



MEMORANDUM FOR RECORD

Joshua D. Cawthra
Senior Aviation Accident Investigator
Western Pacific Region

Date: November 25, 2021
NTSB Accident Number: WPR20FA034

Narrative:

The United States Naval Observatory's Multiyear Interactive Computer Almanac (MICA) for the accident site coordinates provided the following astronomical conditions on November 26, 2019.

Sun

Begin civil twilight	0601 PST on November 26, 2019
Sunrise	0629 PST
Transit	1128 PST
Sunset	1627 PST
End civil twilight	1655 PST
Accident	1730 PST

Moon

Moonrise	2254 PST on November 25, 2019
Transit	0507 PST on November 26, 2019
Moonset	1214 PST
Moonphase/Fraction	New Moon/0.8%

At the time of the accident the Sun was more than 12 degrees below the horizon, and the moon was more than 37 degrees below the horizon