Weather Note

RARE HALO PHENOMENON

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On March 6, 1964, I observed a rare halo phenomenon at Newton, N.C. It was a double mock-sun to one side of the sun. The time was 1720 EST and the sun stood about 12° above the horizon. It was surrounded by thin cirrus clouds of various types. Toward the horizon these seemed to form a fairly dense cover of cirrostratus but this may have been entirely caused by perspective. To the left of the sun were cirrus uncinus and cirrus spissatus. These appeared in streaks and some had quite a dense center rib. A brilliant mock-sun formed in one of these ribbed clouds with bright red and orange color toward the sun and a dazzling white extension to the left. The mock-sun was oval and about 4° wide. About two degrees below, a second but fainter mock-sun appeared, similarly shaped, in another streak of cirrus. Its color toward the sun was of rose tint and the remainder fuzzy white. Figure 1 shows a sketch of the phenomenon which was observed for about 15 min. The hatched parts of the mock-suns represent the colored portions.

There is no record of a similar halo in the standard texts on atmospheric optics.

The location of the lower mock-sun was about in the position where one would expect lateral tangential arcs to touch the 22° circumsolar halo. Neither of these, nor any other halos, were present at the time. No mock-sun appeared to the right of the sun either.

I am much obliged to Mr. P. Putnins for help in searching for precedents in the pertinent literature.

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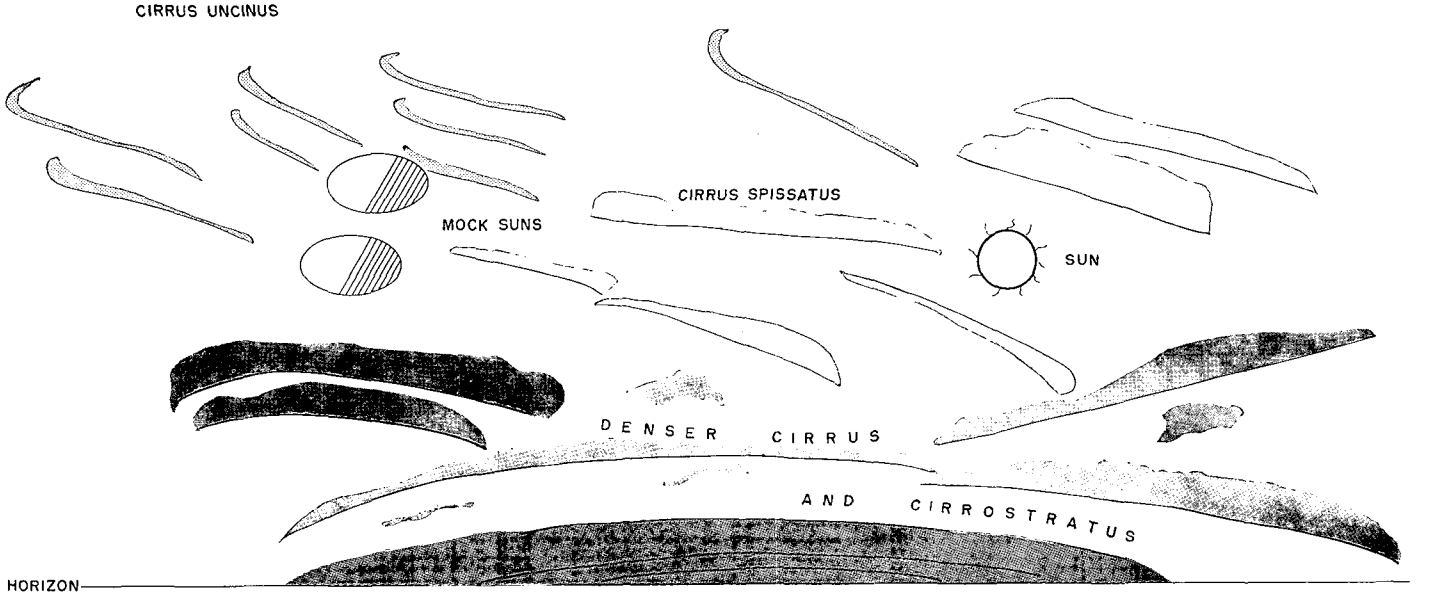

FIGURE 1.—Diagram showing the mock-suns and their relation to the surrounding clouds.

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