
ADVANCED TURBINE TRAINING DELTA STATE
S.A.F.E. ANALYST
TRAINING 2024
S.A.F.E. Analyst Certification Training



**DELTA STATE
UNIVERSITY** ▲
COLLEGE OF BUSINESS AND AVIATION



TRAINING 2024 INCLUDES:

- S.A.F.E. Fly-In Reference Manual 2024 USB Edition
- Information-Packed digital storage device
- Hands-On practice and Classroom Instruction
- Actual Fly-In, "real world" situation to practice skills

International students encouraged to participate!

September 30 - October 4, 2024

Cleveland Municipal Airport-KRNV

1029 Airport Terminal Rd. | Cleveland, MS 38732

Note: Dates are firm but some program content & presenters may vary.



**ADVANCED TURBINE TRAINING DELTA STATE
OPERATION S.A.F.E. ANALYST CERTIFICATION TRAINING**

ARRIVAL & REGISTRATION

MONDAY SEPTEMBER 30, 2024

4:00-6:00pm Pre-registration — come by the Cleveland Municipal Airport-KRNV to pick up packet and preliminary exam materials. Cleveland Municipal Airport-KRNV 1021 Airport Terminal Rd., Cleveland, MS 38732. If arriving late call George Moore +1 (281) 732-4254.

All times/schedule may be adjusted as deemed necessary by class.

DAY 1, TUESDAY, OCTOBER 1, 2024

- 7:30am Registration — Cleveland Municipal Airport-KRNV DSU Hangar
Coffee and Breakfast sandwiches each day
- 8:00am Introductions — Staff, guests, hosts, and attendees
- Preparations for a calibration workshop
 - Safety
 - Etiquette
 - Analyst liabilities
 - Protocol
 - String system components
 - Setups PA, Drift, Swath displacement cards
 - Agenda review
 - Notebook and flashdrive content
- 8:30am Fly-In Preparation — Cleveland Municipal Airport-KRNV DSU Hangar
- 9:30am Break — Coffee, Sodas, Water Provided
- 10:00am Field Equipment Layouts — Airport Grounds
- Field equipment setup review and layout
 - Drift setups
 - Pattern setups
 - Witness Cards, Novartis, Oils, Kromecote Samples
 - Limitations
 - Spread factors
 - Image and paper quality
 - Drop size
 - Computer requirements
 - Applications
 - PA enhancements
 - Drift



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- Canopy deposition
 - Swath displacement
 - Output discussion
 - Examples
 - VMD, V. 1, V.9
 - Plot
 - Histogram
 - Est. GPA
 - % Area covered
- 11:30am Morning Wrap & Discussion**
- 12:00pm Lunch — Catered lunch**
- 1:00pm Classroom discussion continues**
- Program Overview
 - System Setup
 - Test Data
 - String Analysis
 - Swath Determination
 - Analyze Existing Files
 - Printed Reports
 - Spectrometer Compatible systems
- 2:05pm Accupat Software**
- Program Overview
 - System Setup
 - Test Data
 - Data Entry
 - Swath Determination
 - Analyze Existing Files
 - Printed Reports
- 4:30pm Hands-On Applications**
- String analysis - (2 string analysis units) 2 teams will analyze strings from previous fly-ins. Obtain printouts (Passes, Average, Overlapped Swaths)
 - Card analysis - 2 teams will analyze cards from previous fly-ins
- 5:30pm Free Time to practice and catch up**
- 6:30pm Dinner — *(Dinner will be provided)* LTBD Class will vote**



**ADVANCED TURBINE TRAINING DELTA STATE
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DAY 2, WEDNESDAY, OCTOBER 2, 2024

- 8:00am** **Setup Equipment** — *(Students)* Meet at DSU Hangar
- Flight-line Collector and Data Systems
 - Drift Tower - Flight Path discussion
- 8:30am** **Discussion of Aircraft Setup**
- Booms**
- Type
 - Location
 - Length
 - Nozzles attachments
 - Hangers
 - Half boom shut off
 - Tapered booms
 - Bleed lines
- Aerodynamics**
- Ground effect
 - Prop wash
 - Vortices
 - Obstruction
 - Wing tips
 - Vortex generators
 - Fairings
- Aircraft Review**
- Spray system component review
 - Crockpit
 - Flow controllers (A & B styles)
 - GPS
 - Racetrack
 - Back and forth
 - Quick racetrack
 - Reverse racetrack
 - Expand
 - Squeeze
 - Calibration
 - Spreadsheet - ACCALIB
 - USDA/ARS Model(s) review
 - AgDrift
 - WRK Granular system equipment, setup, and software review
- Nozzle Types**
- Sheet
 - Straight Stream
 - Hollow cone
 - Rotary
 - Check valves
 - Identification (type, size, etc.)
- 10:00am** **Break** — Coffee, Sodas, Water Provided
- 10:20am** **Homework exercise review**
- 12:00pm** **Lunch** — Catered lunch



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- 1:15pm** **Pattern Anomalies**
- Prop wash
 - Hangars / obstructions
 - Vortices
 - Speed
 - Height
 - Wind direction
 - Unexplained patter problems
Don't always look for the obvious!
 - Flowbrator and/or flow checks
 - Volume / drop size - what rate to check if operator is doing several tests?
- 3:00pm** **Break — Coffee, Sodas, Water Provided**
- 2:05pm** **Wrap Up**
- Review of course material
 - Review of procedure for analyst certification by NAAA
- 4:30pm** **Final Exam and Course Evaluation**
Passing grade will be mandatory for those wanting to be certified or recertified.
- 6:30pm** **Free Time and Dinner on your own**



**ADVANCED TURBINE TRAINING DELTA STATE
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DAY 3, THURSDAY, OCTOBER 3, 2024

- 6:00am** **Setup Flightline** — *(Students)* Meet at DSU Hangar
- Flight-line System
 - Flight Data System
 - Drift Tower and Flight path
- 7:00am** **Aircraft Testing will begin**
- Students will conduct the pattern testing and operate all stations. Teams will rotate duty stations throughout the day, as determined by the Fly-in management. Team approach may be modified to meet number of students.*
- Initial Duties will be:**
- Station 1 Team 1**
- Briefing pilots
 - Overseeing loading operations
- Station 2 Team 2**
- Flight-line duties
 - Aircraft nozzle setup measurements
- Station 3 Team 3**
- String analyses - Accupat
 - DropletScan, Accupat, DropVision analyses
 - Print outs and Pilot consultations
- 12:00pm** **Lunch** — Catered lunch
- 1:00pm** **Activities Resume**
- Practice on software
- Our unless weather causes cessation of operations*
- ?:?:00pm** **Repack Flight-line Equipment** *(Students)*
- Dinner on your own



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5:30pm **Group Discussion and Test Review**

- Questions regarding day's operations
- Problems experienced
- Aircraft problems observed and suggested solutions
- General discussion of Analyst needs-how to stay current
- Review of pictures on CD
- Wrap up



TYPICAL S.A.F.E. CLASS ACTIVITIES



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DAY 4, FRIDAY, OCTOBER 4, 2024

- 6:00am** **Setup Flightline** — *(Students)* Meet at DSU Hangar
- Flight-line Collector System
 - Flight Data System
- 7:00am** **Operation S.A.F.E. Fly-in Commences**
- Students will conduct the fly-in and operate all stations.
Teams will rotate duty stations throughout the day, as
determined by the Fly-in management.*
- Initial Duties will be:**
- Station 1 Team 1**
- Briefing pilots
 - Overseeing loading operations
 - Flowbrator operations - flow checks discussion
- Station 2 Team 2**
- Flight-line duties
 - Field Deposition
 - Aircraft configuration measurements
- Station 3 Team 3**
- String analyses - Accupat
 - Drop spectrum Scan analyses - DropletScan, Accupat,
Dropflight
 - Print outs and Pilot consultations
- 12:00pm** **Lunch** — Catered lunch
- 1:00pm** **Pattern Analysis** — Droplet Analysis / Countinues
- ?:?:00pm** **Fly-in Concludes**
- Dismantle flight-line and repack equipment (Students)*
- ?:?:00pm** **School De-brief, Dinner**
- LTBD (Location and timing to be determined.)*



**ADVANCED TURBINE TRAINING DELTA STATE
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PROGRAM PRESENTERS



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**ADVANCED TURBINE TRAINING DELTA STATE
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**ADVANCED TURBINE TRAINING DELTA STATE
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REGISTRATION

Pre-registration prior to August 23, 2024 is strongly recommended to be assured of accommodations.

CLASS REGISTRATION FEE – US\$3000 Pre-registration prior to August 23, 2024
10% Discount for additional registrants from same organization.

Check, money order, purchase order, or Credit Card accepted cash preferred payable to **Advanced Turbine Training** in advance or at on site registration.

PRE-REGISTER BY EMAILING YOUR

Name, Address, email, phone, and organization to

George Moore

george-moore@hotmail.com

+1 281-732-4254

or

Dennis R. Gardisser

dgardisser@icloud.com

+1 501-676-1762

Send questions about class to one of the above email addresses.

If flying to Mississippi Arrival Airports

Memphis International Airport (MEM) or

Jackson-Medgar Wiley Evers International Airport (JAN)



**ADVANCED TURBINE TRAINING DELTA STATE
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CLEVELAND MISSISSIPPI LODGING

Lyric Hotel West End, Ascend Hotel Collection

1300 Highway 8 West, Cleveland, MS 38732 US
+1 844-202-3183

**Closest to the Airport*

Cotton House, Cleveland, a Tribute Portfolio Hotel

215 Cotton Row, Cleveland, MS 38732 US
+1 662-843-7733

Holiday Inn Express Hotel & Suites Cleveland

808 N Davis Ave, Cleveland, MS, 38732 US
+1 662-843-9300

Hampton Inn Cleveland

912 N Davis Ave, Cleveland, MS, 38732 US
+1 662-846-2915



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