

TSE 28 Apr 1930, Northern California

Jeffers, W.H., *PASP*, (Nov) 1930, 42, 141.

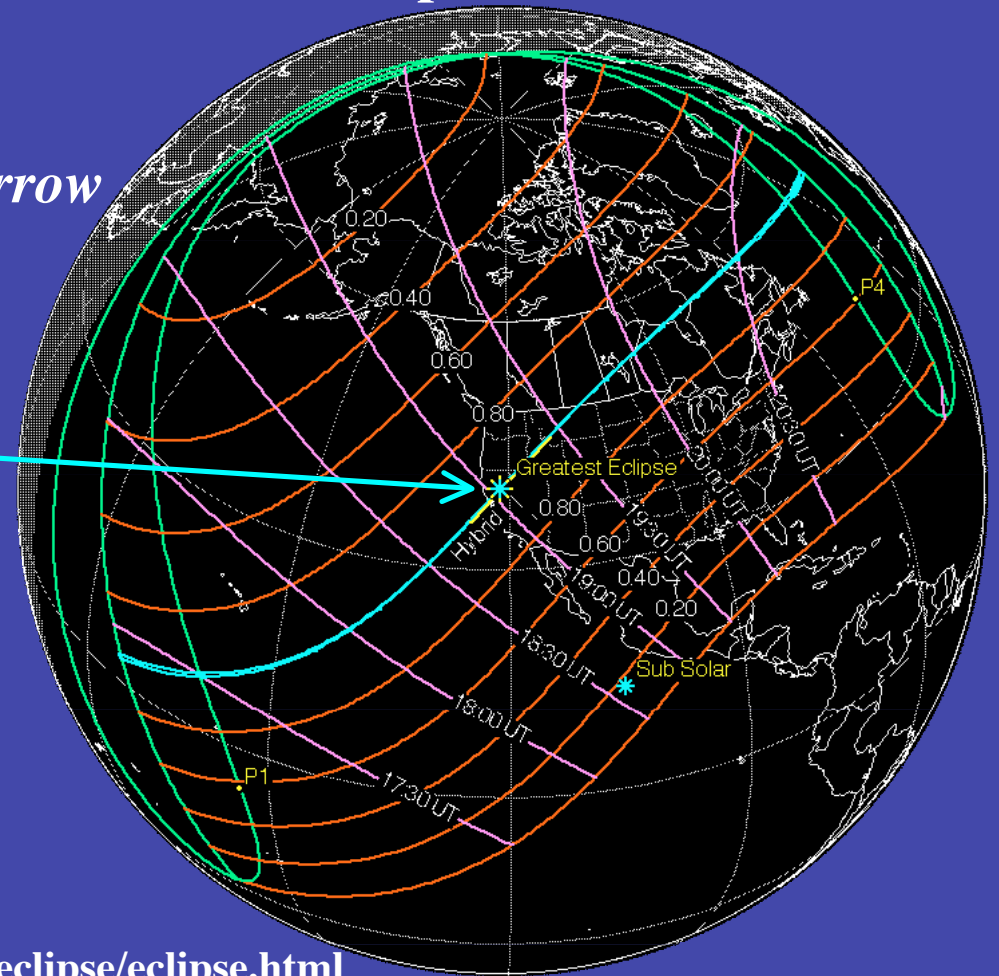
The Observation of the Eclipse by Airplane [Napa, Sonoma]

“...the eclipse ... so near the border line between annular and total it appeared well worthwhile... to observe from an airplane at considerable altitude.

“...the shadow track was so very narrow its exact location was in doubt.

Greatest Eclipse:
29.6°N, 121.2°W
Path Width:* 1.1 km
Duration:* 1.4 sec

**no limb corrections*



TWO AIRCRAFT @ 10,000 ft

TSE 28 April 1930

- 1) Lt. W. Bobzien, Pilot (CMD)
Sgt. S. Bush, Photographer
SUN: 20" EFL f/3.5 K-6 Camera

**Army Air Corps Expedition
Napa/Sonoma, California**

- 2) 1st Lt. H. Wallace, Pilot
M. H. Jeffers, Photographer
SHADOW: 3.5" EFL f/1.85 box camera



“...it was possible the advancing shadow cone would be seen many miles away, and the pilot of a plane might have time to *alter the line of flight* so as to get into the shadow...”

“...a photograph of the corona... would suffer less from scattered light... at high altitude {due to} *less air, dust, and water vapor* between Sun and camera.

“...airplane would afford {a} point of vantage from which to effectively *observe the Moon’s shadow on the ground.*

TSE 28 Apr 1930, Napa, Sonoma, California

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The Observation of the Eclipse by Airplane

“Two minutes before totality was due... the region over the Pacific to the SW as getting very dark...”

“At this time the visual search for the expected half-mile wide umbral shadow was begun. This was *unsuccessfully* looked for up to the moment when it was realized that the eclipse was central, and that the shadow, *what there was of it*, was at hand.”

“It seems safe to say, now, in the Sonoma region the umbra did not exist.”

Vought O2U-1 Corsair



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TSE 28 April 1930
USNO Eclipse Expedition
Honey Lake, California
Duration of Totality: 1.4 s

Akeley "Pancake"
35mm Hand-Crank
Motion Picture
Camera



***Objective: Determine exact
Centerline of eclipse.***

***Method: Cinematography of
Shadow***

***Result: Recorded Approach
Of Lunar Shadow***

***Application: Corrections to
Lunar Almanac***

