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RASPET FLIGHT RESEARCH  
LABORATORY

# RFRL Briefing – GTR UAS Seminar

Madison Dixon  
UAS Program Manager, Safety  
Officer

January 16, 2020



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# Madison Dixon

## Current:

- UAS Program Manager, Safety Officer  
MSU Raspet Flight Research Lab.
- UAS Consultant and Aerial Photographer,  
Dixon-Drone



## Former:

- Graduate Research Assistant - MSU Raspet Flight Research Lab
- GIS Analyst / UAS Specialist
  - Landpoint, LLC. Bossier City, LA.
  - EMC Surveying & Mapping. Grenada, MS.
- GIS Mapping Technician - Delta State University.





# RFRL Roots



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# History of Aviation Incubation



Aurora Flight Sciences



Honda Jet



Stark



Airbus Helicopter



GE Aviation



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# RFRL Today - Nation's Leading UAS Research Laboratory



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# The Team

- RFRL is a talented group of engineers, scientists, and aviation operations professionals focused exclusively on unmanned systems
- We own and operate a fleet of the largest and most advanced unmanned aircraft in civil use today
- Our operations staff are some of the most highly-experienced in the nation
  - Our pilots are required to hold FAA-licenses in manned aircraft
  - Our maintainers are required to hold FAA Airplane and Powerplant licenses
  - Our engineers are doing the most advanced RDT&E in the UAS



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# What We Do



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# Raspet Focus Areas



Unmanned Aircraft  
Systems



Advanced  
Composites

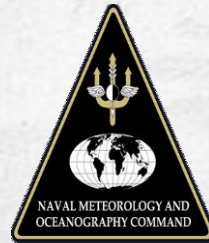


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# Trusted Federal Research Partner



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# FAA UAS Center of Excellence



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# DHS National UAS Test Site

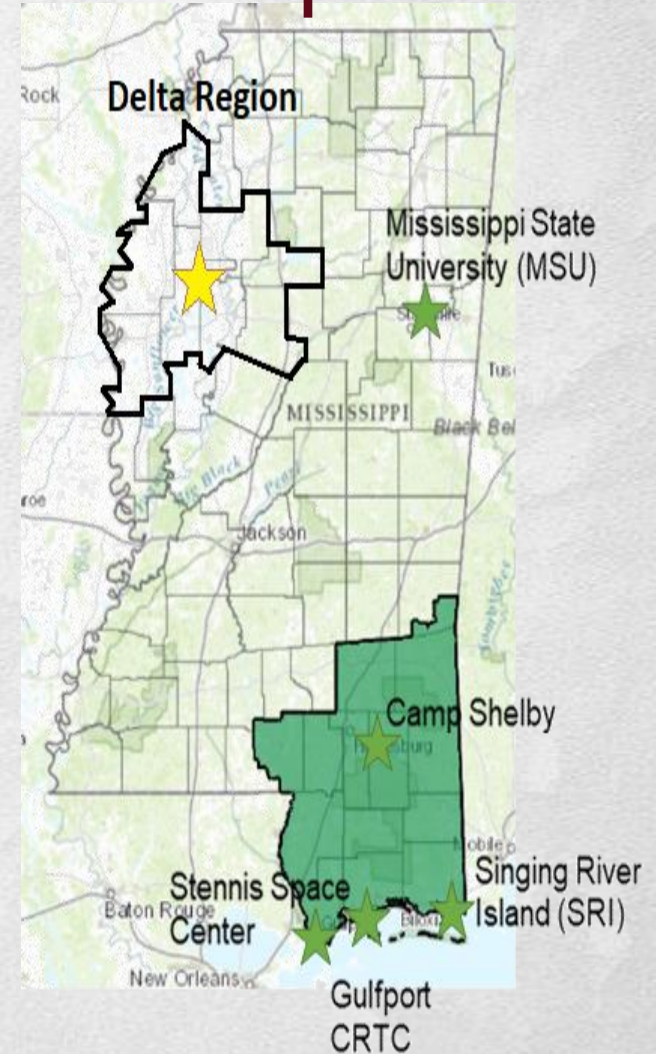


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# MISSISSIPPIAS Partnership



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# What We Fly



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# NASC Tigershark XP Block 3

- 515 lb. GTOW
- 95 lb. payload
- 21-ft wingspan
- 8+ hour endurance
- 15,000' Ceiling
- Day/night Operation



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# Griffon Aerospace Outlaw G2F

- 150 lb. GTOW
- 25 lb. payload
- 14-ft wingspan
- 6 hour endurance
- 50+ NM range
- Day/night Operation

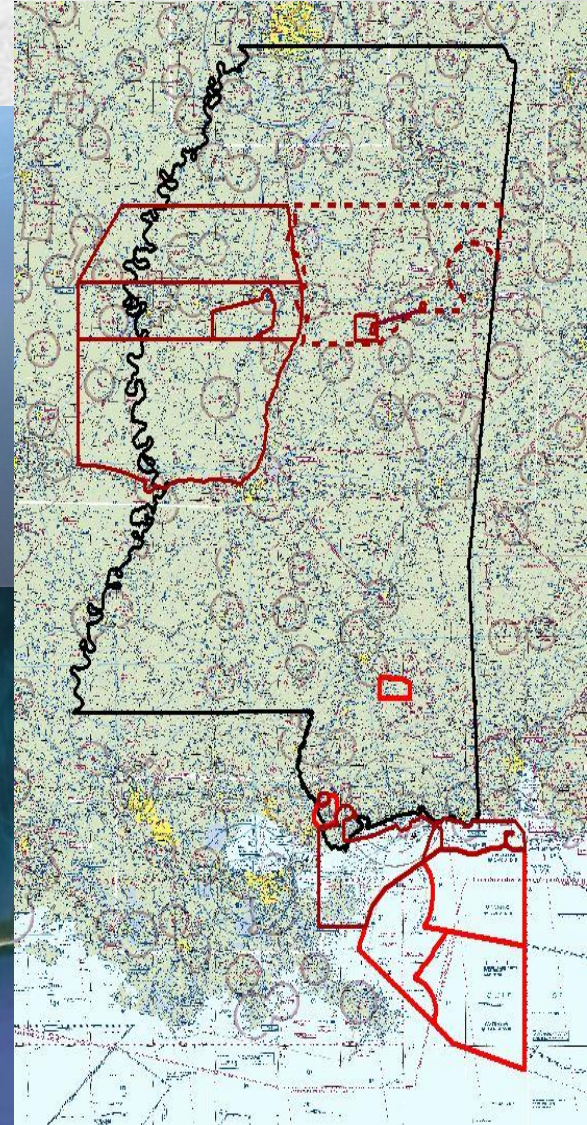
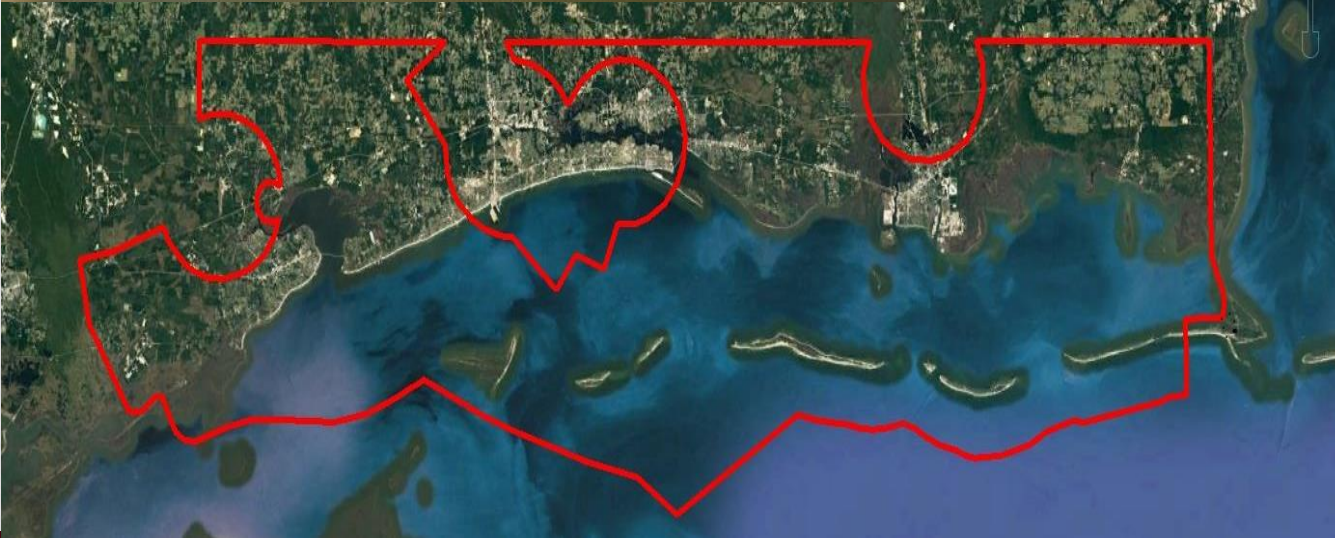


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# Where We Fly



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# Summary

**Raspet Flight Research Laboratory is the nation's leading academic UAS RDT&E institution.**

- National Lead for the FAA's ASSURE UAS Center of Excellence
- FAA-Designated UAS Test Site
- National Lead for the Department of Homeland Security's Common UAS Test Site
- \$40M in FY19/20 DoD-sponsored UAS research & test
  - 100,000 ft<sup>2</sup> of climate-controlled laboratory, test & hangar facilities
- All focused on growing aerospace technology **in Mississippi**



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# Questions?



STATE  
M  
UNMANNED  
SYSTEMS  
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