R2O IN AVIATON WEATHER

A UNIVERSITY PERSPECTIVE

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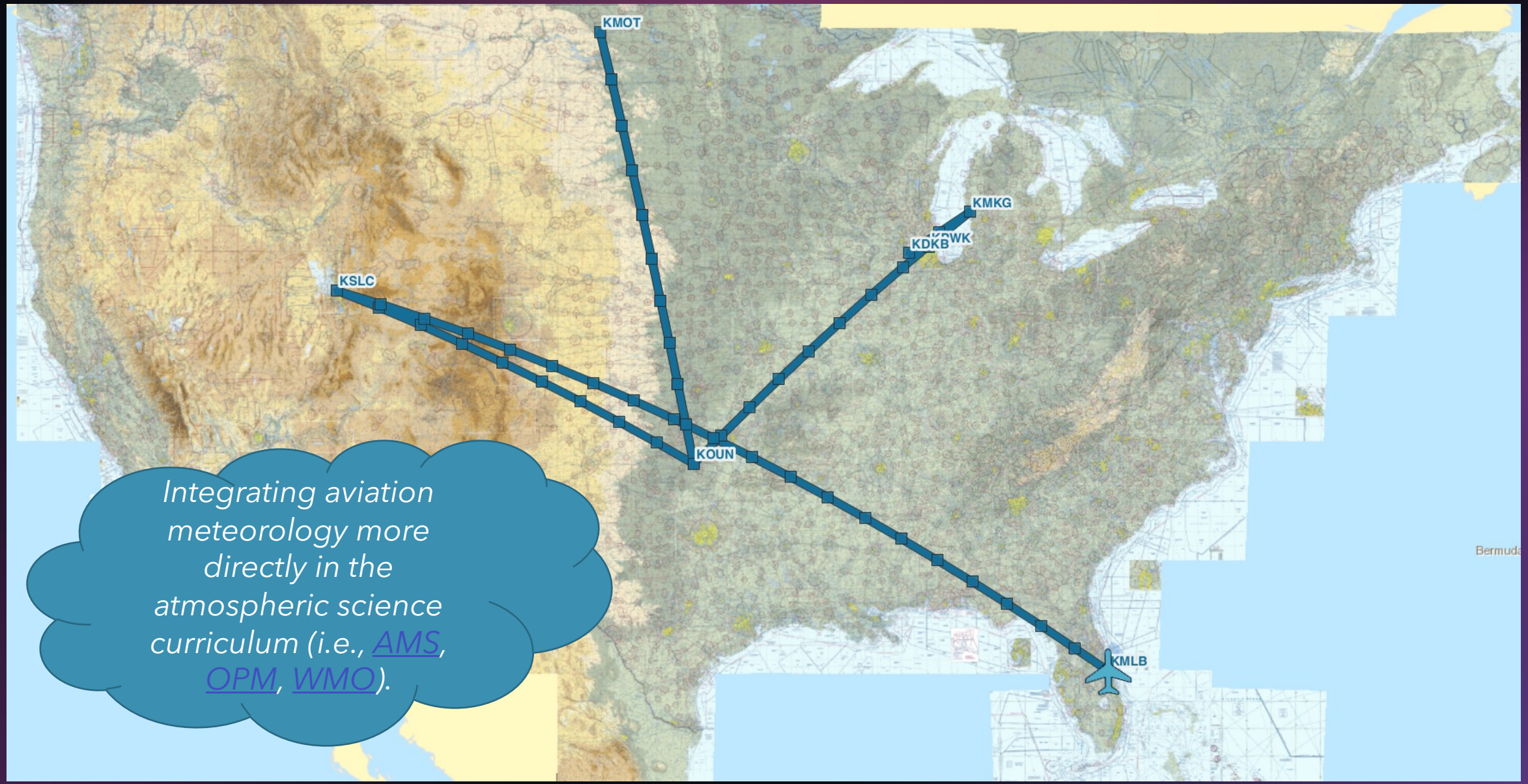
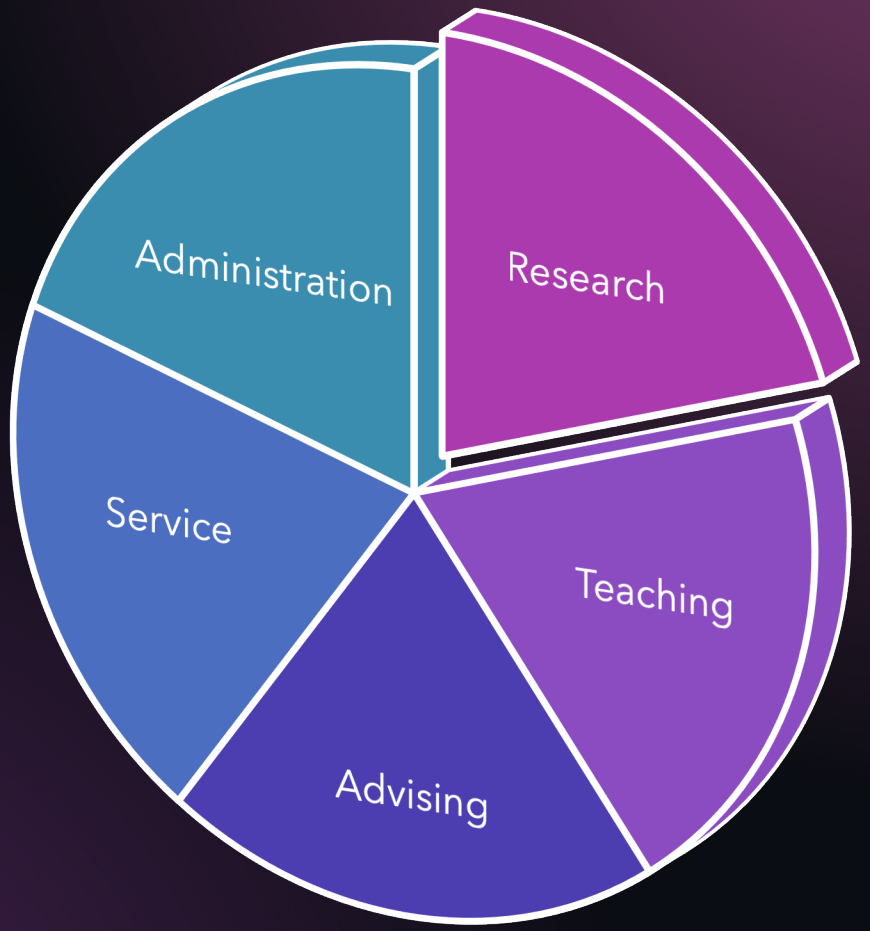
FPAW SPRING 2023

My “Flight Path”



Faculty Workload & Research



Faculty Professional Track

- *Teaching Track*
- *Tenure Track*
- *Research Track*

Reduced Teaching Loads

- *Course "Buyouts"*
- *Rank*
- *Tenured Position*

Research and Development (NSF)

- Basic
- Applied
- Experimental Development

A researcher is studying how artificial intelligence can identify features in images.

A researcher is studying the identification of cloud types with a set of artificial intelligence tools.

A researcher is developing a protype tool to identify important aviation cloud types from available imagery using newly developed AI algorithms.

Research Pathways

START
I Have
An Idea!

START
We could
use you!

START
They
Have An
Idea!

Internal
Funding

External
Funding!

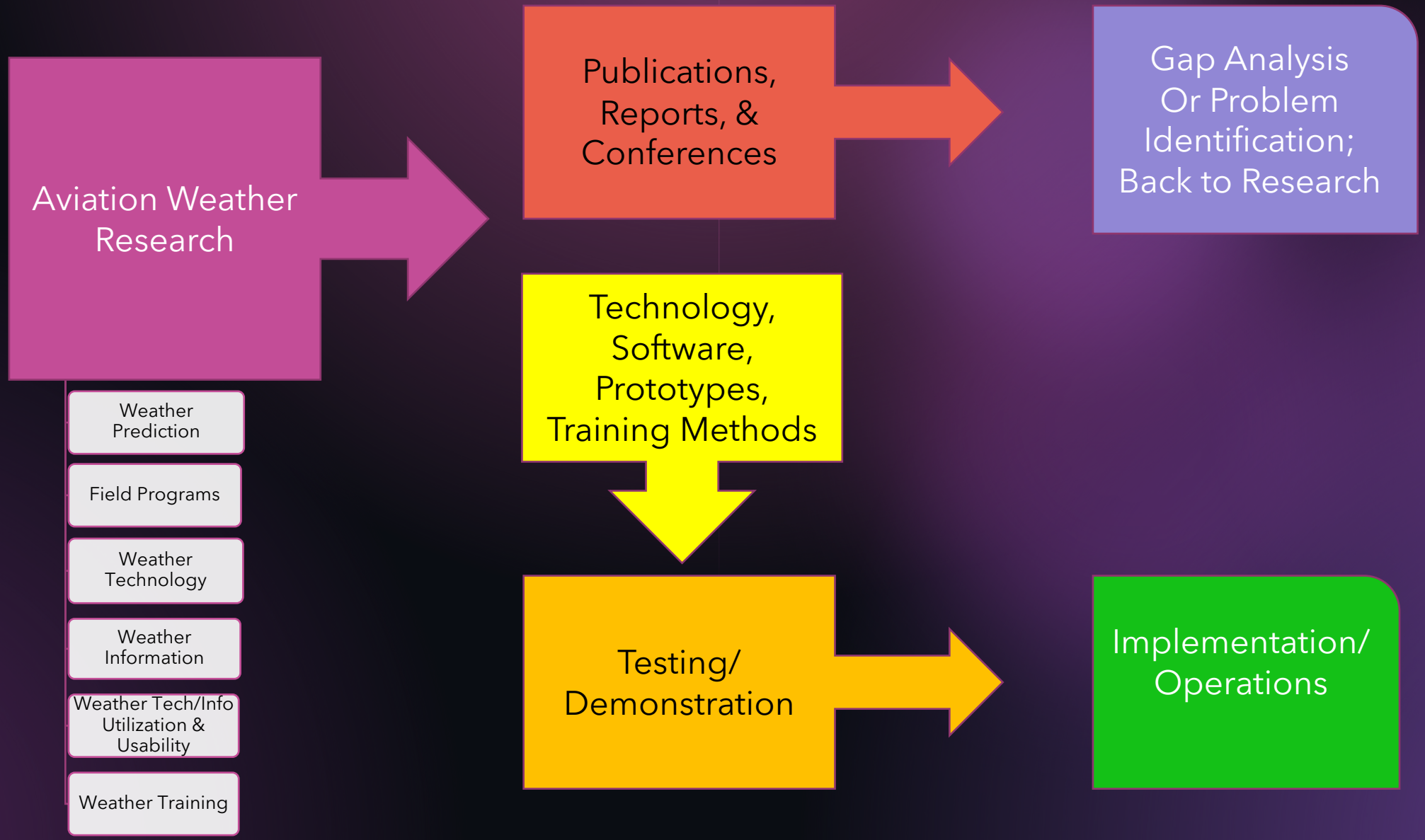
Tools &
Resources

REU
Program
/Interns

Student
Support/
Funding

Testing
Arena

Aviation Weather Research To ?



FAA PEGASAS & R20

The Partnership to Enhance General Aviation Safety, Accessibility and Sustainability (PEGASAS) is a Federal Aviation Administration (FAA) Center of Excellence for General Aviation.

The mission of PEGASAS is to enhance general aviation safety, accessibility, and sustainability by partnering the FAA with a national network of world-class researchers, educators and industry leaders.

- Human Factors
- Industrial Engineering
- Aeronautics
- Civil Engineering
- Meteorology

- Project 01: Heated Airport Pavements
- Project 04: Weather Technology in the Cockpit
- Project 20: General Aviation Runway Incursions
- Project 32: Rotorcraft Wire Strike
- Project 33: Augmented Weather Interface Information Project
- Project 34: Helicopter Operations Weather Information

- Training
- Prototypes
- Gap Analysis
- Development of Standards

https://www.pegasas.aero/projects

Concluding Thoughts

- Earlier career engagement with aviation meteorology
- Academics typically respond to research priorities driven elsewhere
  - Academics can be involved in research priorities development
  - Academics may pursue ideas independent of a structured process
- Research to operations
  - Follow-up projects may be better suited to operations
  - Project time/resources dedicated to this phase
  - Shepherding the process
    - Project managers (and above) and PIs
    - Involvement of end-users

Try your hand at this fun (and anonymous) survey on representativeness of weather flight rules categories!