the characteristic frontal weather of temperate latitudes is no longer found.

Thus once again a method of forecasting which used successfully in the temperate zone cannot be used in lower latitudes.

Lieut. Jackson then spoke briefly about the method of air mass analysis in use in the U.S.A. and about the value of upper air diegrams which arw compiled from the data gathered by air plane ascents to from 15,000 to 16,000 feet. He concluded his talk with a short account of some successful long range weather forecasts that had been made in India by Sir Gilbert Walker. The method on which these were based was the correlation of the weather in India with that three or six months before at certain 'centres of action'.. These centres of action were places round which every year are centred well defined areas of high or low pressure.

Jupiter seen in daylight - by W.P. Hirst.

At about 5.30 a.m. on 31.10.42 I observed that Jupiter was about 10° N.W. of the Moon. Being interested to see how long the planet could be kept in view as the Sun rose I noted the exact position relative to the Moon.

At 7.30 a.m. the planet could still be clearly seen. The Sun was then about 15° above the horizon. At 8.00. a.m. I could no longer find Jupiter, though knowing exactly where to look.

The observation was made from Pretoria. There was no cloud or haze and the transparency was good, but, as far as I could judge, not out of the ordinary.

It was thought worth while mentioning, as I have not heard of Jupiter's having been seen in full daylight before.

Variable Star Section. By H.E. Houghton, Director.

During November reports of observation were received as follows: Cousins 48, de Kock 228. Members have no doubt been interested in the reports in the press of a new star. It rises at rather a late hour, but any observations of its brightness will be welcomed.

Nova Puppis (1942). By Dr. Stoy.

The first news of this nova reached the Royal Observatory on the afternoon of Friday November 13th. It was a United Press message from Bloemfontein reporting that Dr. Paraskevopoulos had confirmed the existence of a first magnitude nova, first noticed on November 11th. This message was quickly followed by a telegram from Dr. Paraskevopoulos himself and two days later the following message originating in Copenhagen and forwarded via Sweden was received from the Union Astronomer:-

'Nova Finsler and Nakahara second magnitude five degrees north Zeta Puppis Stromgren Lundmark'

It thus appears that the Nova was first noticed by at least two people when about the second magnitude. Its rise to that magnitude may well have been precipitous, but even if this was not the case the nova is in such a rich portion of the sky that a star of the third or fourth magnitude would completely escape detection except by some one intimately acquainted with that portion of the sky.

Its magnitude when first seen from the Cape on the night of November 13th - 14th was about 1.3. Since then it has faded rapidly and fairly steadily. Its light curve has been more reminiscent of that of Nova Aquilae (1918) than of those of the two more recent bright novae - Nova Pictoris (1925) and Nova Herculis (1934) - which were relatively very leisurely in their light changes. Both these latter novae have relatively high galactic latitudes (-25° and +25°) while Nova Aquilae and Nova Puppis are both practically on the galactic equator. A possible relation between galactic latitude and light curve (for which there is no obvious reason) was pointed out by Dr. Wright in 1935 (P.A.S.P. 47,47;1935).

It will be recalled that Nova Aquilae made a total rise of

about 12 magnitudes from about 10.8 to -1.1 - in less than three days. It remained at maximum for less than a day, dropped a magnitude and a half and then faded another three magnitudes at a rate of a quarter of a magnitude a day. Thereafter it faded more and more slowly, though with minor fluctuations. It reached the tenth magnitude by 1921 and by 1926 it had returned to its original brightness of 10.8 where it has remained ever since.

The vast accumulation of astronomical plates at Harvard will undoubtedly furnish the preoutburst behaviour of this star. If Nova Aquilae is any guide, its magnitude will prove to have been about the thirteenth. Plates covering the appropriate area of the sky were taken at the Royal Observatory some six or seven years ago. No trace of the nova is to be seen on them. The limiting magnitude of the plates must be about the twelfth. This means that the nova must have increased in brightness by at least ten magnitudes that is by ten thousand fold or more.

Some good spectrograms have been obtained by Dr.Paraskevopoulos at Bloemfontein. Unfortunately there is no longer a slit spectrograph in operation at the Cape. The only spectra we have were obtained with the help of a prism placed in front of a small Zeiss lens. These are naturally not of a very high quality, but they suffice to show the main features of the spectrum. The first plate was obtained on the morning of the 14th of November. The spectrum seems to be predominantly an absorption one with a few emission bands superimposed, a normal post-maximum type of spectrum. The emission bands grew relatively brighter and possibly wider as the star faded and by the 24th November were the principal feature of the spectrum. An emission band in the red (Hα or the forbidden OI lines) which was very strong was undoubtedly responsible for the rosy red colour of the star which at maximum had been distinctly white.

The table below gives the estimates of brightness that have so far reached us. It is hoped that other members of the Society will send in their estimates of the magnitude together with their remarks about the star either to the editor or to Mr. Houghton, the director of the Variable Star section of the Society, so that a complete light curve can be constructed, and a comprehensive report prepared.

	d	h	m	mag	
Nov.	14	00	50	1.3	dK
		05	00	1.4	S
	15	00	45	1.3	K
		04	00	2.0	W
		23	48	2.1	dK
	16	00	15	2.2	K
		04	30	2.2	S
		22	30	2.8	G
		23	50	2.3	S
	17	03	10	2.5	dK
		04	00	2.7	W
	18	00	52	3.1	G
		02	50	3.2	dK
		03	30	3.3	S
		23	45	3.5	G
	19	00	15	3.2	K
		01	40	3.8	dK
		04	00	4.0	W
	20	01	15	3.8	G
		03	15	3.8	dK
		03	30	3.7	S

		d	h	m	mag.	
Nov.		21	00	00	4.2	K
			00	05	4.0	G
			03	30	4.1	dK
			04	00	4.0	W
	*		22	45	4.0	G
			23	30	4.2	K
		22	03	10	4.2	dK
			23	30	4.2	K
		23	03	43	4.4	dK
			23	30	4.3	K
		24	01	12	4.4	dK
			03	00	4.4	S
			23	50	4.5	K
		25	23	30	4.8	K
		26	23	30	4.7	K
		27	03	00	5.0	dK
			23	20	5.0	dK
			23	20	5.1	S
	*	21	04	00	4.1	S

The times given are in South African Summer Time. The comparison stars used were N.A. stars. dK denotes do Kock, G Gilmore, K Krumm, S Stoy and W Watson.

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