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Lightning observations and investigations in the western Pacific

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The island of Guam sits at the southern end of the Marianas Islands and unlike all other US National Weather Service forecast offices, it sits outside the observational umbrella of GOES-16/GOES-18 satellites that carry the Geostationary Lightning Mapper. In 2023, work continued in understanding the relationship between LightningCast Probabilities computed using Himawari-9 imagery and observed lightning in the tropical West Pacific environment. In addition, optically-based lightning observations from the Lightning Imaging Sensor (LIS) onboard the International Space Station (ISS) are being compared to GLD360 observations in Guam's Area of Responsibility that encompasses much of the western North Pacific. This talk will describe these two areas of work and summarize what has been revealed.