**8. CYGNSS Validation Module**

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**Mission Description:** Collect SFMR and dropsonde data that is as closely collocated in space and time to CYGNSS satellite overpasses as possible in the tropical cyclone environment.

**P-3 Module 1**

**What to Target:** Any flight legs that pass through the storm center and are oriented in the direction of the CYGNSS overpasses.

**When to Target:** As close as possible in time to when the CYGNSS satellites will be flying over the storm.

**Pattern:** Any standard in-storm, low-level reconnaissance pattern that contains a straight leg that passes through the center of the storm. The IP and take-off time may need to be shifted in order to obtain the correct orientation and time for the P-3 flight leg that will occur while CYGNSS is flying over the storm. Estimated CYGNSS overpass time and location will be provided by the PIs to the LPS prior to the flight. It is ideal to have the P-3 at the center of the storm when the CYGNSS overpasses occur.

**Flight altitude:** 7-12 kft

**Leg length or radii:** < 120 n mi

**Estimated in-pattern flight duration:** No additional time required.

**Expendable distribution:** No additional dropsondes are required beyond the standard drop locations. However, RMW drops would be beneficial.

**Instrumentation Notes:** Standard SFMR set-up.