

LETTER TO THE EDITOR

"Flicker Stars?"

In a recent telephone discussion with Janet Mattei I reported a new sighting of a phenomenon which I had encountered several times previously and reported to her. She suggested that I write it up briefly, in hopes that others who have experienced it might report it, and that confirmation of area and time be acquired.

The phenomenon consists of an unexpected flash in a star field, lasting less than a second and of at least a couple of magnitudes' brightening. I have seen directly-approaching meteors and think this phenomenon is different. At least six times I have seen such flashes, and call them "flicker stars," a name coined by Dr. Henry Malec, an eye doctor and observer in Cumberland, Maryland, who had seen one giving not simply one flash, but continuously varying wildly for a considerable period, this behavior confirmed by other observers nearby. In that the flashes occur unexpectedly, when my attention is often elsewhere in the field, an accurate position is often impossible, but twice I feel I know which star emitted the light. I mentioned this phenomenon at Allegheny Observatory, and at least two observers there seem to have seen these flashes too.

My first such sighting was of the 116 NW comparison star in the S Orionis field. W. Beardsley, of Allegheny Observatory, reported to me that the star is Parenago 106, of class A1, not a spectral class expected to give rise to flares. My second seemed to come from the 122 comparison star SSE of V1500 Cyg on November 25, 1976 (JD 2443108.7). My latest was in or near the small triangle of stars near Eta Tau (Alcyone) of the Pleiades at approximately 9:35 P.M. EST on November 4, 1981 (JD 2444913.6). Two AAVSO observers in addition to me saw flashes in the SS Cygni field, but none of the areas within which the flashes occurred overlapped. Charles Sullivan saw a flash in the SS Cygni field at 10:27 P.M. EST December 14, 1974, as a white star of magnitude 9-10. My observation of one in that field was at 8:45 P.M. EDT September 15, 1978, and George Kelley saw one at 7:15 P.M. EST January 9, 1980, seeing it as a yellow star of approximate magnitude 10, using his 12 1/2-inch at 80x.

With space around the earth now being littered with multitudes of pieces of broken satellites, it is not uncommon for observers to see these pieces drifting across their telescopic fields - indeed, I have seen two dozen in the last five months or so. On November 16, 1981, I saw three within a few minutes, one even going past the narrow field of my 148x eyepiece. Doubtless many of these pieces would be too faint to see except when the sun glints off some flat smooth area. This explanation may be the correct one. And, that SS Cygni is one of the most-watched variables makes the sighting of any such flashes more likely in its field. Do other observers see these flashes, especially near midnight, when any satellites are apt to be in the earth's shadow?

When our astronauts first went into space they reported lights, which apparently were from cosmic rays hitting the optic nerve. I have wondered if my flashes were of this explanation. If so, I would not expect so minute a star-like flash.

Reports of any such "flicker star" sightings, or suggestions for possible explanations would be greatly appreciated.

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