

## Satellite Week Space Camps 2022

### For Reference; 2021 Camps, NC, WV, and SC

Train The Trainers, Middle Schools, SC GSSM, May 14

Prep for 4 one-week long day camps in June and July, DS on call

UNC Asheville, June 19-24 (in-residence pre-college camp)

SC GSSM, June 27-July1 (in-residence camp)

West Virginia, NASA IV&V ERC (in-residence)

2 one-week long camps, back to back, Foster students
Portantially 2 remote camps in Taiwan







## Small Satellite Programs 2022 and Beyond

Western Carolina University

Muon Detection Sensor Development

Picosatellite Design for Locating Sources of

Energetic Ionizing Radiation

Senior Physics and Engineering Design

Project 2022-2023

UNC Asheville
Senior Engineering Design Project
Development of Camera Gimbal

**Impact of Light on Mirgratory Bird Patterns** 

## Finding Amelia

- STEM Team:
- (1) modeled weather around disappearance
- (2) analyzed alternate theories
- (3) reanalyzed measurements of skeletal remains



"The most difficult thing is the decision to act, the rest is merely tenacity..." - Amelia Earhart





## Aviation History Project

Project Midnight Ghost explores the disappearance of two missing French aviators in May 1927. This flight is referred to as "History's Most

Important Missing Airplane".

In collaboration with TIGHAR



## NASA's Destiny Module









#### Deep-Space CubeSat STEM Sensor Suite

#### Plasma Probe

- Name: Plasma Probe
- Manufacturer: NearSpace Launch
- -TRL9
- Flight Heritage: TSAT, GEARRS1, Chile Sat

#### Particle Detector (Inside and Outside Craft)

- Name: PIN Diode
- Manufacturer: NearSpace Launch
- -TRL9
- Flight Heritage: TSAT, GEARRS1, GEARRS2, Asgardia-1, MakerSat-0

#### IR Sensor

- Name: MLX90614
- Manufacturer: Melexis
- -TRL9
- Flight Heritage: NanoRacks Asgardia-1

#### **Horizon Sensor**

- Name: Horizon Sensor
- Manufacturer: NearSpace Launch
- TRL 8
- No current flight heritage but by launch, will be flying on one NASA Ames satellite and 8 ThinSat satellites from Wallops Island

#### **Magnetometer**

- Name: Mag-566
- Manufacturer: Bartington
- -TRL9
- Flight Heritage: TSAT

#### **Electron Flux Sensor**

- Name: Electron Flux Detector
- Manufacturer: NearSpace Launch

Various Temperature Sensors (Inside and Outside Craft)

# Deep Space STEM CubeSat Sensor Suite – Destination SPACE, NearSpace Launch, Twiggs Space Lab, and Miles Space









### Contact, Website, and Weather Balloon Launches!

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