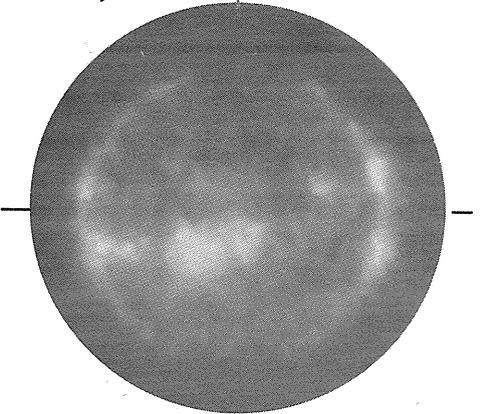
0830 UT

DEC. 25, 71



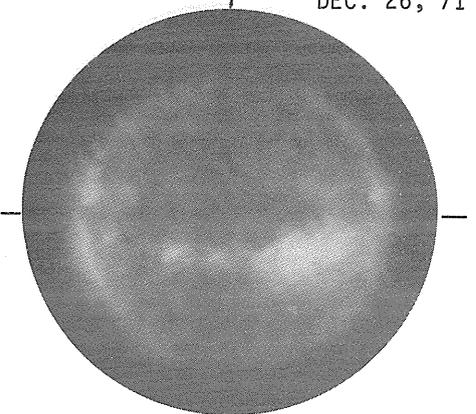
1137 UT

DEC. 23, 71



0933 UT

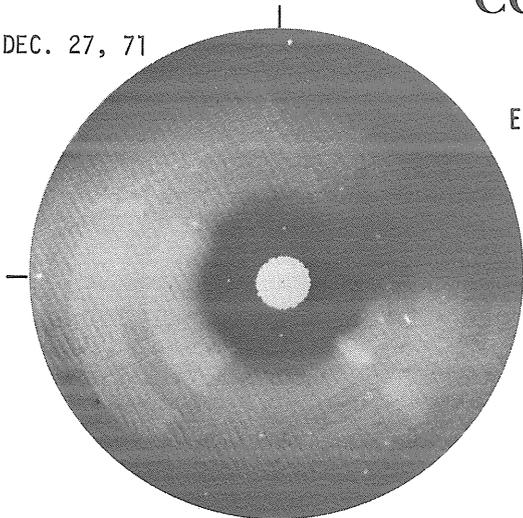
DEC. 26, 71



1041 UT

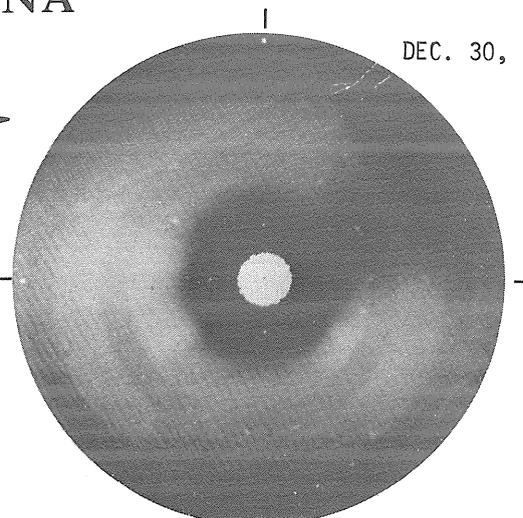
WHITE LIGHT CORONA

DEC. 27, 71

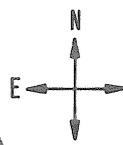


2201 UT

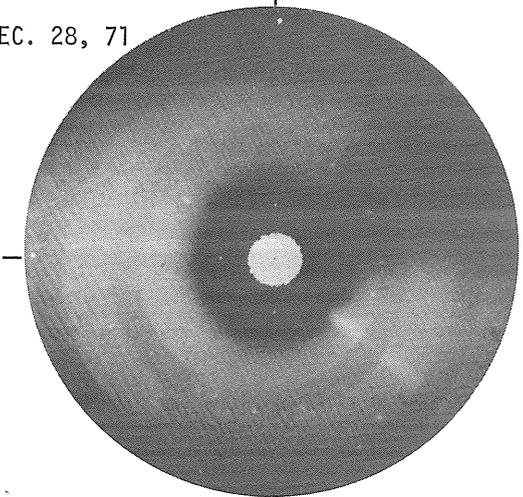
DEC. 30, 71



2001 UT

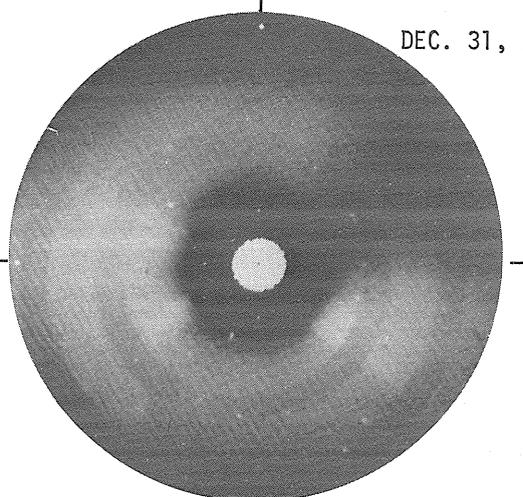


DEC. 28, 71



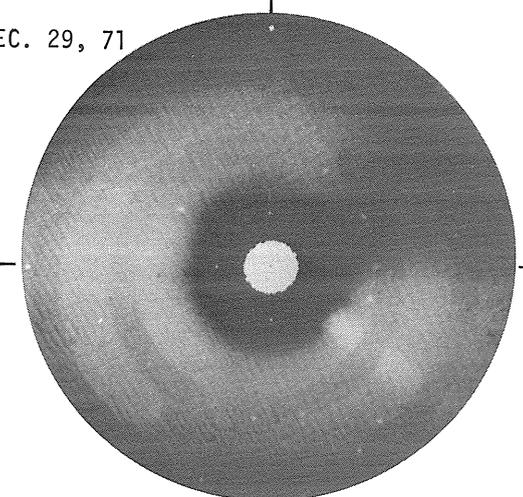
2121 UT

DEC. 31, 71



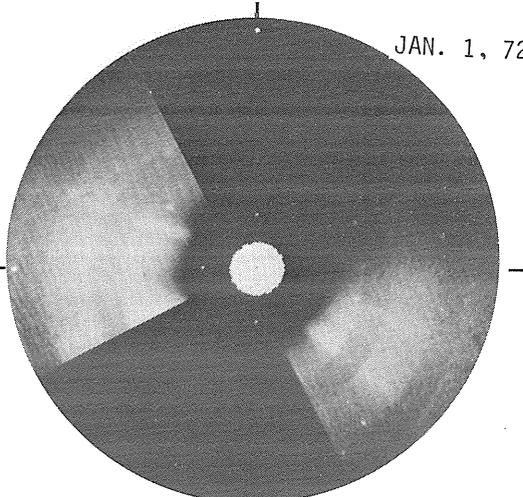
1921 UT

DEC. 29, 71



2041 UT

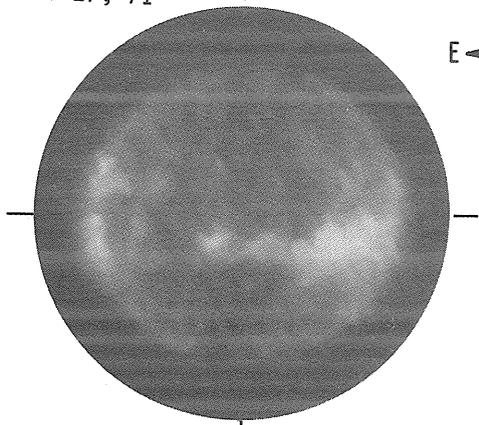
JAN. 1, 72



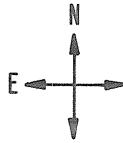
1558 UT - Q2
1743 UT - Q3

XUV
171-630Å

DEC. 27, 71



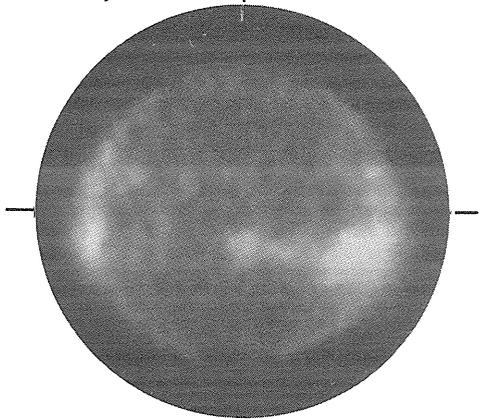
0654 UT



DEC. 30, 71

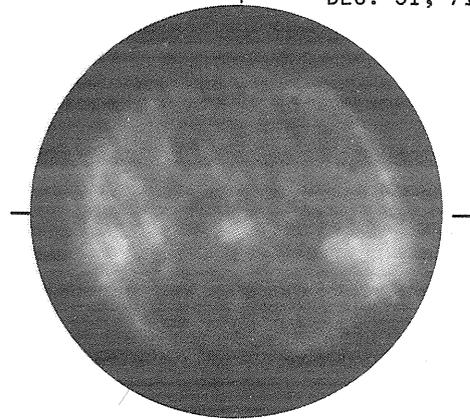
NO DATA

DEC. 28, 71



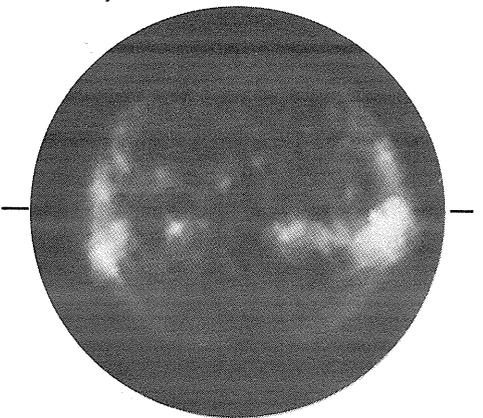
0748 UT

DEC. 31, 71



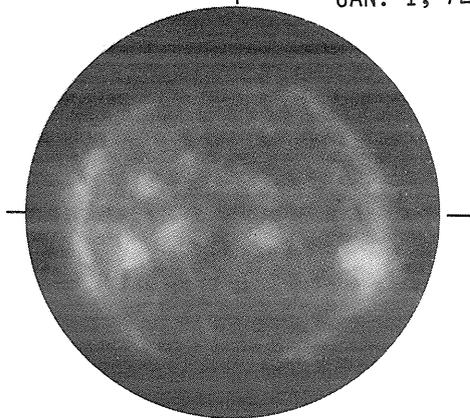
0540 UT

DEC. 29, 71



0841 UT

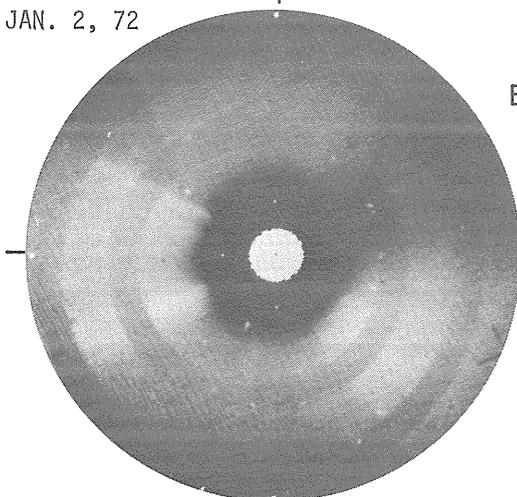
JAN. 1, 72



0823 UT

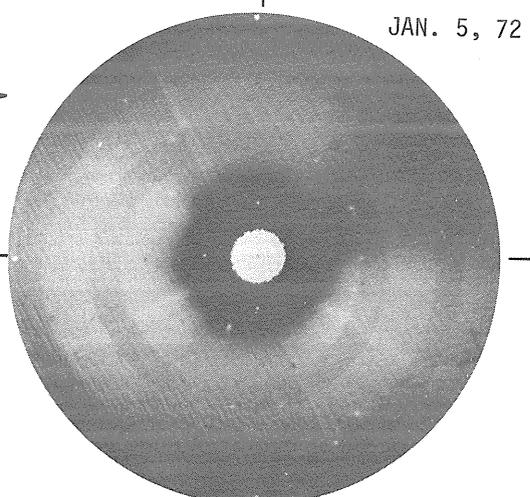
WHITE LIGHT CORONA

JAN. 2, 72

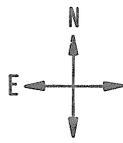


1655 UT

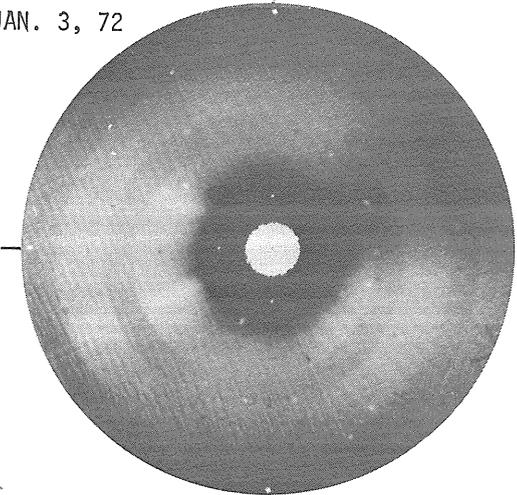
JAN. 5, 72



1735 UT

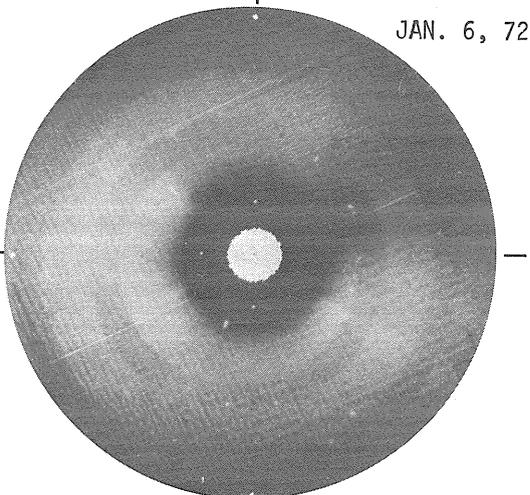


JAN. 3, 72



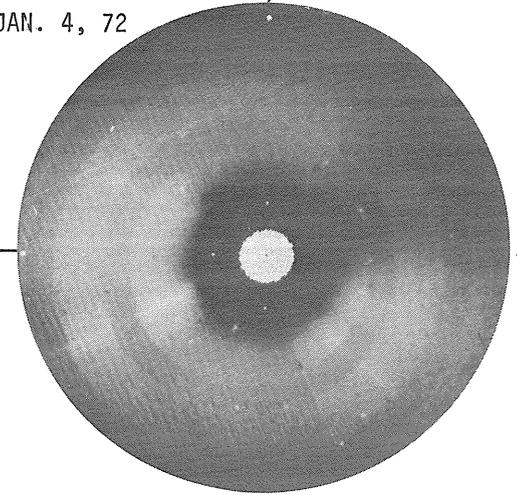
1855 UT

JAN. 6, 72



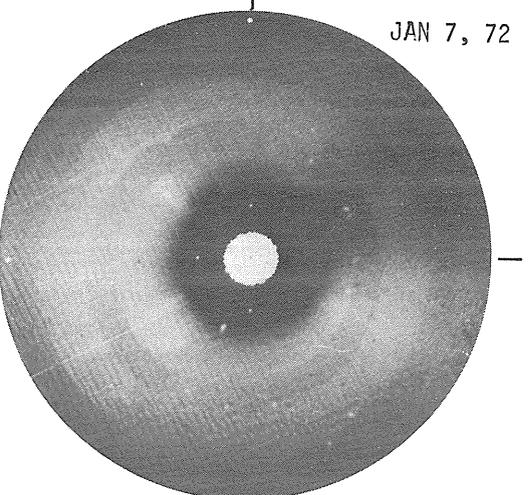
1406 UT

JAN. 4, 72



1815 UT

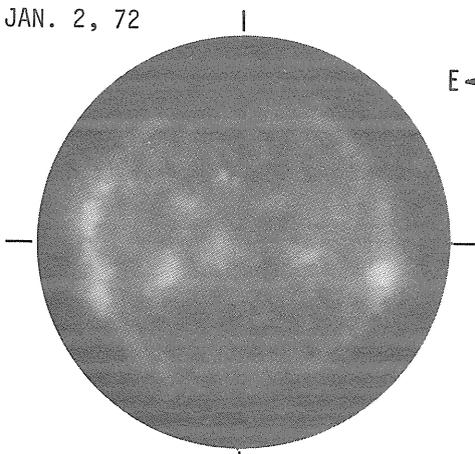
JAN 7, 72



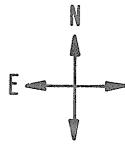
1320 UT

XUV
171-630Å

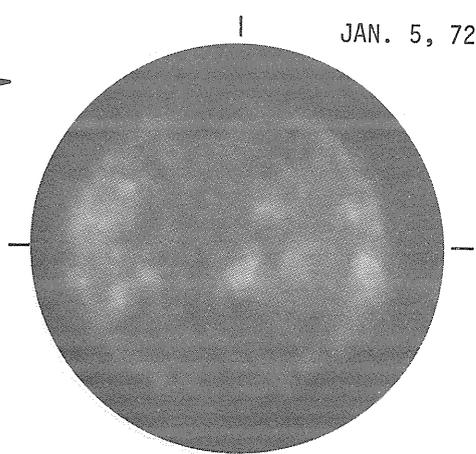
JAN. 2, 72



0918 UT

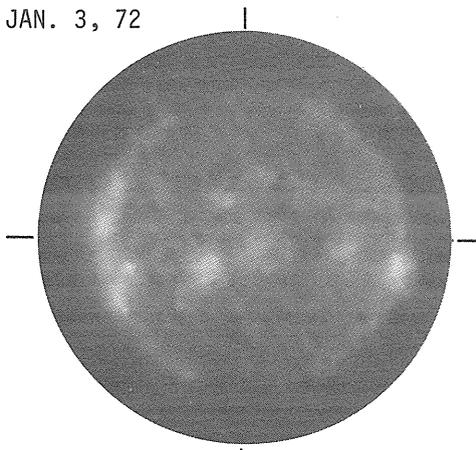


JAN. 5, 72



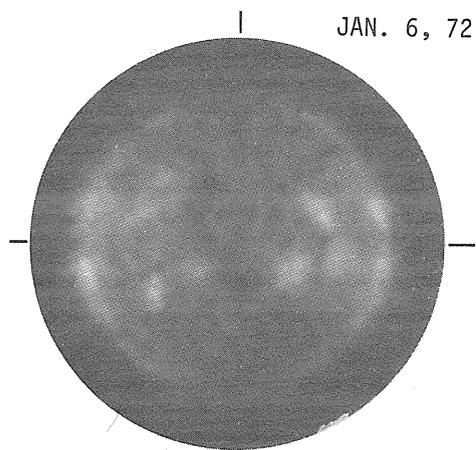
0111 UT

JAN. 3, 72



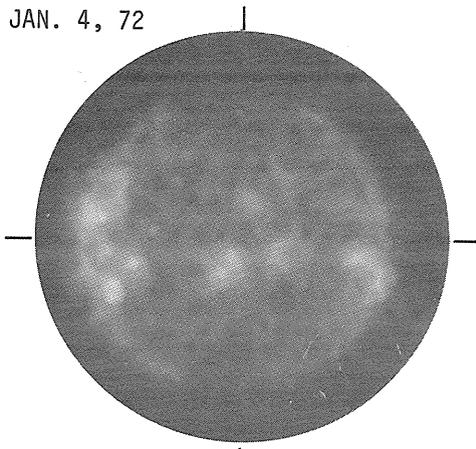
0513 UT

JAN. 6, 72



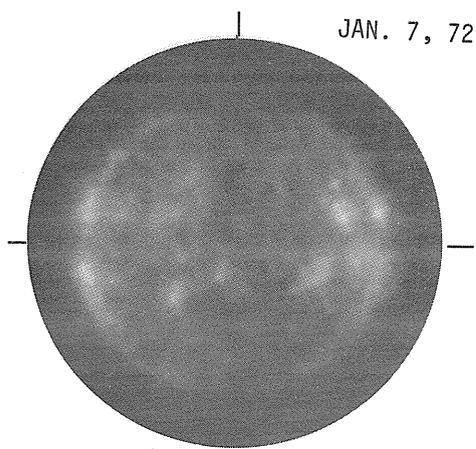
0812 UT

JAN. 4, 72



0930 UT

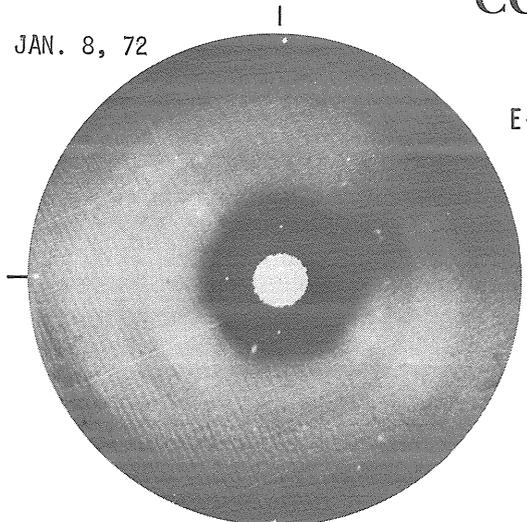
JAN. 7, 72



0553 UT

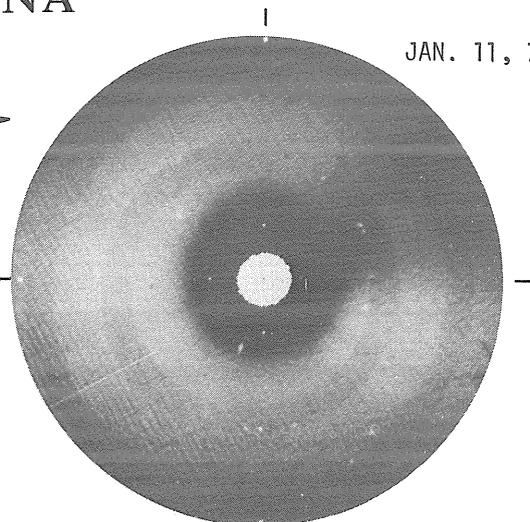
WHITE LIGHT CORONA

JAN. 8, 72

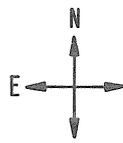


1416 UT

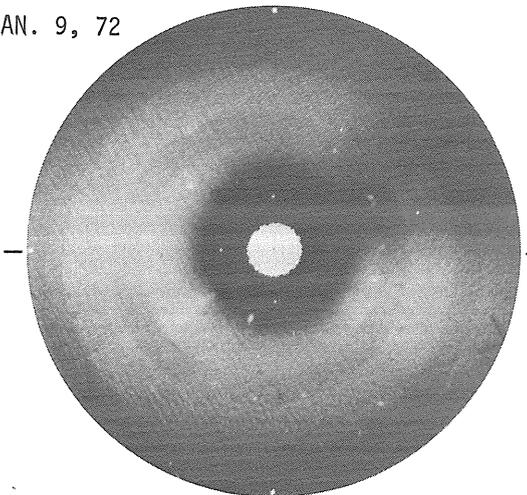
JAN. 11, 72



1212 UT

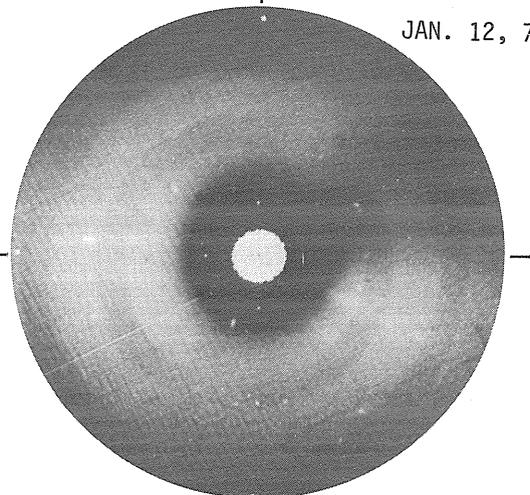


JAN. 9, 72



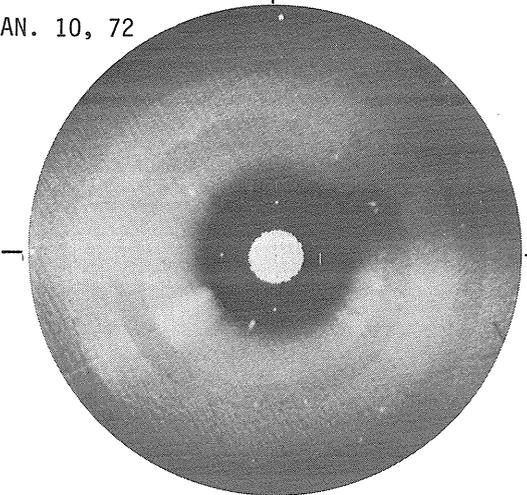
1337 UT

JAN. 12, 72



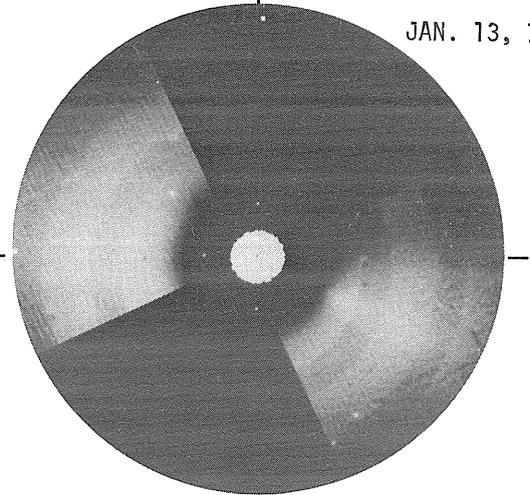
1129 UT

JAN. 10, 72



1224 UT

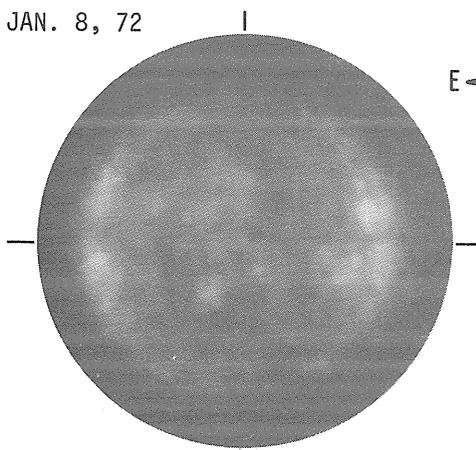
JAN. 13, 72



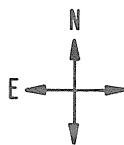
0908 UT - Q2
0936 UT - Q3

XUV
171-630Å

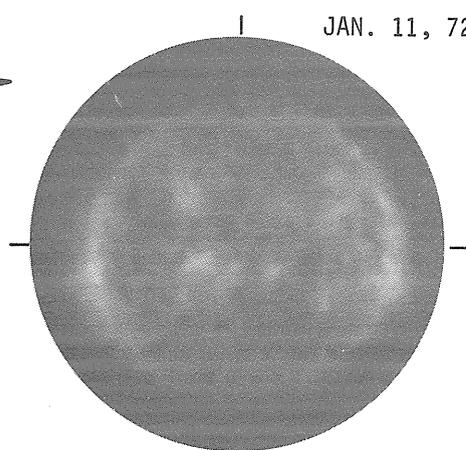
JAN. 8, 72



0647 UT

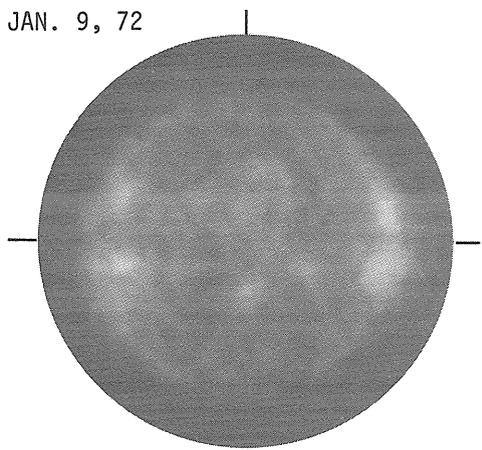


JAN. 11, 72



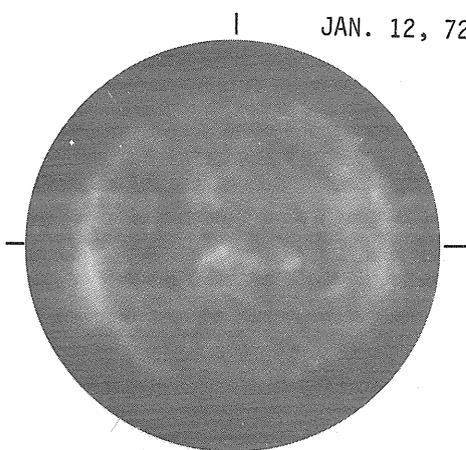
2331 UT

JAN. 9, 72



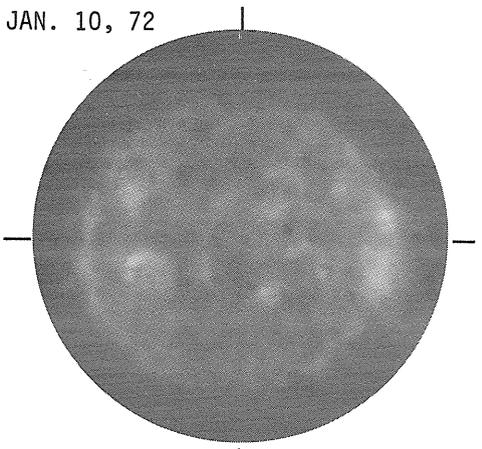
0744 UT

JAN. 12, 72



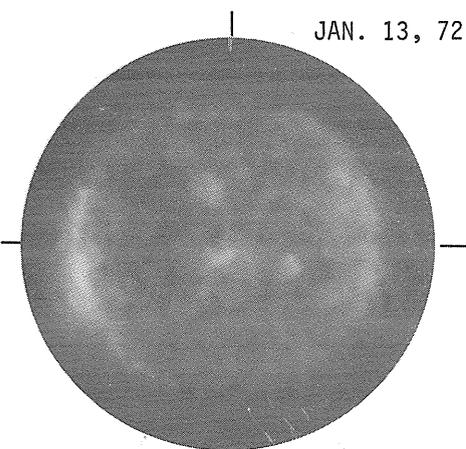
1810 UT

JAN. 10, 72



0340 UT

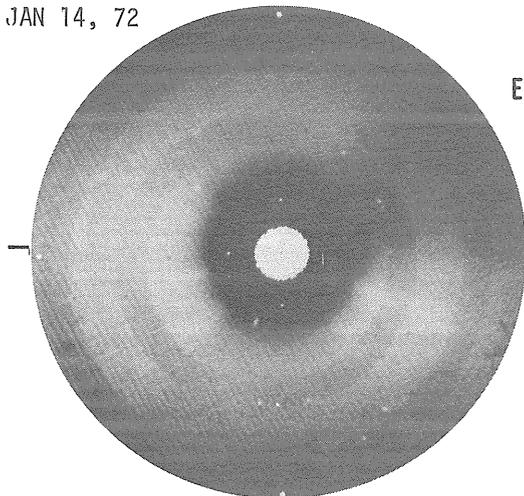
JAN. 13, 72



0454 UT

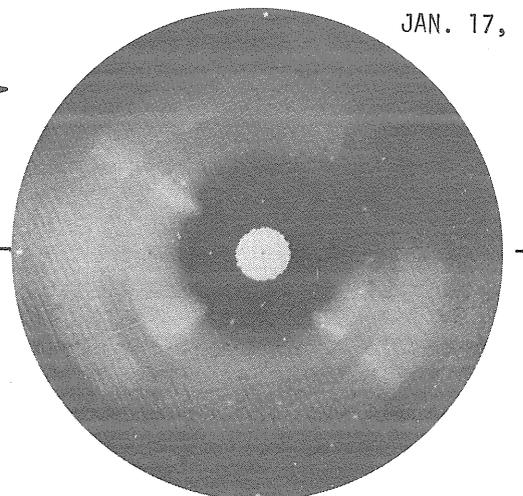
WHITE LIGHT CORONA

JAN 14, 72

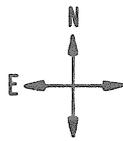


1001 UT

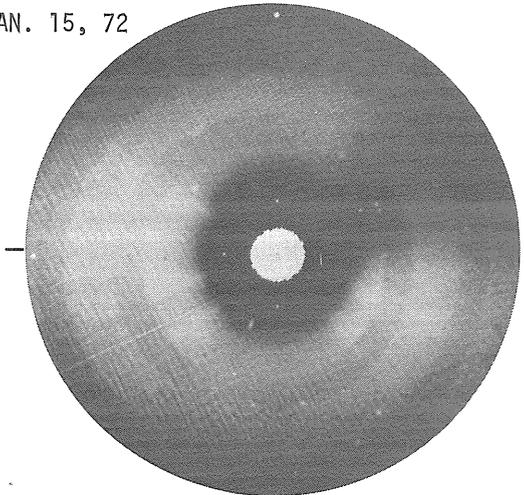
JAN. 17, 72



0933 UT

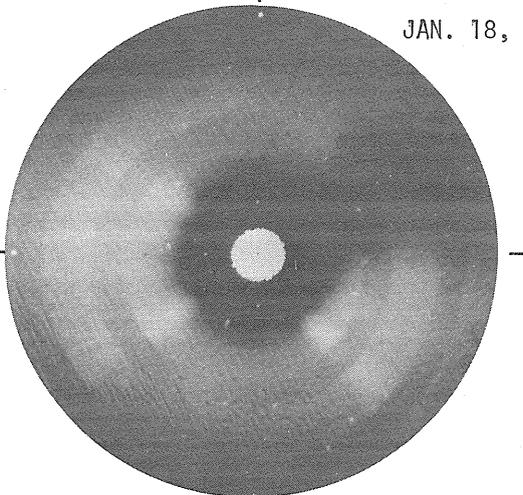


JAN. 15, 72



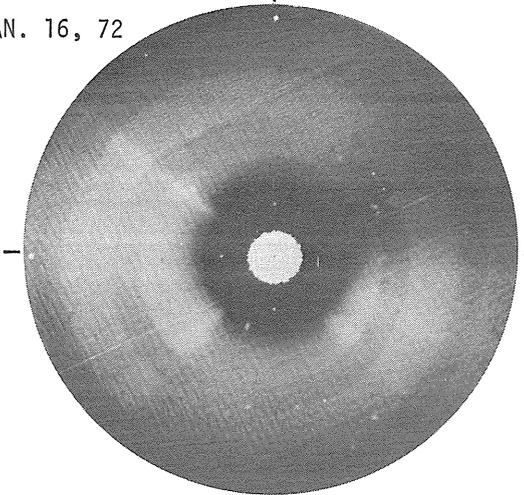
1059 UT

JAN. 18, 72



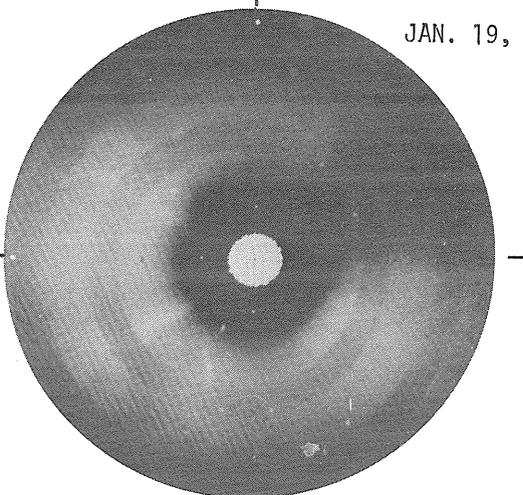
1811 UT

JAN. 16, 72



0403 UT

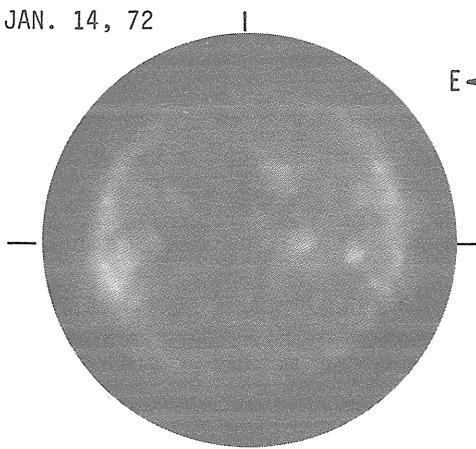
JAN. 19, 72



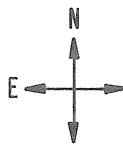
0811 UT

XUV
171-630Å

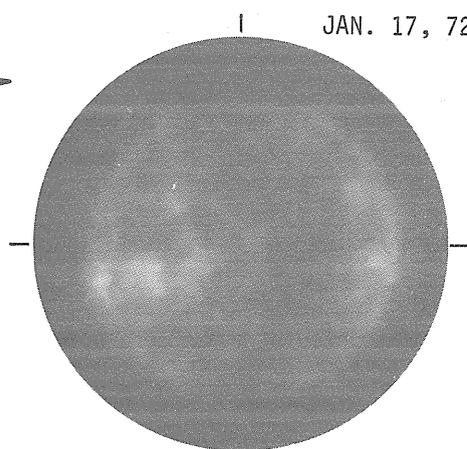
JAN. 14, 72



1349 UT

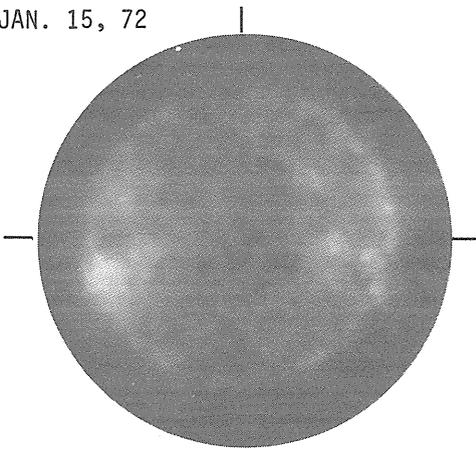


JAN. 17, 72



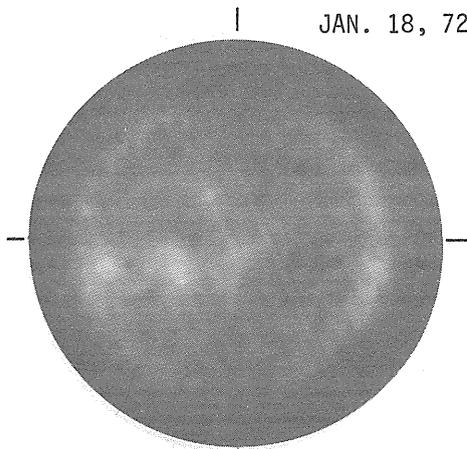
1321 UT

JAN. 15, 72



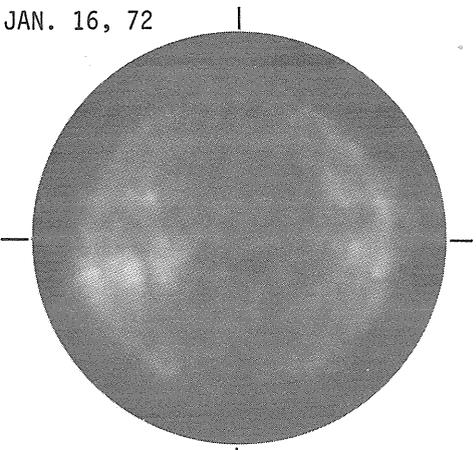
2039 UT

JAN. 18, 72



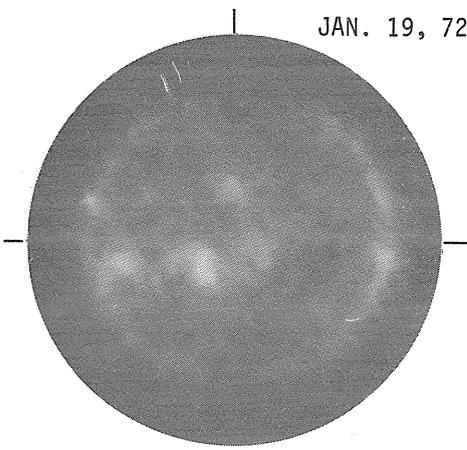
2328 UT

JAN. 16, 72



2136 UT

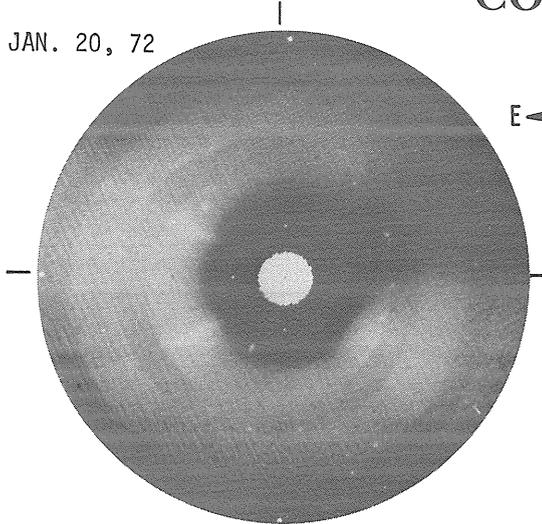
JAN. 19, 72



1200 UT

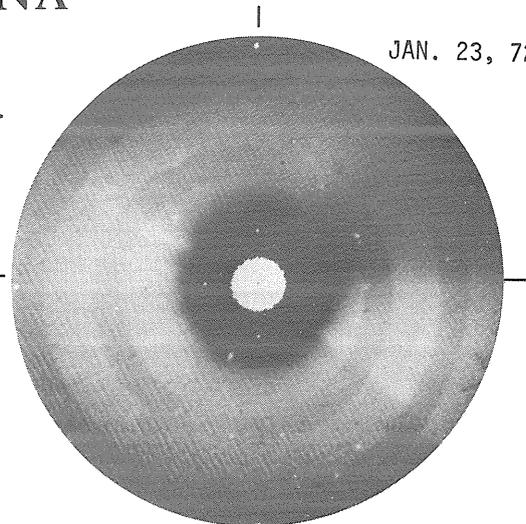
WHITE LIGHT CORONA

JAN. 20, 72

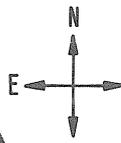


0730 UT

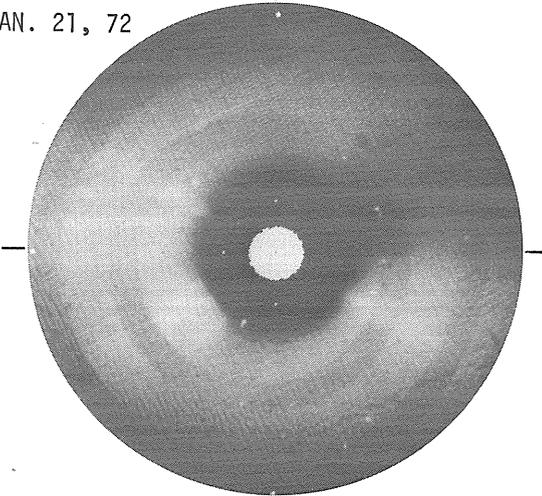
JAN. 23, 72



0701 UT

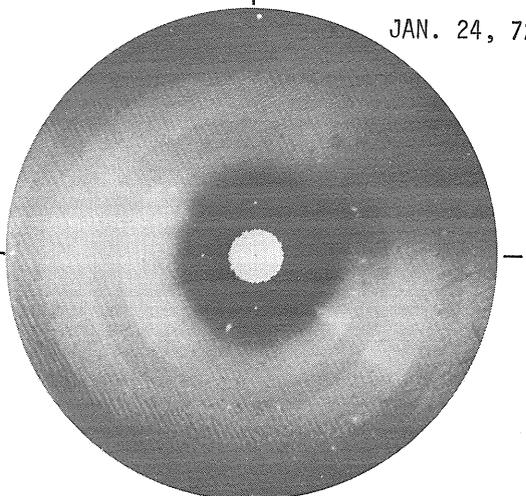


JAN. 21, 72



0823 UT

JAN. 24, 72



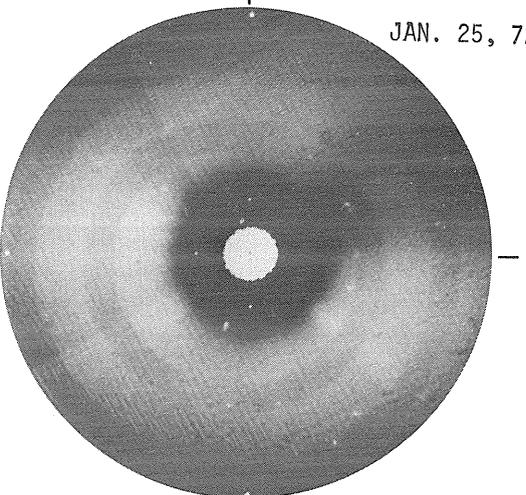
0620 UT

JAN. 22, 72



0742 UT

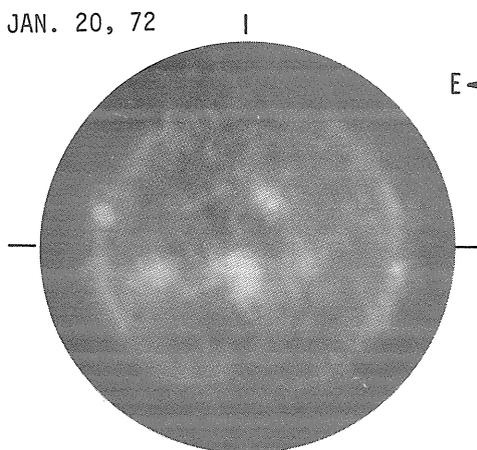
JAN. 25, 72



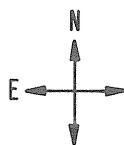
0713 UT

XUV
171-630Å

JAN. 20, 72



1117 UT

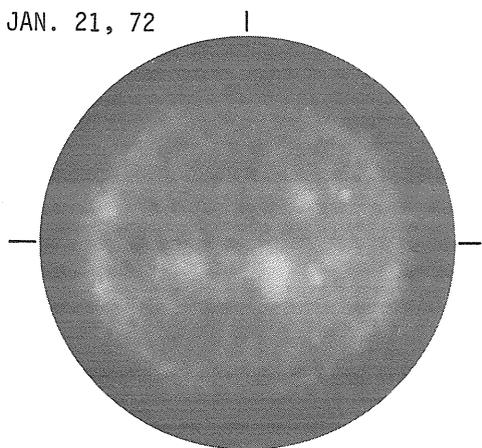


JAN. 23, 72



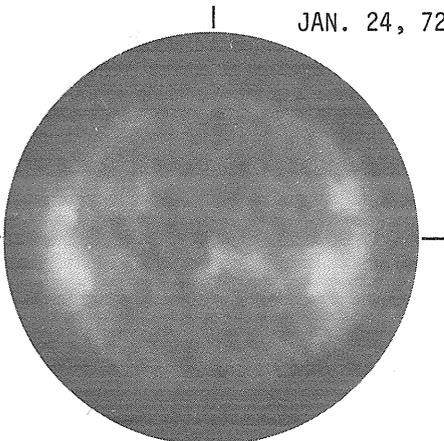
1352 UT

JAN. 21, 72



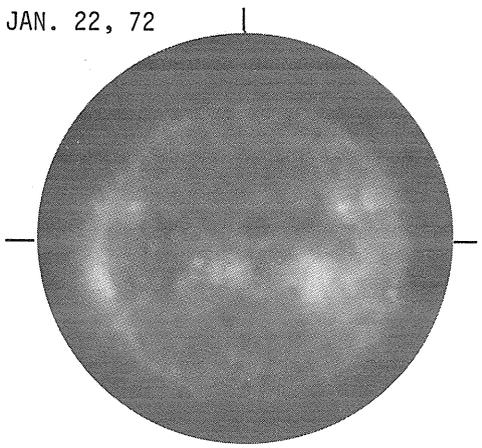
1206 UT

JAN. 24, 72



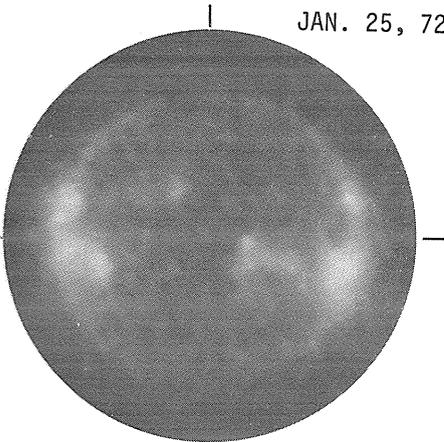
1004 UT

JAN. 22, 72



1732 UT

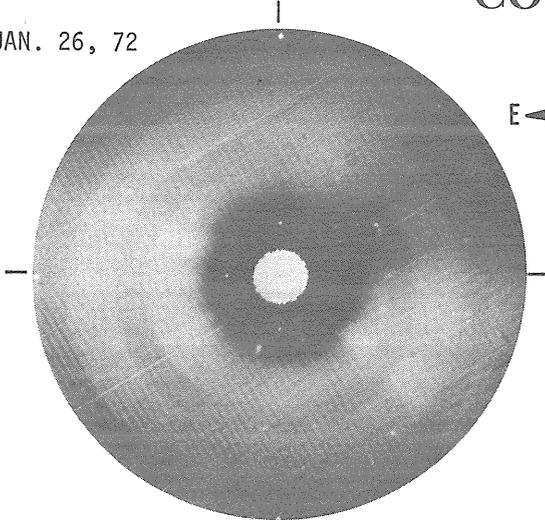
JAN. 25, 72



1412 UT

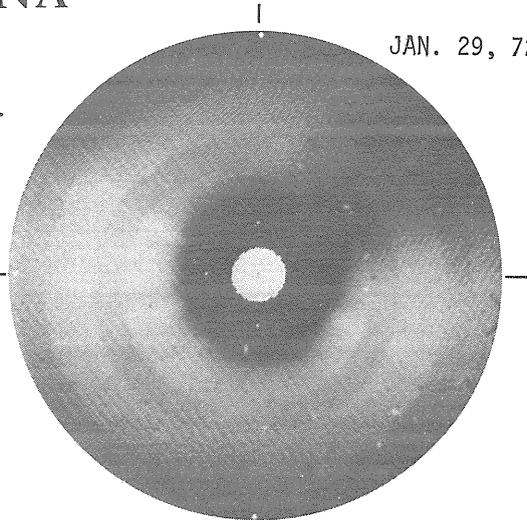
WHITE LIGHT CORONA

JAN. 26, 72

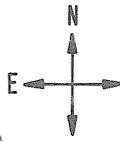


0503 UT

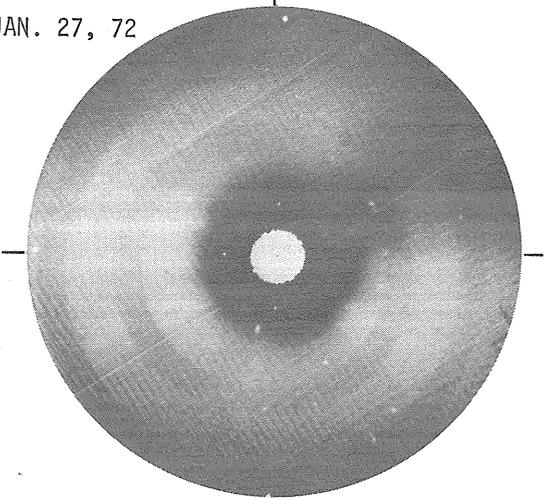
JAN. 29, 72



0302 UT

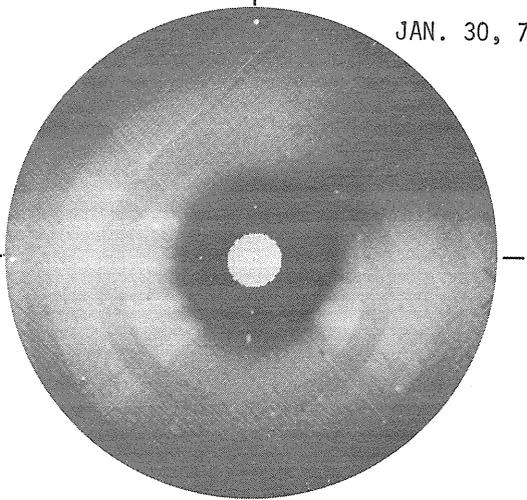


JAN. 27, 72



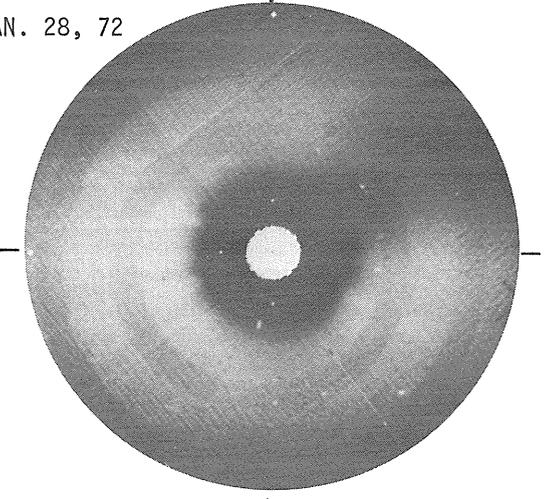
0421 UT

JAN. 30, 72



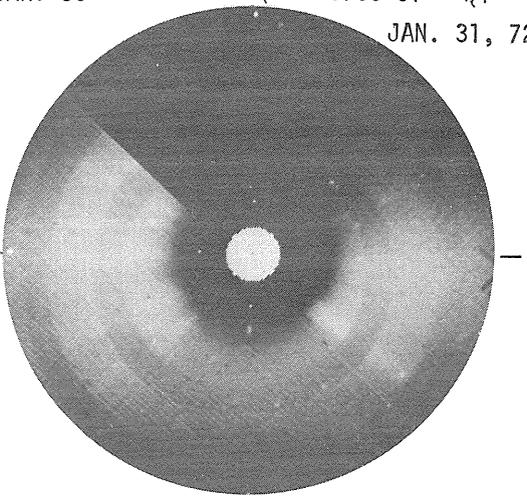
JAN. 29 - 0302 UT - Q1 - 0538 UT - Q3
 JAN. 30 - 0405 UT - Q2 - 0700 UT - Q4

JAN. 28, 72



JAN. 27-0421 UT - Q1 0547 UT - Q3
 JAN. 28-0242 UT - Q2 0721 UT - Q4

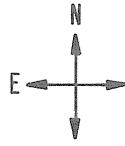
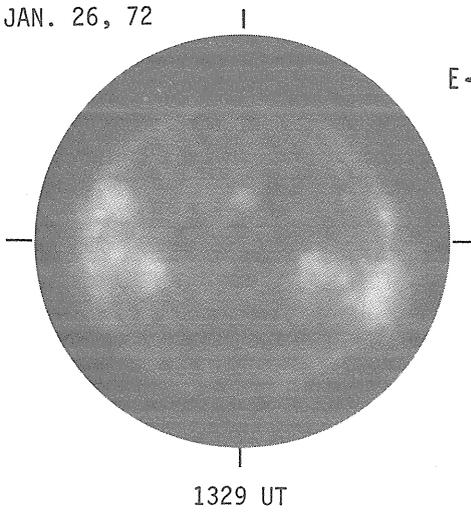
JAN. 31, 72



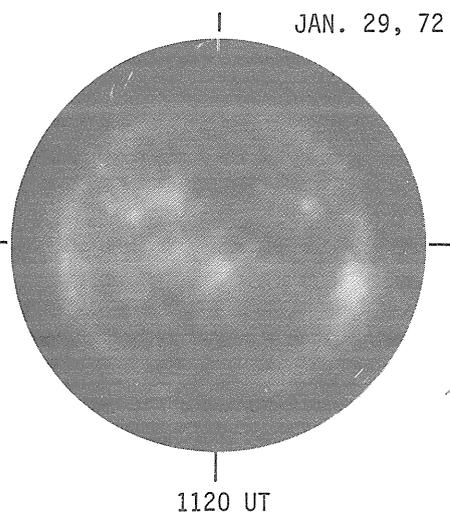
0349 UT
 0522 UT
 0632 UT

XUV
171-630Å

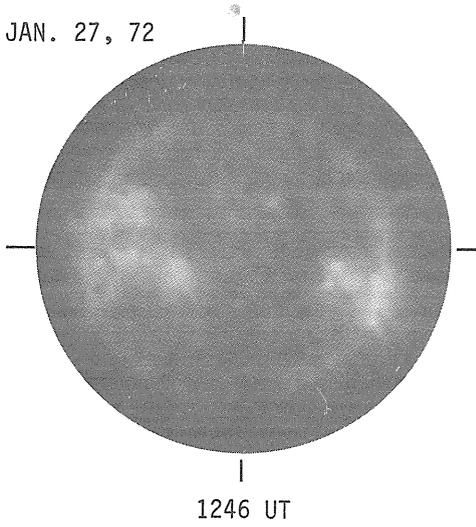
JAN. 26, 72



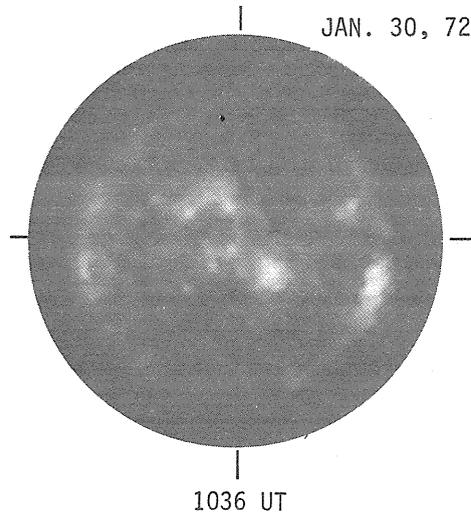
JAN. 29, 72



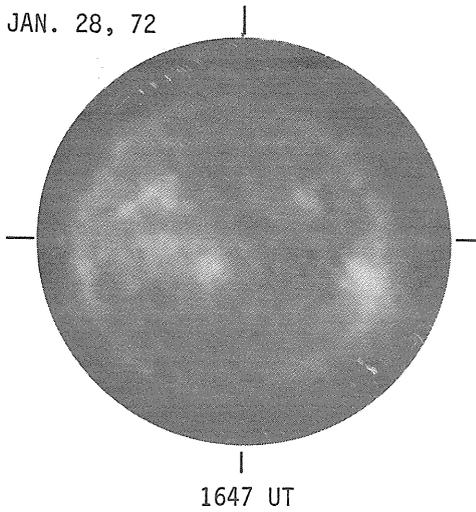
JAN. 27, 72



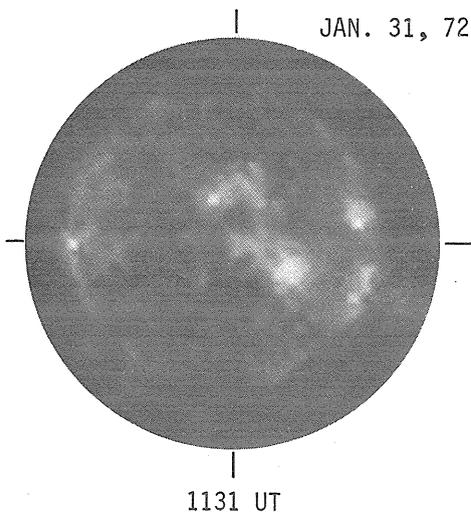
JAN. 30, 72



JAN. 28, 72

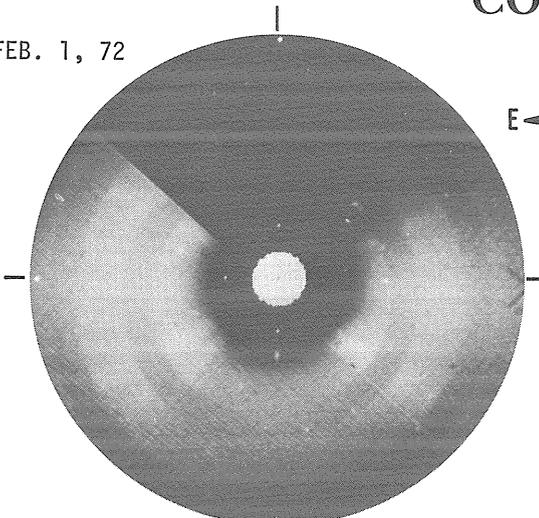


JAN. 31, 72



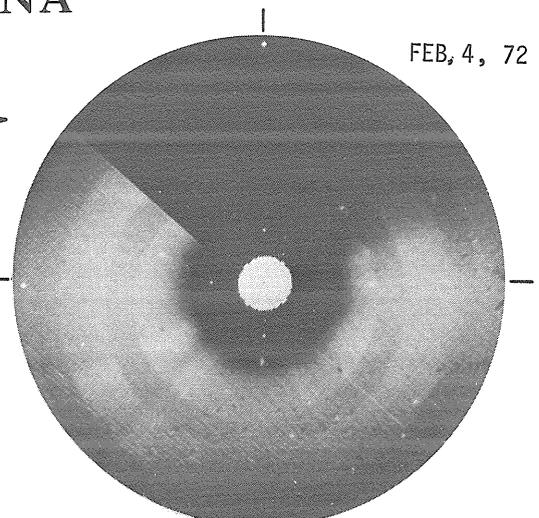
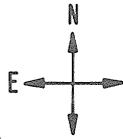
WHITE LIGHT CORONA

FEB. 1, 72



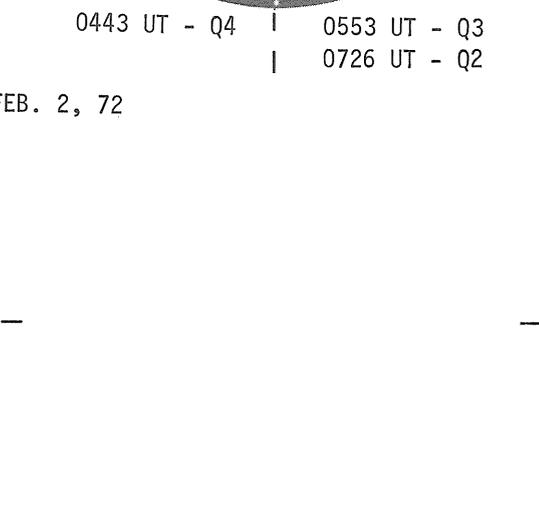
0443 UT - Q4 | 0553 UT - Q3
| 0726 UT - Q2

FEB. 4, 72

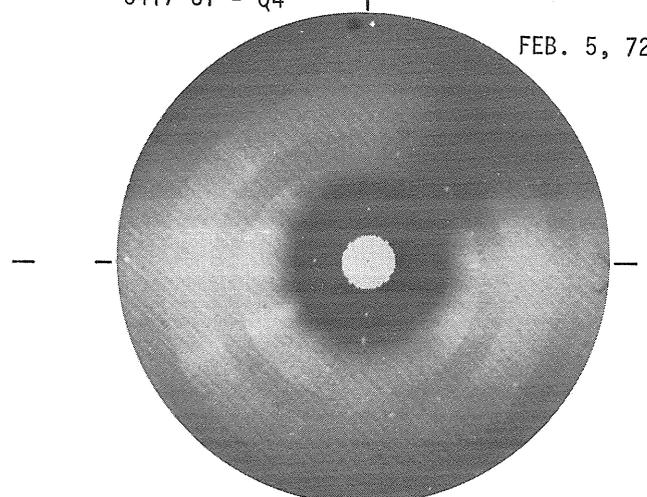


0243 UT - Q3 | 0700 UT - Q2
0417 UT - Q4

FEB. 2, 72

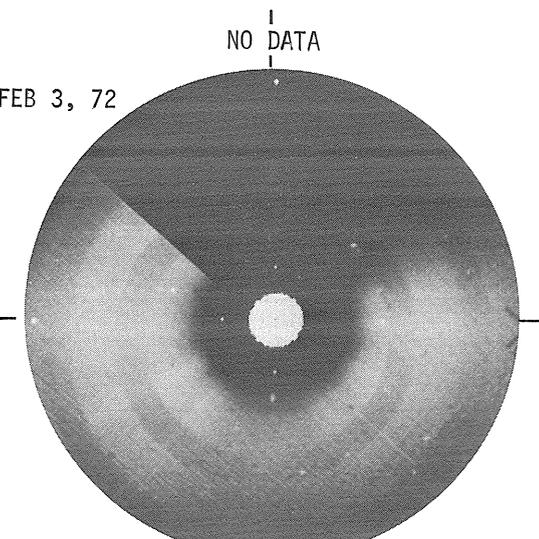


FEB. 5, 72



NO DATA

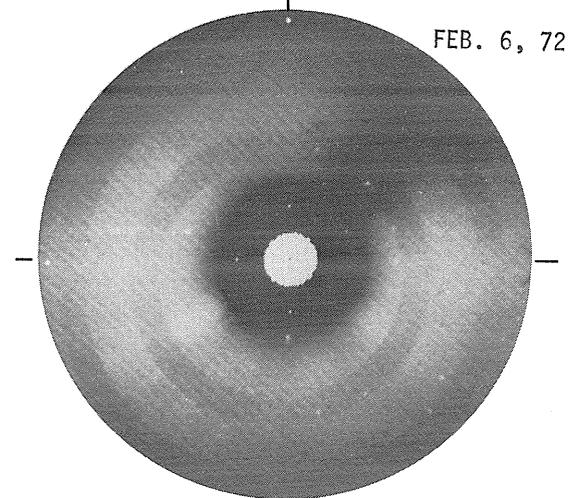
FEB 3, 72



0323 UT - Q3 | 0456 UT - Q4
0740 UT - Q2

0741 UT

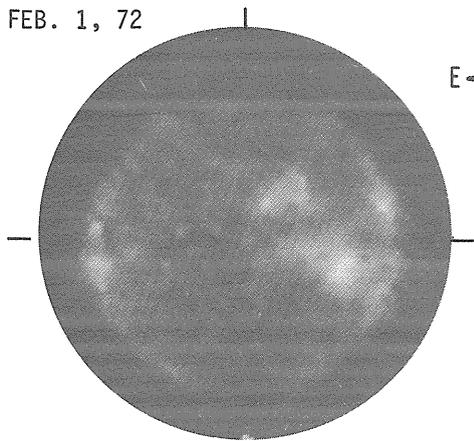
FEB. 6, 72



0221 UT

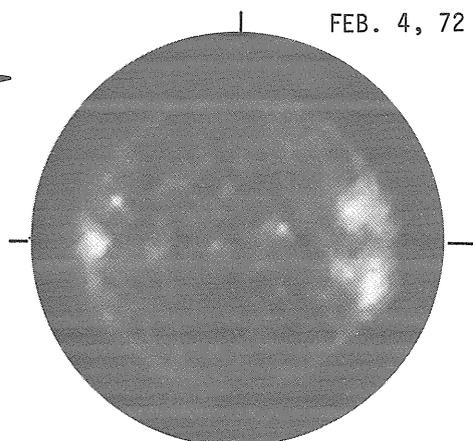
XUV
171-630Å

FEB. 1, 72



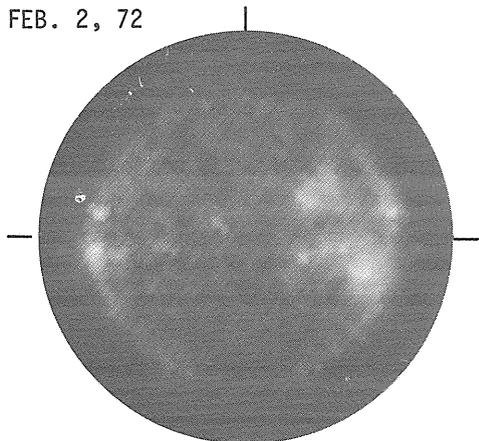
1052 UT

FEB. 4, 72



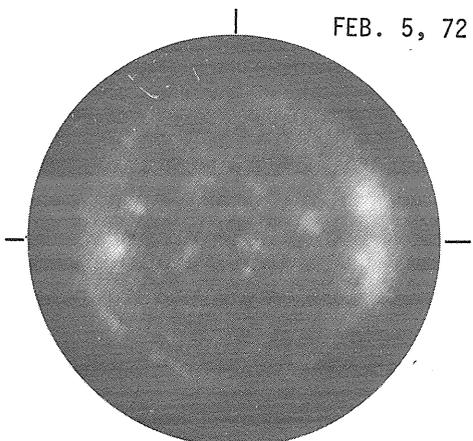
1021 UT

FEB. 2, 72



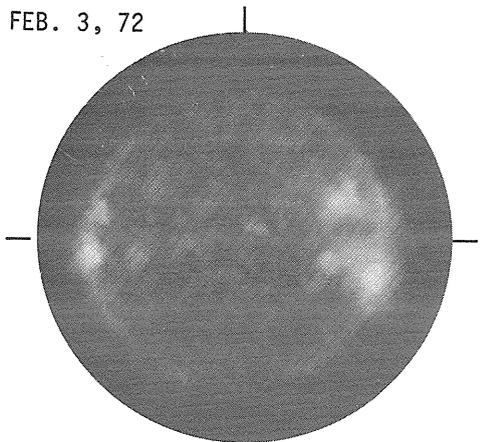
1147 UT

FEB. 5, 72



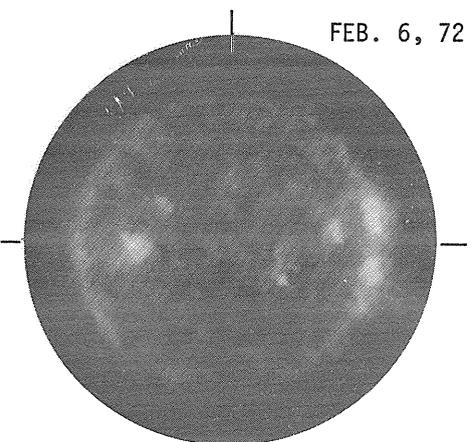
1114 UT

FEB. 3, 72



1726 UT

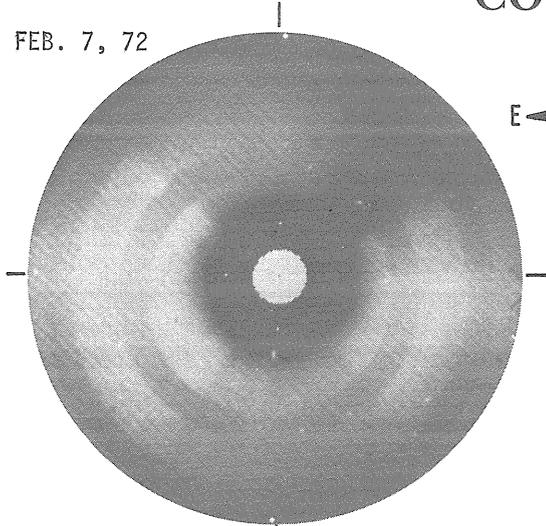
FEB. 6, 72



1338 UT

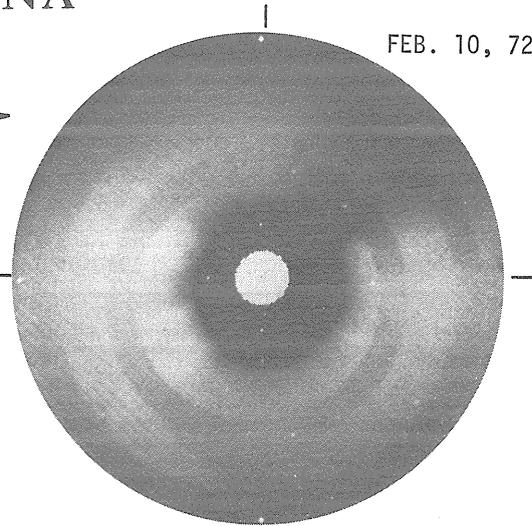
WHITE LIGHT CORONA

FEB. 7, 72



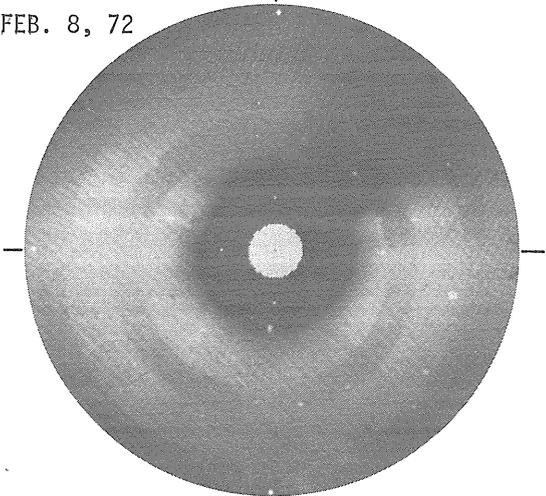
2019 UT

FEB. 10, 72



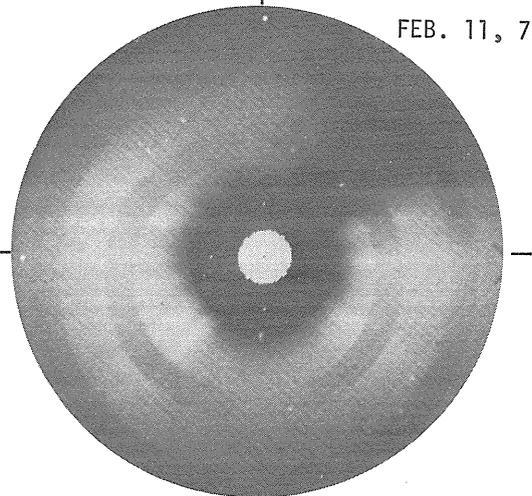
1949 UT

FEB. 8, 72



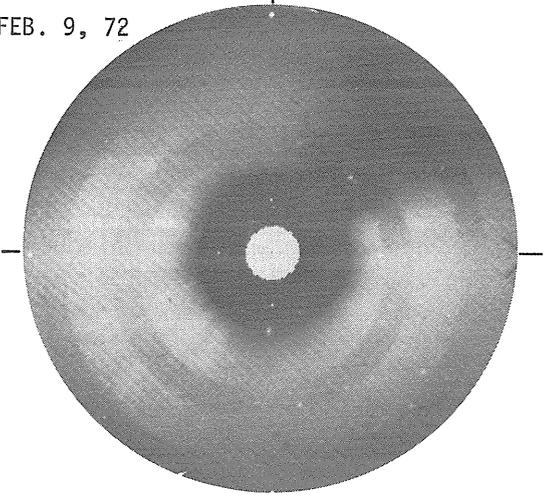
1938 UT

FEB. 11, 72



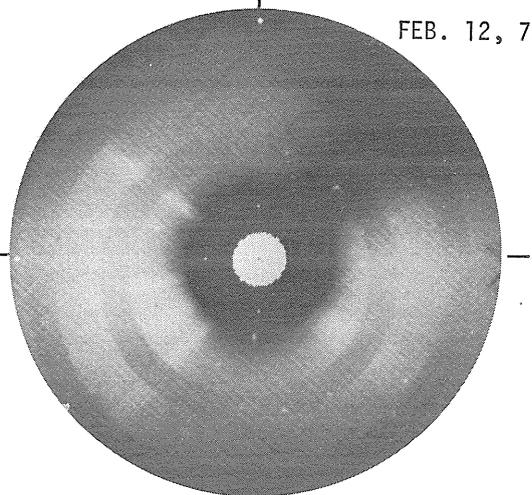
2347 UT

FEB. 9, 72

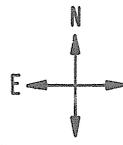


1857 UT

FEB. 12, 72

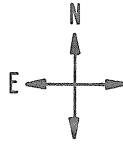
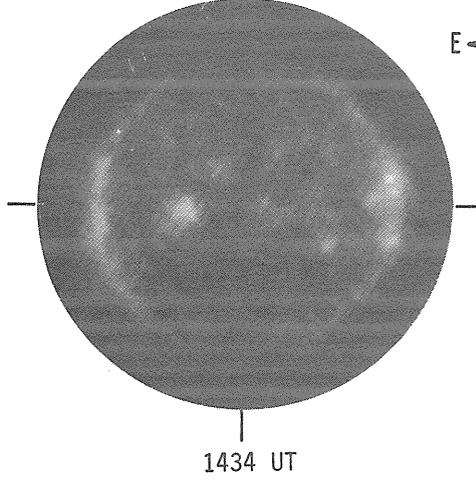


2306 UT

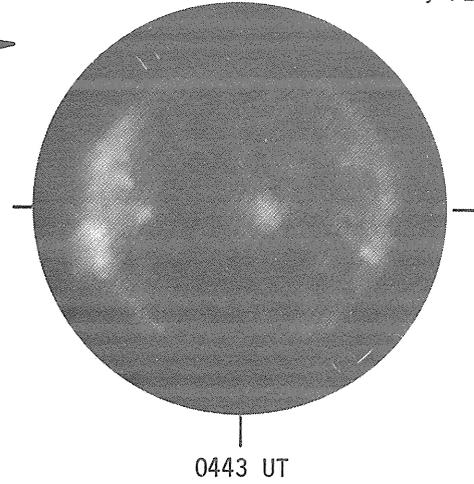


XUV
171-630Å

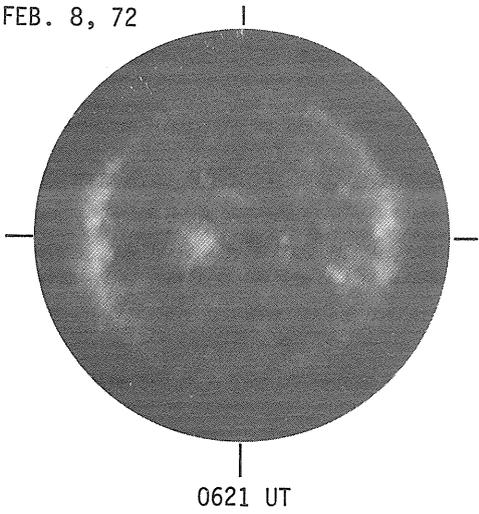
FEB. 7, 72



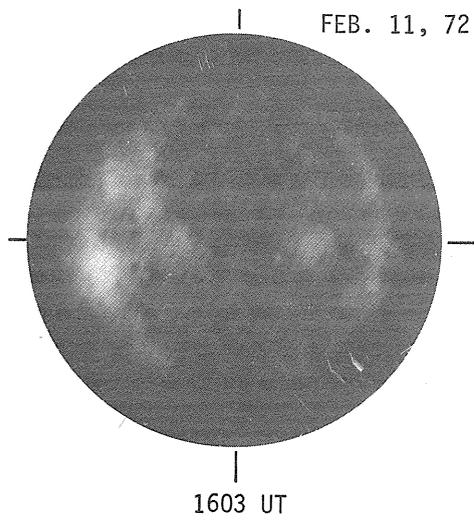
FEB. 10, 72



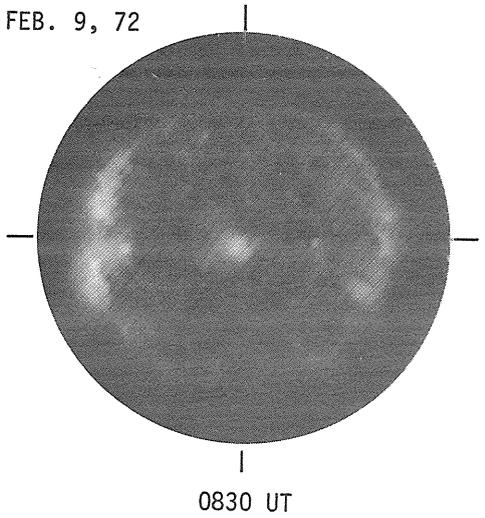
FEB. 8, 72



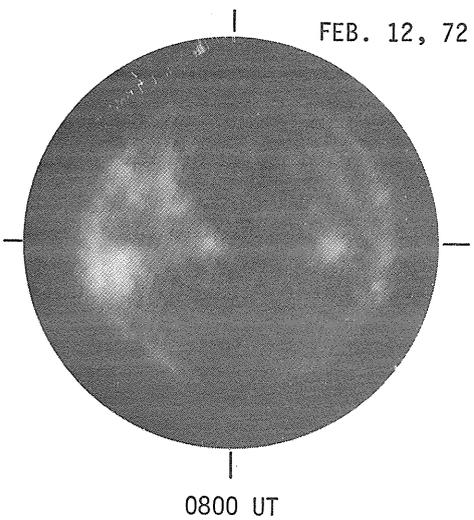
FEB. 11, 72



FEB. 9, 72

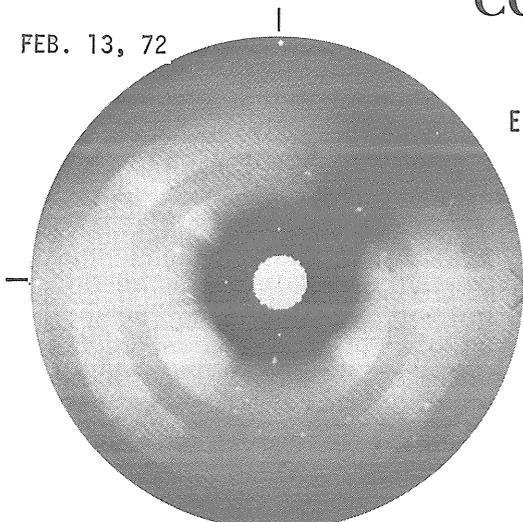


FEB. 12, 72



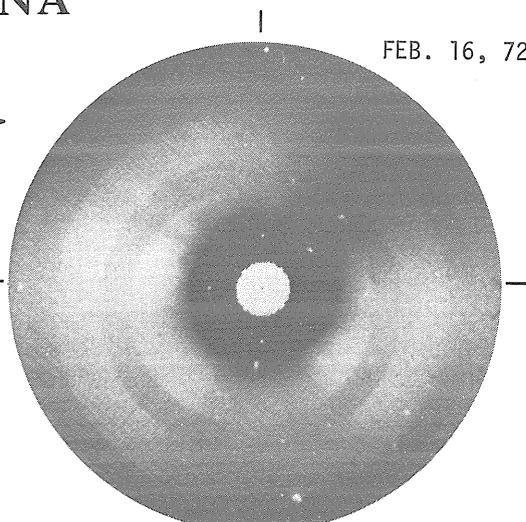
WHITE LIGHT CORONA

FEB. 13, 72

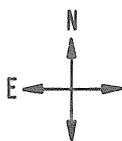


1745 UT

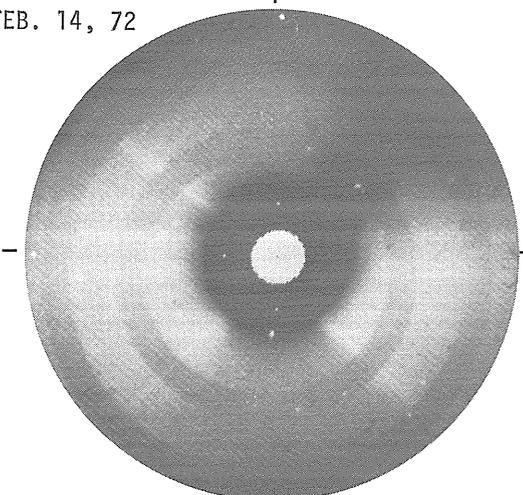
FEB. 16, 72



1541 UT

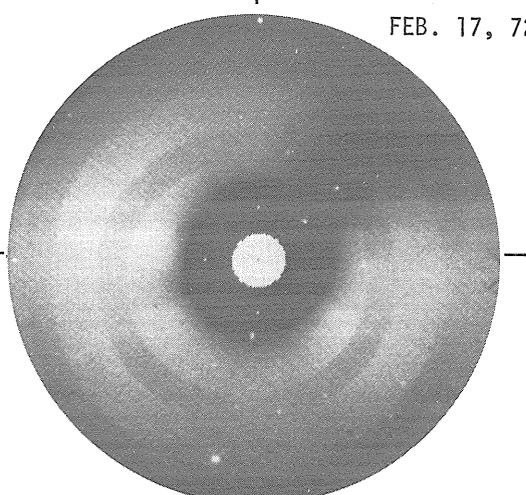


FEB. 14, 72



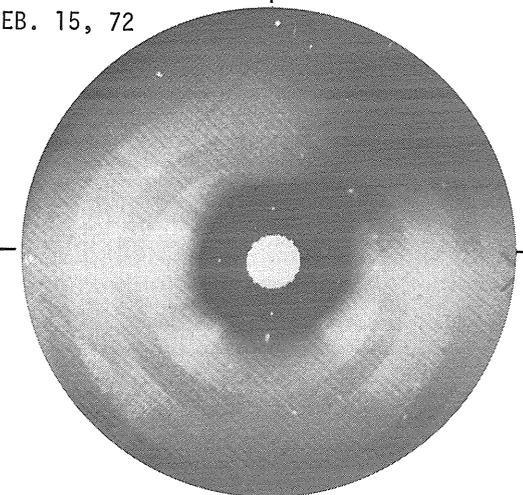
1703 UT

FEB. 17, 72



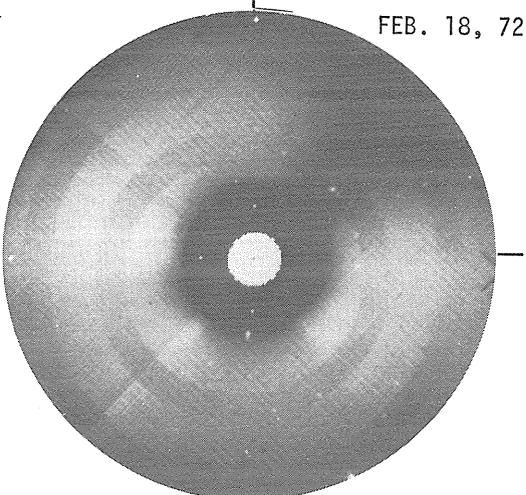
1459 UT

FEB. 15, 72



2102 UT

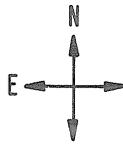
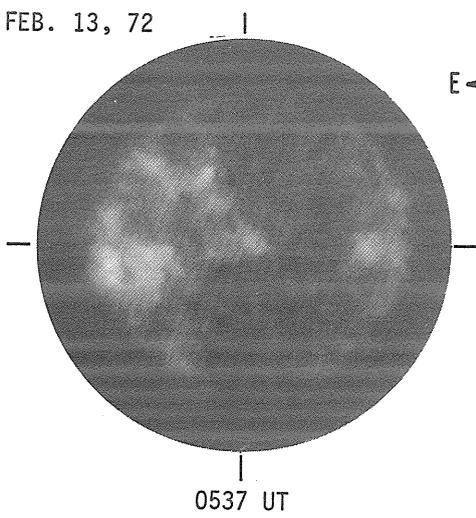
FEB. 18, 72



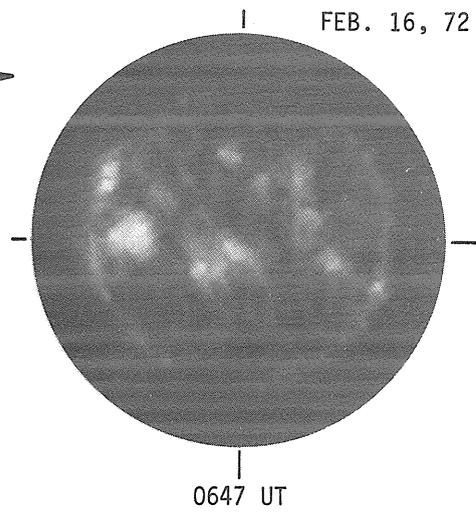
1628 UT

XUV
171-630Å

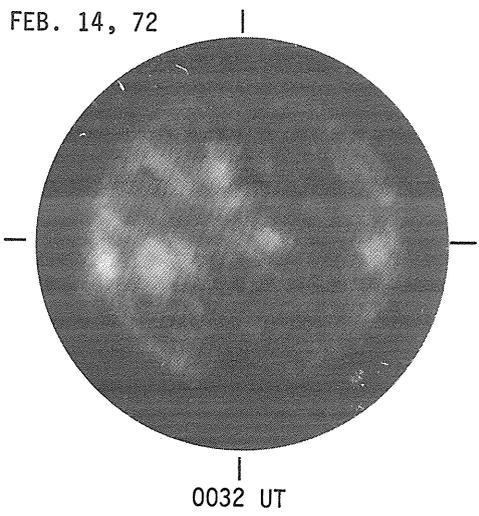
FEB. 13, 72



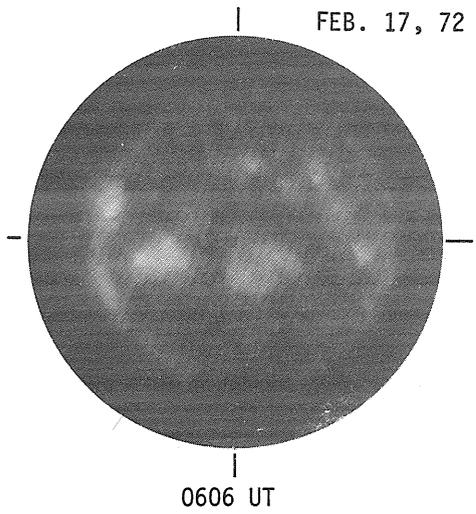
FEB. 16, 72



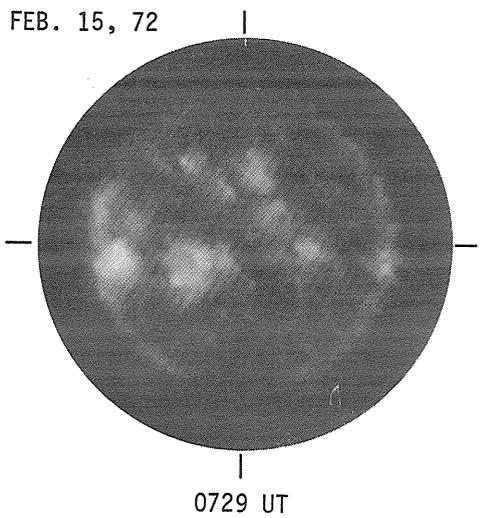
FEB. 14, 72



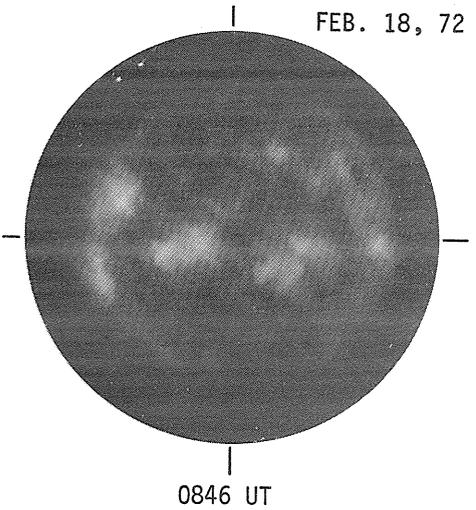
FEB. 17, 72



FEB. 15, 72

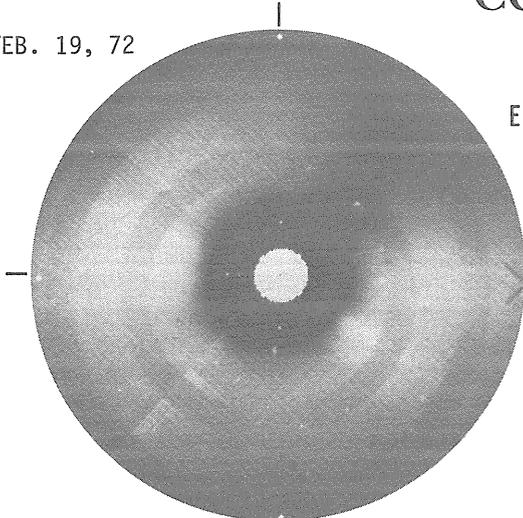


FEB. 18, 72



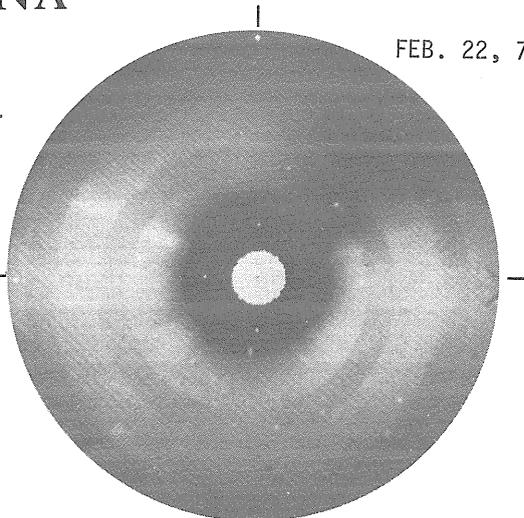
WHITE LIGHT CORONA

FEB. 19, 72



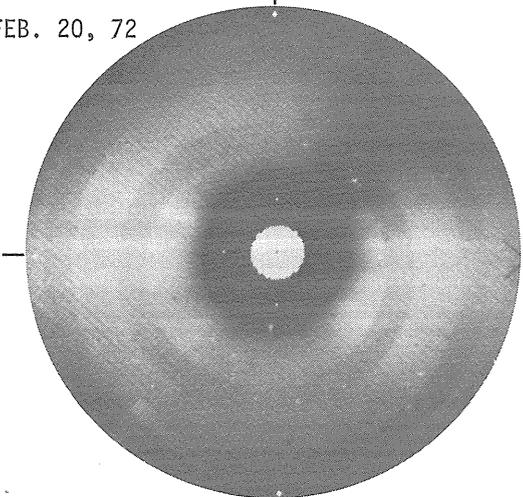
1949 UT

FEB. 22, 72



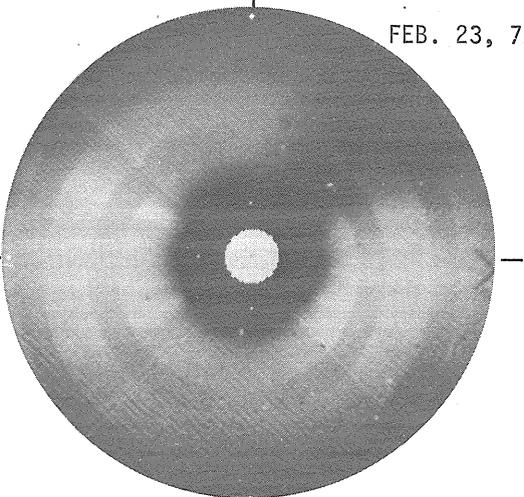
1306 UT

FEB. 20, 72



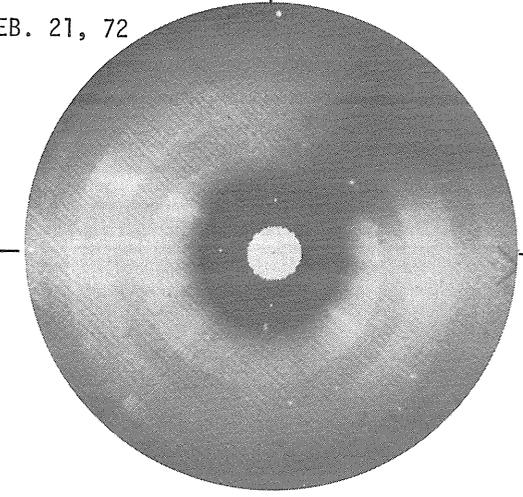
1428 UT

FEB. 23, 72



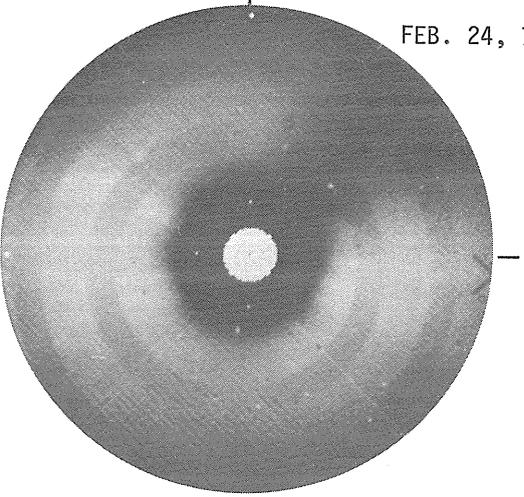
1531 UT

FEB. 21, 72

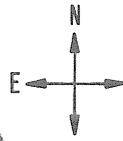


2000 UT

FEB. 24, 72

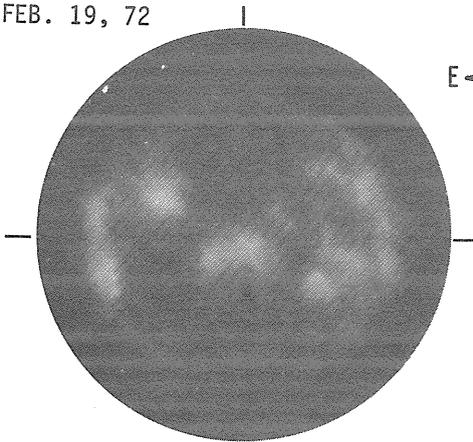


1450 UT

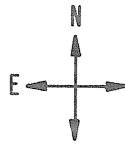


XUV
171-630Å

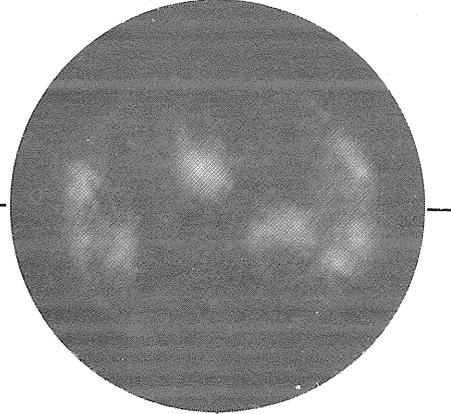
FEB. 19, 72



2325 UT

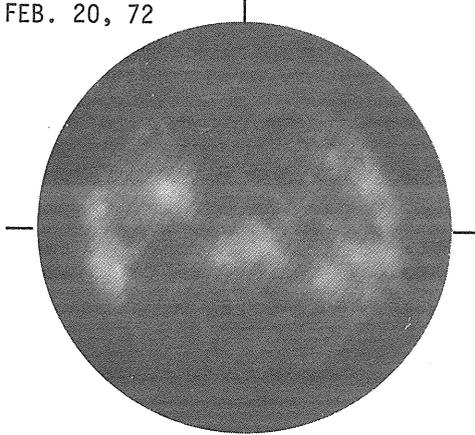


FEB. 22, 72



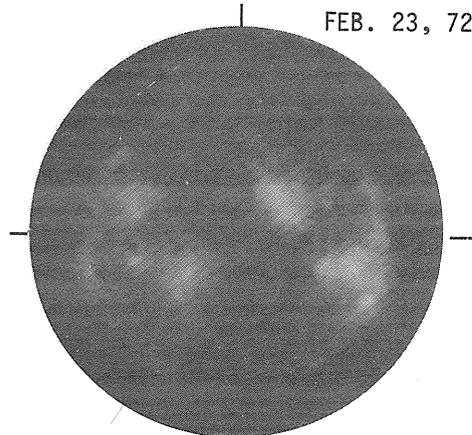
0404 UT

FEB. 20, 72



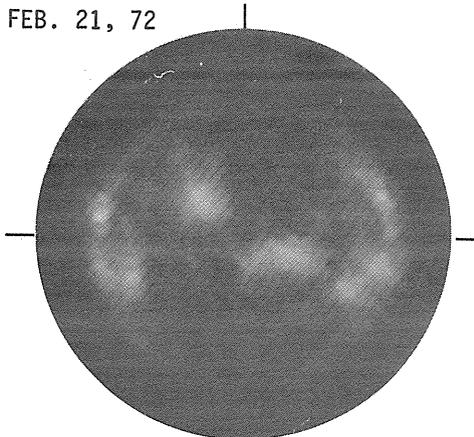
0718 UT

FEB. 23, 72



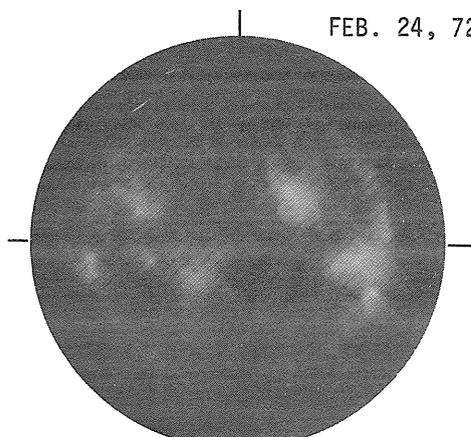
2354 UT

FEB. 21, 72



0638 UT

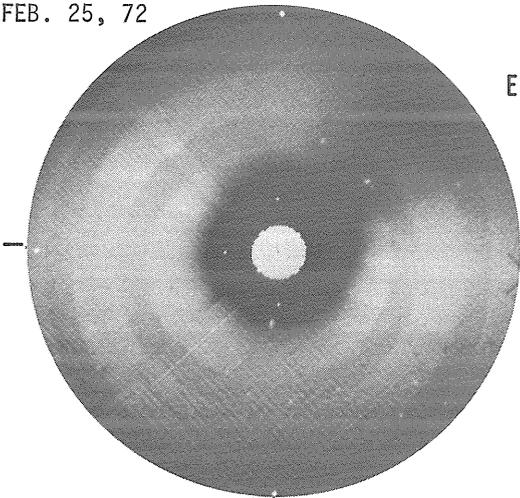
FEB. 24, 72



0743 UT

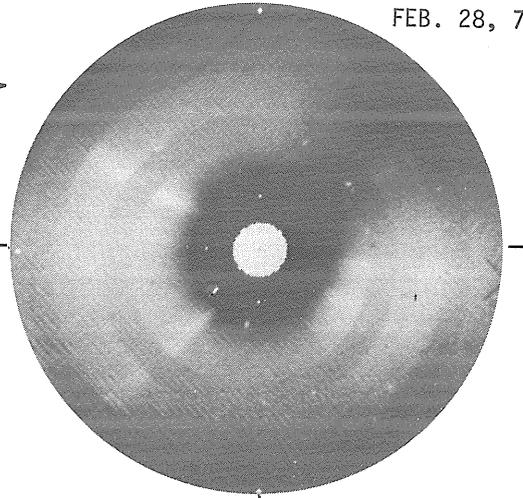
WHITE LIGHT CORONA

FEB. 25, 72

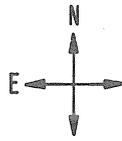


1247 UT

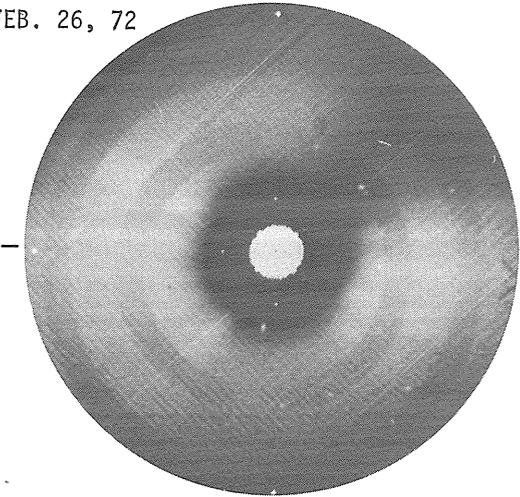
FEB. 28, 72



1212 UT

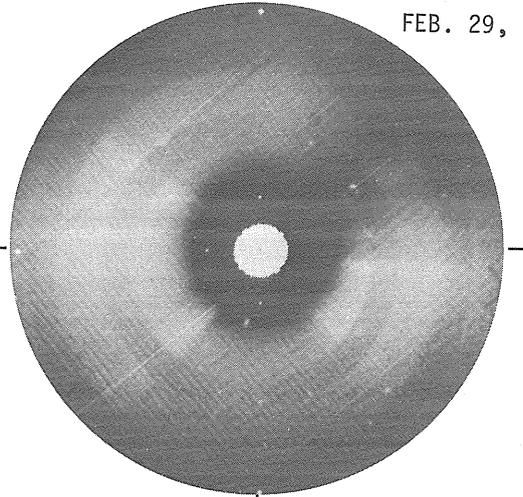


FEB. 26, 72



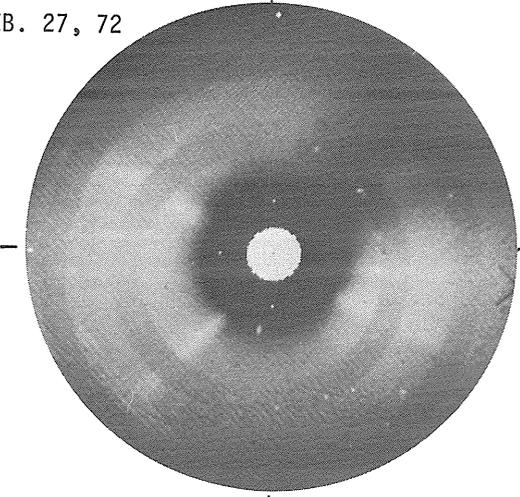
1340 UT

FEB. 29, 72



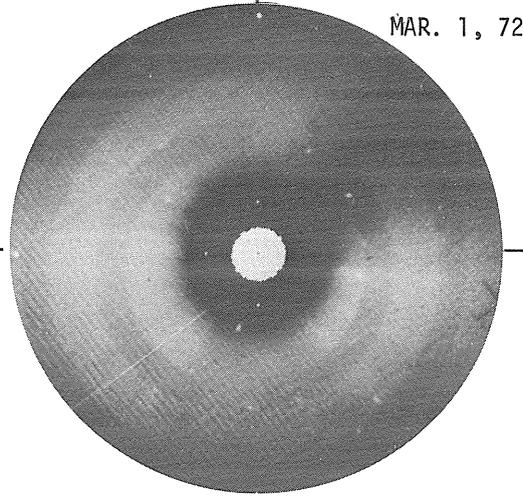
1127 UT

FEB. 27, 72



1256 UT

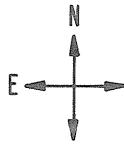
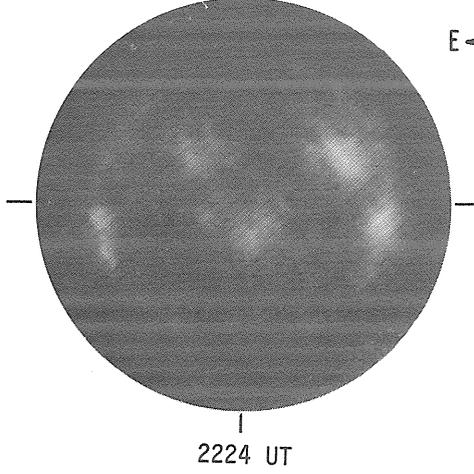
MAR. 1, 72



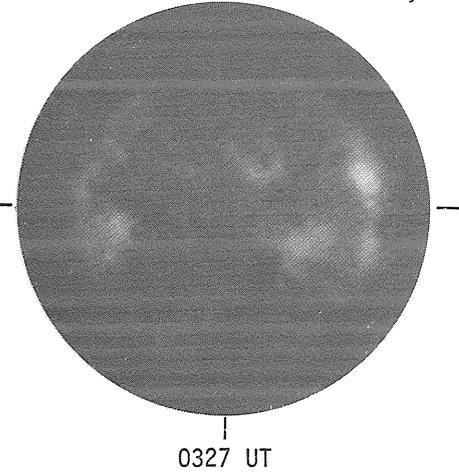
1042 UT

XUV
171-630Å

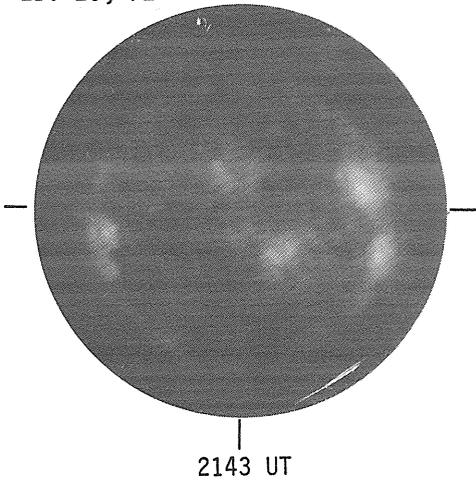
FEB. 25, 72



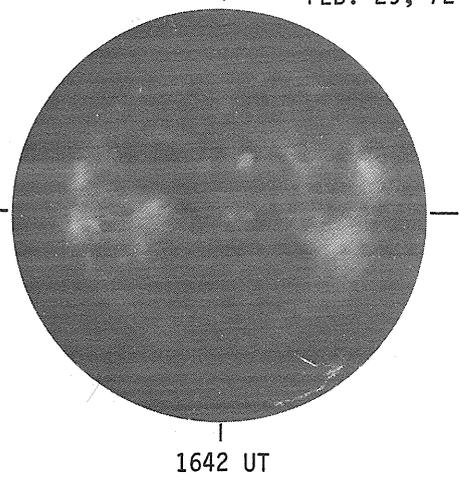
FEB. 28, 72



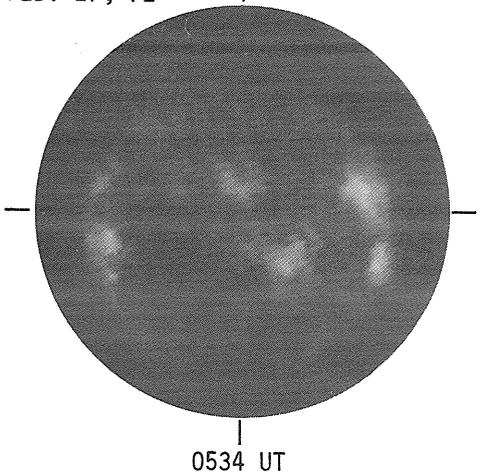
FEB. 26, 72



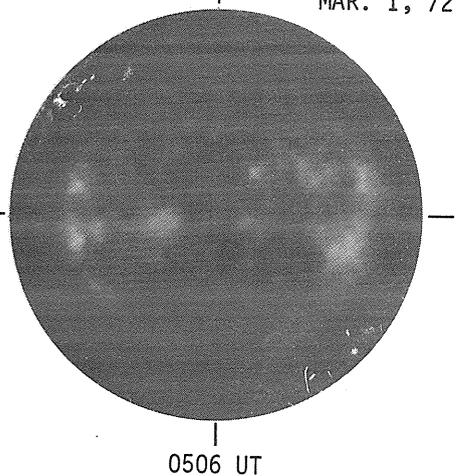
FEB. 29, 72



FEB. 27, 72

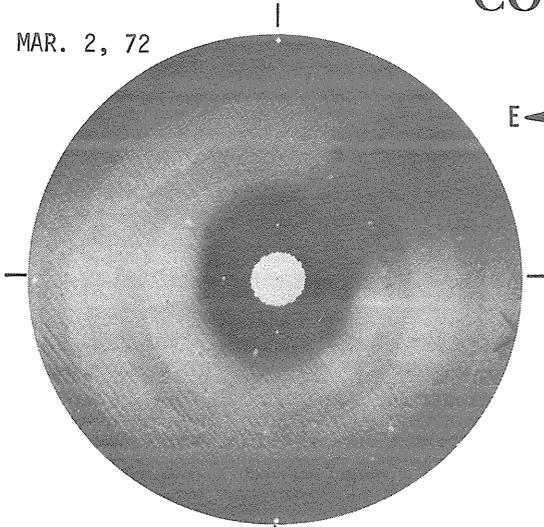


MAR. 1, 72



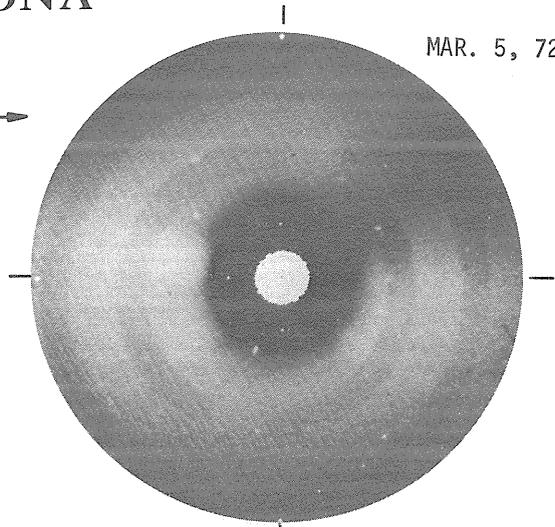
WHITE LIGHT CORONA

MAR. 2, 72

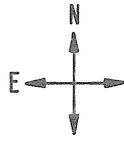


0958 UT

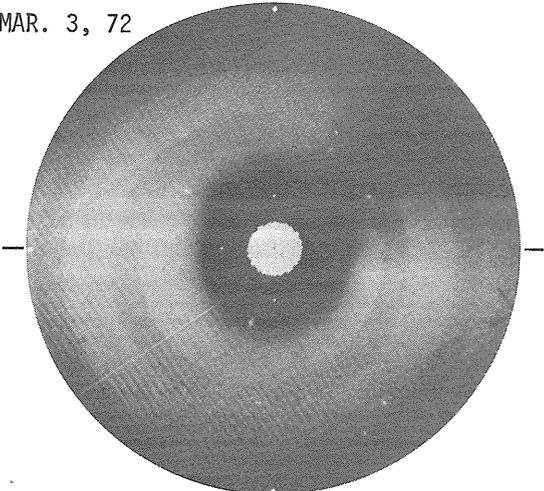
MAR. 5, 72



0925 UT

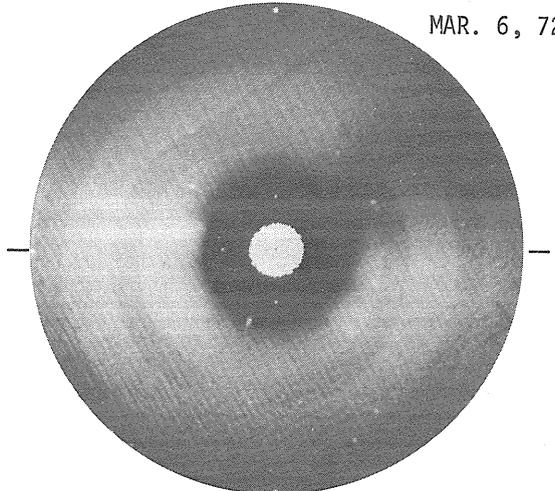


MAR. 3, 72



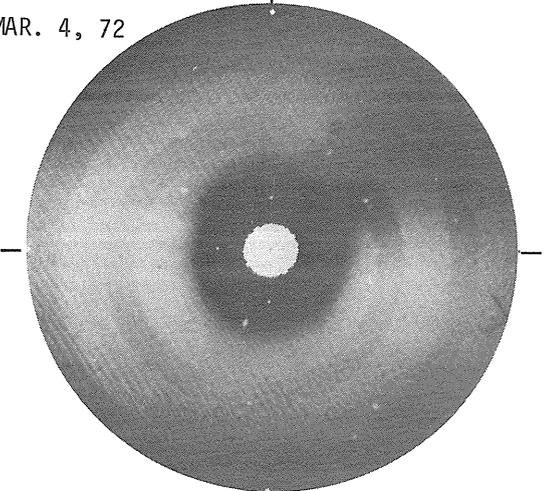
1051 UT

MAR. 6, 72



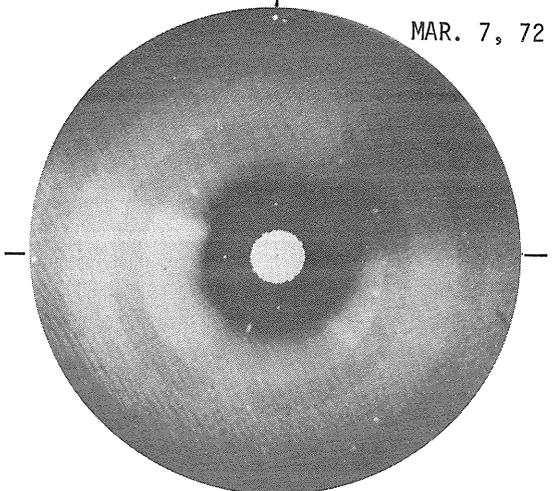
0843 UT

MAR. 4, 72



1007 UT

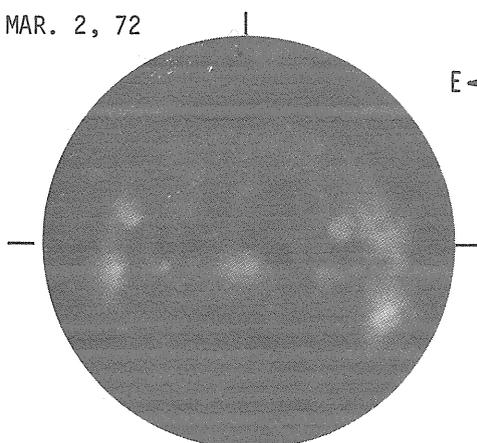
MAR. 7, 72



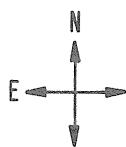
0801 UT

XUV
171-630Å

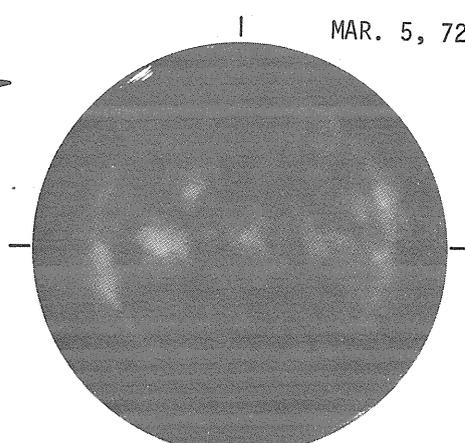
MAR. 2, 72



1521 UT

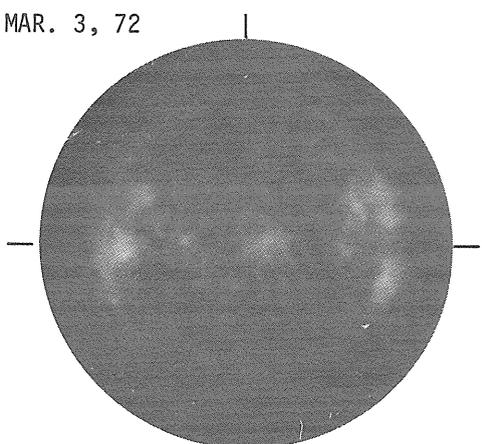


MAR. 5, 72



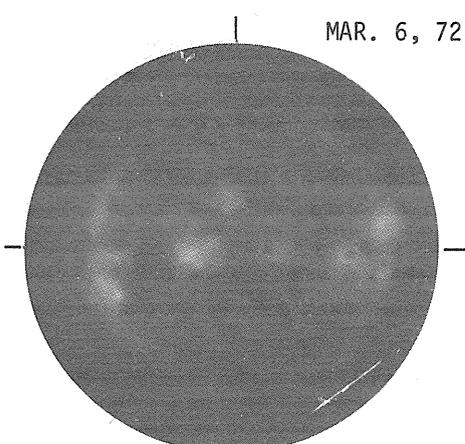
1306 UT

MAR. 3, 72



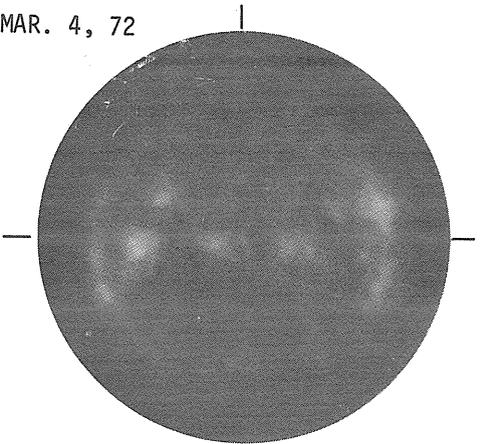
1257 UT

MAR. 6, 72



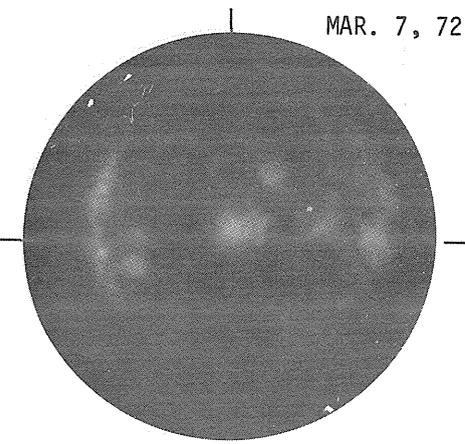
1400 UT

MAR. 4, 72



1351 UT

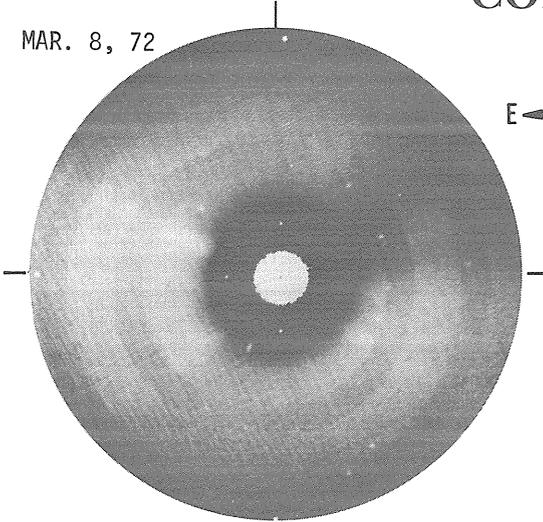
MAR. 7, 72



2225 UT

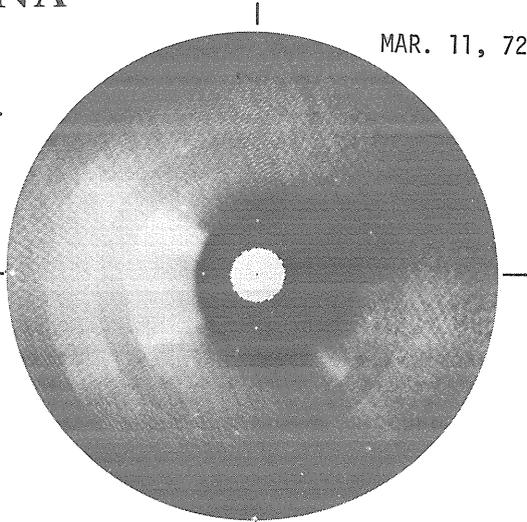
WHITE LIGHT CORONA

MAR. 8, 72



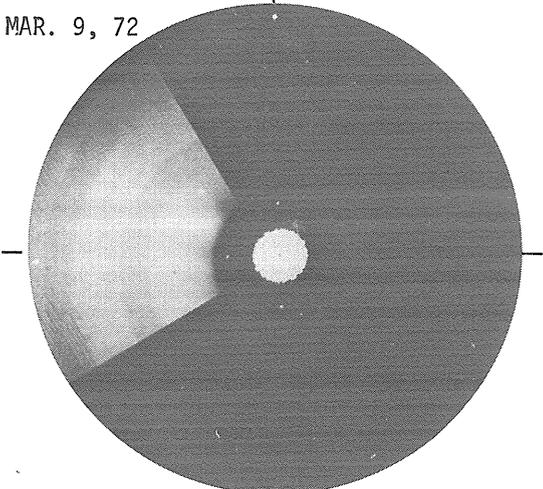
0852 UT

MAR. 11, 72



0339 UT

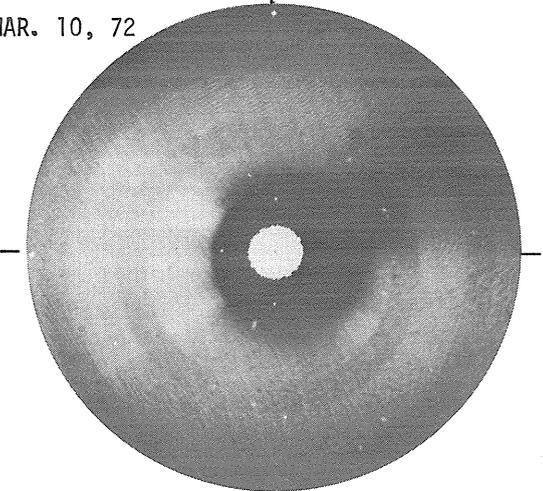
MAR. 9, 72



0711 UT

MAR. 12, 72

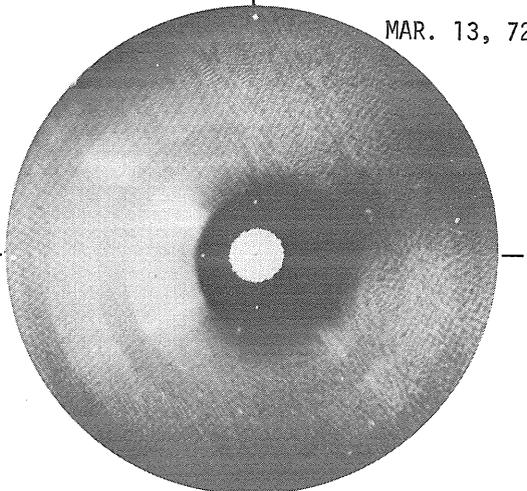
MAR. 10, 72



0420 UT

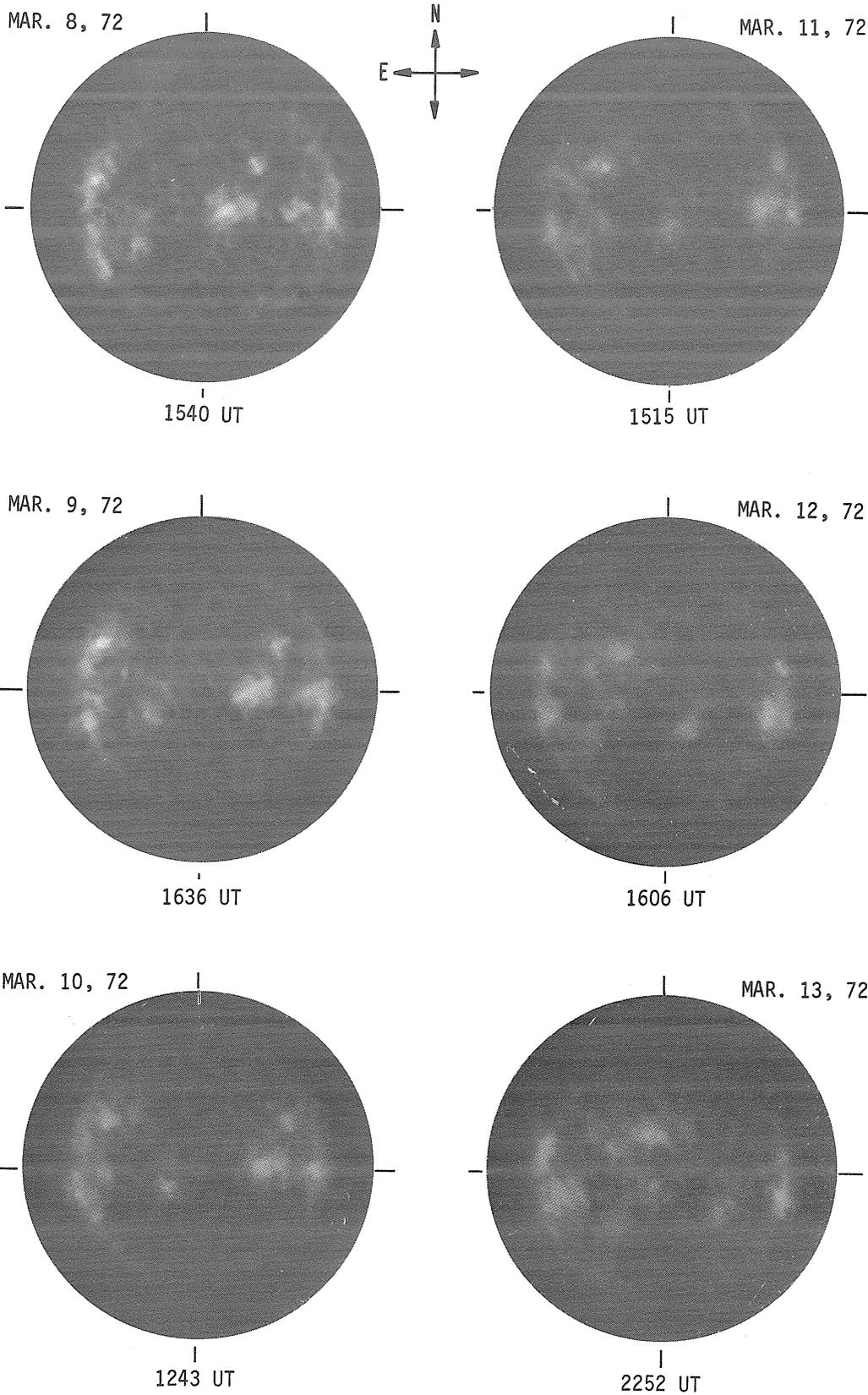
NO DATA

MAR. 13, 72



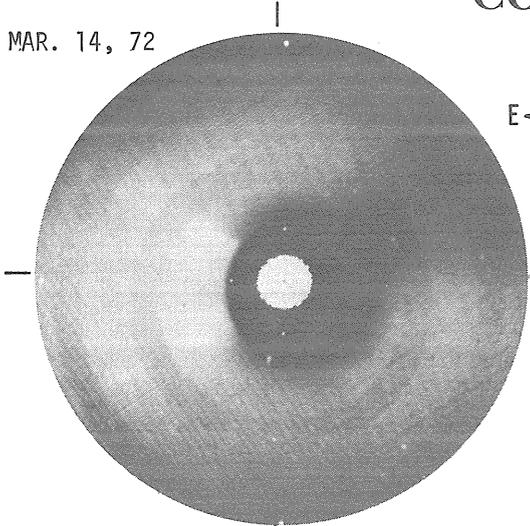
0347 UT

XUV
171-630Å



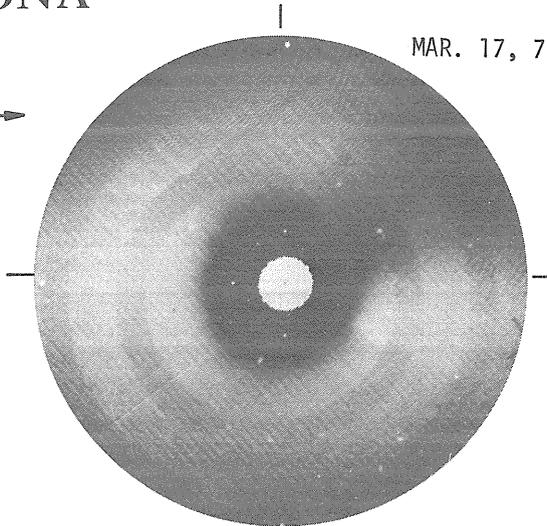
WHITE LIGHT CORONA

MAR. 14, 72

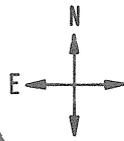


0747 UT

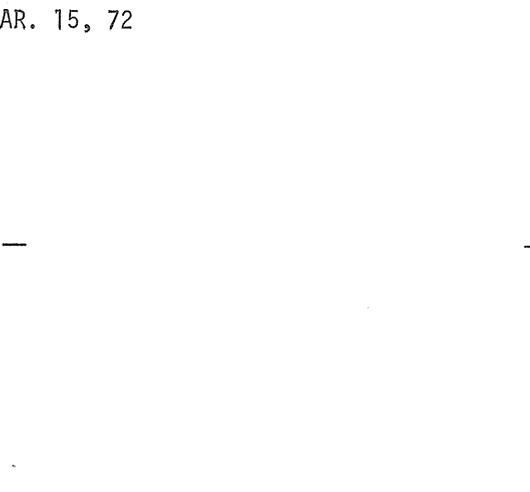
MAR. 17, 72



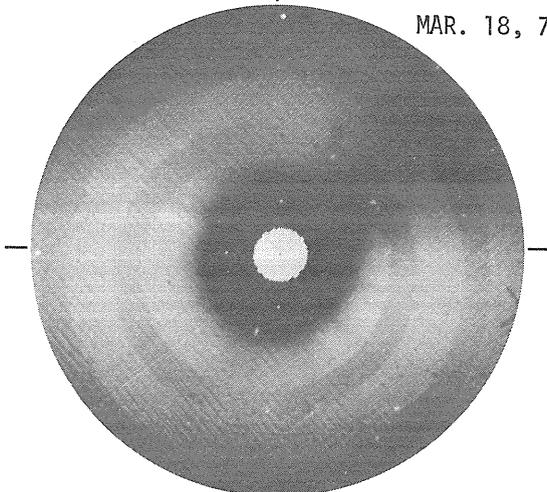
0233 UT



MAR. 15, 72



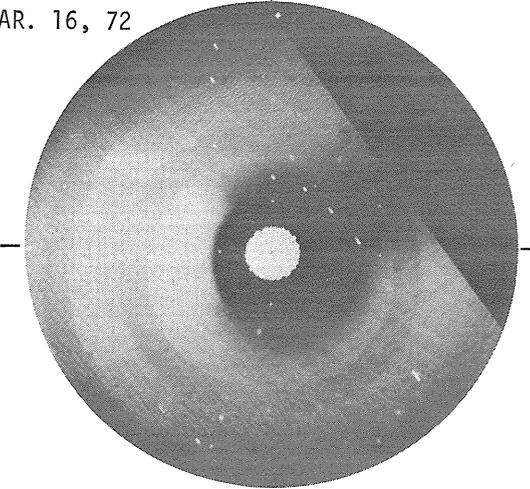
MAR. 18, 72



0458 UT

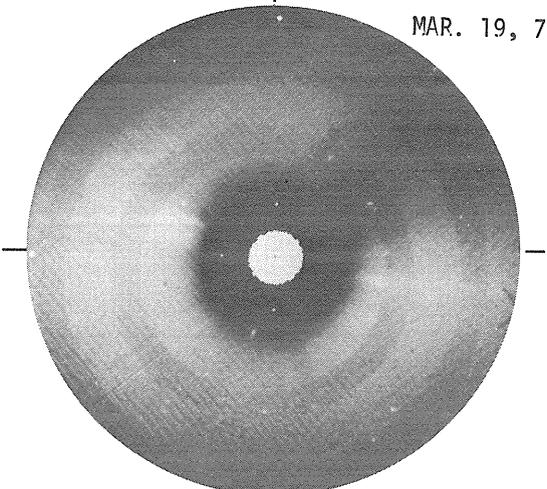
NO DATA

MAR. 16, 72



0142 UT

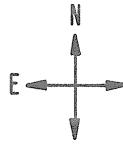
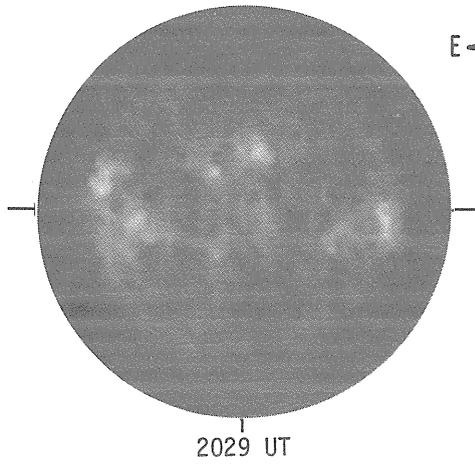
MAR. 19, 72



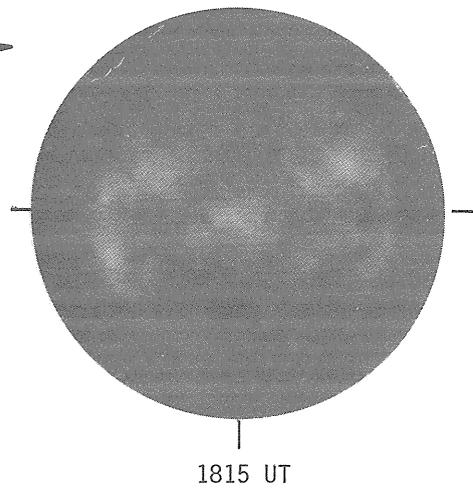
0416 UT

XUV
171-630Å

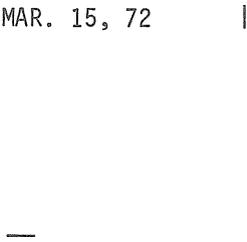
MAR. 14, 72



MAR. 17, 72

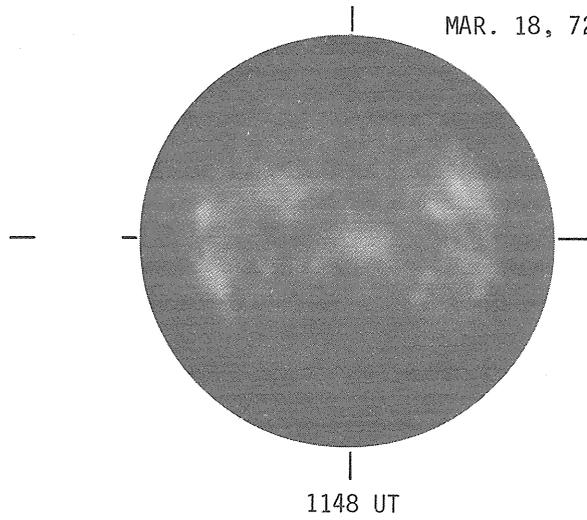


MAR. 15, 72

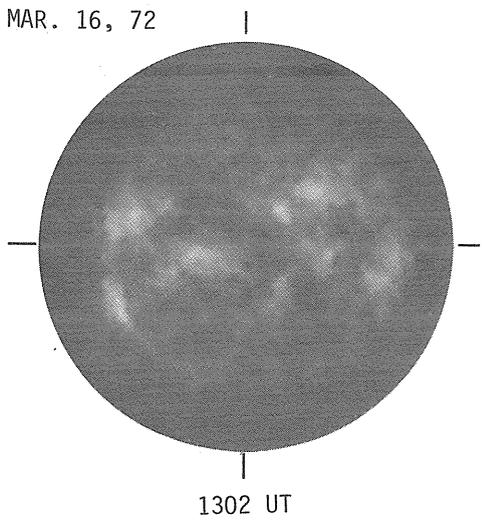


NO DATA

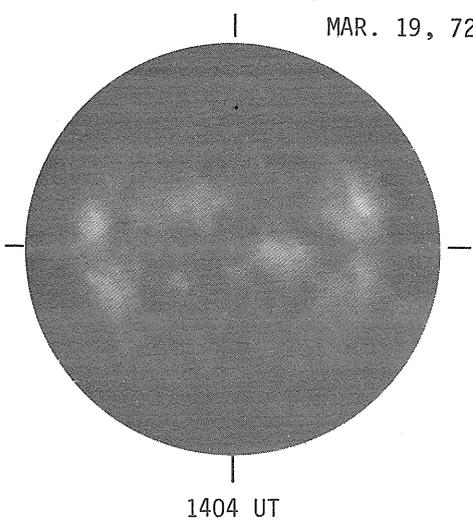
MAR. 18, 72



MAR. 16, 72

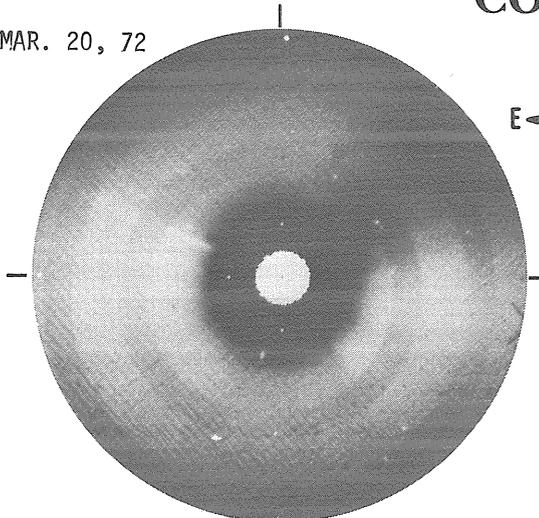


MAR. 19, 72

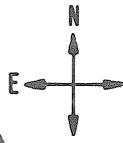


WHITE LIGHT CORONA

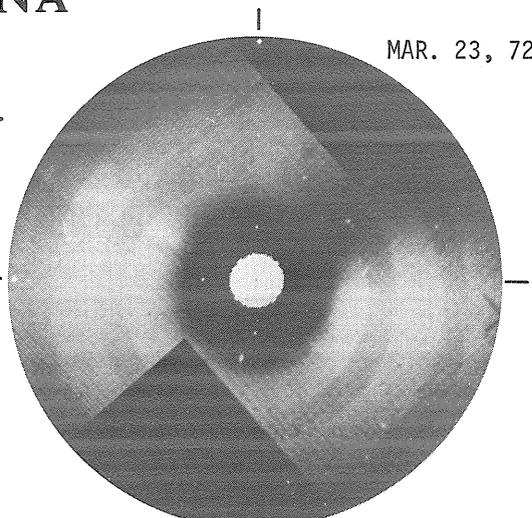
MAR. 20, 72



0334 UT

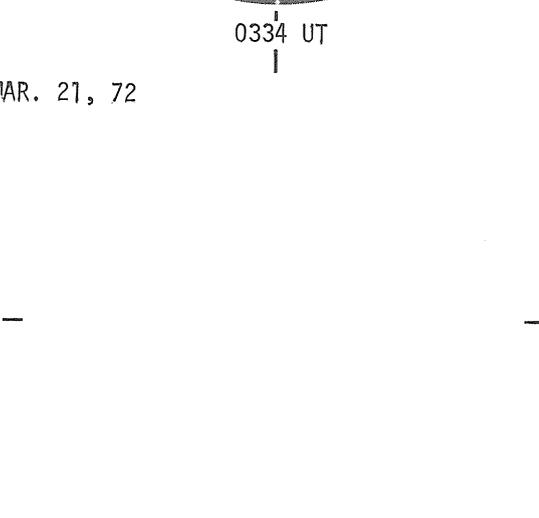


MAR. 23, 72



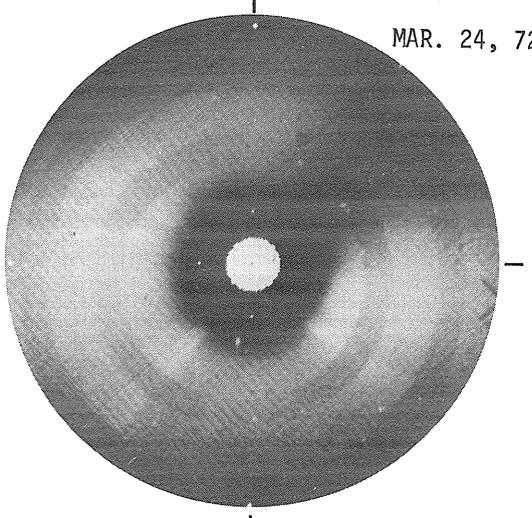
0629 UT

MAR. 21, 72



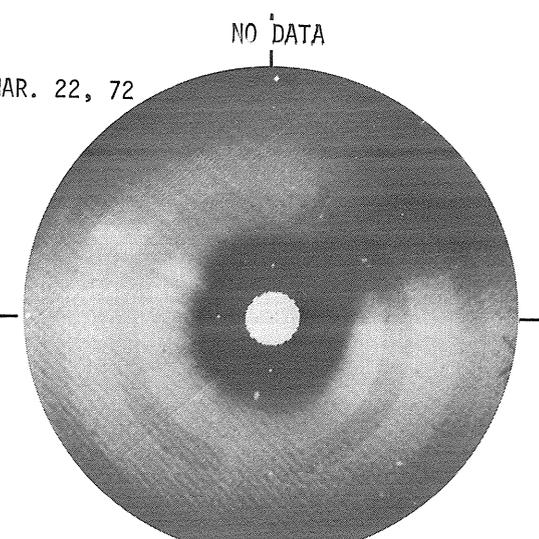
0955 UT

MAR. 24, 72



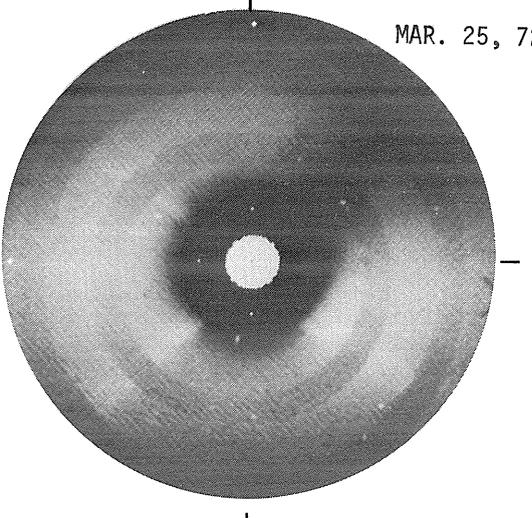
0657 UT

MAR. 22, 72



2319 UT

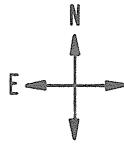
MAR. 25, 72



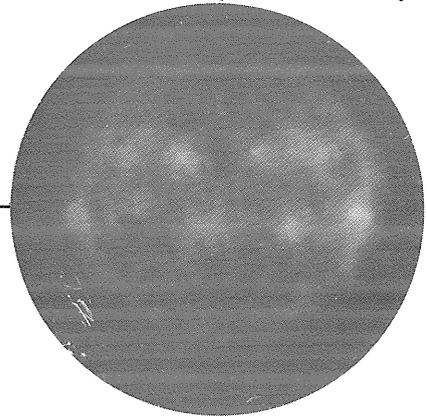
NO DATA

XUV
171-630Å

MAR. 20, 72



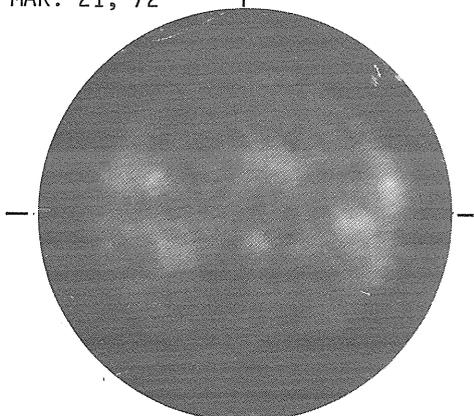
MAR. 23, 72



NO DATA

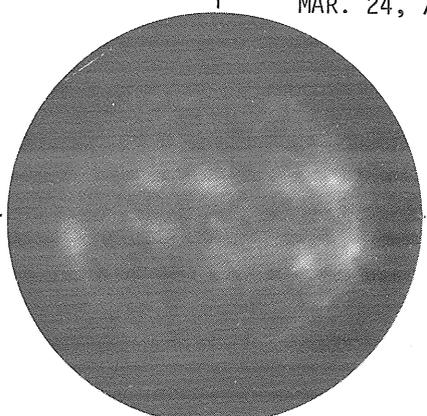
1113 UT

MAR. 21, 72



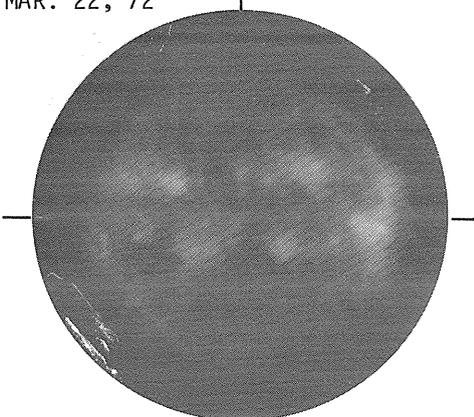
1238 UT

MAR. 24, 72



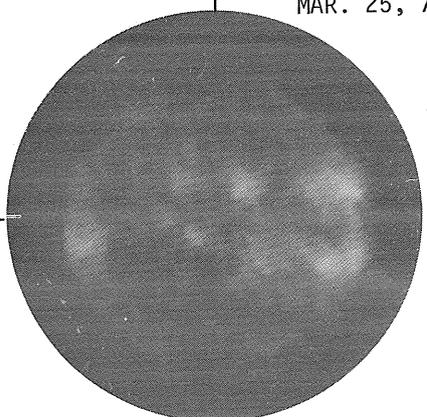
1336 UT

MAR. 22, 72



1336 UT

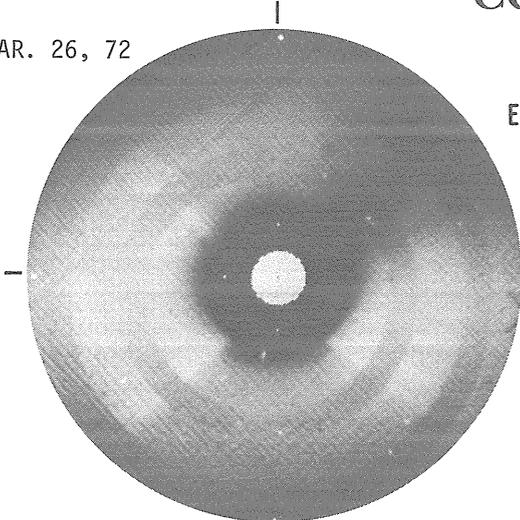
MAR. 25, 72



1123 UT

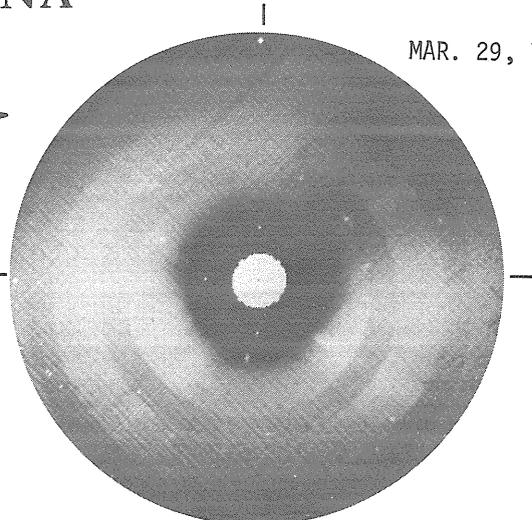
WHITE LIGHT CORONA

MAR. 26, 72

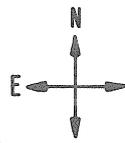


0704 UT

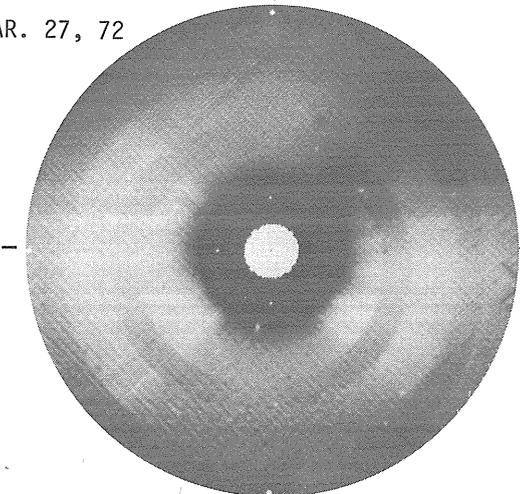
MAR. 29, 72



0322 UT

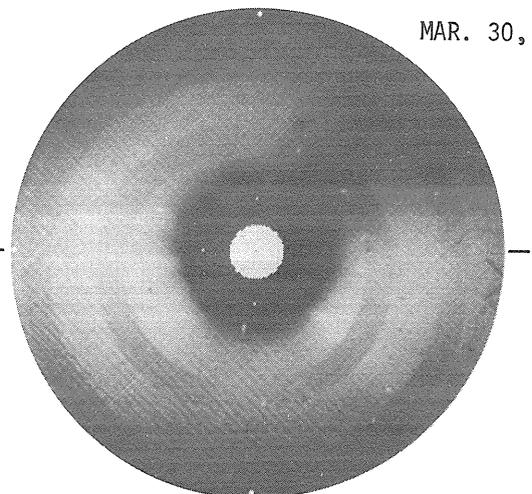


MAR. 27, 72



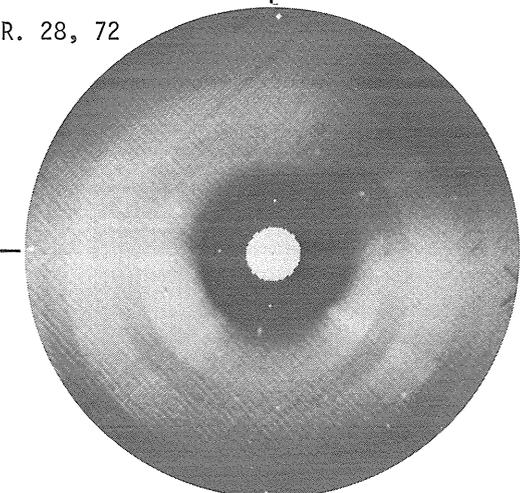
0621 UT

MAR. 30, 72



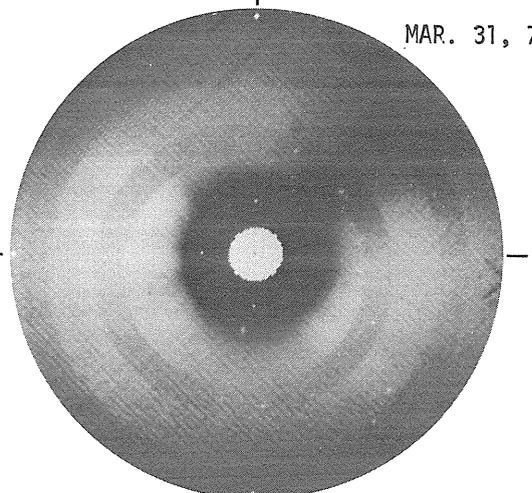
0239 UT

MAR. 28, 72



2244 UT

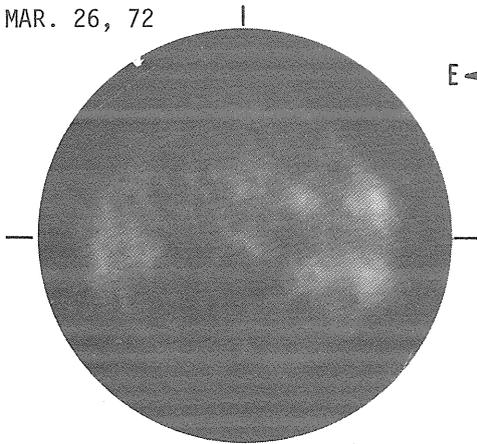
MAR. 31, 72



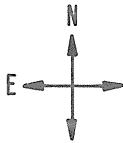
2206 UT

XUV
171-630Å

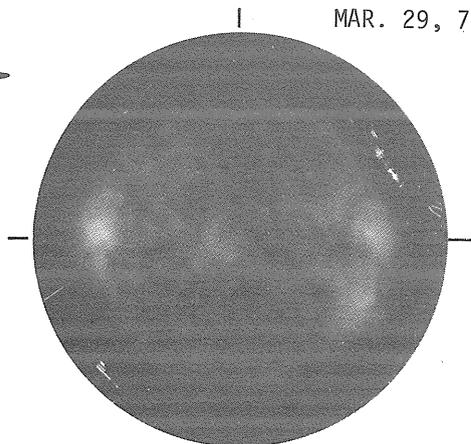
MAR. 26, 72



1335 UT

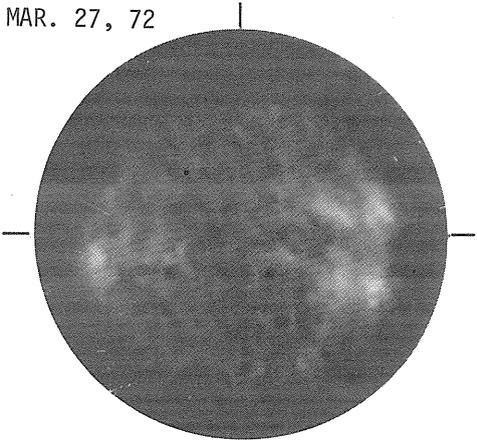


MAR. 29, 72



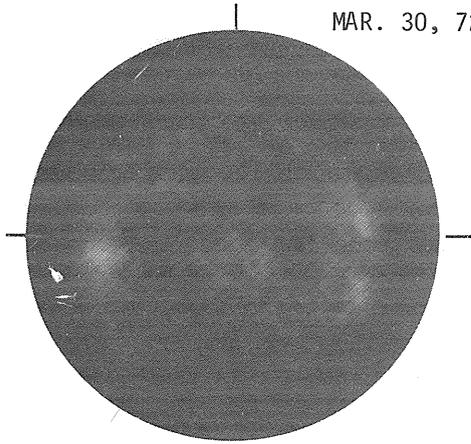
1001 UT

MAR. 27, 72



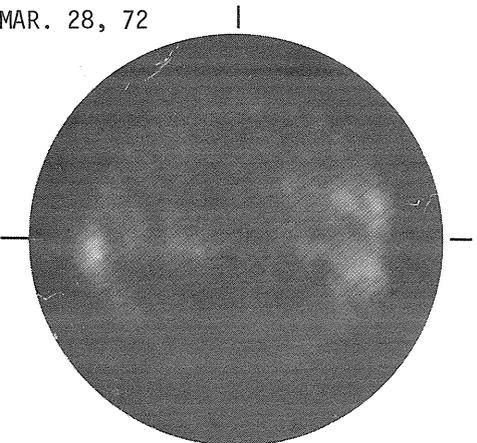
1608 UT

MAR. 30, 72



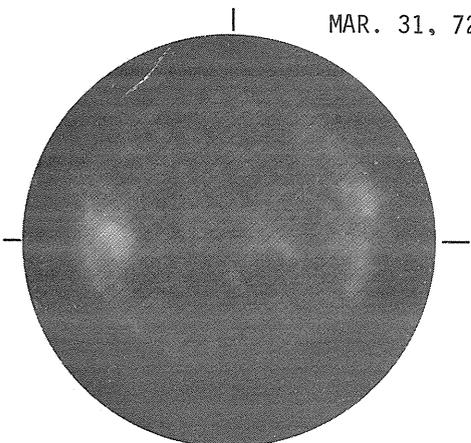
1324 UT

MAR. 28, 72



0919 UT

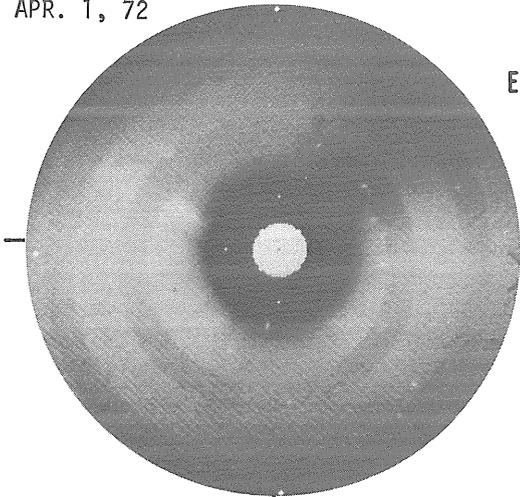
MAR. 31, 72



0702 UT

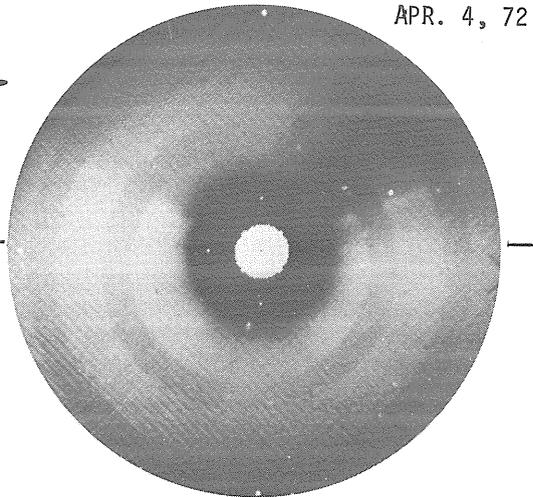
WHITE LIGHT CORONA

APR. 1, 72

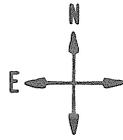


2256 UT

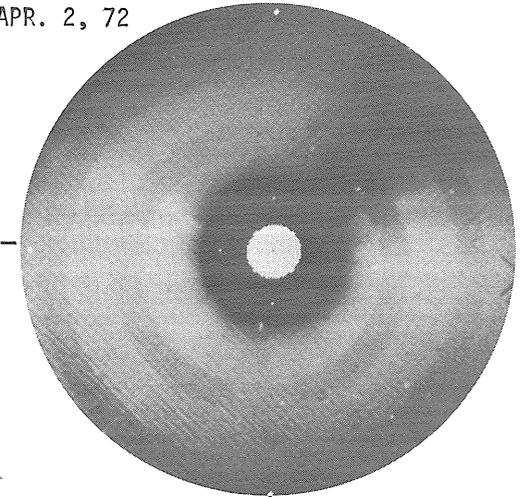
APR. 4, 72



0036 UT

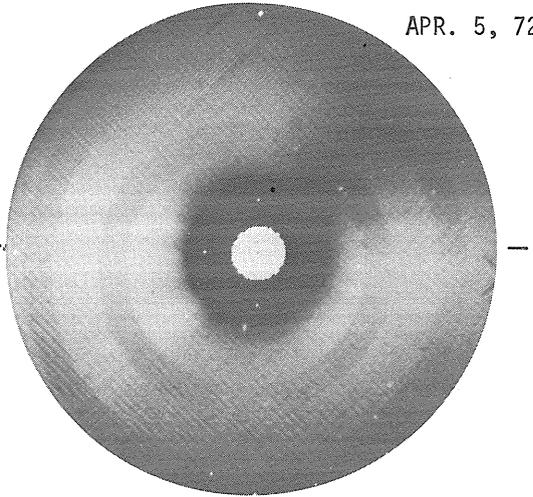


APR. 2, 72



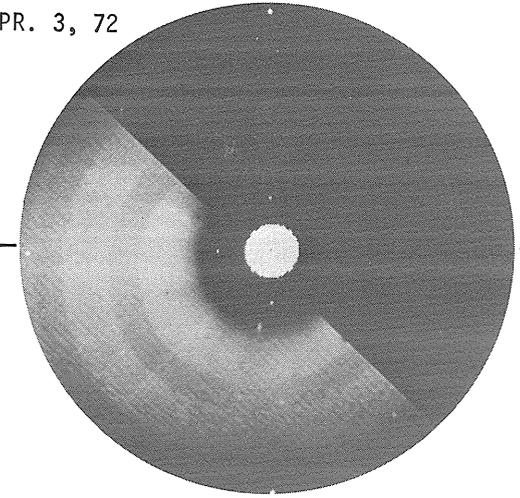
2347 UT

APR. 5, 72



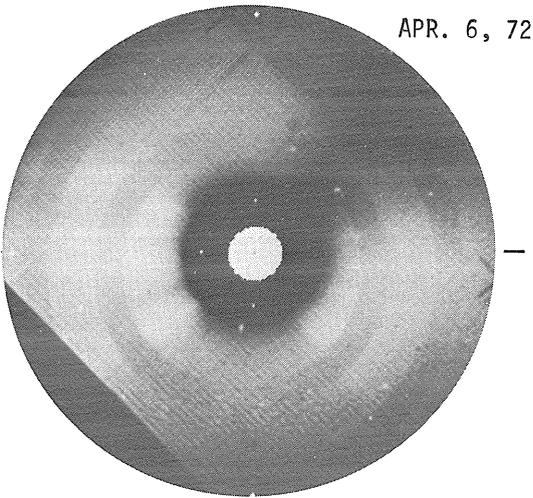
2136 UT

APR. 3, 72



0304 UT - Q4
1823 UT - Q3

APR. 6, 72

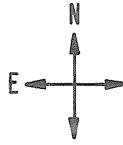


2053 UT

XUV
171-630Å

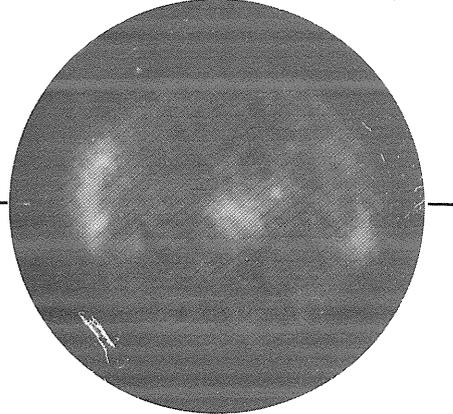
APR. 1, 72

|



APR. 4, 72

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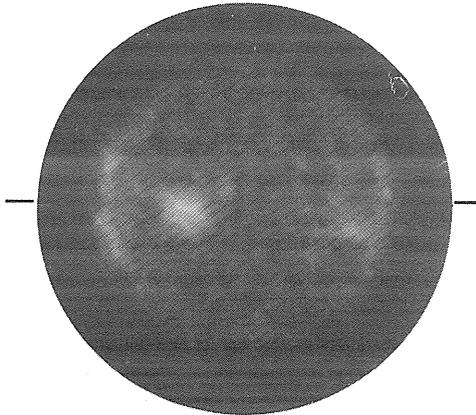


0905 UT

NO DATA

APR. 2, 72

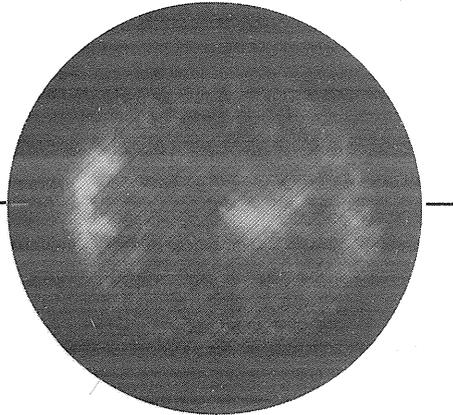
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0708 UT

APR. 5, 72

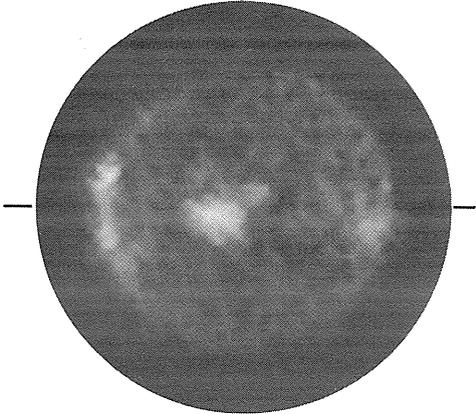
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0342 UT

APR. 3, 72

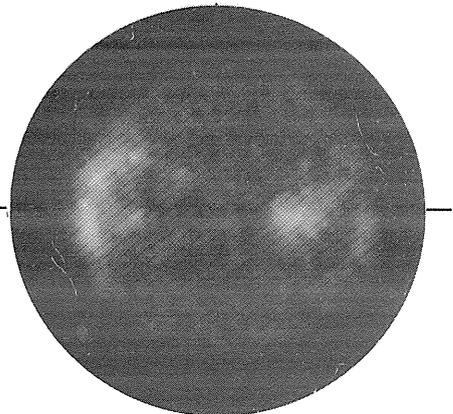
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0758 UT

APR. 6, 72

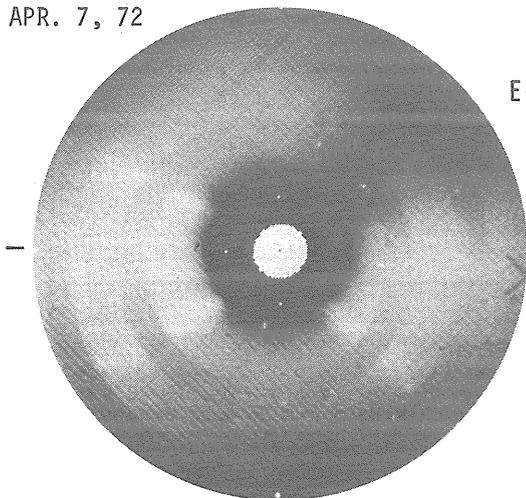
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0911 UT

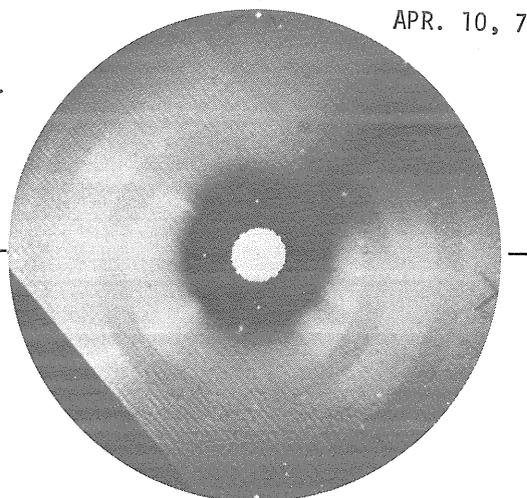
WHITE LIGHT CORONA

APR. 7, 72

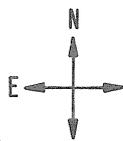


2317 UT

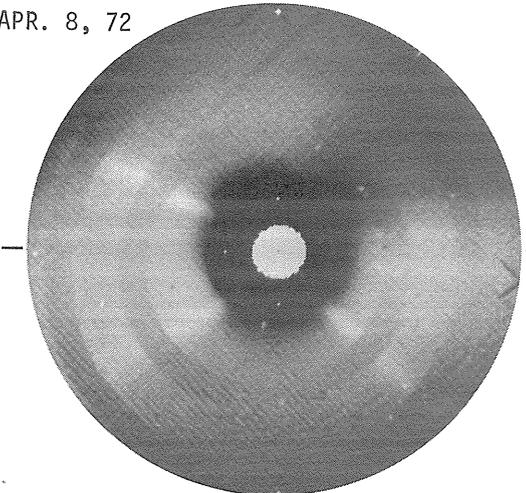
APR. 10, 72



2108 UT

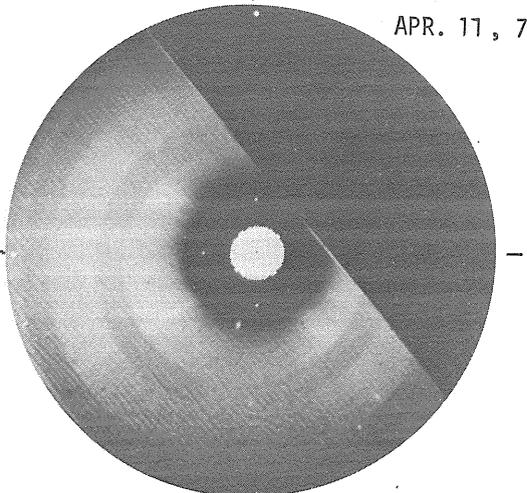


APR. 8, 72



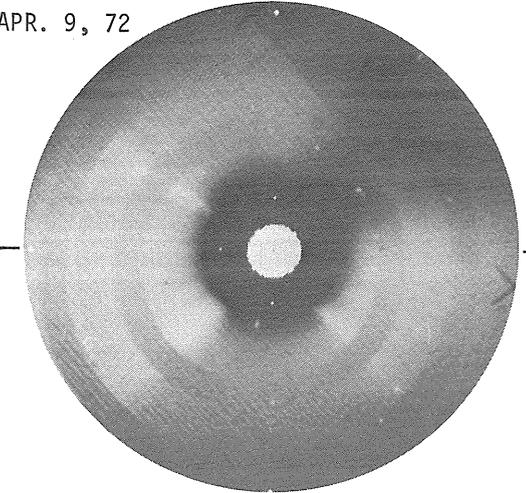
2234 UT

APR. 11, 72



1413 UT

APR. 9, 72



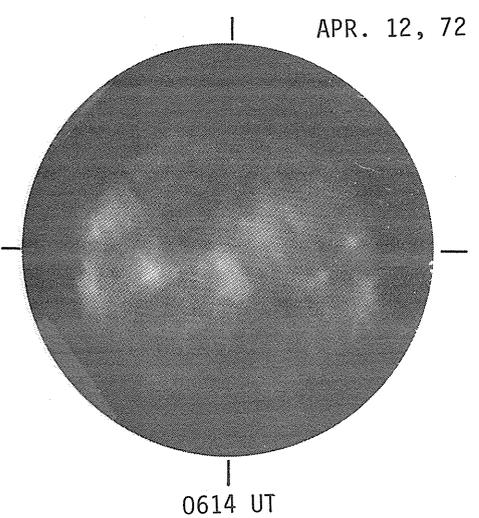
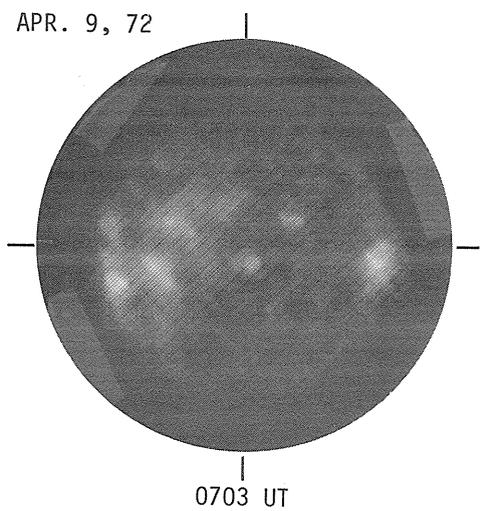
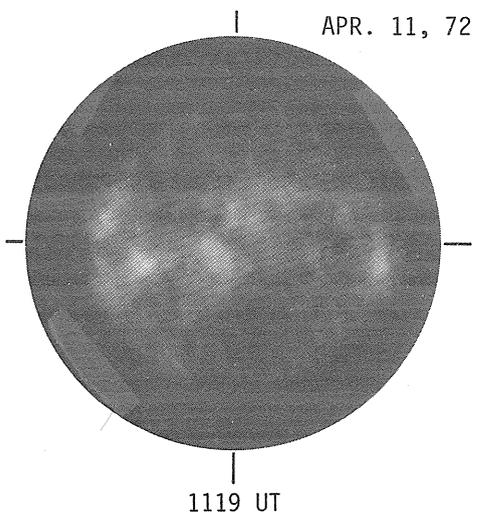
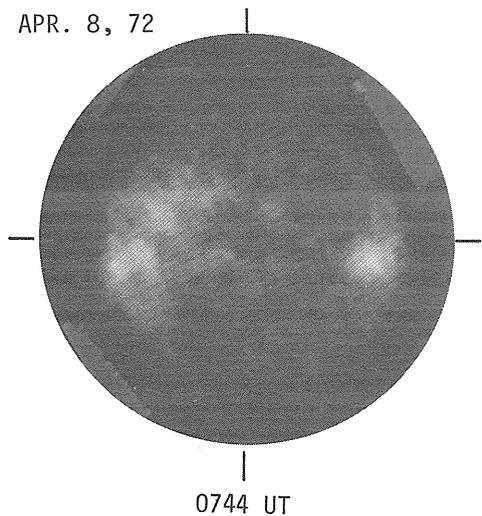
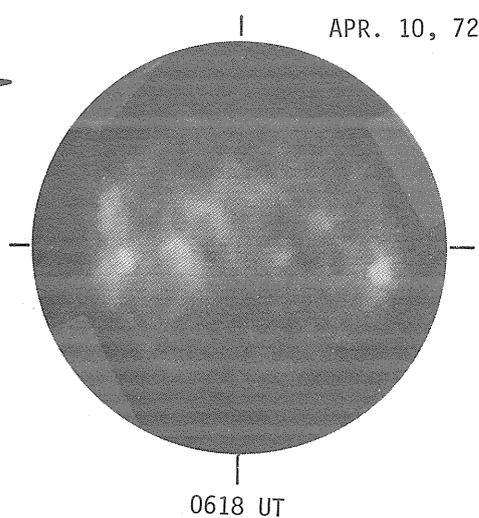
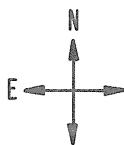
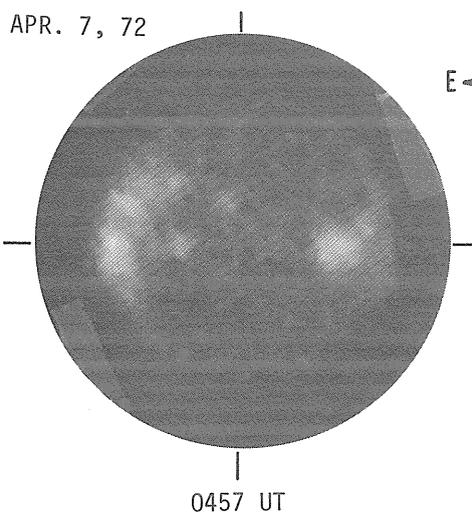
2151 UT

APR. 12, 72



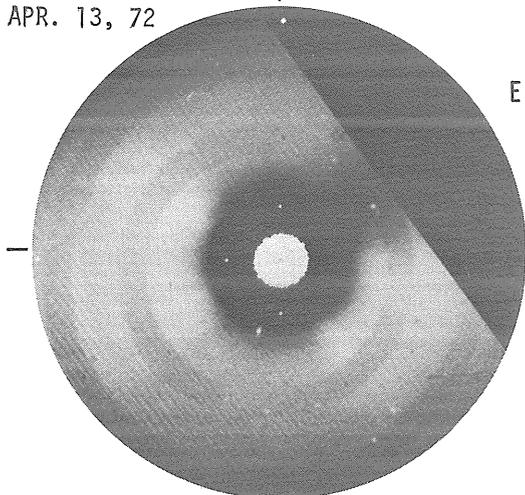
2116 UT

XUV
171-630Å



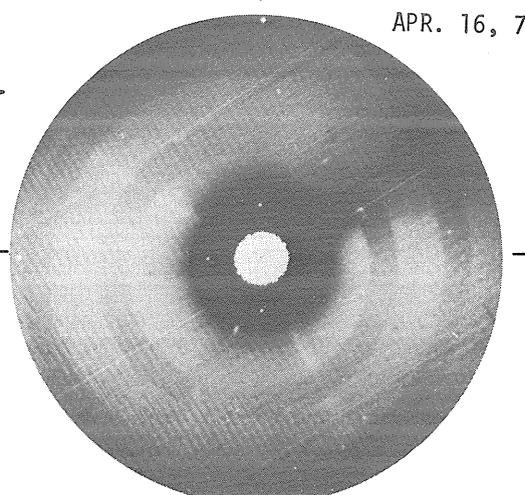
WHITE LIGHT CORONA

APR. 13, 72



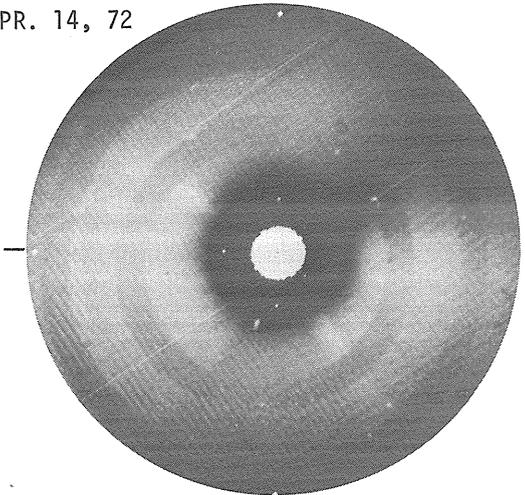
1248 UT

APR. 16, 72



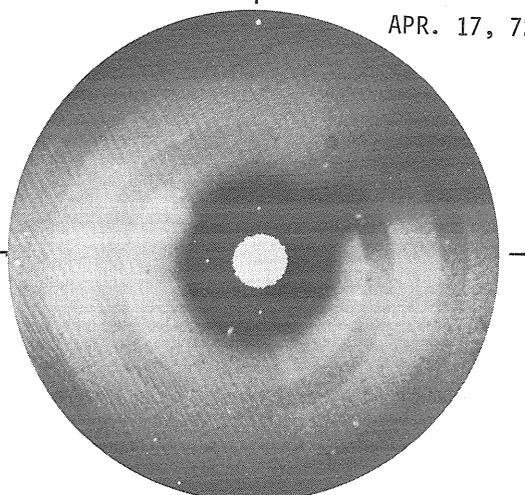
1217 UT

APR. 14, 72



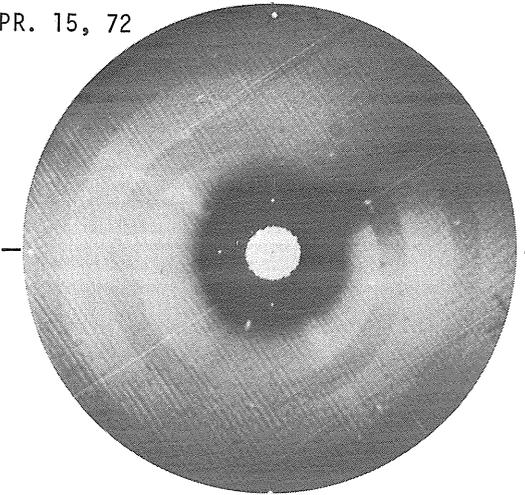
1211 UT

APR. 17, 72



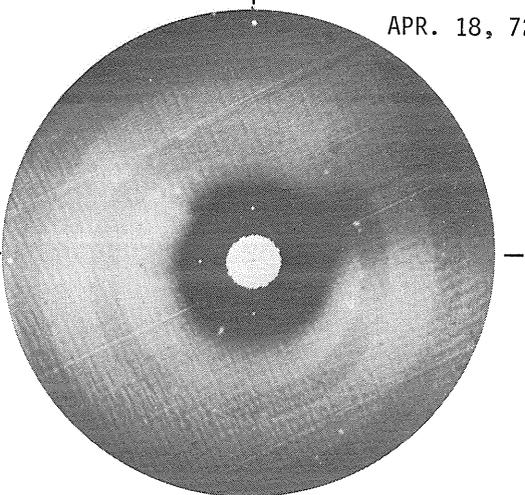
1131 UT

APR. 15, 72

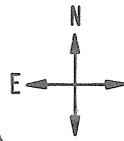


1126 UT

APR. 18, 72

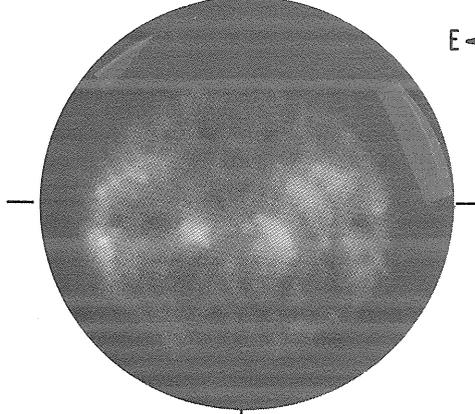


1223 UT

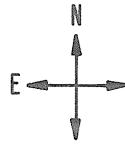


XUV
171-630Å

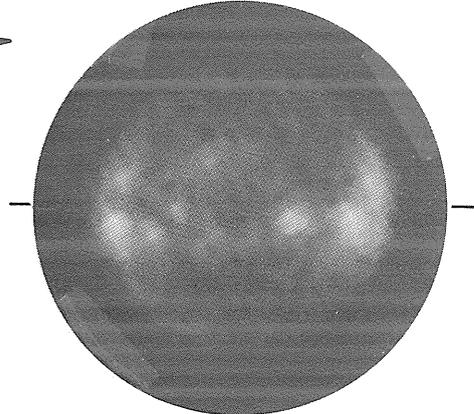
APR. 13, 72



0846 UT

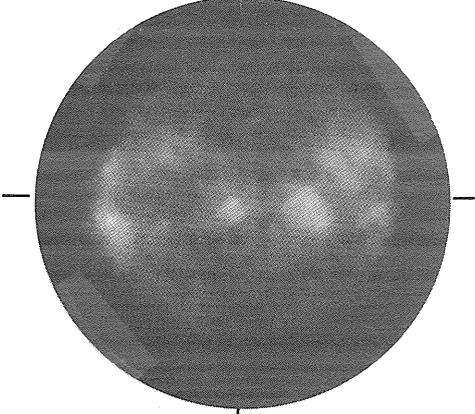


APR. 16, 72



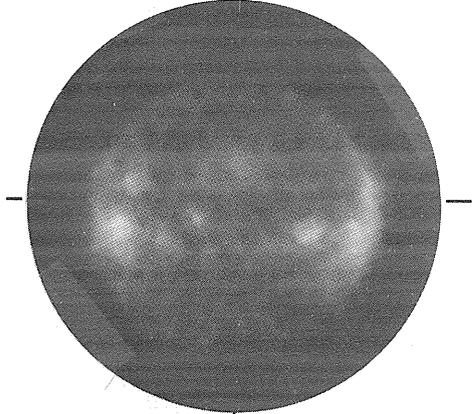
0452 UT

APR. 14, 72



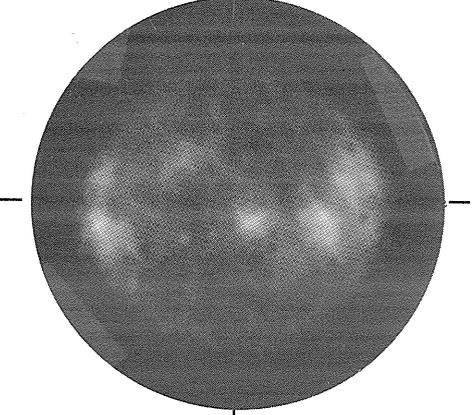
0623 UT

APR. 17, 72



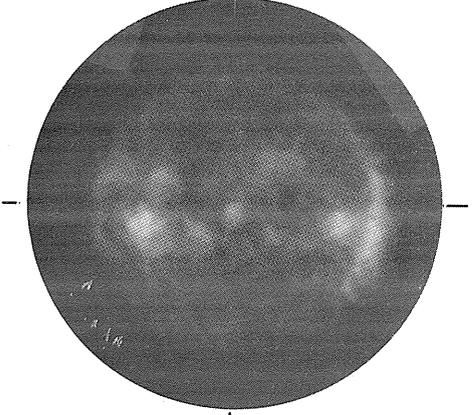
0409 UT

APR. 15, 72



0544 UT

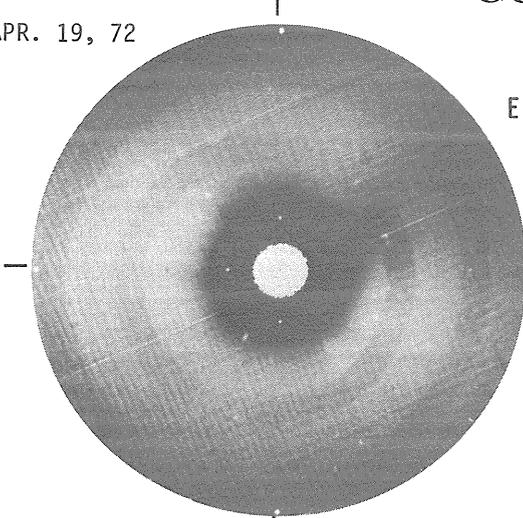
APR. 18, 72



0342 UT

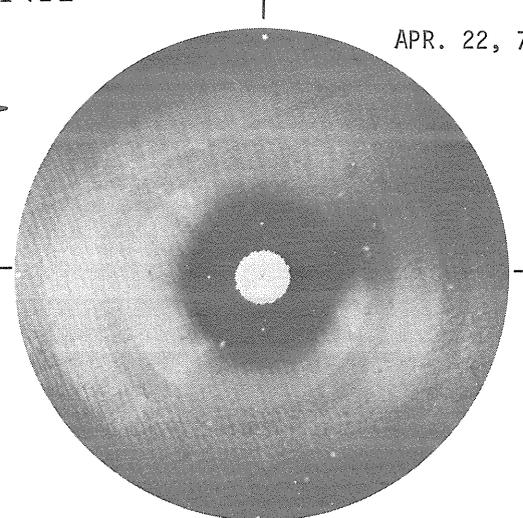
WHITE LIGHT CORONA

APR. 19, 72

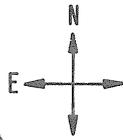


1136 UT

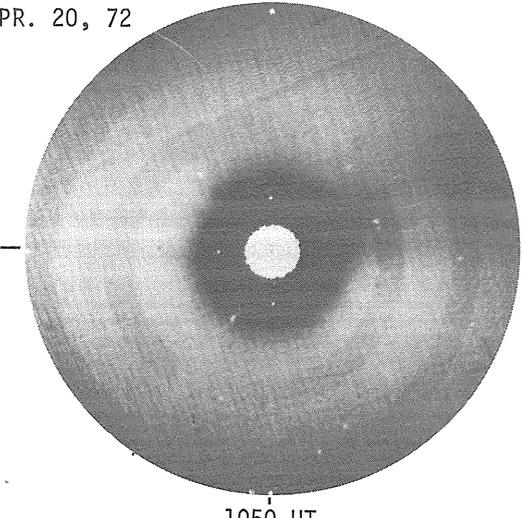
APR. 22, 72



1055 UT

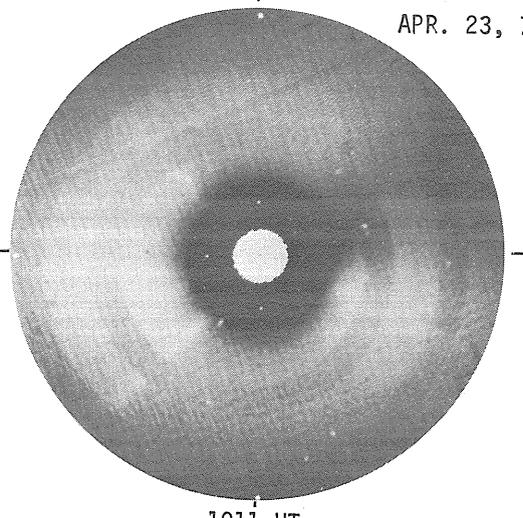


APR. 20, 72



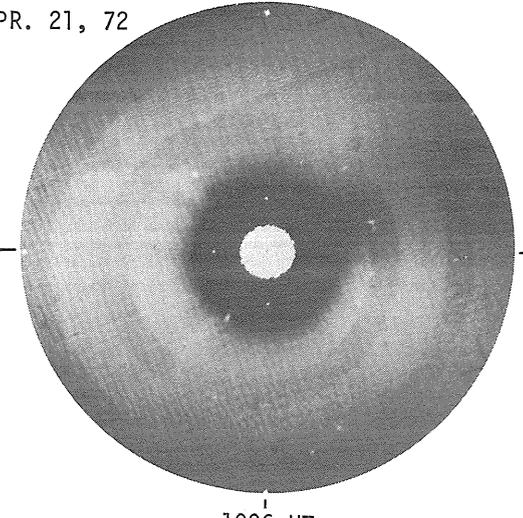
1050 UT

APR. 23, 72



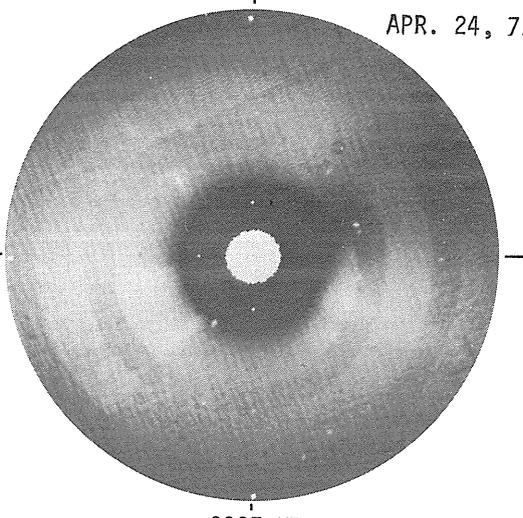
1011 UT

APR. 21, 72



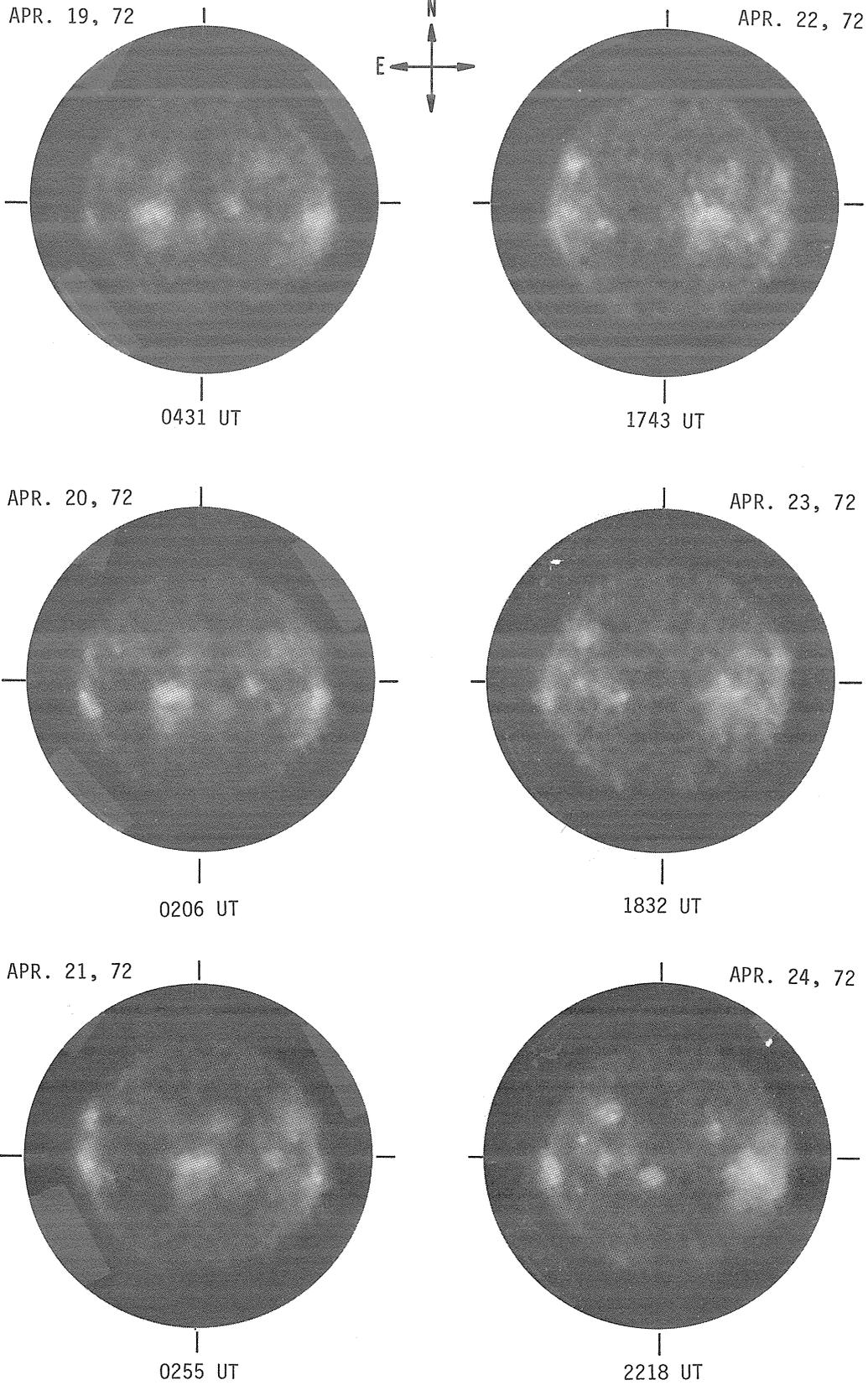
1006 UT

APR. 24, 72



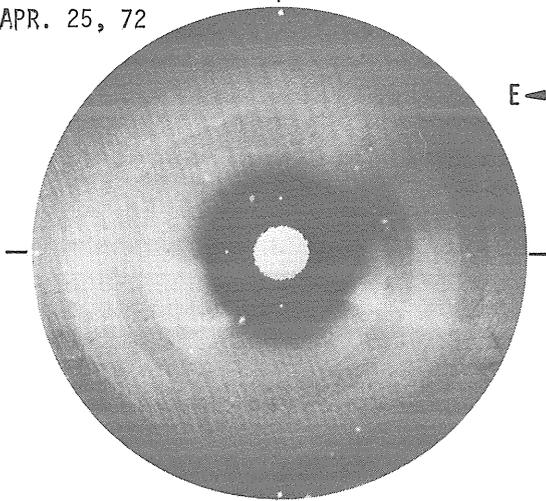
0927 UT

XUV
171-630Å



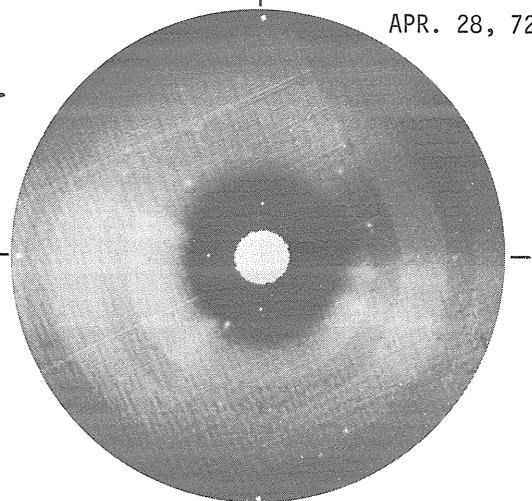
WHITE LIGHT CORONA

APR. 25, 72

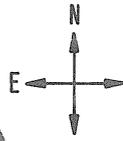


0710 UT

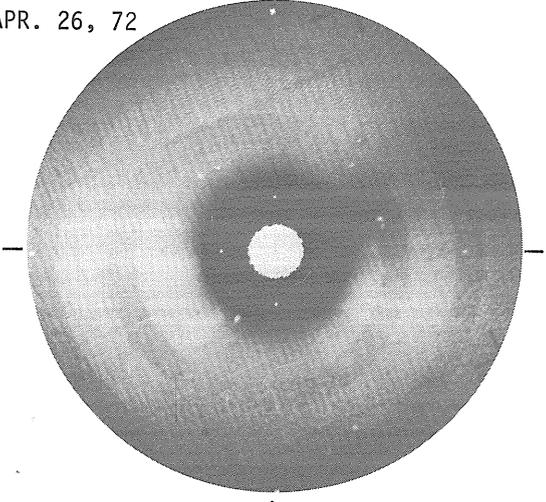
APR. 28, 72



1247 UT

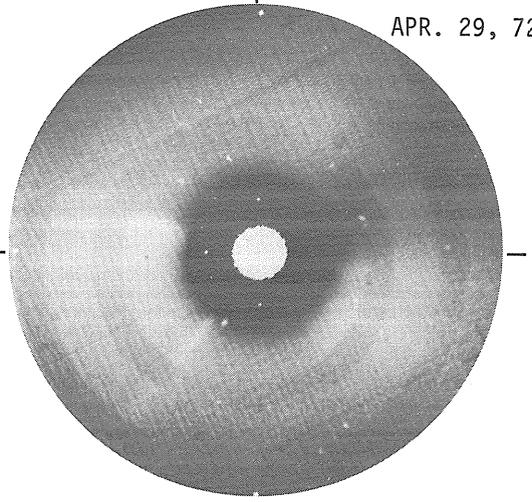


APR. 26, 72



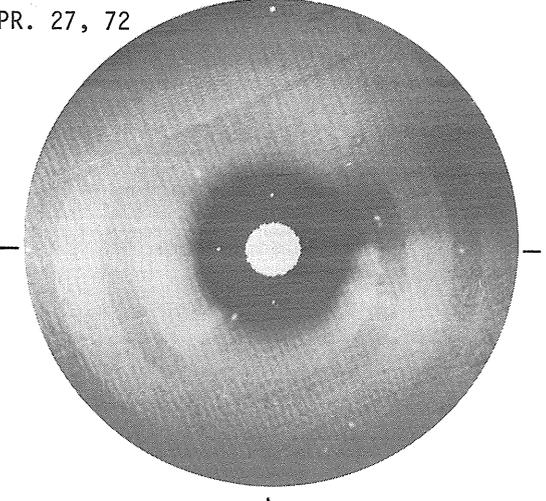
0626 UT

APR. 29, 72



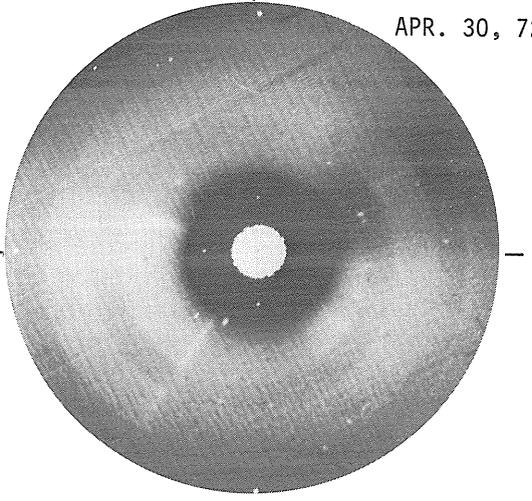
0853 UT

APR. 27, 72



0714 UT

APR. 30, 72

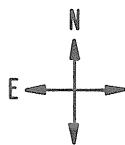


0635 UT

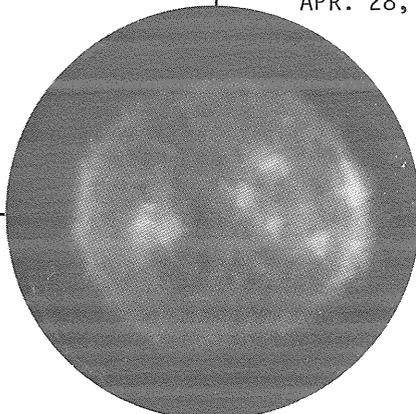
XUV
171-630Å

APR. 25, 72

|



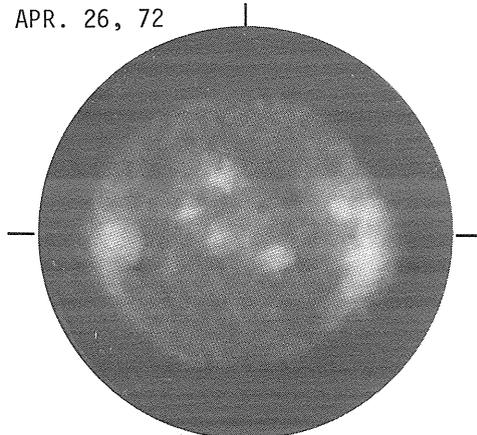
APR. 28, 72



NO DATA

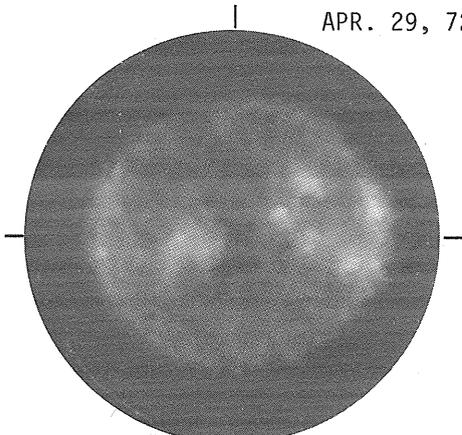
2227 UT

APR. 26, 72



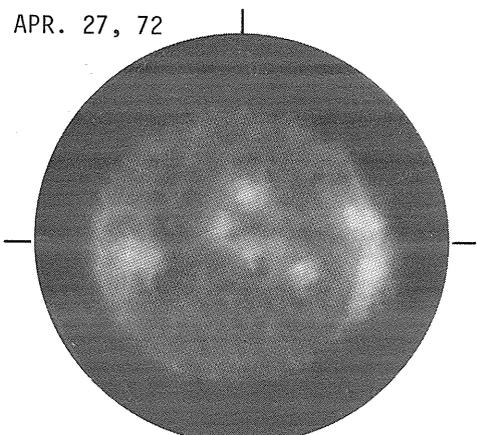
1610 UT

APR. 29, 72



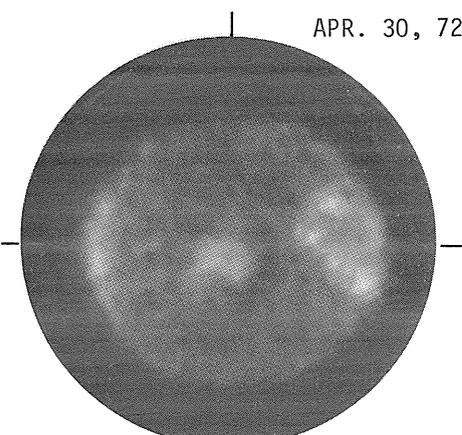
1403 UT

APR. 27, 72



1536 UT

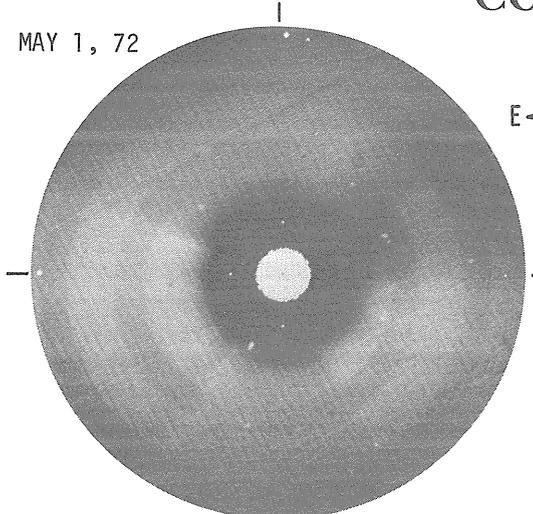
APR. 30, 72



1457 UT

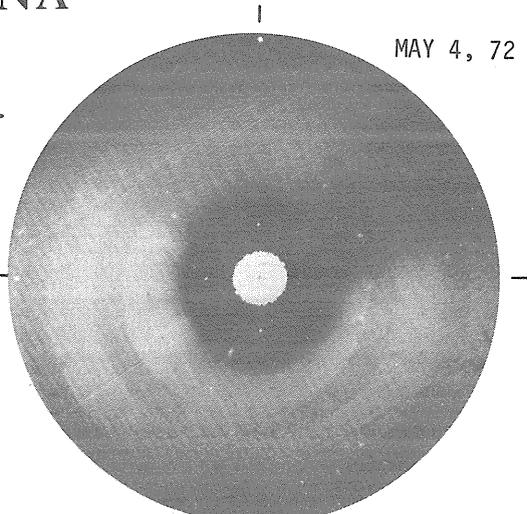
WHITE LIGHT CORONA

MAY 1, 72

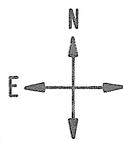


0551 UT

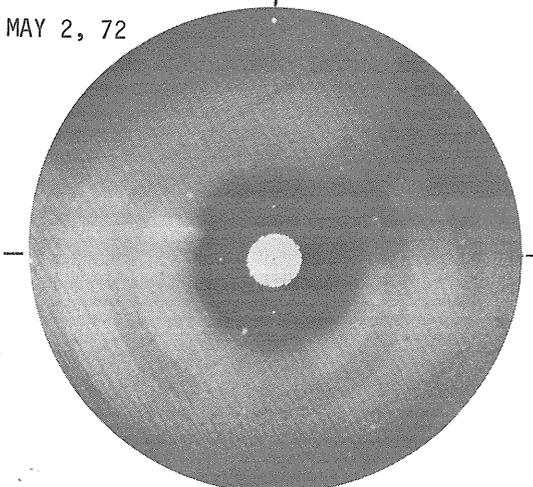
MAY 4, 72



0511 UT

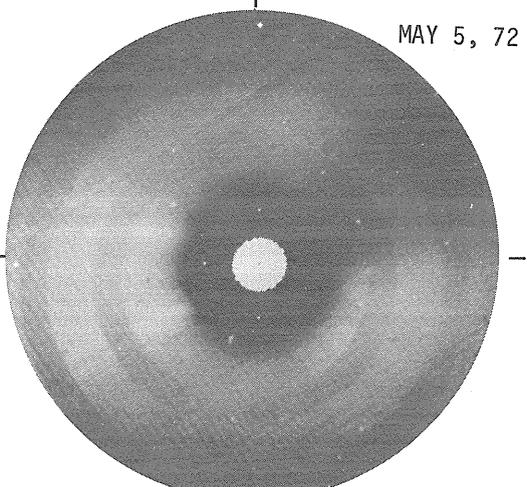


MAY 2, 72



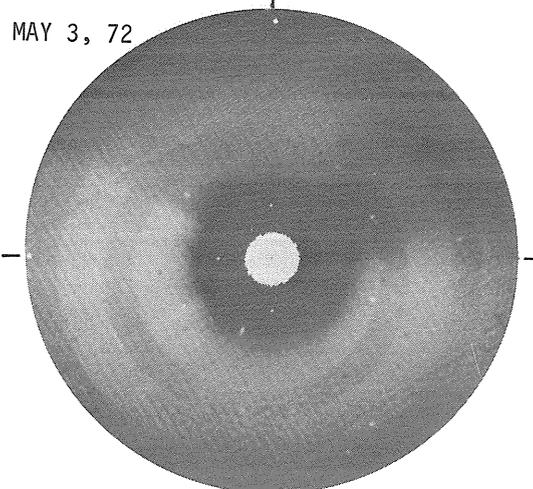
0507 UT

MAY 5, 72



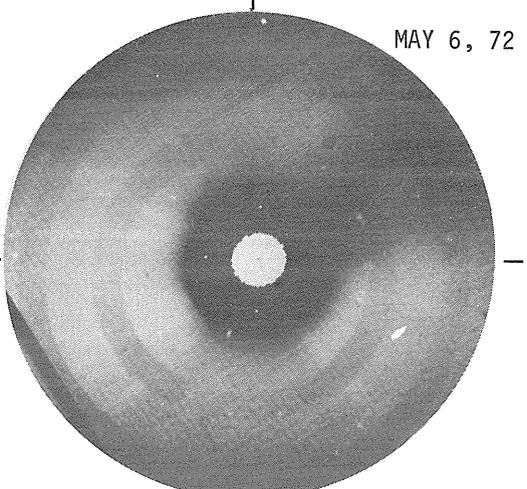
0906 UT

MAY 3, 72



0555 UT

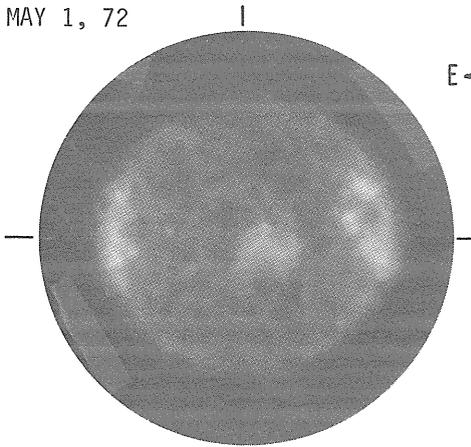
MAY 6, 72



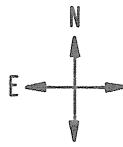
0516 UT

XUV
171-630Å

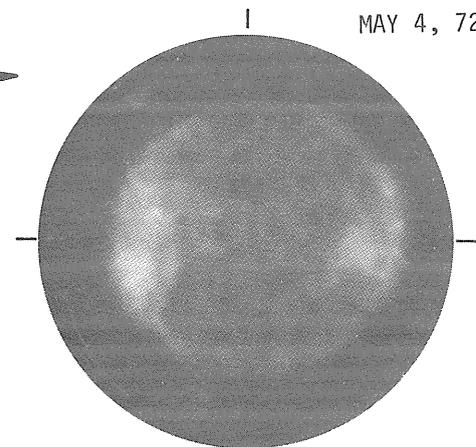
MAY 1, 72



1402 UT

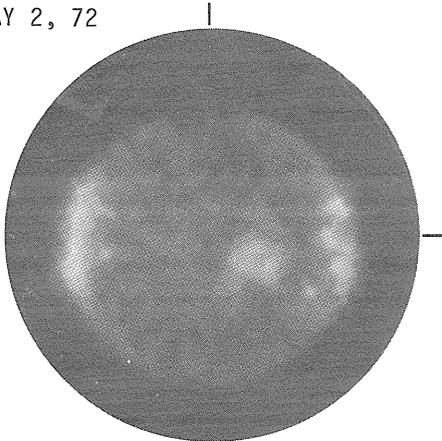


MAY 4, 72



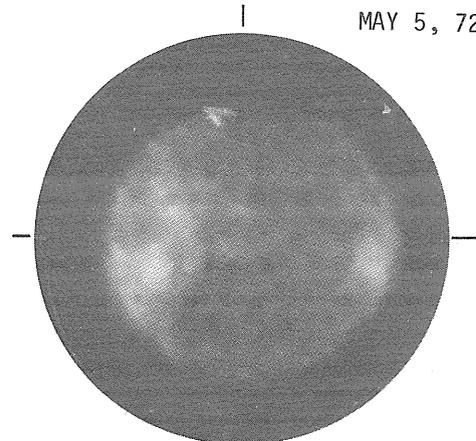
1145 UT

MAY 2, 72



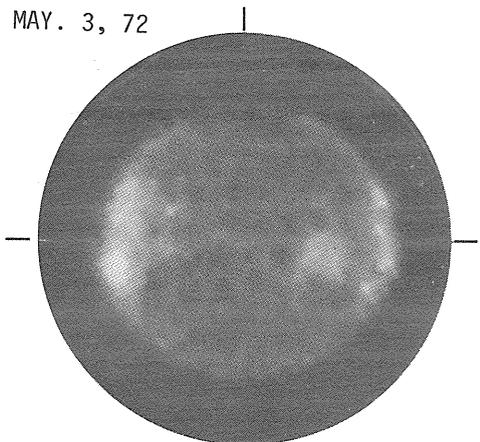
1149 UT

MAY 5, 72



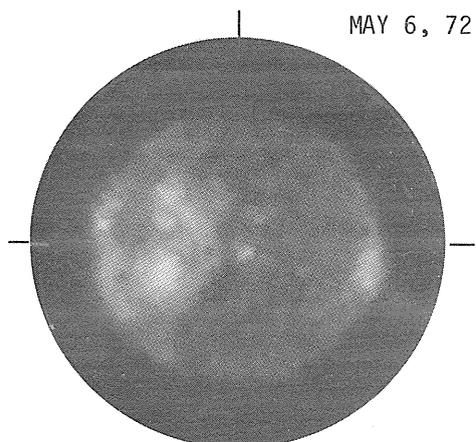
1239 UT

MAY. 3, 72



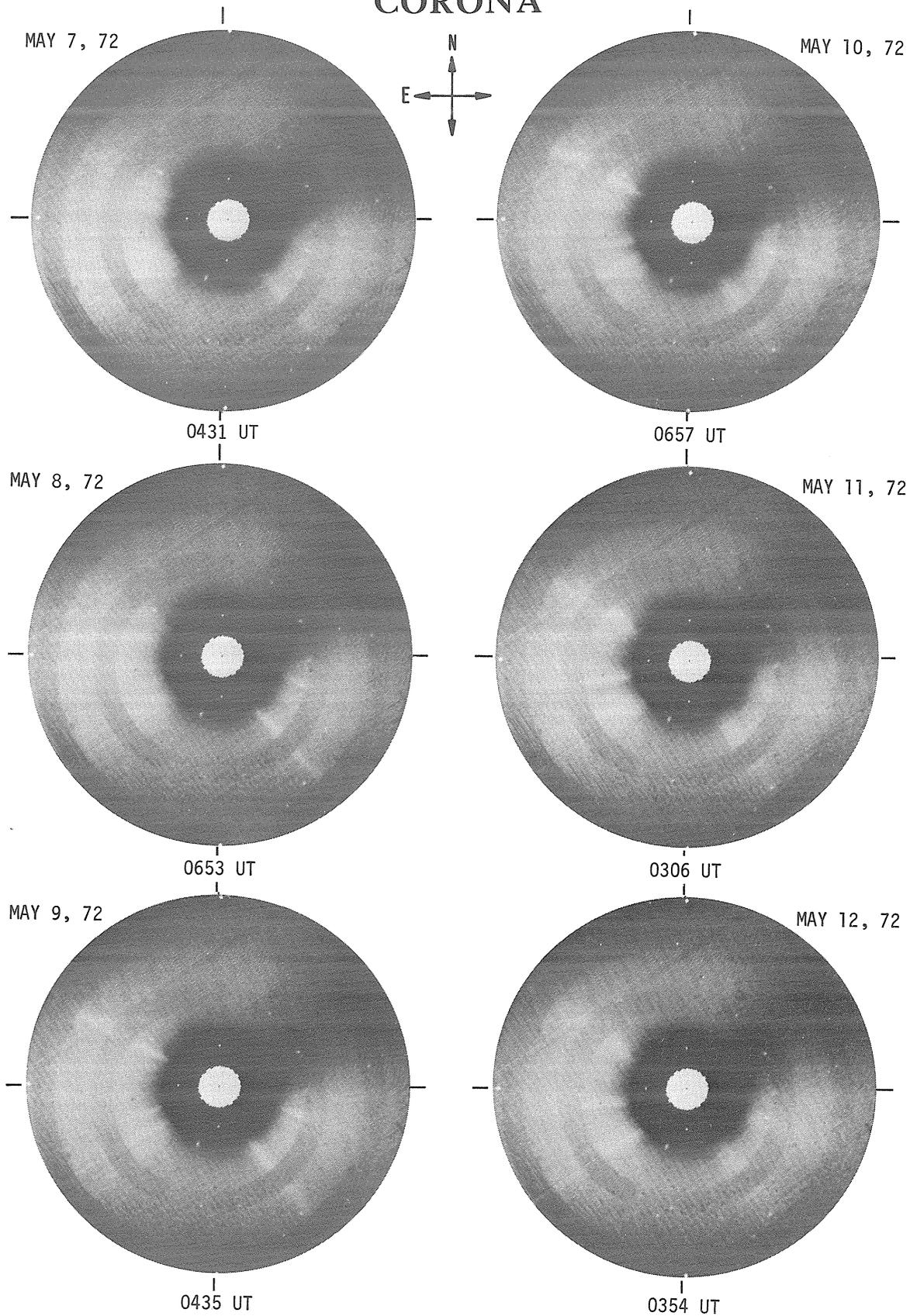
1242 UT

MAY 6, 72



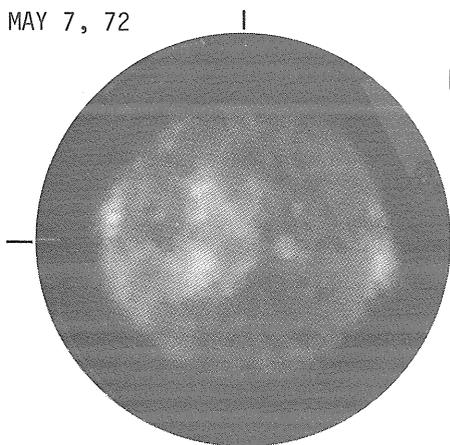
1202 UT

WHITE LIGHT CORONA

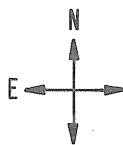


XUV
171-630Å

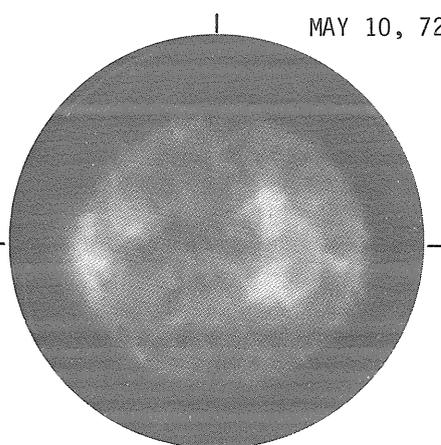
MAY 7, 72



1110 UT

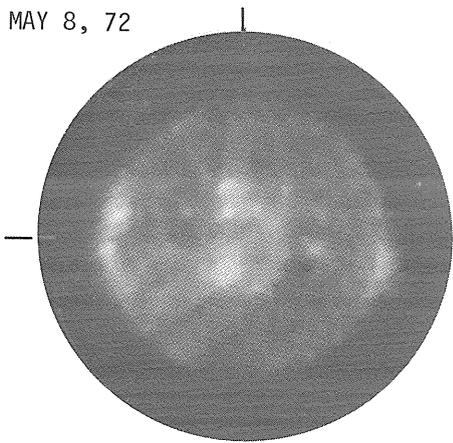


MAY 10, 72



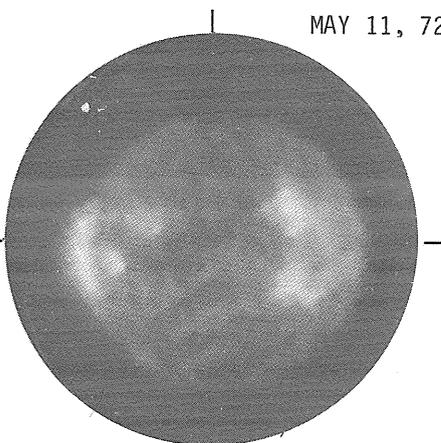
1202 UT

MAY 8, 72



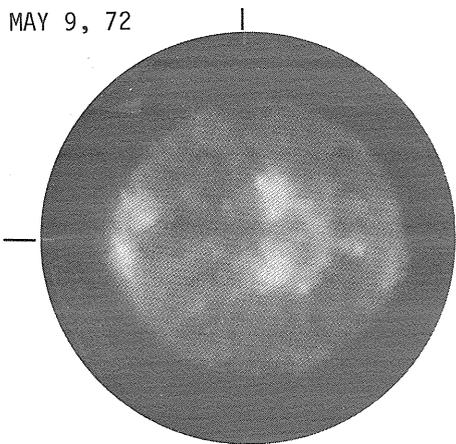
1033 UT

MAY 11, 72



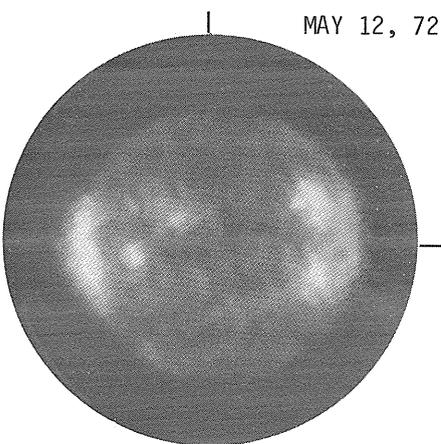
0819 UT

MAY 9, 72



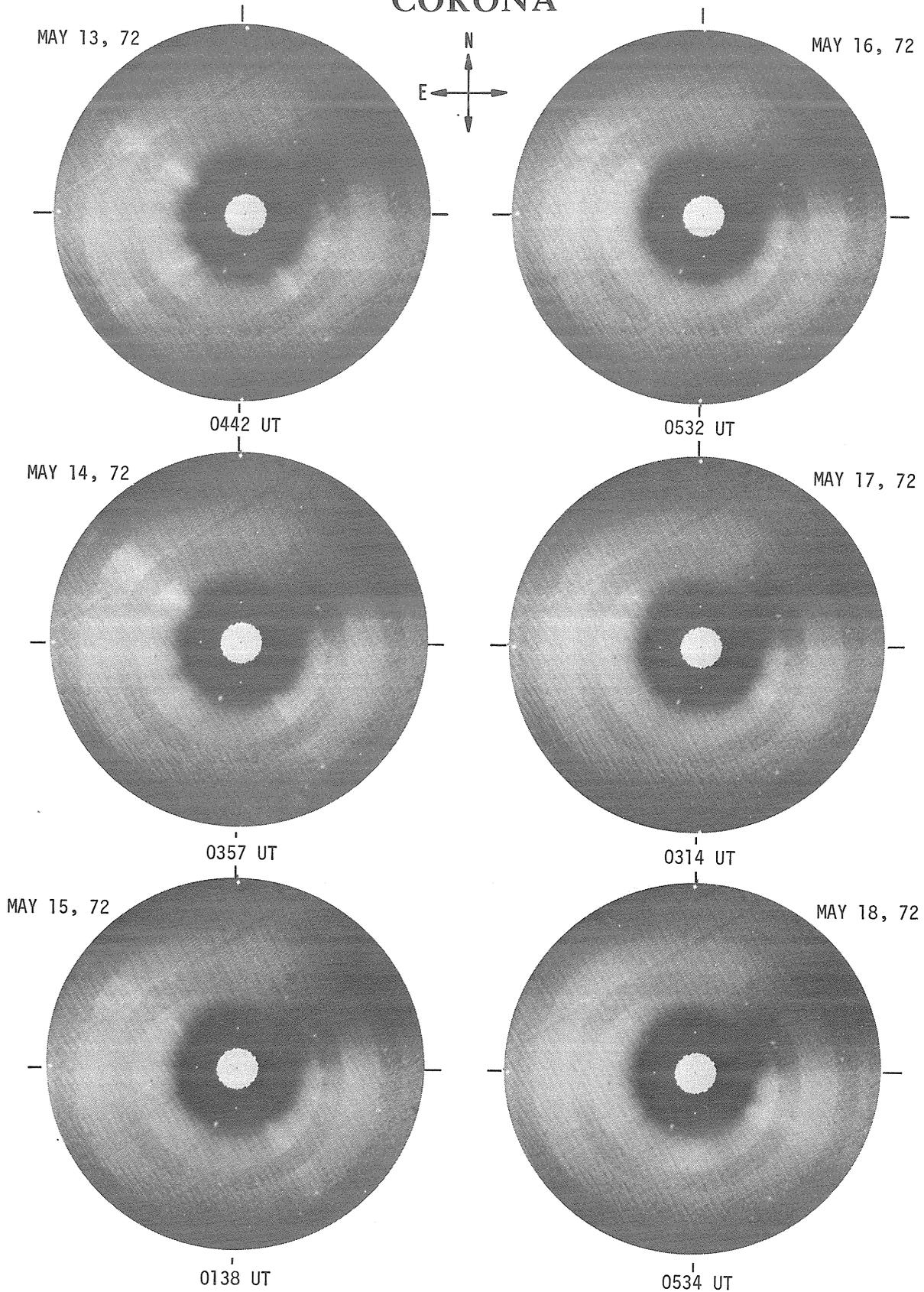
1121 UT

MAY 12, 72

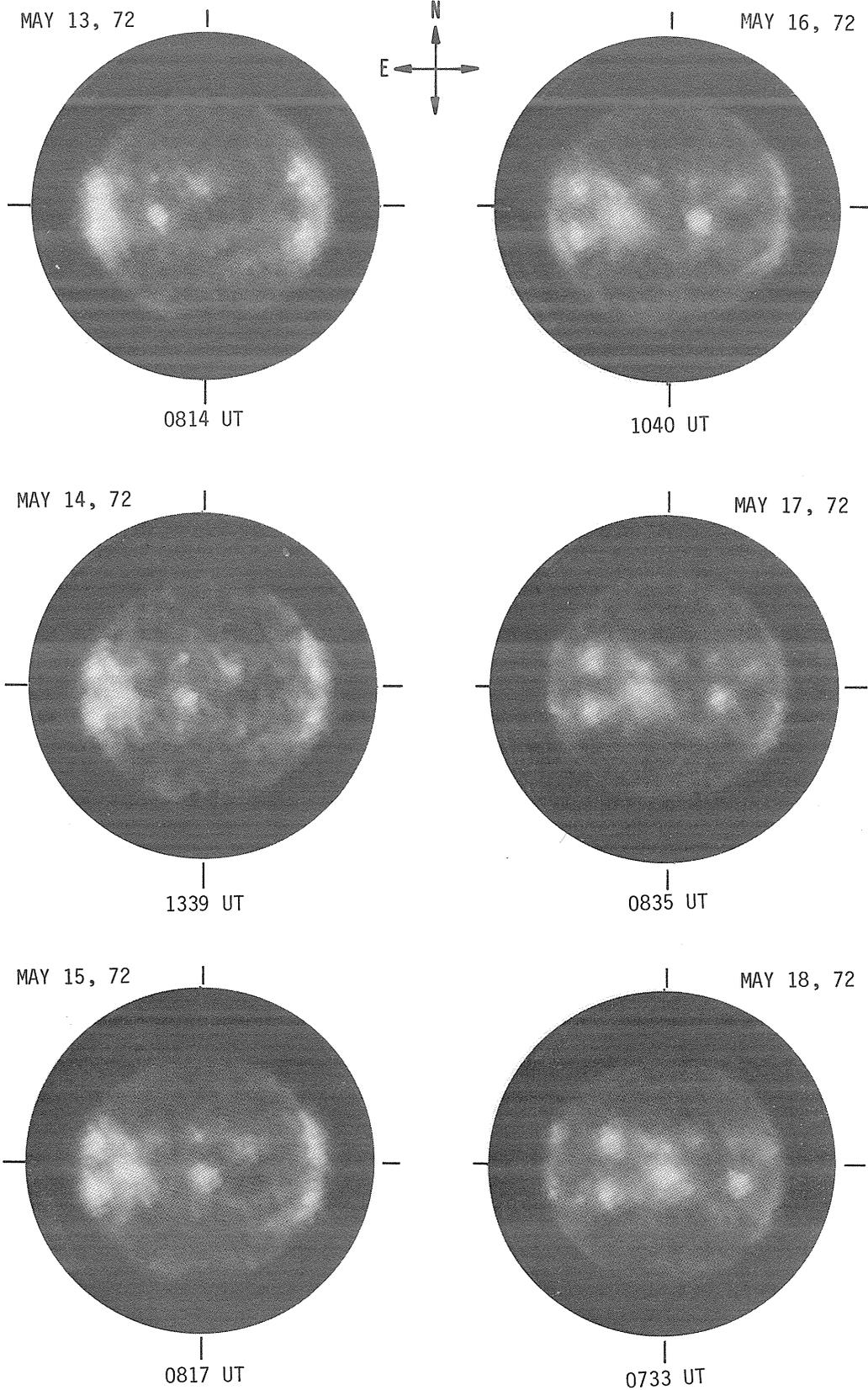


0859 UT

WHITE LIGHT CORONA

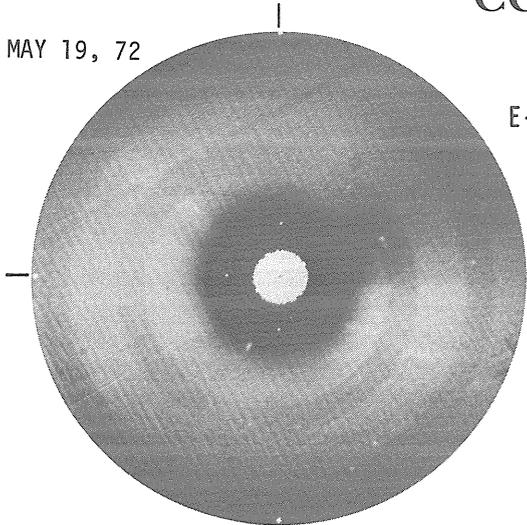


XUV
171-630Å

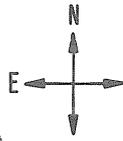


WHITE LIGHT CORONA

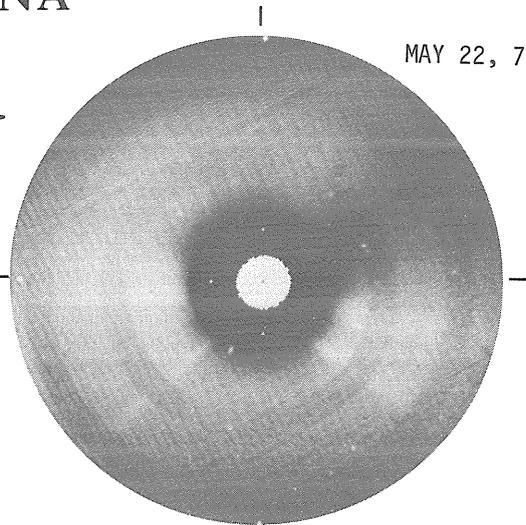
MAY 19, 72



0315 UT

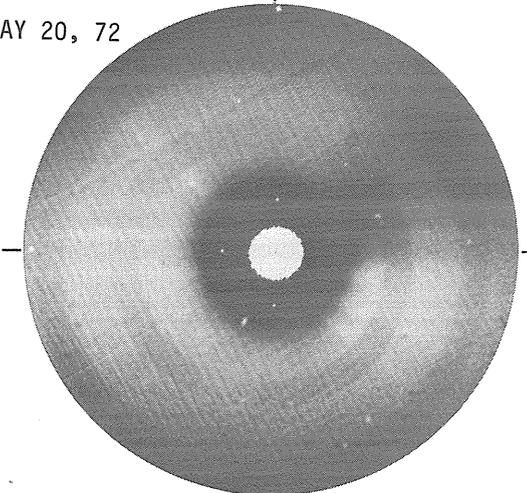


MAY 22, 72



0059 UT

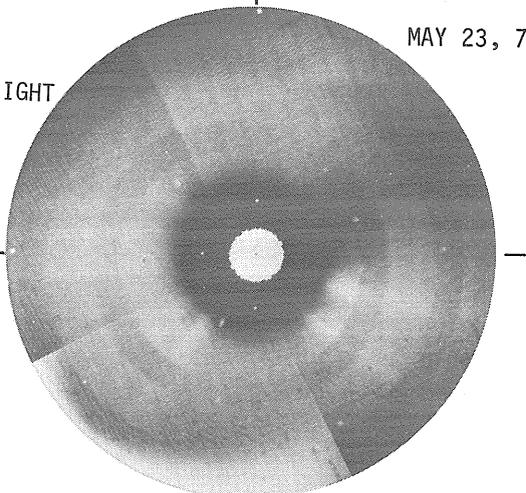
MAY 20, 72



0057 UT

STRAY LIGHT

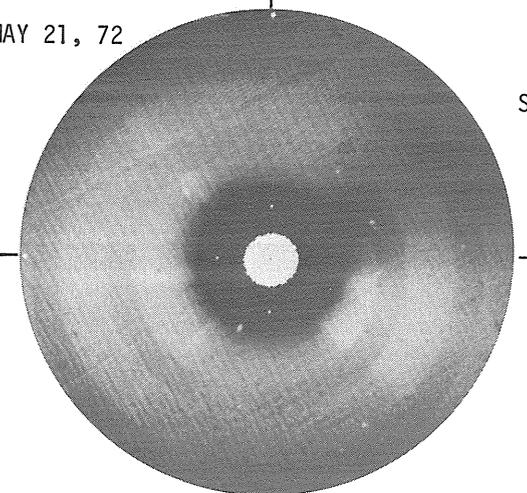
MAY 23, 72



1913 UT - Q3

2023 UT FULL

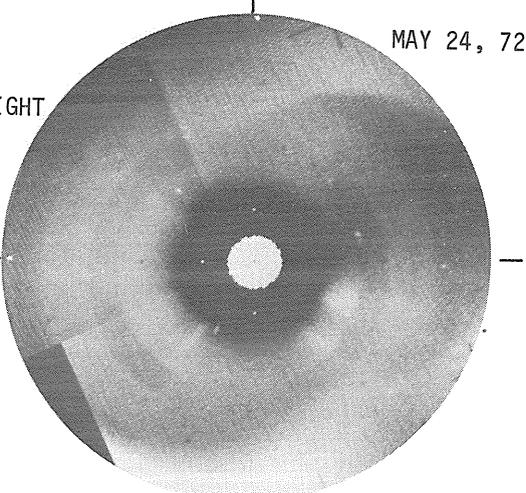
MAY 21, 72



0012 UT

STRAY LIGHT

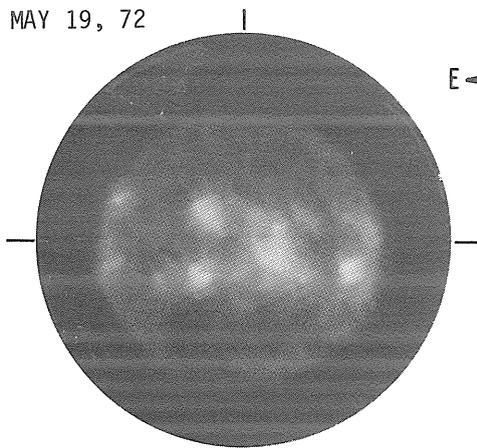
MAY 24, 72



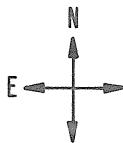
1632 UT FULL
1816 UT - Q3

XUV
171-630Å

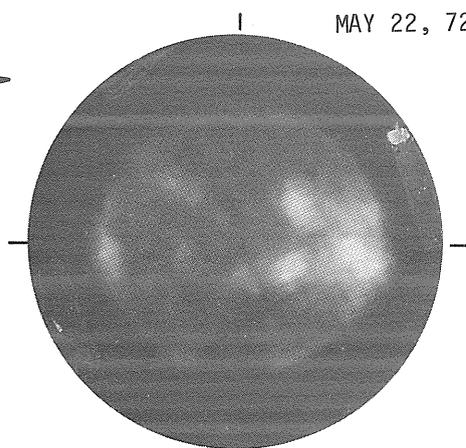
MAY 19, 72



0821 UT

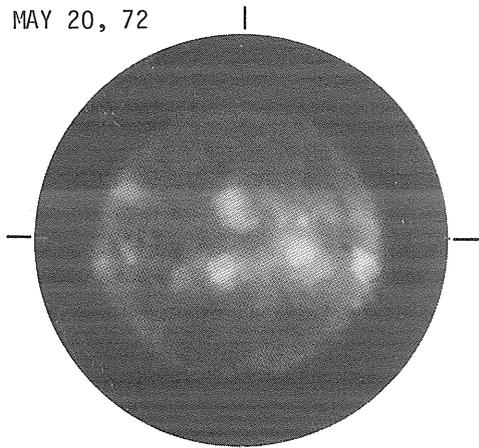


MAY 22, 72



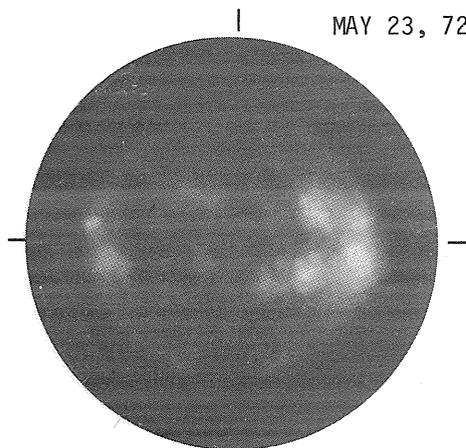
0737 UT

MAY 20, 72



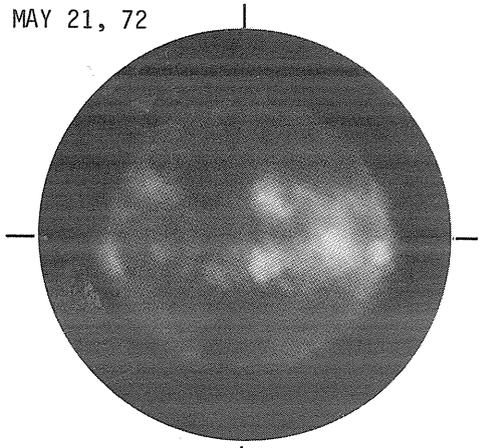
0602 UT

MAY 23, 72



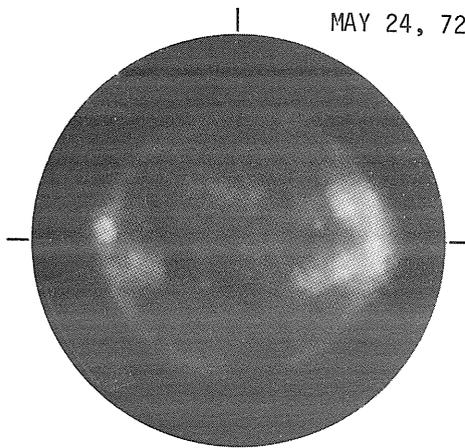
0712 UT

MAY 21, 72



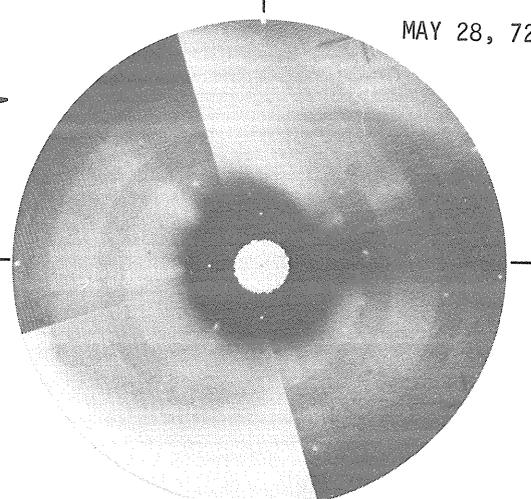
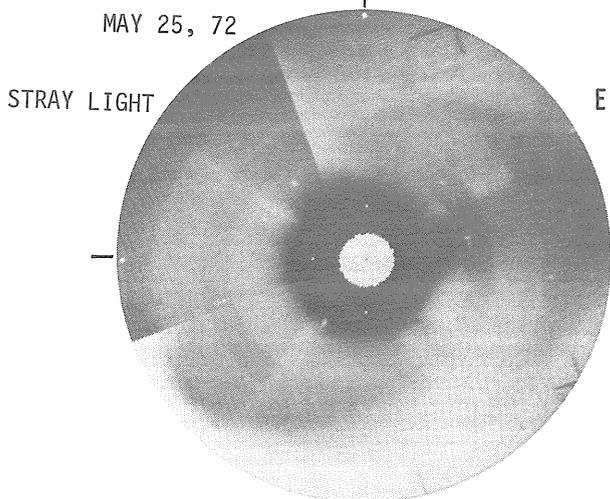
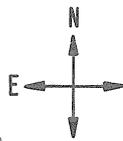
0517 UT

MAY 24, 72



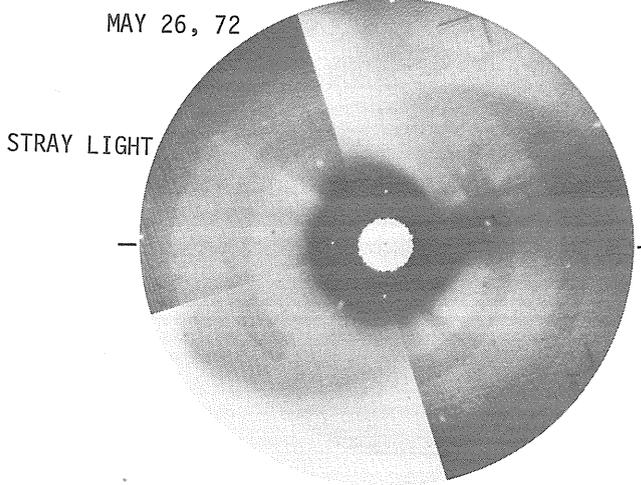
0607 UT

WHITE LIGHT CORONA



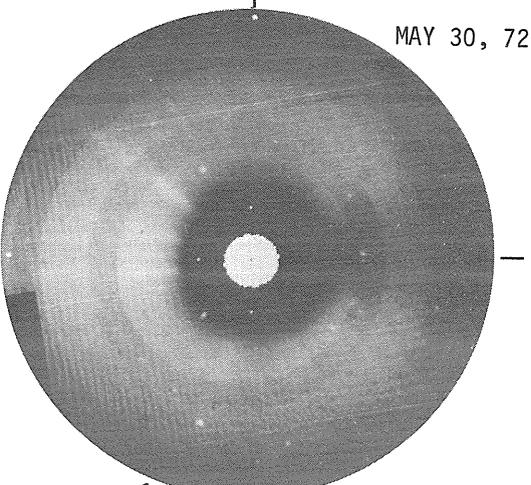
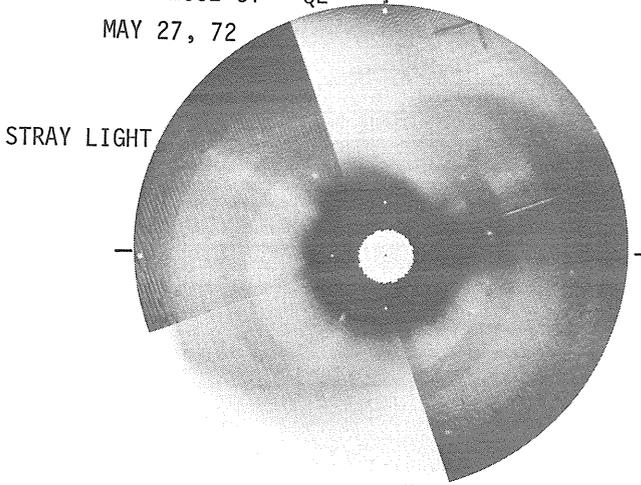
1905 UT - Q3 | 2159 UT FULL

1826 UT - Q3 | 2120 UT - Q2



1820 UT - Q3 | 2248 UT FULL
2002 UT - Q2

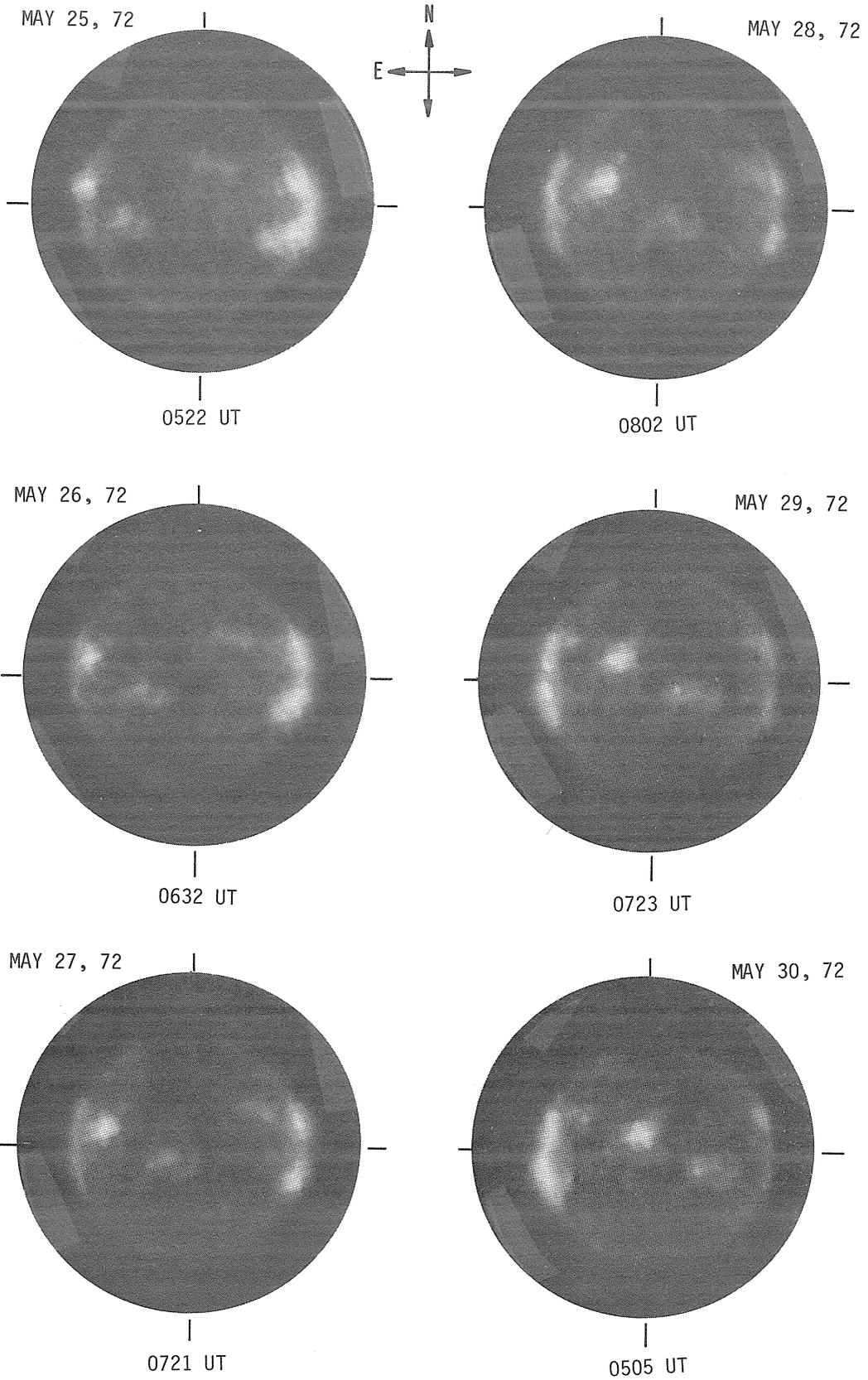
1304 UT FULL | 1455 UT - Q3



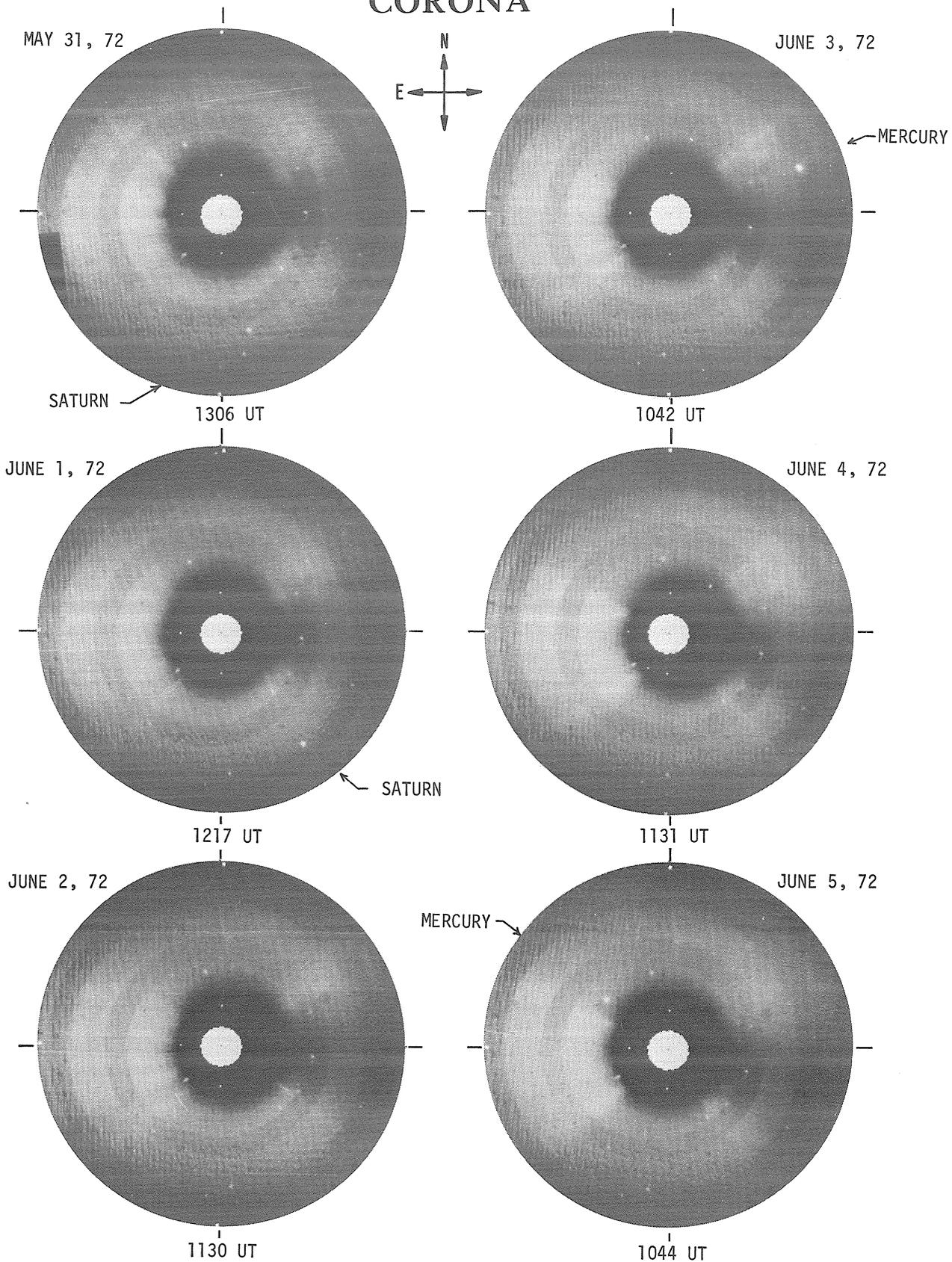
1736 UT - Q2 | 2204 UT FULL
1911 UT - Q3

SATURN → 1217 UT

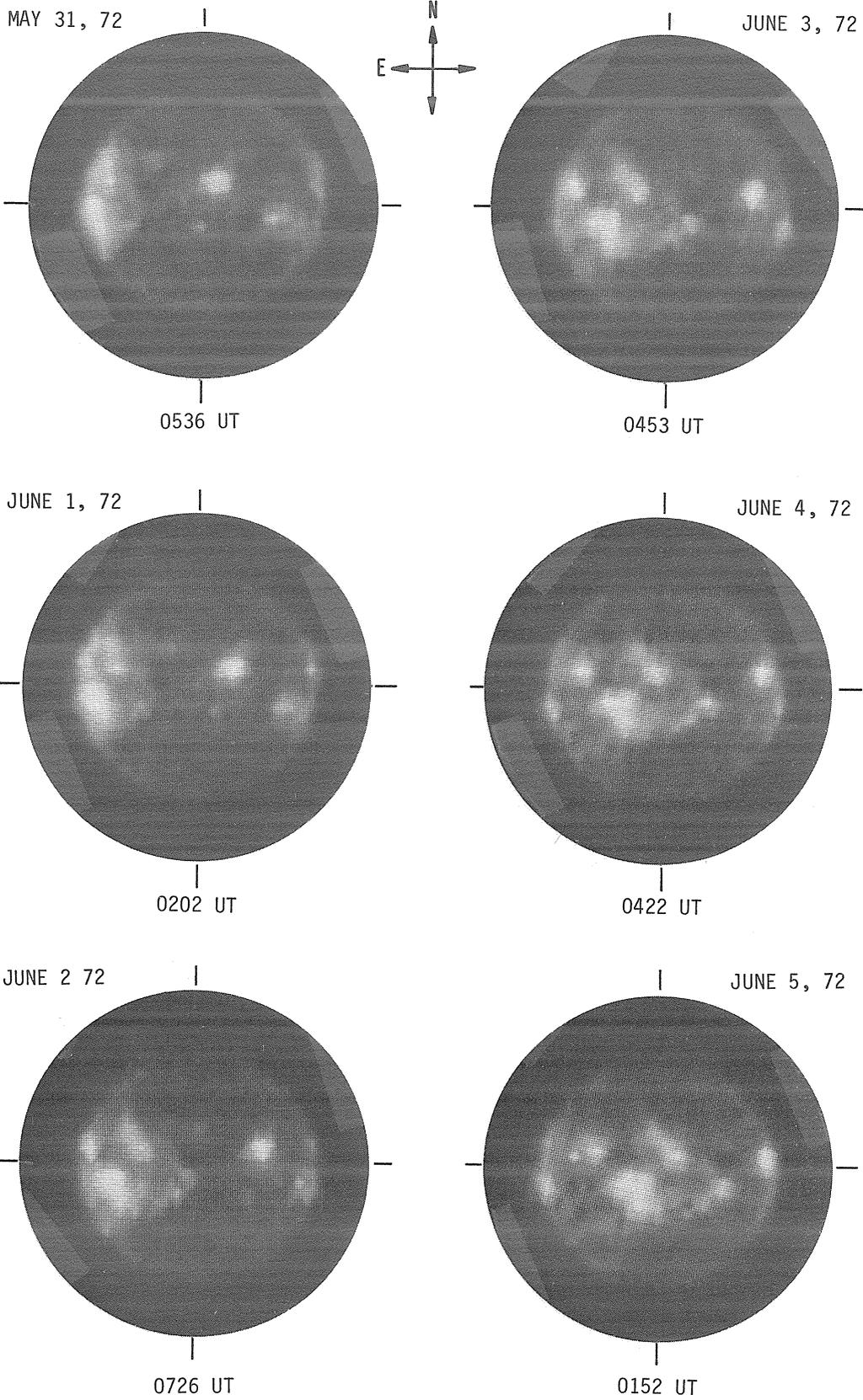
XUV
171-630Å



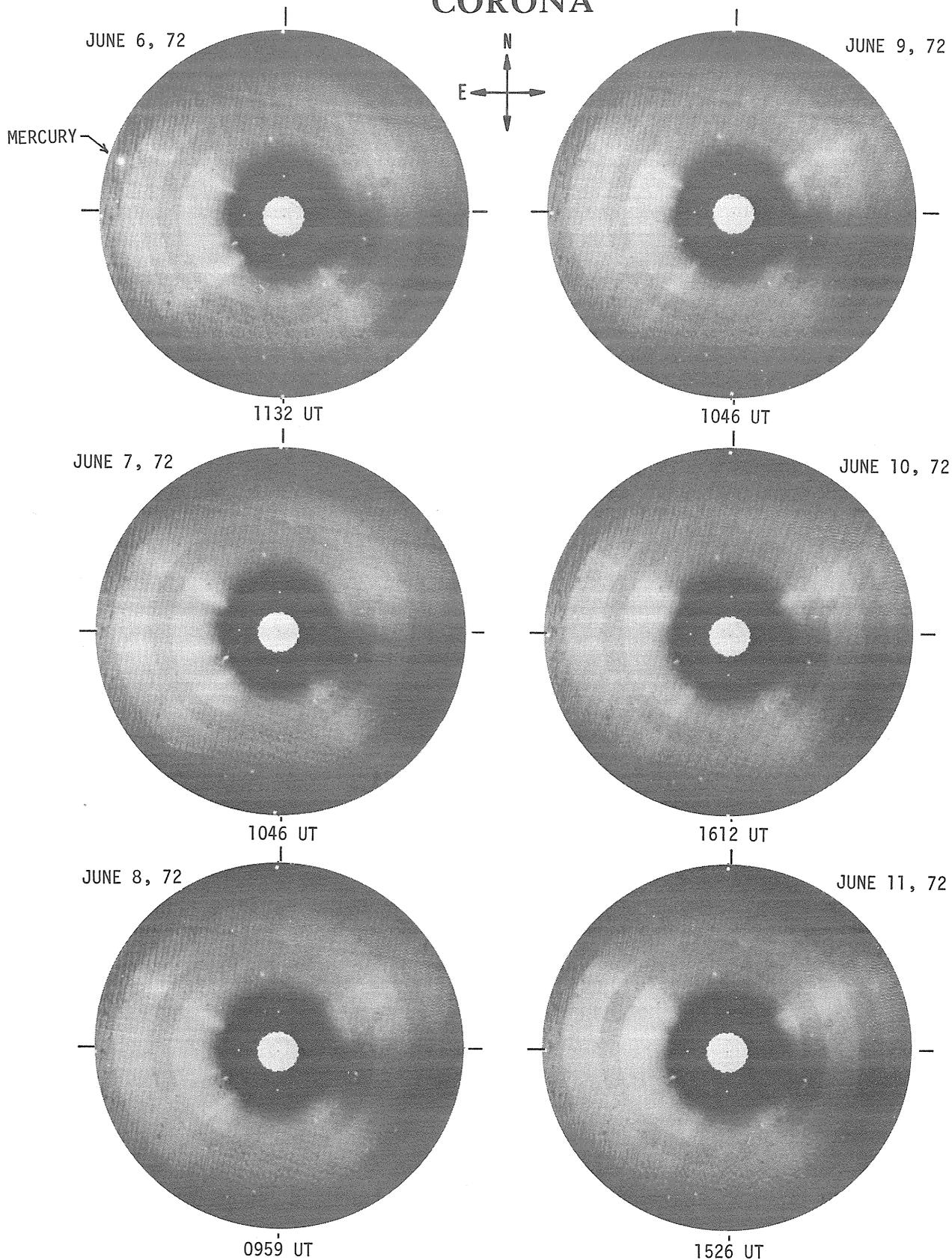
WHITE LIGHT CORONA



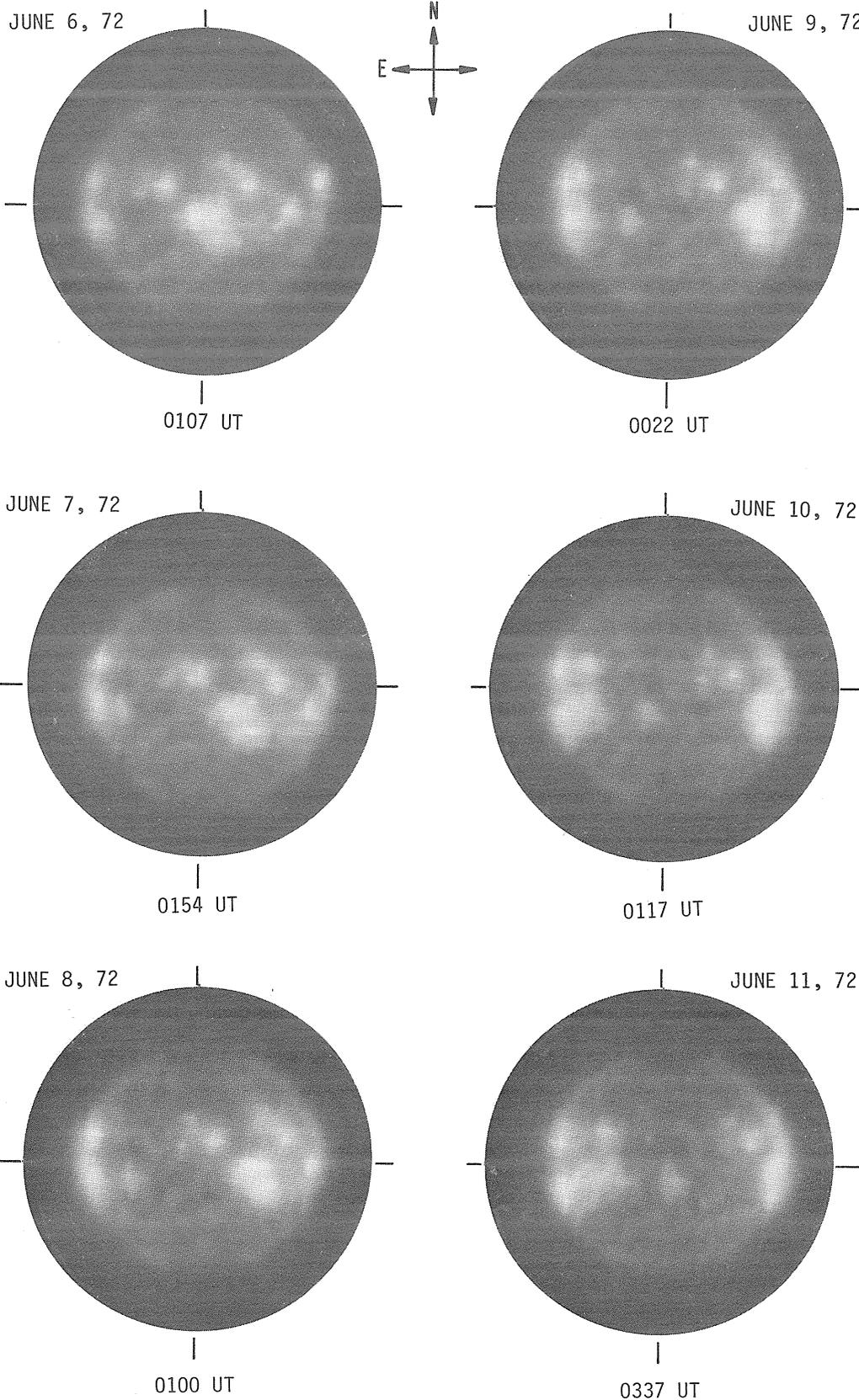
XUV
171-630Å



WHITE LIGHT CORONA

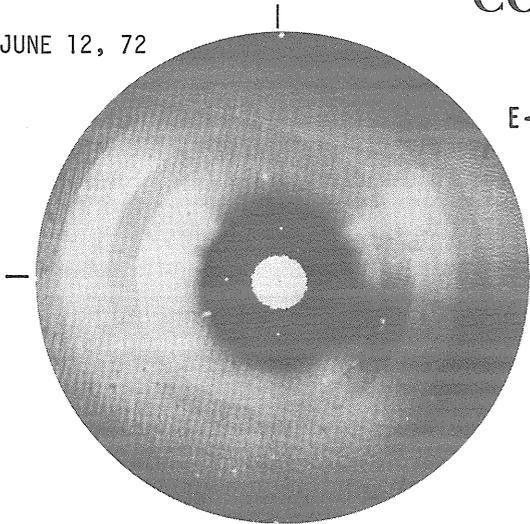


XUV
171-630Å



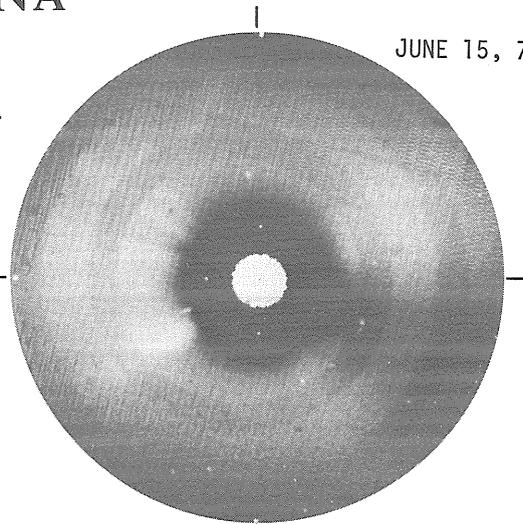
WHITE LIGHT CORONA

JUNE 12, 72

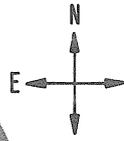


1612 UT

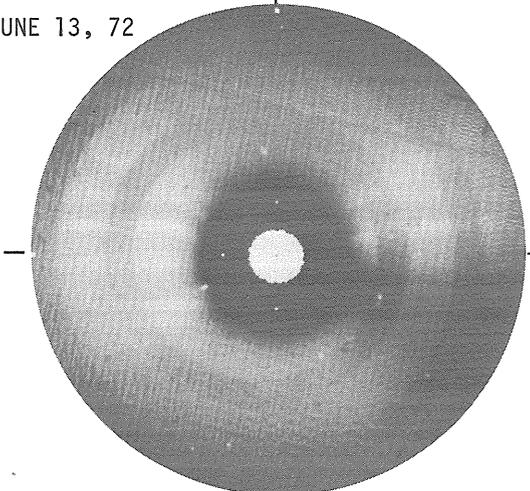
JUNE 15, 72



1700 UT

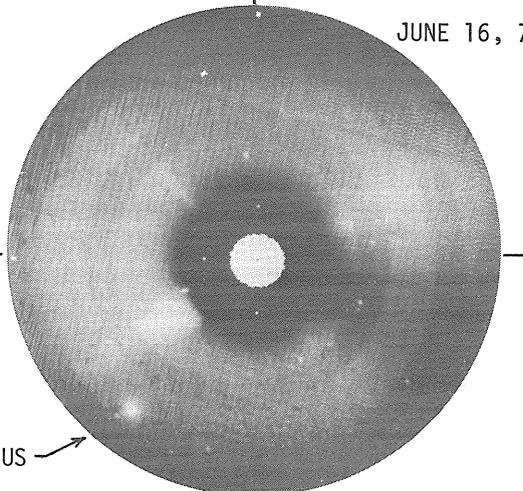


JUNE 13, 72



1659 UT

JUNE 16, 72



VENUS

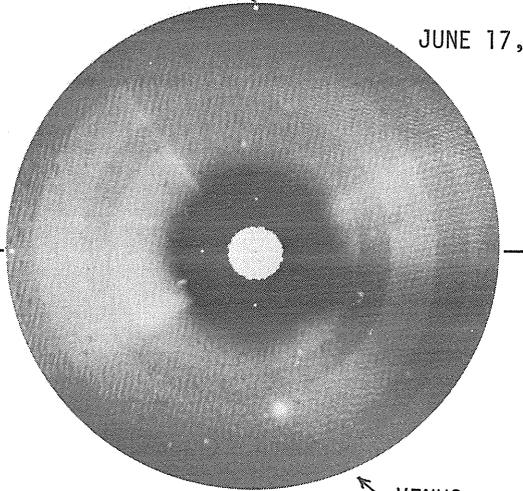
1920 UT

JUNE 14, 72



NO DATA

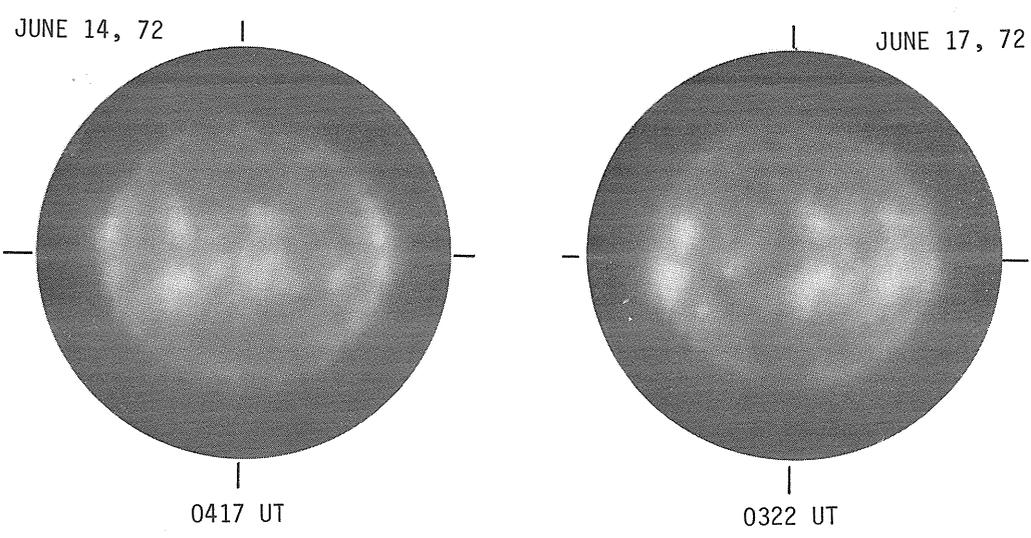
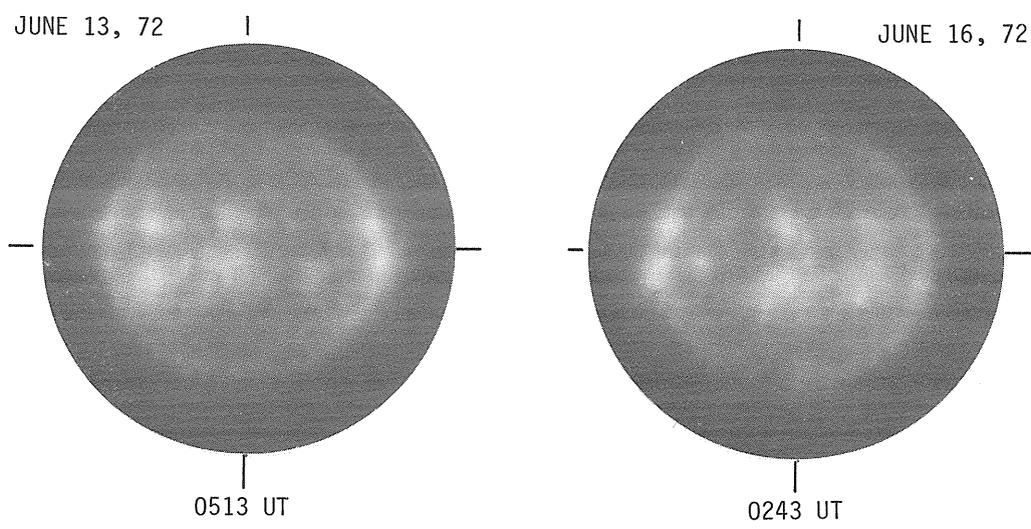
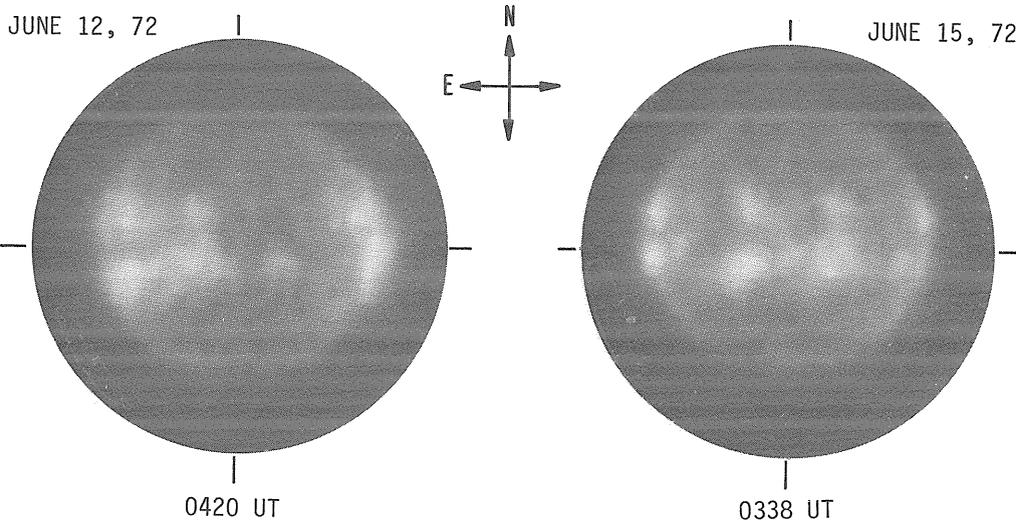
JUNE 17, 72



VENUS

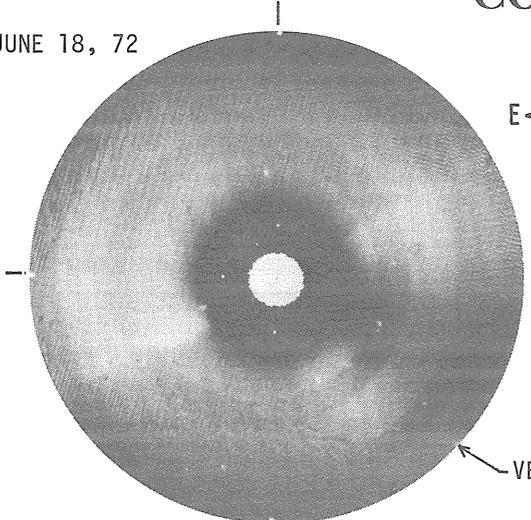
1700 UT

XUV
171-630Å

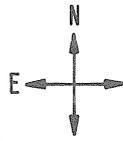


WHITE LIGHT CORONA

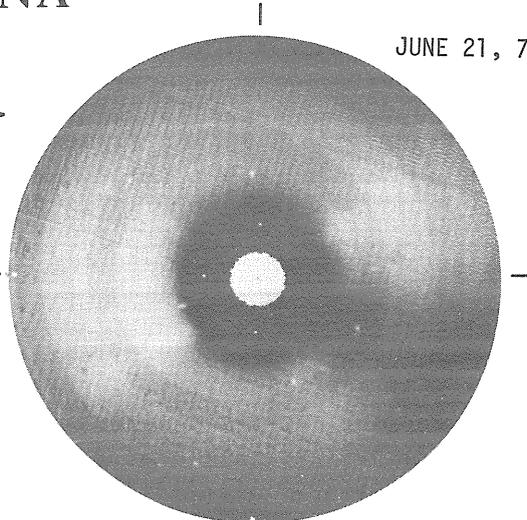
JUNE 18, 72



1614 UT



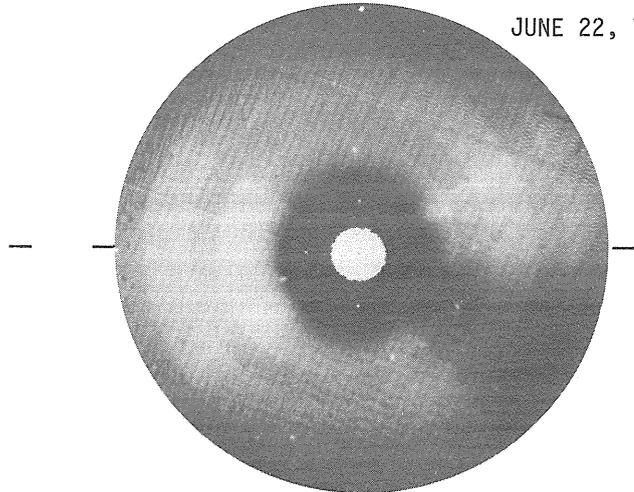
JUNE 21, 72



0743 UT

JUNE 19, 72

JUNE 22, 72

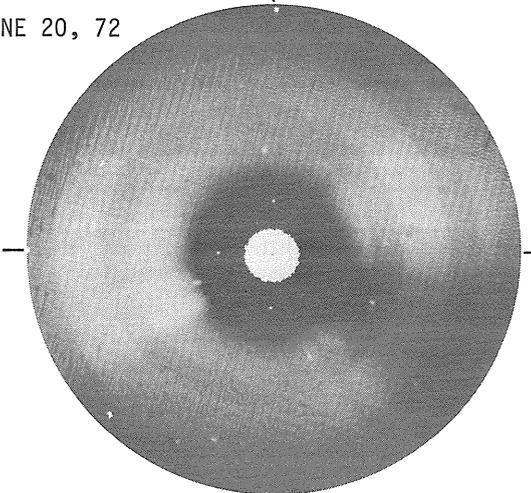


0832 UT

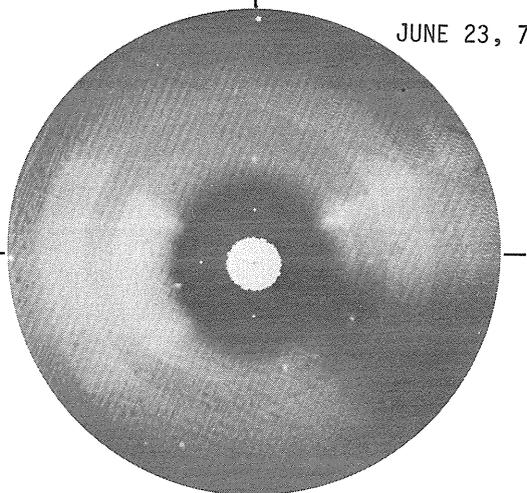
NO DATA

JUNE 20, 72

JUNE 23, 72

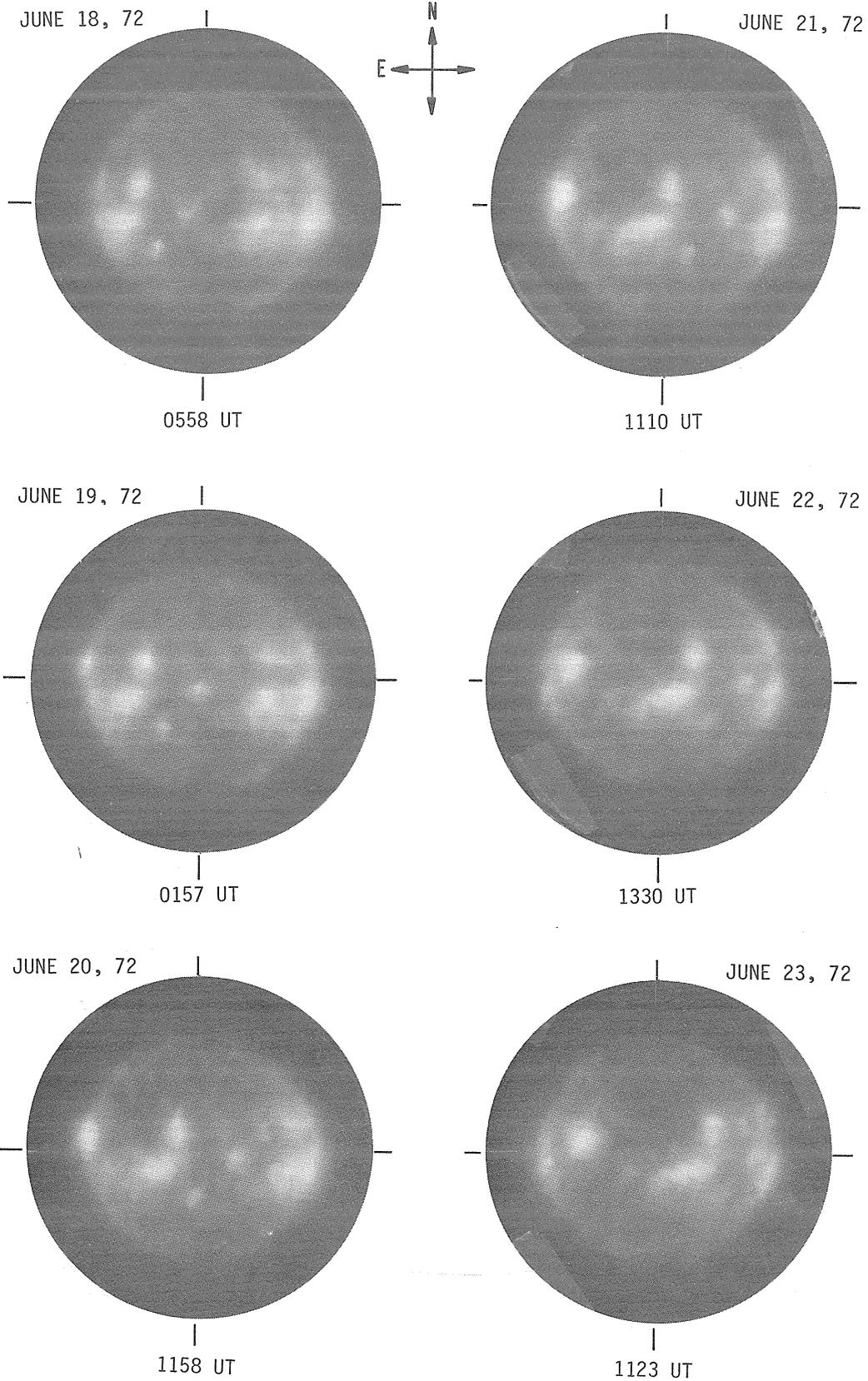


0836 UT



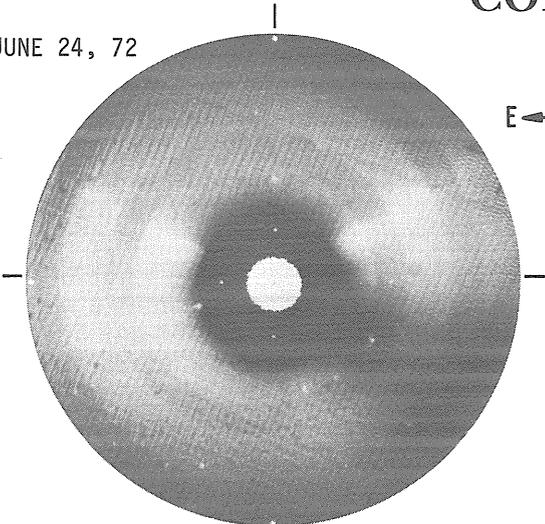
0745 UT

XUV
171-630Å



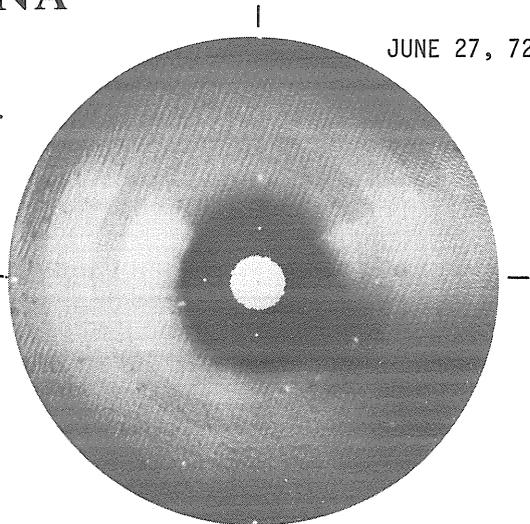
WHITE LIGHT CORONA

JUNE 24, 72

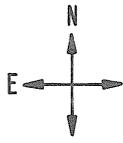


0829 UT

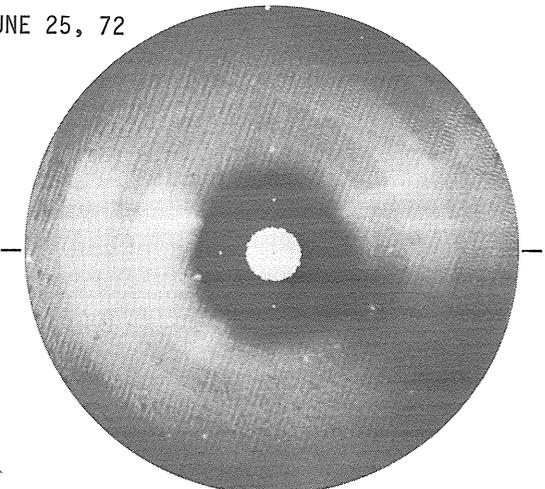
JUNE 27, 72



0435 UT

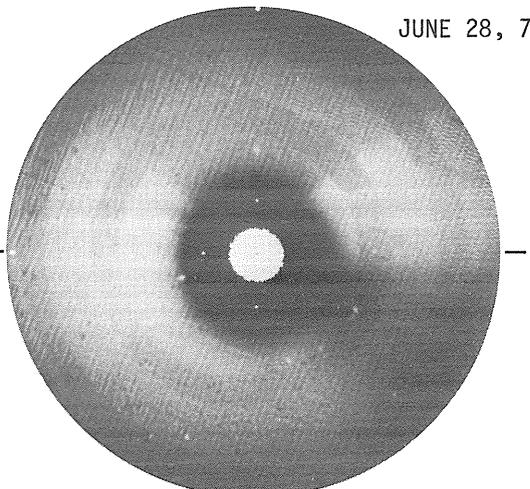


JUNE 25, 72



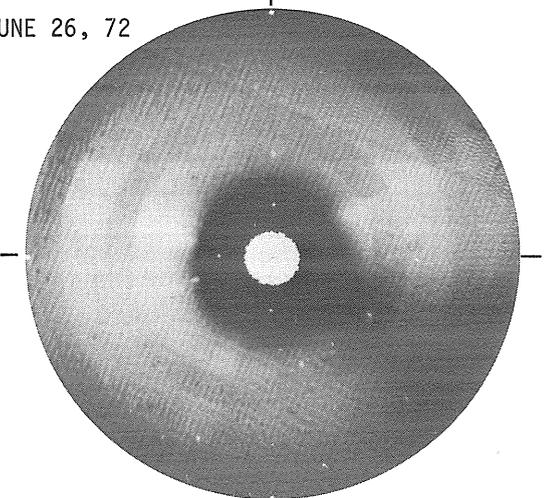
0742 UT

JUNE 28, 72



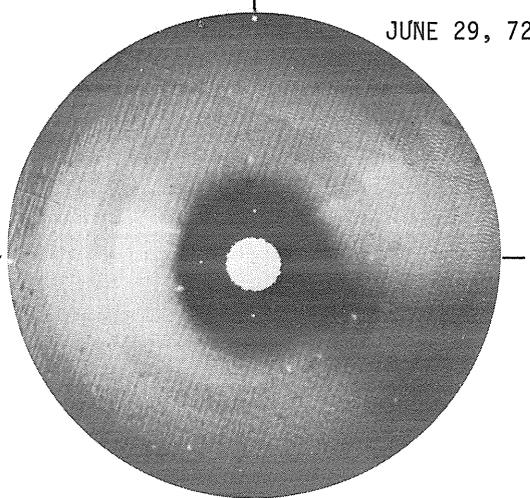
0654 UT

JUNE 26, 72



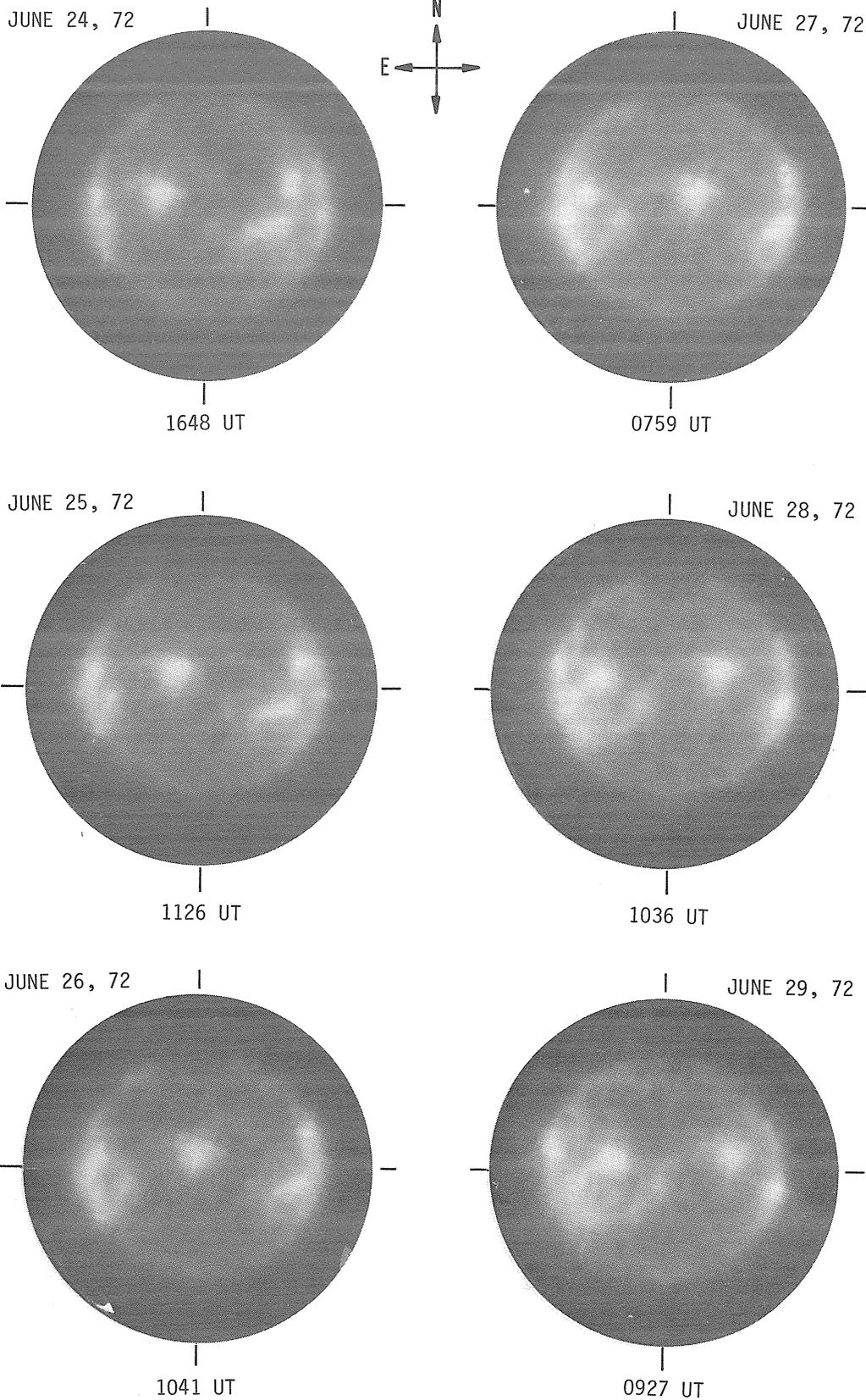
0655 UT

JUNE 29, 72



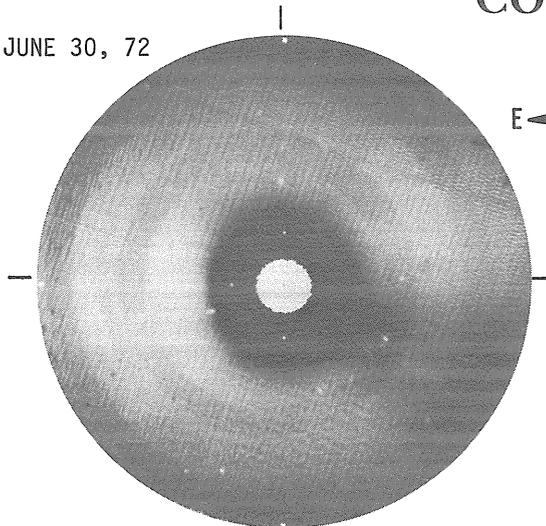
0607 UT

XUV
171-630Å



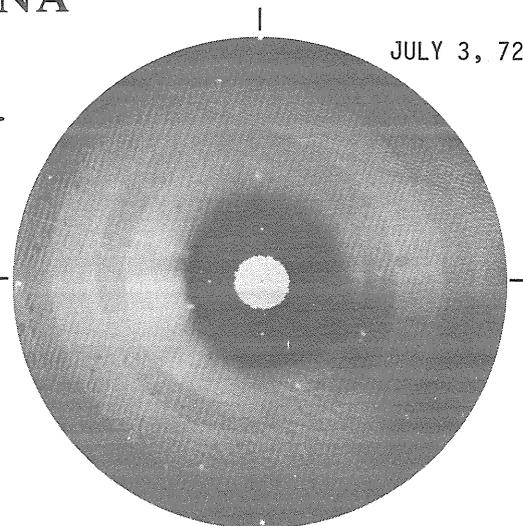
WHITE LIGHT CORONA

JUNE 30, 72

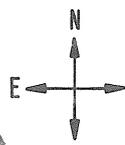


0347 UT

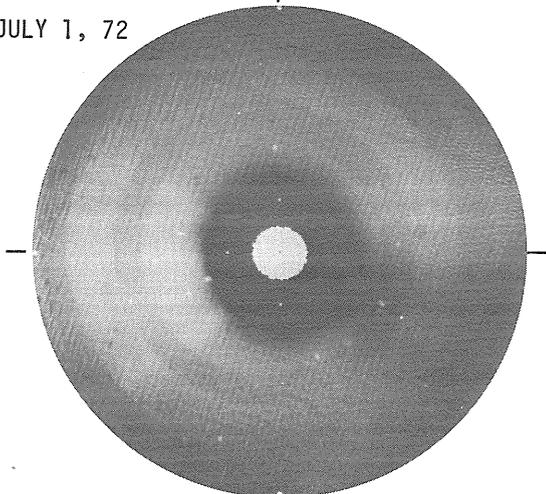
JULY 3, 72



0258 UT

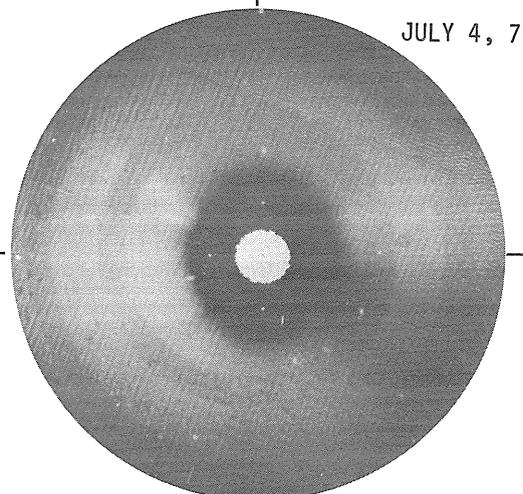


JULY 1, 72



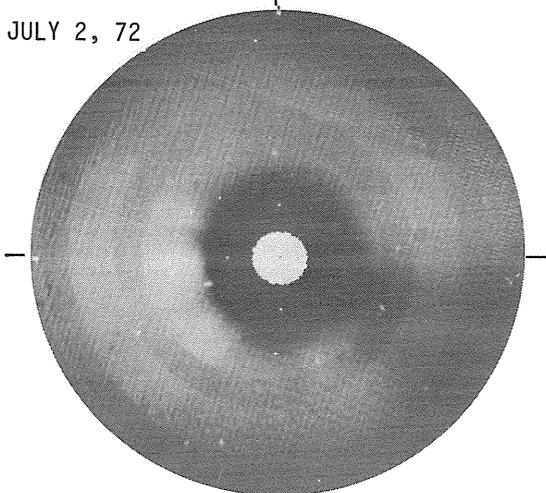
0127 UT

JULY 4, 72



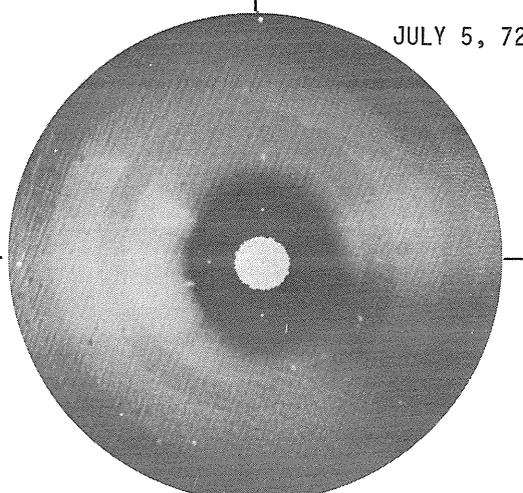
2218 UT

JULY 2, 72



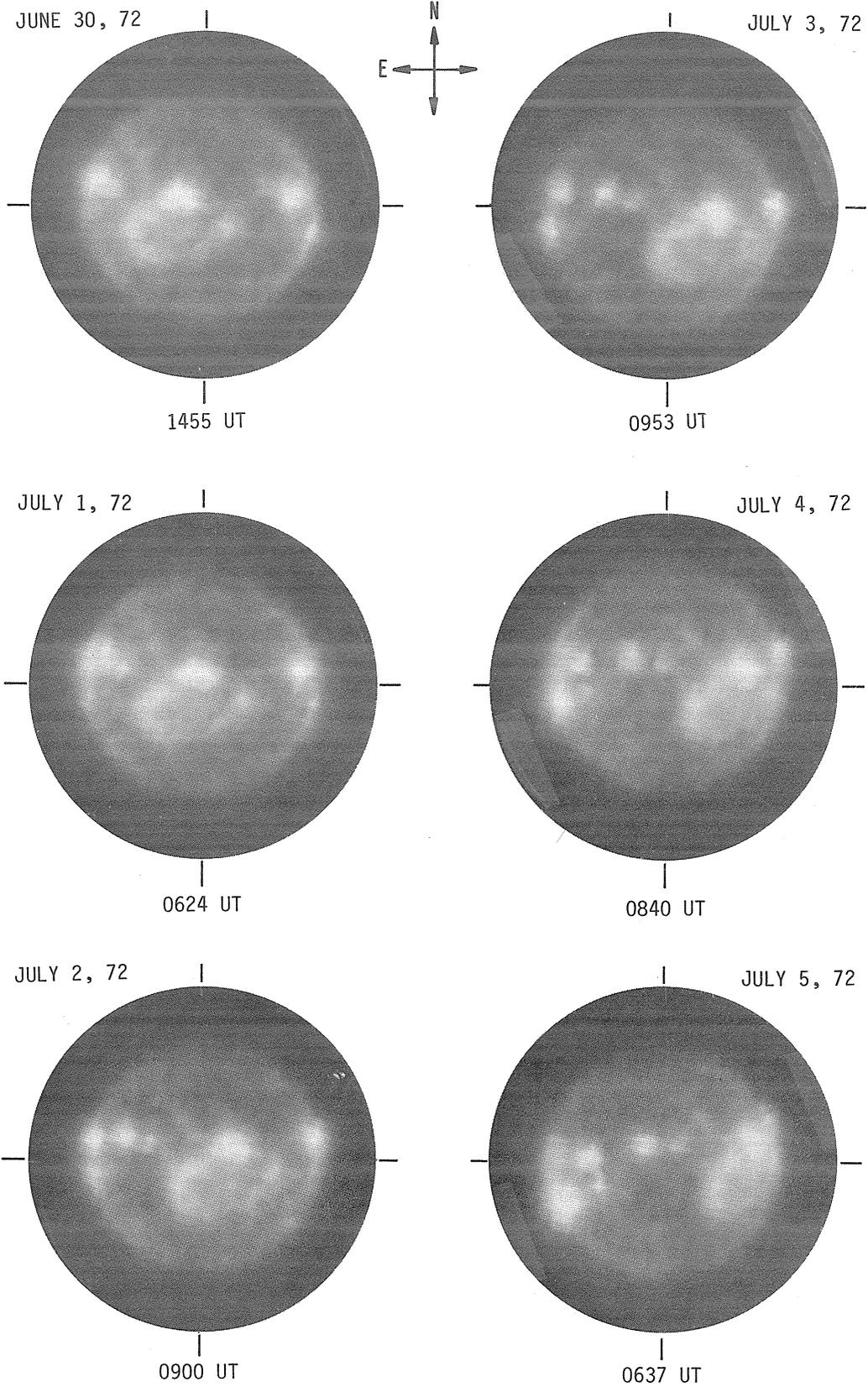
0345 UT

JULY 5, 72



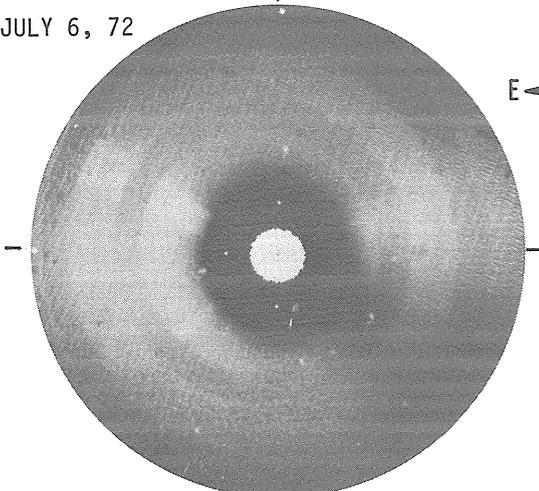
0123 UT

XUV
171-630Å



WHITE LIGHT CORONA

JULY 6, 72



0515 UT

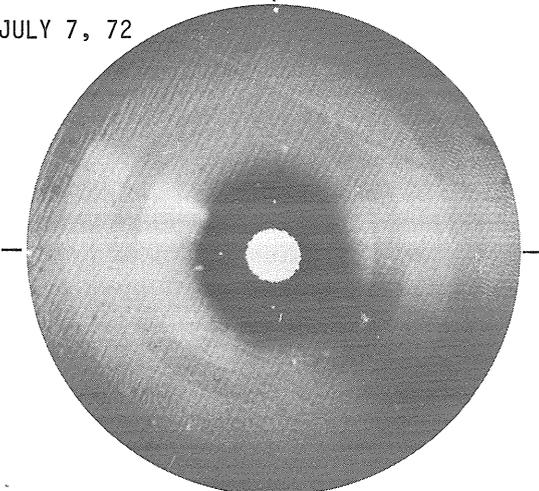
JULY 9, 72



1701 UT - Q1
1834 UT - Q4

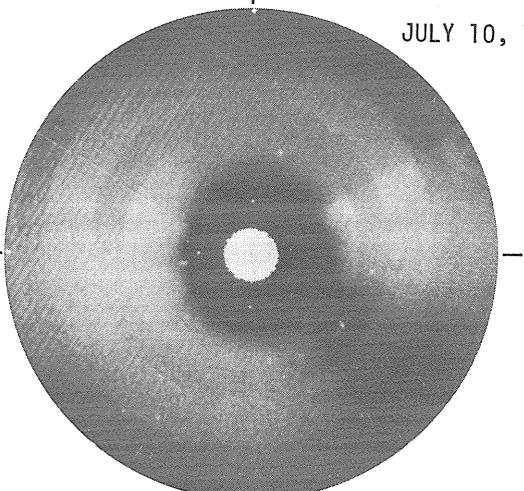
2007 UT - Q3

JULY 7, 72



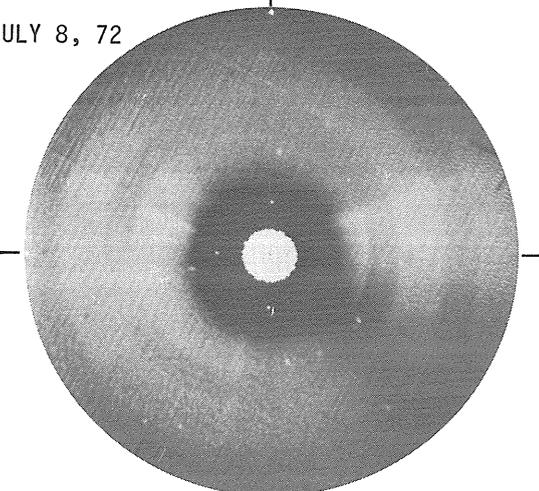
0122 UT

JULY 10, 72



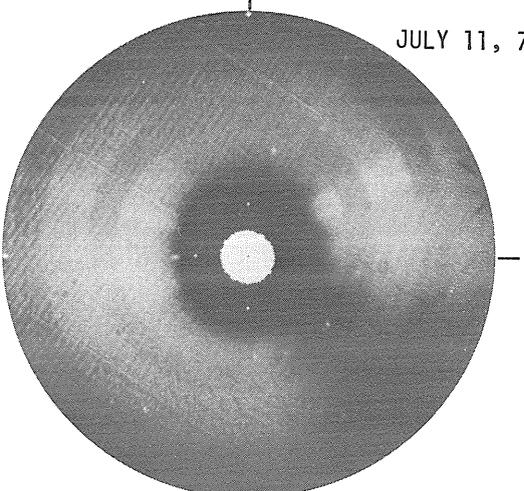
1456 UT

JULY 8, 72

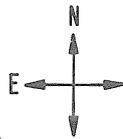


2348 UT

JULY 11, 72

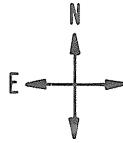
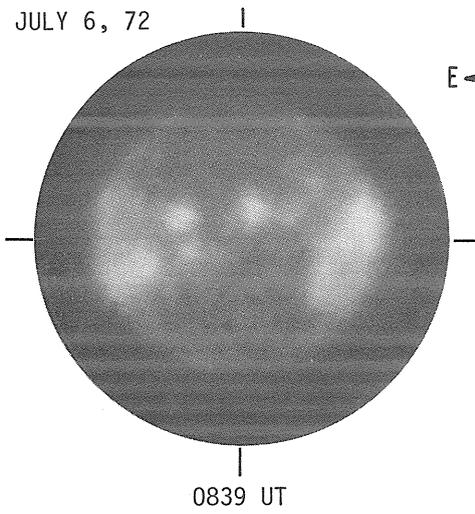


0437 UT

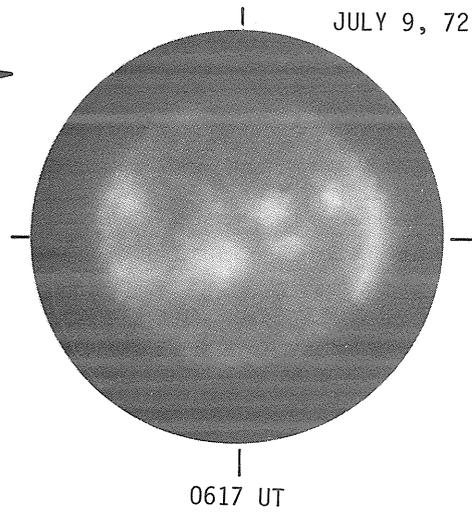


XUV
171-630Å

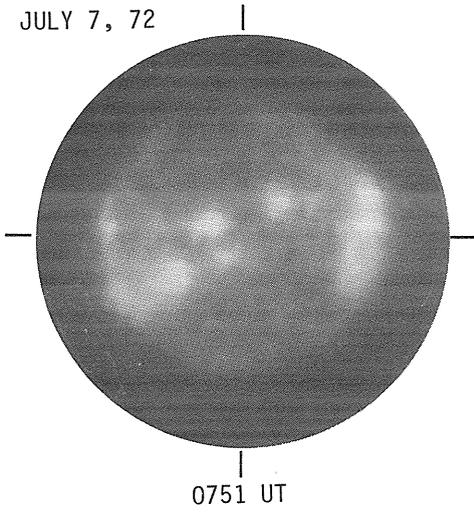
JULY 6, 72



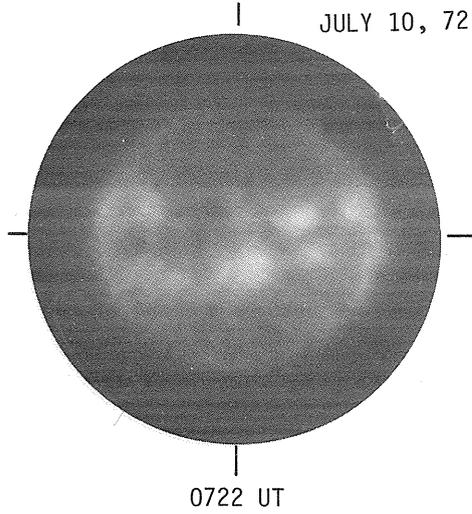
JULY 9, 72



JULY 7, 72



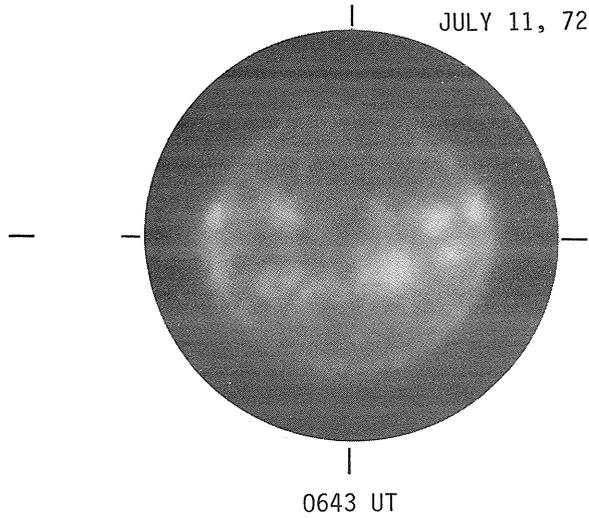
JULY 10, 72



JULY 8, 72

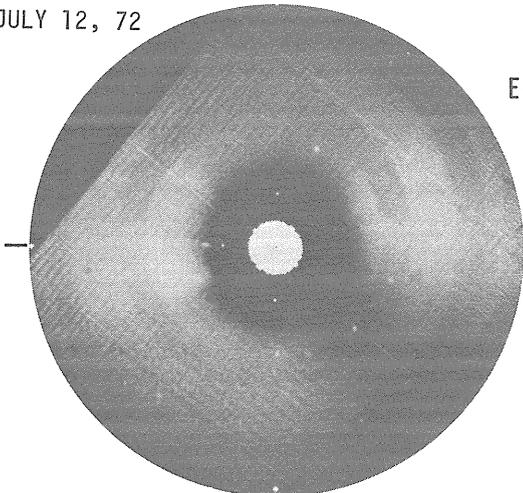


JULY 11, 72



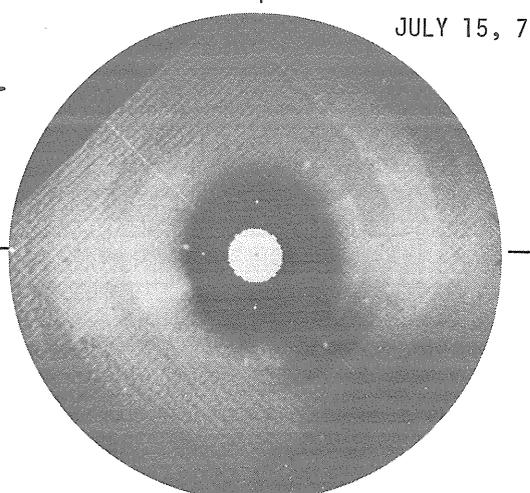
WHITE LIGHT CORONA

JULY 12, 72



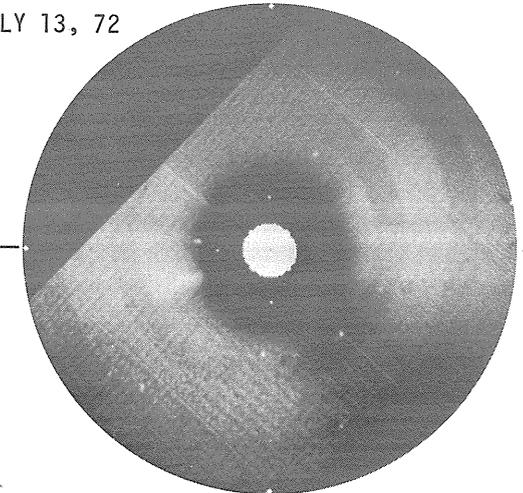
1454 UT

JULY 15, 72



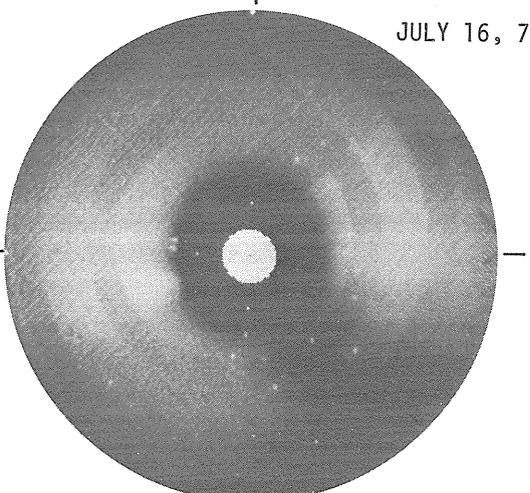
1402 UT

JULY 13, 72



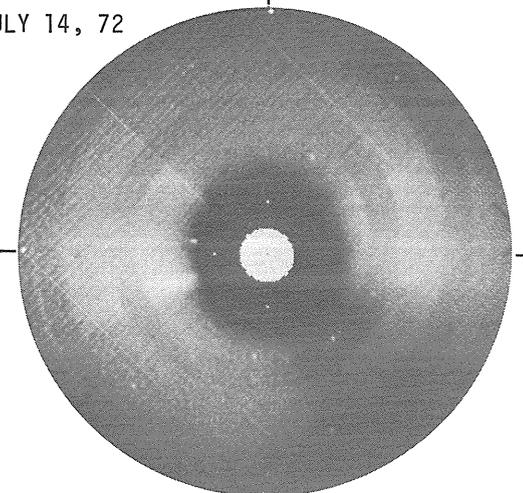
1404 UT

JULY 16, 72



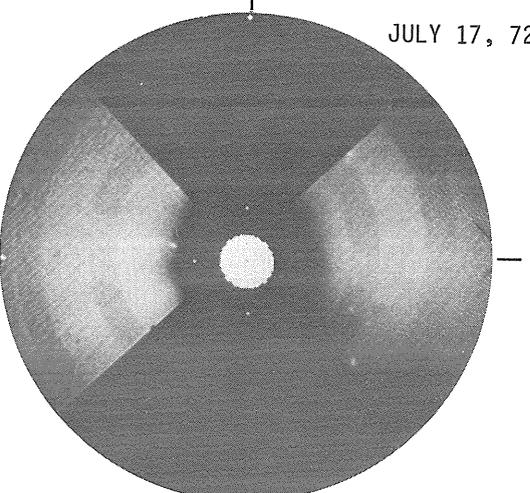
1311 UT

JULY 14, 72

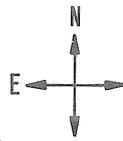


1314 UT

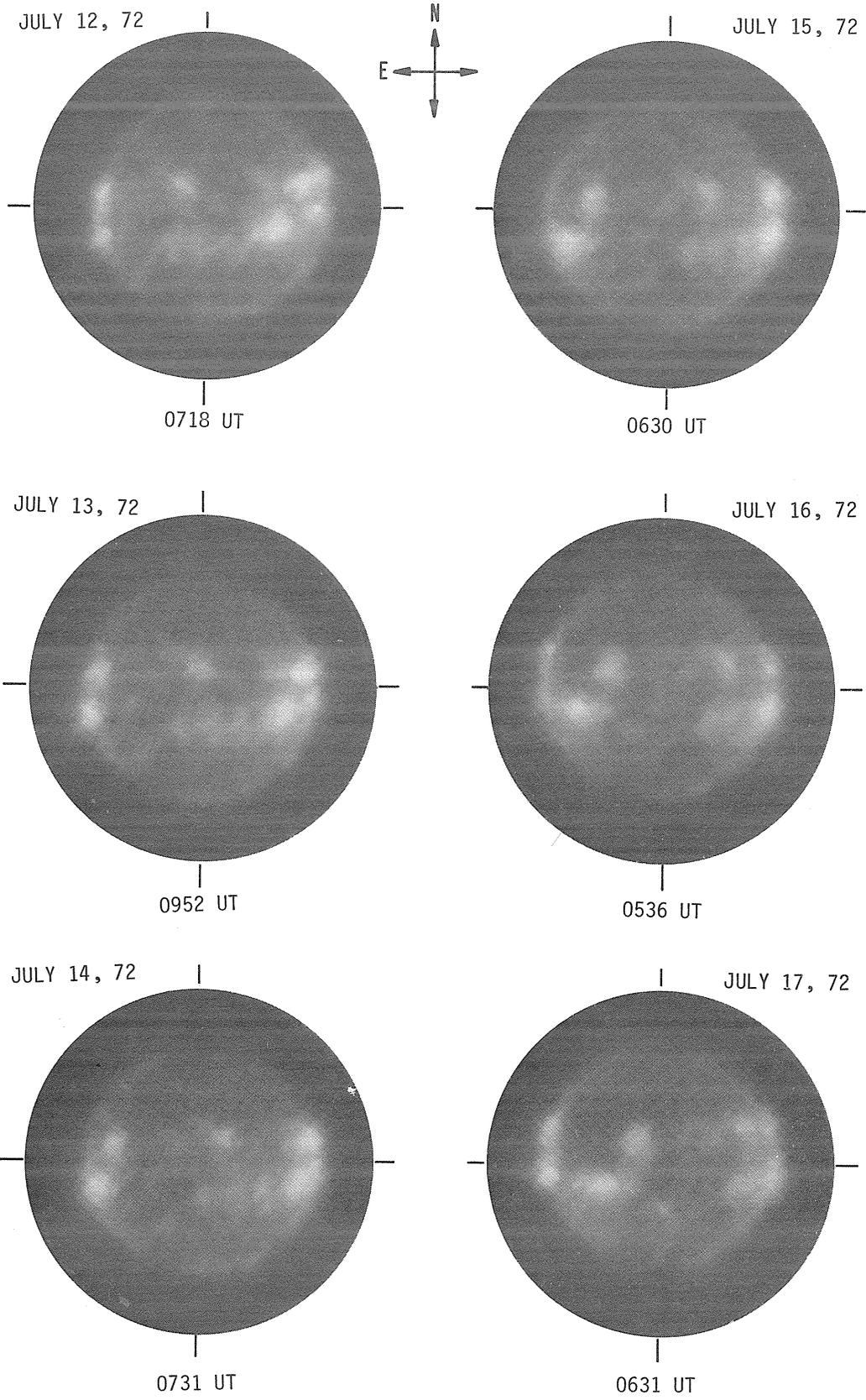
JULY 17, 72



1242 UT - Q1 | 1410 UT - Q4

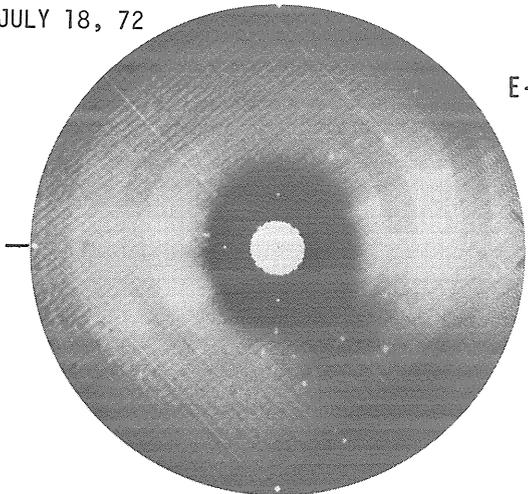


XUV
171-630Å



WHITE LIGHT CORONA

JULY 18, 72

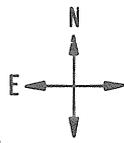


1132 UT

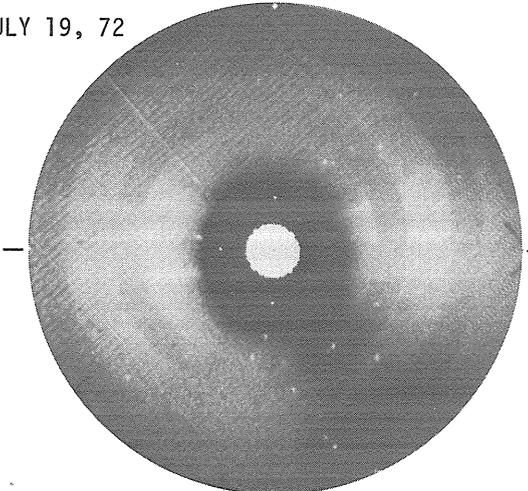
JULY 21, 72



1039 UT

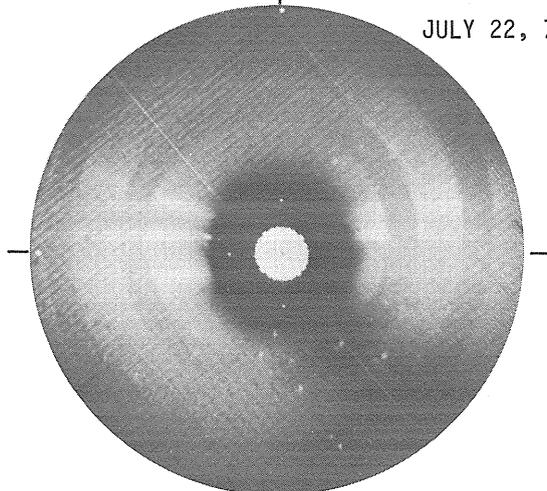


JULY 19, 72



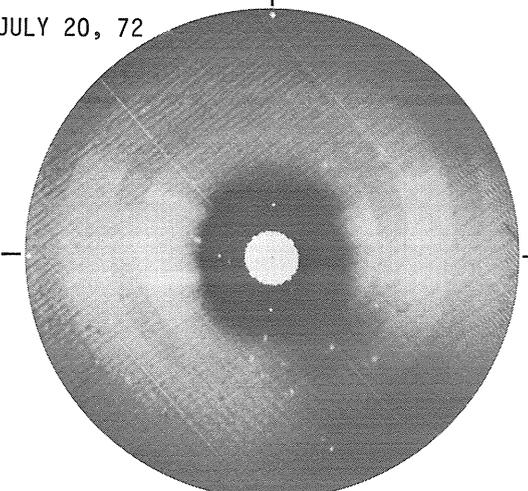
1714 UT

JULY 22, 72



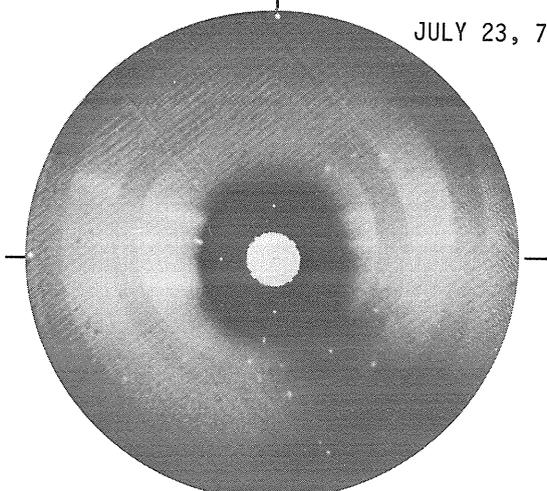
1126 UT

JULY 20, 72



1128 UT

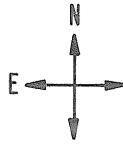
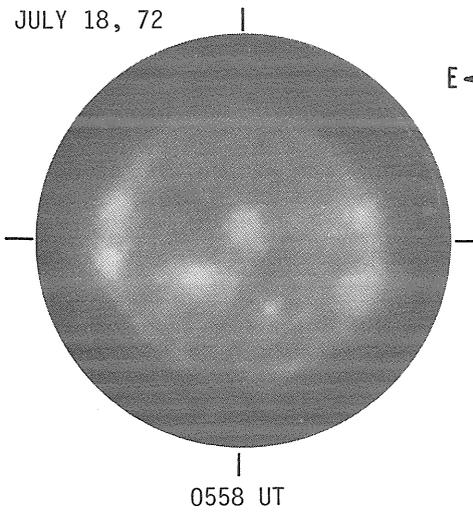
JULY 23, 72



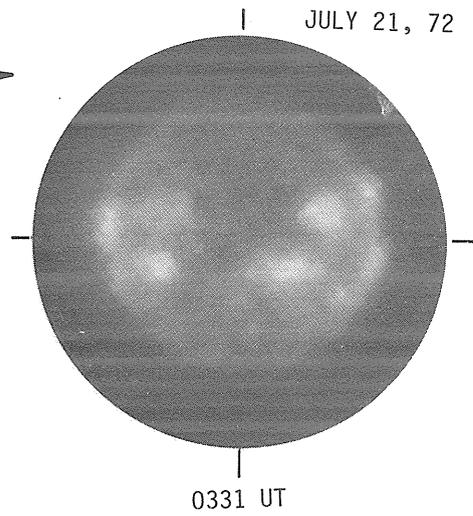
1213 UT

XUV
171-630Å

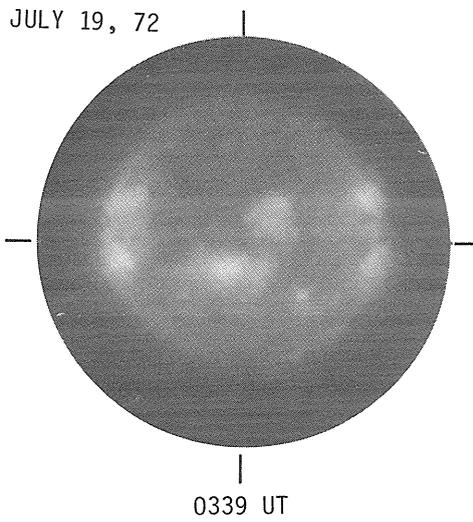
JULY 18, 72



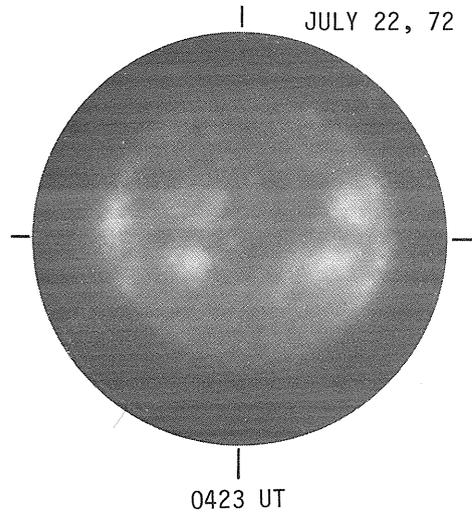
JULY 21, 72



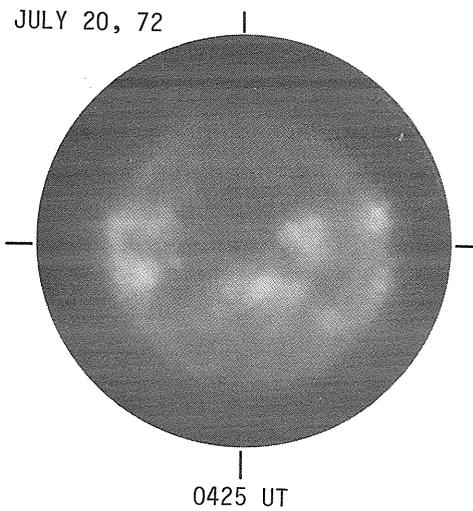
JULY 19, 72



JULY 22, 72



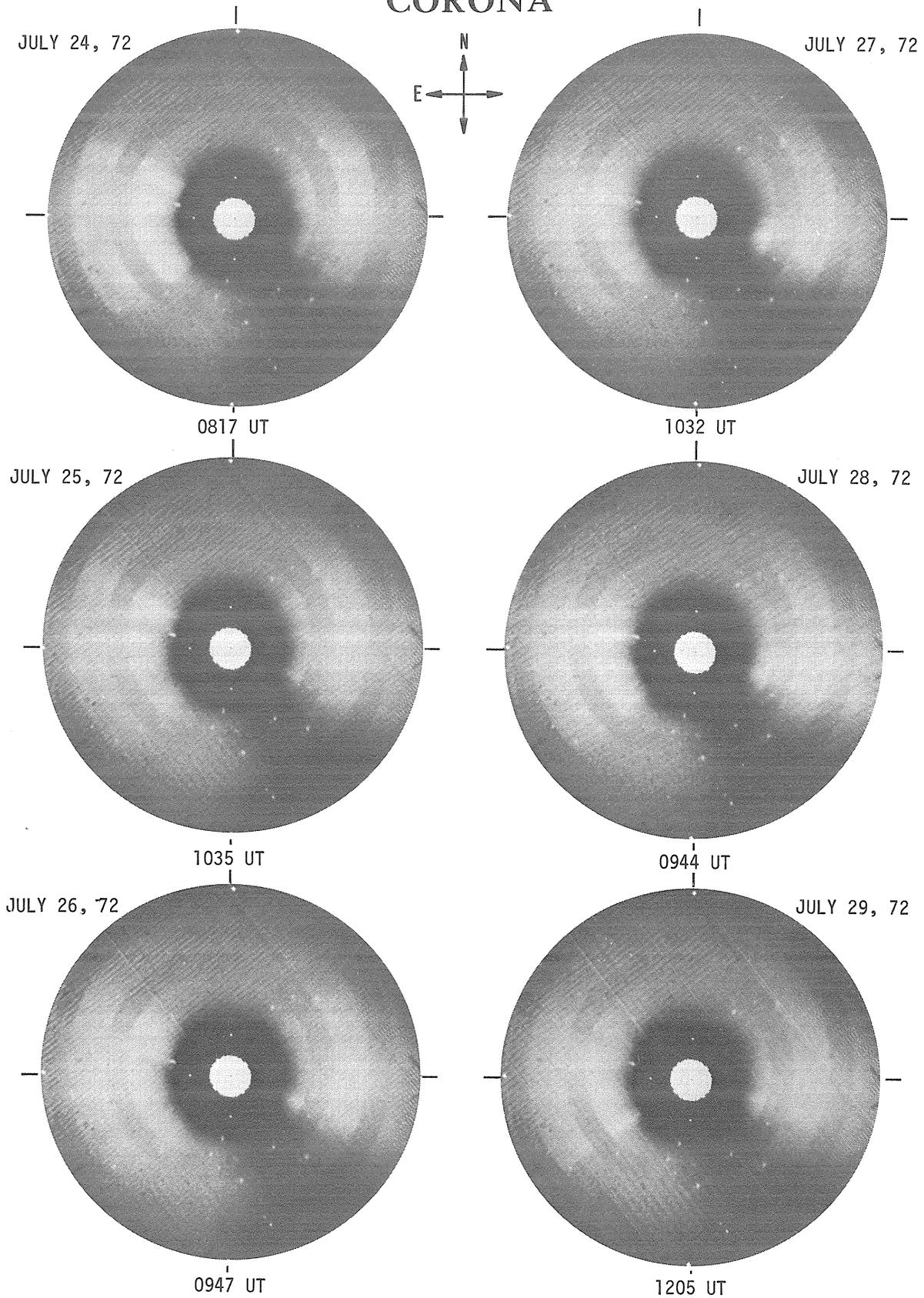
JULY 20, 72



JULY 23, 72

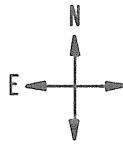
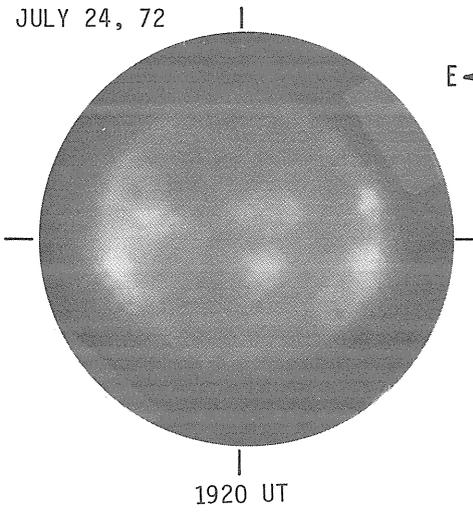
NO DATA

WHITE LIGHT CORONA

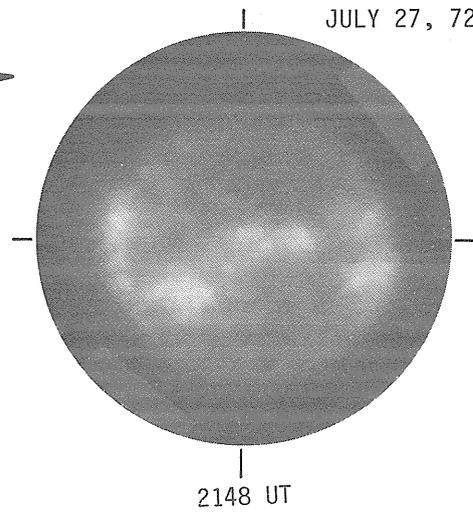


XUV
171-630 Å

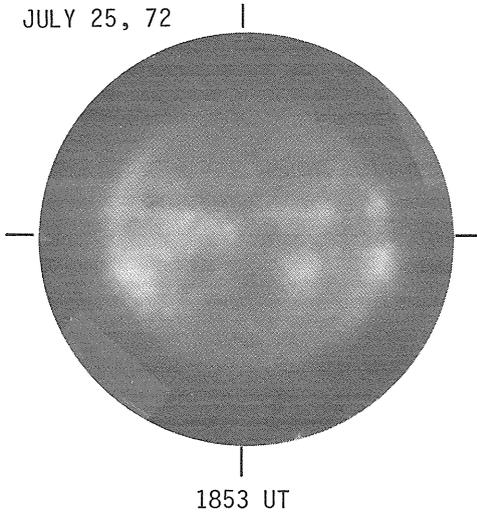
JULY 24, 72



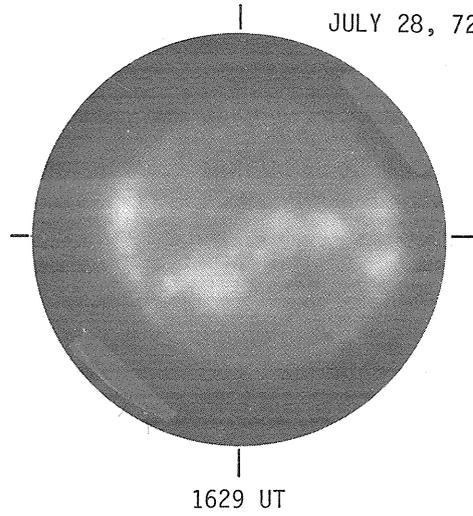
JULY 27, 72



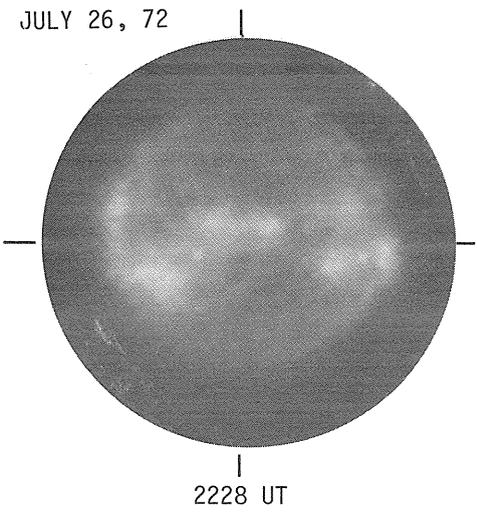
JULY 25, 72



JULY 28, 72



JULY 26, 72

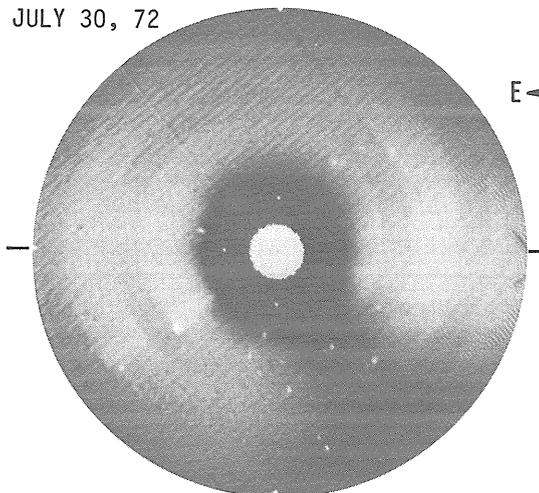


JULY 29, 72

NO DATA

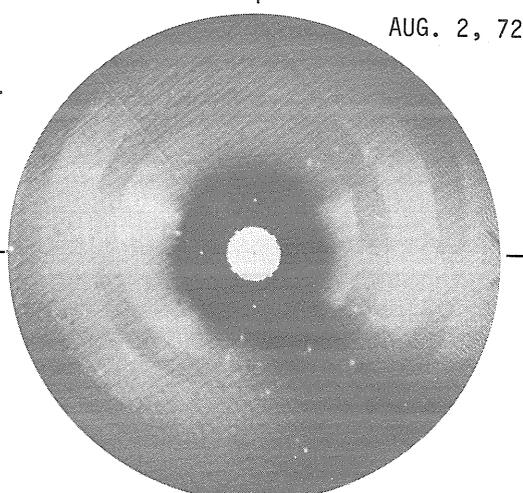
WHITE LIGHT CORONA

JULY 30, 72

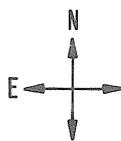


0809 UT

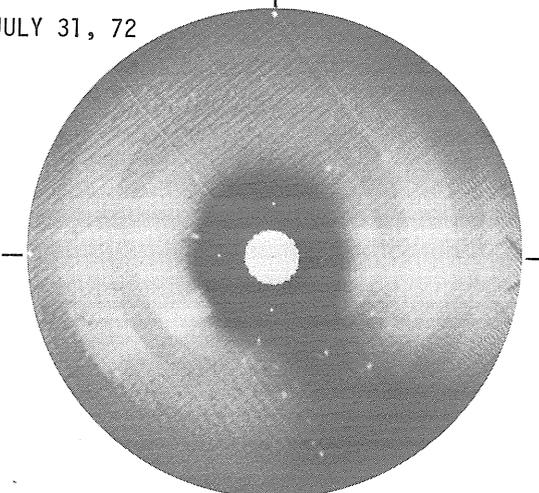
AUG. 2, 72



0718 UT

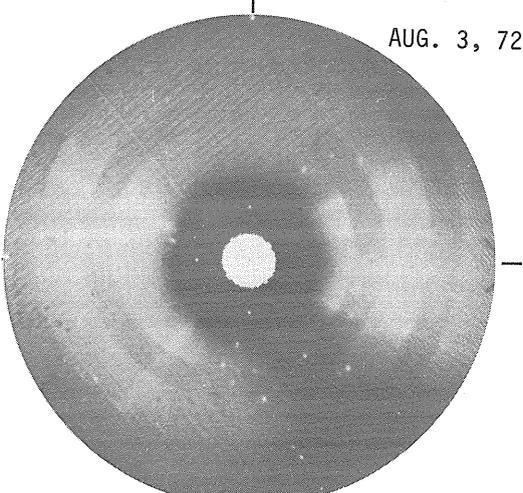


JULY 31, 72



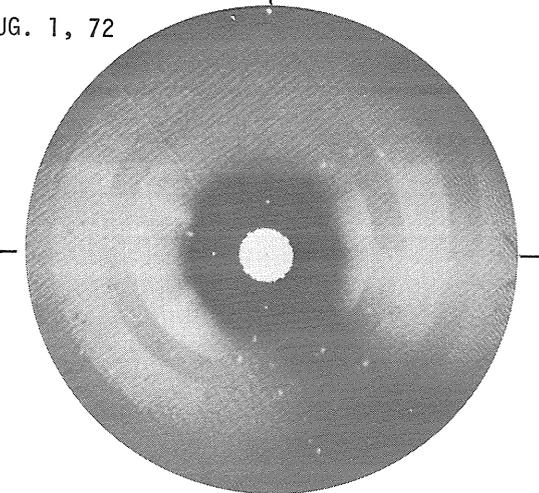
0854 UT

AUG. 3, 72



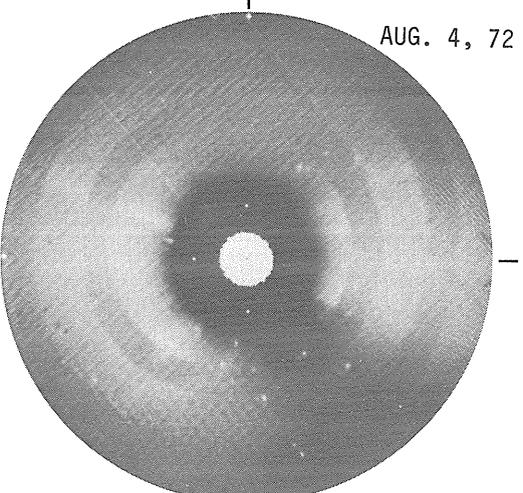
0803 UT

AUG. 1, 72



0633 UT

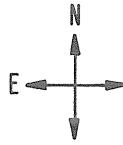
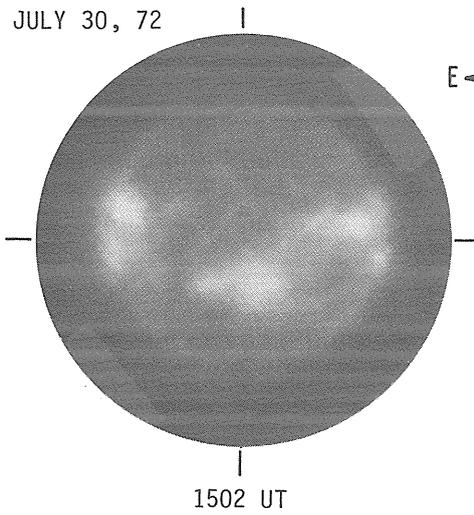
AUG. 4, 72



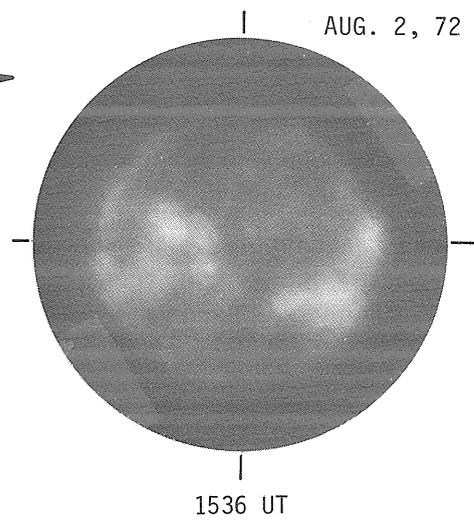
0543 UT

XUV
171-630Å

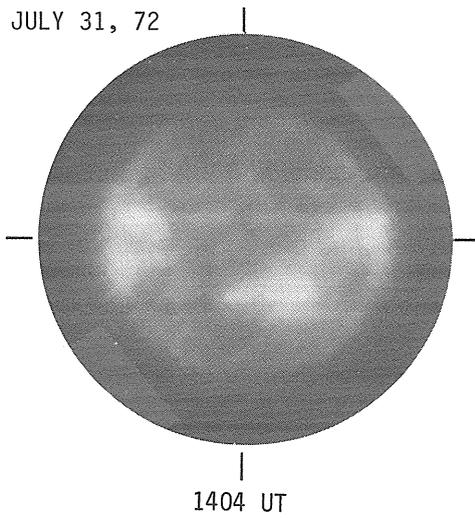
JULY 30, 72



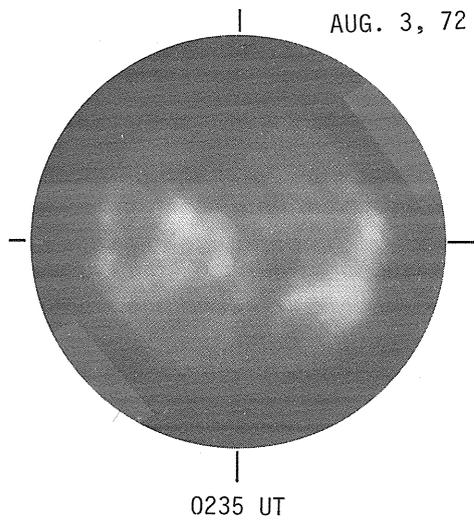
AUG. 2, 72



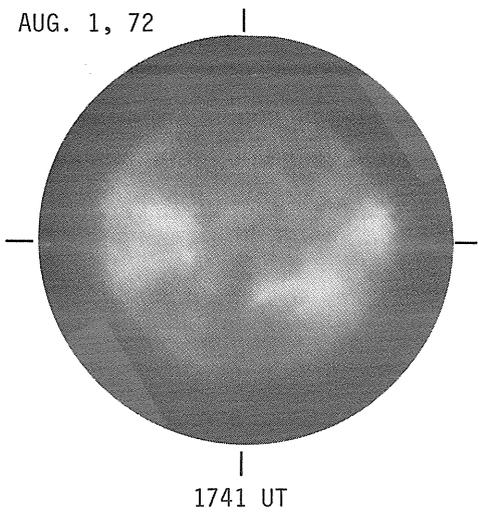
JULY 31, 72



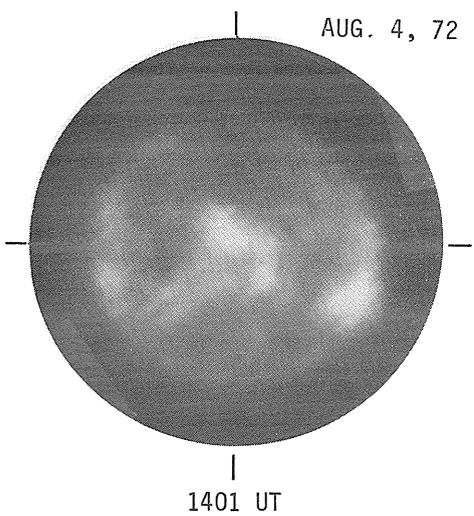
AUG. 3, 72



AUG. 1, 72

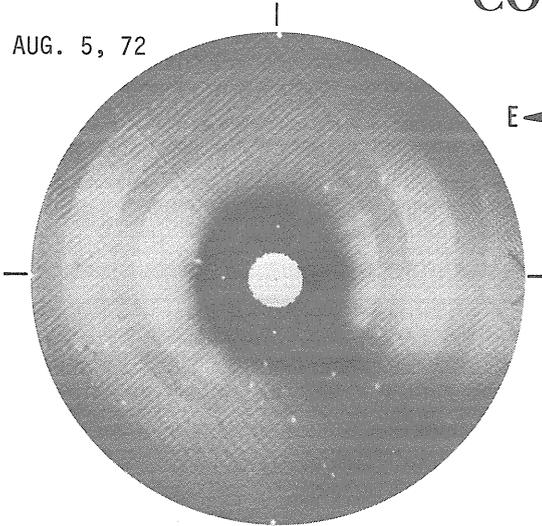


AUG. 4, 72



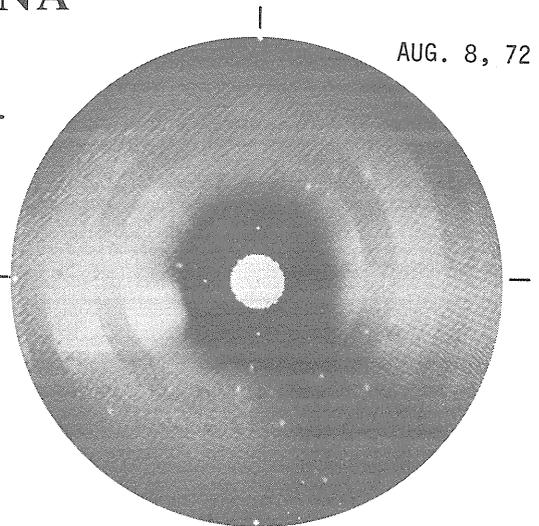
WHITE LIGHT CORONA

AUG. 5, 72

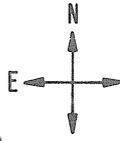


0455 UT

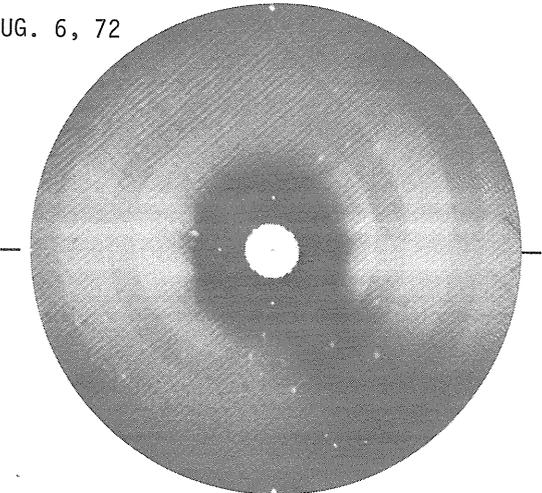
AUG. 8, 72



2238 UT

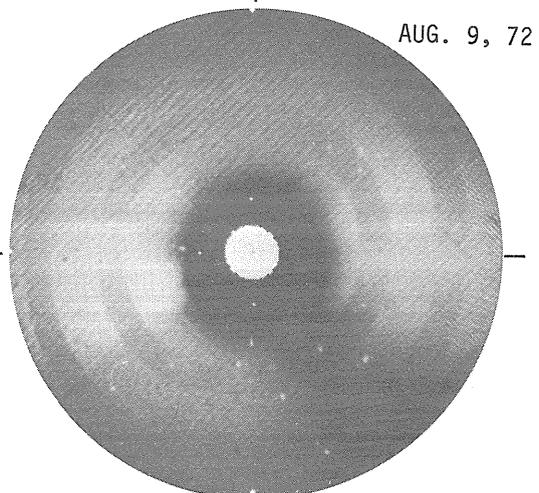


AUG. 6, 72



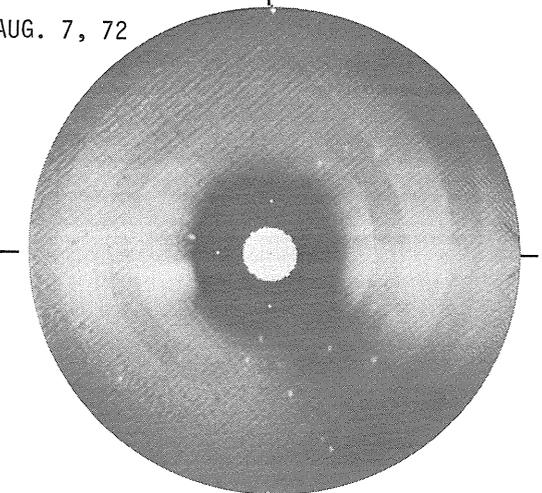
0407 UT

AUG. 9, 72



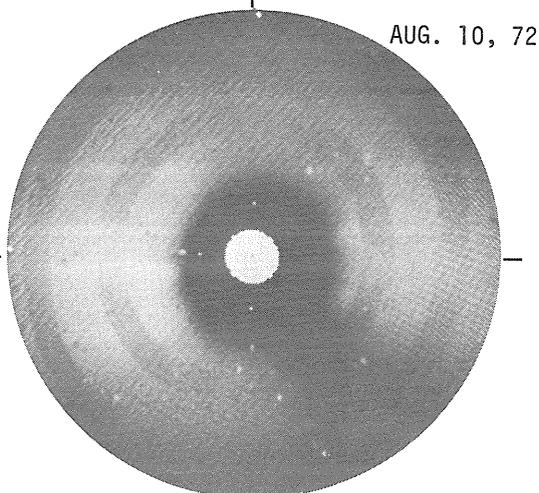
2323 UT

AUG. 7, 72



0452 UT

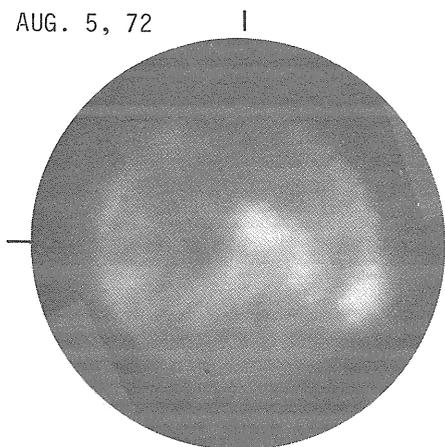
AUG. 10, 72



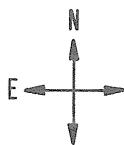
2235 UT

XUV
171-630Å

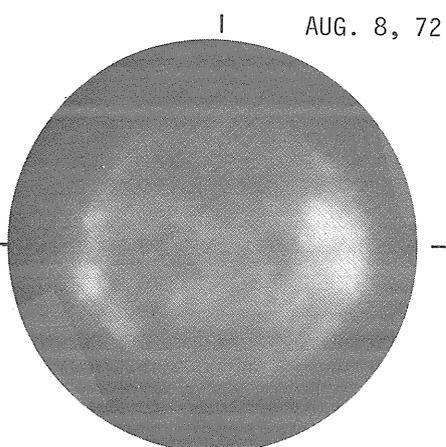
AUG. 5, 72



1439 UT

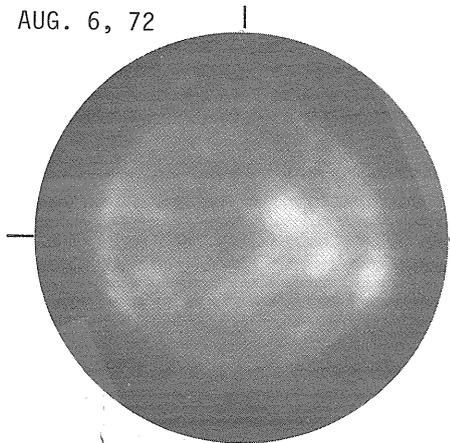


AUG. 8, 72



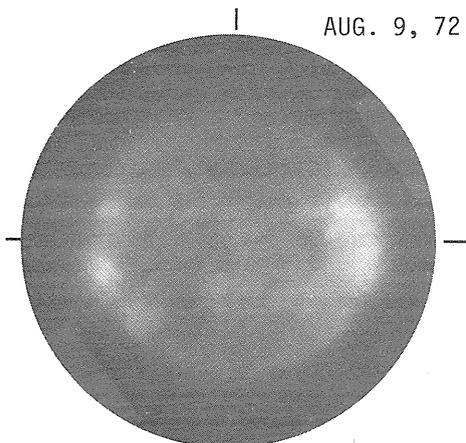
1834 UT

AUG. 6, 72



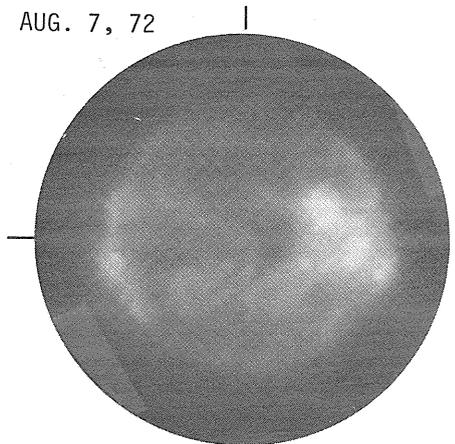
1209 UT

AUG. 9, 72



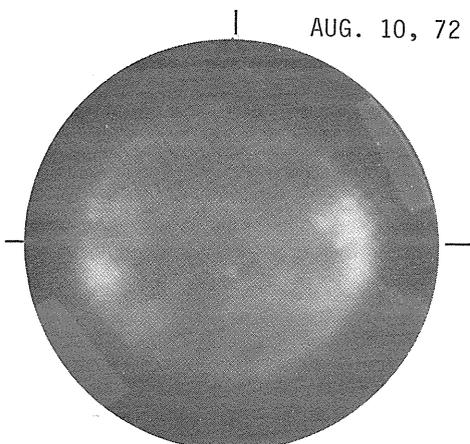
1135 UT

AUG. 7, 72



1442 UT

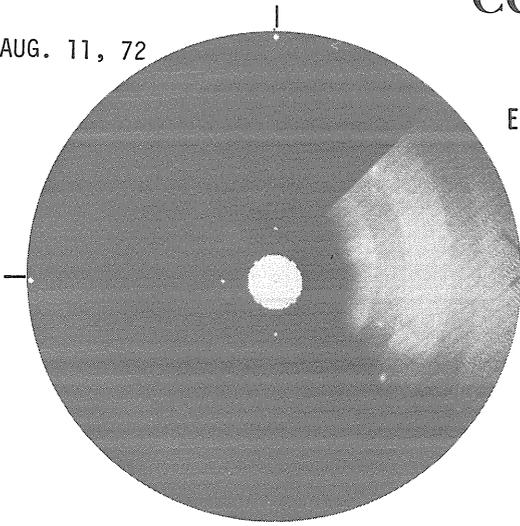
AUG. 10, 72



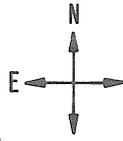
1520 UT

WHITE LIGHT CORONA

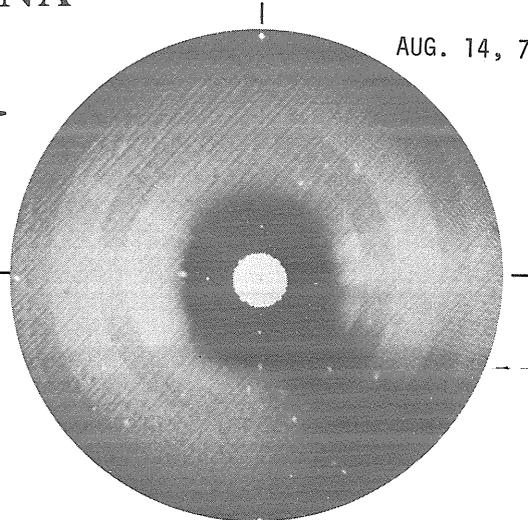
AUG. 11, 72



0814 UT - Q1

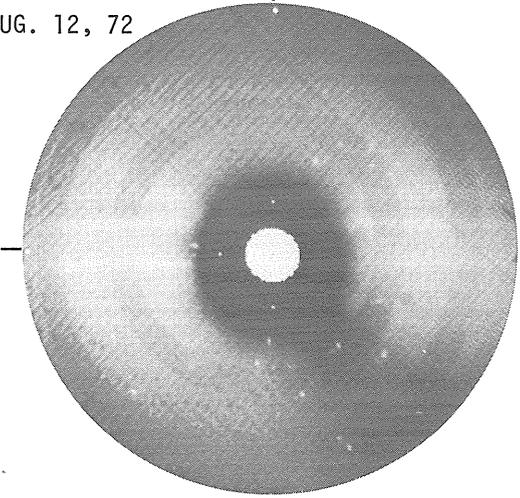


AUG. 14, 72



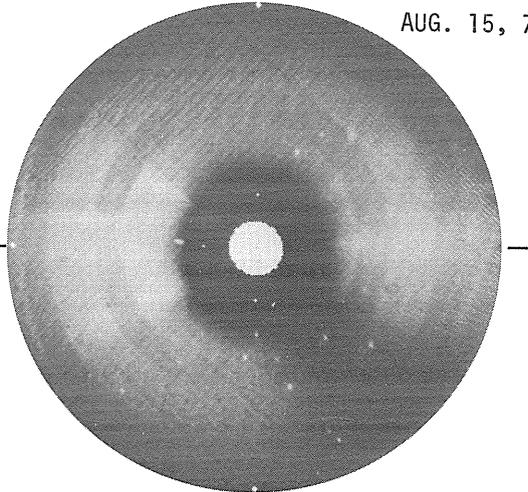
0048 UT

AUG. 12, 72



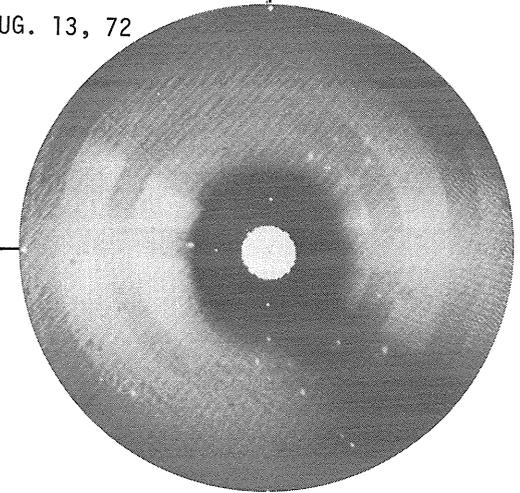
0052 UT

AUG. 15, 72



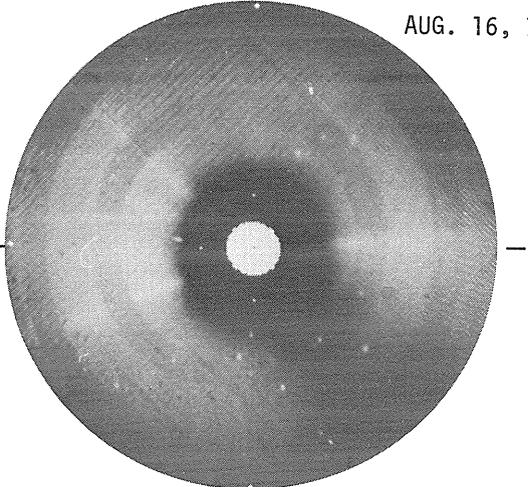
2312 UT

AUG. 13, 72



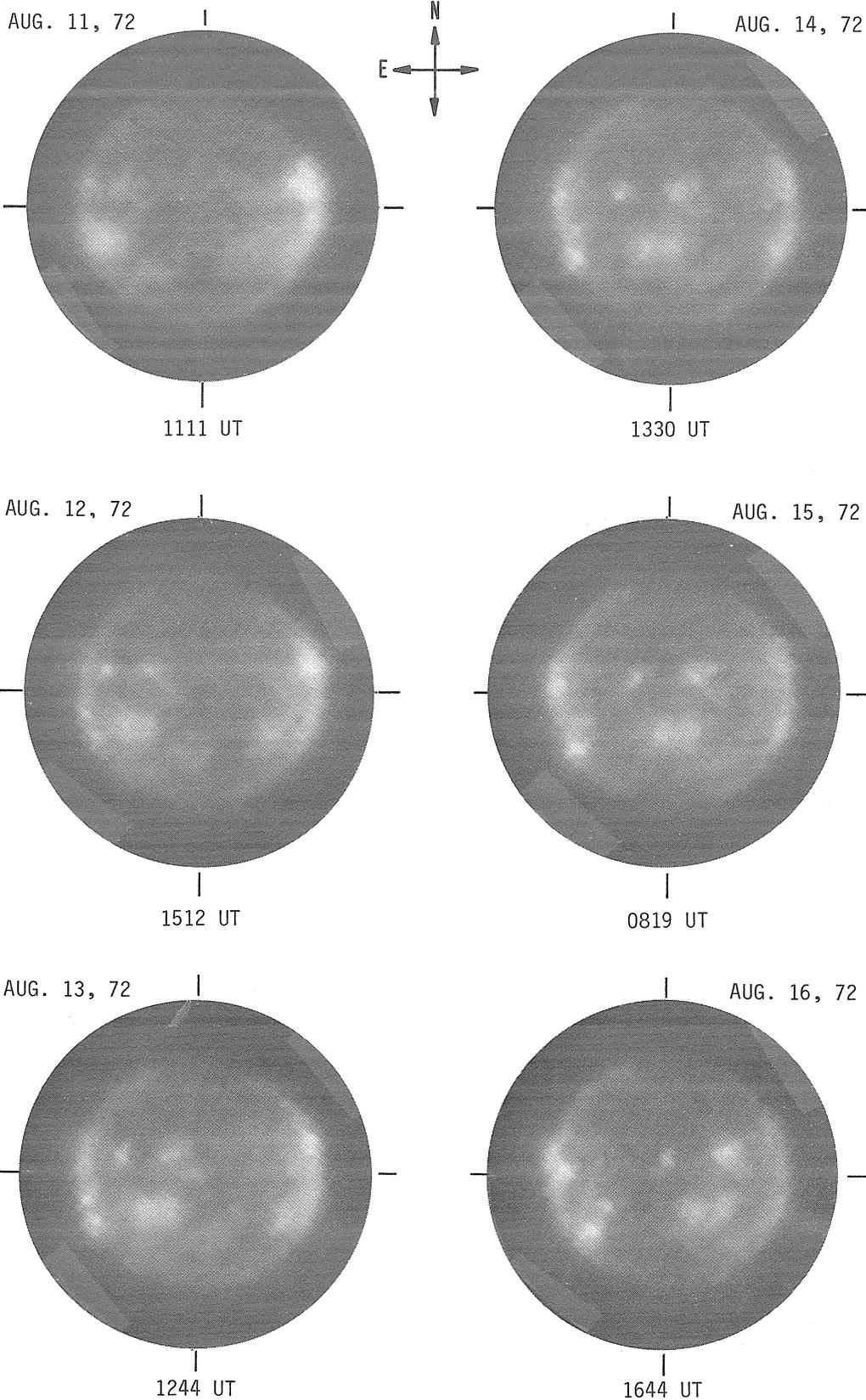
0004 UT

AUG. 16, 72



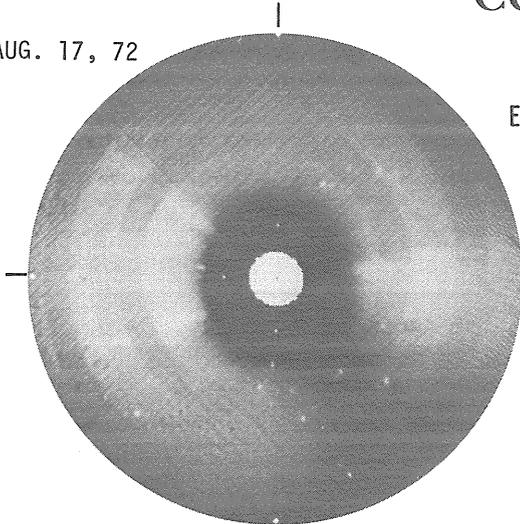
2356 UT

XUV
171-630Å

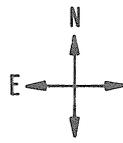


WHITE LIGHT CORONA

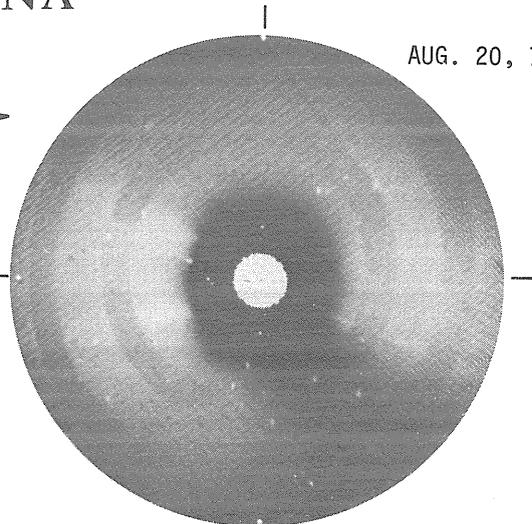
AUG. 17, 72



2308 UT

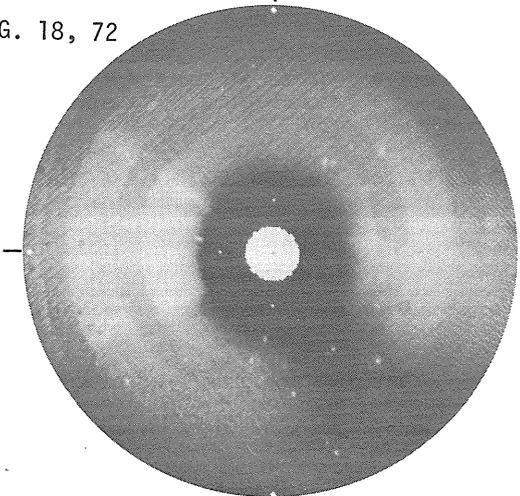


AUG. 20, 72



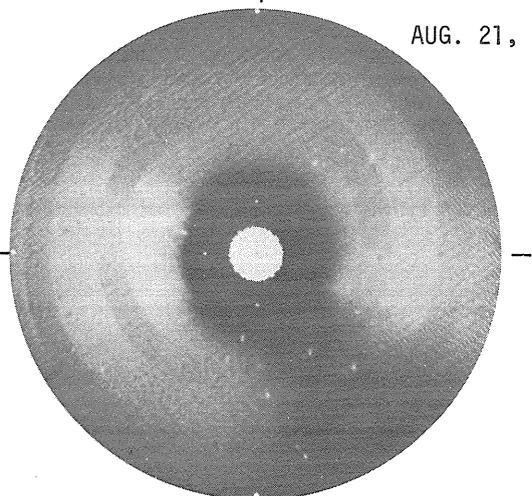
2215 UT

AUG. 18, 72



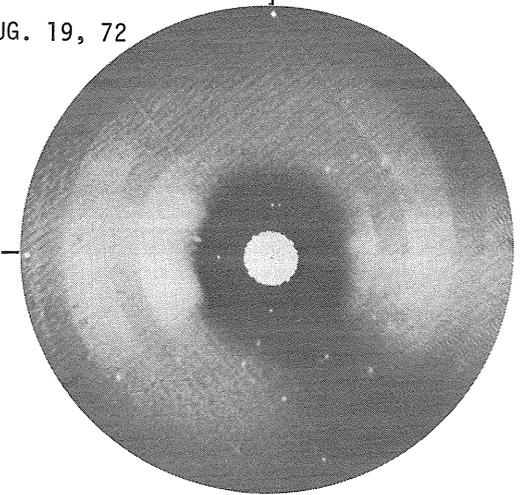
2219 UT

AUG. 21, 72



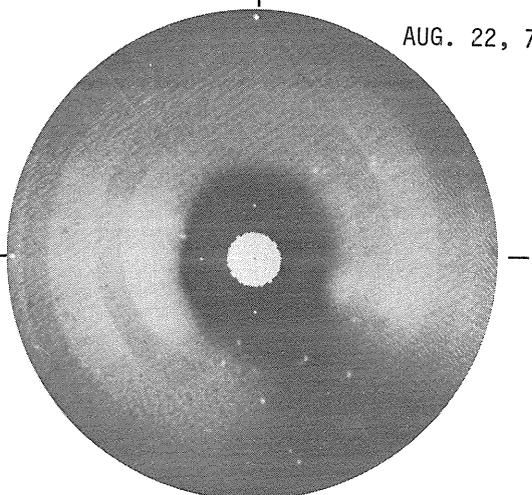
2127 UT

AUG. 19, 72



2131 UT

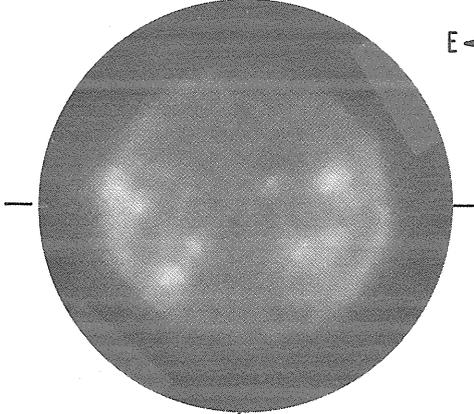
AUG. 22, 72



2038 UT

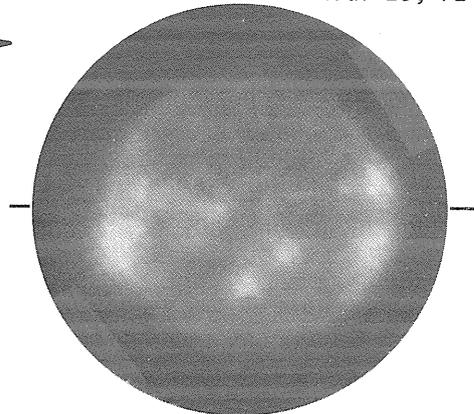
XUV
171-630Å

AUG. 17, 72



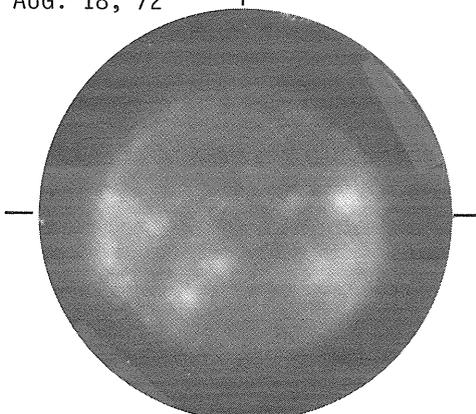
0931 UT

AUG. 20, 72



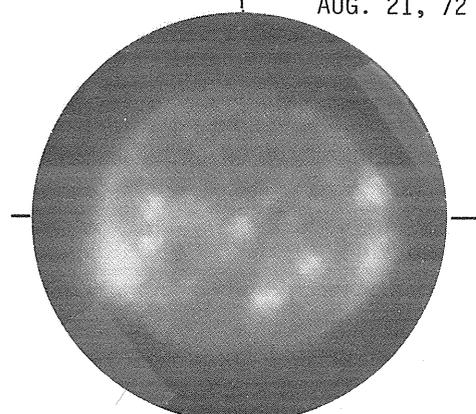
0855 UT

AUG. 18, 72



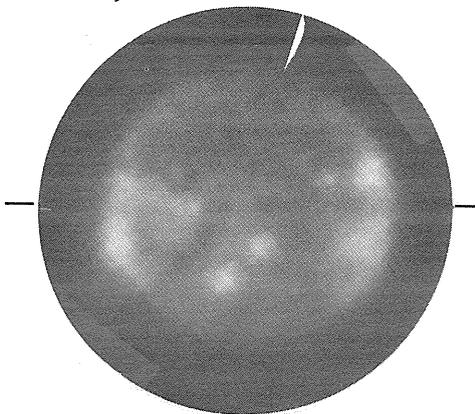
0859 UT

AUG. 21, 72



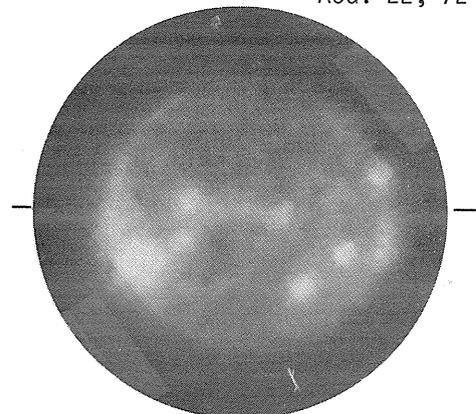
0806 UT

AUG. 19, 72



0943 UT

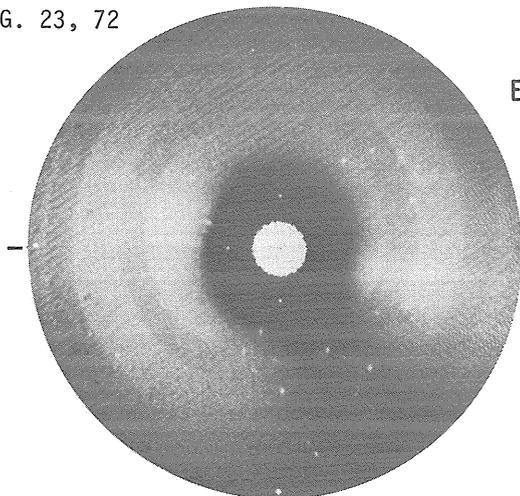
AUG. 22, 72



0854 UT

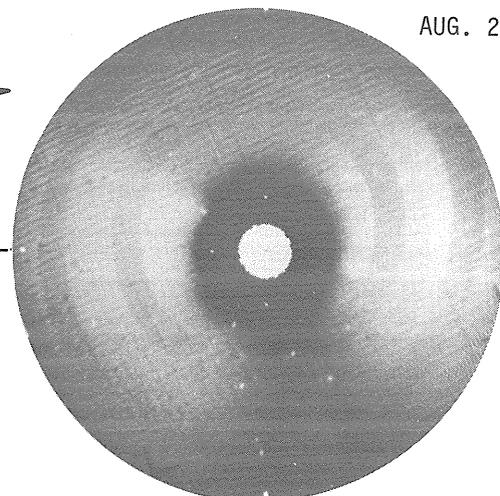
WHITE LIGHT CORONA

AUG. 23, 72

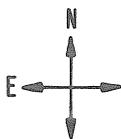


2123 UT

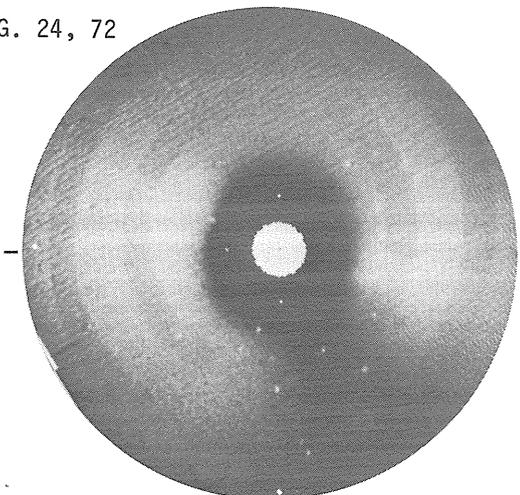
AUG. 26, 72



2337 UT

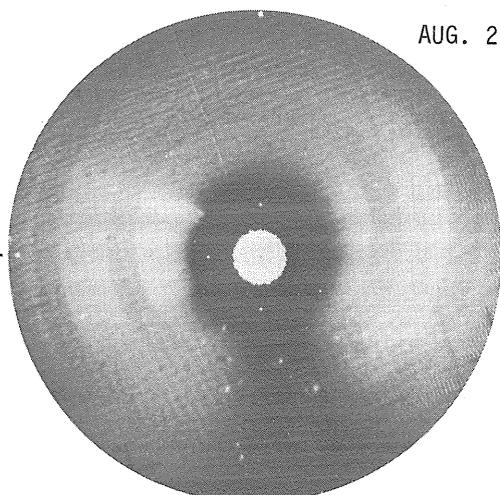


AUG. 24, 72



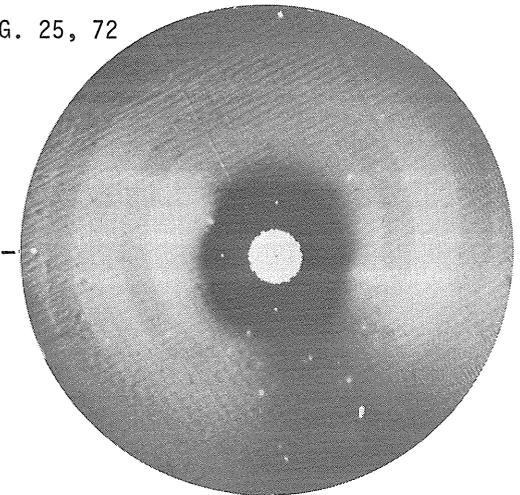
2340 UT

AUG. 27, 72



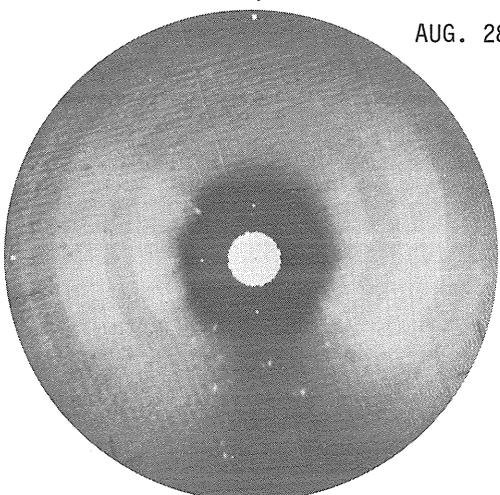
2249 UT

AUG. 25, 72



2252 UT

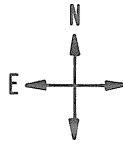
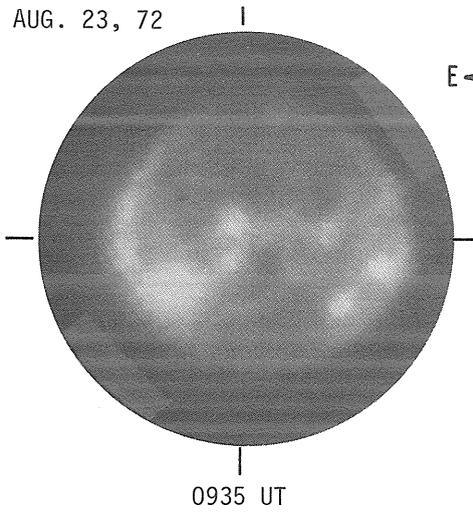
AUG. 28, 72



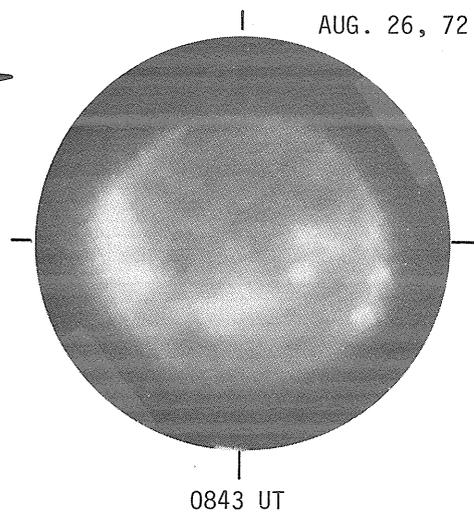
2202 UT

XUV
171-630Å

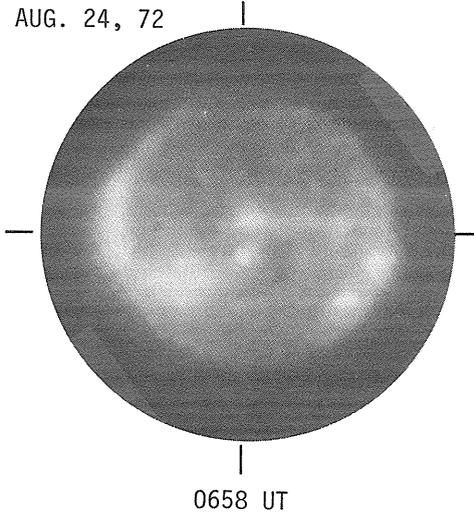
AUG. 23, 72



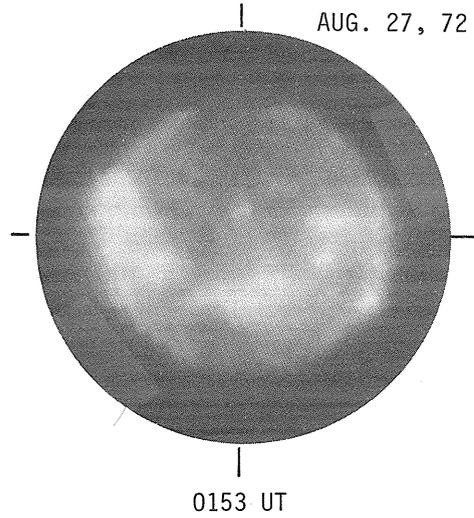
AUG. 26, 72



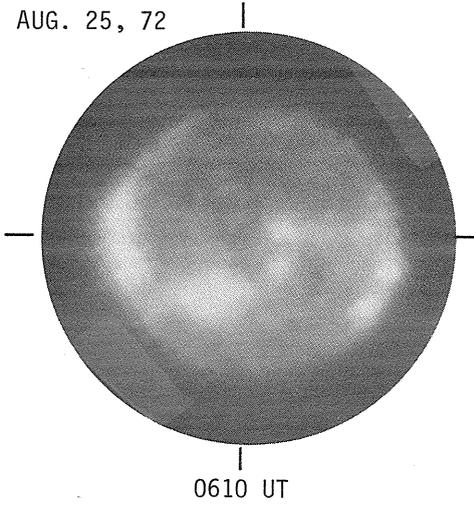
AUG. 24, 72



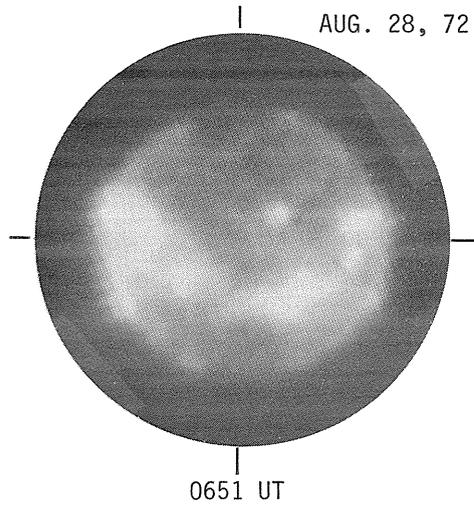
AUG. 27, 72



AUG. 25, 72

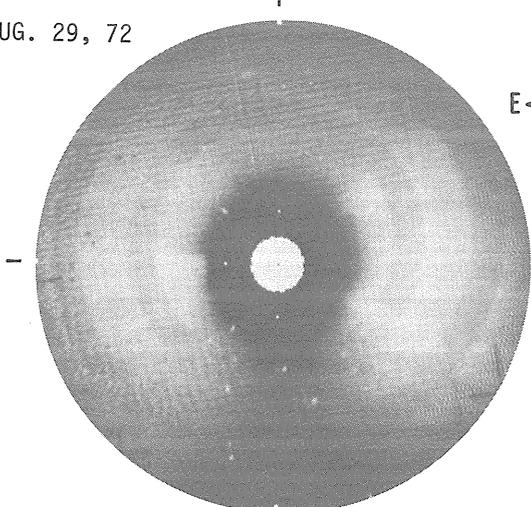


AUG. 28, 72



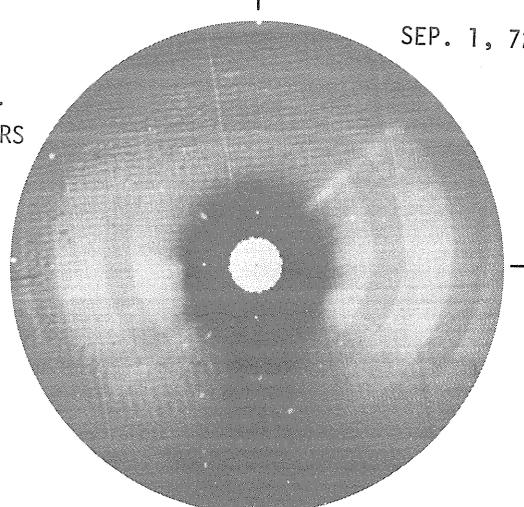
WHITE LIGHT CORONA

AUG. 29, 72

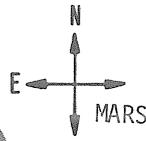


2247 UT

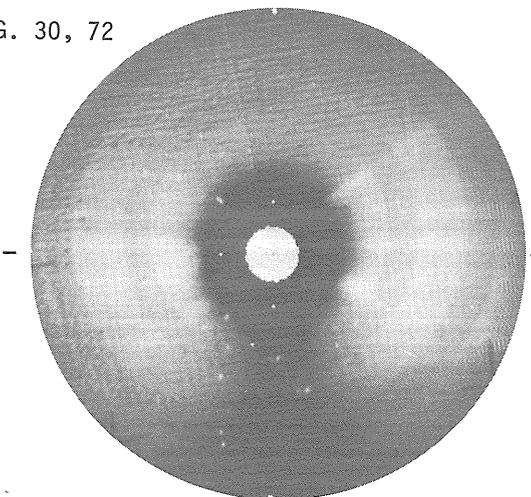
SEP. 1, 72



1248 UT

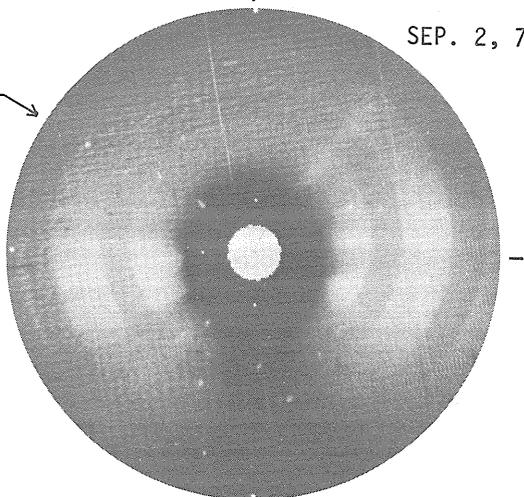


AUG. 30, 72



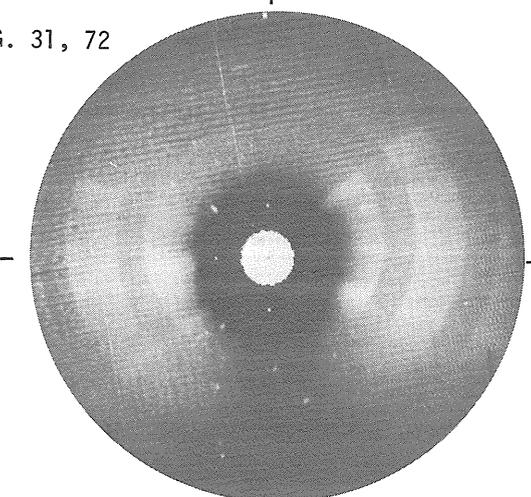
2159 UT

SEP. 2, 72



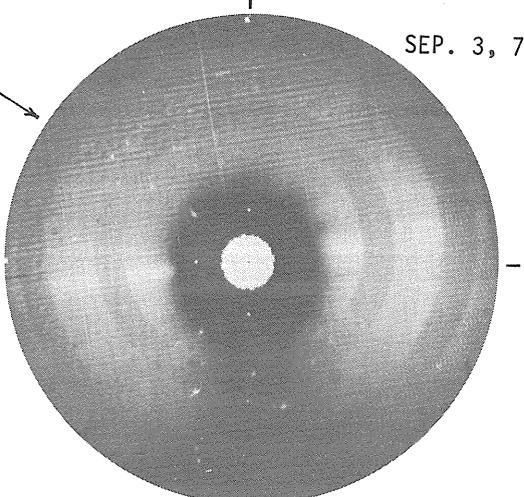
1335 UT

AUG. 31, 72



1339 UT

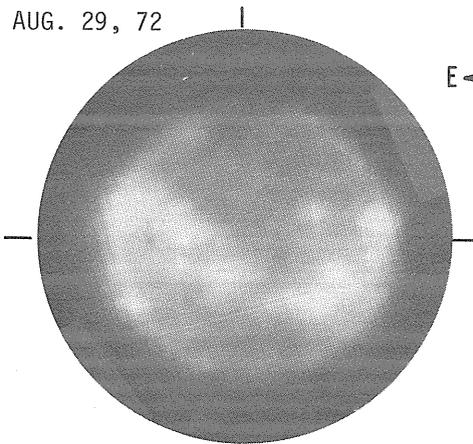
SEP. 3, 72



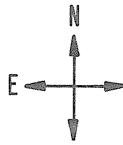
1242 UT

XUV
171-630Å

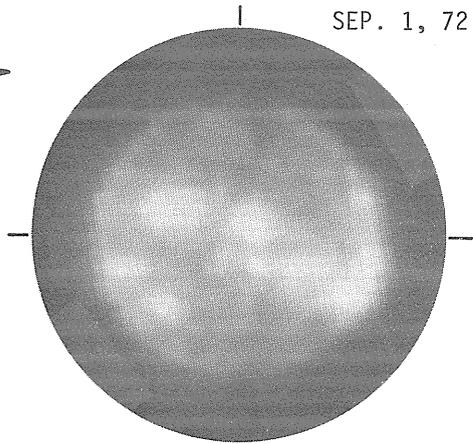
AUG. 29, 72



0627 UT

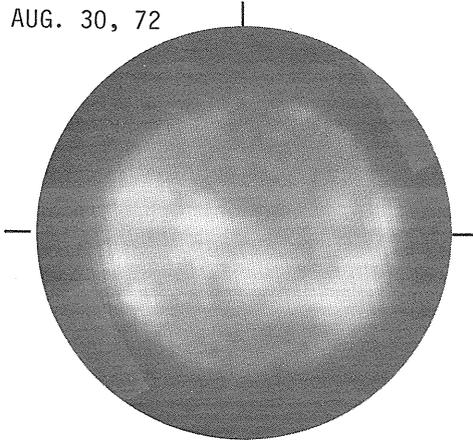


SEP. 1, 72



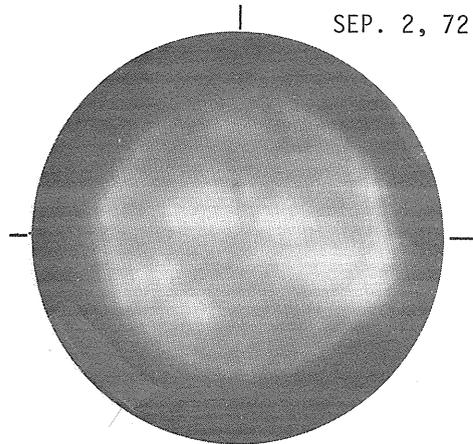
0538 UT

AUG. 30, 72



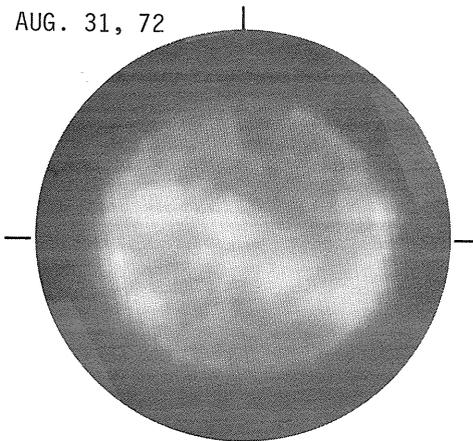
0526 UT

SEP. 2, 72



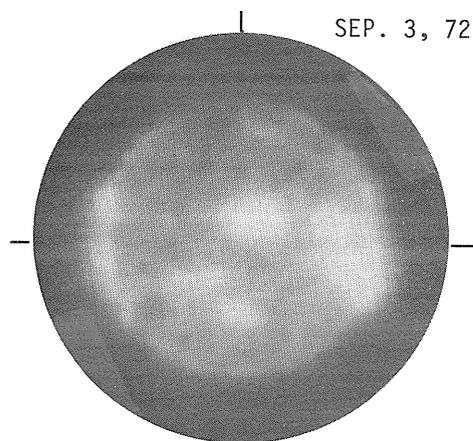
0142 UT

AUG. 31, 72



0316 UT

SEP. 3, 72

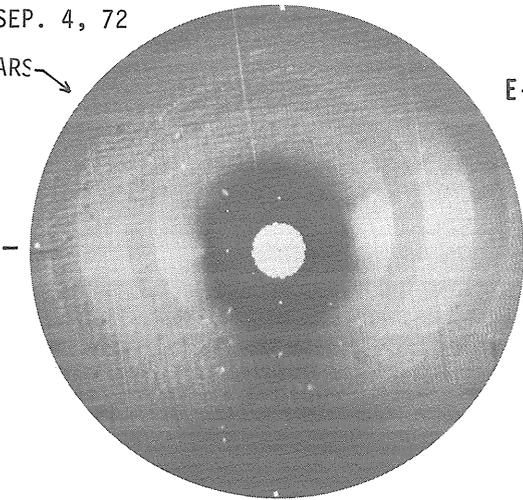


2209 UT

WHITE LIGHT CORONA

SEP. 4, 72

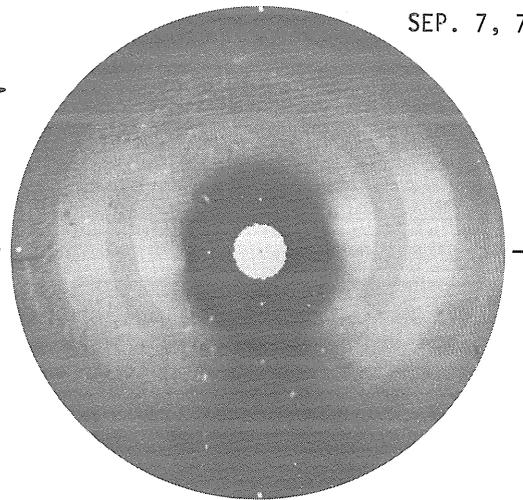
MARS →



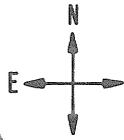
1150 UT

MARS ↓

SEP. 7, 72

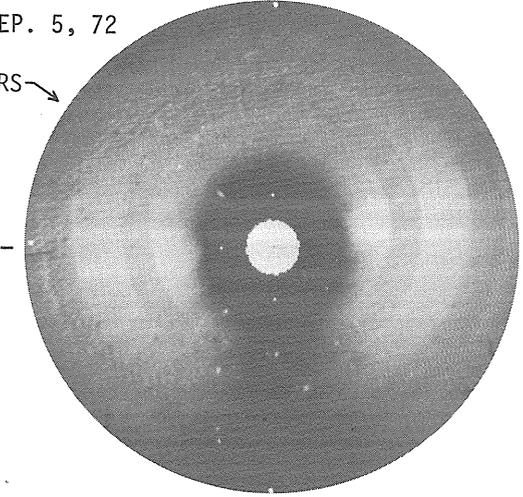


0444 UT



SEP. 5, 72

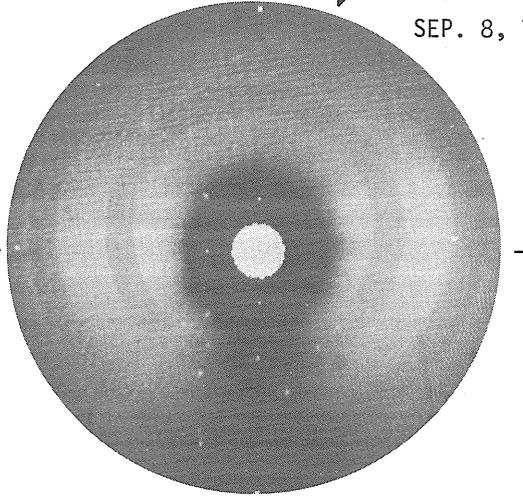
MARS →



0446 UT

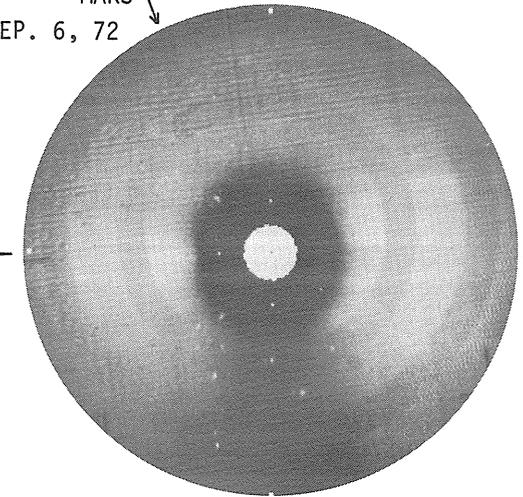
MARS ↙

SEP. 8, 72



1003 UT

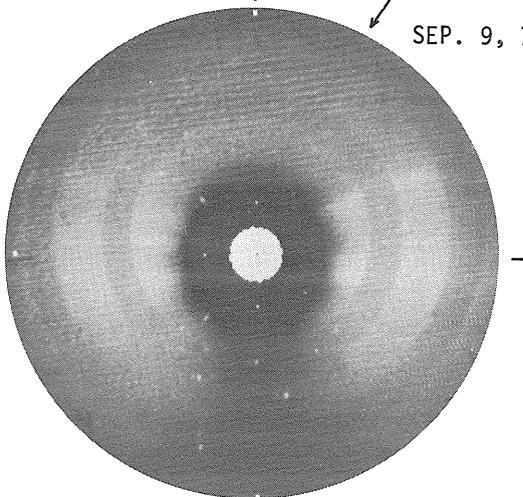
MARS ↙
SEP. 6, 72



1008 UT

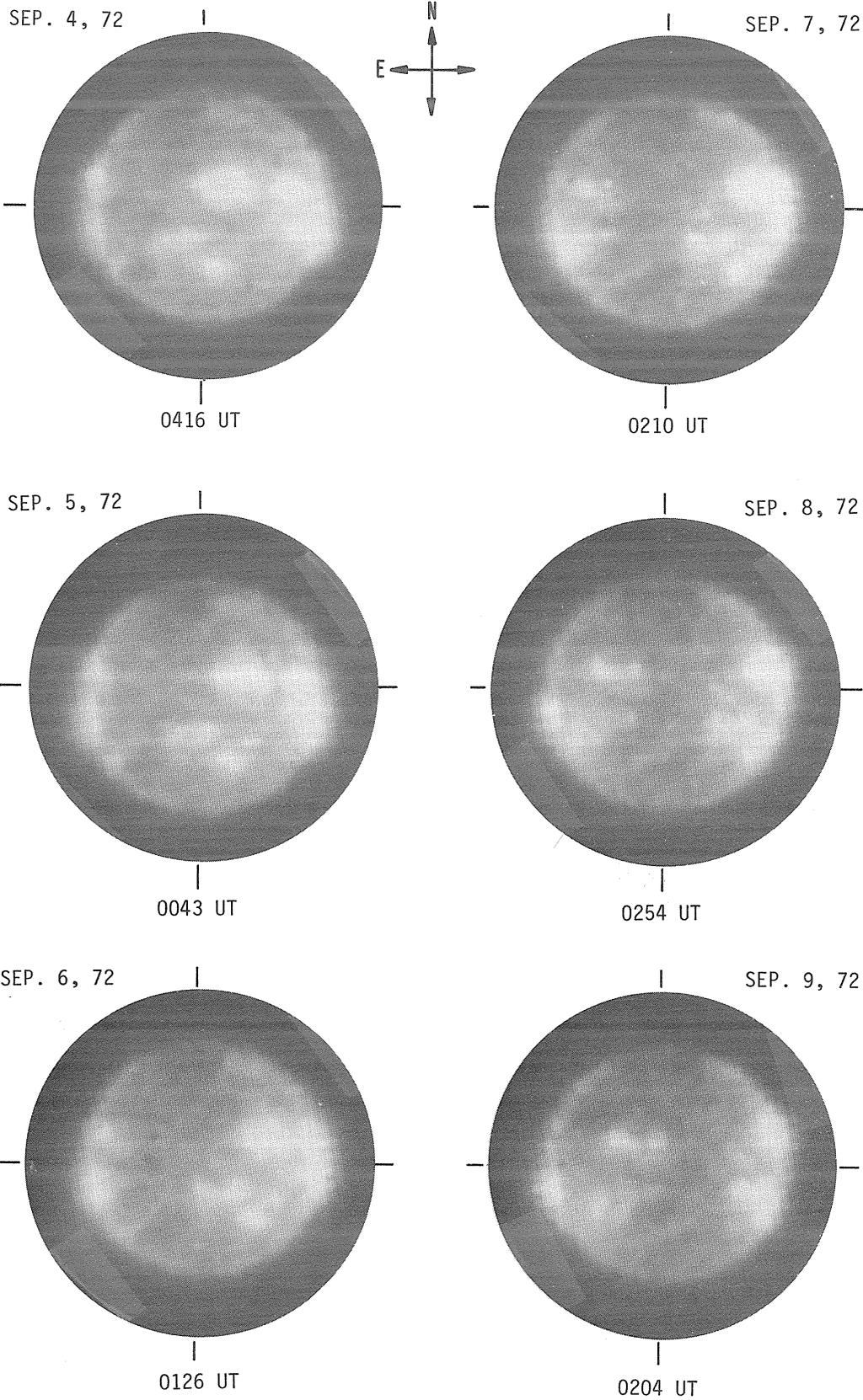
MARS ↙

SEP. 9, 72



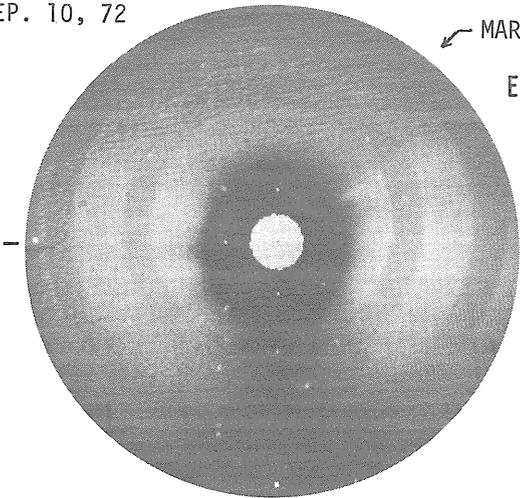
0914 UT

XUV
171-630Å



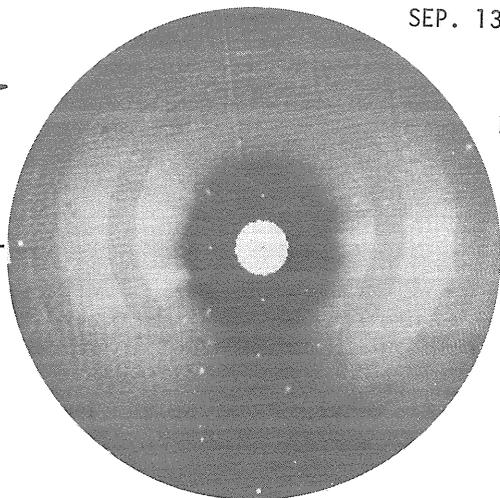
WHITE LIGHT CORONA

SEP. 10, 72



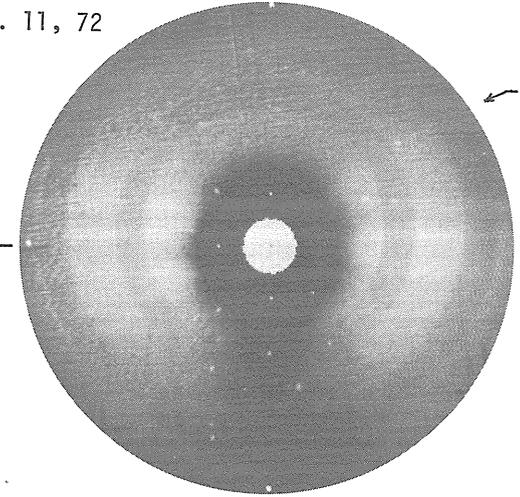
0448 UT

SEP. 13, 72



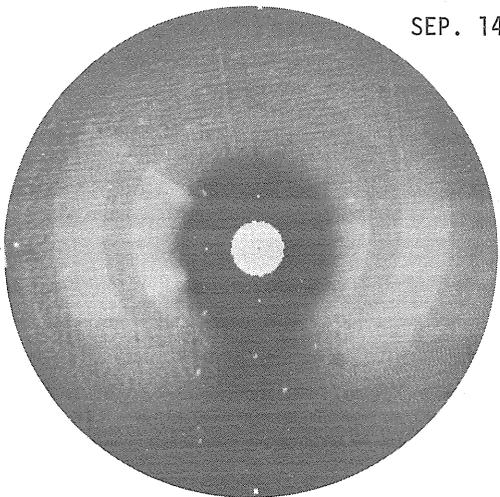
0901 UT

SEP. 11, 72



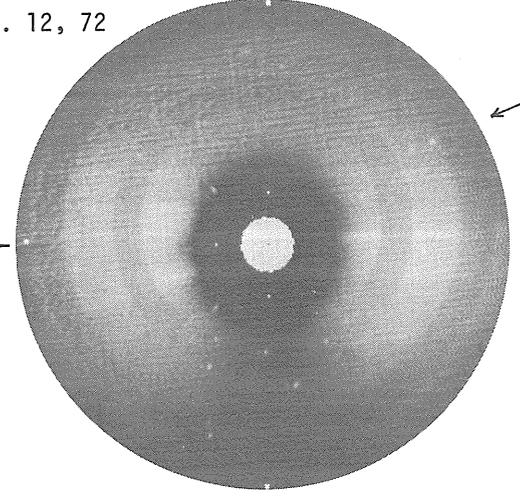
0735 UT

SEP. 14, 72



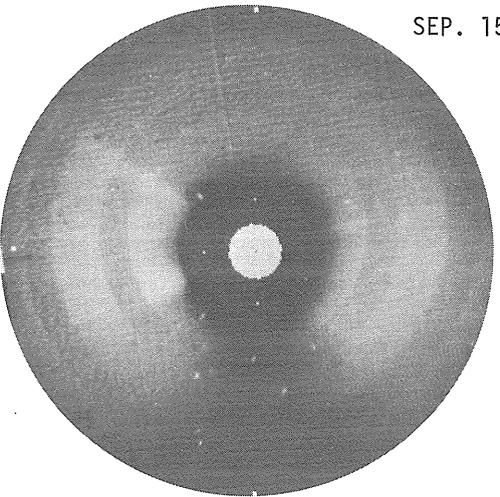
0944 UT

SEP. 12, 72



0818 UT

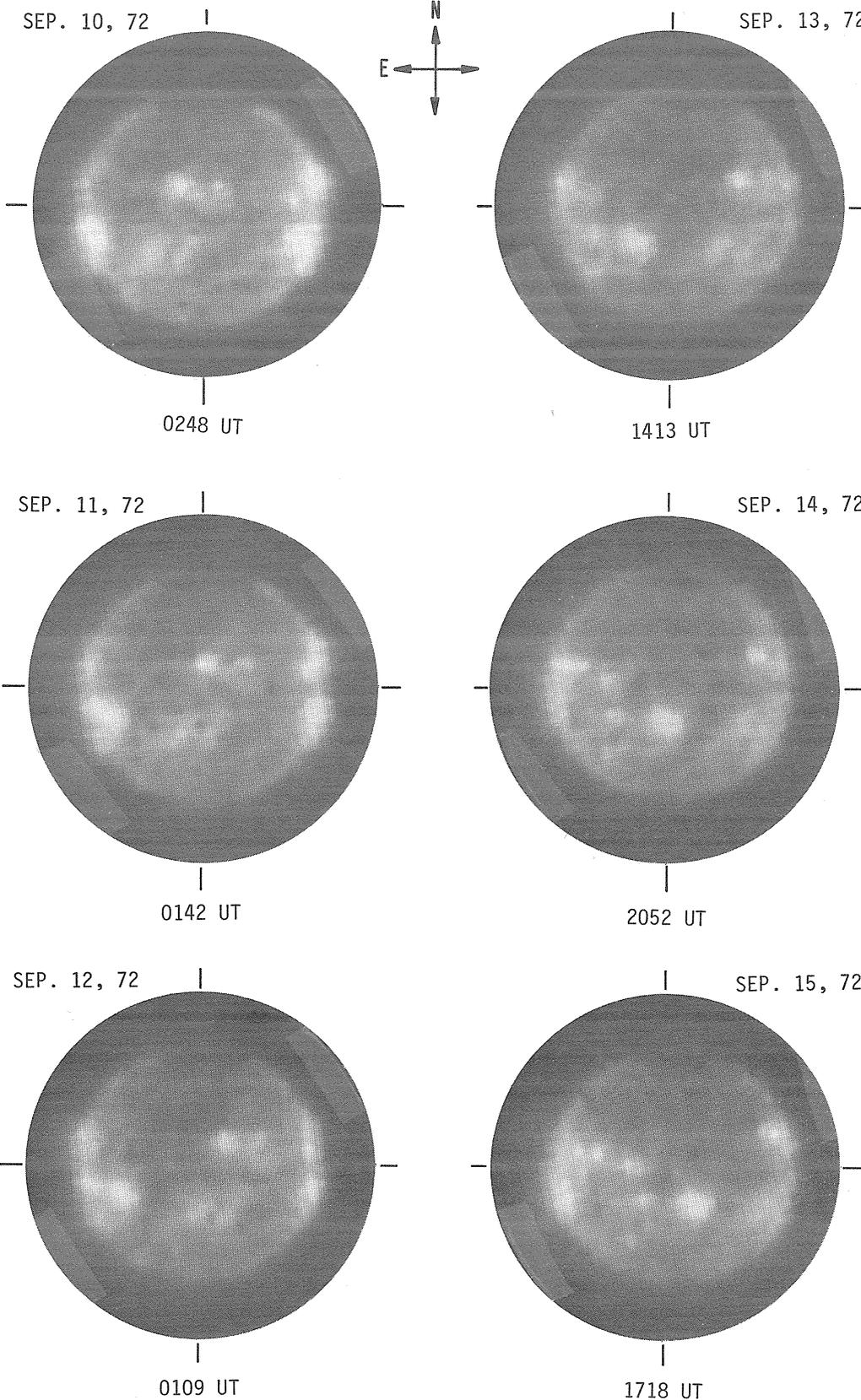
SEP. 15, 72



0855 UT

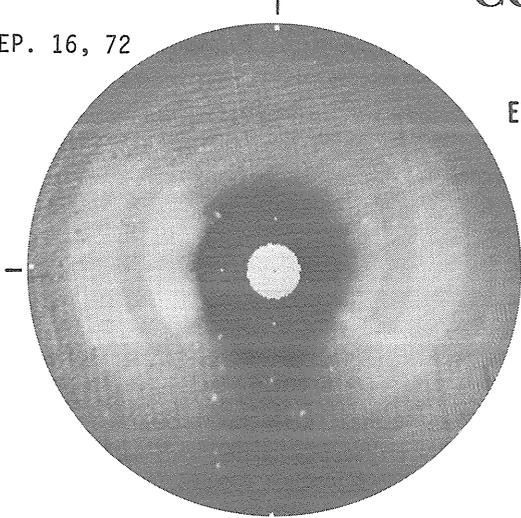


XUV
171-630Å

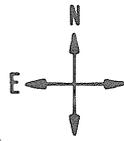


WHITE LIGHT CORONA

SEP. 16, 72

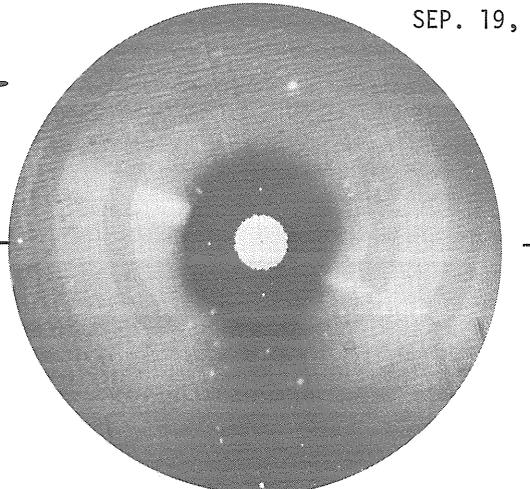


1111 UT



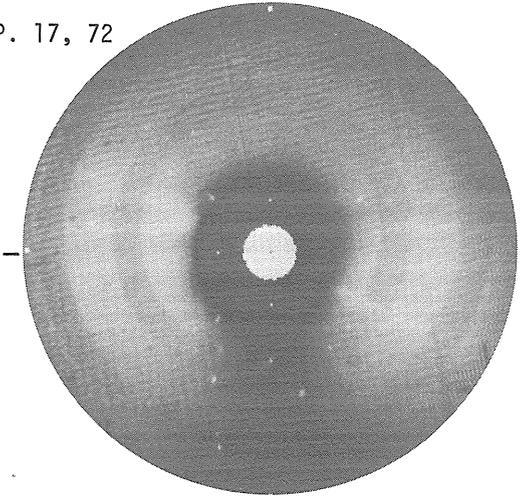
MERCURY

SEP. 19, 72



1016 UT

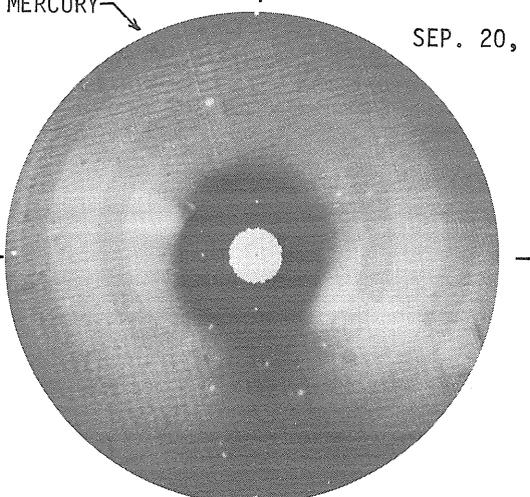
SEP. 17, 72



1022 UT

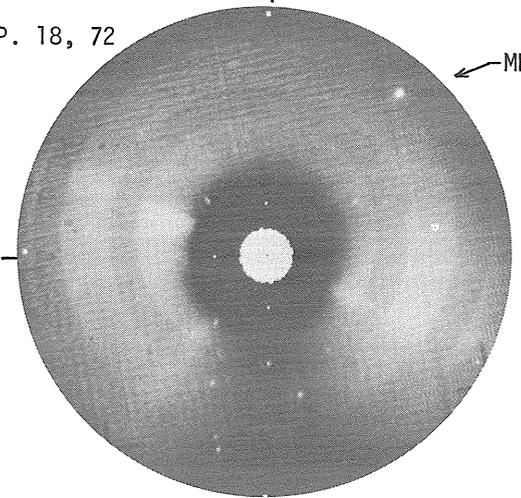
MERCURY

SEP. 20, 72



0927 UT

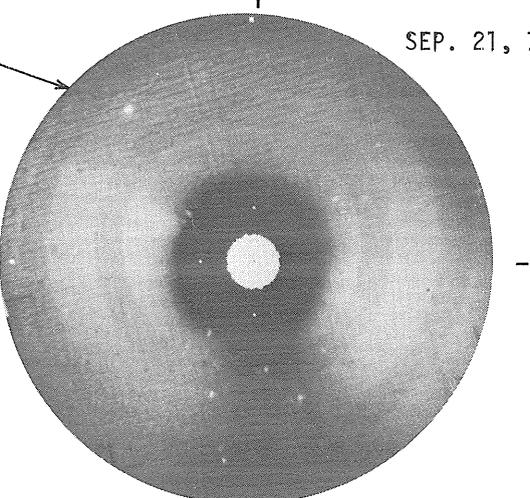
SEP. 18, 72



0800 UT

MERCURY

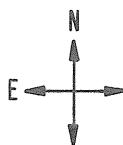
SEP. 21, 72



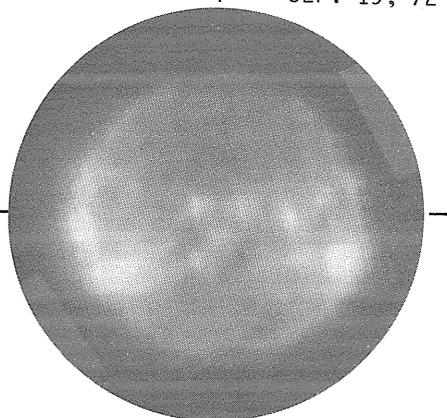
0839 UT

XUV
171-630Å

SEP. 16, 72 |



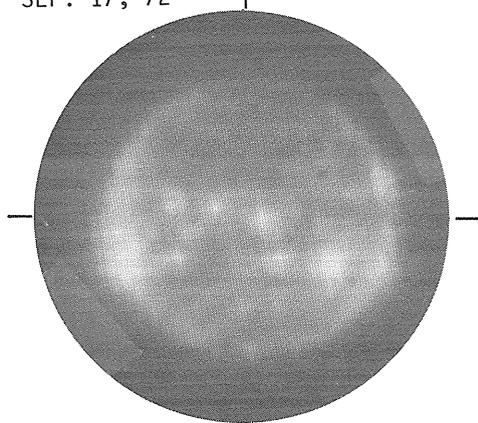
| SEP. 19, 72



1340 UT

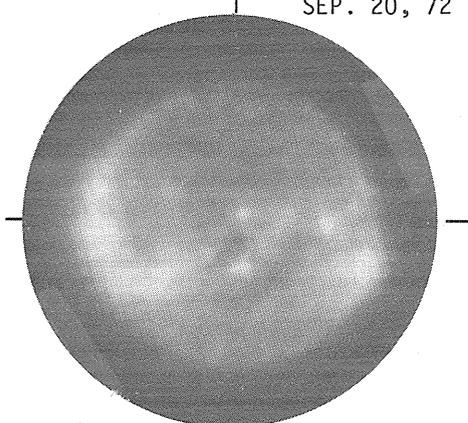
|
NO DATA

SEP. 17, 72 |



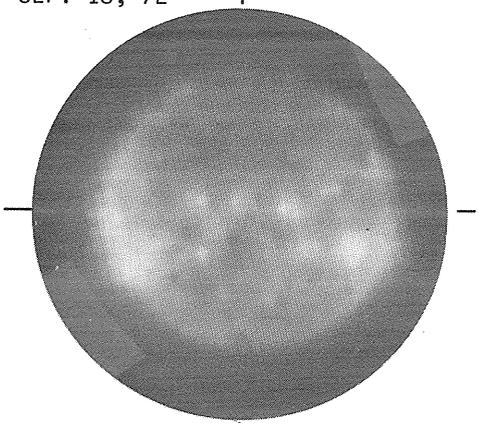
1824 UT

| SEP. 20, 72



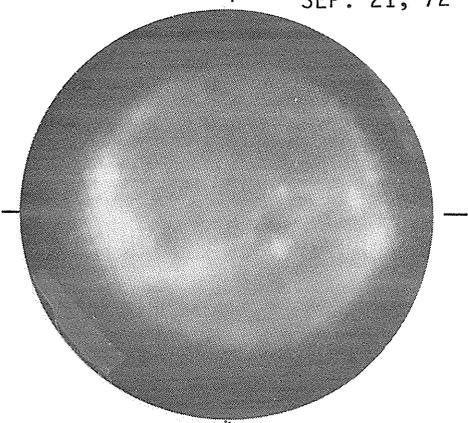
1443 UT

SEP. 18, 72 |



1429 UT

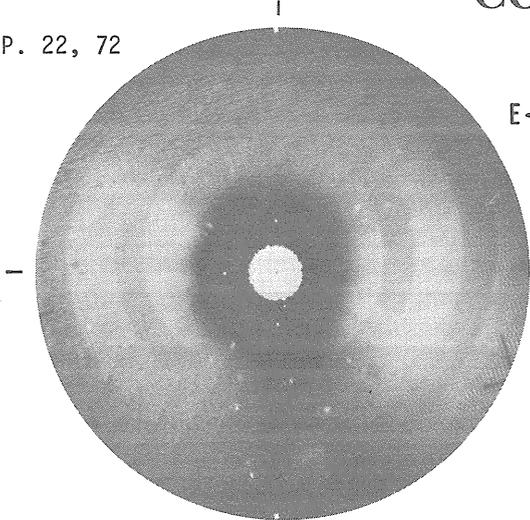
| SEP. 21, 72



1202 UT

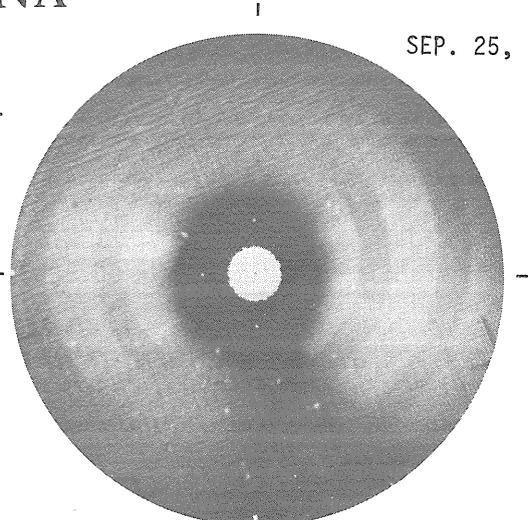
WHITE LIGHT CORONA

SEP. 22, 72

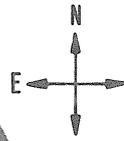


2320 UT

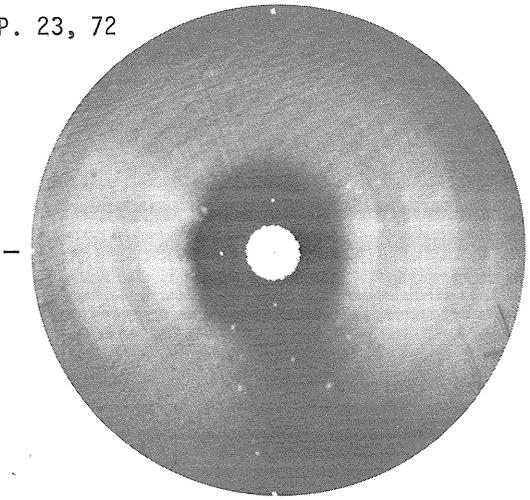
SEP. 25, 72



0827 UT

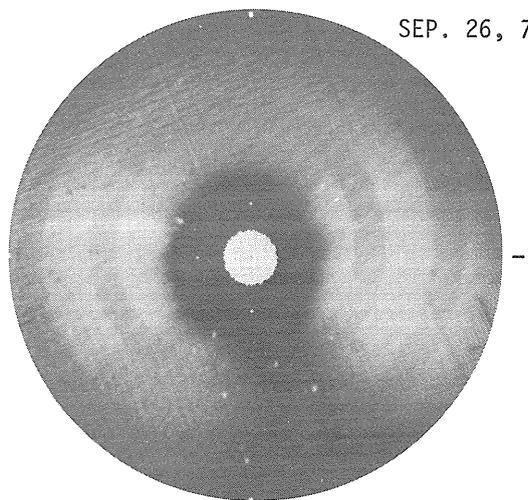


SEP. 23, 72



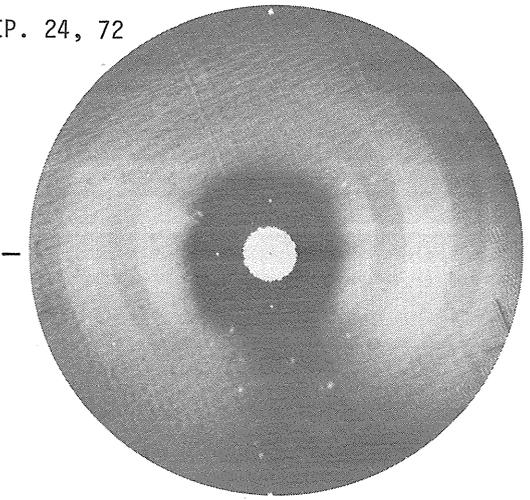
0832 UT

SEP. 26, 72



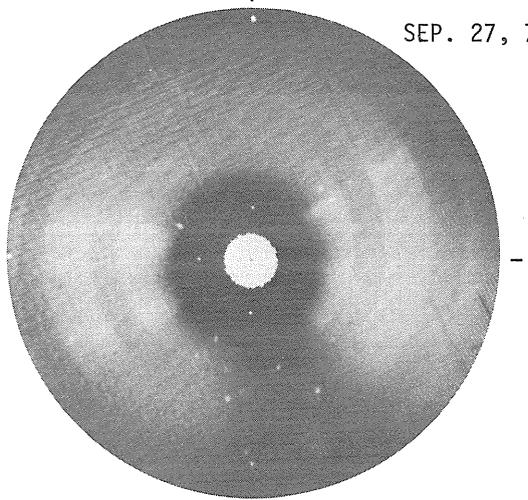
0737 UT

SEP. 24, 72



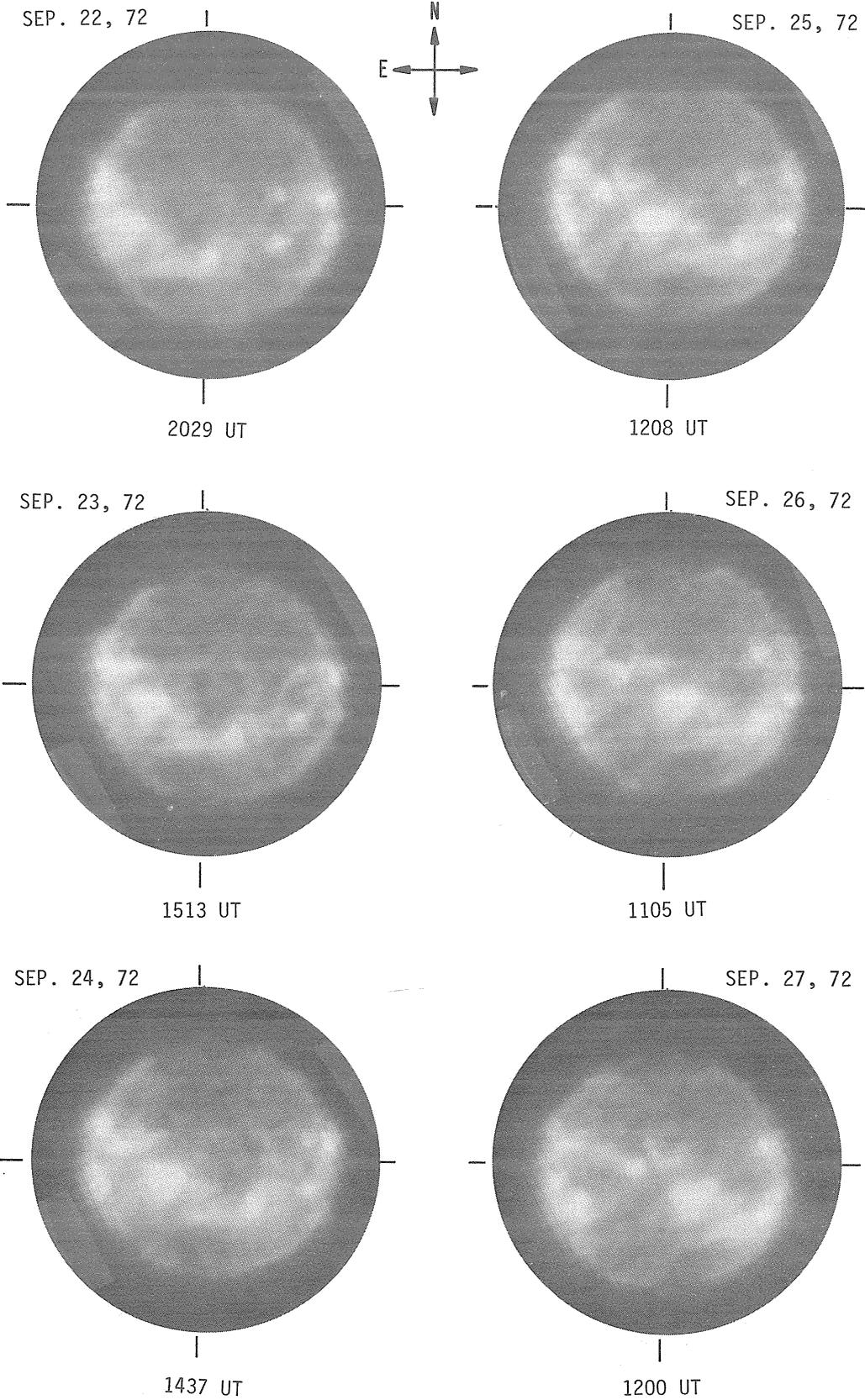
0916 UT

SEP. 27, 72



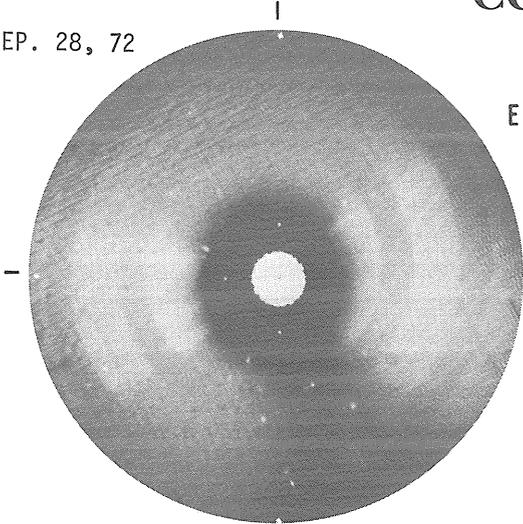
0820 UT

XUV
171-630Å



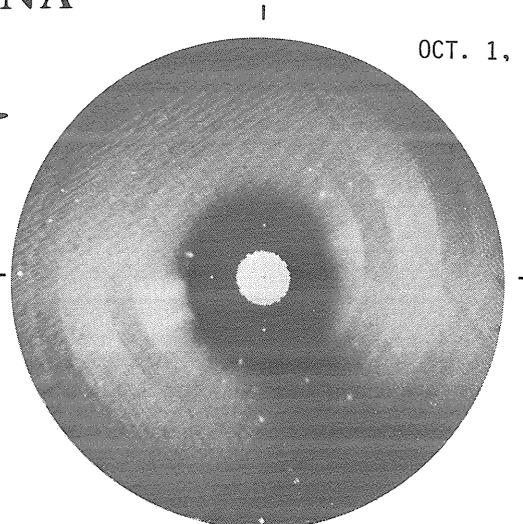
WHITE LIGHT CORONA

SEP. 28, 72

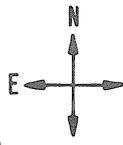


0903 UT

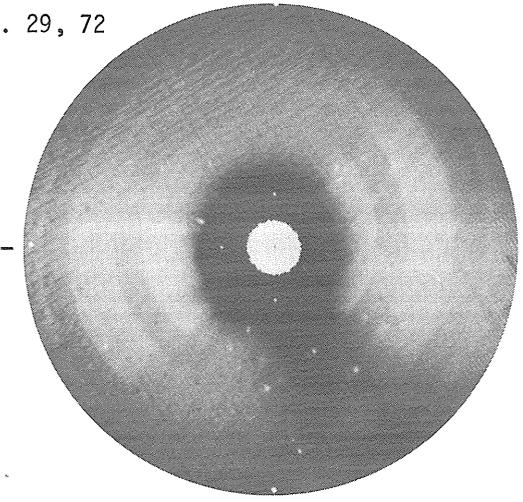
OCT. 1, 72



0501 UT

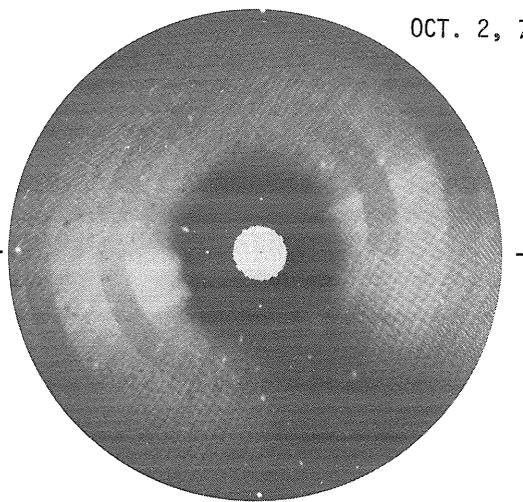


SEP. 29, 72



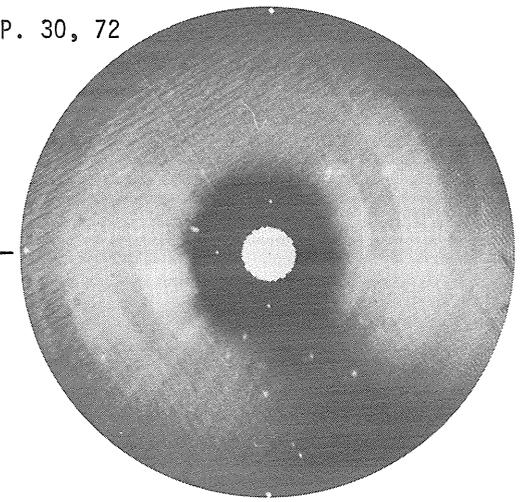
0814 UT

OCT. 2, 72



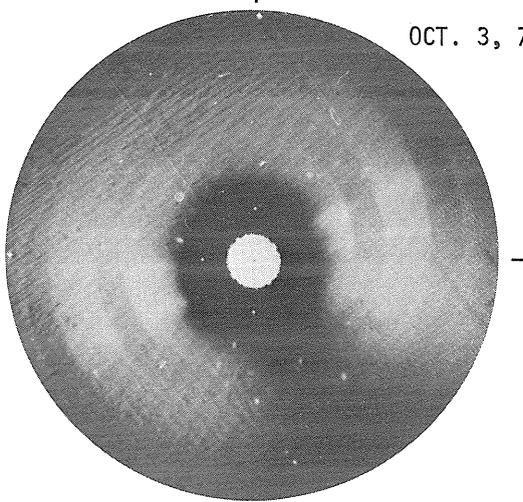
0105 UT

SEP. 30, 72



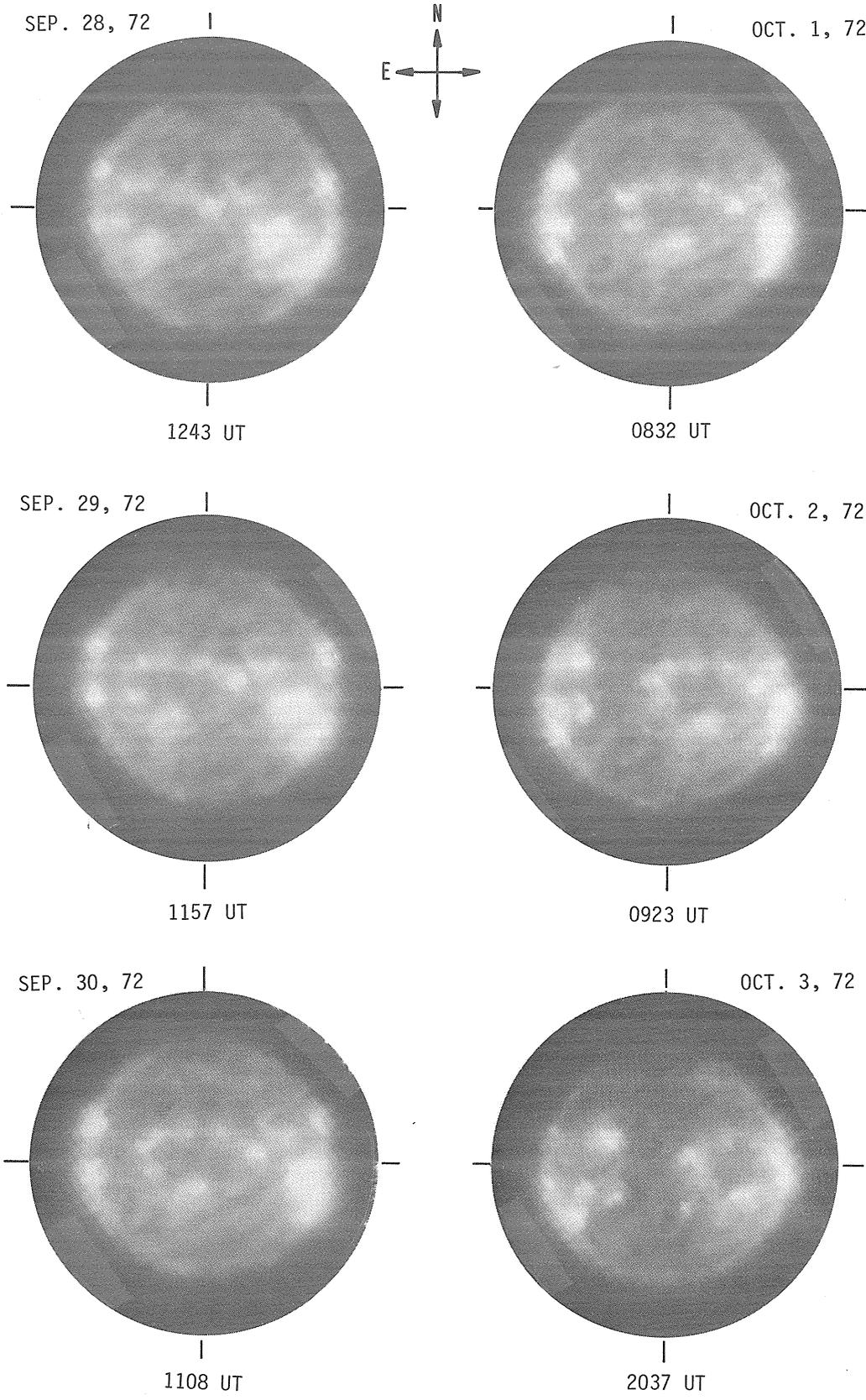
0551 UT

OCT. 3, 72



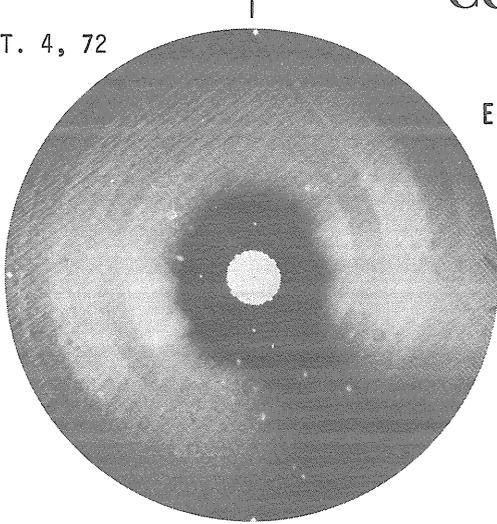
0320 UT

XUV
171-630Å



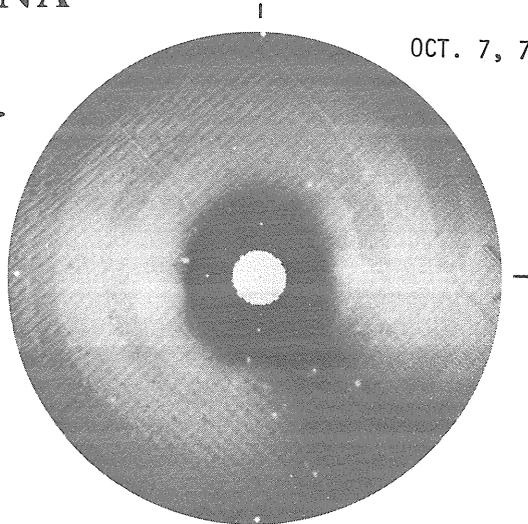
WHITE LIGHT CORONA

OCT. 4, 72

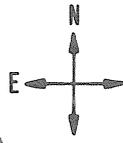


0708 UT

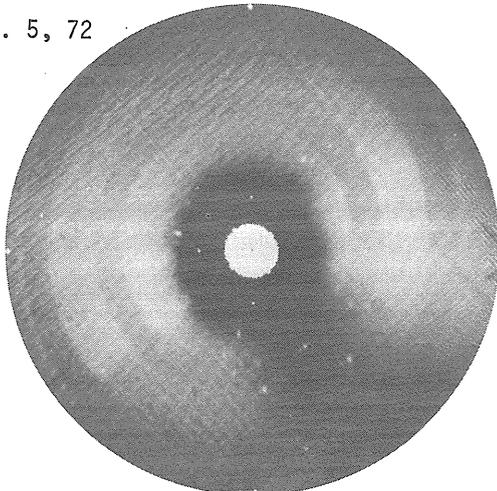
OCT. 7, 72



0741 UT

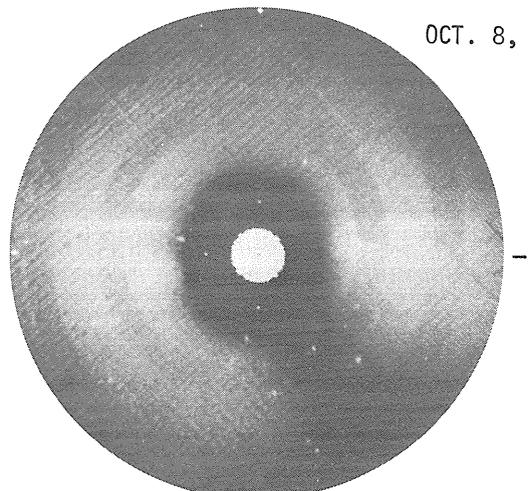


OCT. 5, 72



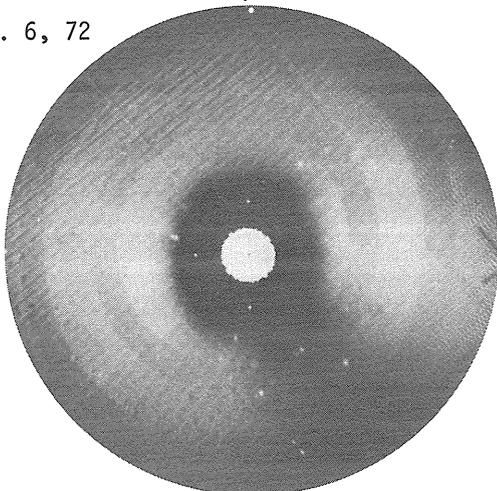
0445 UT

OCT. 8, 72



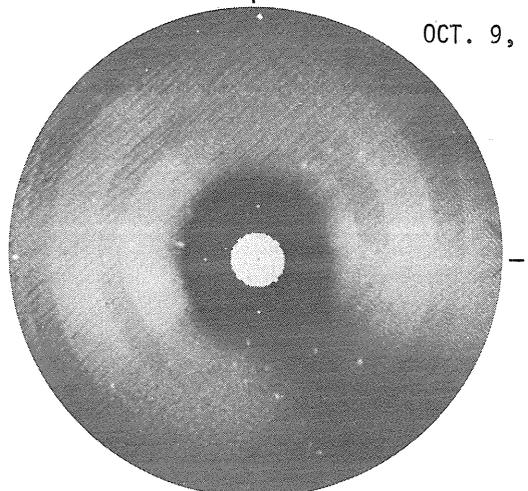
0346 UT

OCT. 6, 72



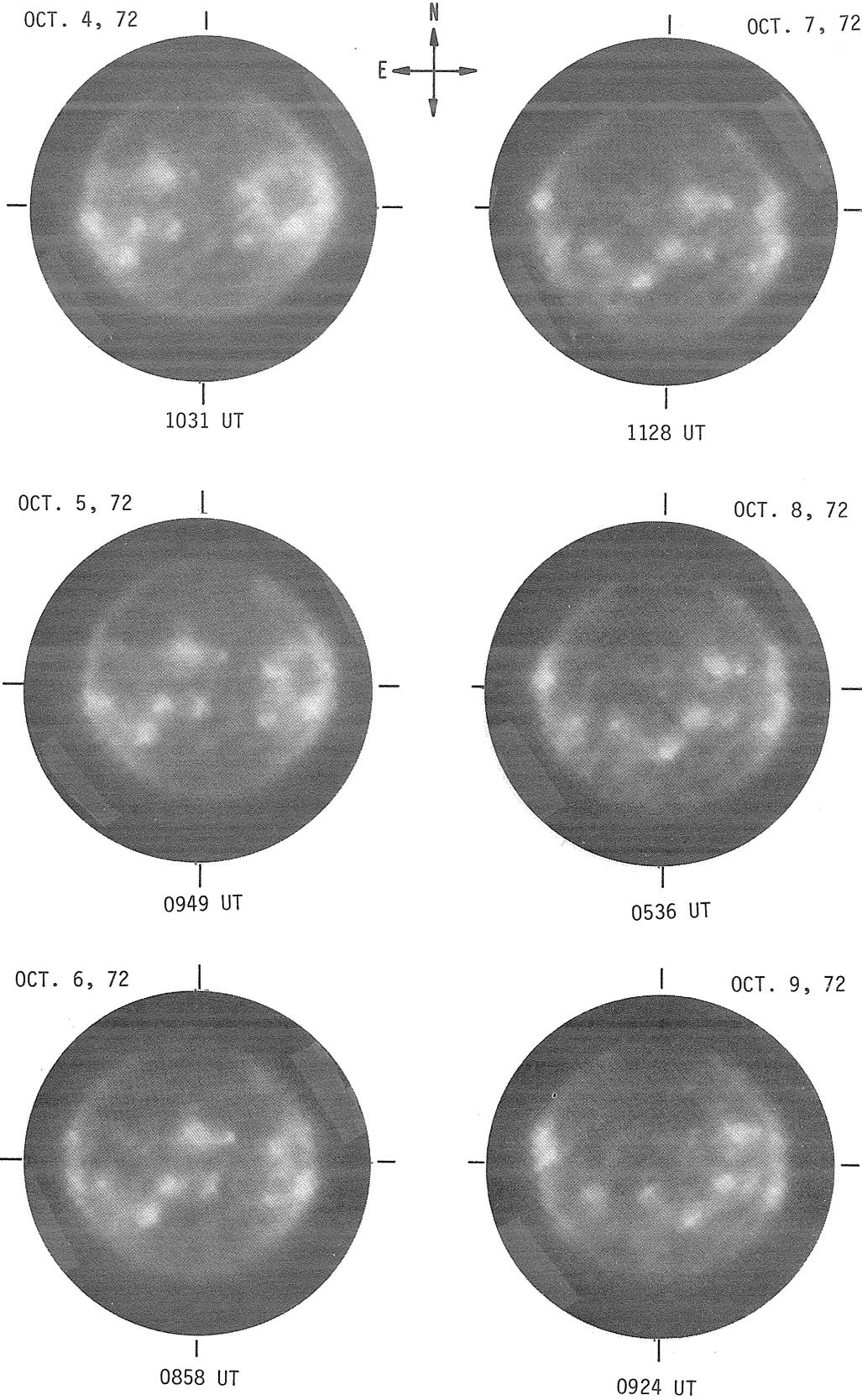
0334 UT

OCT. 9, 72



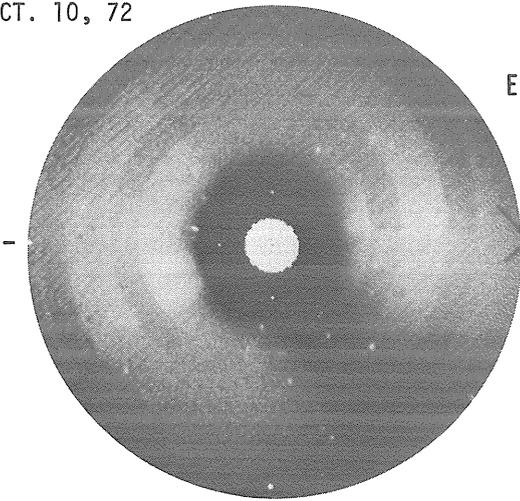
1954 UT

XUV
171-630Å



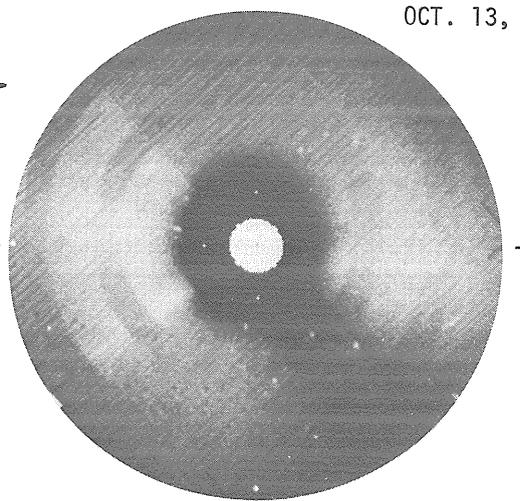
WHITE LIGHT CORONA

OCT. 10, 72

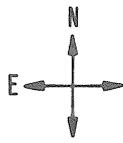


0510 UT

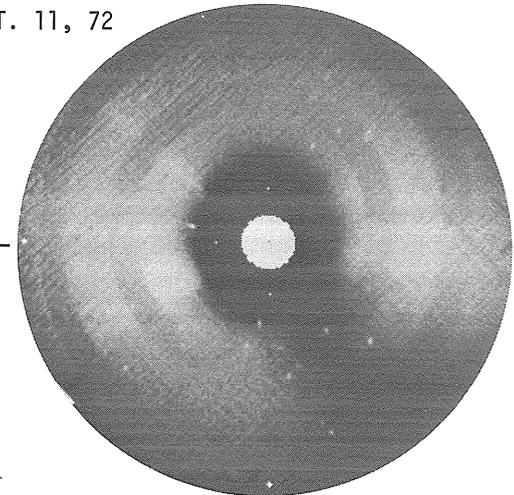
OCT. 13, 72



0106 UT

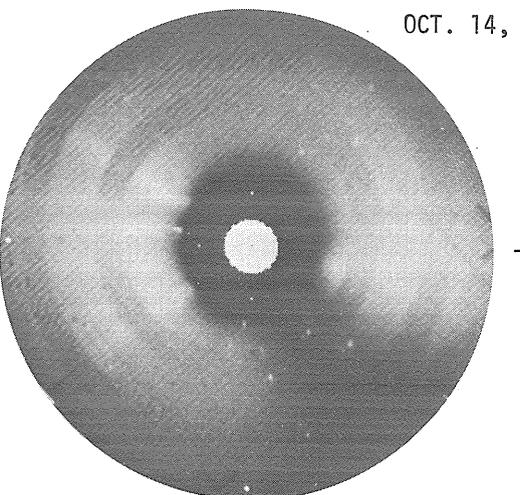


OCT. 11, 72



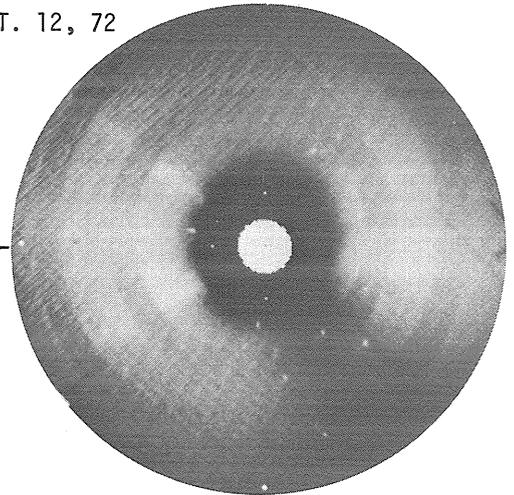
0419 UT

OCT. 14, 72



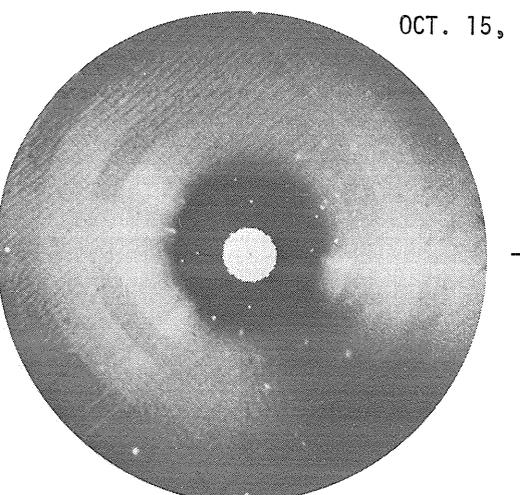
0015 UT

OCT. 12, 72



0156 UT

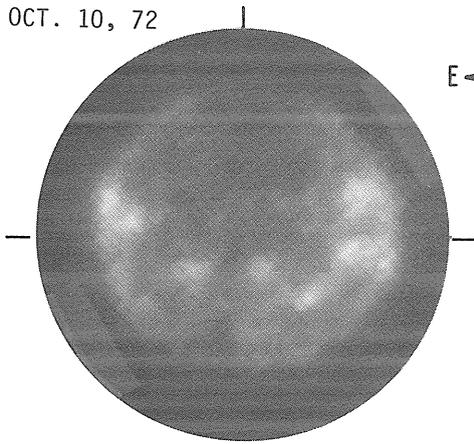
OCT. 15, 72



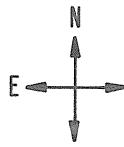
2102 UT

XUV
171-630Å

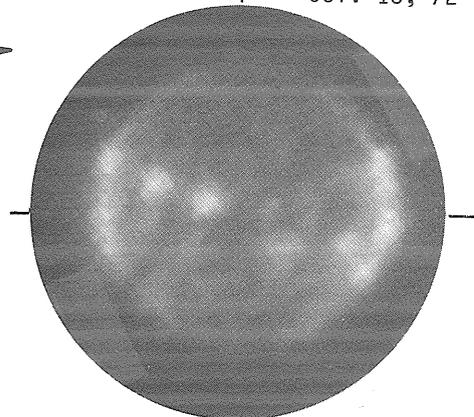
OCT. 10, 72



0717 UT

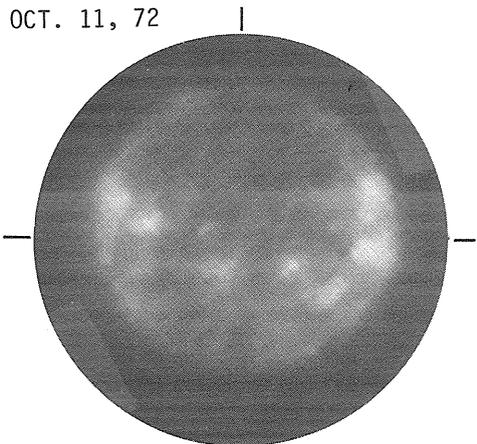


OCT. 13, 72



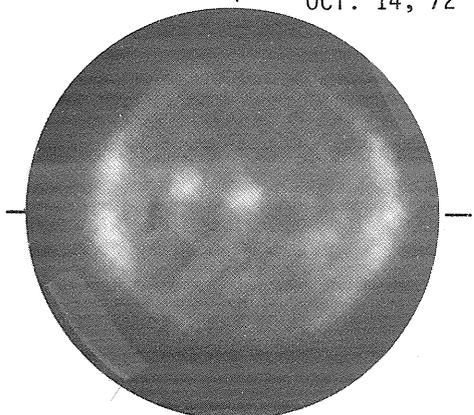
0445 UT

OCT. 11, 72



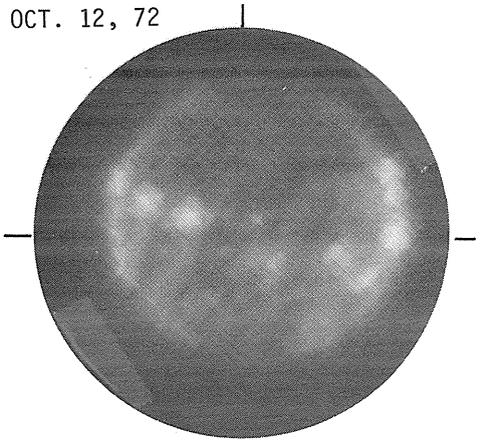
0610 UT

OCT. 14, 72



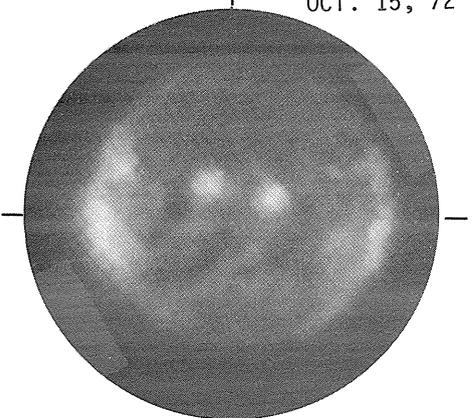
0702 UT

OCT. 12, 72



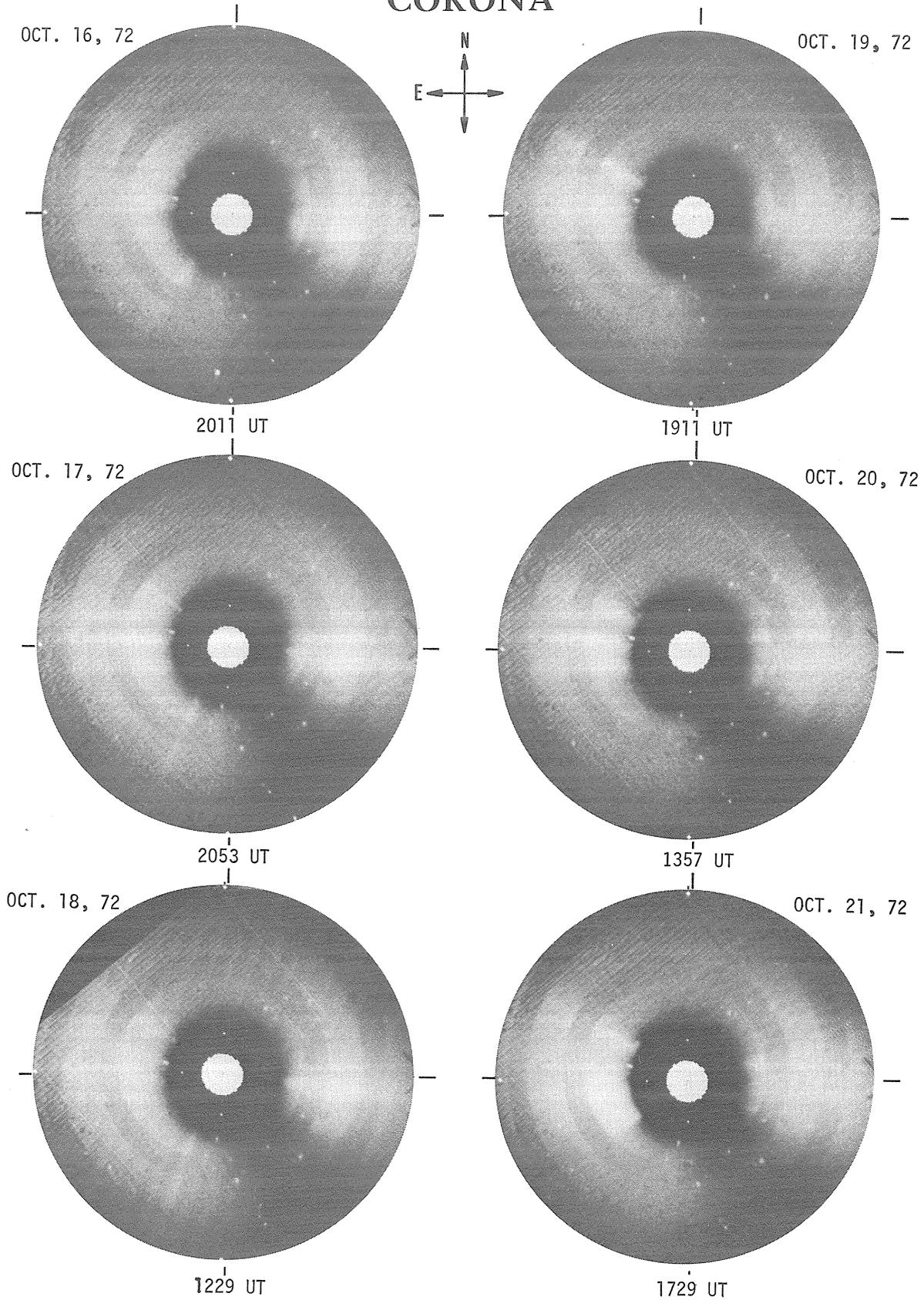
0700 UT

OCT. 15, 72

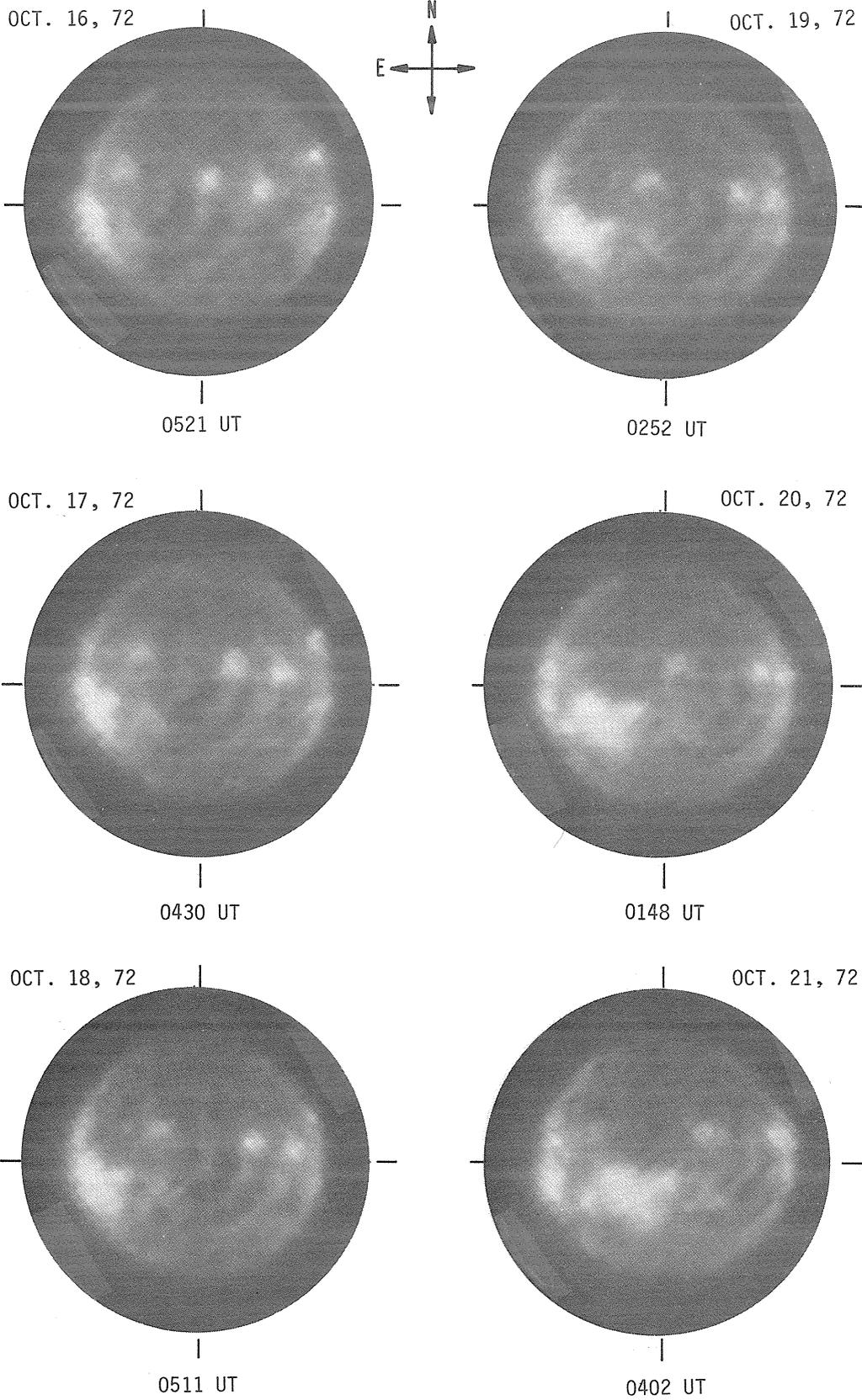


0609 UT

WHITE LIGHT CORONA

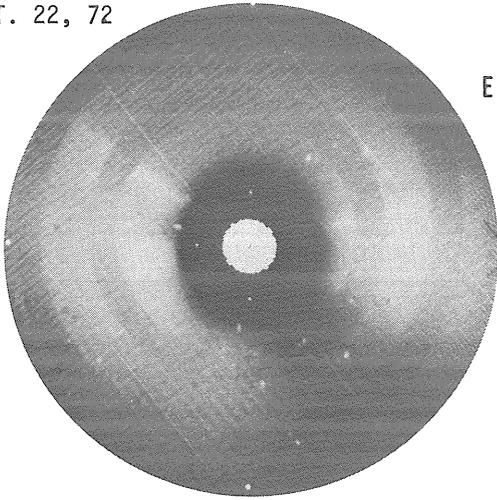


XUV
171-630Å



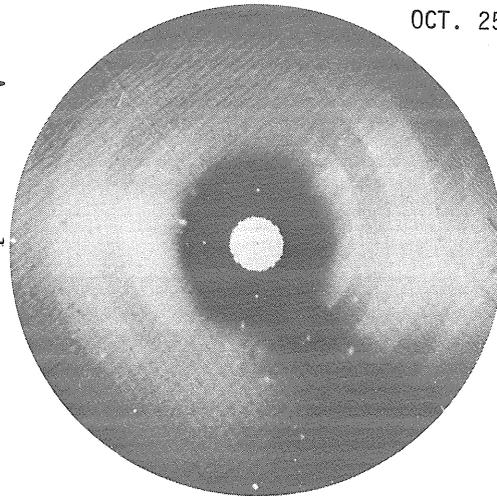
WHITE LIGHT CORONA

OCT. 22, 72

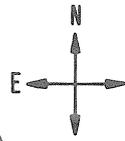


1030 UT

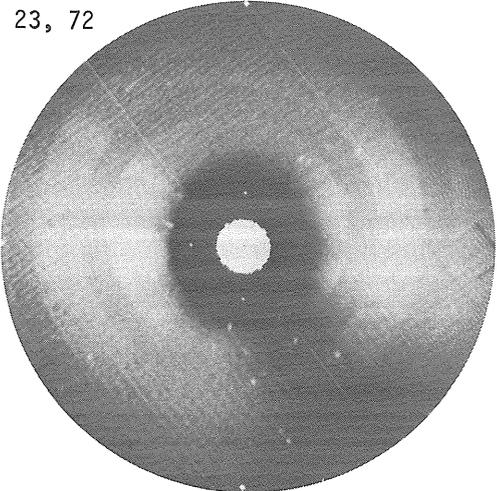
OCT. 25, 72



1536 UT



OCT. 23, 72



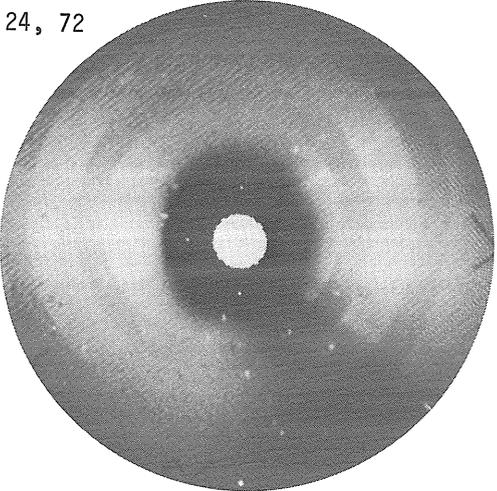
1115 UT

OCT. 26, 72



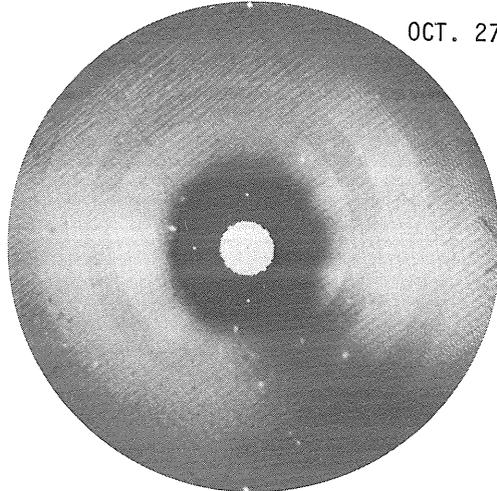
0834 UT

OCT. 24, 72



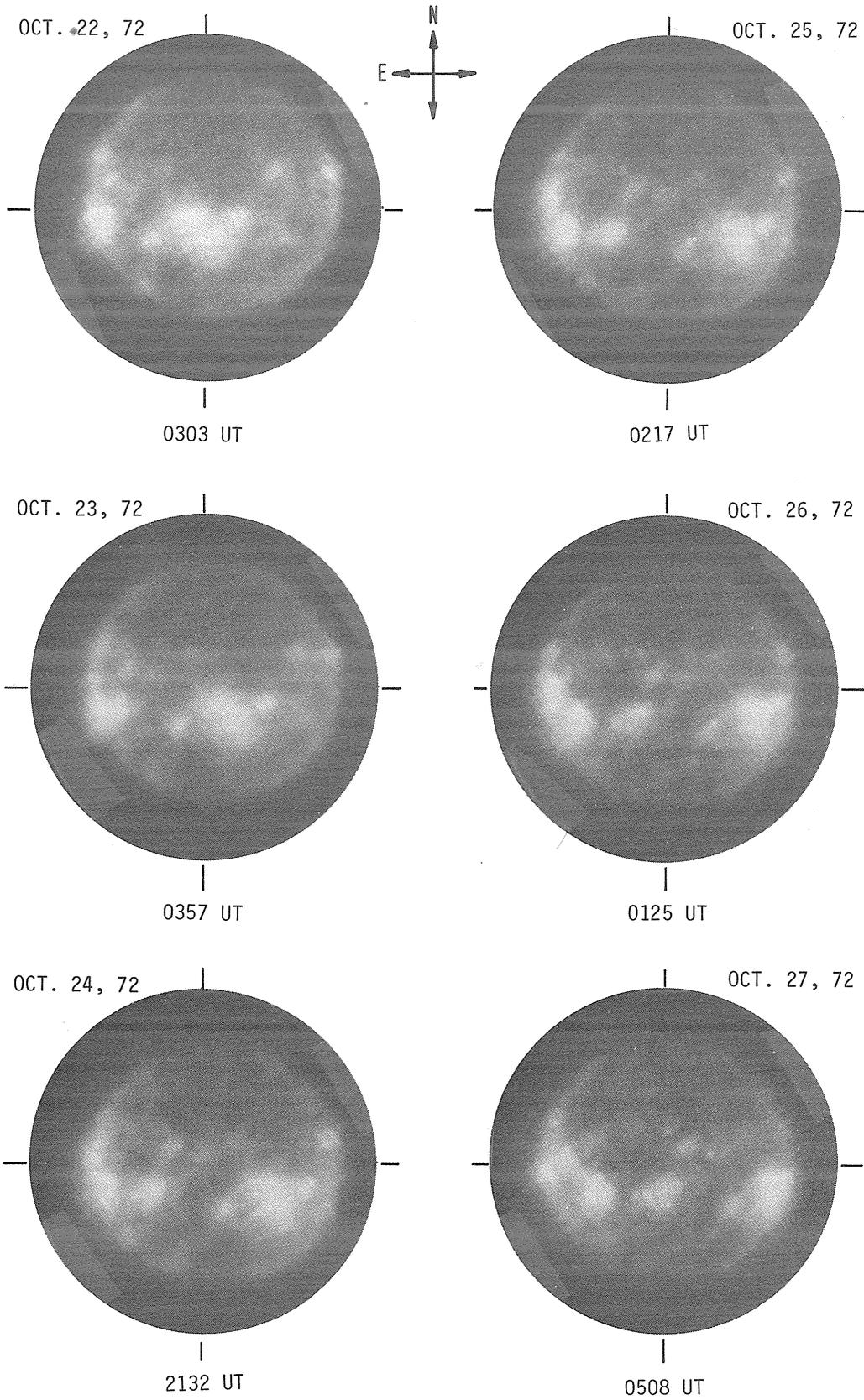
1019 UT

OCT. 27, 72



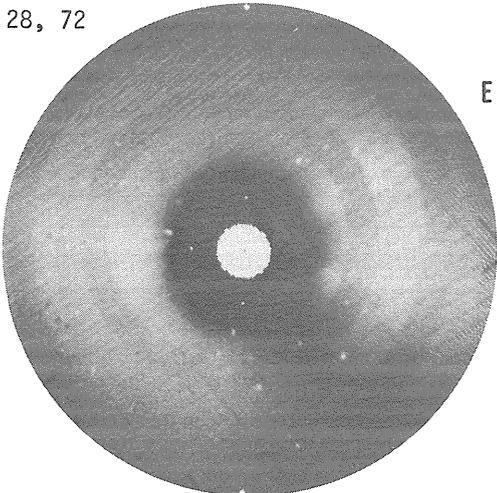
0914 UT

XUV
171-630Å



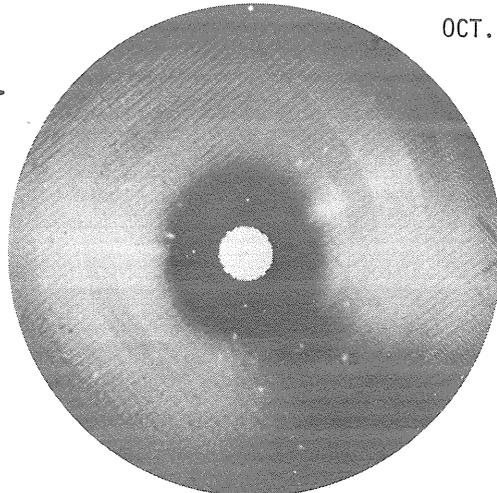
WHITE LIGHT CORONA

OCT. 28, 72

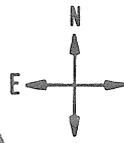


0822 UT

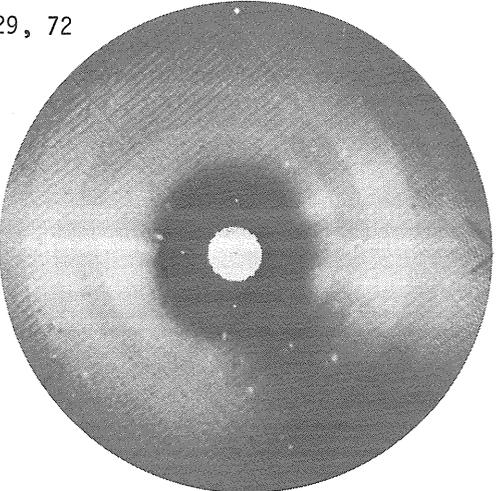
OCT. 31, 72



0718 UT



OCT. 29, 72



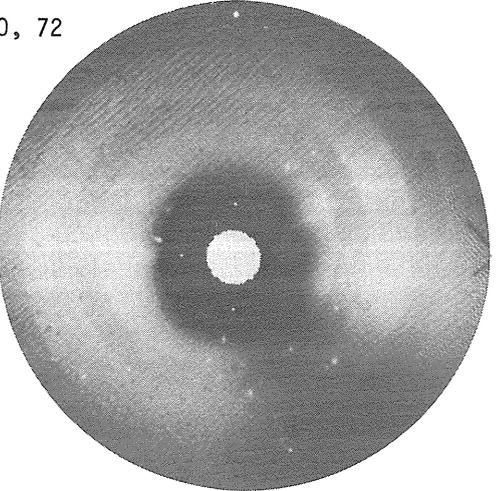
0903 UT

NOV. 1, 72



0759 UT

OCT. 30, 72



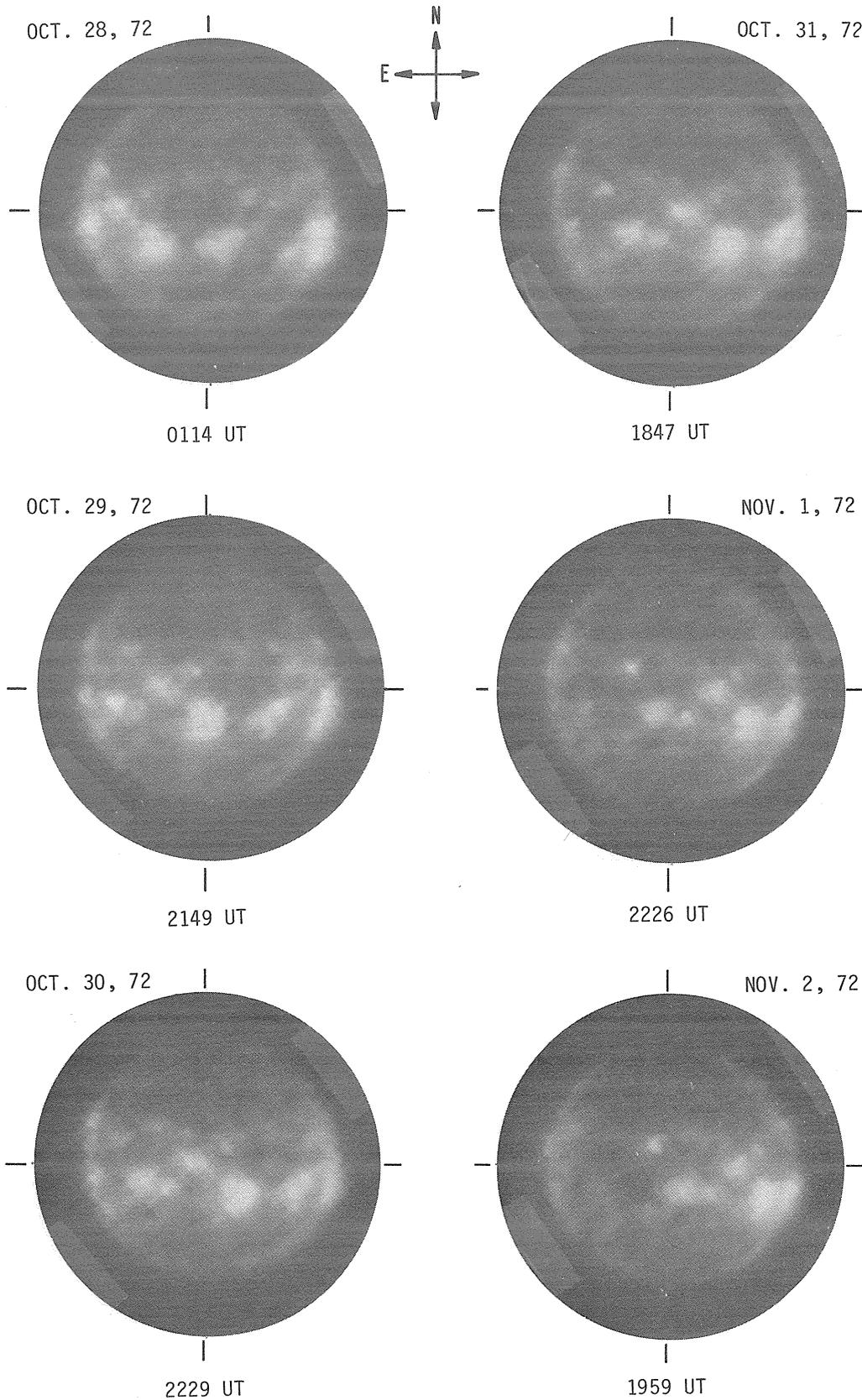
0638 UT

NOV. 2, 72



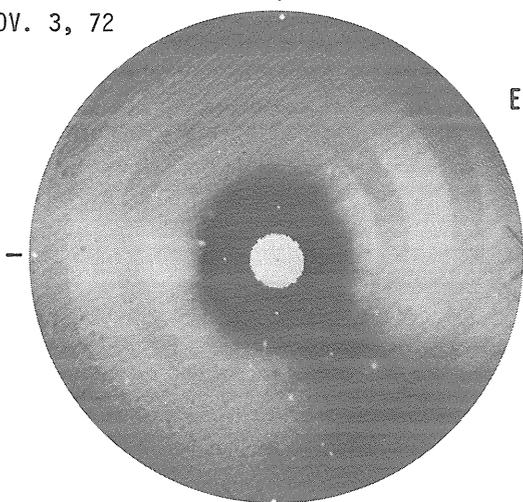
0706 UT

XUV
171-630Å



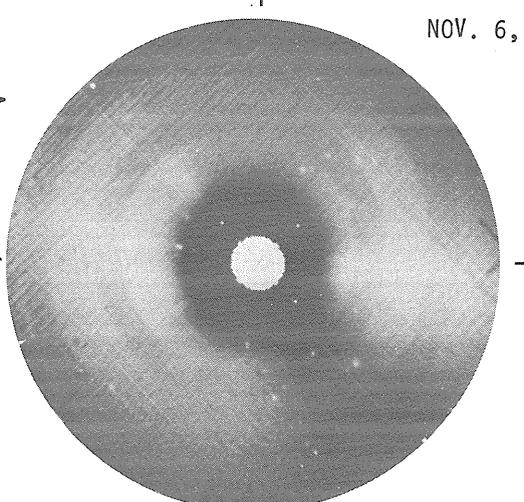
WHITE LIGHT CORONA

NOV. 3, 72

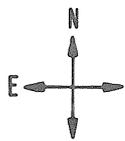


0746 UT

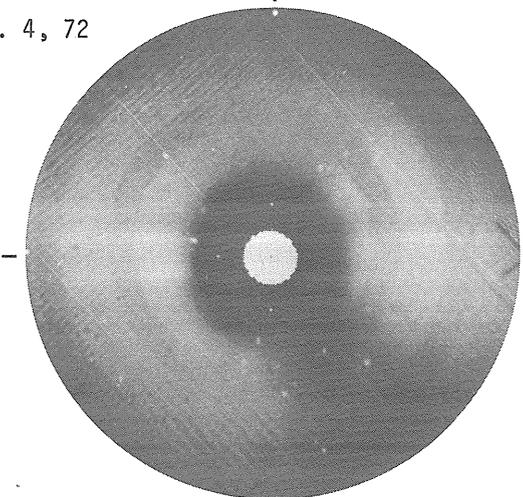
NOV. 6, 72



0953 UT

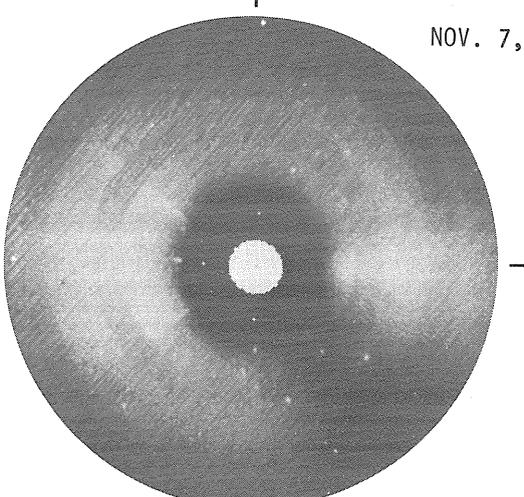


NOV. 4, 72



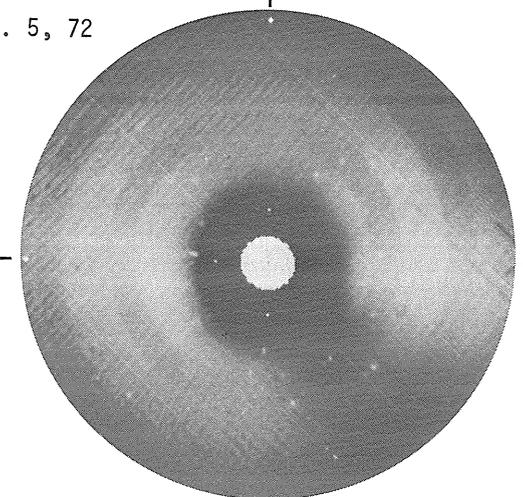
1002 UT

NOV. 7, 72



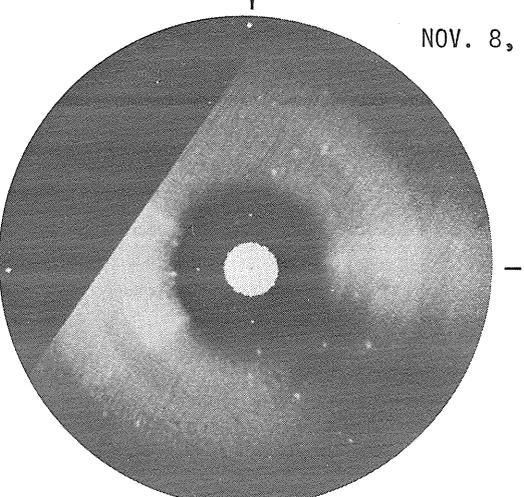
0318 UT

NOV. 5, 72



1047 UT

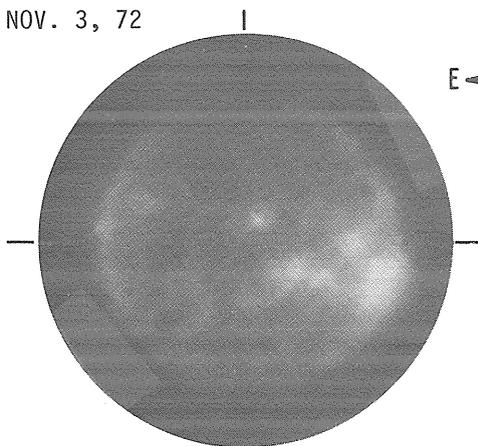
NOV. 8, 72



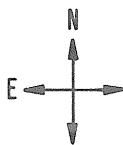
0836 UT

XUV
171-630Å

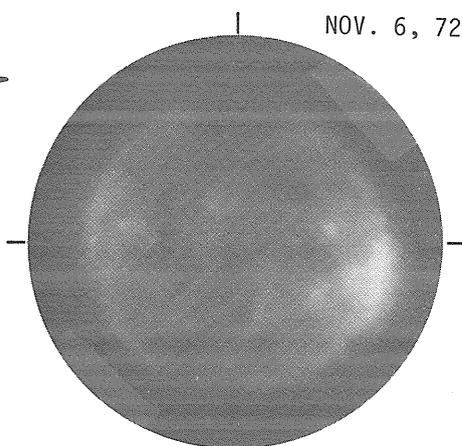
NOV. 3, 72



1737 UT

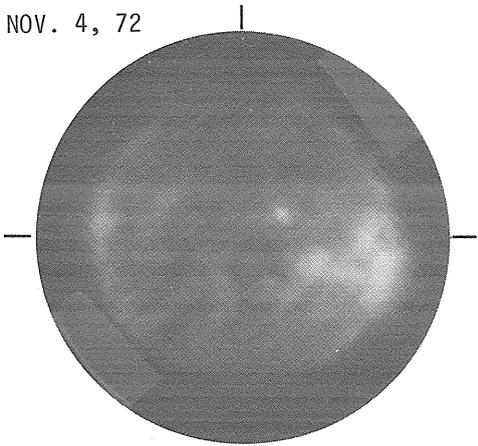


NOV. 6, 72



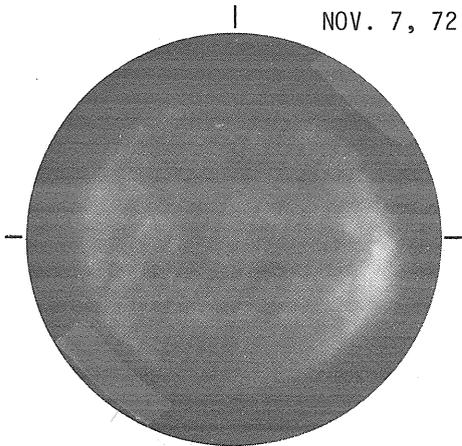
1453 UT

NOV. 4, 72



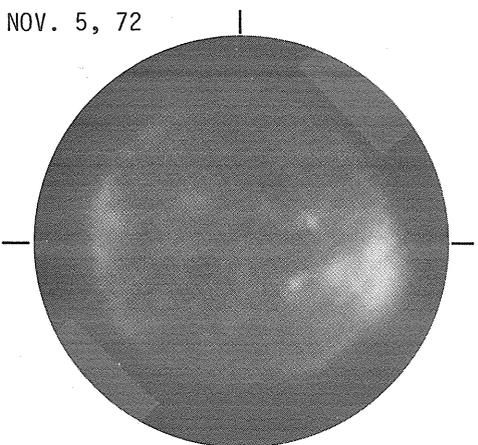
1520 UT

NOV. 7, 72



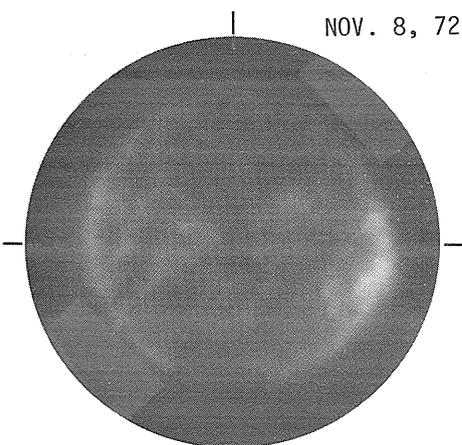
1354 UT

NOV. 5, 72



1427 UT

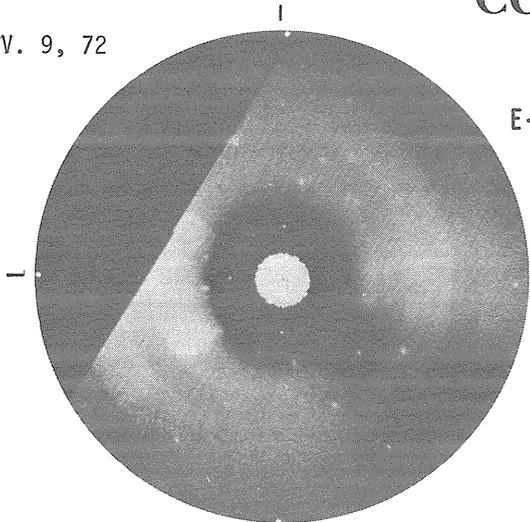
NOV. 8, 72



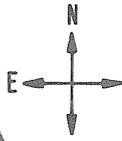
1748 UT

WHITE LIGHT CORONA

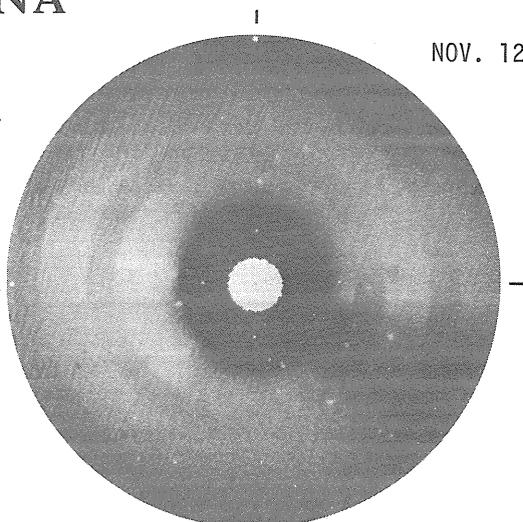
NOV. 9, 72



0918 UT

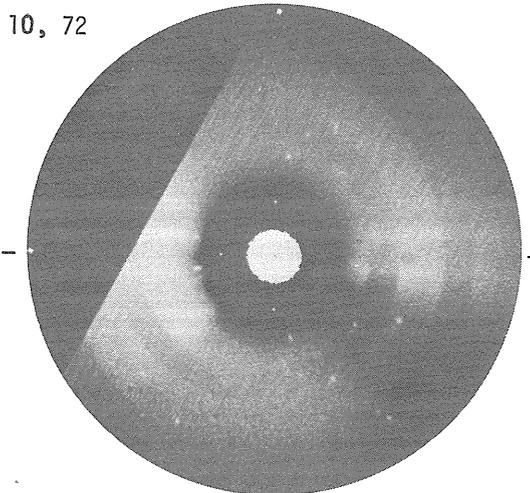


NOV. 12, 72



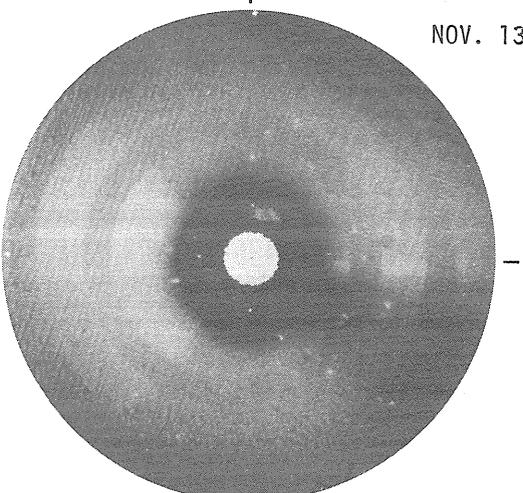
0746 UT

NOV. 10, 72



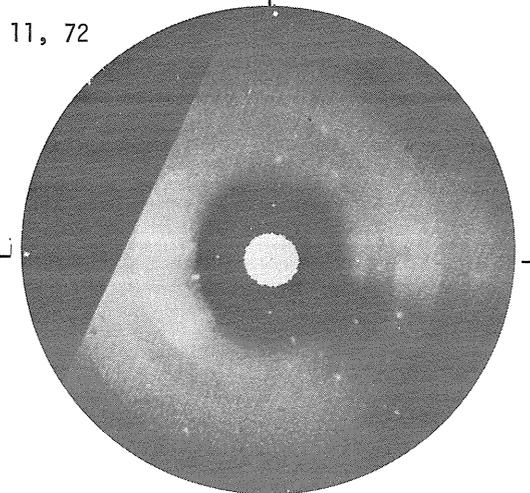
0826 UT

NOV. 13, 72



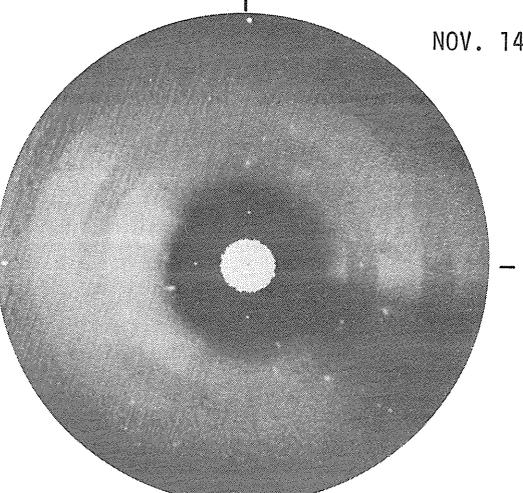
0827 UT

NOV. 11, 72



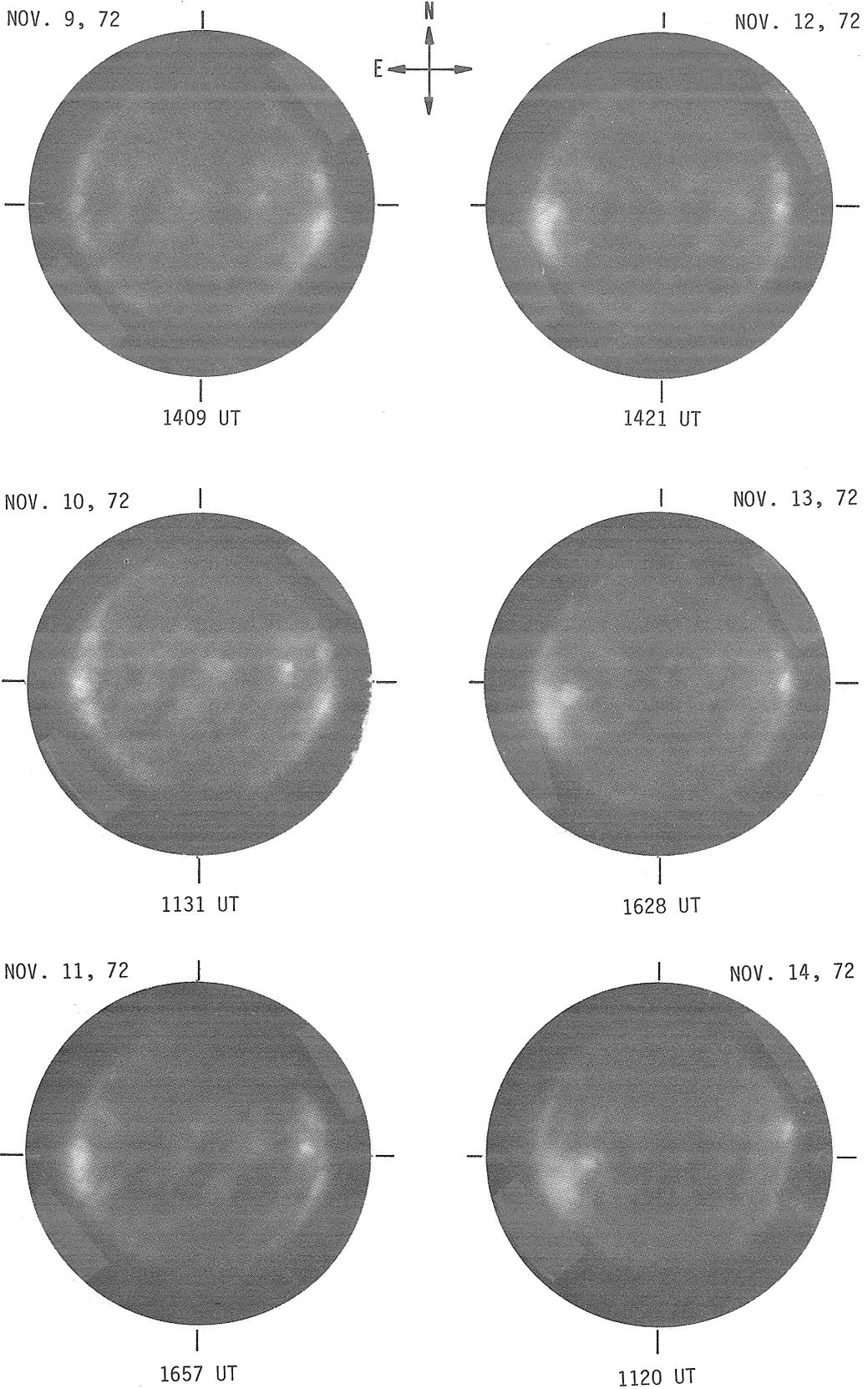
0906 UT

NOV. 14, 72



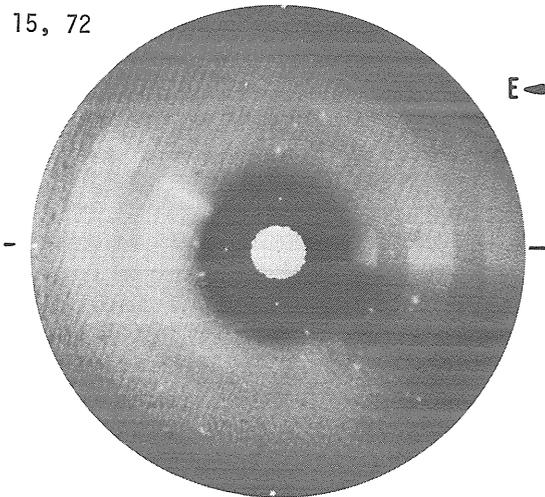
0602 UT

XUV
171-630Å



WHITE LIGHT CORONA

NOV. 15, 72



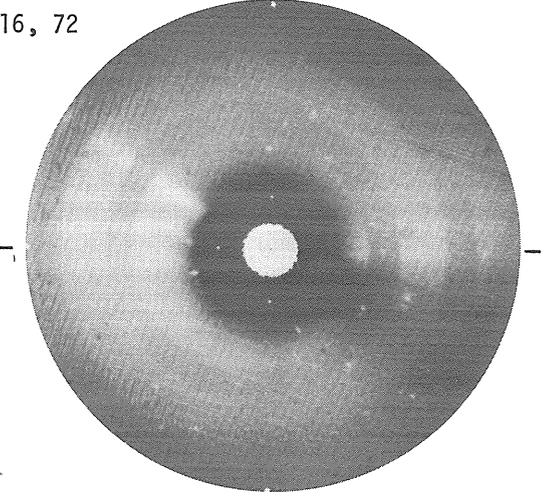
0815 UT

NOV. 18, 72



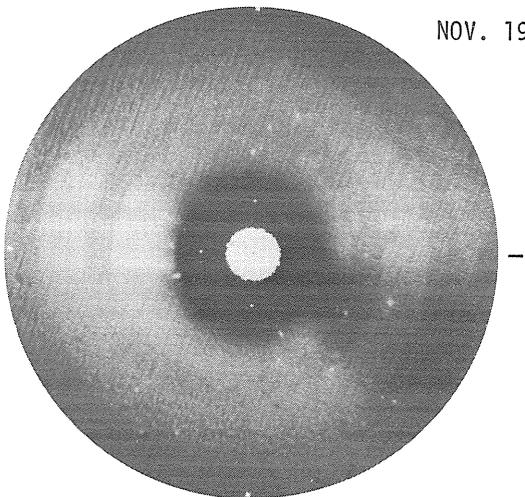
0405 UT

NOV. 16, 72



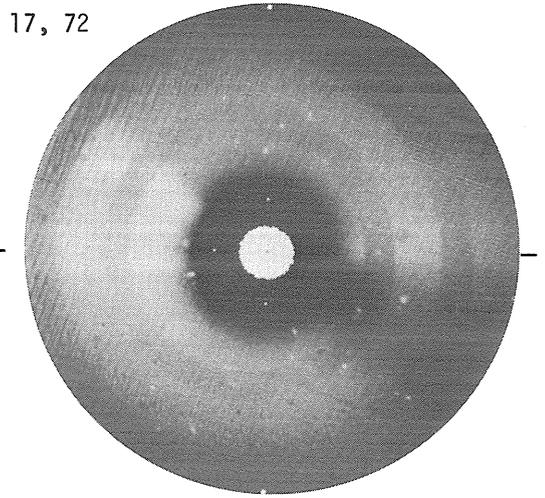
0550 UT

NOV. 19, 72



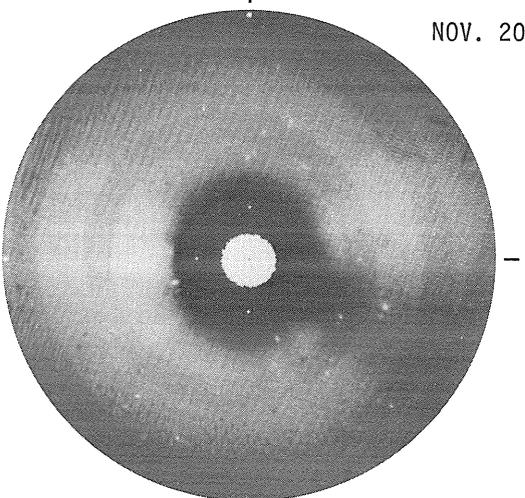
0444 UT

NOV. 17, 72

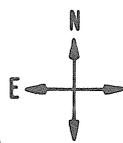


0802 UT

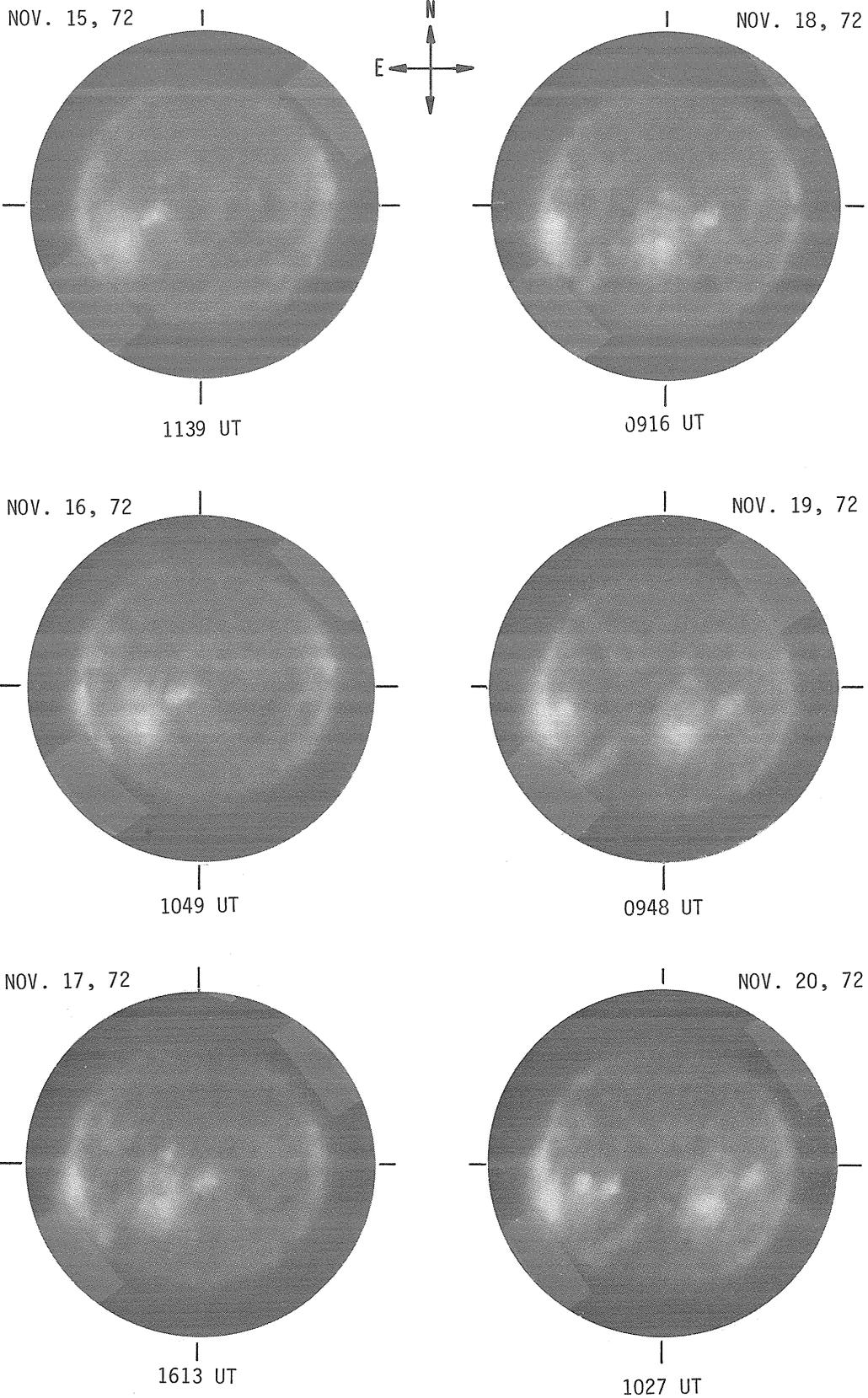
NOV. 20, 72



0219 UT

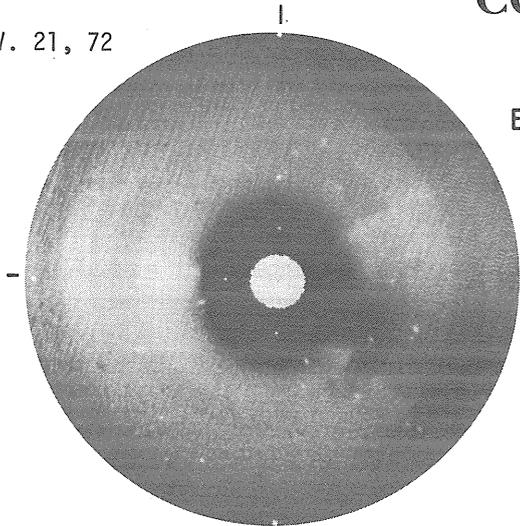


XUV
171-630Å



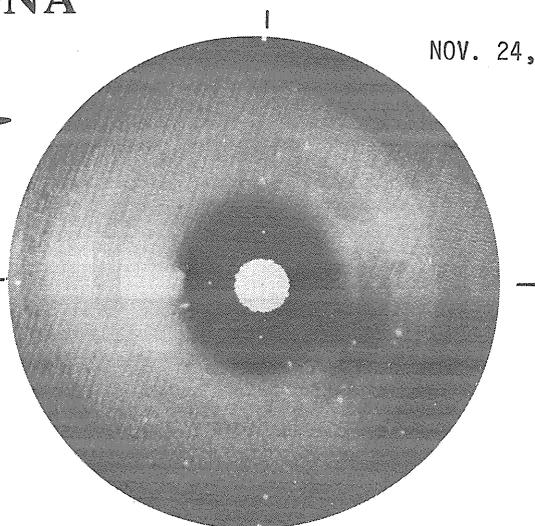
WHITE LIGHT CORONA

NOV. 21, 72



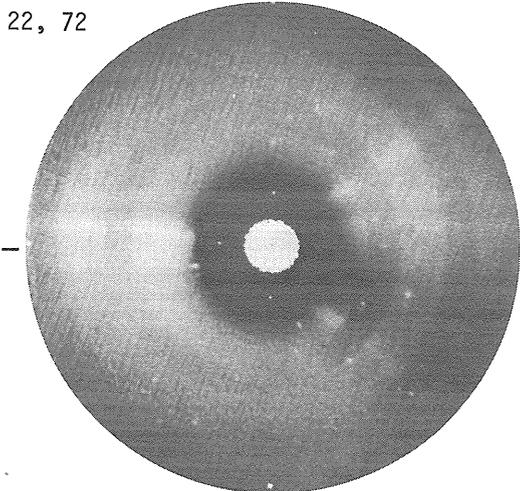
1823 UT

NOV. 24, 72



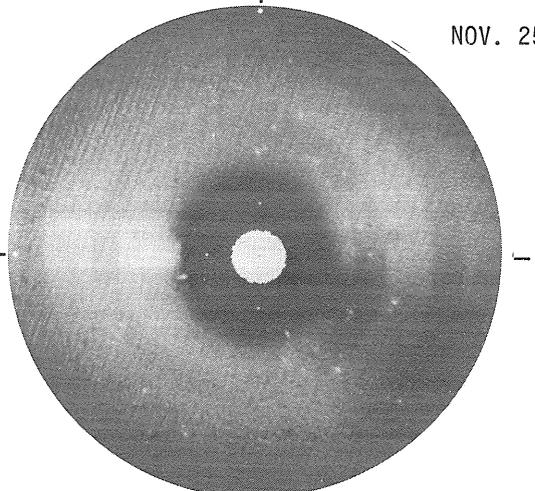
1848 UT

NOV. 22, 72



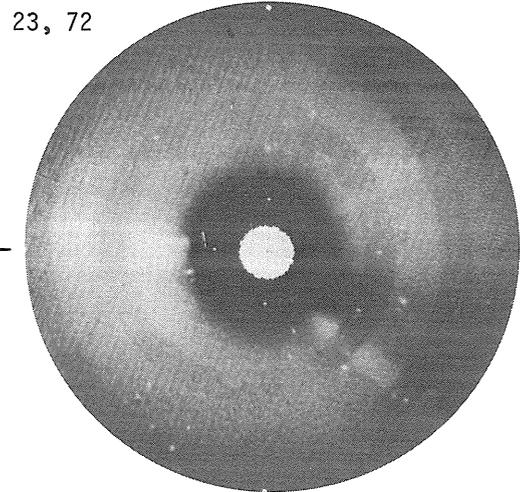
2034 UT

NOV. 25, 72



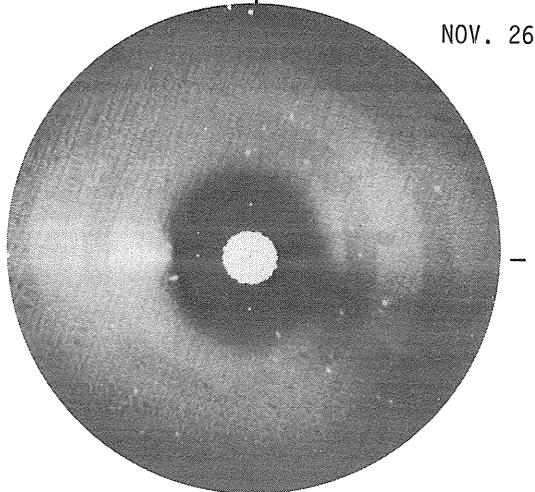
1927 UT

NOV. 23, 72

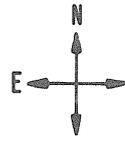


1940 UT

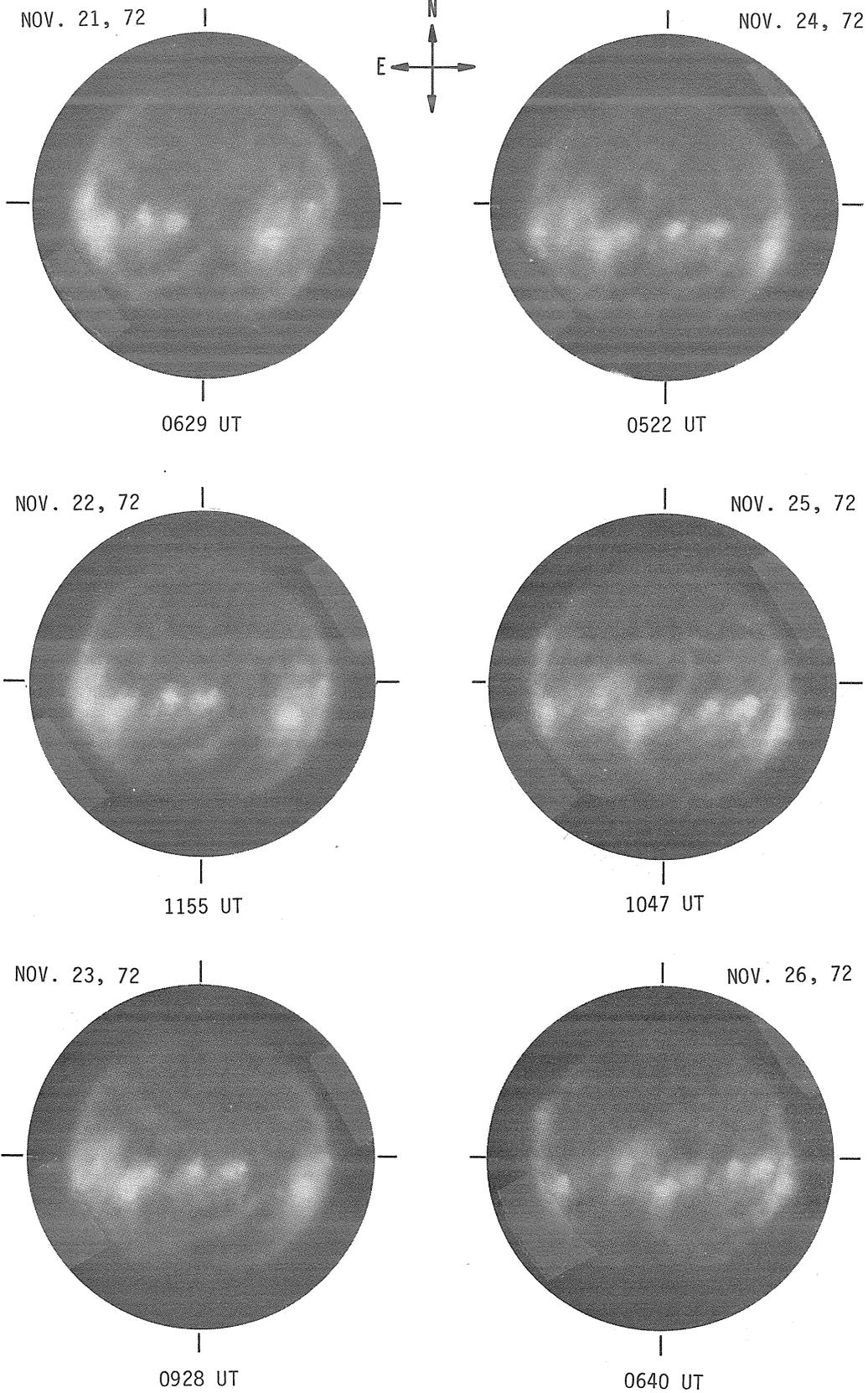
NOV. 26, 72



1834 UT

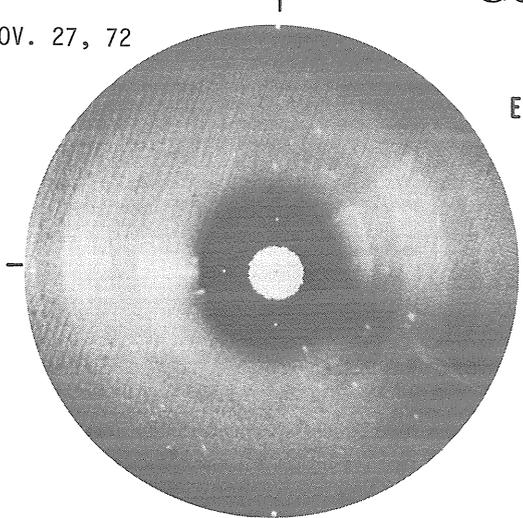


XUV
171-630Å



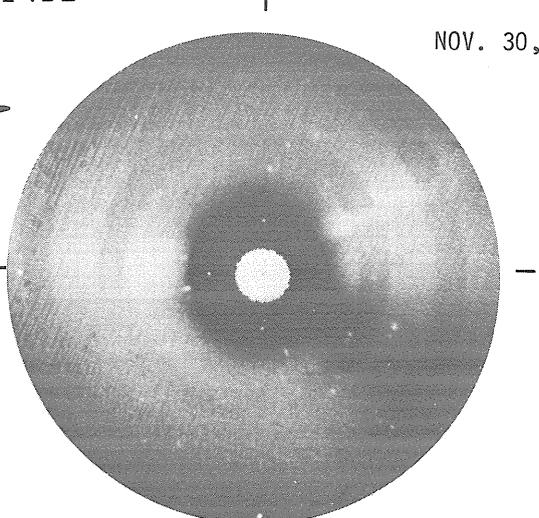
WHITE LIGHT CORONA

NOV. 27, 72

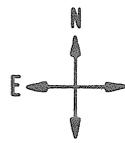


1913 UT

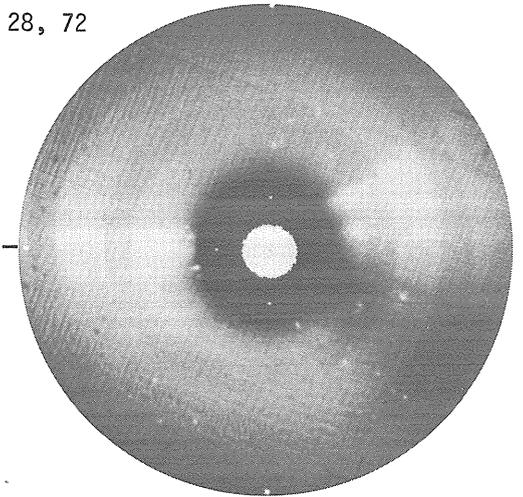
NOV. 30, 72



1804 UT

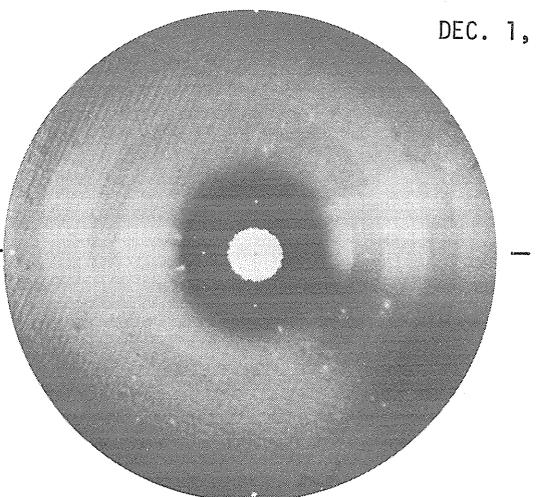


NOV. 28, 72



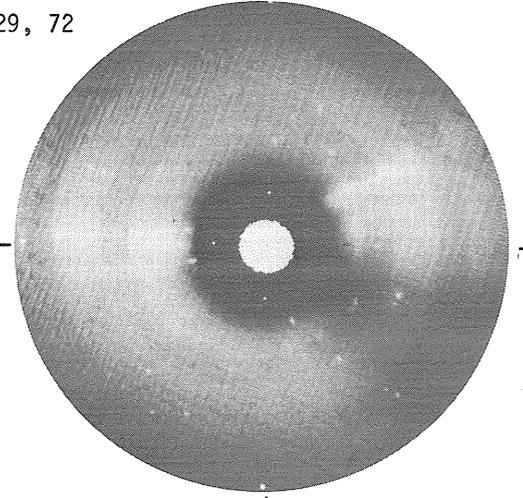
2257 UT

DEC. 1, 72



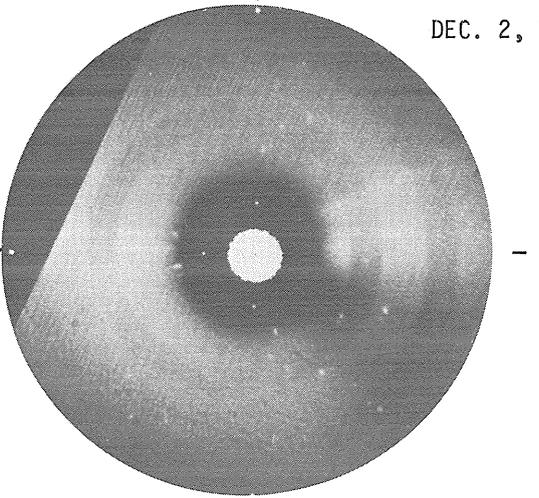
2149 UT

NOV. 29, 72



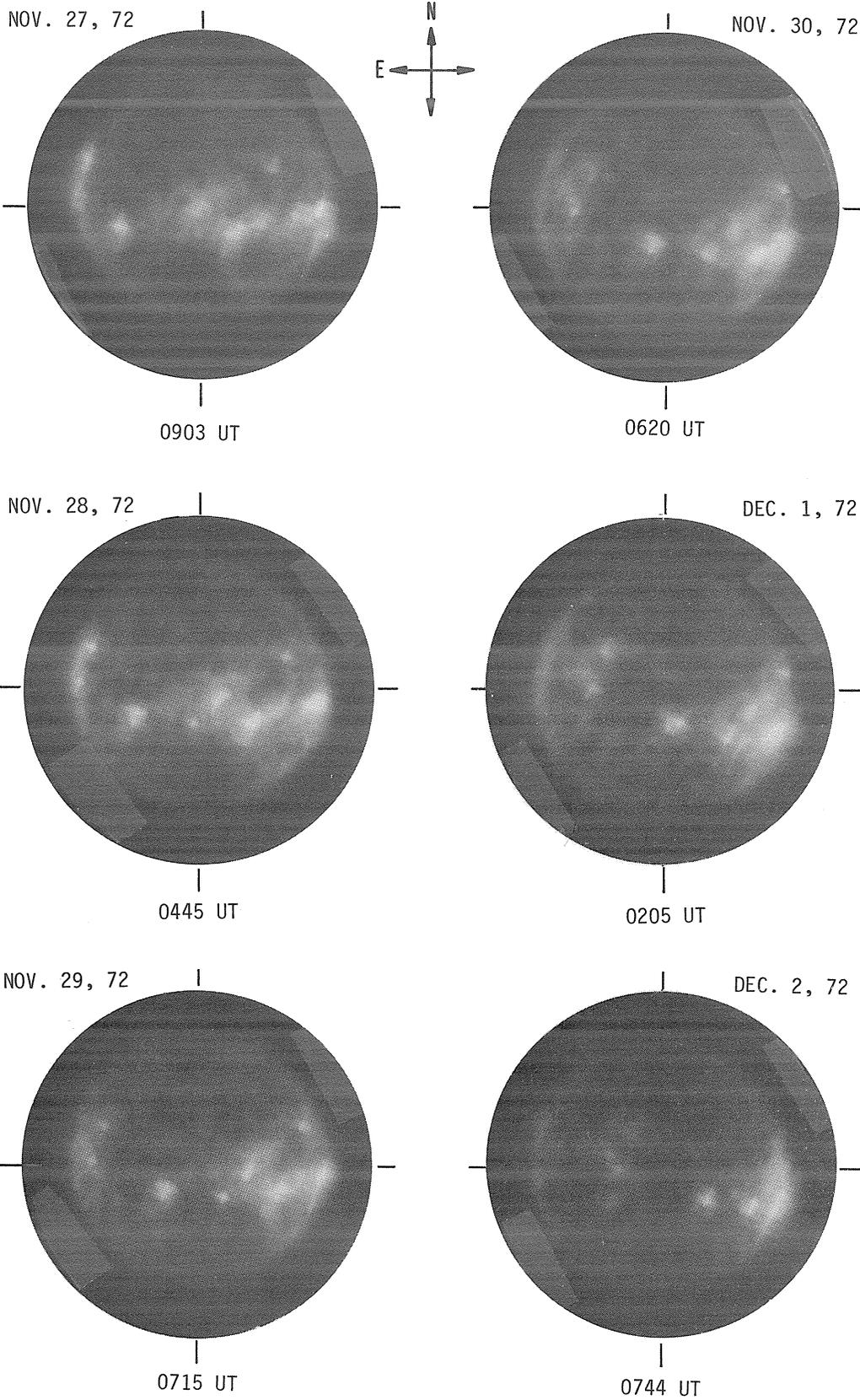
2203 UT

DEC. 2, 72



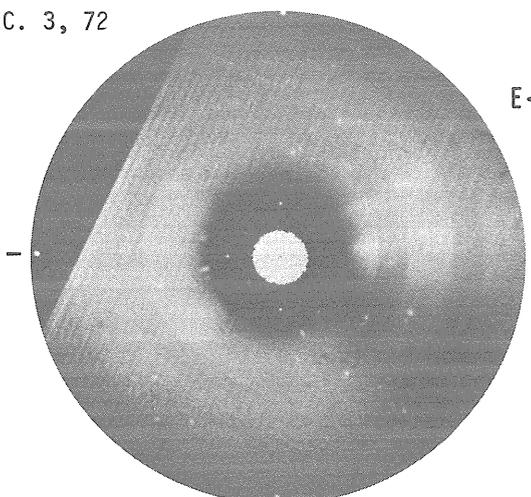
1750 UT

XUV
171-630Å



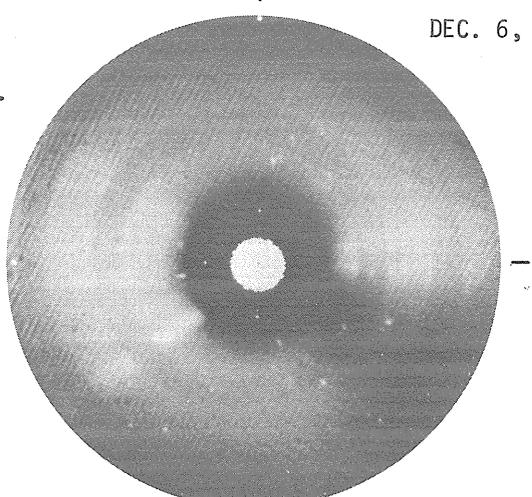
WHITE LIGHT CORONA

DEC. 3, 72

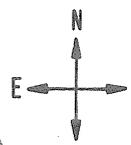


2002 UT

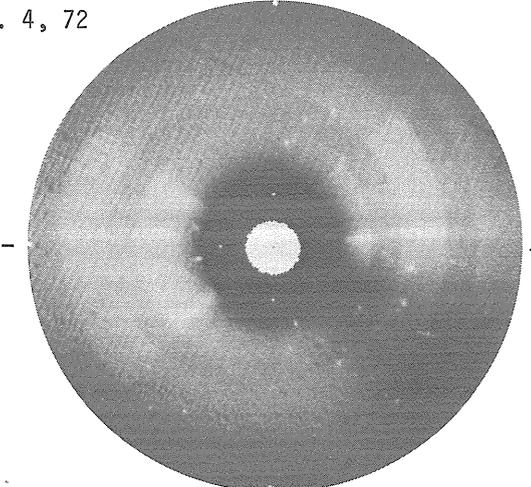
DEC. 6, 72



1853 UT

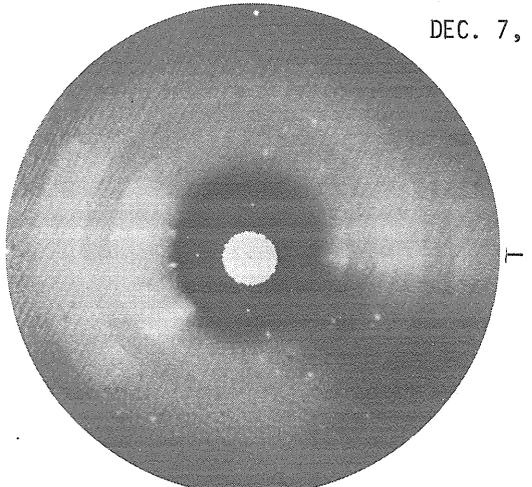


DEC. 4, 72



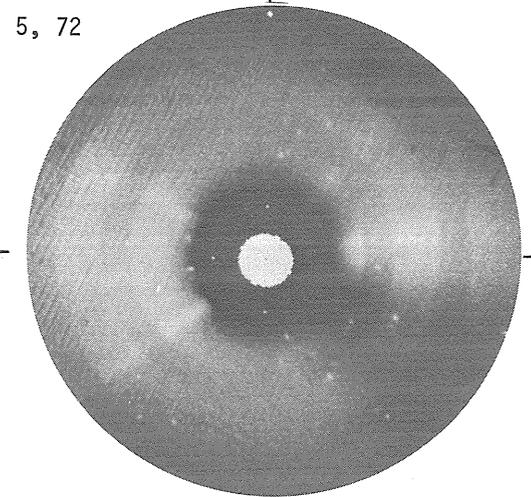
2040 UT

DEC. 7, 72



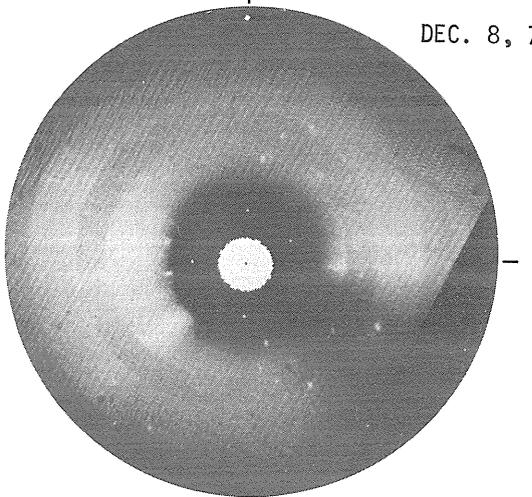
1931 UT

DEC. 5, 72



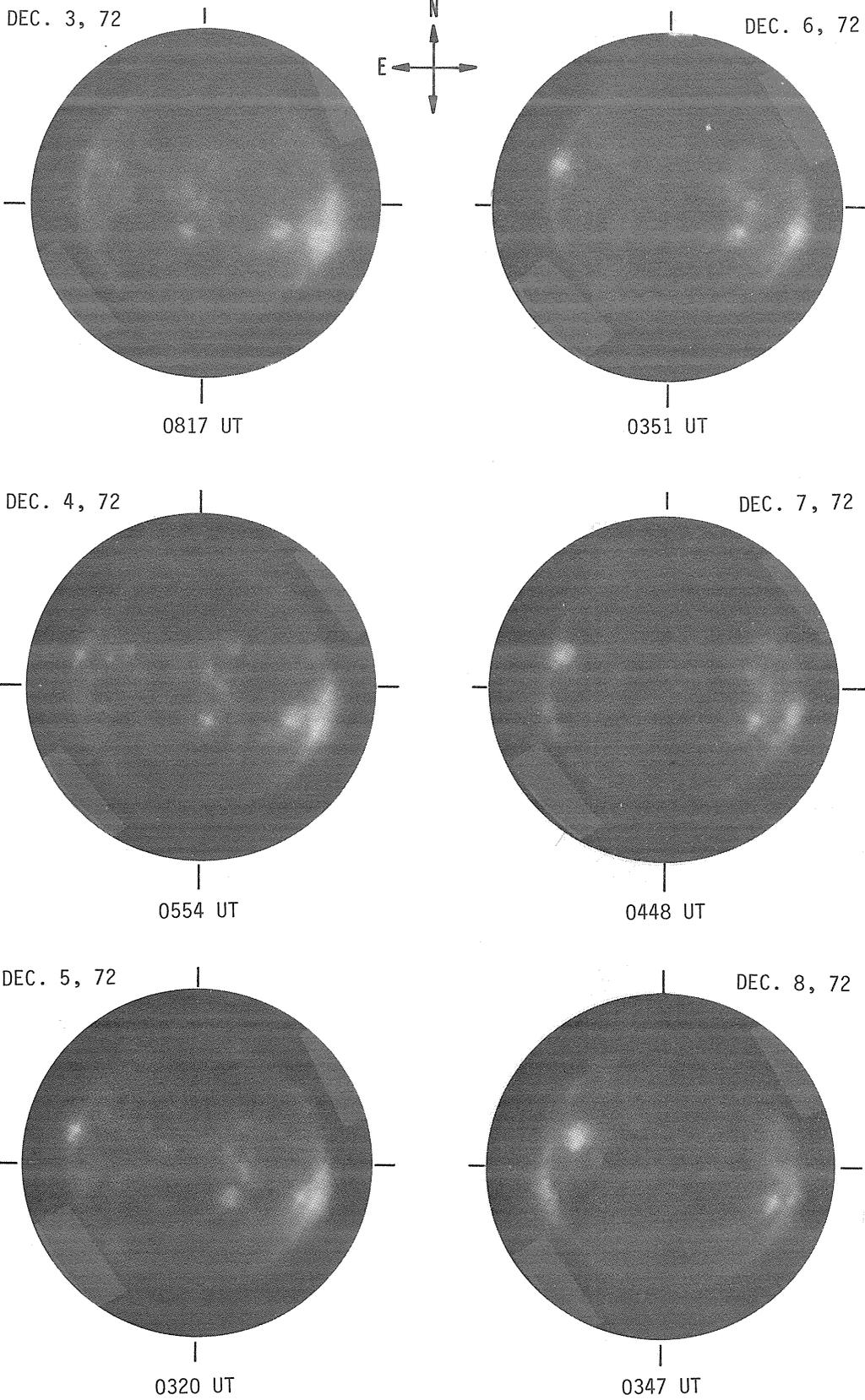
1946 UT

DEC. 8, 72



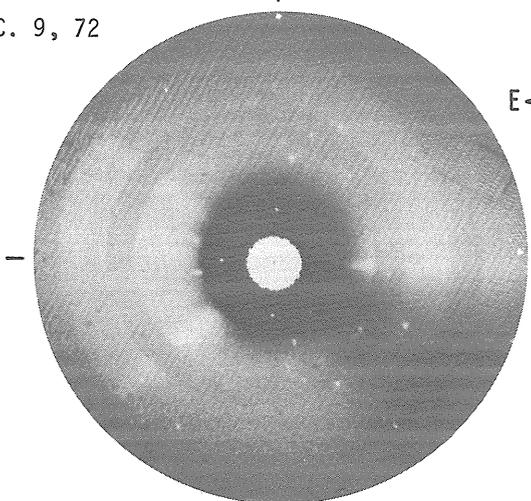
1100 UT

XUV
171-630Å



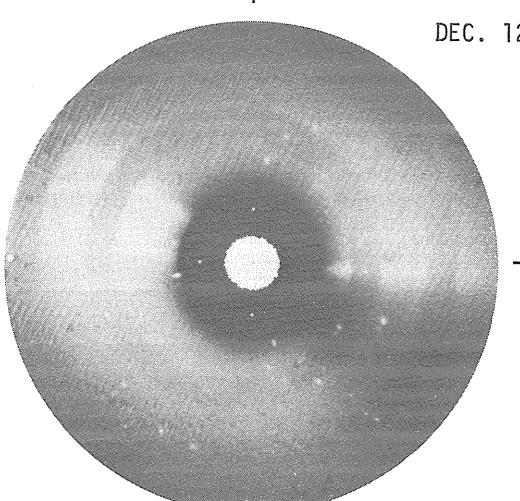
WHITE LIGHT CORONA

DEC. 9, 72

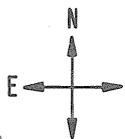


1001 UT

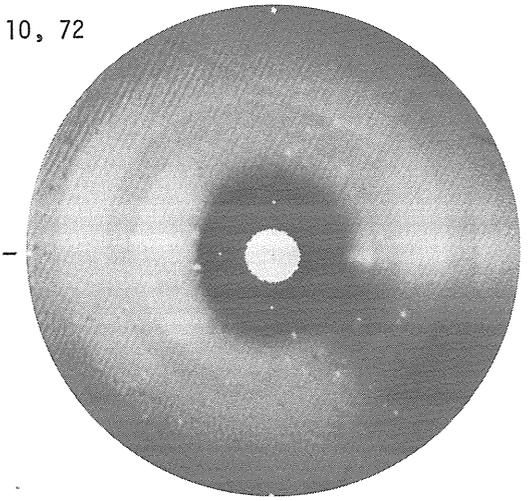
DEC. 12, 72



1632 UT

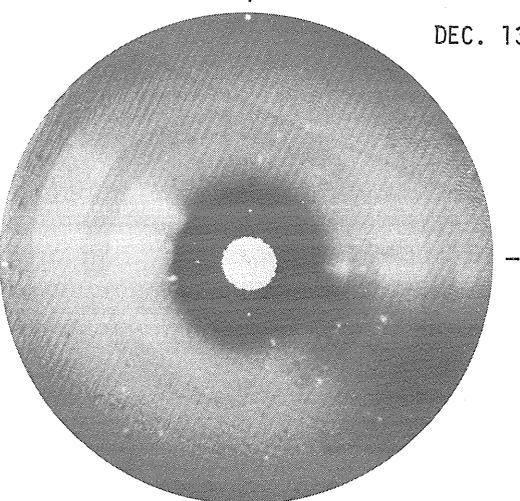


DEC. 10, 72



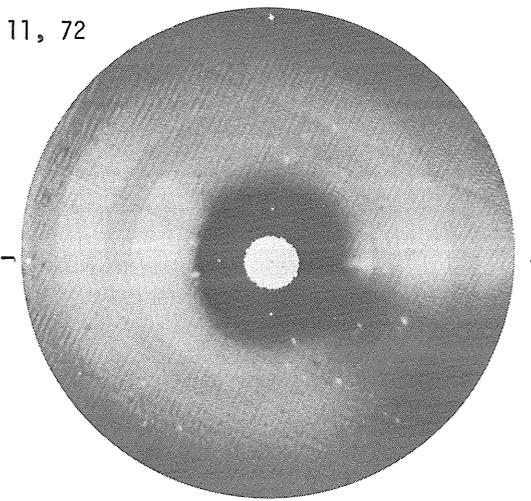
1821 UT

DEC. 13, 72



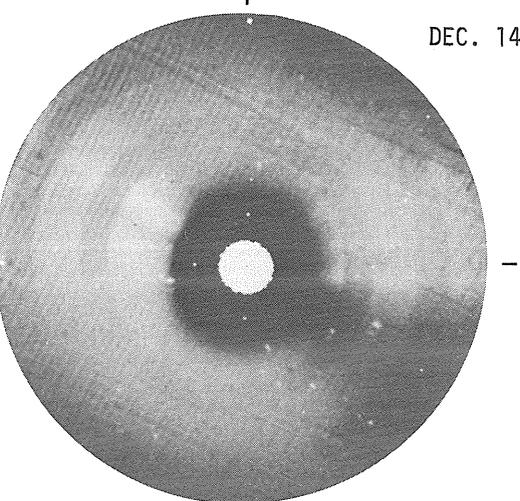
0931 UT

DEC. 11, 72



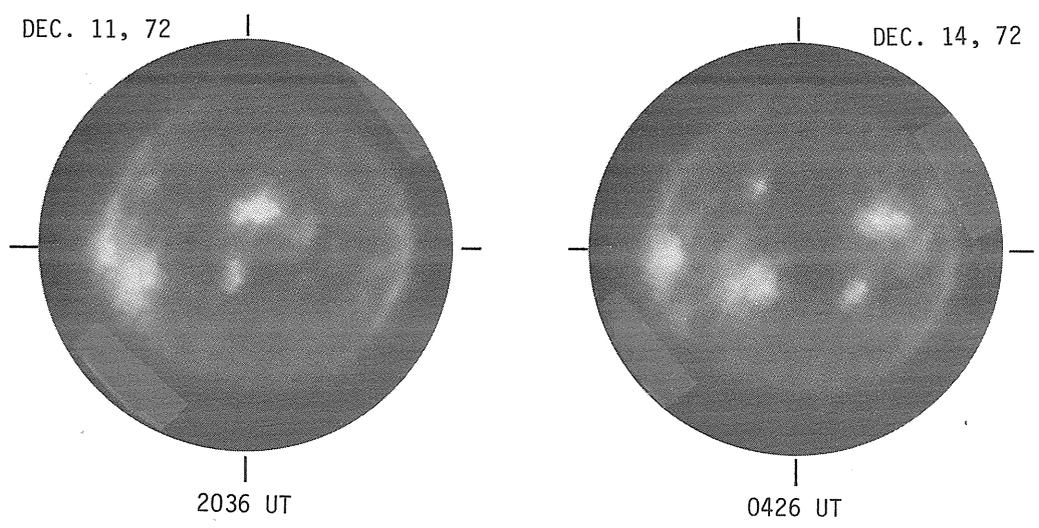
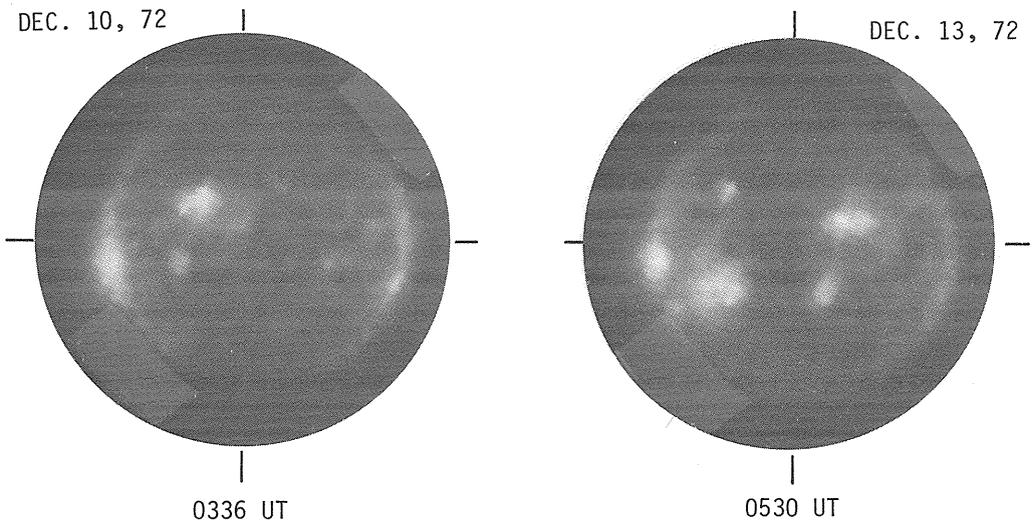
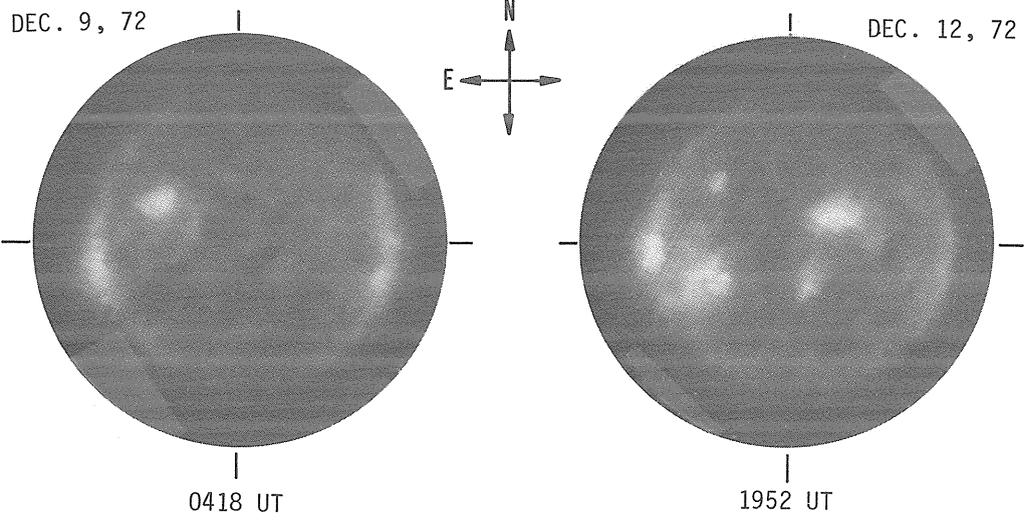
0812 UT

DEC. 14, 72



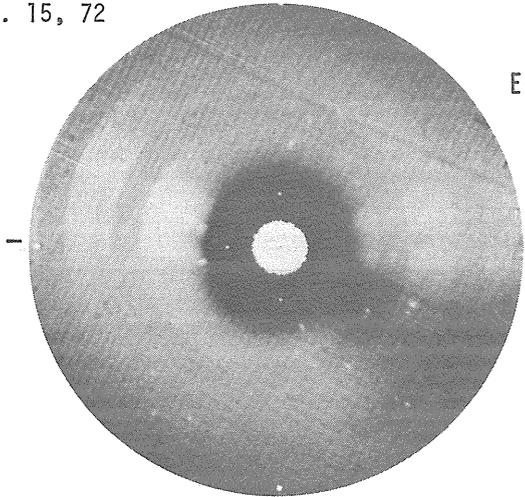
1616 UT

XUV
171-630Å

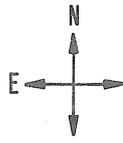


WHITE LIGHT CORONA

DEC. 15, 72



0912 UT

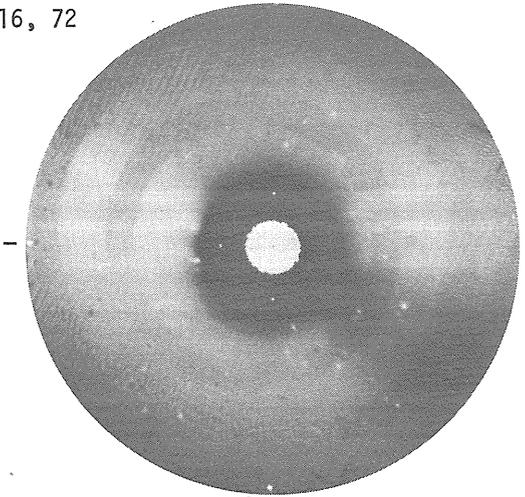


DEC. 18, 72



0704

DEC. 16, 72



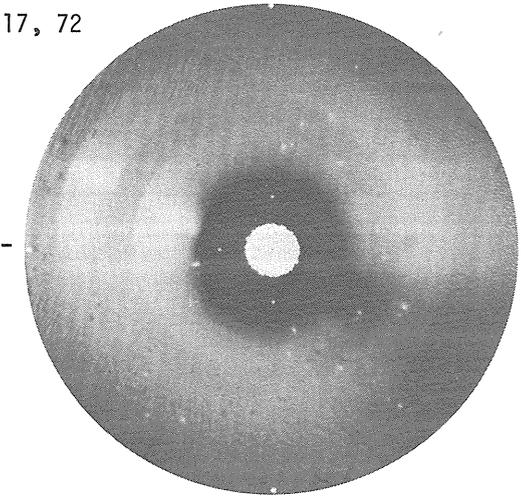
0818 UT

DEC. 19, 72



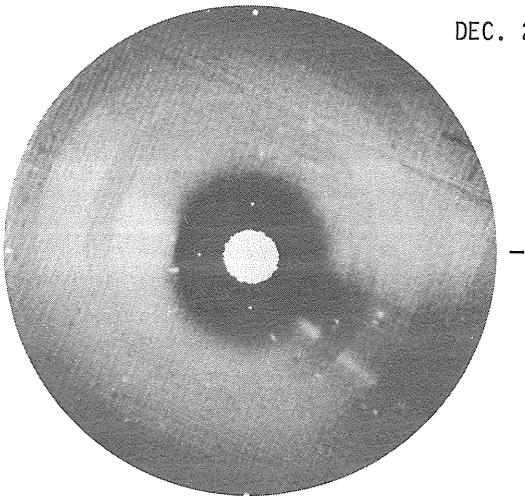
0410 UT

DEC. 17, 72



0723 UT

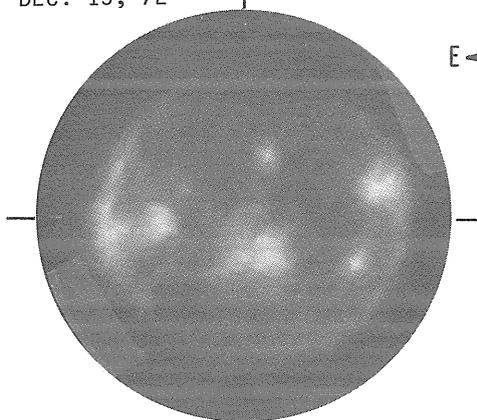
DEC. 20, 72



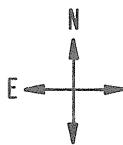
0445 UT

XUV
171-630Å

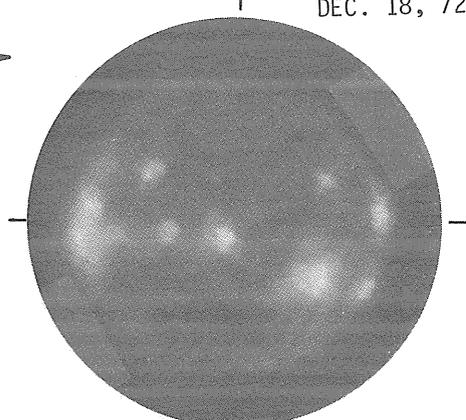
DEC. 15, 72



2321 UT

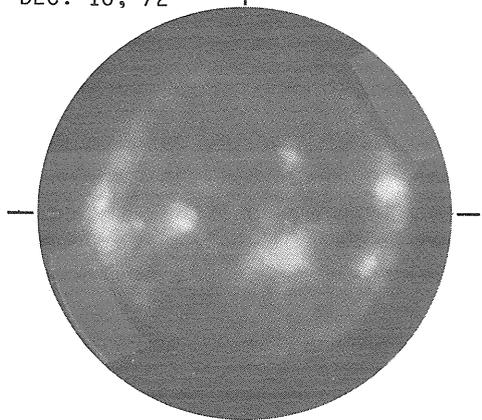


DEC. 18, 72



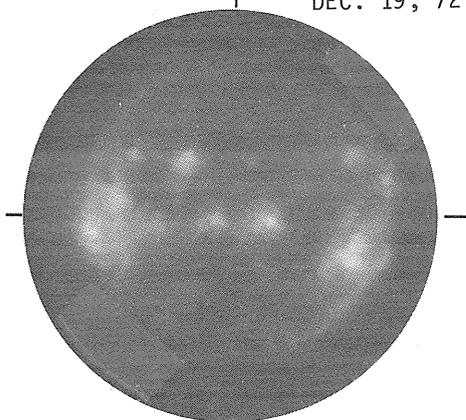
1800 UT

DEC. 16, 72



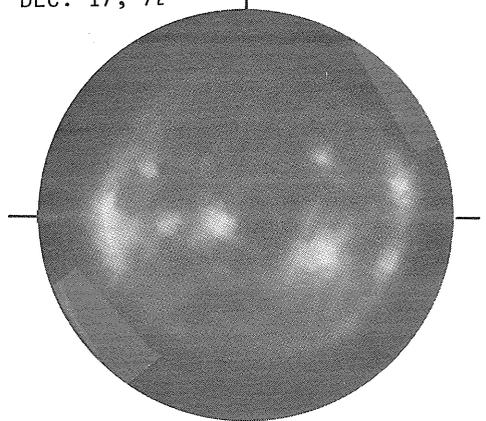
1929 UT

DEC. 19, 72



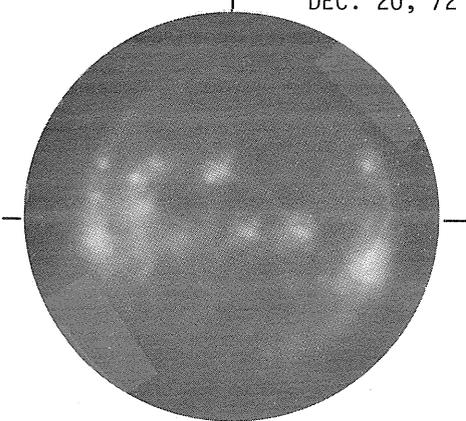
1704 UT

DEC. 17, 72



2009 UT

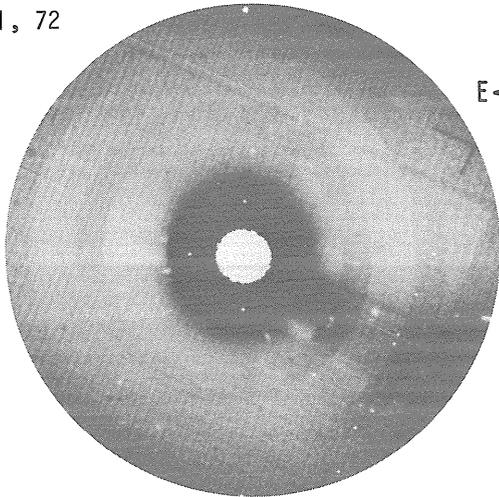
DEC. 20, 72



1609 UT

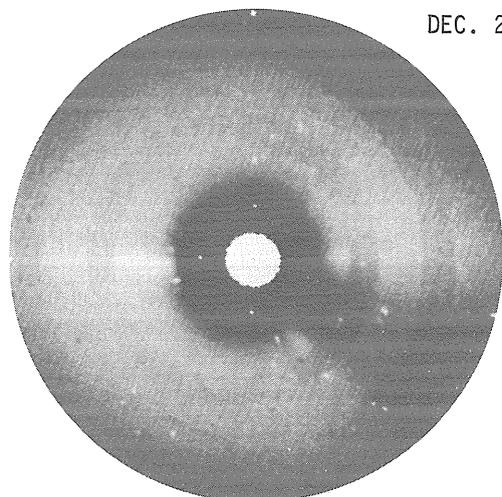
WHITE LIGHT CORONA

DEC. 21, 72

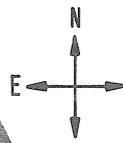


0353 UT

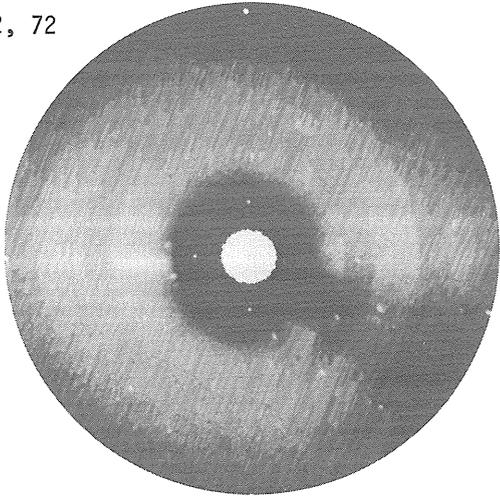
DEC. 24, 72



0612 UT



DEC. 22, 72



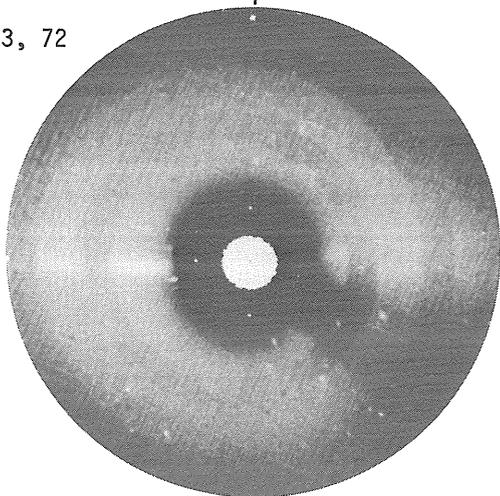
0745 UT

DEC. 25, 72



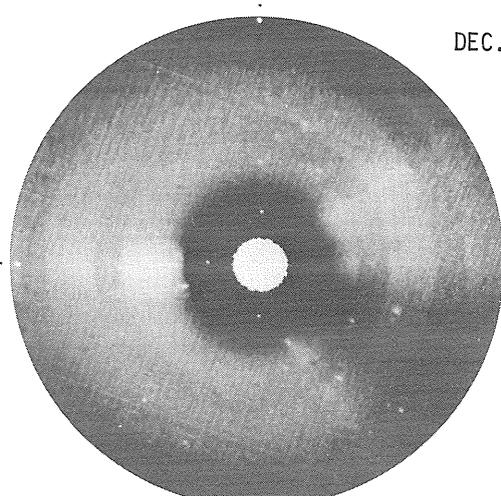
0519 UT

DEC. 23, 72



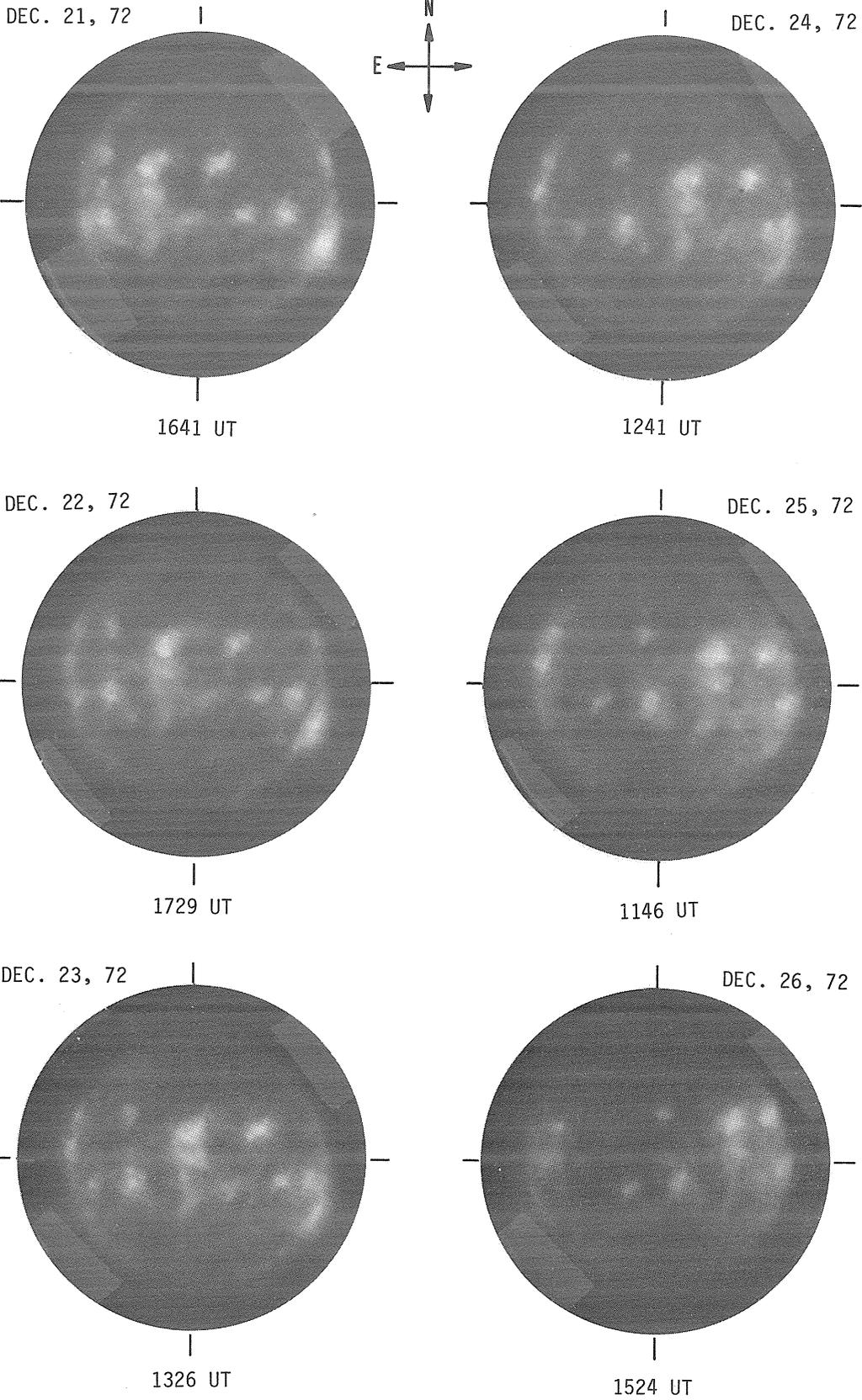
0228 UT

DEC. 26, 72



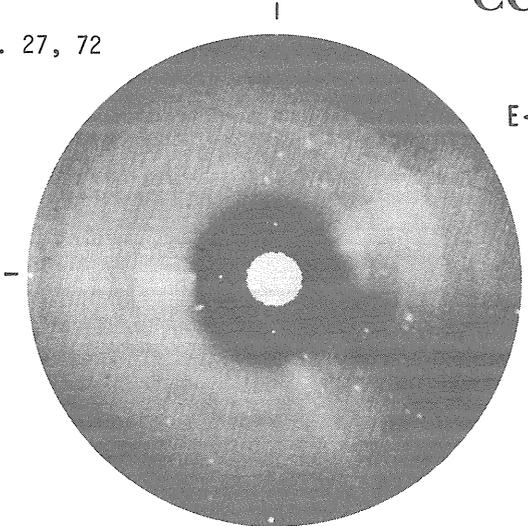
0121 UT

XUV
171-630Å



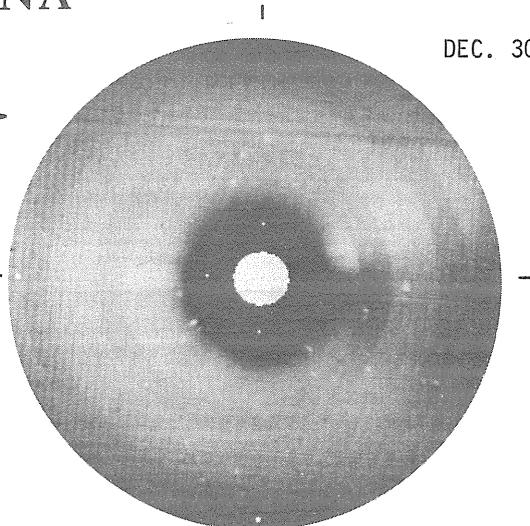
WHITE LIGHT CORONA

DEC. 27, 72

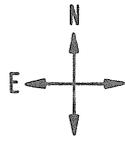


0807 UT

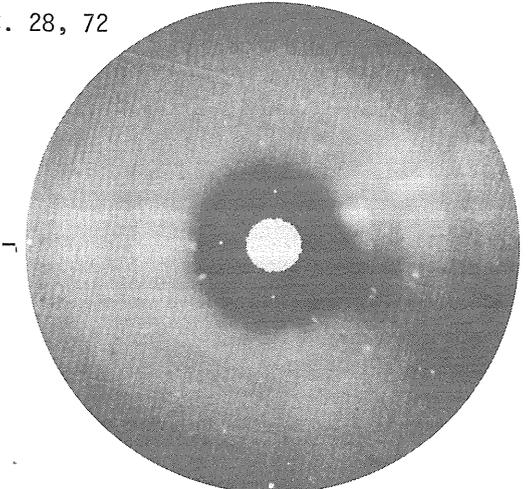
DEC. 30, 72



0502 UT

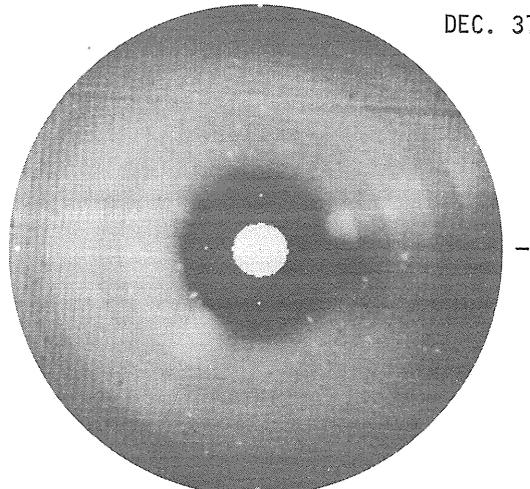


DEC. 28, 72



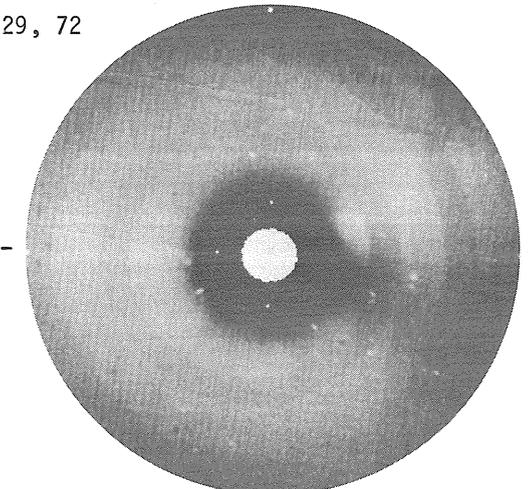
0651 UT

DEC. 31, 72



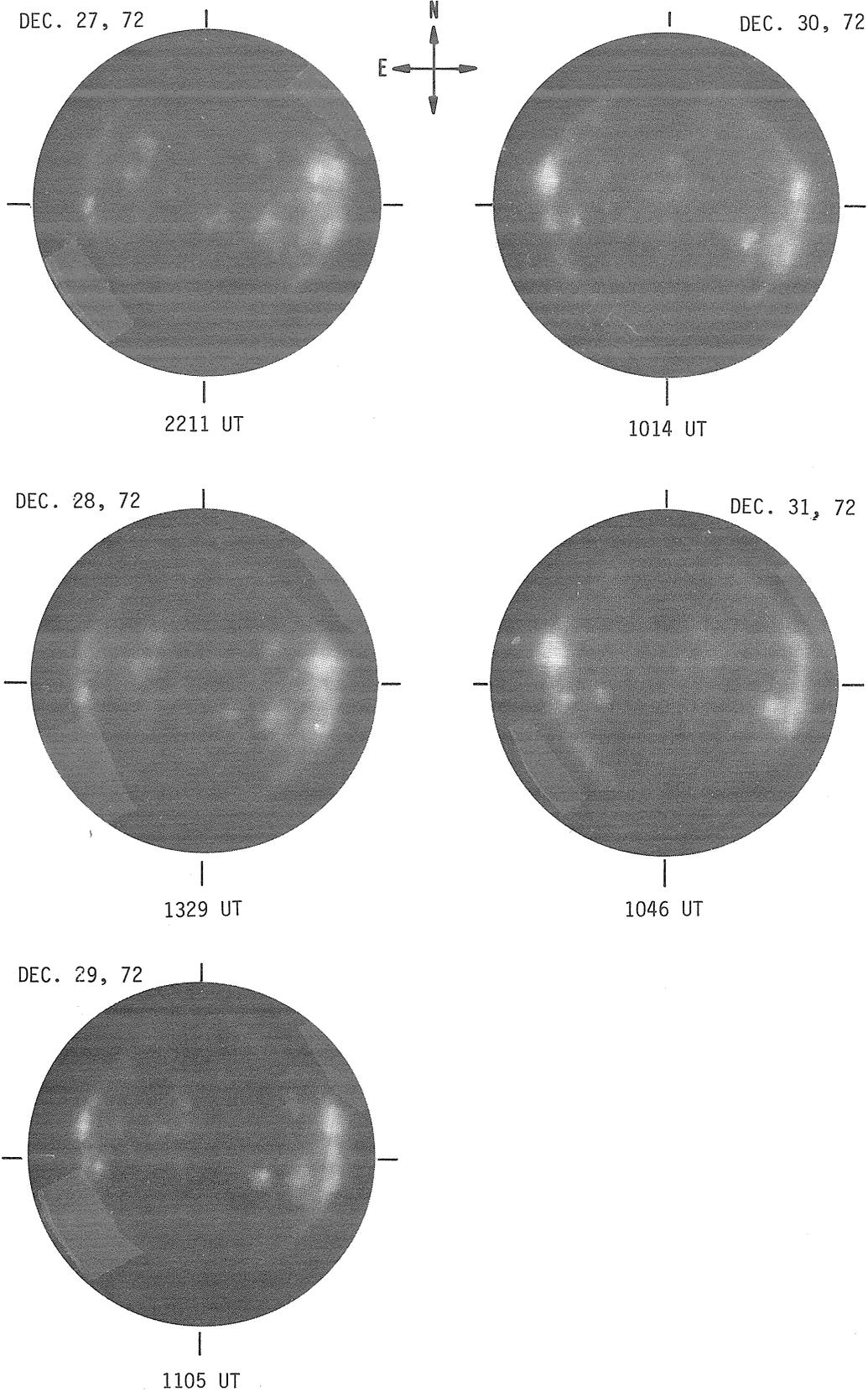
0541 UT

DEC. 29, 72



0252 UT

XUV
171-630Å

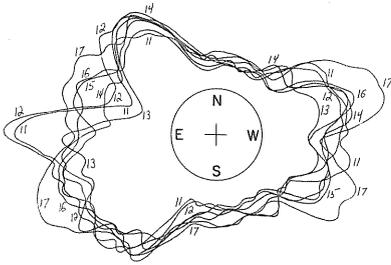


2. Daily Polar Plots of Coronal Brightness at 1.5 (Mauna Loa) and 4 (OSO-7) Solar Radii

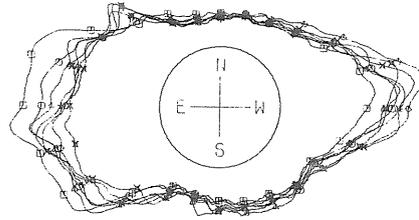
C# 1580 (Carrington)
11 OCT to 5 NOV 1971

- OCT 11, 1971 0405UT
- ◇ OCT 12, 1971 0326UT
- △ OCT 13, 1971 0249UT
- + OCT 14, 1971 0213UT
- × OCT 15, 1971 0309UT
- ◇ OCT 16, 1971 0409UT
- × OCT 17, 1971 0329UT

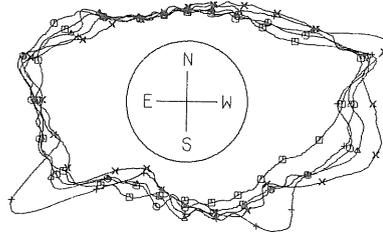
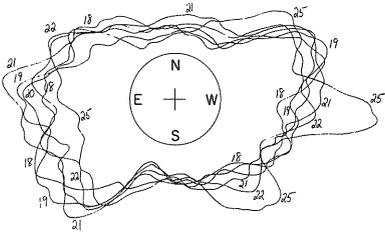
1.5R



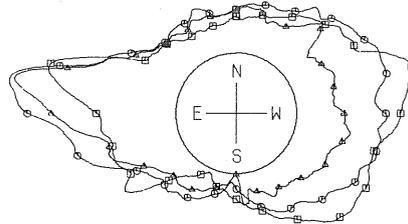
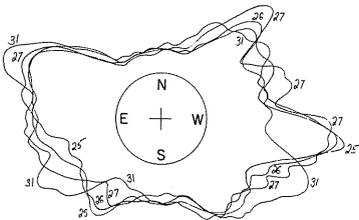
4.0R



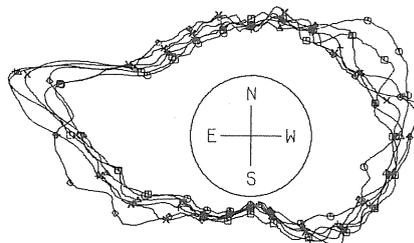
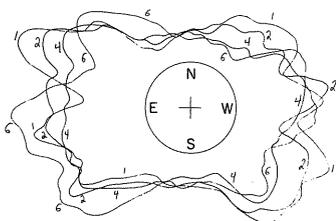
- OCT 18, 1971 0249UT
- ◇ OCT 19, 1971 0651UT
- △ OCT 20, 1971 0307UT
- + OCT 21, 1971 0229UT
- × OCT 22, 1971 0325UT



- OCT 24, 1971 0651UT
- ◇ OCT 29, 1971 1815UT
- △ OCT 30, 1971 0458UT



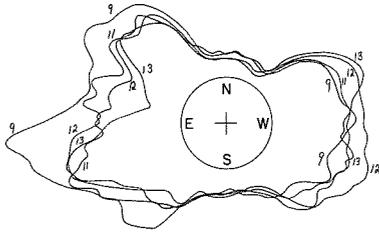
- OCT 31, 1971 0711UT
- ◇ NOV 01, 1971 0020UT
- △ NOV 02, 1971 0250UT
- + NOV 03, 1971 0213UT
- × NOV 04, 1971 0616UT
- ◇ NOV 05, 1971 2246UT



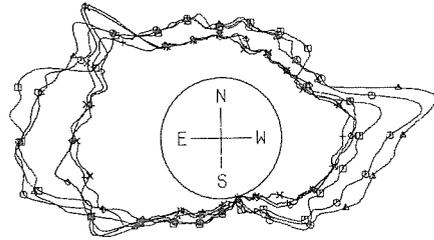
C# 1581
6 NOV to 3 DEC 1971

- NOV 06, 1971 2342UT
- NOV 07, 1971 2304UT
- △ NOV 08, 1971 2359UT
- + NOV 10, 1971 2243UT
- × NOV 11, 1971 2205UT
- ◇ NOV 12, 1971 2126UT

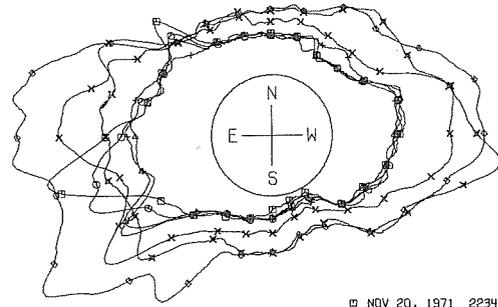
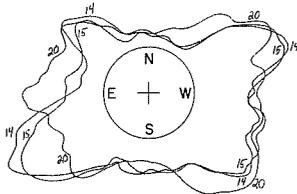
1.5R



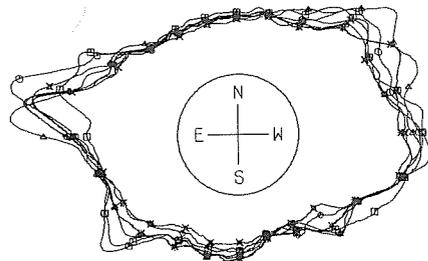
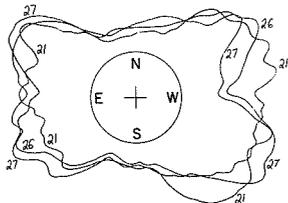
4.0R



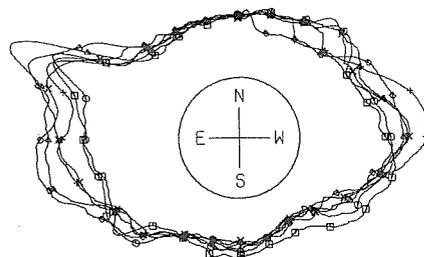
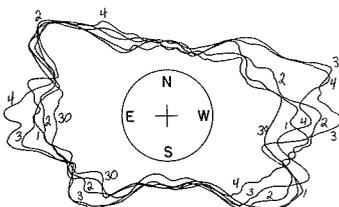
- NOV 13, 1971 2222UT
- NOV 14, 1971 2143UT
- △ NOV 15, 1971 1931UT
- + NOV 16, 1971 2028UT
- × NOV 17, 1971 1948UT
- ◇ NOV 18, 1971 2350UT
- × NOV 19, 1971 2312UT



- NOV 20, 1971 2234UT
- NOV 21, 1971 2329UT
- △ NOV 22, 1971 2251UT
- + NOV 23, 1971 2212UT
- × NOV 24, 1971 2134UT
- ◇ NOV 25, 1971 2104UT
- × NOV 26, 1971 2025UT



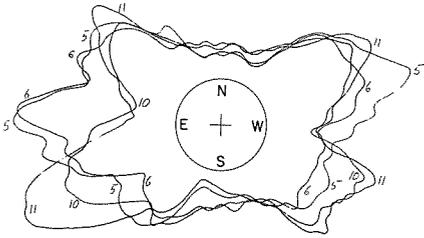
- NOV 28, 1971 2339UT
- NOV 29, 1971 2260UT
- △ NOV 30, 1971 2354UT
- + DEC 01, 1971 2315UT
- × DEC 02, 1971 2236UT
- ◇ DEC 03, 1971 2330UT



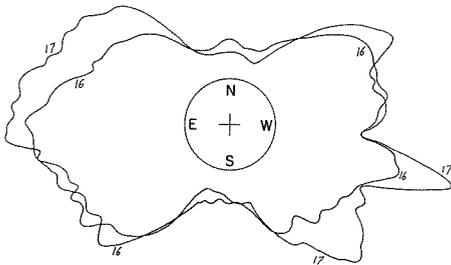
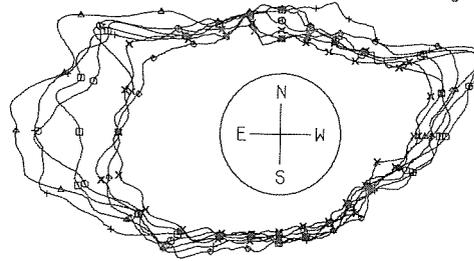
C# 1582
4 DEC to 30 DEC 1971

- DEC 04, 1971 2251UT
- DEC 05, 1971 2211UT
- △ DEC 06, 1971 2132UT
- + DEC 07, 1971 2226UT
- × DEC 08, 1971 1845UT
- ◇ DEC 09, 1971 2108UT
- ✱ DEC 10, 1971 0155UT

1.5R

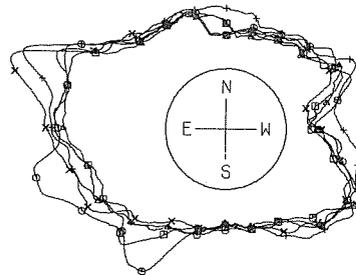
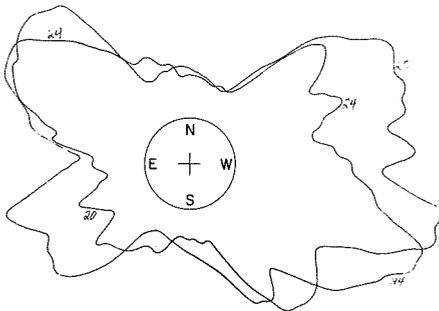


4.0R

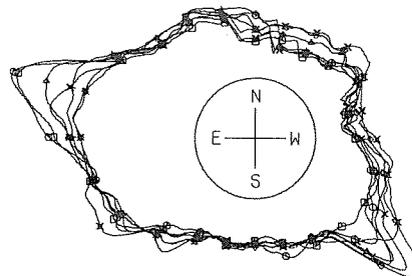
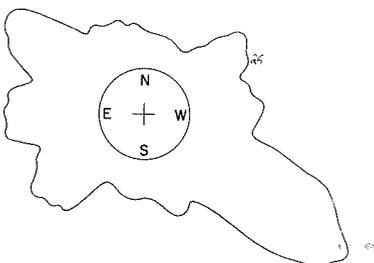


NO DATA

- DEC 19, 1971 0411UT
- DEC 20, 1971 0038UT
- △ DEC 21, 1971 0118UT
- + DEC 22, 1971 0025UT
- × DEC 23, 1971 2139UT

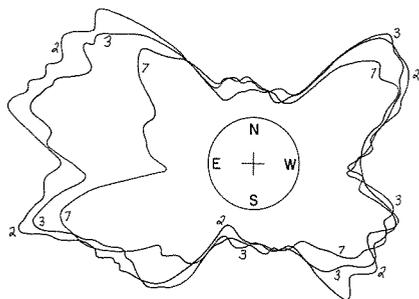


- DEC 24, 1971 2063UT
- DEC 25, 1971 2321UT
- △ DEC 26, 1971 2241UT
- + DEC 27, 1971 2201UT
- × DEC 28, 1971 2121UT
- ◇ DEC 29, 1971 2041UT
- ✱ DEC 30, 1971 2001UT

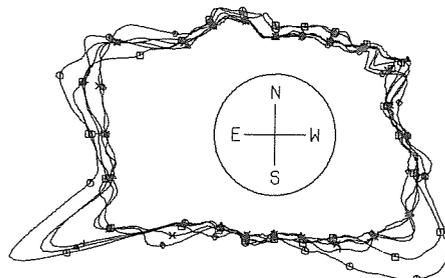


C# 1583
31 DEC to 27 JAN 1972

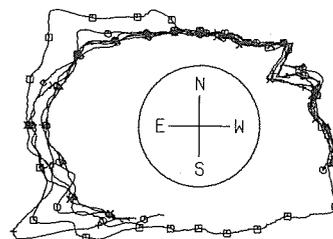
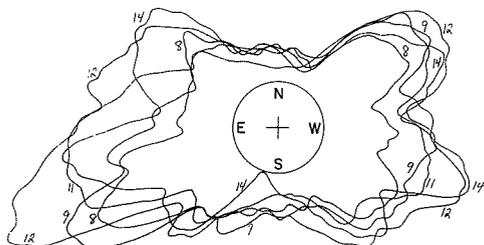
1.5R



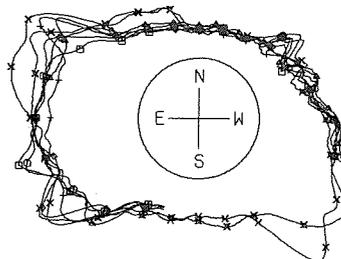
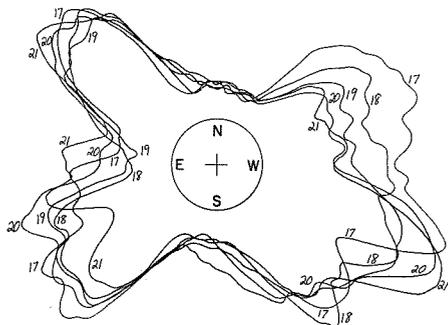
4.0R



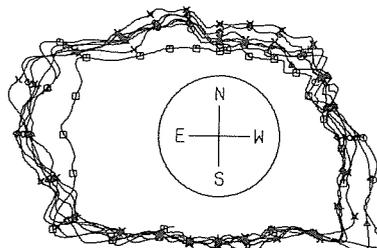
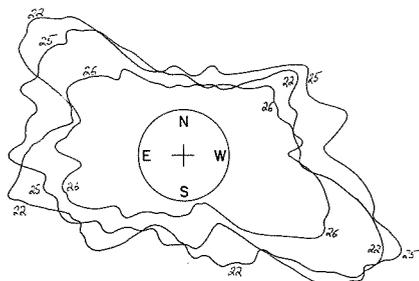
- DEC 31, 1971 1921UT
- JAN 02, 1972 1655UT
- △ JAN 03, 1972 1855UT
- + JAN 04, 1972 1815UT
- × JAN 05, 1972 1735UT
- ◇ JAN 06, 1972 1406UT



- JAN 07, 1972 1615UT
- JAN 08, 1972 1420UT
- △ JAN 09, 1972 1337UT
- + JAN 10, 1972 1254UT
- × JAN 11, 1972 1212UT
- ◇ JAN 12, 1972 1129UT



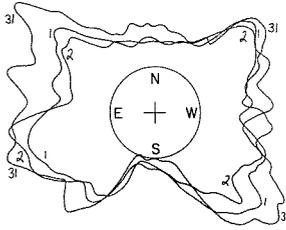
- JAN 14, 1972 1003UT
- JAN 15, 1972 1059UT
- △ JAN 16, 1972 0403UT
- + JAN 17, 1972 0933UT
- × JAN 18, 1972 1811UT
- ◇ JAN 19, 1972 0811UT
- × JAN 20, 1972 0730UT



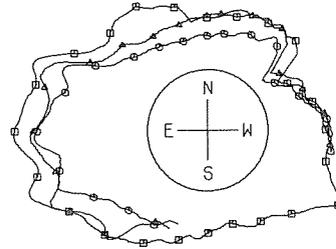
- JAN 21, 1972 0823UT
- JAN 22, 1972 0742UT
- △ JAN 23, 1972 0701UT
- + JAN 24, 1972 0620UT
- × JAN 25, 1972 0713UT
- ◇ JAN 26, 1972 0503UT
- × JAN 27, 1972 0421UT

C# 1584
28 JAN to 23 FEB 1972

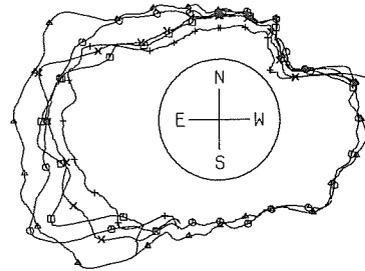
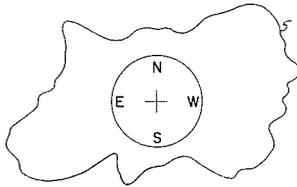
1.5R



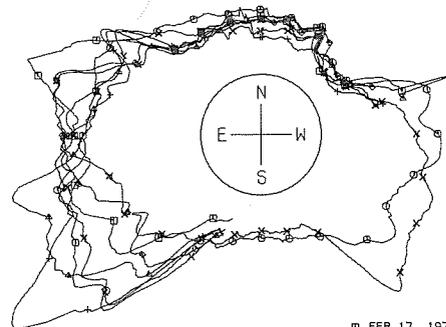
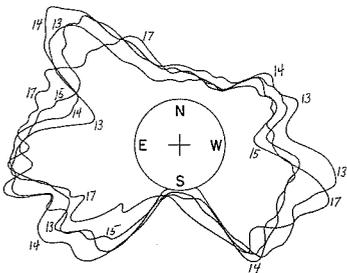
4.0R



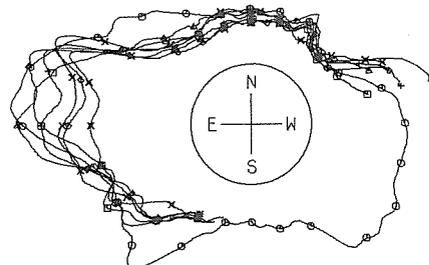
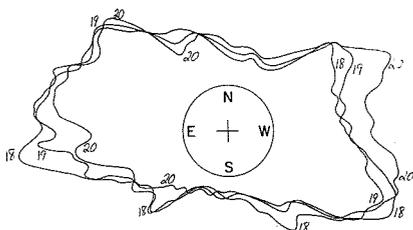
- JAN 28, 1972 0547UT
- JAN 29, 1972 0302UT
- ▲ JAN 30, 1972 0538UT



- FEB 05, 1972 0741UT
- FEB 06, 1972 0220UT
- ▲ FEB 07, 1972 2019UT
- + FEB 08, 1972 1938UT
- x FEB 09, 1972 1656UT



- FEB 10, 1972 1949UT
- FEB 11, 1972 2347UT
- ▲ FEB 12, 1972 2306UT
- + FEB 13, 1972 1744UT
- x FEB 14, 1972 1703UT
- FEB 15, 1972 2101UT
- x FEB 16, 1972 1540UT

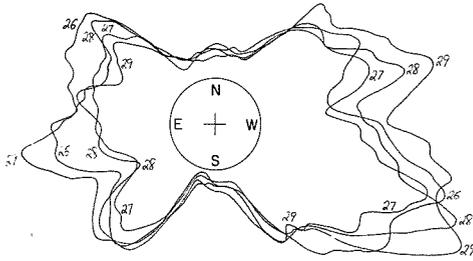


- FEB 17, 1972 1459UT
- FEB 18, 1972 1627UT
- ▲ FEB 19, 1972 1949UT
- + FEB 20, 1972 1428UT
- x FEB 21, 1972 2000UT
- FEB 22, 1972 1305UT
- x FEB 23, 1972 1637UT

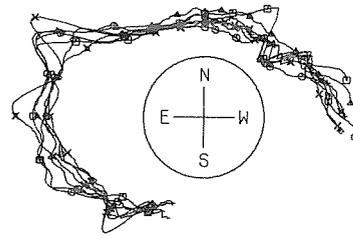
C# 1585
24 FEB to 21 MAR 1972

- FEB 24, 1972 1756UT
- FEB 25, 1972 1246UT
- △ FEB 26, 1972 1340UT
- + FEB 27, 1972 1256UT
- × FEB 28, 1972 1212UT
- ◇ FEB 29, 1972 1126UT
- × MAR 01, 1972 1042UT

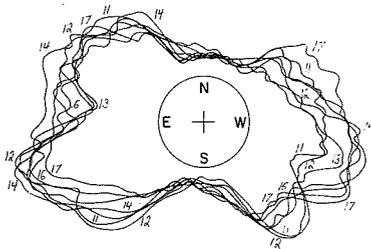
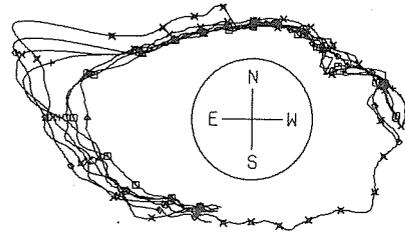
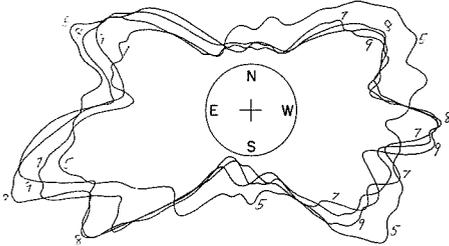
1.5R



4.0R

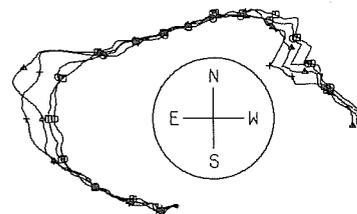
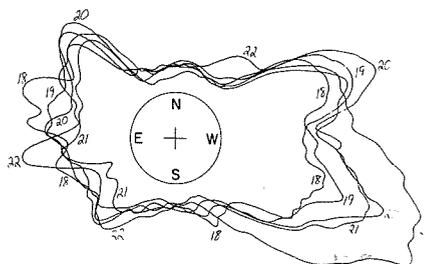


- MAR 02, 1972 0957UT
- MAR 03, 1972 1051UT
- △ MAR 04, 1972 1007UT
- + MAR 05, 1972 0924UT
- × MAR 06, 1972 0842UT
- ◇ MAR 07, 1972 0800UT
- × MAR 08, 1972 0852UT



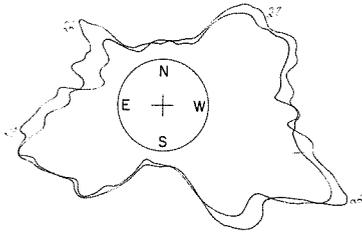
NO DATA

- MAR 17, 1972 0232UT
- MAR 18, 1972 0457UT
- △ MAR 19, 1972 0415UT
- + MAR 20, 1972 0333UT

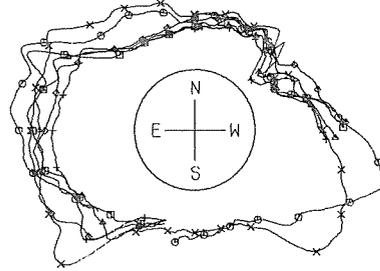


C# 1586
22 MAR to 17 APR 1972

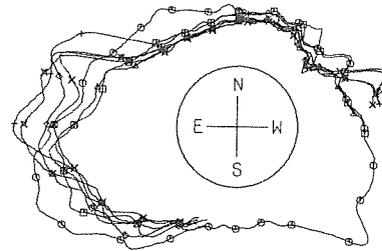
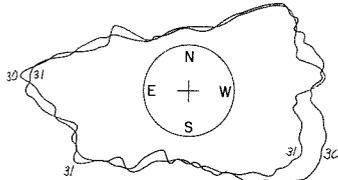
1.5R



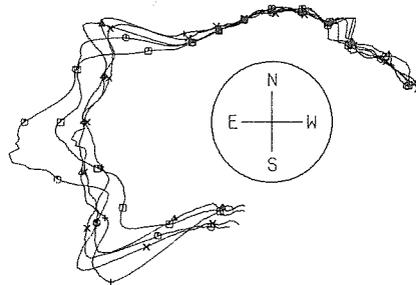
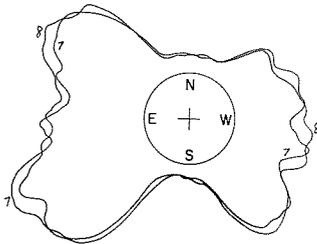
4.0R



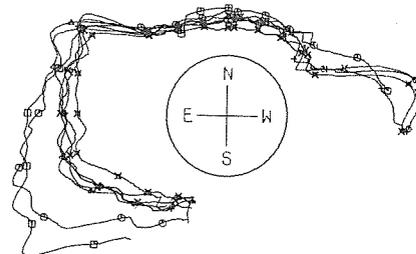
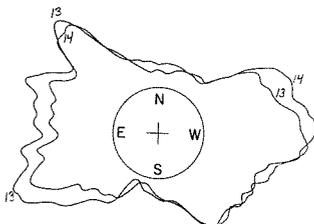
- MAR 22, 1972 0955UT
- MAR 23, 1972 0258UT
- △ MAR 24, 1972 0656UT
- + MAR 25, 1972 2318UT
- × MAR 26, 1972 0704UT
- ◇ MAR 27, 1972 0621UT



- MAR 28, 1972 2243UT
- MAR 29, 1972 0322UT
- △ MAR 30, 1972 0238UT
- + MAR 31, 1972 2206UT
- × APR 01, 1972 2255UT
- ◇ APR 02, 1972 2346UT
- × APR 04, 1972 0035UT



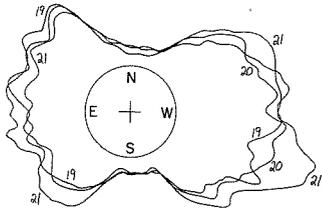
- APR 05, 1972 2136UT
- APR 06, 1972 2053UT
- △ APR 08, 1972 2233UT
- + APR 09, 1972 2151UT
- × APR 10, 1972 2108UT



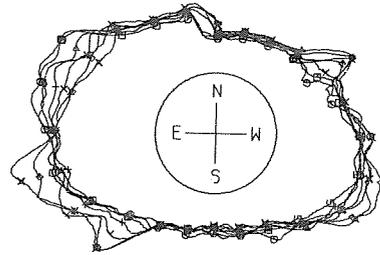
- APR 11, 1972 1413UT
- APR 12, 1972 2116UT
- △ APR 13, 1972 1248UT
- + APR 14, 1972 1211UT
- × APR 15, 1972 1125UT
- ◇ APR 16, 1972 1217UT
- × APR 17, 1972 1130UT

C# 1587
18 APR to 15 MAY 1972

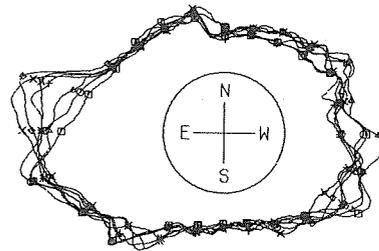
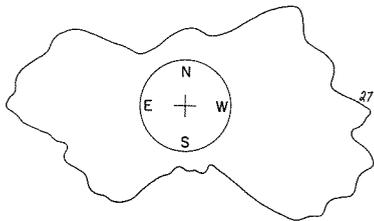
1.5R



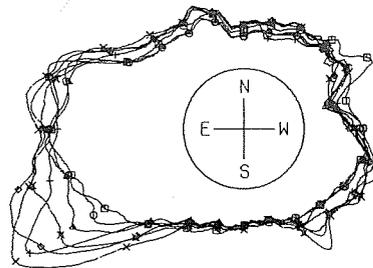
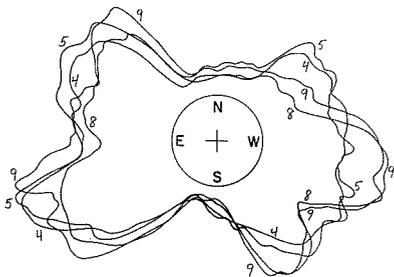
4.0R



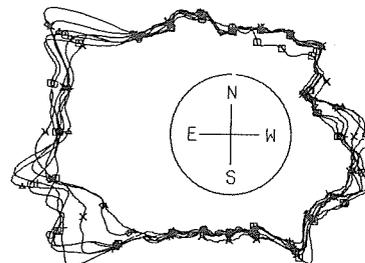
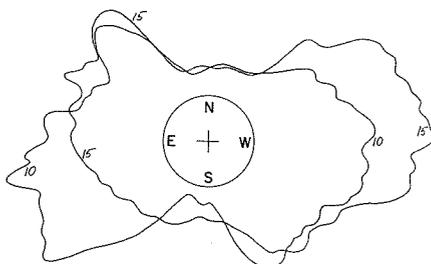
- APR 18, 1972 1222UT
- APR 19, 1972 1135UT
- △ APR 20, 1972 1051UT
- + APR 21, 1972 1008UT
- × APR 22, 1972 1055UT
- ◇ APR 23, 1972 1011UT
- × APR 24, 1972 0927UT



- APR 25, 1972 0709UT
- APR 26, 1972 0625UT
- △ APR 27, 1972 0714UT
- + APR 28, 1972 1247UT
- × APR 29, 1972 0652UT
- ◇ APR 30, 1972 0634UT
- × MAY 01, 1972 0550UT



- MAY 02, 1972 0506UT
- MAY 03, 1972 0555UT
- △ MAY 04, 1972 0511UT
- + MAY 05, 1972 0906UT
- × MAY 06, 1972 0515UT
- ◇ MAY 07, 1972 0431UT
- × MAY 08, 1972 0652UT

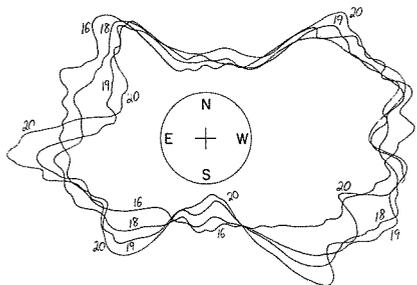


- MAY 09, 1972 0435UT
- MAY 10, 1972 0656UT
- △ MAY 11, 1972 0305UT
- + MAY 12, 1972 0353UT
- × MAY 13, 1972 0441UT
- ◇ MAY 14, 1972 0356UT
- × MAY 15, 1972 0138UT

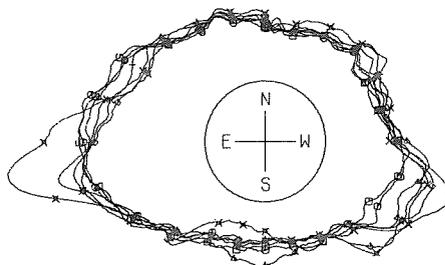
C# 1588
16 MAY to 11 JUN 1972

- MAY 16, 1972 0532UT
- MAY 17, 1972 0313UT
- △ MAY 18, 1972 0534UT
- + MAY 19, 1972 0315UT
- x MAY 20, 1972 0057UT
- ◇ MAY 21, 1972 0011UT
- x MAY 22, 1972 0059UT

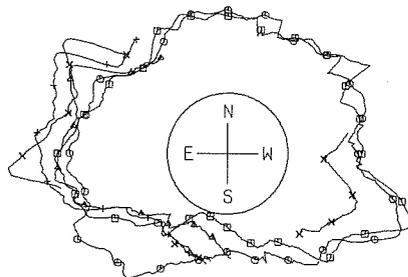
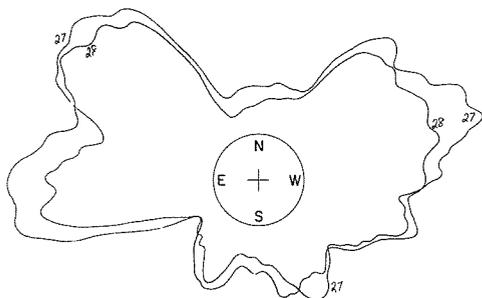
1.5R



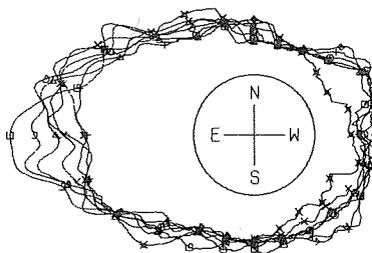
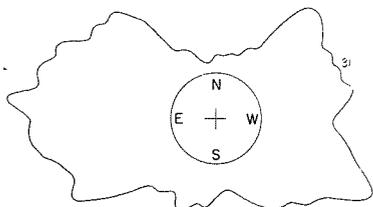
4.0R



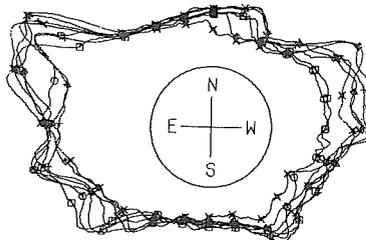
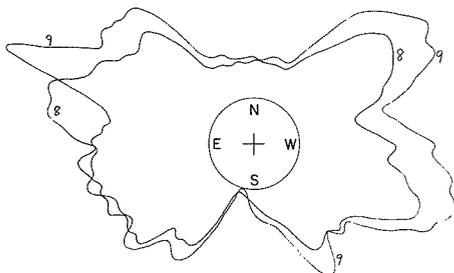
- MAY 23, 1972 2022UT
- MAY 24, 1972 1631UT
- △ MAY 25, 1972 2159UT
- + MAY 26, 1972 2247UT
- x MAY 28, 1972 2021UT



- MAY 29, 1972 1304UT
- MAY 30, 1972 1217UT
- △ MAY 31, 1972 1306UT
- + JUN 01, 1972 1217UT
- x JUN 02, 1972 1130UT
- ◇ JUN 03, 1972 1041UT
- x JUN 04, 1972 1130UT



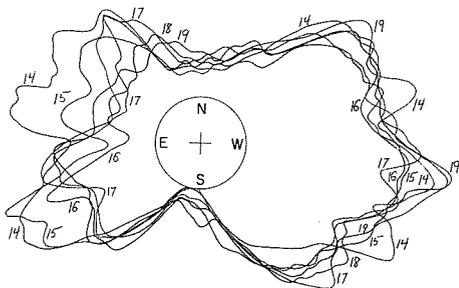
- JUN 05, 1972 1043UT
- JUN 06, 1972 1131UT
- △ JUN 07, 1972 1046UT
- + JUN 08, 1972 0959UT
- x JUN 09, 1972 1046UT
- ◇ JUN 10, 1972 1611UT
- x JUN 11, 1972 1525UT



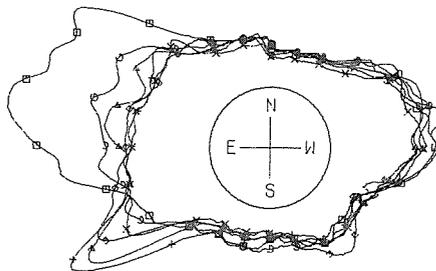
C# 1589
12 JUN to 8 JUL 1972

- JUN 12, 1972 1612UT
- JUN 13, 1972 1659UT
- △ JUN 15, 1972 1659UT
- + JUN 16, 1972 1920UT
- × JUN 17, 1972 1659UT
- ◇ JUN 18, 1972 1613UT

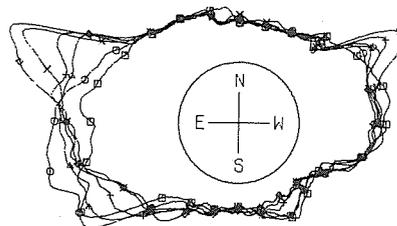
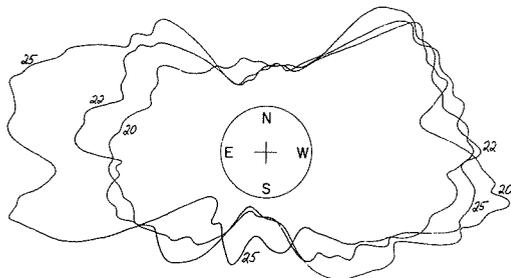
1.5R



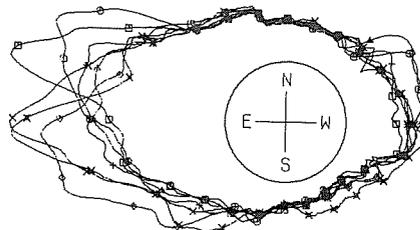
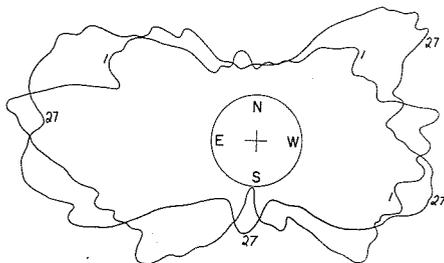
4.0R



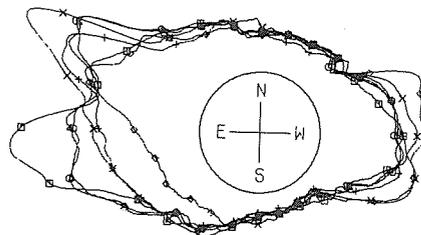
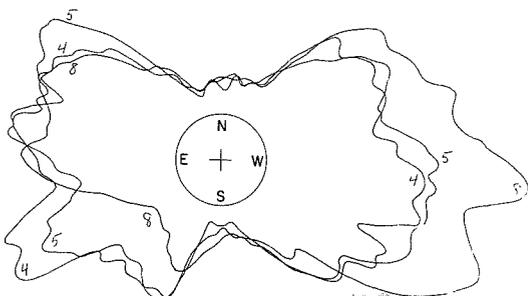
- JUN 20, 1972 0836UT
- JUN 21, 1972 0742UT
- △ JUN 22, 1972 0832UT
- + JUN 23, 1972 0745UT
- × JUN 24, 1972 0828UT
- ◇ JUN 25, 1972 0742UT



- JUN 26, 1972 0655UT
- JUN 27, 1972 0435UT
- △ JUN 28, 1972 0654UT
- + JUN 29, 1972 0607UT
- × JUN 30, 1972 0347UT
- ◇ JUL 01, 1972 0126UT
- × JUL 02, 1972 0345UT



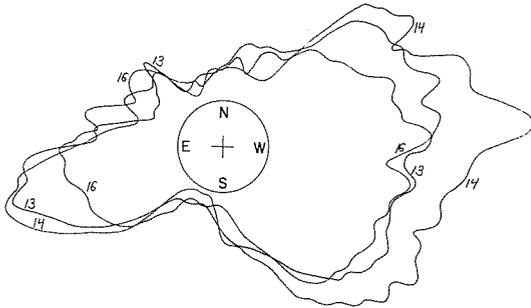
- JUL 03, 1972 0258UT
- JUL 04, 1972 2217UT
- △ JUL 05, 1972 0123UT
- + JUL 06, 1972 0514UT
- × JUL 07, 1972 0121UT
- ◇ JUL 08, 1972 2347UT



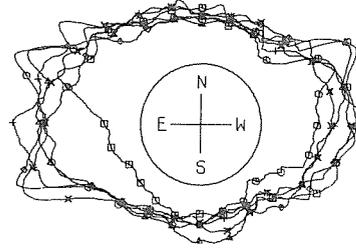
C# 1590
9JUL to 5 AUG 1972

- JUL 09, 1972 2301UT
- JUL 10, 1972 1466UT
- △ JUL 11, 1972 0437UT
- + JUL 12, 1972 1464UT
- × JUL 13, 1972 1404UT
- ◇ JUL 14, 1972 1313UT
- × JUL 15, 1972 1401UT

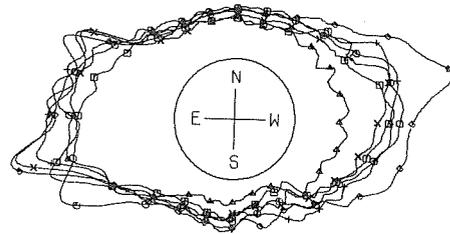
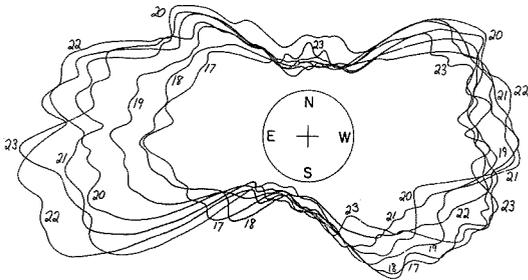
1.5R



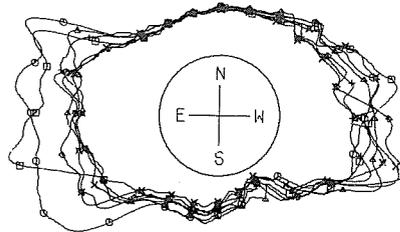
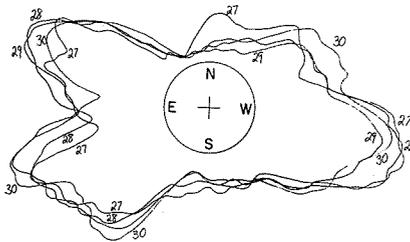
4.0R



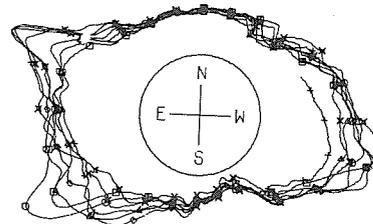
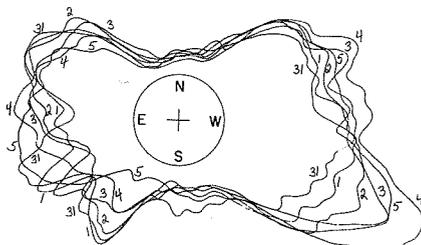
- JUL 16, 1972 1311UT
- JUL 18, 1972 1131UT
- △ JUL 19, 1972 1713UT
- + JUL 20, 1972 1128UT
- × JUL 21, 1972 1039UT
- ◇ JUL 22, 1972 1126UT



- JUL 23, 1972 1212UT
- JUL 24, 1972 0816UT
- △ JUL 25, 1972 1034UT
- + JUL 26, 1972 0947UT
- × JUL 27, 1972 1032UT
- ◇ JUL 28, 1972 0944UT
- × JUL 29, 1972 1204UT



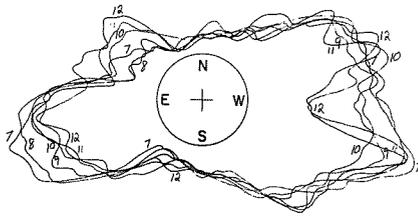
- JUL 30, 1972 0608UT
- JUL 31, 1972 0853UT
- △ AUG 01, 1972 0633UT
- + AUG 02, 1972 0718UT
- × AUG 03, 1972 0803UT
- ◇ AUG 04, 1972 0542UT
- × AUG 05, 1972 0454UT



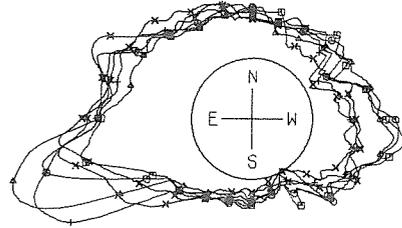
C# 1591
6 AUG to 1 SEPT 1972

- AUG 06, 1972 0407UT
- AUG 07, 1972 0452UT
- △ AUG 08, 1972 2238UT
- + AUG 09, 1972 2322UT
- × AUG 10, 1972 2234UT
- ◇ AUG 11, 1972 0814UT
- × AUG 12, 1972 0052UT

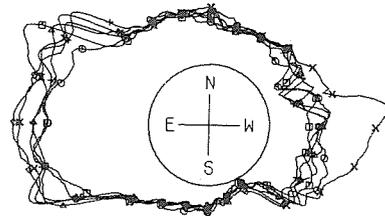
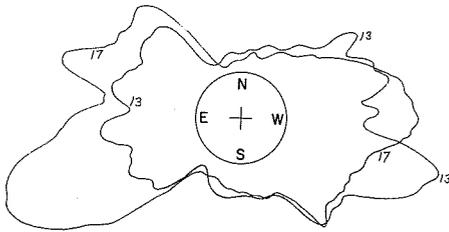
1.5R



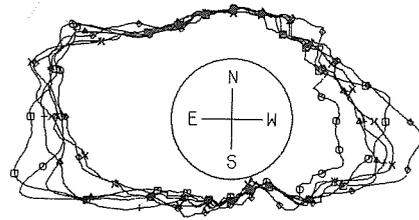
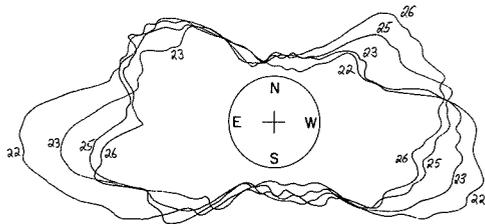
4.0R



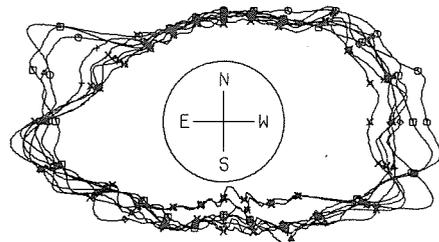
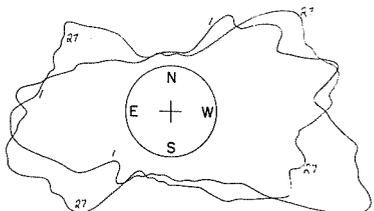
- AUG 13, 1972 0004UT
- AUG 14, 1972 0048UT
- △ AUG 15, 1972 2311UT
- + AUG 16, 1972 2356UT
- × AUG 17, 1972 2307UT
- ◇ AUG 18, 1972 2219UT



- AUG 19, 1972 2130UT
- AUG 20, 1972 2215UT
- △ AUG 21, 1972 2126UT
- + AUG 22, 1972 2038UT
- × AUG 23, 1972 2122UT
- ◇ AUG 24, 1972 2034UT



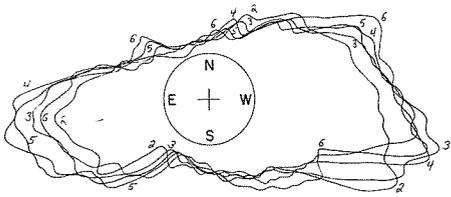
- AUG 25, 1972 2262UT
- AUG 26, 1972 2337UT
- △ AUG 27, 1972 2248UT
- + AUG 28, 1972 2201UT
- × AUG 29, 1972 2246UT
- ◇ AUG 30, 1972 2158UT
- × AUG 31, 1972 1338UT
- × SEP 01, 1972 1247UT



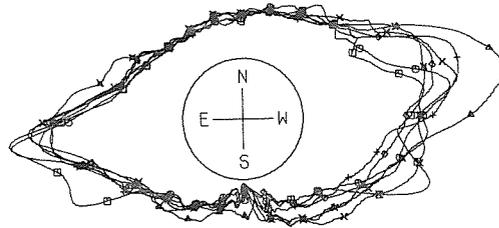
C# 1592
2 SEPT to 28 SEPT 1972

- SEP 02, 1972 1334UT
- SEP 03, 1972 1242UT
- ▲ SEP 04, 1972 1150UT
- + SEP 05, 1972 0446UT
- × SEP 06, 1972 1008UT
- ◇ SEP 07, 1972 0443UT
- × SEP 08, 1972 1002UT

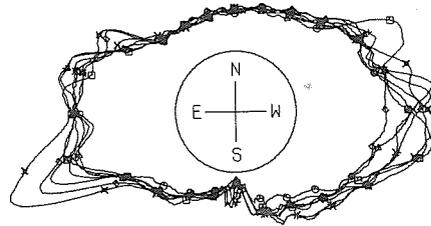
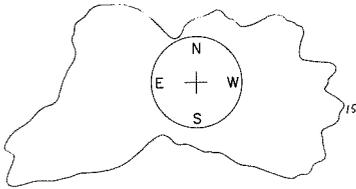
1.5R



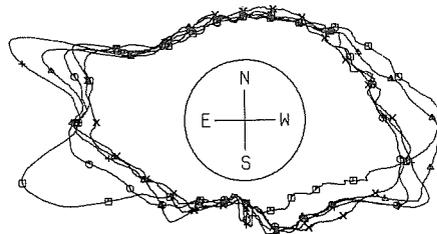
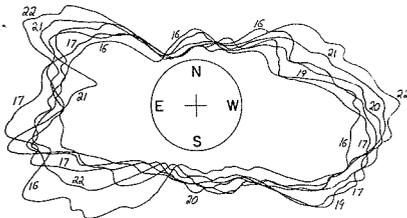
4.0R



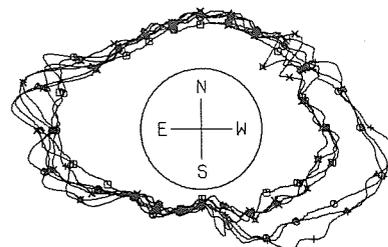
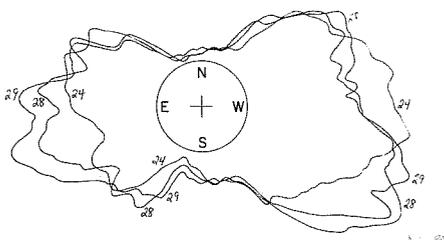
- SEP 09, 1972 0913UT
- SEP 10, 1972 0446UT
- ▲ SEP 11, 1972 0734UT
- + SEP 12, 1972 0618UT
- × SEP 13, 1972 0901UT
- ◇ SEP 14, 1972 0944UT
- × SEP 15, 1972 0855UT



- SEP 16, 1972 1111UT
- SEP 17, 1972 1022UT
- ▲ SEP 18, 1972 0600UT
- + SEP 19, 1972 1016UT
- × SEP 21, 1972 0639UT

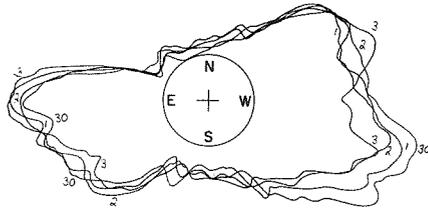


- SEP 22, 1972 2319UT
- SEP 23, 1972 0632UT
- ▲ SEP 24, 1972 0916UT
- + SEP 25, 1972 0626UT
- × SEP 26, 1972 0737UT
- ◇ SEP 27, 1972 0620UT
- × SEP 28, 1972 0903UT

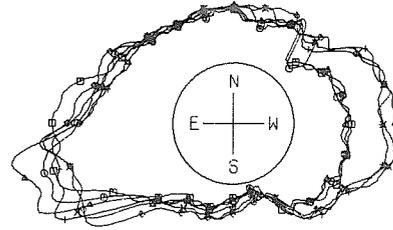


C# 1593
29 SEPT to 25 OCT 1972

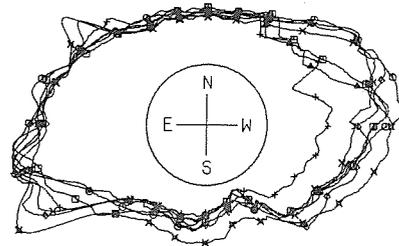
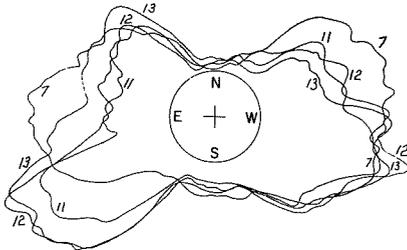
1.5R



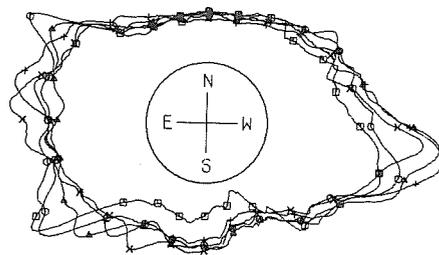
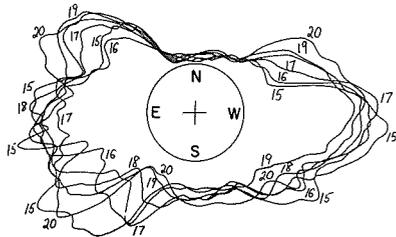
4.0R



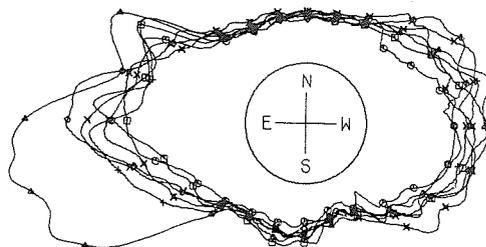
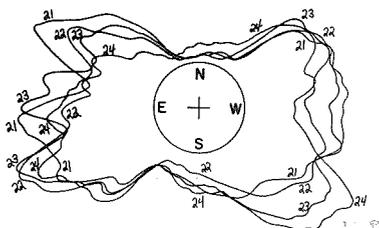
- SEP 29, 1972 0819UT
- SEP 30, 1972 0650UT
- △ OCT 01, 1972 0500UT
- + OCT 03, 1972 0320UT
- x OCT 04, 1972 0707UT
- ◇ OCT 05, 1972 0444UT



- OCT 06, 1972 0354UT
- OCT 07, 1972 0741UT
- △ OCT 08, 1972 0345UT
- + OCT 09, 1972 1954UT
- x OCT 10, 1972 0508UT
- ◇ OCT 11, 1972 0419UT
- x OCT 12, 1972 0156UT



- OCT 13, 1972 0105UT
- OCT 14, 1972 0015UT
- △ OCT 15, 1972 2101UT
- + OCT 16, 1972 2011UT
- x OCT 17, 1972 2052UT
- ◇ OCT 18, 1972 1229UT

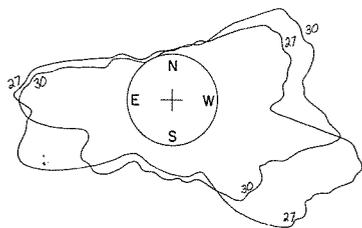


- OCT 19, 1972 1911UT
- OCT 20, 1972 1356UT
- △ OCT 21, 1972 1729UT
- + OCT 22, 1972 1030UT
- x OCT 23, 1972 1114UT
- ◇ OCT 24, 1972 1019UT
- x OCT 25, 1972 1535UT

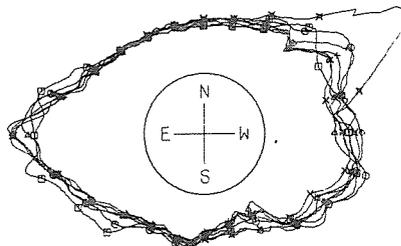
C# 1594
26 OCT to 21 NOV 1972

- OCT 26, 1972 0833UT
- OCT 27, 1972 0914UT
- △ OCT 28, 1972 0622UT
- + OCT 29, 1972 0902UT
- × OCT 30, 1972 0637UT
- ◇ OCT 31, 1972 0718UT
- × NOV 01, 1972 0758UT

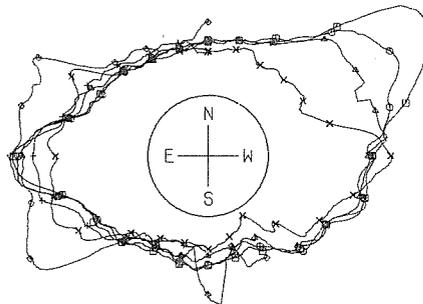
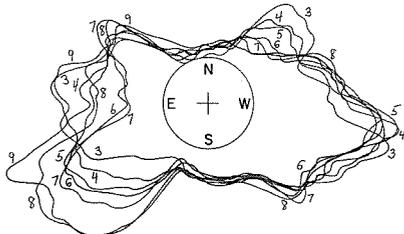
1.5R



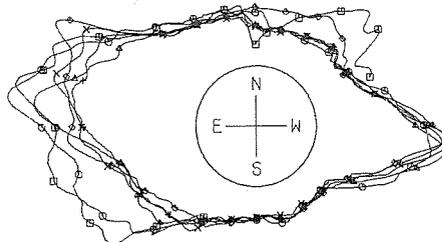
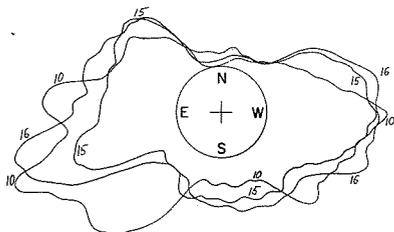
4.0R



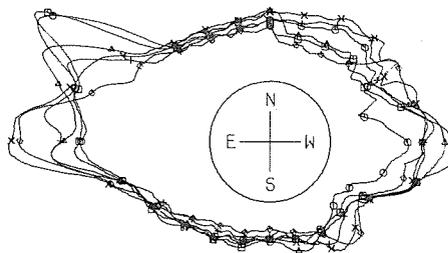
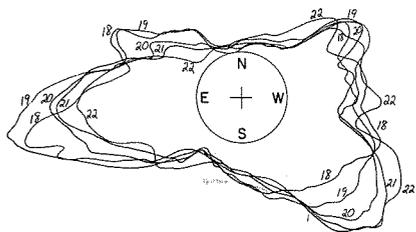
- NOV 02, 1972 0706UT
- NOV 03, 1972 0746UT
- △ NOV 04, 1972 1001UT
- + NOV 05, 1972 1046UT
- × NOV 07, 1972 0317UT
- ◇ NOV 08, 1972 0836UT



- NOV 10, 1972 0626UT
- NOV 11, 1972 0906UT
- △ NOV 12, 1972 0746UT
- + NOV 13, 1972 0627UT
- × NOV 14, 1972 0602UT
- ◇ NOV 15, 1972 0615UT



- NOV 16, 1972 0550UT
- NOV 17, 1972 0602UT
- △ NOV 18, 1972 0404UT
- + NOV 19, 1972 0444UT
- × NOV 20, 1972 0216UT
- ◇ NOV 21, 1972 1622UT

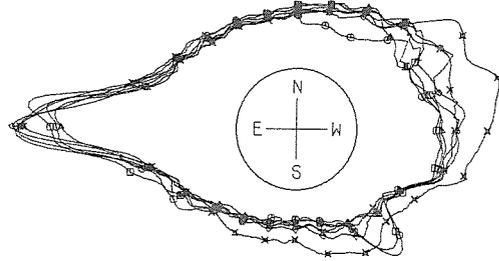
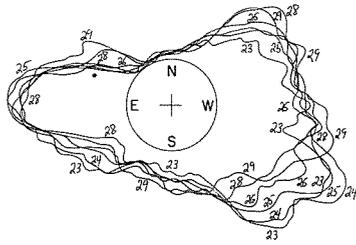


C# 1595
22 NOV to 19 DEC 1972

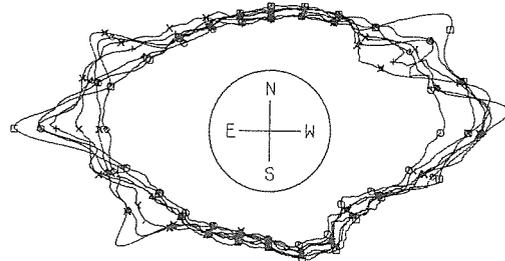
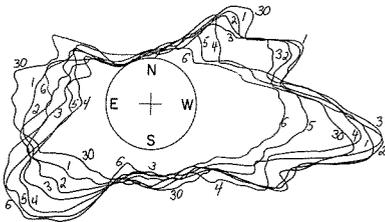
1.5R

4.0R

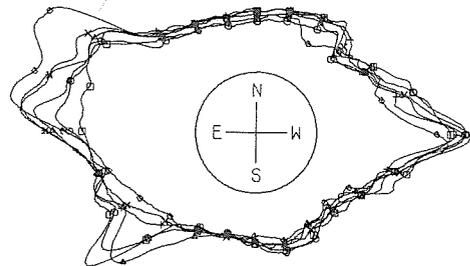
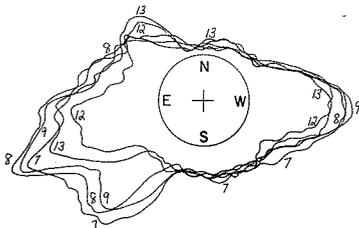
- NOV 22, 1972 2034UT
- NOV 23, 1972 1940UT
- △ NOV 24, 1972 1847UT
- + NOV 25, 1972 1926UT
- × NOV 26, 1972 1633UT
- ◊ NOV 27, 1972 1912UT
- * NOV 28, 1972 2256UT



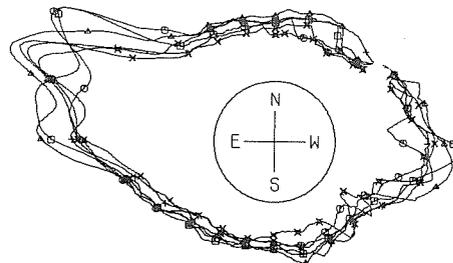
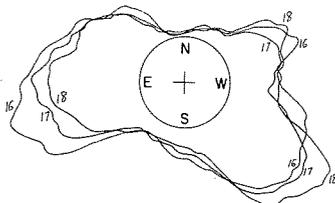
- NOV 29, 1972 2203UT
- NOV 30, 1972 1804UT
- △ DEC 01, 1972 2148UT
- + DEC 02, 1972 1750UT
- × DEC 03, 1972 2001UT
- ◊ DEC 04, 1972 2040UT
- * DEC 05, 1972 1946UT



- DEC 06, 1972 1853UT
- DEC 07, 1972 1930UT
- △ DEC 09, 1972 1001UT
- + DEC 10, 1972 1820UT
- × DEC 11, 1972 0812UT
- ◊ DEC 12, 1972 1632UT

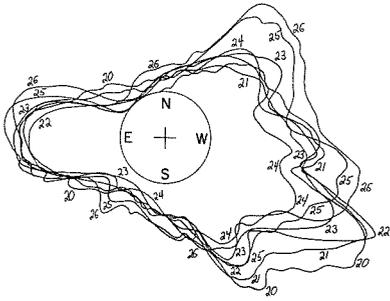


- DEC 13, 1972 0930UT
- DEC 14, 1972 1616UT
- △ DEC 15, 1972 0912UT
- + DEC 16, 1972 0617UT
- × DEC 17, 1972 0723UT
- ◊ DEC 18, 1972 0703UT
- * DEC 19, 1972 0409UT

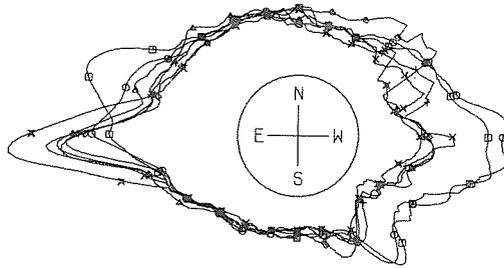


C# 1596
20 DEC 1972 to 16 JAN 1973

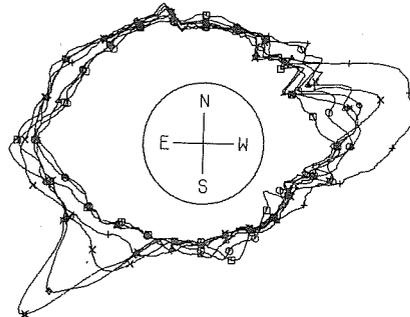
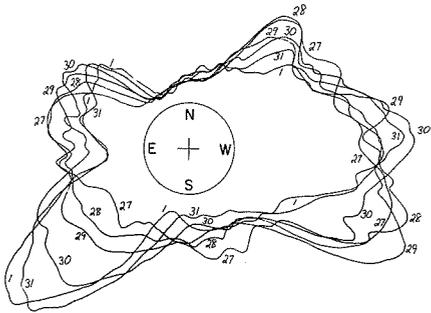
1.5R



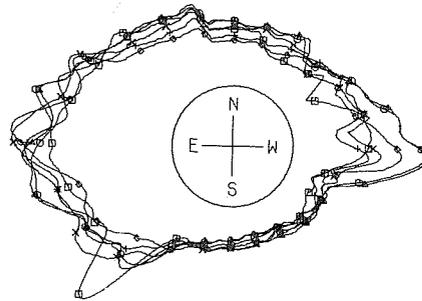
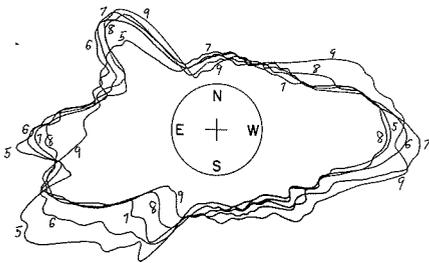
4.0R



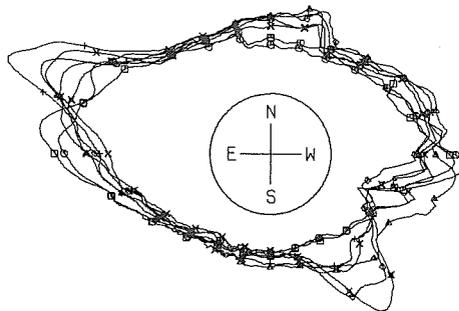
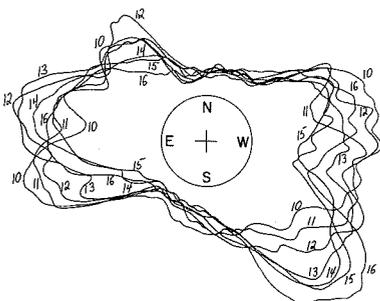
- DEC 20, 1972 0446UT
- ◇ DEC 21, 1972 0352UT
- ▲ DEC 22, 1972 0745UT
- + DEC 23, 1972 0227UT
- x DEC 24, 1972 0611UT
- ◊ DEC 25, 1972 0518UT
- * DEC 26, 1972 0121UT



- DEC 27, 1972 0806UT
- ◇ DEC 28, 1972 0650UT
- ▲ DEC 29, 1972 0252UT
- + DEC 30, 1972 0502UT
- x DEC 31, 1972 0540UT
- ◊ JAN 01, 1973 0446UT
- * JAN 02, 1973 0524UT

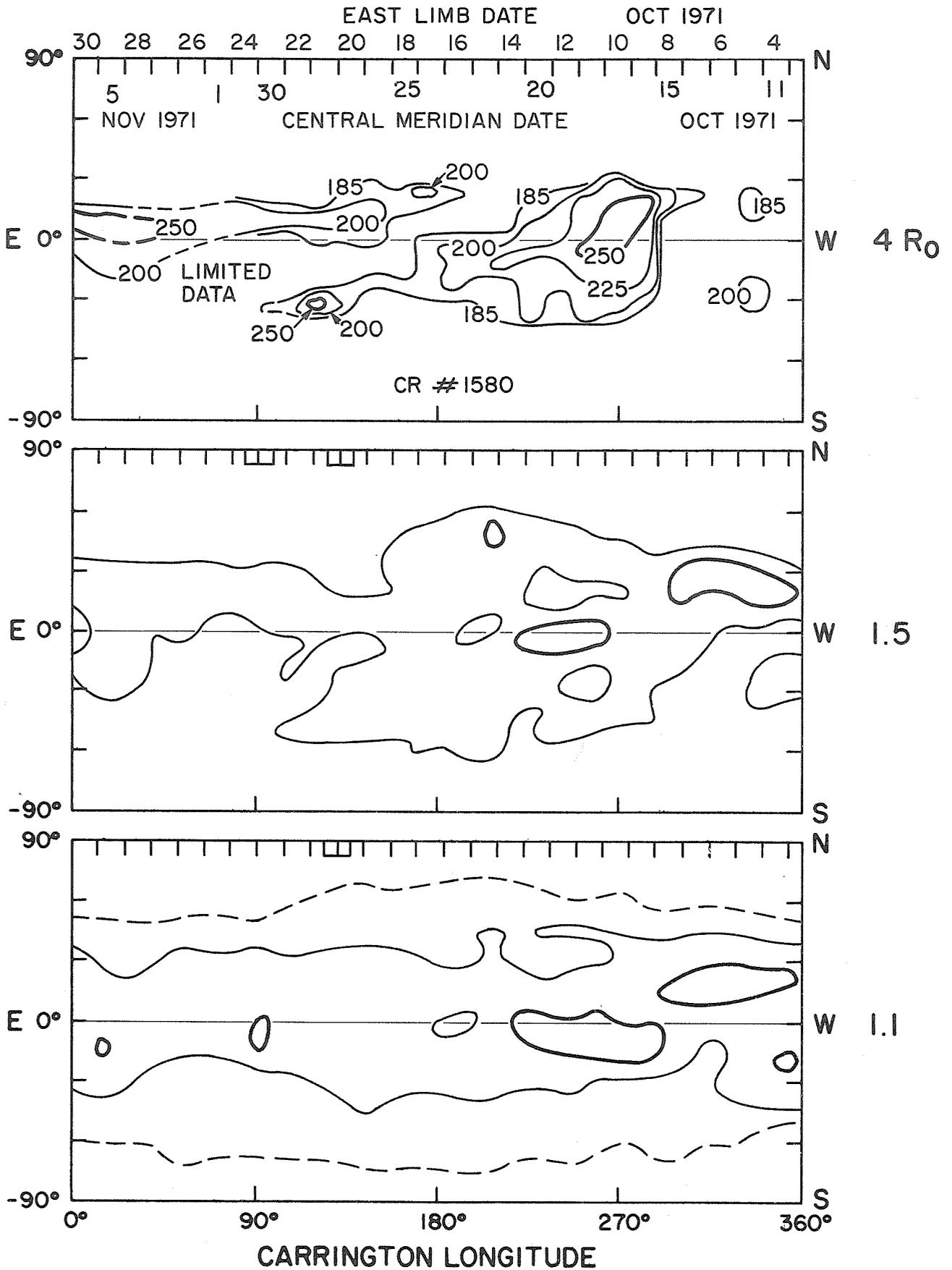


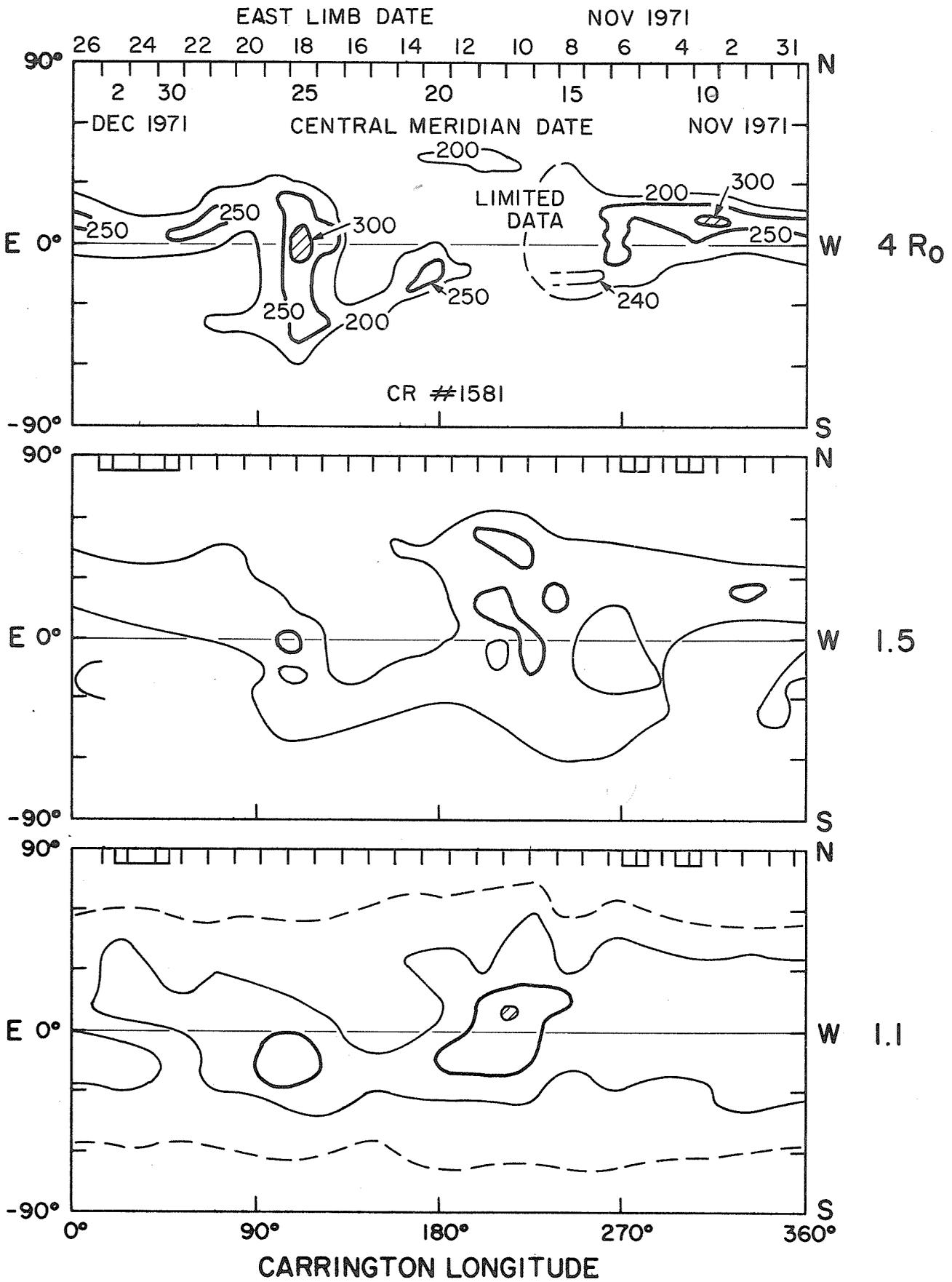
- JAN 03, 1973 0430UT
- ◇ JAN 04, 1973 2334UT
- ▲ JAN 05, 1973 0417UT
- + JAN 06, 1973 1840UT
- x JAN 07, 1973 2049UT
- ◊ JAN 08, 1973 1954UT

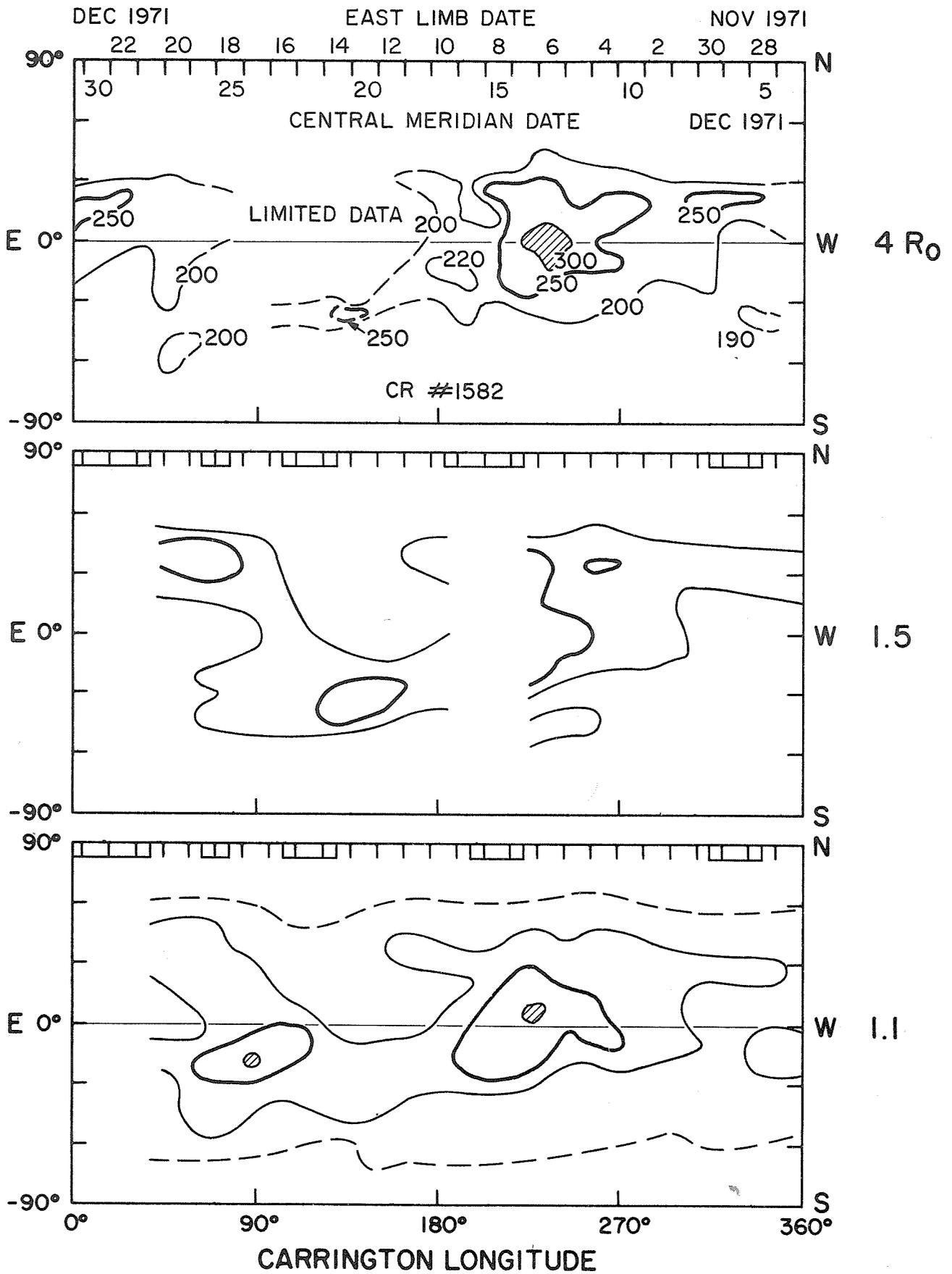


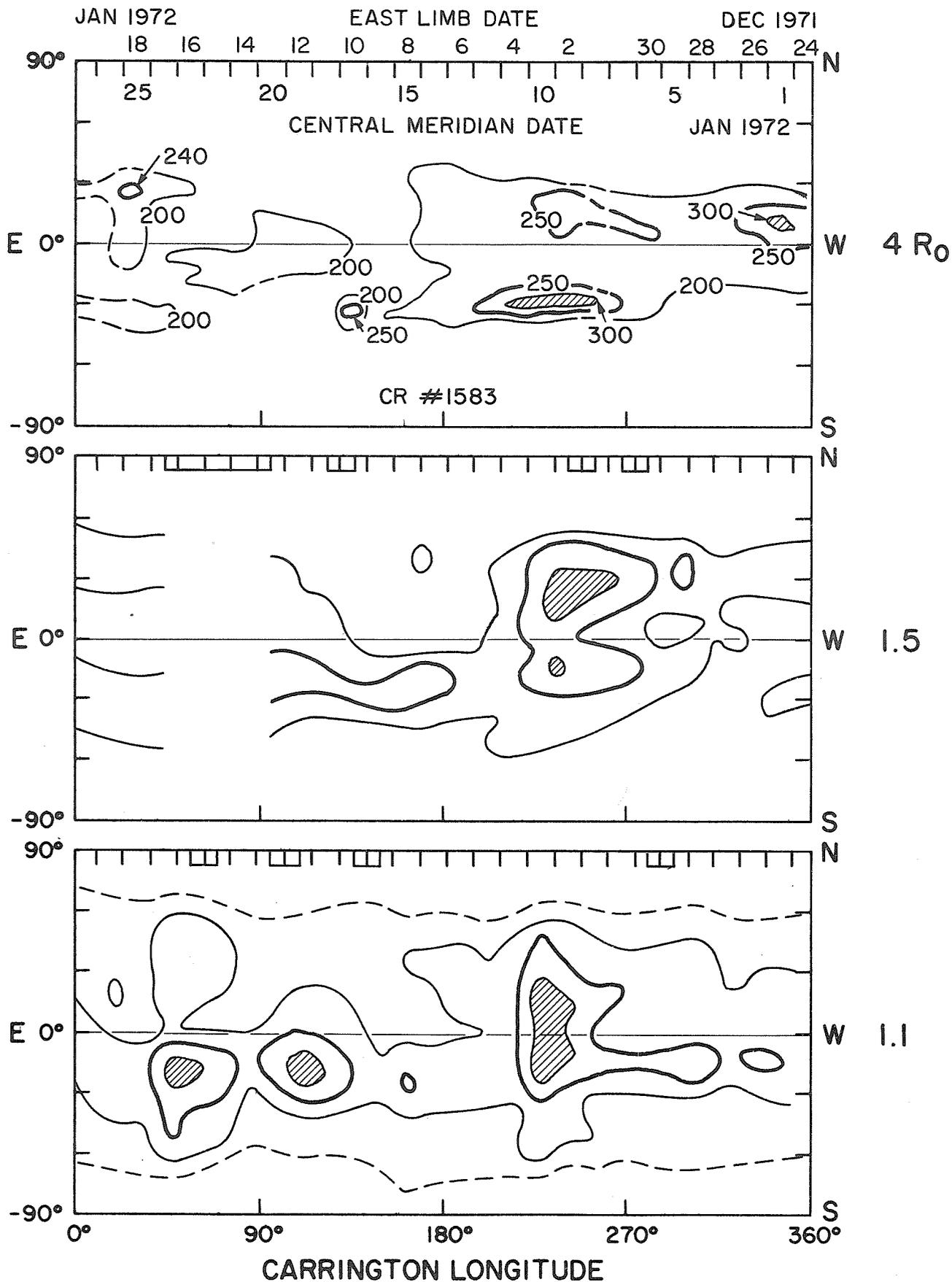
- JAN 09, 1973 1859UT
- ◇ JAN 10, 1973 1804UT
- ▲ JAN 11, 1973 2319UT
- + JAN 12, 1973 2051UT
- x JAN 13, 1973 1966UT
- ◊ JAN 14, 1973 1901UT
- * JAN 15, 1973 2111UT

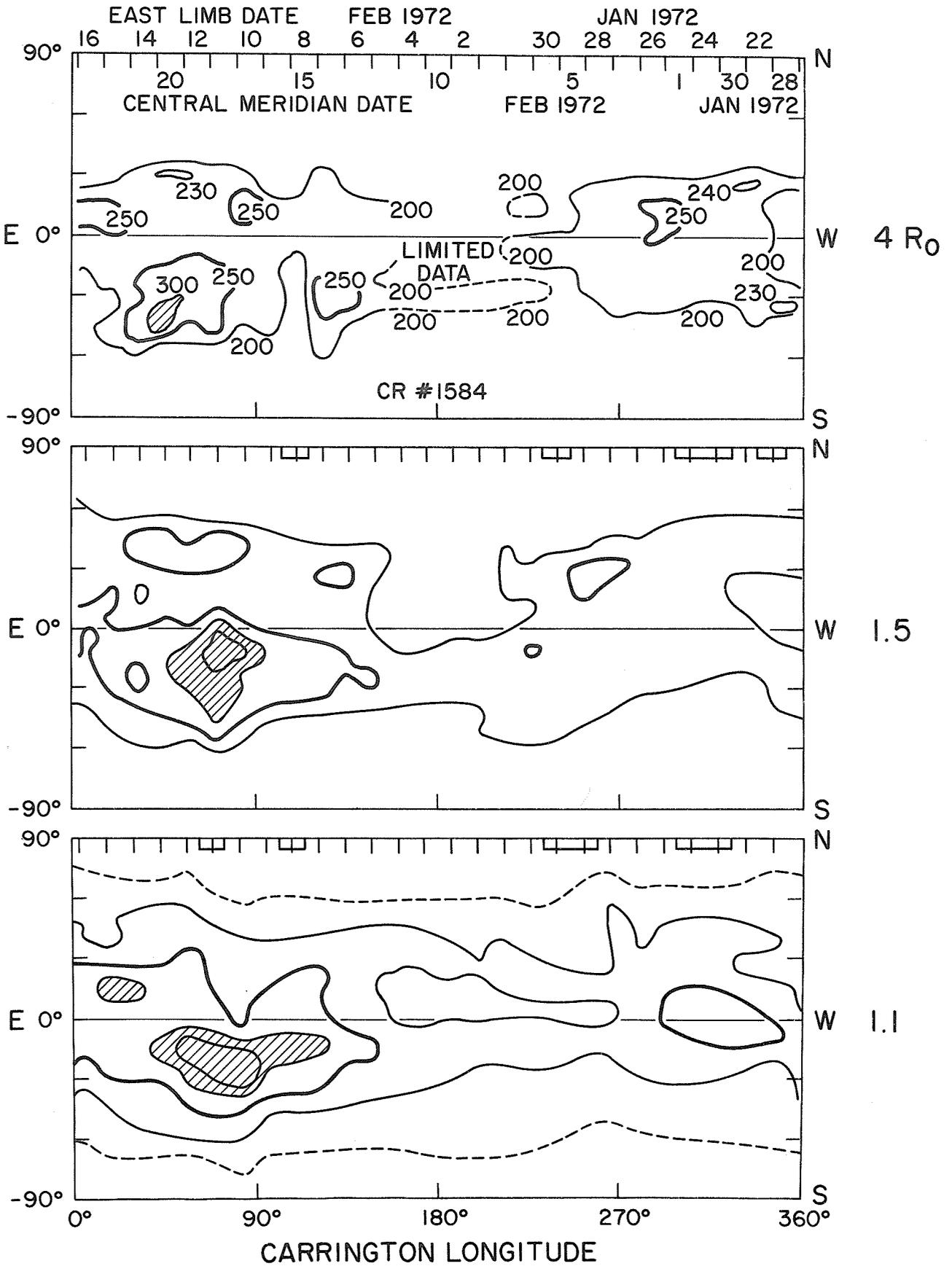
3. Synoptic Maps of Coronal Brightness at 1.1, and 1.5 (Mauna Loa) and 4 (OSO-7) Solar Radii

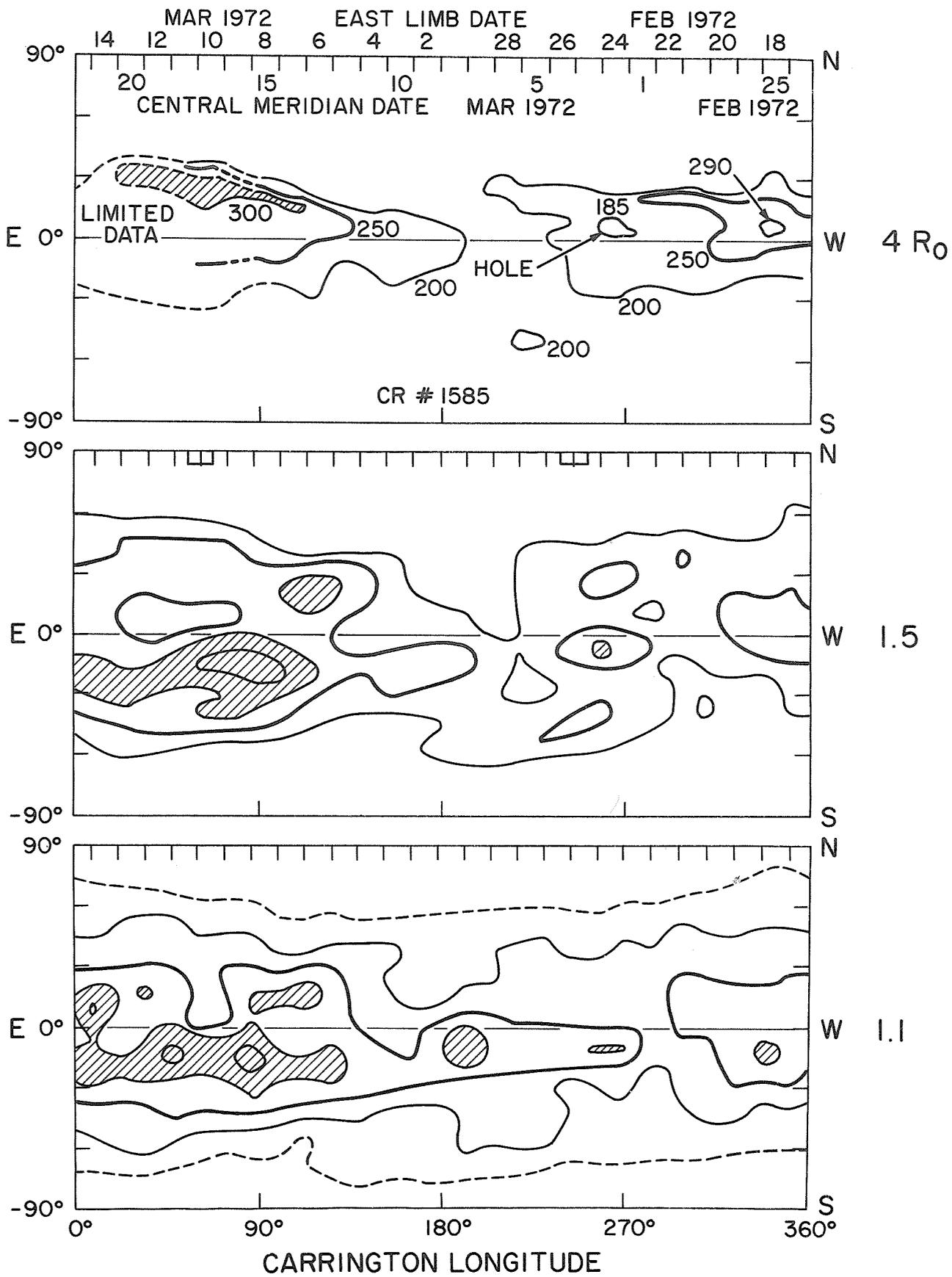


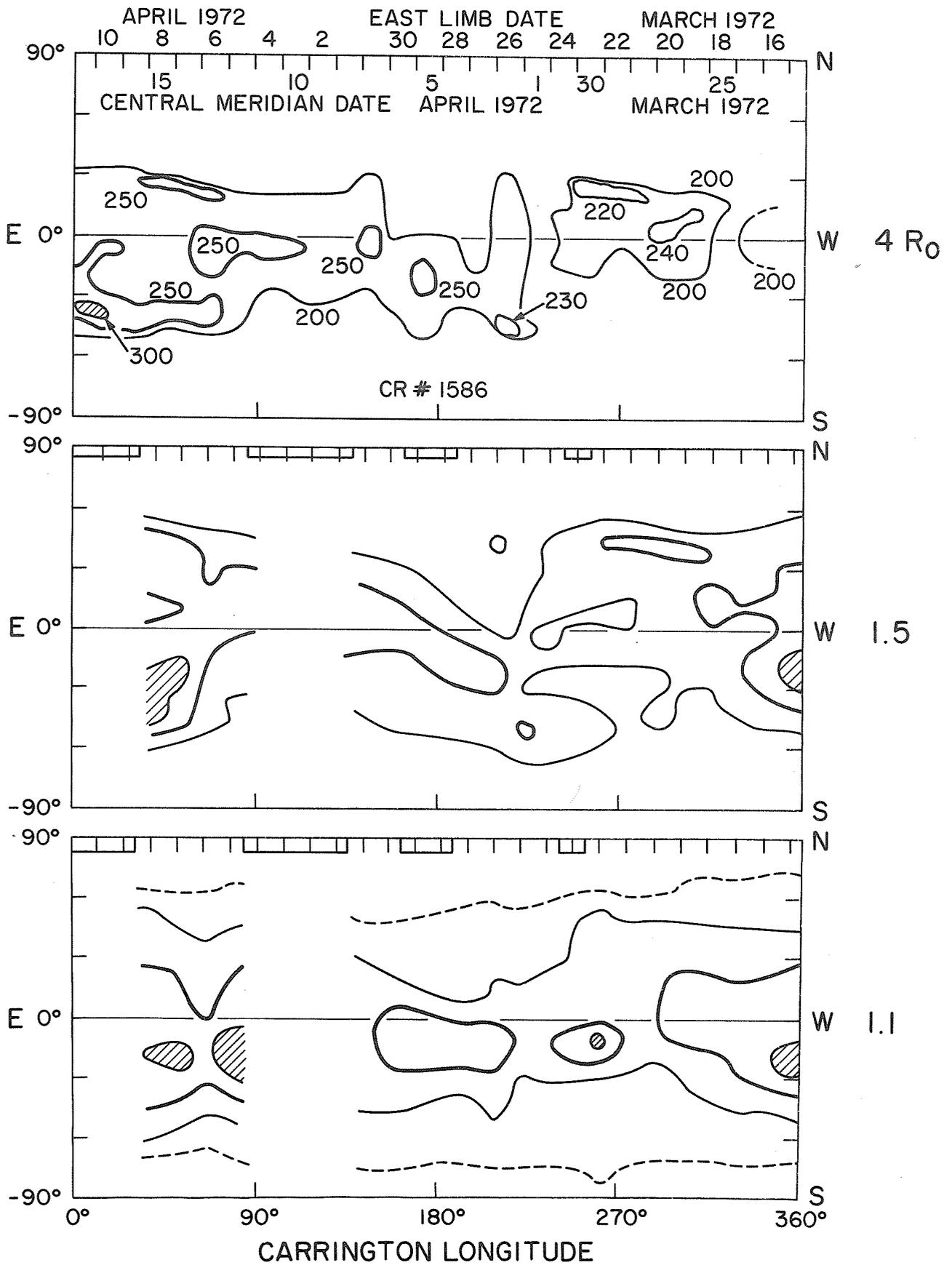


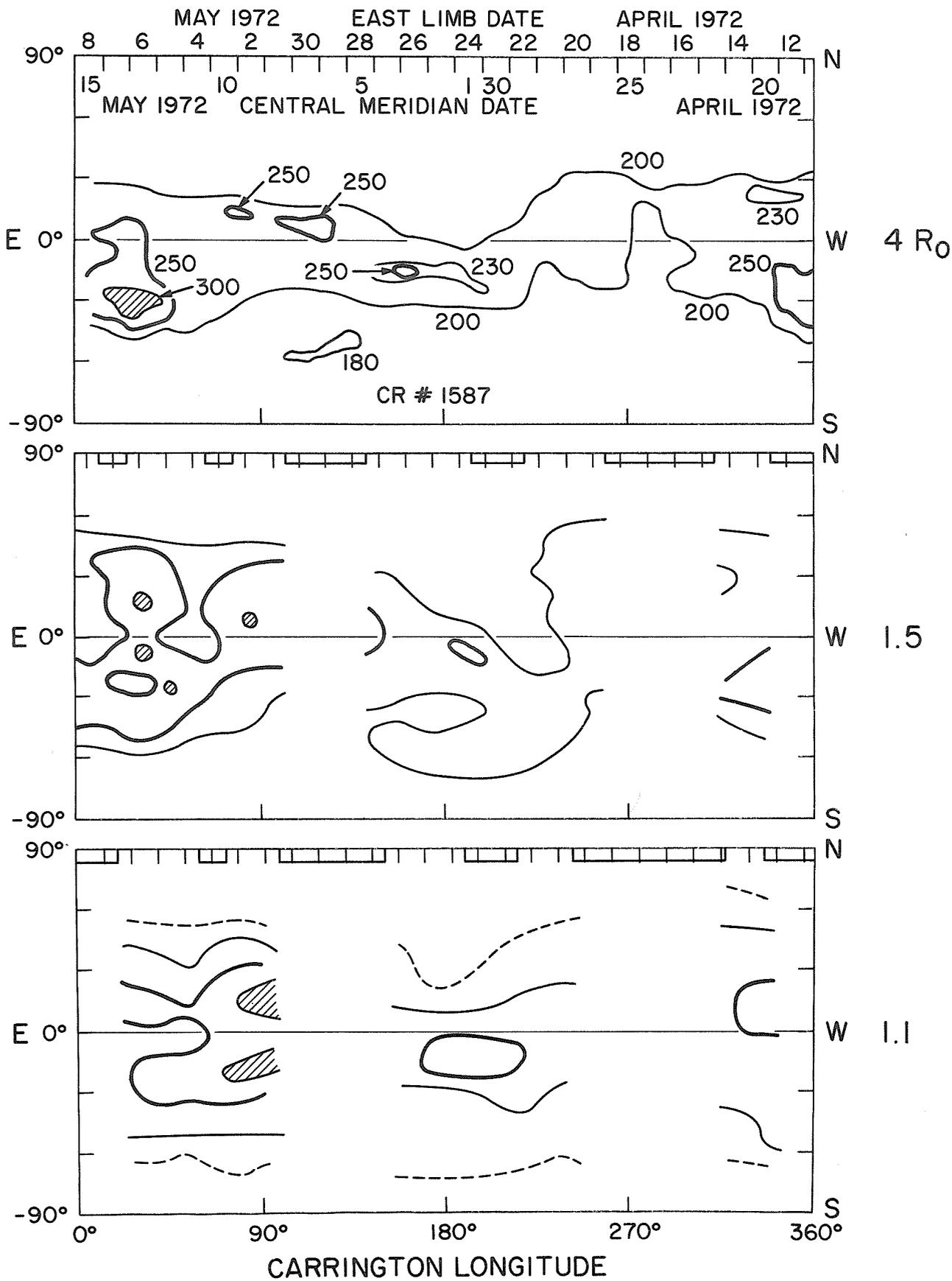


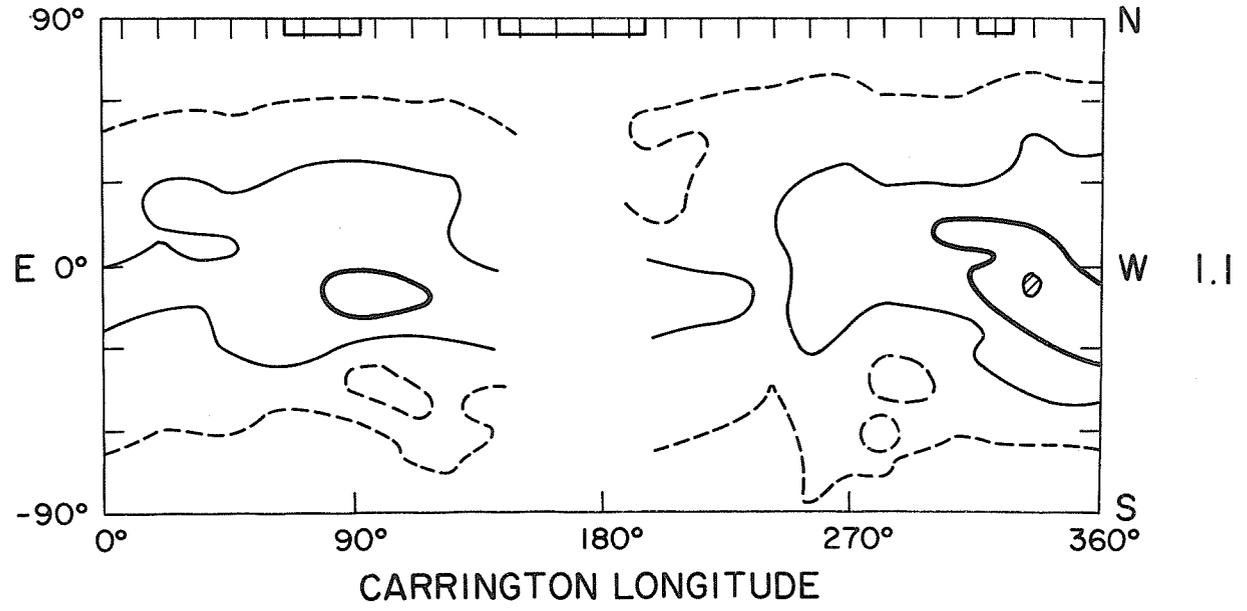
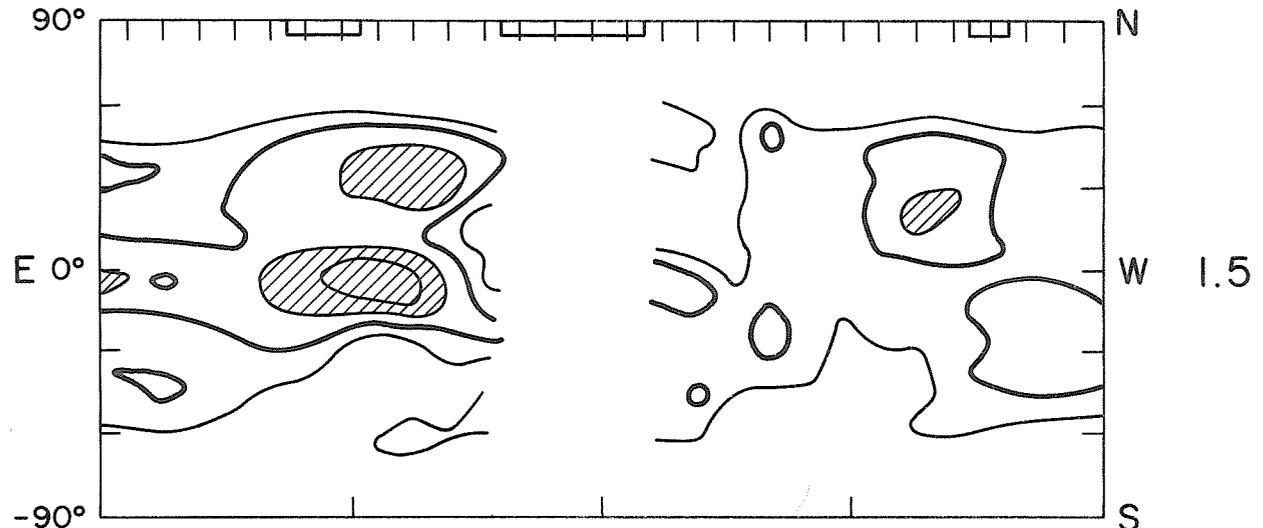
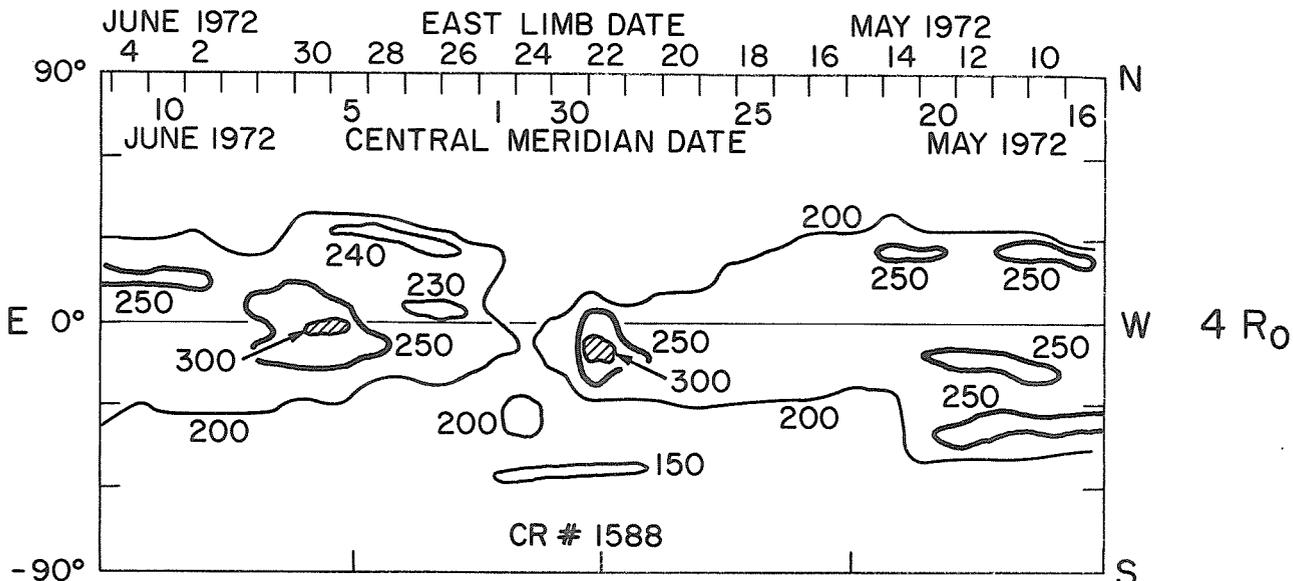


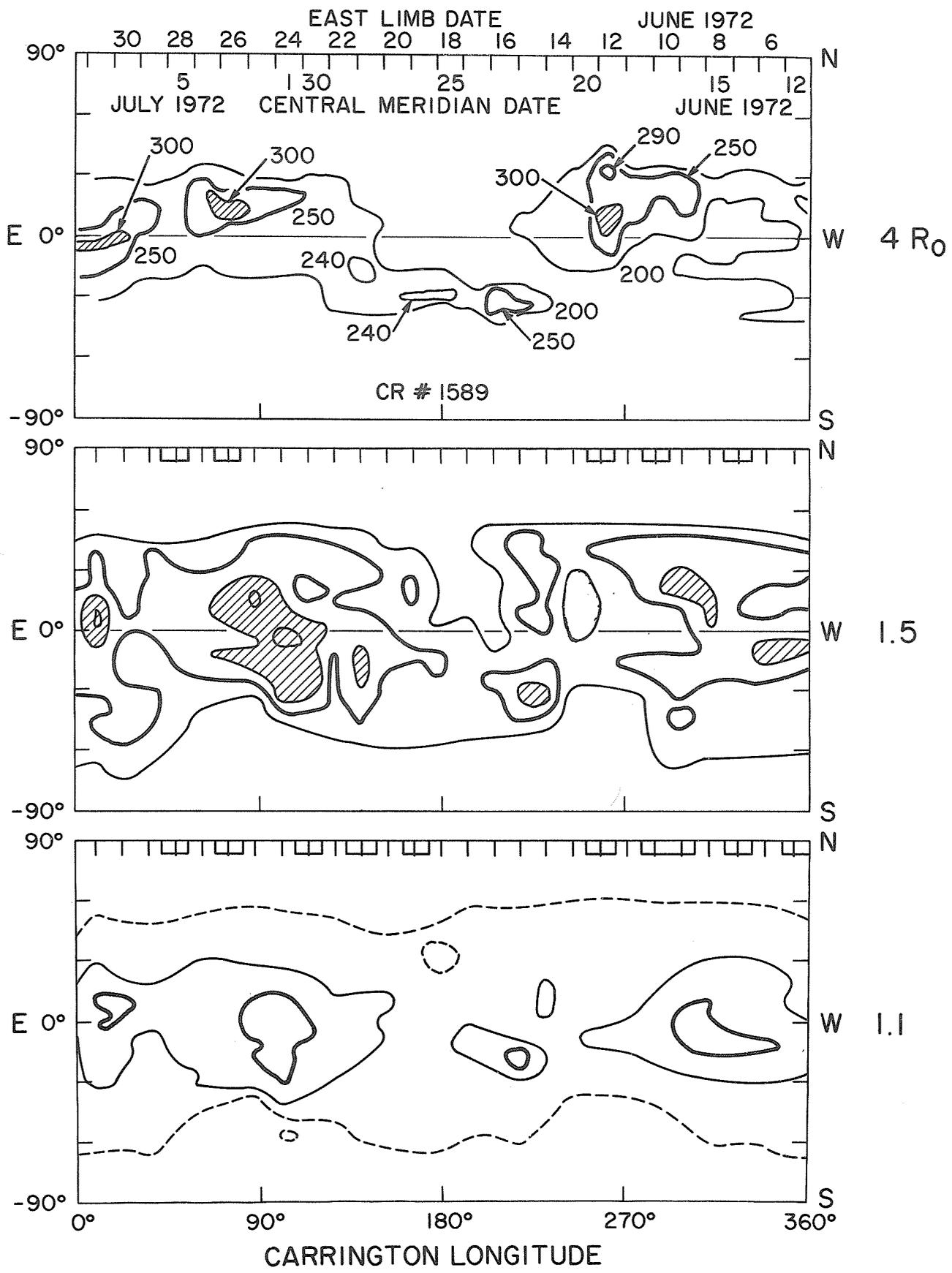


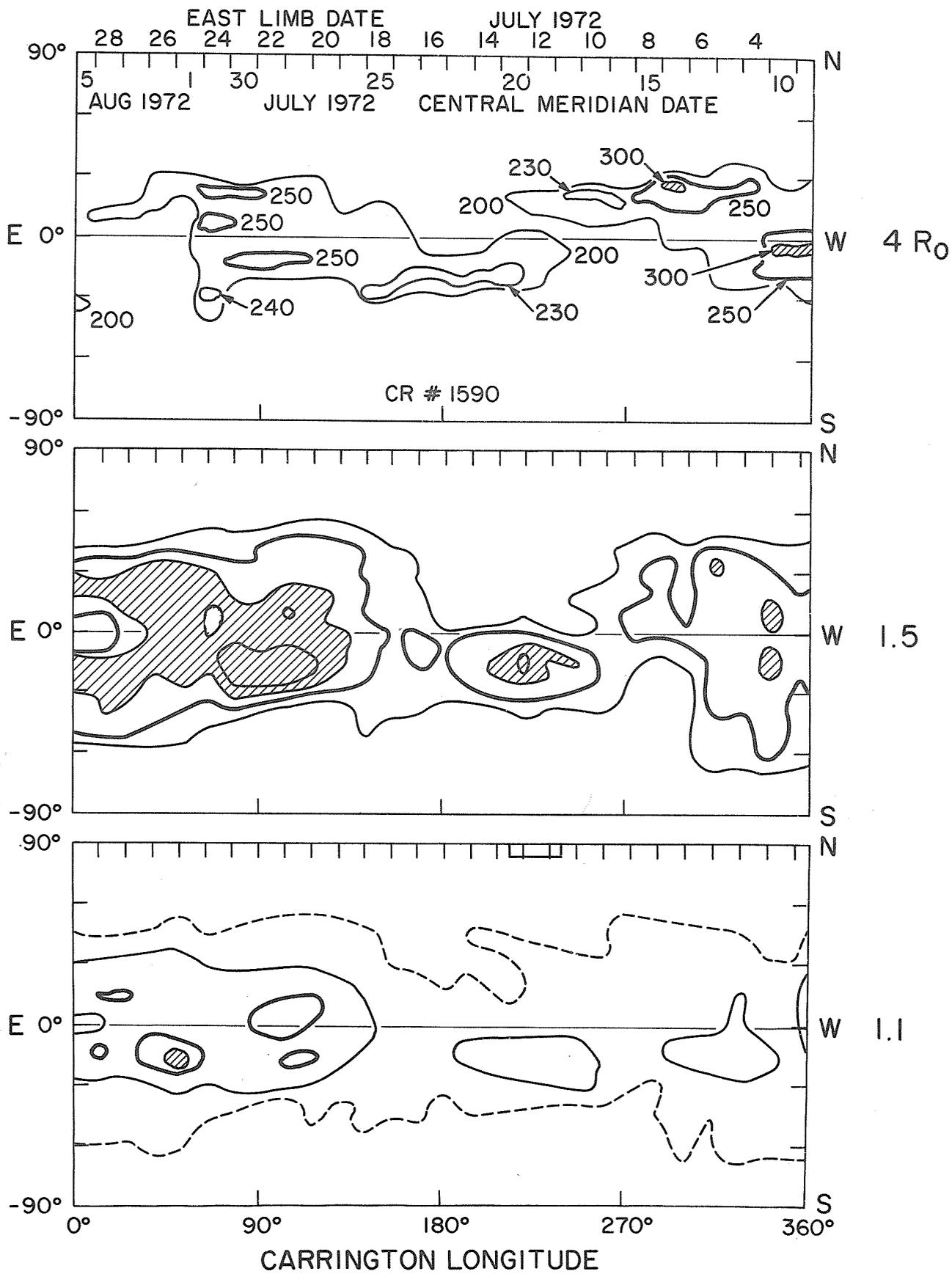


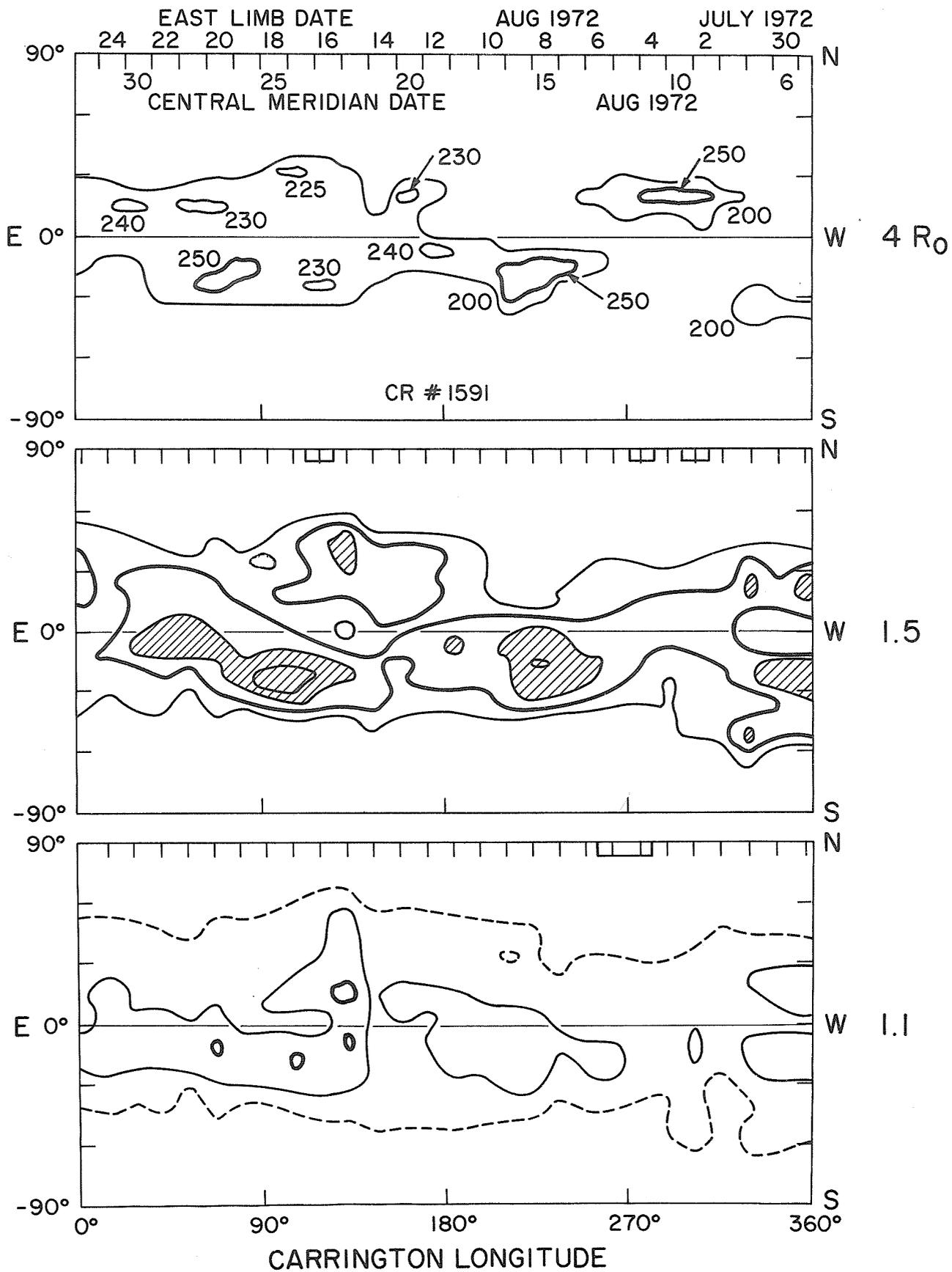


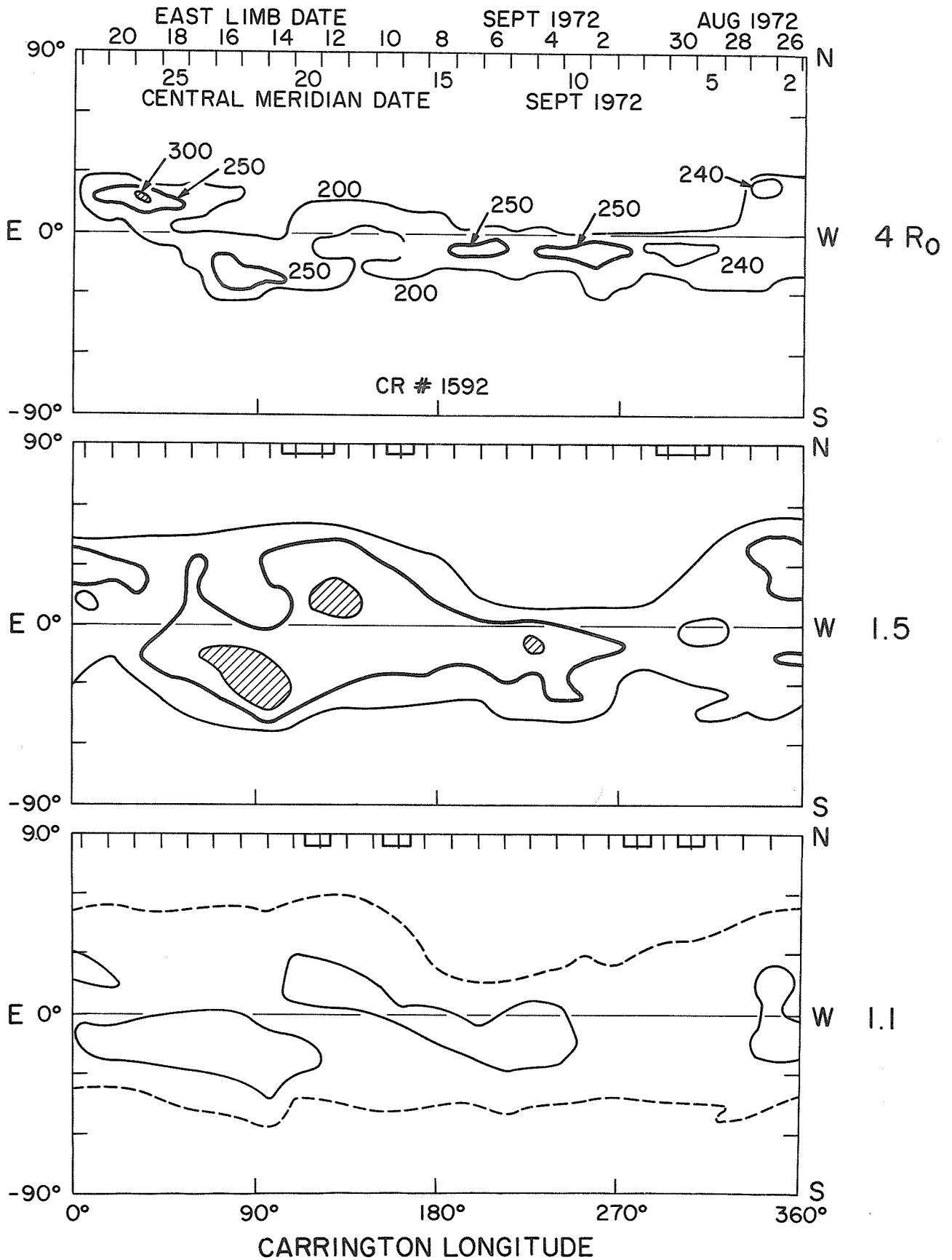


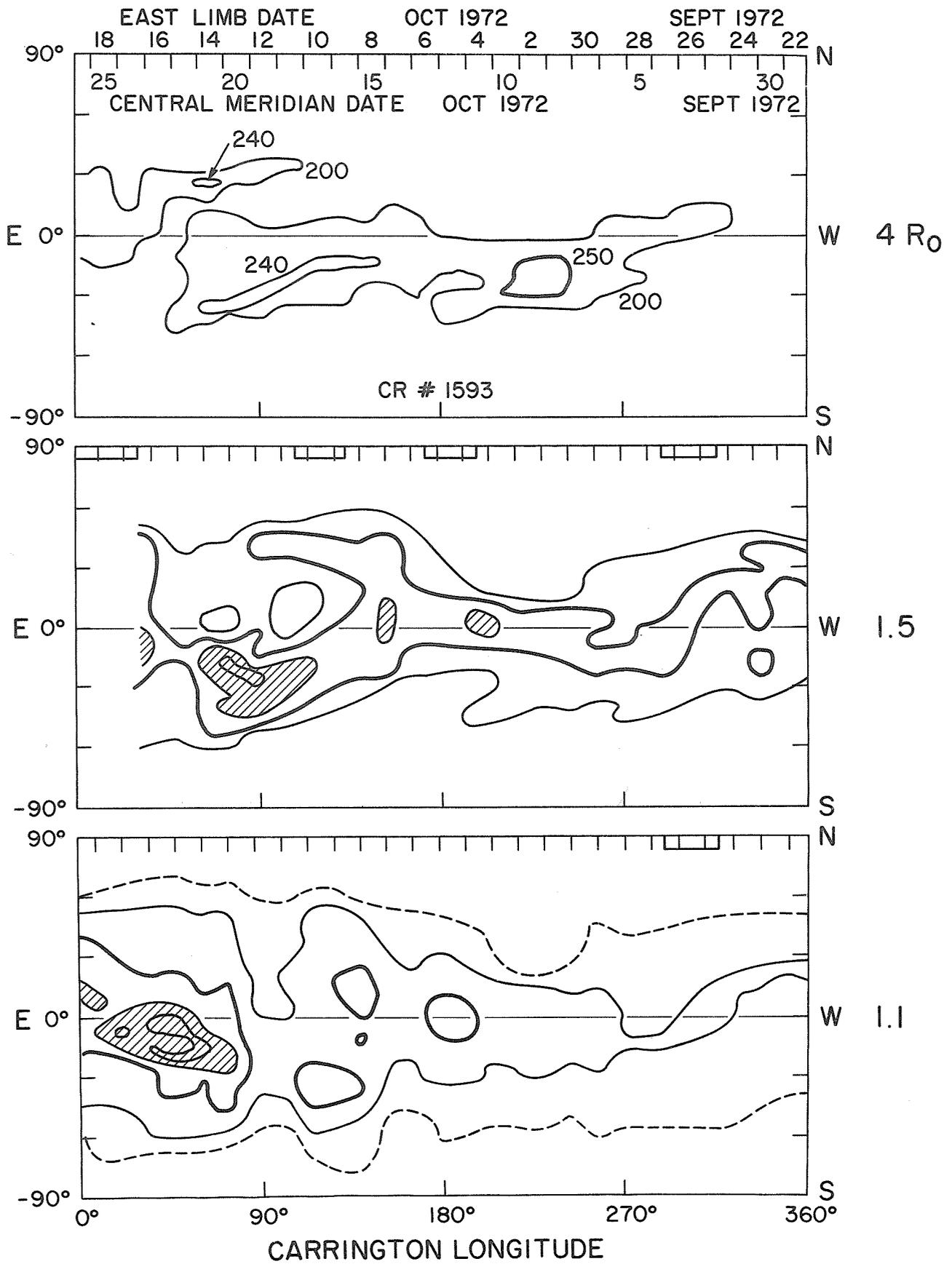


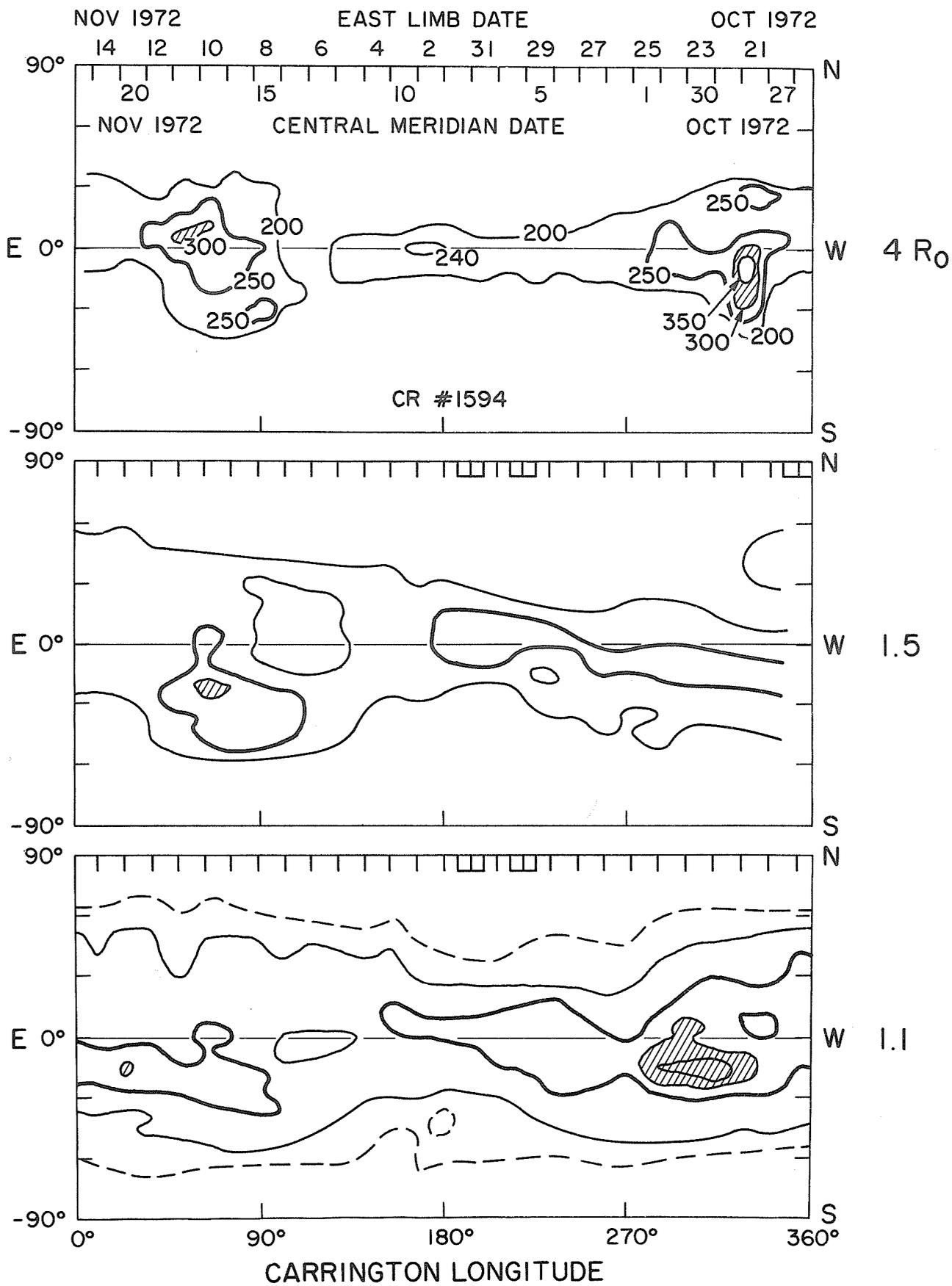


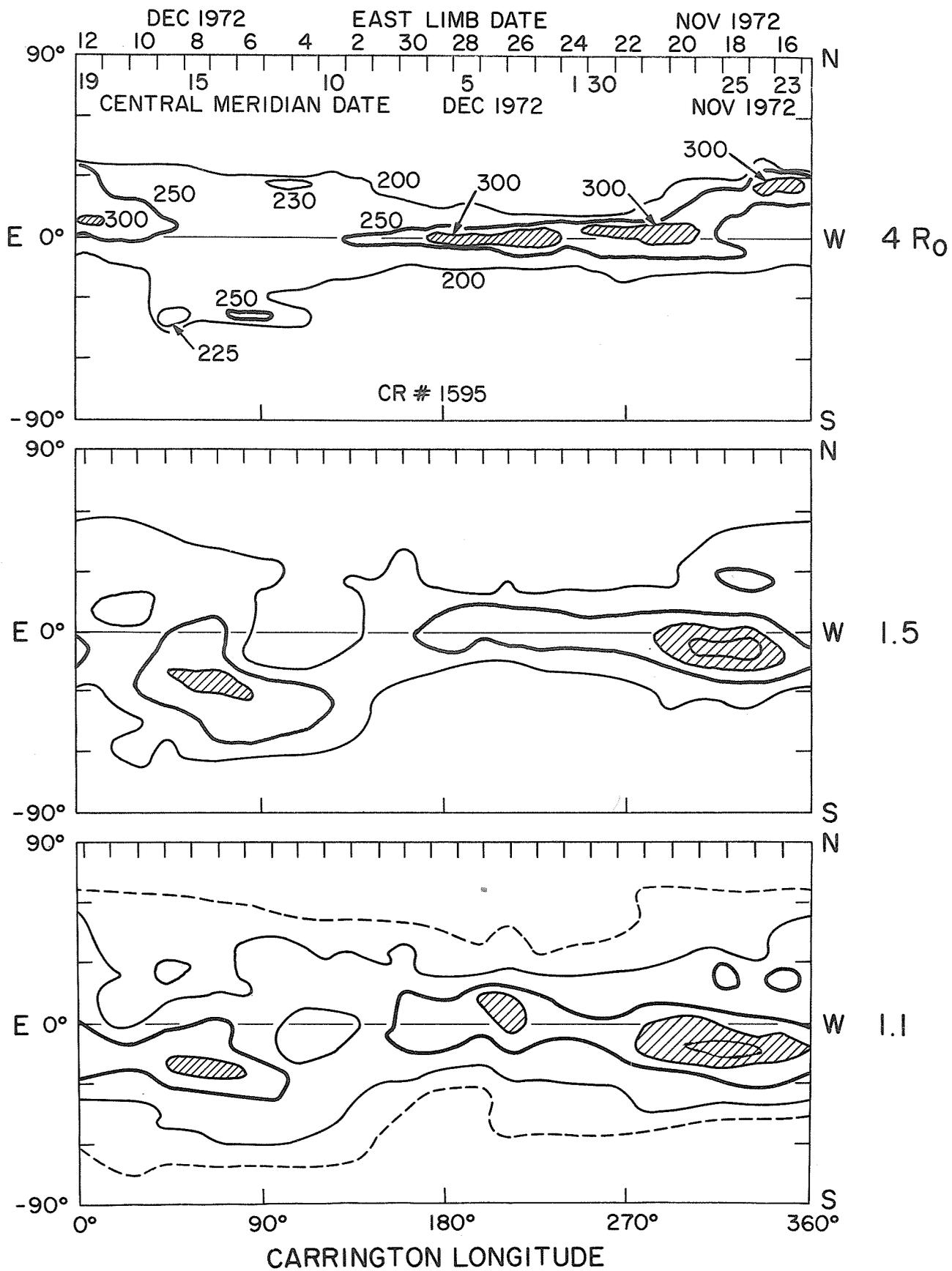


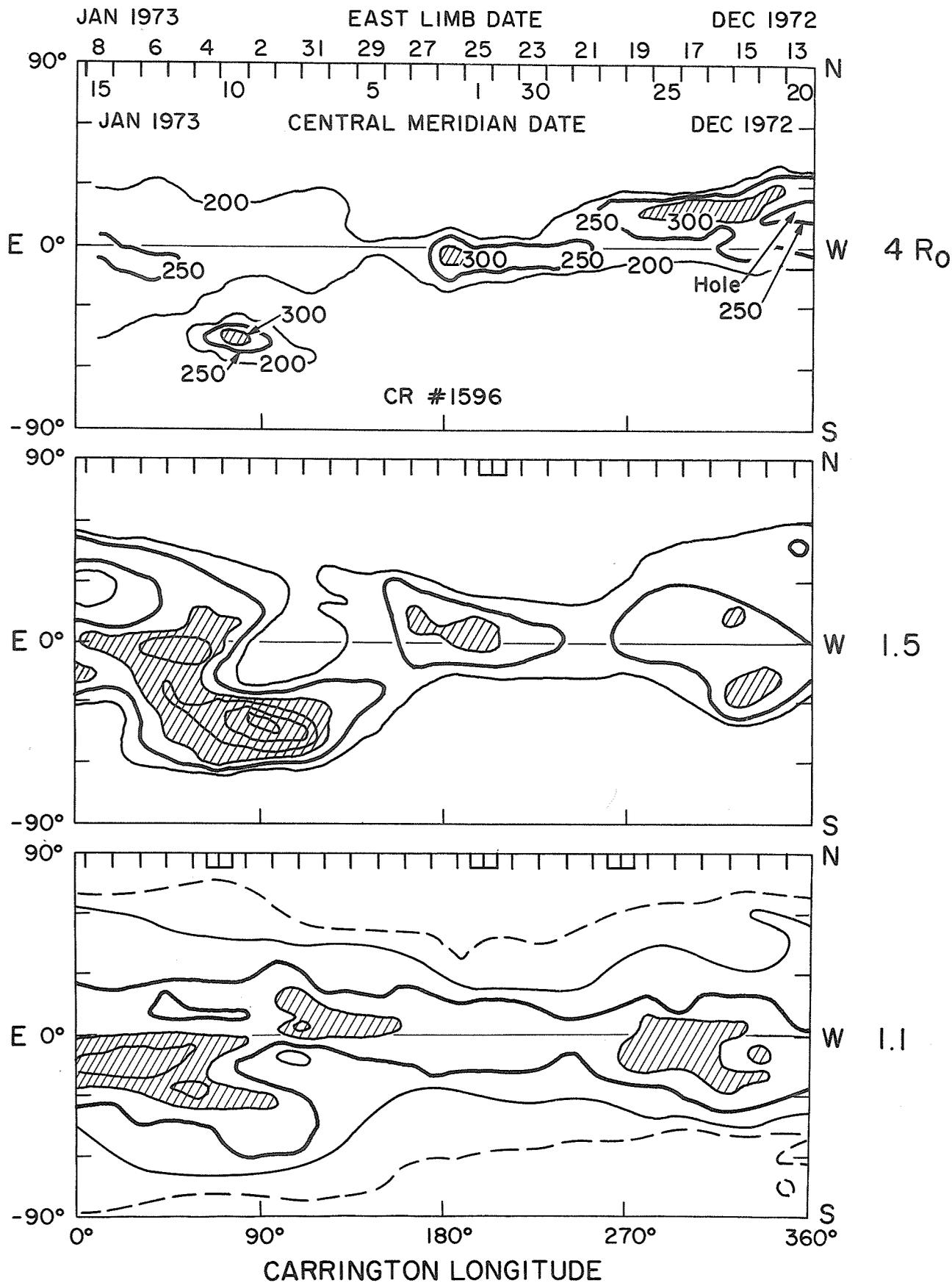






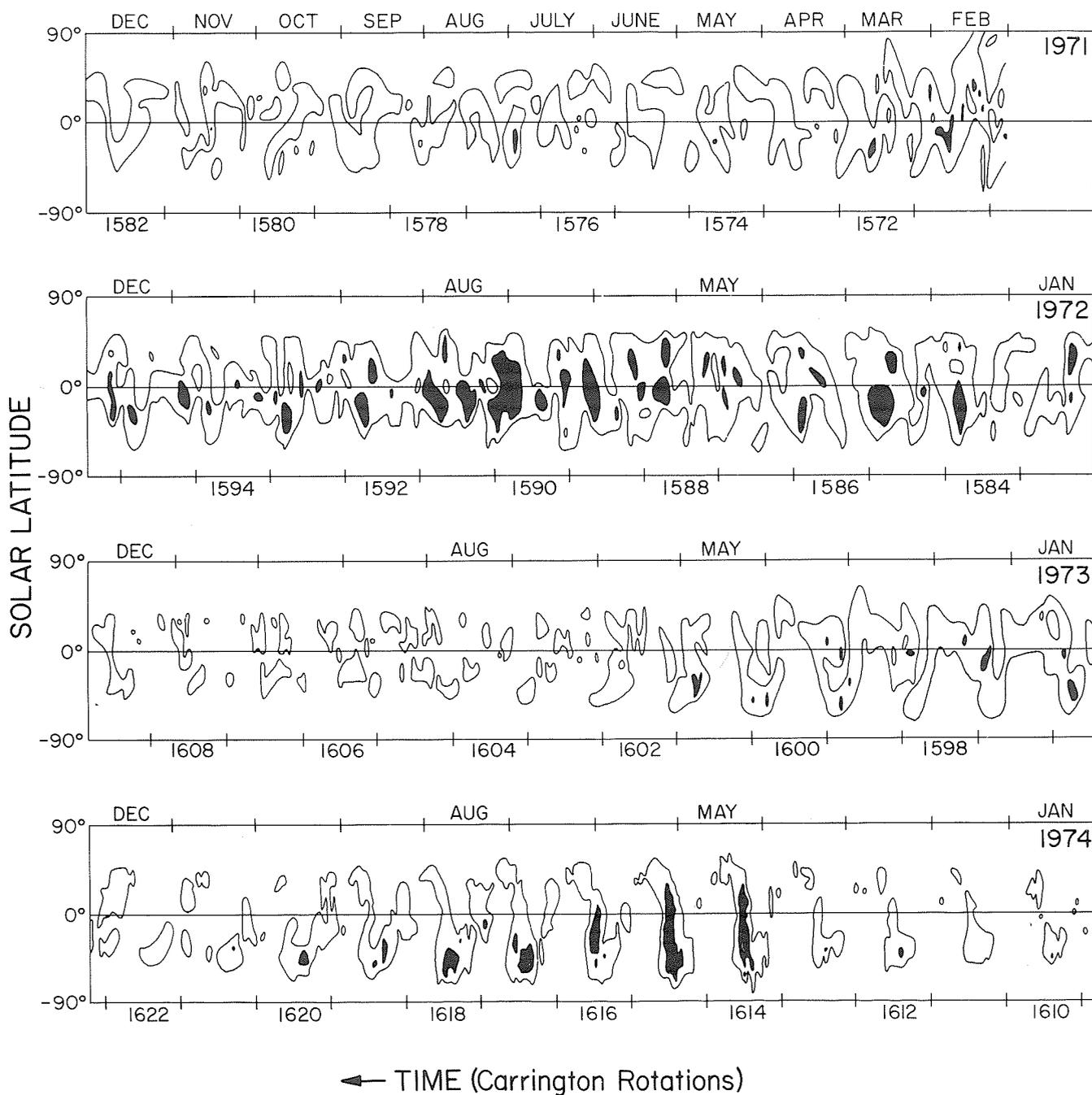






4. Compressed Synoptic Maps of the Corona at 1.5 (Mauna Loa) Solar Radii

K-CORONA AT 1.5 R_o



5. White Light Coronal Transient Events

(11 Oct. 1971 - 15 Jan. 1973)

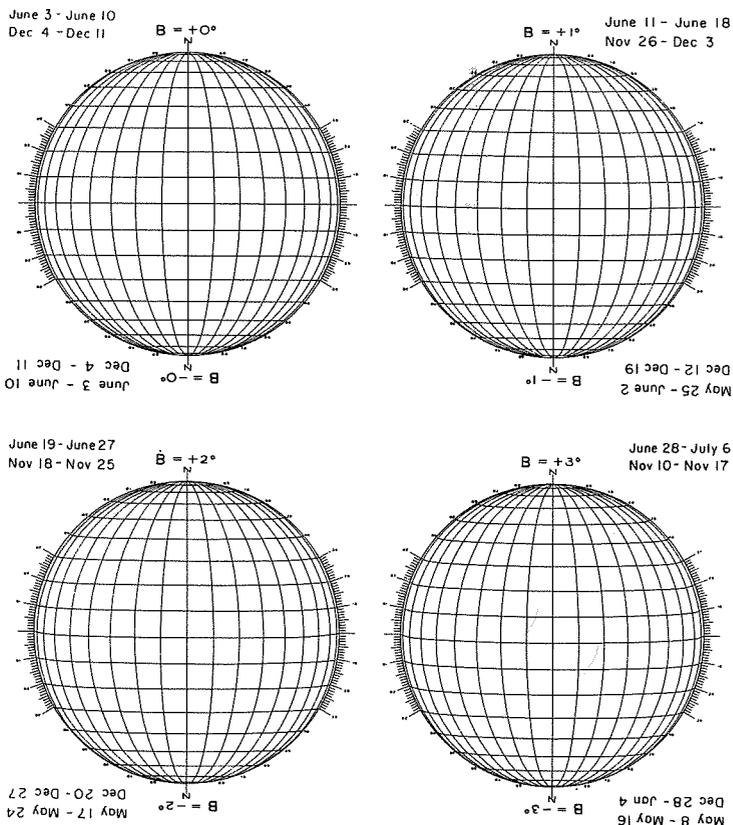
(Flare-associated events denoted by * after date)

- 18 Nov. 1971* - Image at 2044 UT shows normal corona. 2350 UT image shows sharp spike 50° SE. No visible flare, but indications of activity behind E limb at Carrington longitude 100°.
- 14 Dec. 1971* - Streamer at 40° SE is in process of dissolution at 0239 UT. Images at 0407 UT show outward moving clouds between 0° E and 40° SE. Possibly associated with flare behind E limb, perhaps in McMath Region 11657 at S10°, 3 days behind limb.
- 21 Jan. 1972 - Looks like a transient at 30° SE at 0823 UT but probably fast evolution. Time coverage is poor.
- 8 Feb. 1972 - Outward moving blob with loop; leading edge at 4 R_⊙ at 2111 UT. Prominence at 40° NE, which lifted off at 1700 UT. Blob disappeared from field at 10 R_⊙ at 9 Feb., 0018 UT.
- 17 Feb. 1972* - (Rearrangement of inner white light coronal structures observed at Mauna Loa accompanied by green line coronal whip observed at Sacramento Peak Observatory, interpreted as transfer of coronal material from one structure to another, possibly due to coronal reconnection [Wagner *et al.*, 1974]. Probably related to flare beyond E limb. OSO-7 not observing.)
- 12 June 1972* - Brightening of entire E corona recorded 1447 UT, 20° S - 48° N; probably related to flare in McMath 11926, S12 E50.
- 16 June 1972* - Streamer in SE explosively enhanced ~1900 UT at 30° S, with concomitant coronal depletion at low coronal heights observed at Mauna Loa [Koomen *et al.*, 1974]. Possibly related to filament-channel flare between McMath Regions 11928 and 11930 on E limb.
- 27 June 1972 - Brightening and broadening of large area between 8° - 35° NE; 2224 UT 26 June through 0303 UT 27 June. Nothing known.
- 21 July 1972 - Curved streamer in East, shows only in 1039 UT image.
- 24 July 1972 - Massive brightening all over East limb, 37° N - 40° S, in 0817 UT image. Nothing known.
- 31 July 1972 - Broadening of SE streamer, 23° S, beginning in 0548 UT image, and still present at 0854 UT. Apparently associated with bifurcation of large-scale coronal structure at low heights, from Mauna Loa observations of coronal depletion between 30/31 July.
- 2 Aug. 1972* - NE fan brightening and broadening, 0-25° N, 0413 - 0718 UT, associated with flaring region 331 in McMath 11976.
- 7-8 Aug. 1972* - Brightening and broadening of SE streamer 5-20° S, opposite flaring region 331. Streamer disappeared between 2323 UT 9 Aug. and 2235 UT 10 Aug.
- 12 Aug. 1972* - Beautiful flare spray photographed to 2 R_⊙ by Mauna Loa, 2020-2235 UT, followed by depletion in lower corona accompanied by Type IV Radio bursts, described by Riddle *et al.*, [1974]. NRL recorded subsequent brightening of NE streamer (opposite limb) at 0004 UT on 13 Aug., possibly unrelated. Streamer gone day later, 14 Aug. at 0049 UT.
- 16 Sep. 1972 - SE streamer brightened and broadened (8-25° S), 15 Sep. 0550 UT to 16 Sep. 1549 UT. Disappeared between 16 Sep. 1549 UT and 17 Sep. 0411 UT. Seemed to be fast evolution.
- 23 Sep. 1972* - Large loop in East, 0700 UT, probably related to flare at N08 E70 0308-0318 UT.

- 13 Oct. 1972 - Suggestion of large loop in NE, 0727 UT image.
- 17 Oct. 1972 - Bright polar streamer in S. No transient but very unusual.
- 21 Oct. 1972 - Brightening of SE corona sometime after 1517 UT. Last seen 2218 UT. Gone 1133 UT 22 Oct.
- 1 Nov. 1972 - Intense NW streamer, brightening and fading within a few days. No transient but fast evolution.
- 26 Nov. 1972 - Broadening of eastern streamer. No transient, fast evolution.
- 22-26 Dec. 1972 - Long bright streamer in E which broadened appreciably on 26 Dec. The same streamer behaved in much the same way one rotation earlier on 26 Nov.
- 9-13 Jan. 1973* - Very quick changes in NE streamer. On 11 Jan. flare sprays were photographed at Mauna Loa originating at approximately 10°N on the West limb at 0036 UT and 1800 UT. Both were followed by depletions in the lower corona observed by HAO at Mauna Loa, and outward moving coronal clouds observed by NRL from OSO-7. Detailed study of these events by Stewart *et al.*, [1974a and b].

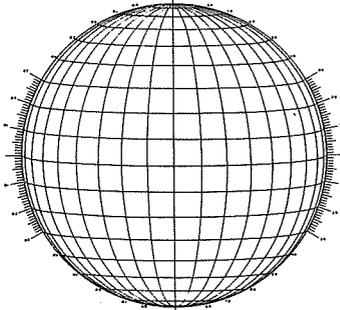
APPENDIX: Stonyhurst Disks for Use with XUV Pictures

DEGREES FROM CENTRAL MERIDIAN



July 7 - July 16
Oct 31 - Nov 9

$B = +4^\circ$

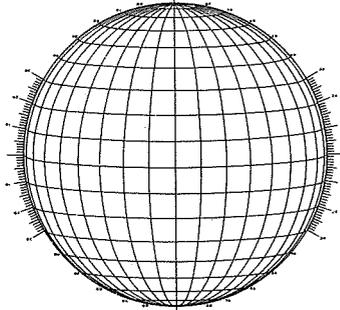


Apr 28 - May 7
Jan 5 - Jan 14

$B = -4^\circ$

July 17 - July 28
Oct 20 - Oct 30

$B = +5^\circ$

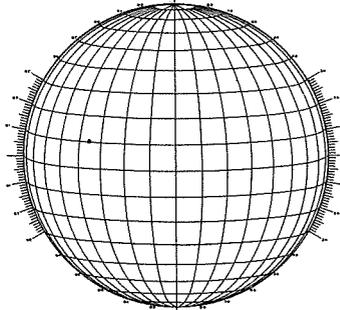


Apr 17 - Apr 27
Jan 15 - Jan 24

$B = -5^\circ$

Oct 6 - Oct 19
Aug 21 - Aug 31

$B = +9^\circ$

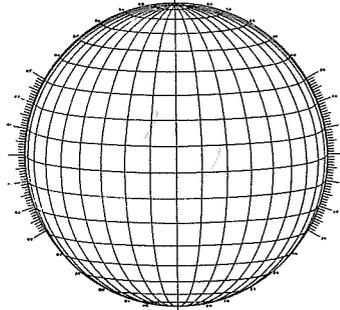


Apr 2 - Apr 16
Jan 25 - Feb 8

$B = -9^\circ$

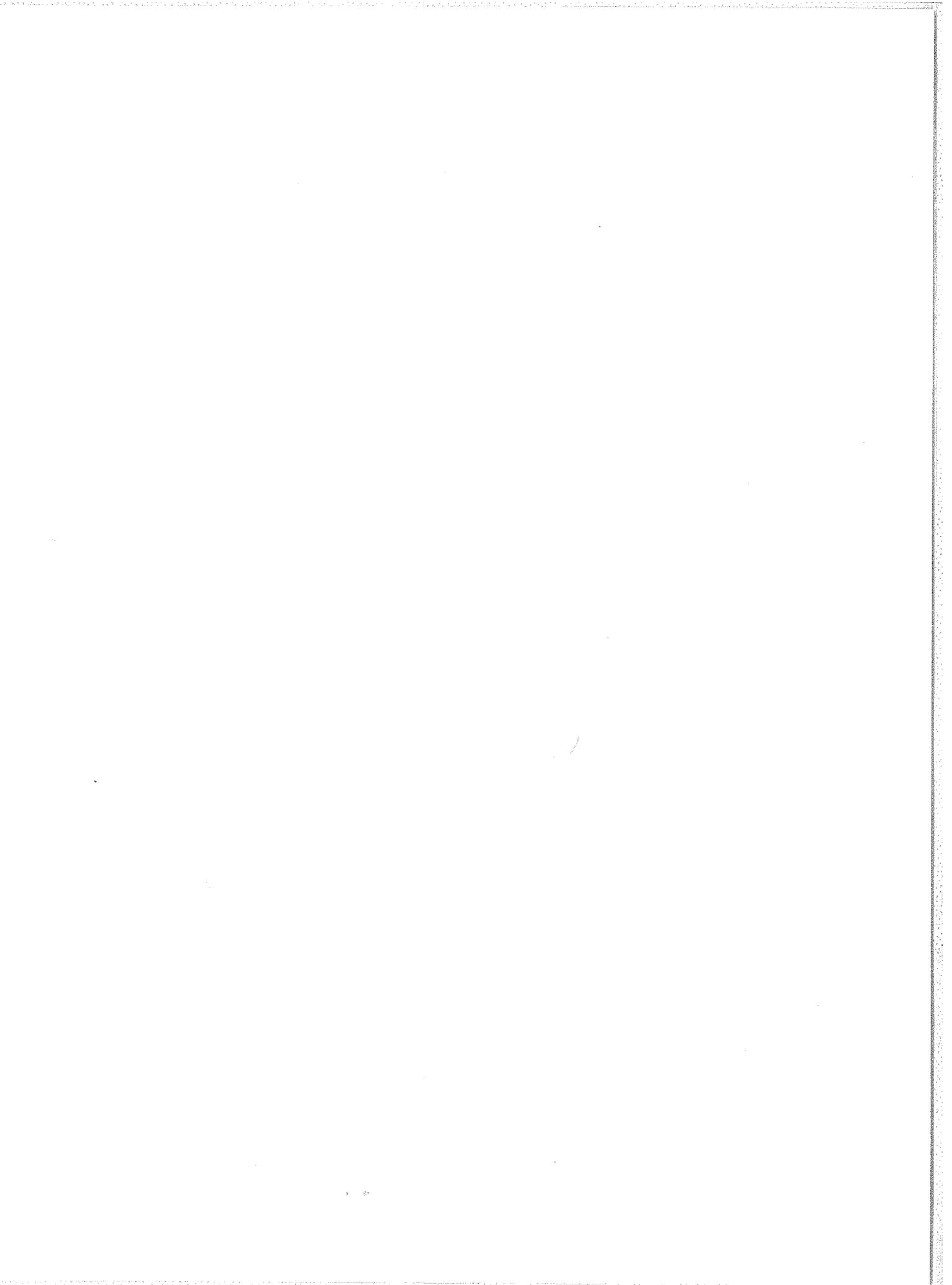
Aug 13 - Oct 5

$B = +7^\circ$



Feb 9 - Apr 1

$B = -7^\circ$



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