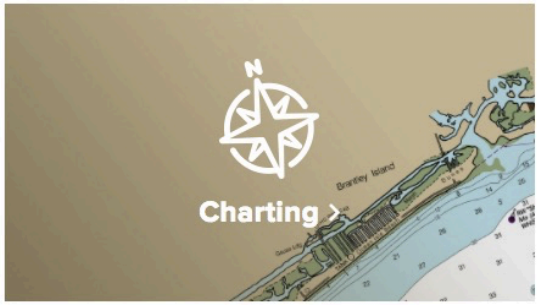
UAS Program Briefing to SubCommittee on Disaster Reduction (SDR)

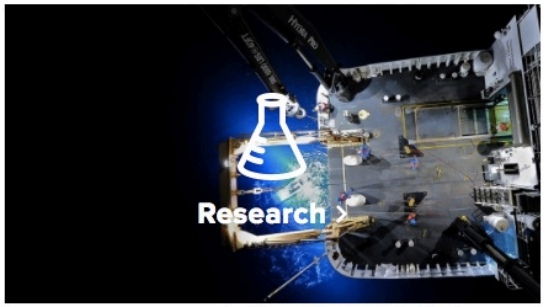
NOAA Office of Oceanic and Atmospheric Research (OAR)

CAPT Phil Hall, Director,
NOAA UAS Program

Our Work

NOAA's mission spans from the surface of the sun to the depths of the ocean. Our 9 key focus areas.



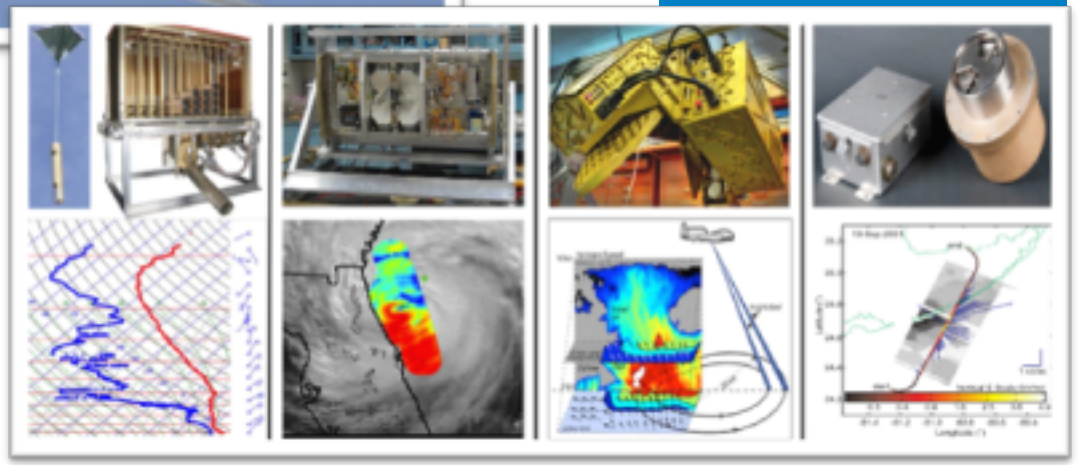


High Impact Weather Monitoring

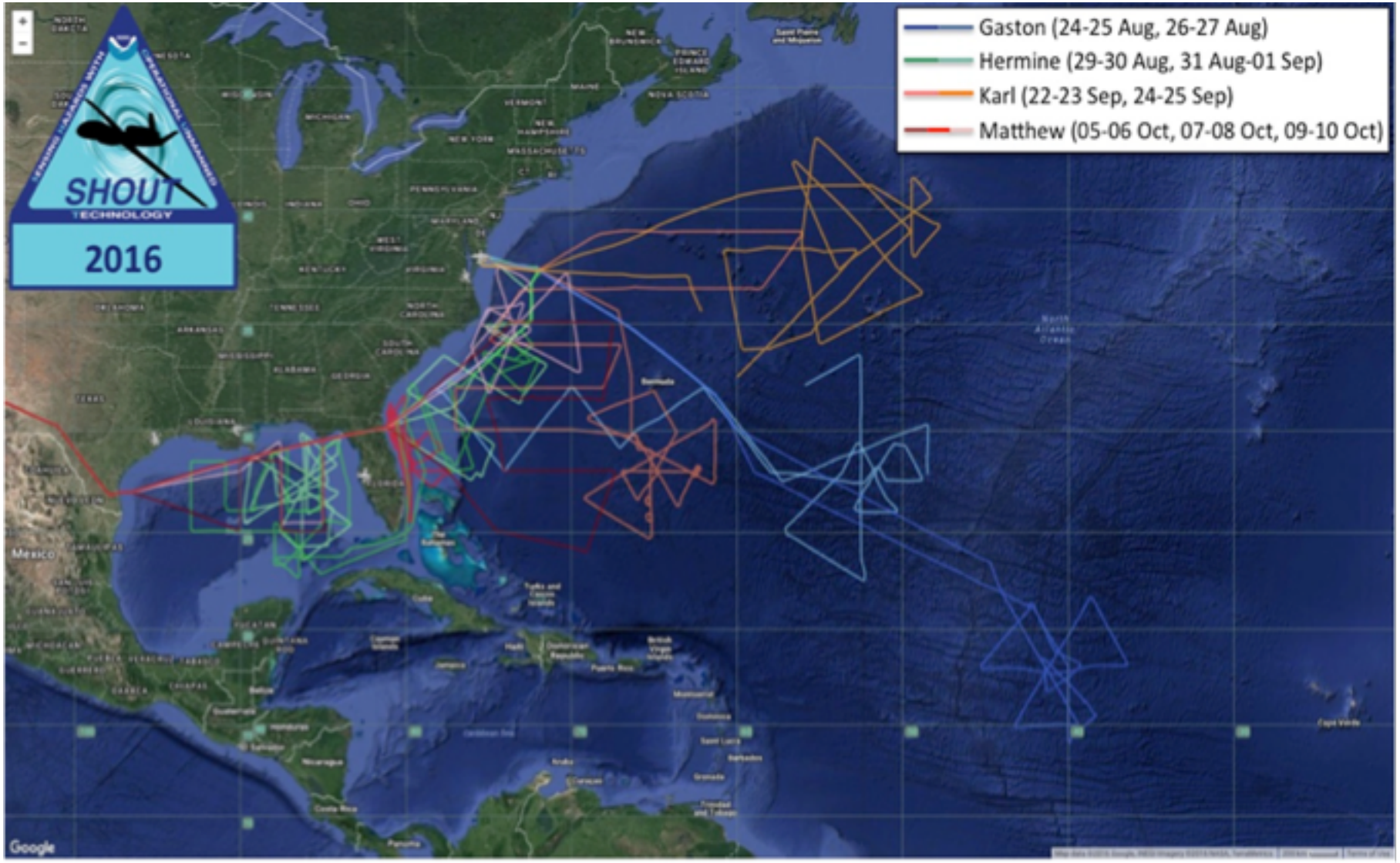
Sensing Hazards with Operational Unmanned Systems Technology (SHOUT)

NASA Global Hawk

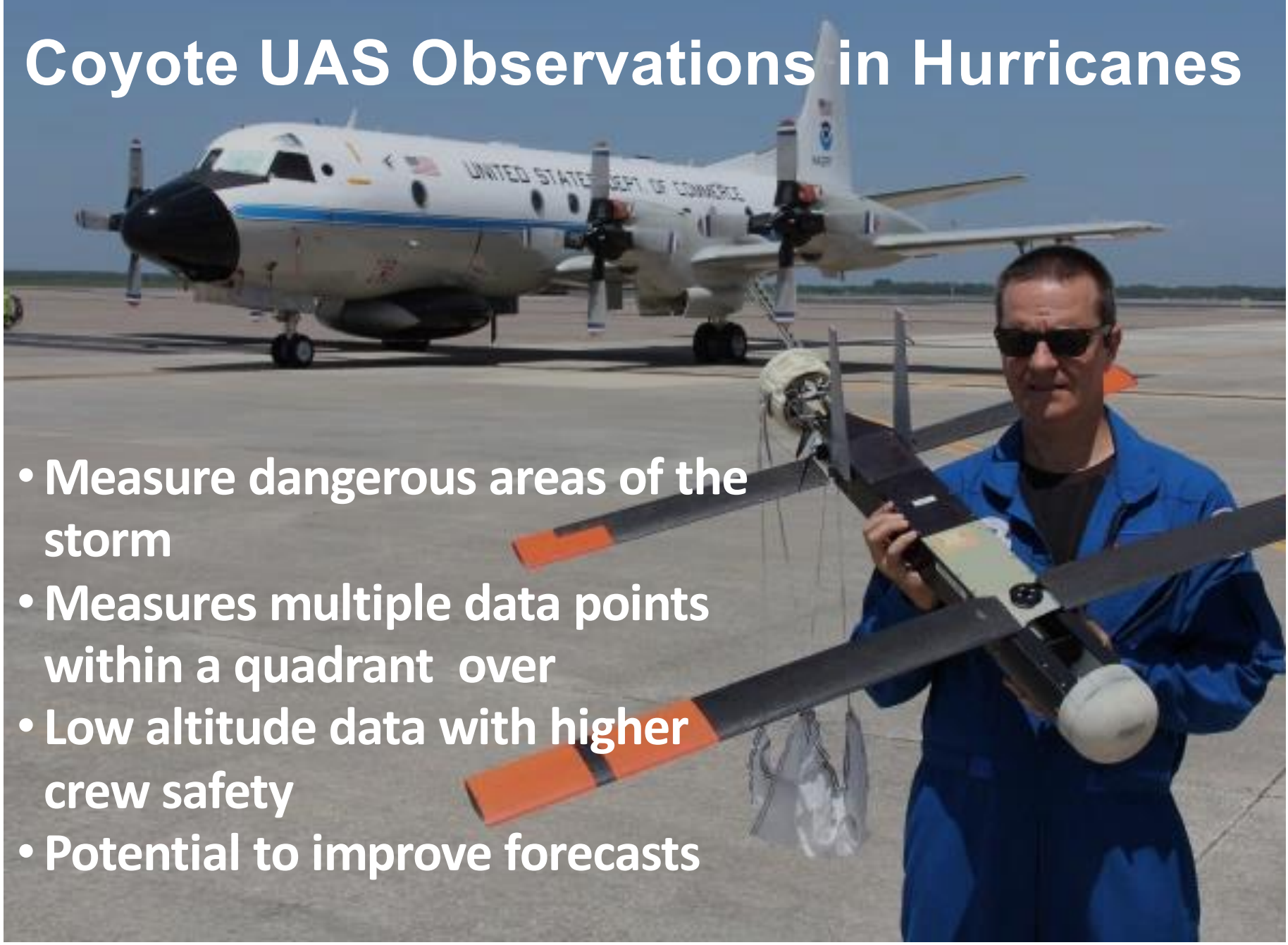
Sensor Payloads



2016 Global Hawk Flight Tracks



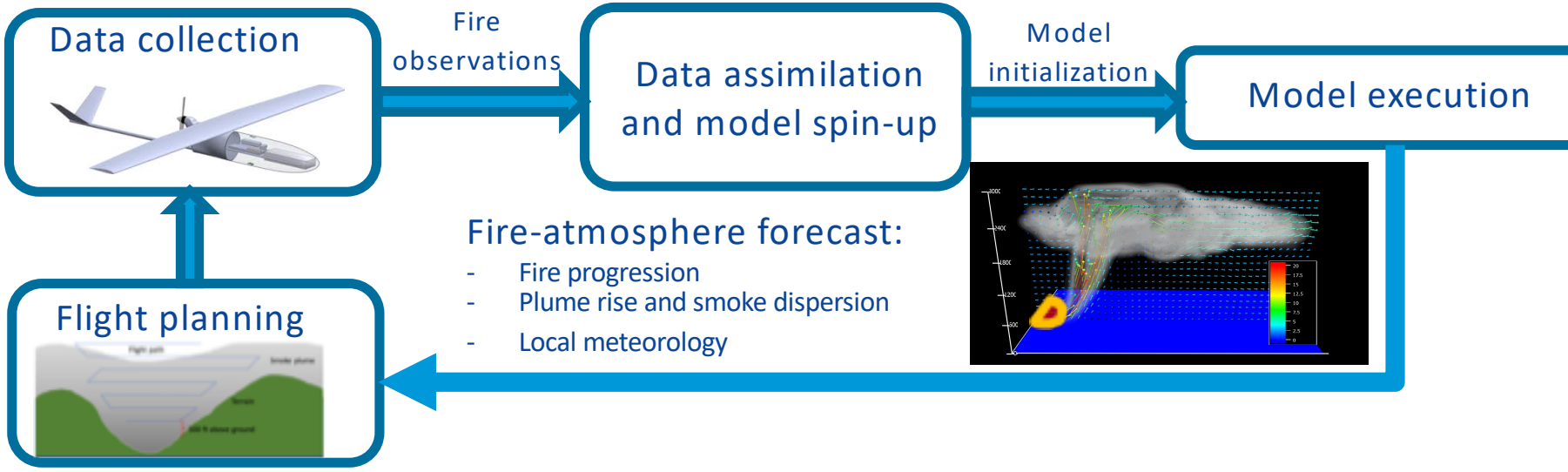
Coyote UAS Observations in Hurricanes



- Measure dangerous areas of the storm
- Measures multiple data points within a quadrant over
- Low altitude data with higher crew safety
- Potential to improve forecasts

Fire Weather Model Data Assimilation

- Current operational fire and smoke forecasting systems base on satellite observations available generally once or twice a day with relatively low resolution - ~1km from MODIS and 375/750m from VIIRS.
- This project will examine possibility of driving coupled fire-atmosphere models with near-real time airborne fire observations, and utilizing model data in flight pattern planning.

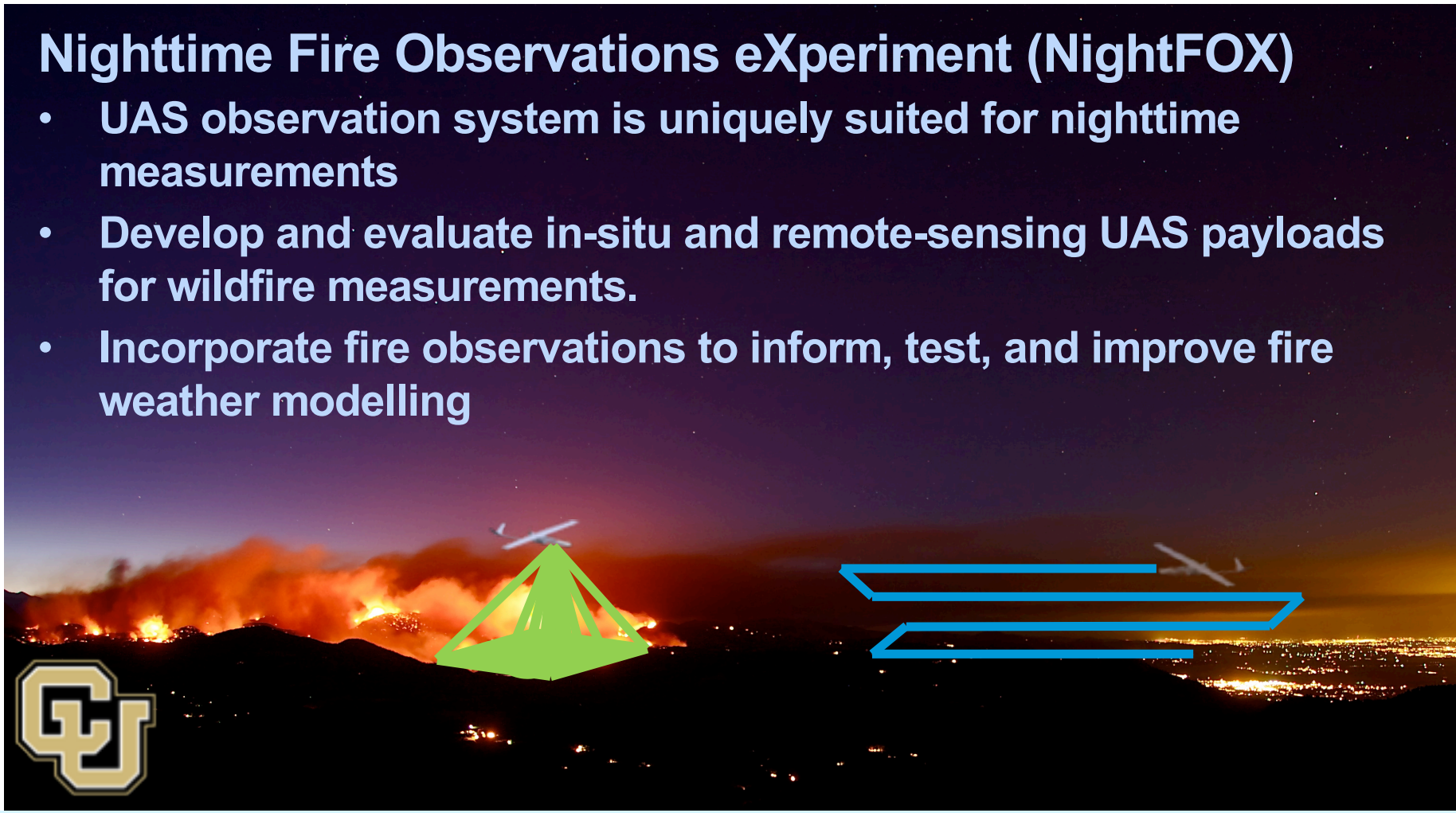


Fire Influence on Regional to Global Environments and Air Quality (FIREX-AQ)

A NOAA/NASA Interagency Intensive Study of North American Fires

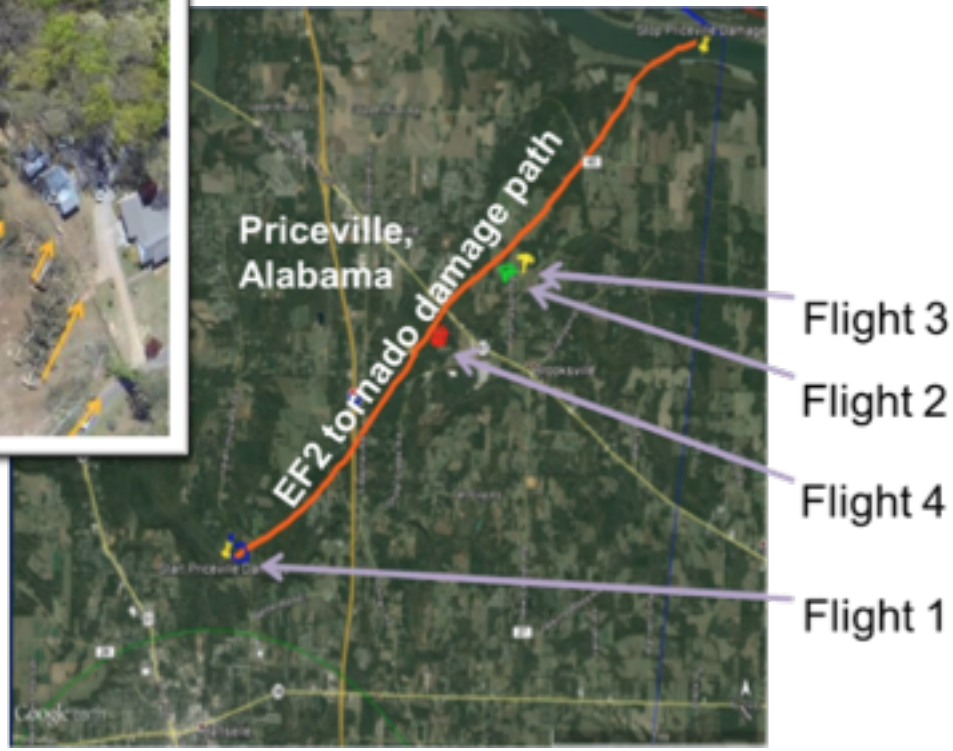
Nighttime Fire Observations eXperiment (NightFOX)

- UAS observation system is uniquely suited for nighttime measurements
- Develop and evaluate in-situ and remote-sensing UAS payloads for wildfire measurements.
- Incorporate fire observations to inform, test, and improve fire weather modelling



High Impact Weather Monitoring

Aerial Storm Damage Assessment



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