Eric Schwartz
NCNC Annual Meeting
Agenda

- Operations
- NEER Dev
- Data Science
- FPLAir One
FPLAir continues to evolve to meet the needs of our customers.
FPLAir Operations Update 2022

2021

- 4123 Missions
- 120K Flights
- 0.007 Incident Rate

2022

- 7105 Missions
- 142K Flights
- 0.003 Incident Rate

AUVSI’s XCELLENCE in operations Award
Safety & Training

CHAPTER 1

Introduction

1.1 Training Objectives 2
1.2 Our Core Values 3
1.3 Flying for FPL and NextEra Energy 4
1.4 Power Delivery Guiding Principles 5
1.5 FPLAir 7 Saves 7
1.6 FPLAir Safety Checklist 9
FPLAir will deploy autonomous drones at our substations in the coming years to monitor our grid across the state.

**Drone-In-a-Box (DIBs) Roadmap**

- On demand DIBs operations will automate workflows to increase situational awareness and event response, boosting critical infrastructure resiliency for our customers.

**Highly Automated Beyond Visual Line of Sight (BVLOS) waiver/exemption was approved Jan. 2023**
NextEra Energy Resources LiDAR Drone Program

► Pilot Team BIO

Angelica Ulloa  
Associate Drone Pilot

Paul Hubbard  
Associate Drone Pilot

Jorge Delgado  
Associate Drone Pilot

Dalton Newell  
Associate Drone Pilot

Started November 14th!

► Q3-Q4 Projects

NEER Dry Creek Solar – Point Cloud Classifications

NEER Mist Flower Solar – DEM

NEER Tiger Lake Solar – Slope map

FPL/SFWMD - Wire clearance height
Brought together a dedicated team in corporate IT to work on multiple fronts: AWS data management and enhancement, GUI development and model development

» IT Manager: David Sunderman

Multiple in-house POC’s for model dev with AI team

Cross team collaboration with SGI data science projects and corporate GIS with regular meetings

Components
- Ceramic Insulator
- Fuse Switch
- Hot line Connection
- Lighting Arrestor
- Mushroom Insulator
- Polymer Insulator
- Stirrup
- Transformer
- Wheel

https://jira.nexteraenergy.com/secure/RapidBoard.jspa?projectKey=FPLR&rapidView=7612
Image Recognition POC Projects for 2023
Vehicle Mounted Image Capture

3D reconstruction

AI off the shelf
FPL AIR 2022 Year in Review

Flight Statistics:
► 48 Flights
► 111 Hours flown
► 190 Landings

Major events completed:
► Training and testing at NY Test Site
► 2022 Storm Dry Run
► First flight in Florida
► Hurricane Ian deployment
Hurricane Ian

- Maiden storm deployment, operating from Arcadia Municipal Airport
- Completed 7 missions
- Coverage area spanned over 1700 sq miles
- Longest mission was over 5 hours
- Farthest mission was 50 nm from base
- Highest mission was 5500’
- Over 2200 miles travelled during Ian