

Star disappears every 27 years

WASHINGTON -- Every 27 years it happens. Some mysterious object comes between the supergrant star Epsilon Aurigae and Earth. You can't see it -- the invisible body leaves no trace of itself -- but you know it's out there because the star's brightness slowly dims.

The eclipse of Epsilon Aurigae a star 250 times bigger than the sun and 50,000 times as bright — is one of the classicial mysteries of modern astronomy. Among the longest of the known eclipses, lasting nearly two years and occurring only every 27.1, it has bedeviled astronomers throughout the 20th century.

Is the star's dark companion a swarm of meteorites, gas clouds, a hot star in a cold shell, a planetforming disk, or a black hole?

At varying times since the eclipsing pattern was first recognized in 1903, scientists have speculated about all of these. Today the most likely possibility appears to be a developing planetary system. Epsilon Aurigae is again in eclipse, expected to return to full brightness in May.

"I think chances are better than ever this time that we will discover what's going on. We have all the advantages in terms of new technology. And it's our last chance to clear up this mystery before the century ends. The next eclipse won's start until 2009," observes Dr. Robert E. Stencel of the astrophysics division of the National Aeronautics and Space Administration. He is a coordinator of the worldwide eclipsemonitoring campaign.

The long time between eclipses, along with the invisibility of the

BLACK

YELLOW

RED

object, makes Epsilon Aurigae "difficult for mere mortals to study. By the time just two eclipses have gone by, your career as an astronomer is about over," Stencel says.

What scientists know so far is that this eclipse of a binary star system is like no other. Usually there are two stars that simply move in front of each other.

This eclipsing body seems to be a very cool, spinning, dense disk of gas and dust that is extremely large, taking almost two years to move past the star. During the more than a year that it is completely across the star — blocking out about half its surface area — it cuts the star's brightness by half.

The blinking or dimming was first noticed by a German amateur astronomer in 1821, although the precise 27-year pattern was not recognized until early this century. The 1982-84 eclipse is the seventh known.

Normally, the primary star in the Epislon Aurigae system is among the brightest in our galaxy, a massive FL supergiant star that is visible from Earth even though it is about 2,000 light years away. One light year, the distance light travels in a year, is 5.8 trillion miles. Part of the constellation Auriga, the star can be seen with the unaided eye in the northern sky, not far from Gemini and Taurus. A careful observer can detect its slow brightening this winter and spring.

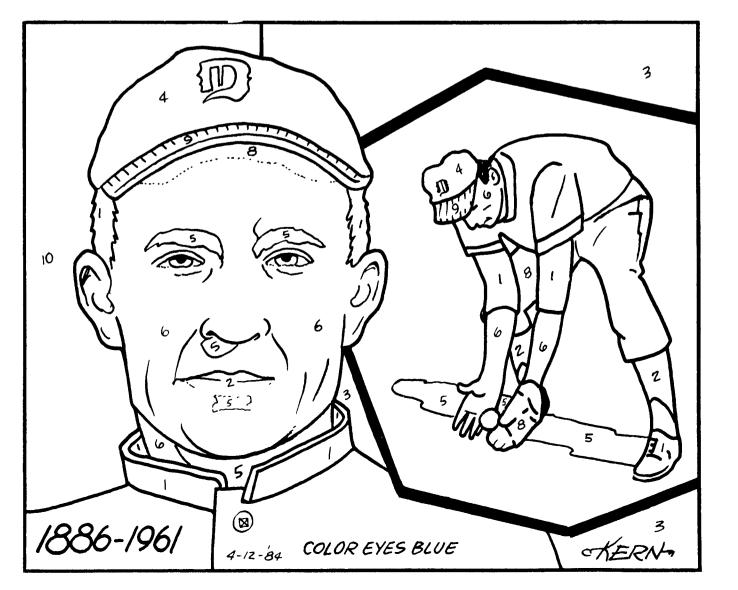
The price of being so big and bright is burning out quicker. The star probably has a life span of only a few hundred million years,

(Turn to Page B12)



Guess the right words from the clues, and write each word in the numbered spaces \mathbf{V} Then put each letter in the puzzle square \mathbf{A} that has the same number Here's your April weather wish!

| Information | D A T A | Horse food |
|-------------------------|-------------|---|
| | 31 2 27 13 | 28 6 14 |
| Midday | | Wander <u>R</u> <u>M</u> |
| 2 | 8 10 16 23 | 1 26 19 17 |
| False hairpiece | | Walking stick |
| - | 12 7 20 | 15 32 4 29 |
| Opposite of loss | | What we breathe |
| | 9 21 3 25 | 11 22 5 |
| 365 days | | |
| | 33 18 24 30 | Answer лер зацюце шебе ашор леме об ціез ціез |



| 5. | BROWN | 10. | LT BLUE |
|----|-------|-----|---------|
| | | | |

6.

7.

8.

PEACH

GREEN

LT BROWN

TYRUS RAYMOND "TY" COBB WAS ONE OF AMER-ICAS GREATEST ALL-AROUND BASEBALL PLAYERS. HE WAS CALLED THE "GEORGIA PEACH" AND WAS PLAYING BASEBALL BEFORE HE WAS 19. "TY" PLAYED WITH THE MAJOR LEAGUES FOR 25YRS WHERE HE EXCELLED AS A BATTER, A BRILLIANT FIELDER AND A GREAT BASE RUNNER.