Ephemeris of Comet Minkowski, 1950b

The object will be around 9th magnitude on the basis of the 4th power law.

DATE	RA. h	RA. m	DECL. o	DECL. '
3/5/51	13	18.1	-33	16
15	12	34.9	-33	38
25	11	48.3	-32	27
4/4/51	11	04.7	-29	49
14	10	28.8	-26	24
24	10	01.9	-22	55

If these positions are plotted in a good star atlas the observer should be able to find the comet with a few nights of observing. The general method for visual work is to locate the correct field and draw it on several nights, the object that moves when the drawings are compared is the comet. --Ed.

OCCULTATIONS FOR MARCH AND APRIL

Date	Star No.	Mag.	Time
March 9	103	6.1	5:46.7 PM
" 9	105	4.6	6:21.7 PM
" 14	756	6.5	9:56.4 PM
April 9	539	4.4	6:24.3 PM
" 9	538	5.6	6:36.7 PM
" 9	542	5.8	6:43.8 PM
" 9	543	6.5	6:50.9 PM
" 10	701	6.5	6:50.7 PM
" 18	1660	6.2	5:40.2 PM
" 18	Tau Leonis	5.2	6:19.6 PM

Note: All stars are occulted on the dark edge.

---Morgan Cilley

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The Determination of Stellar Temperatures

In measuring the physical characteristics of the stars the astronomer is at a great disadvantage. He can not visit the object of his study and bring back samples for measurement in the lab. Indirect methods must be found for such study. In modern astronomy such methods exist for the measurement of Mass, luminosity, distance, temperature, etc. In this paper we shall study the way we measure the temperature from a distance of many millions of miles.

The whole question rests on what is called the color-temperature relation. You will remember that when a lump of iron is placed in the fire it first becomes dull red with most of the radiation falling in the long or infra-red waves; as it grows hotter the color becomes yellow and after some time in the flame the iron glows white hot with much of the radiation falling in the short ultra-violet region. Thus we see the color-temperature connection but now we must have the color of the star.

To obtain the color of the star we first make a photo of it in blue light and call the magnitude we measure, on this blue sensitive plate, its photographic magnitude. Now we photograph the star with a yellow filter and a yellow sensitive plate. The measured magnitude in this light we call magnitude photo-visual. By subtracting the magnitude photo-visual from the magnitude photographic we get a difference which is called the color index. This index varies from -0.4 for very hot blue white stars to +4.0

for cool red stars.

We next apply some "high powered math." and the end result is the following equation.

$$T = \frac{7200}{C.I. + 0.64}$$ T is in degrees absolute

Where C.I. is the color index and the other values are constants which come from the Planck formula.

For those amateurs who have photographic telescopes and who use spectroscopic plates this method is very simple and can be used to a fair degree of accuracy. The main source of error is in the fact that all stars are not the same size. The giant and dwarf stars cause the difference. For more information on this difference in size see a good text such as Vol. 2 of Astronomy by Russell, Dugan and Stewart.

From the above equation we can construct the following table.

Spectral Class	C.I.	Temperature
Bo	-0.33	23,000°
Ao	0.00	11,200
Fo	0.33	7,400
gGo	0.67	5500
dGo	0.57	6000
gKo	1.21	4100
dKo	0.78	5100
gMo	1.73	3050
dMo	1.45	3400
N	2.6	2200

Note: g stands for giant and d for dwarf stars.

- - - John E. Lankford

Meteors for March and April

Date	Shower	Radiant
3/10-12/51	Bootids	Bootes
4/20-22/51	Lyrids	Lyra

The Planets for March and April 1951

MERCURY--is in superior conjunction on the 11th of March and is poorly placed for observation until the end of the month when it becomes an evening star. It is at greatest eastern elongation of the 5th of April and is found 18° above the western horizon at sunset.

VENUS--is found as an evening star low in the west after sunset during March. By the middle of April venus will be a very prominent object in the evening sky.

EARTH--from the last report of the international news service most of the planet is still there.

MARS--will be very low in the southwest at sunset in March in the constellation of Pisces and by April it will have moved too close to the Sun to be seen.

JUPITER--is too close to the sun for observation during the months of March and April.

SATURN--is in Virgo rising in the early evening during March and is visible till sunrise. In April Saturn is well up in the east at sunset and remains a prominent object for the rest of the night. Opposition with the Sun is on the 20th of March.

--- Jimmy Weinstein

SOLAR ECLIPSE MARCH 7

There will be a partial eclipse of the Sun starting at 5:04 PM on the 7th of March. The middle of the eclipse occurs at 5:40 when 22% of the Sun's diameter will be covered by the moon. The sun sets eclipsed at 6:02 PM.