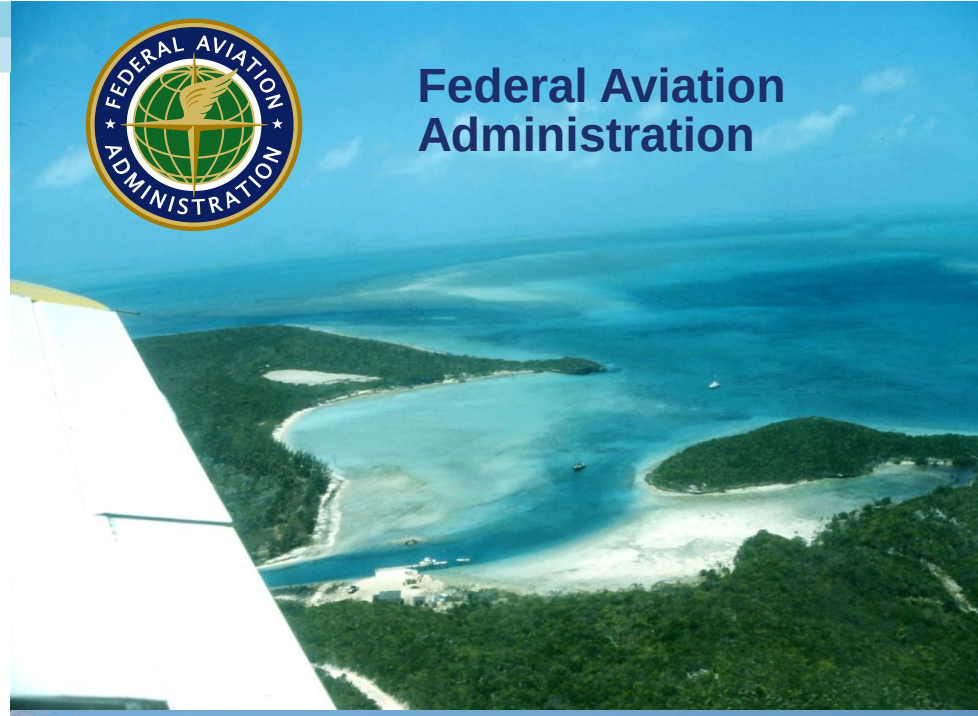
The National FAA Safety Team Presents

Topic of the Month - February

Expanding Your Horizons

Federal Aviation Administration



Presented to: WAFC and Friends

By: Stephen Bateman, CFI

Date: February 8th 2021

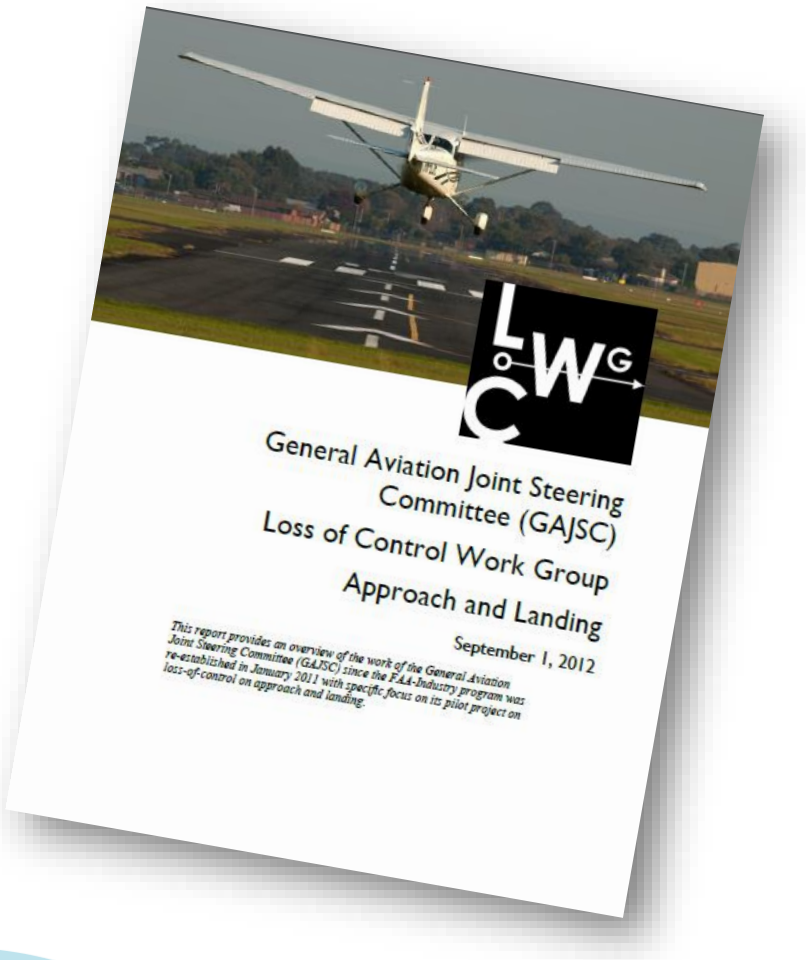
Produced by AFS-850
The National FAA Safety Team (FAASTeam)

Welcome

- Steve Bateman, AOPA Director of Flying Clubs & treasurer, maintenance and safety officer – Westminster Aerobats Flying Club
- Sponsor Acknowledgment – WAFC, AOPA, FAASTeam, Baltimore FSDO
- Please - MUTE your microphone
- WINGS Credit: Yes…but give me a day or two…
- In-and-out…no time for questions, but send email:
  - steve.bateman@aopa.org

Overview

- **Expanding your Horizons**
  - Branch Out – not the same hour over and over…
  - Proficiency & Recency
  - Transition Training
  - Environmental Unfamiliarity
    - Mountains
    - High desert
    - Over water
    - Different airspace and rules
- **Broad range of piloting experience**
  - Better at handling challenges



Where would you fly?

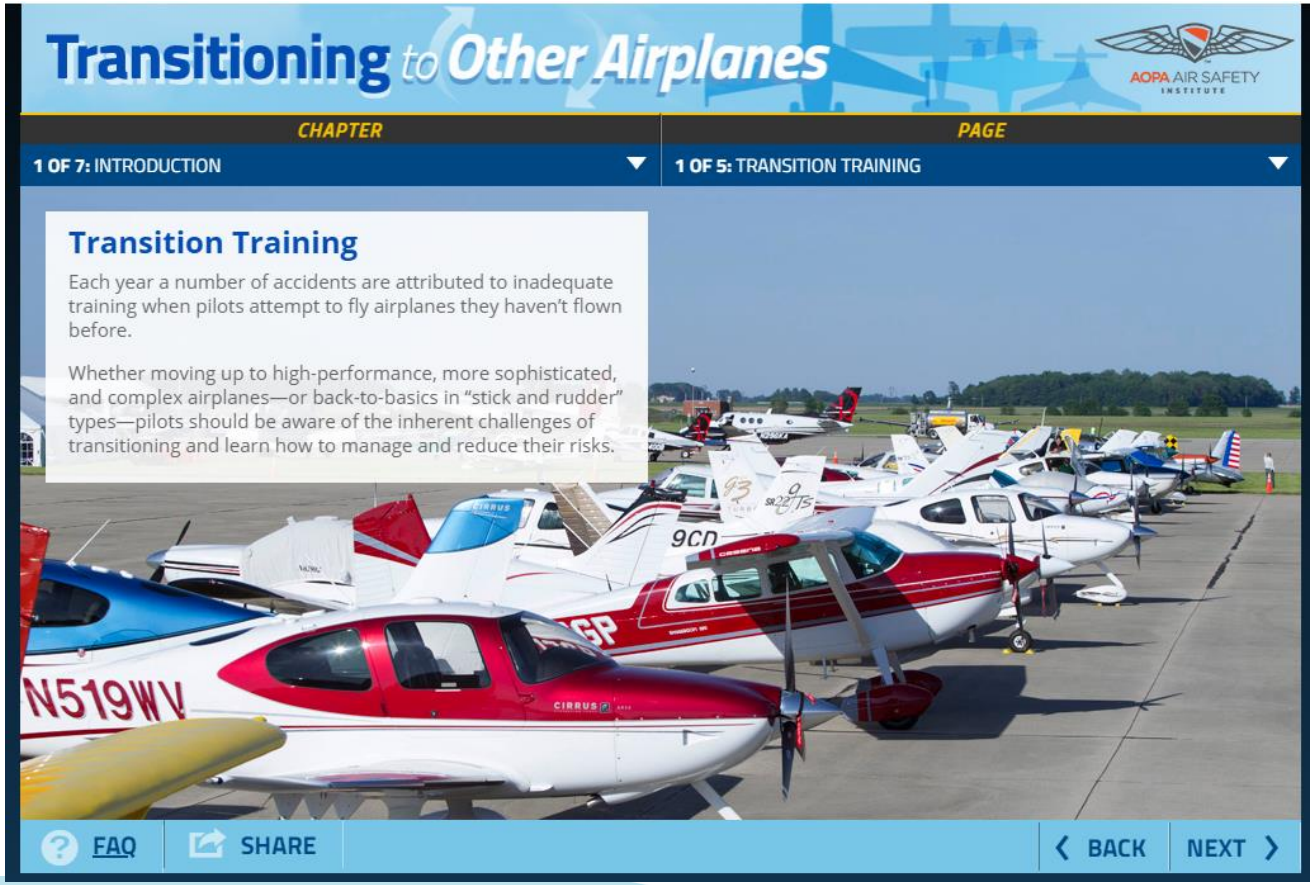
Recent flight experience – 14 CFR 61.57

- **Takeoffs & Landings**
  - Day and night
  - Tailwheel – wheel landings?
  - Instrument
- **Flight Review**
  - Combine the review with other training – checkouts, etc.

Horses for Courses

Transition Training

- **AFH Chapters 13-16**



Pick a destination

- **High density altitude**
  - Mountains
  - Desert
- **Complex high-traffic airspace**
- **Short/Soft Field**
- **Maritime**
- **Survival considerations**

Know the DA

- **4-H Club:**
  - Hot
  - High
  - Heavy
  - Humid
- **Atmospheric Pressure influences DA**
- **Lower pressure = Higher PA = Higher DA**

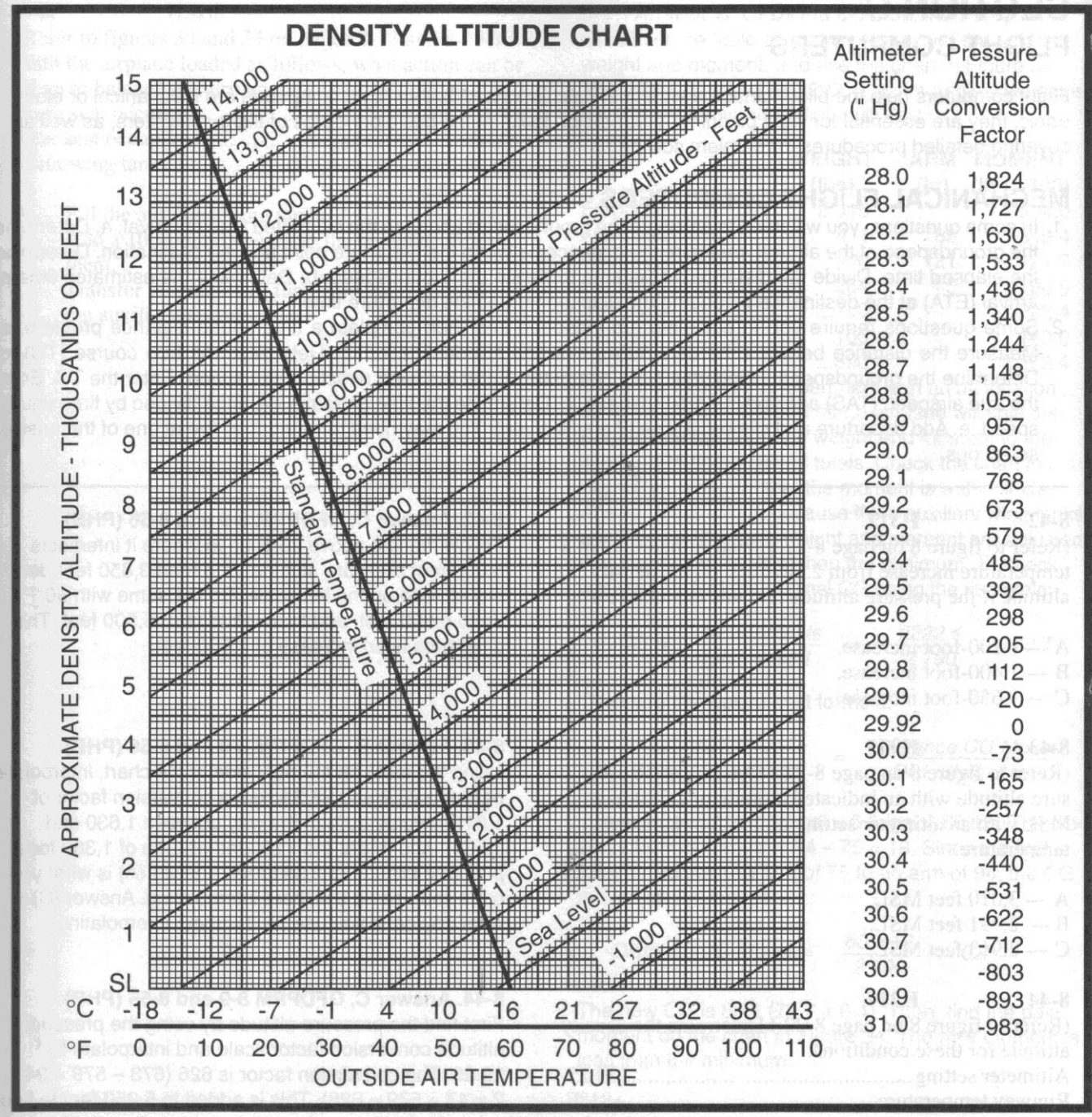
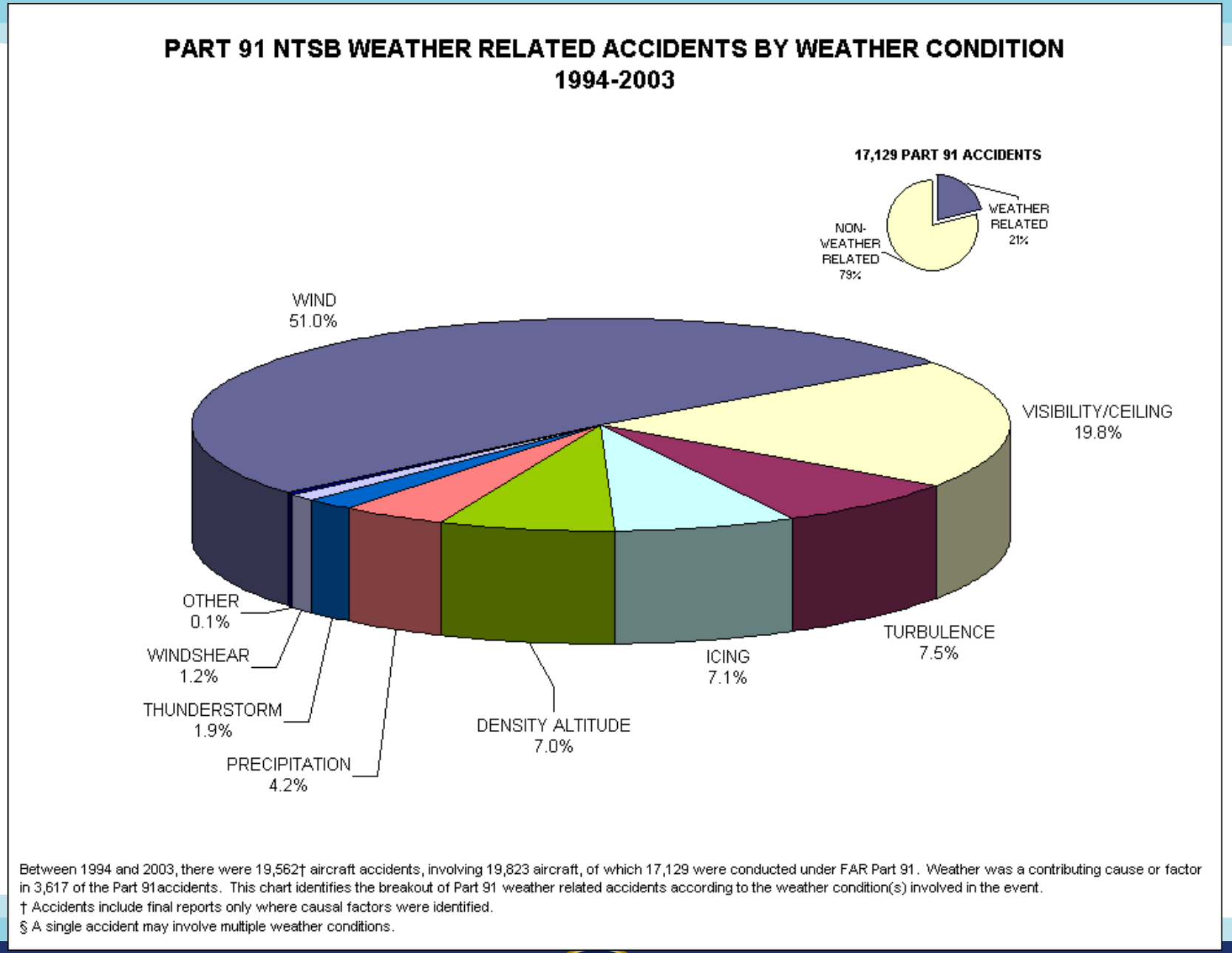


FIGURE 8.—Density Altitude Chart.

DA Kills



Ref: Foreflight Documentation

Its All About Air Density, T, P and DP

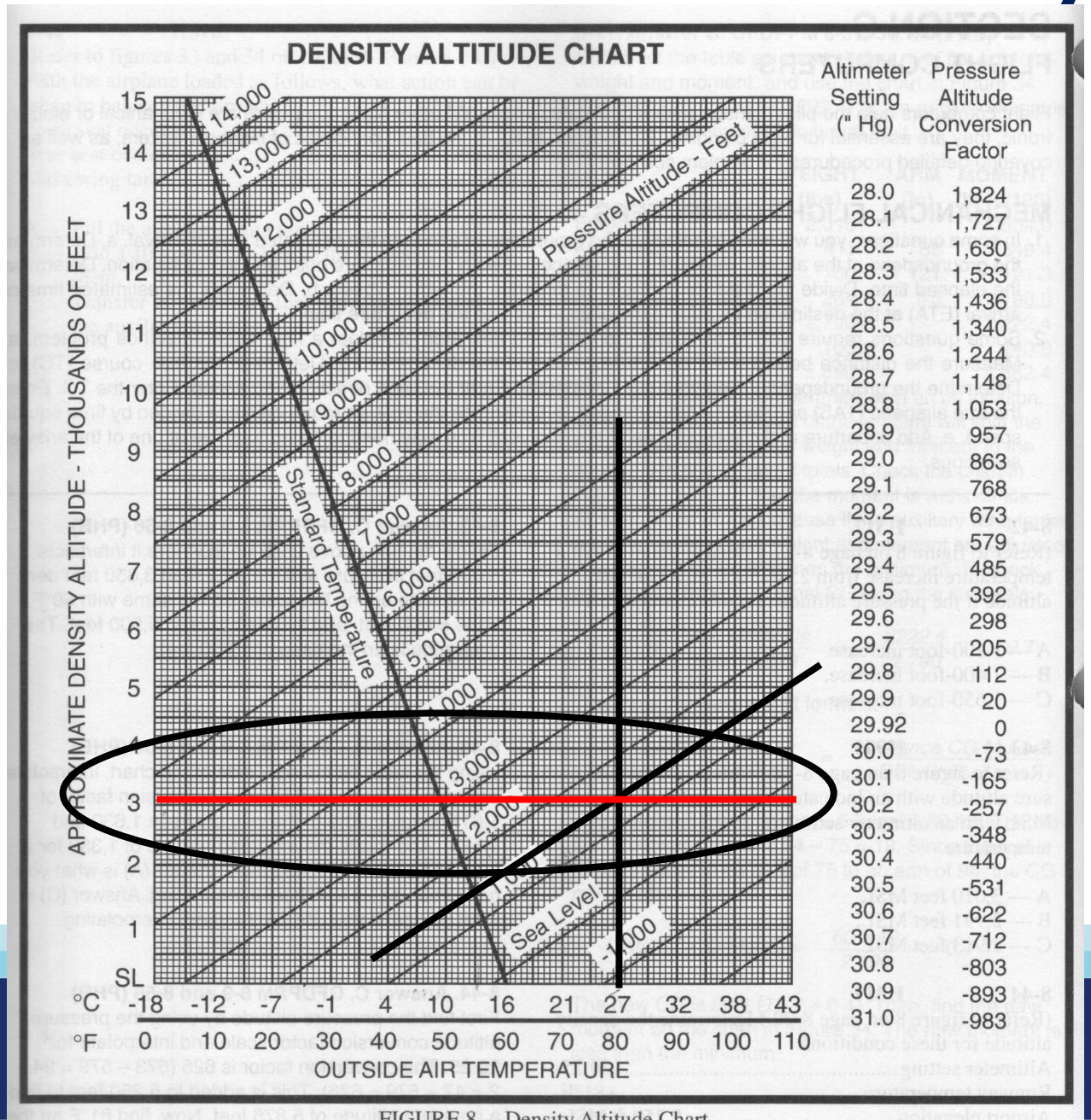
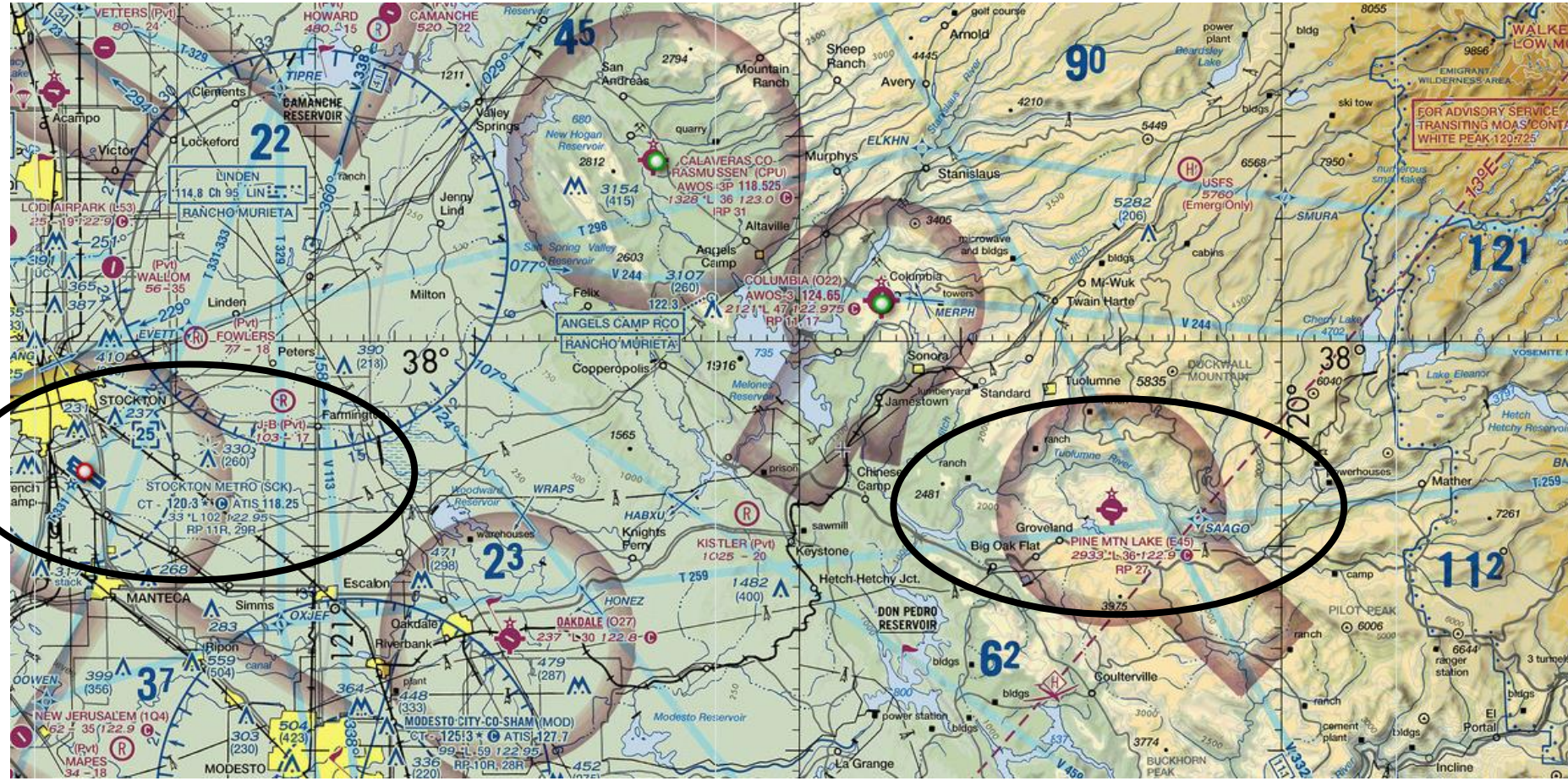


FIGURE 8. Density Altitude Chart

- **PA = MSL+(29.92-AS)*1,000**
  - AS = Actual altimeter setting
- **At KFDK (309'MSL)**
  - On std day, PA=309'
  - AS = 28.92", PA=1,309'
  - 27C day?
  - DA = 3,000'
- **Lower atmospheric pressure means higher PA means higher DA**

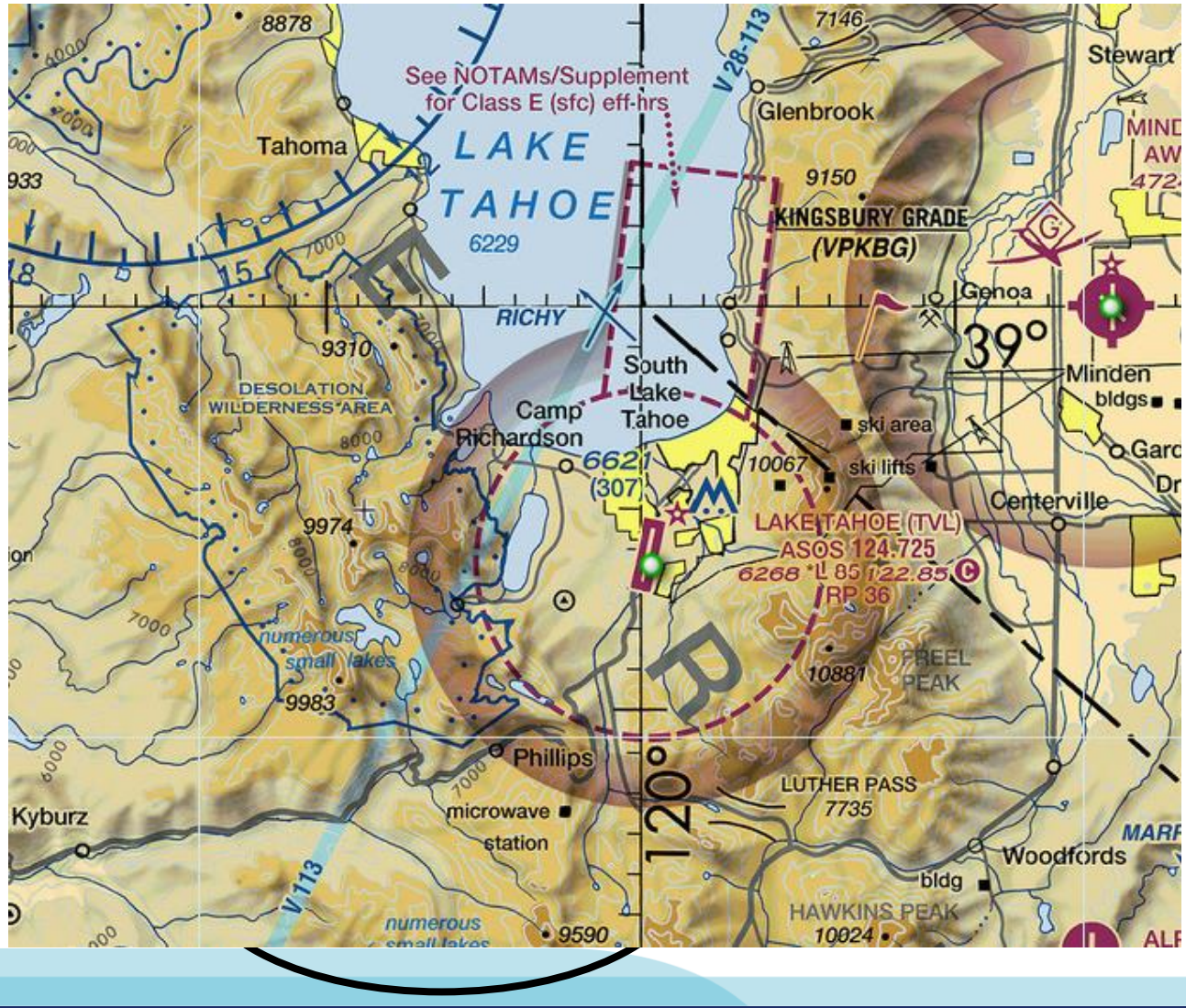
Pick a destination

- **Mountains**
- **Use the MEF**
- **Stockton**
  - 33’MSL
- **Pine Mountain**
  - 2,933’MSL
- **2,900’ increase in 50NM**



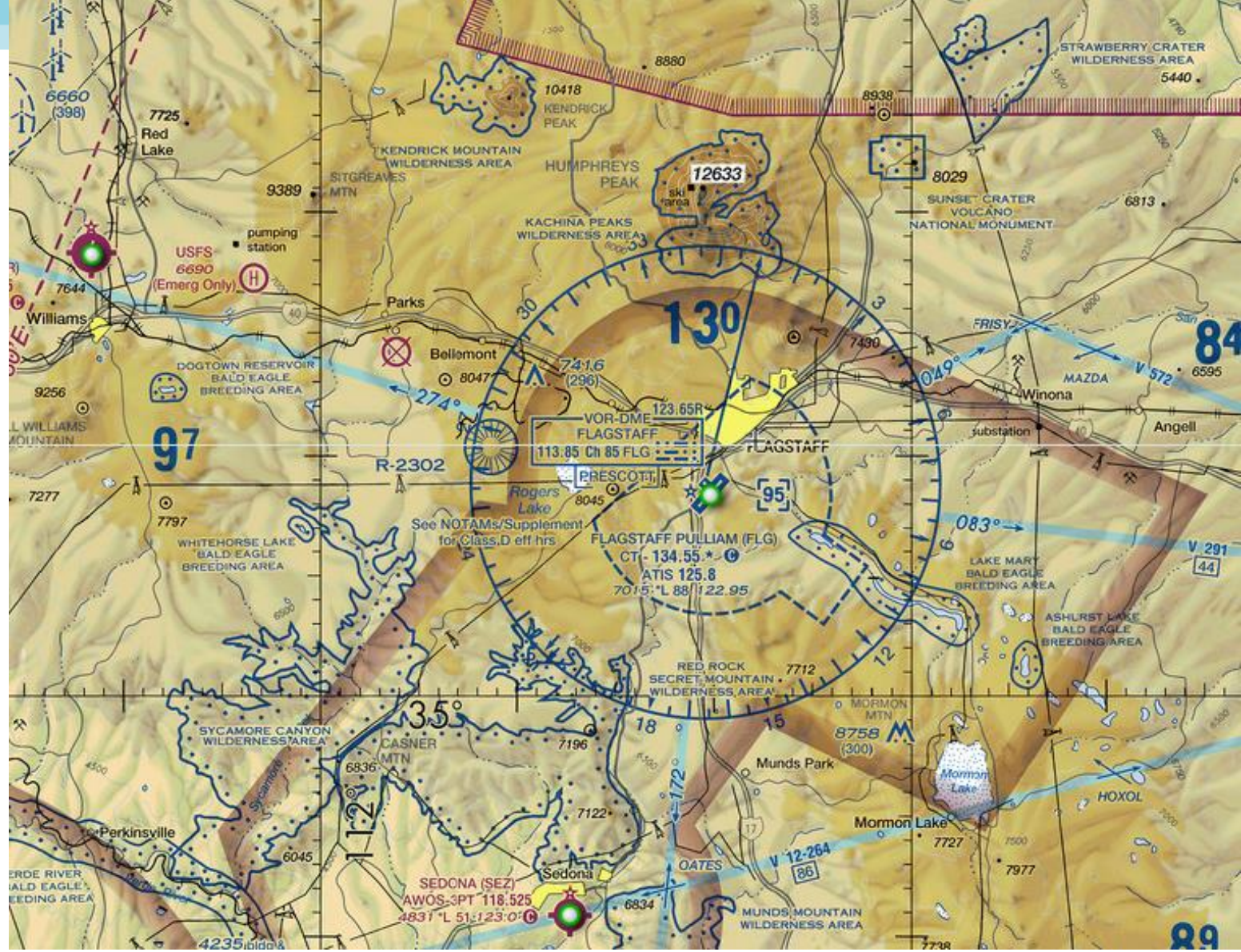
Pick a destination - Tahoe

- 6,268’ MSL
- Peaks all around 10,000’
- Easily gets to 30C
- DA gets to: 11,400’
- (T accounts for ~3,500’)
- C172 climb rate <200FPM
- Need to gain ~4,000’
- Will take some 20 mins!
- Will have to circle over airport



Pick a destination

- High desert
- Note the MEF
- Flagstaff 7,015’



But calculating DA is so….hard…

- Use the chart
- Listen to the METAR
- Use, e.g. Foreflight!

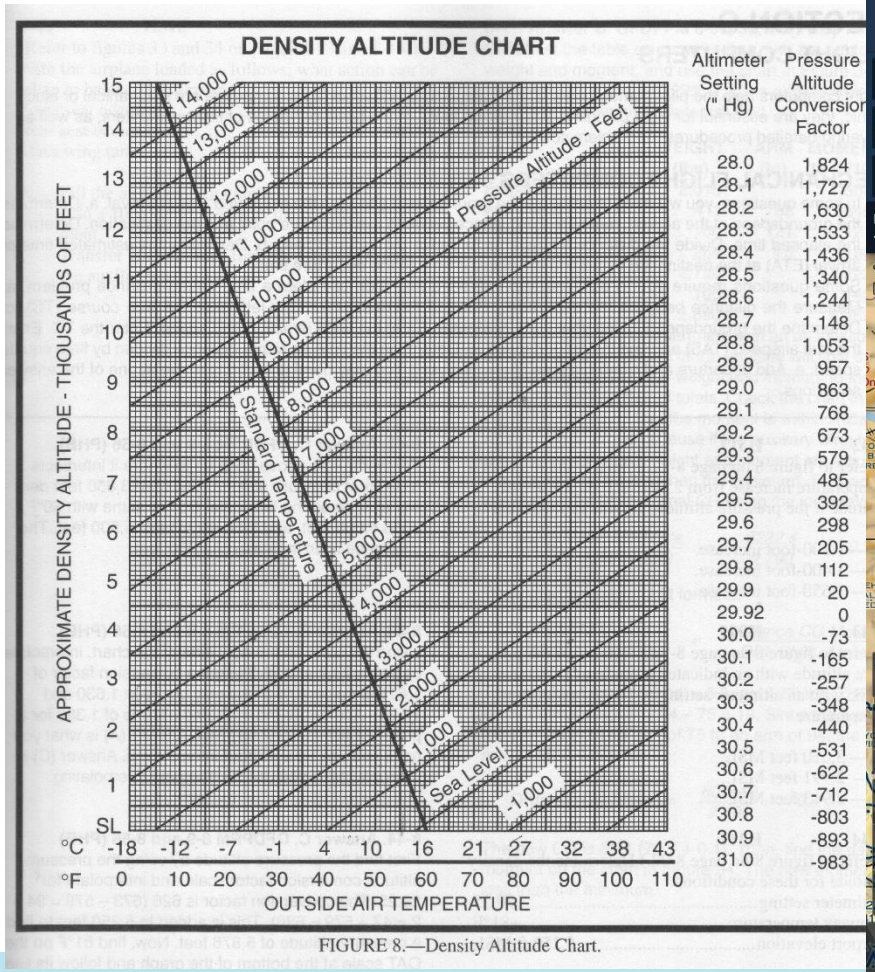
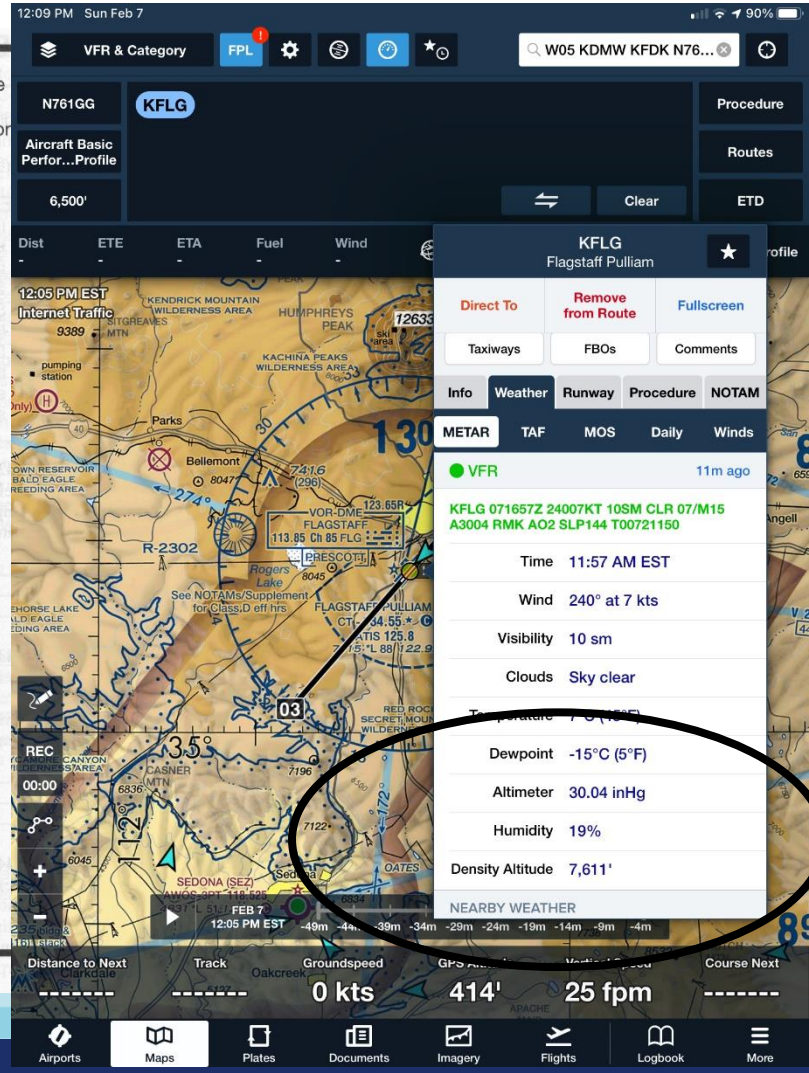
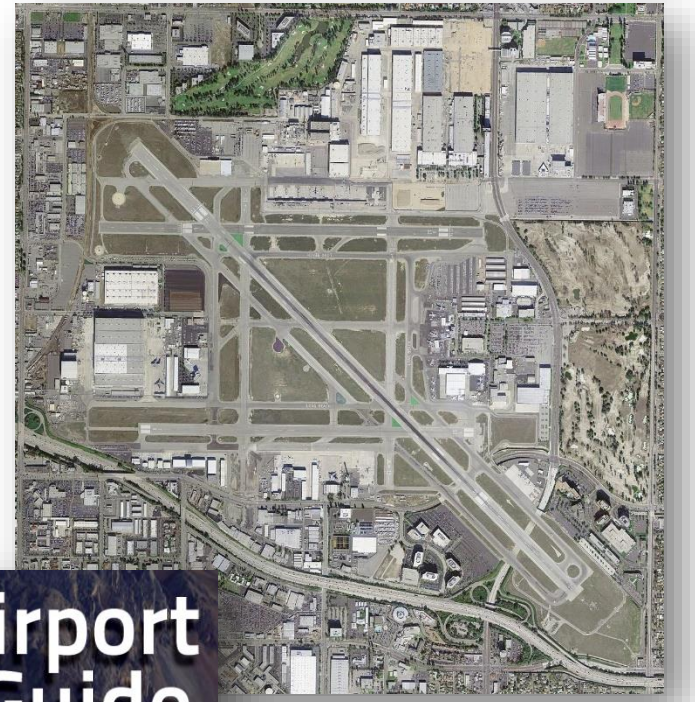


FIGURE 8.—Density Altitude Chart.



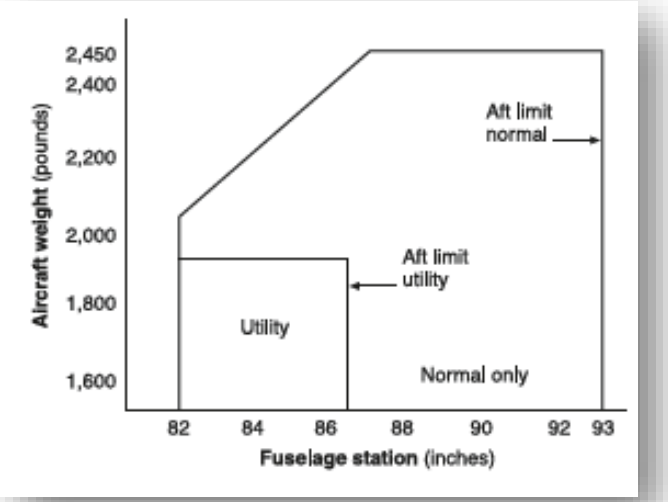
Research the destination

- **Chart supplement**
- **VFR charts**
- **IFR charts for MEA, MOCA**
- **Magazine articles**
  - Caution!
- **On-line videos**
  - Caution!
- **Local knowledge:**
  - Pilot/Instructor interviews
  - Local flying clubs



Research the requirements

- **Over water equipment**
- **Survival gear**
- **Weight & balance calculation**



Find an Instructor

- **You may have to travel**
  - Look for schools, instructors & courses near your destination
  - Ask for local instructor recommendations
- **Interview several instructors**
  - Pick the best fit for you
- **Get a thorough local checkout**
  - Perhaps combine with a Flight Review

Work up to the challenge

- **Get some hours in the density altitude environment**
  - At a good-sized airport
- **Before you tackle something like this**

Dress for Success

- **“In an emergency, what you have in your pockets is survival equipment. What you have in the baggage compartment is camping gear”**

Few more things

File a Flight Plan and….

Be prepared:

- **Basic Survival Training**
  - http://www.faa.gov/pilots/training/airman_education/survival_training/
- **SAS Survival Handbook**

Airspace

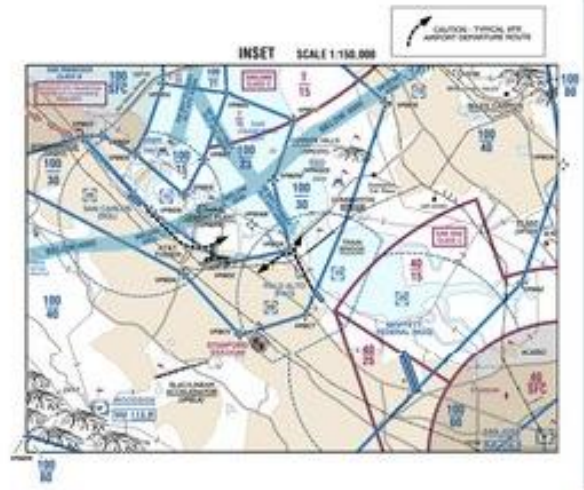
- ***Study*** **the charts**
- **Don’t for get the Fly chart on the reverse of a TAC**
- **Get local instruction**
- **May have to take additional training. e.g. DC-SFRA and FRZ**

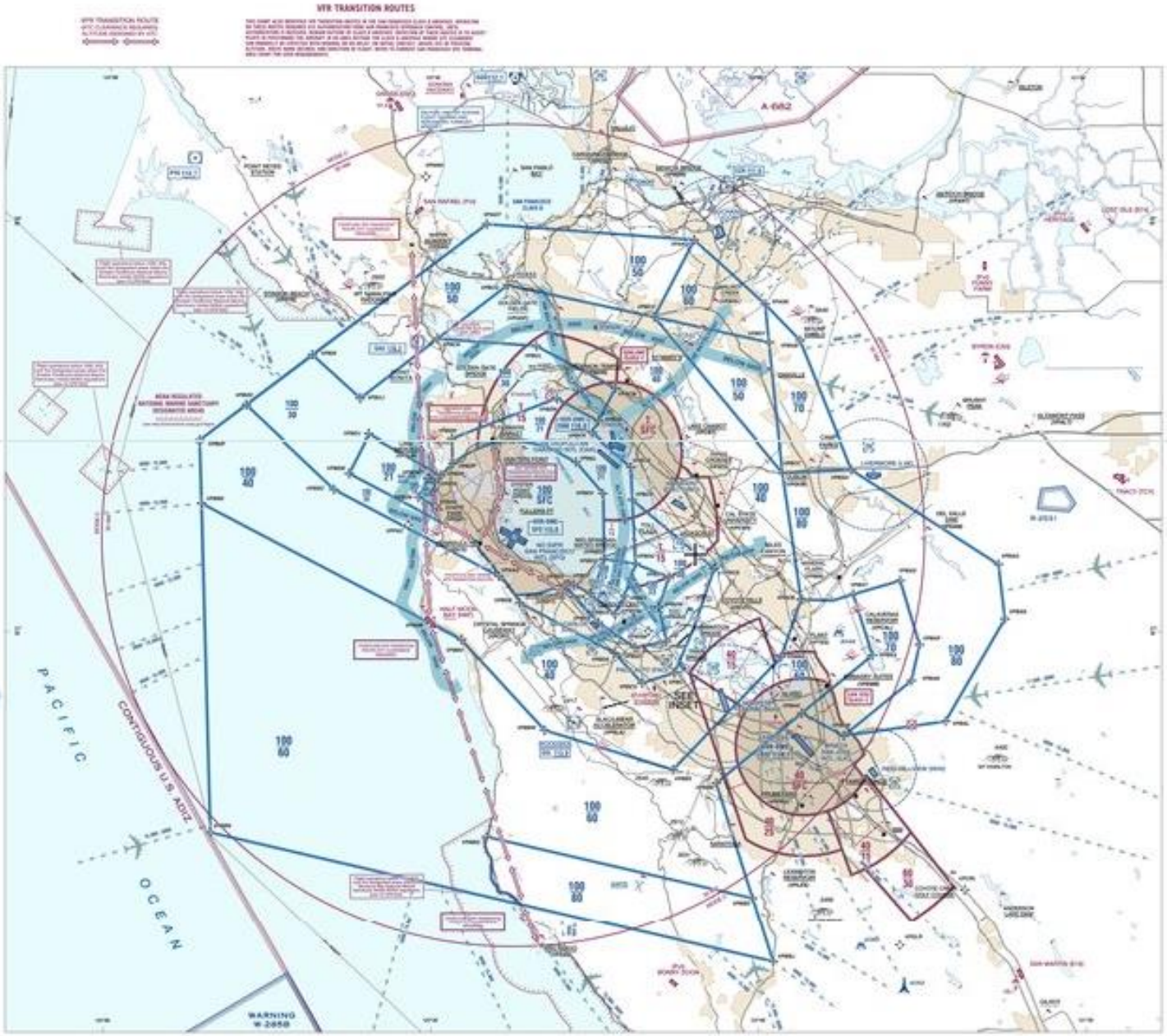
Airspace SFO SEC

Airspace
SFO TAC

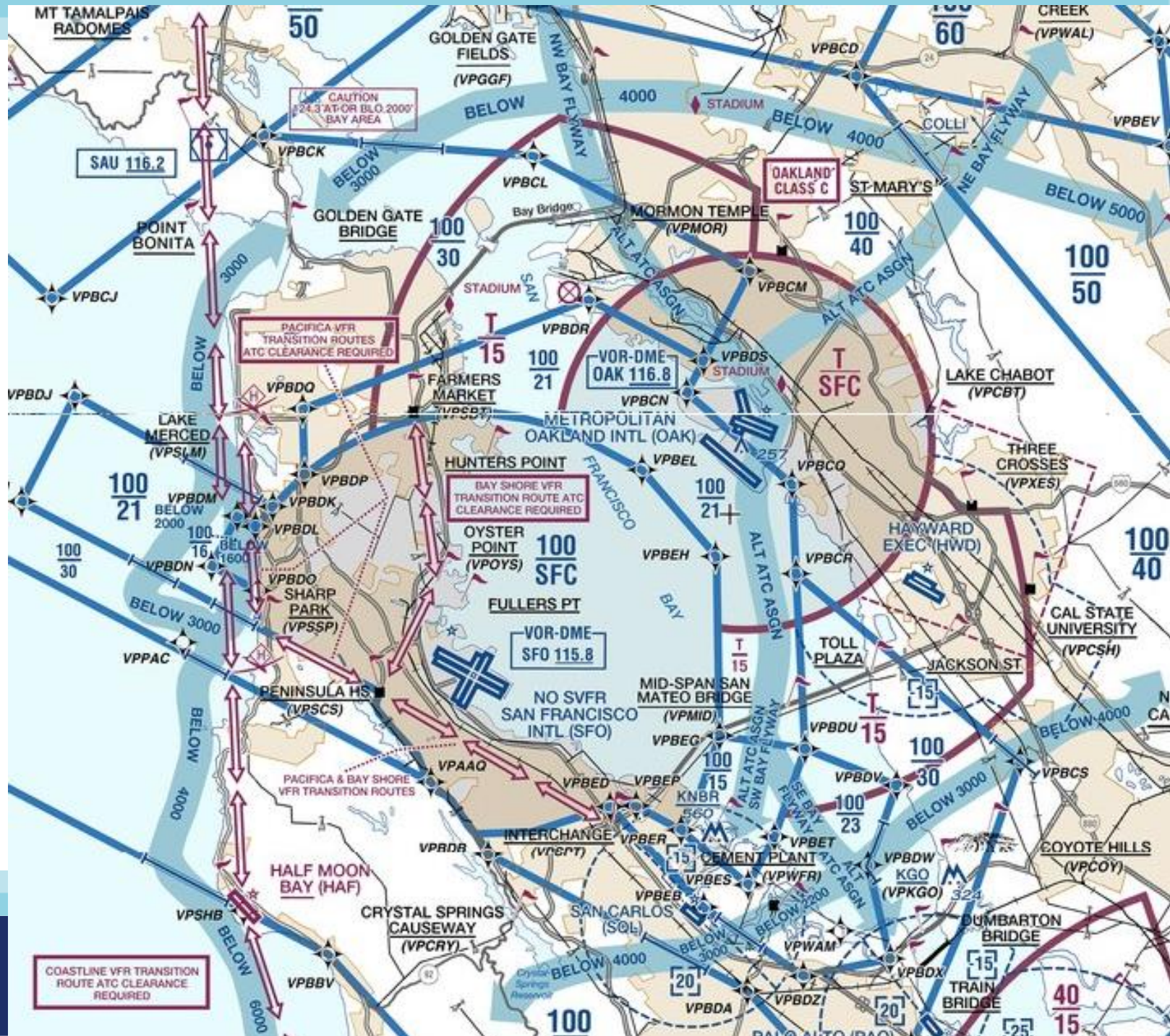
- **Class B**
- **Multiple Class C**
- **Multiple Class D**
- **Restricted**

Airspace SFO FLY



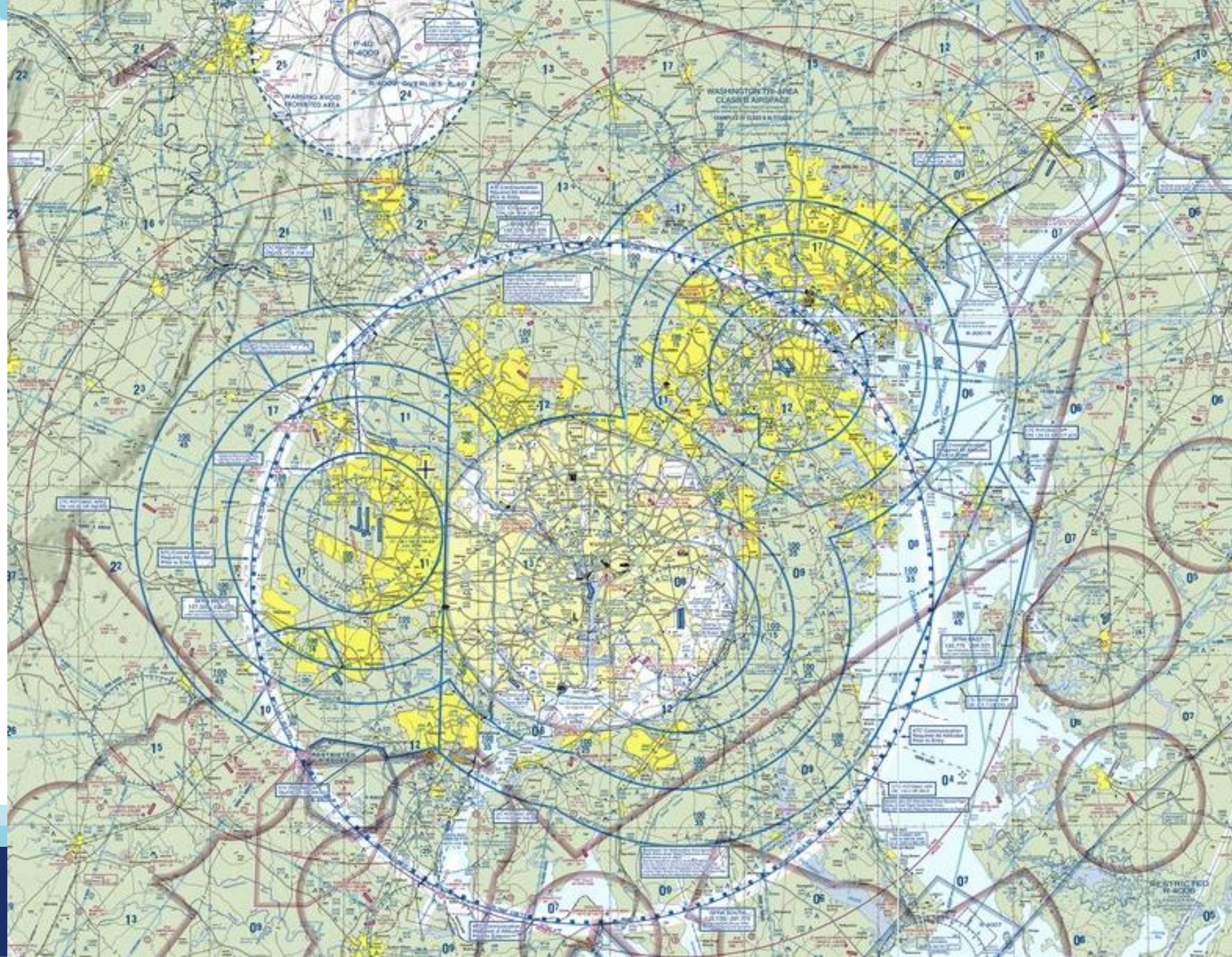


Airspace
SFO Bay Tour

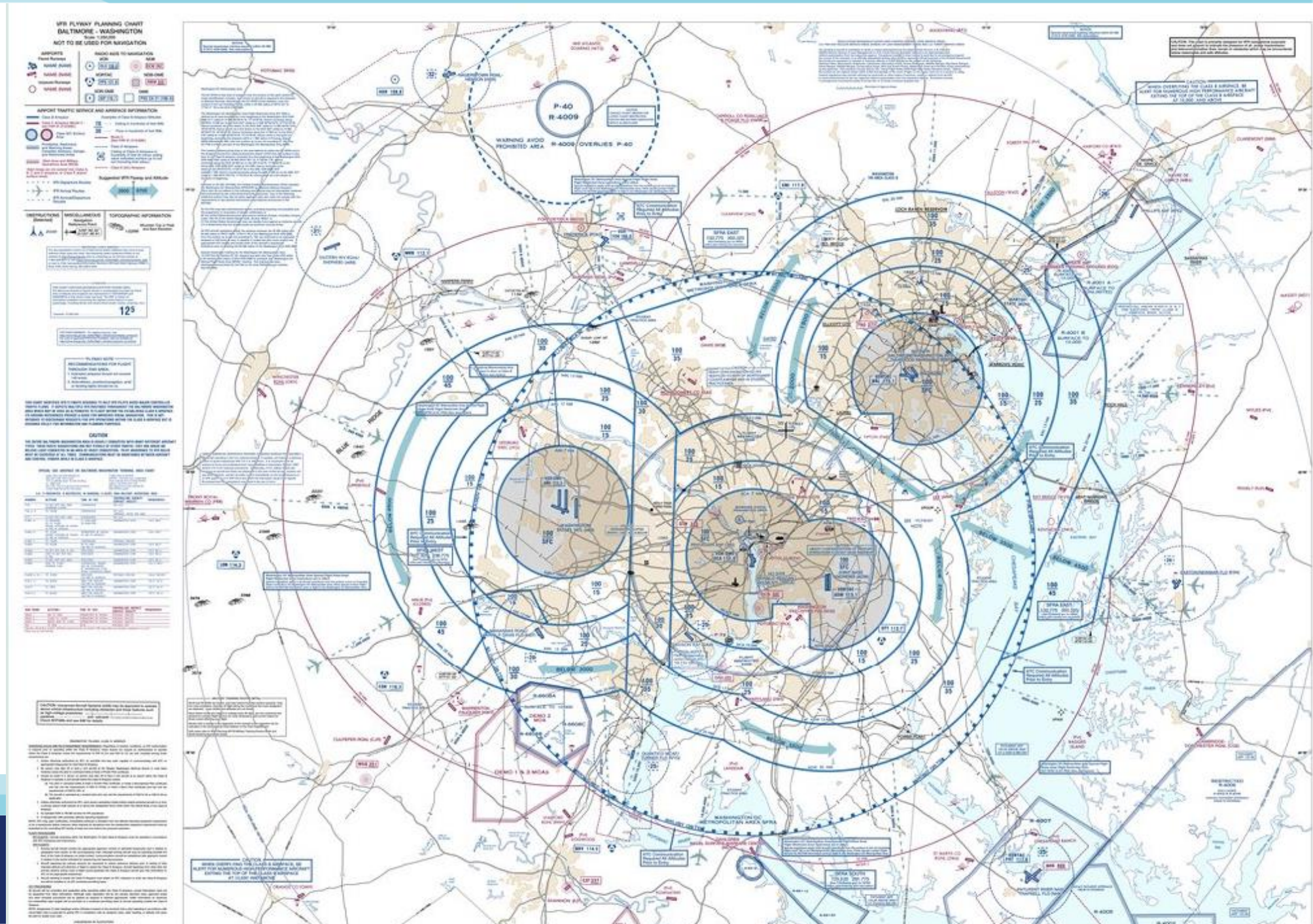


DC-SFRA

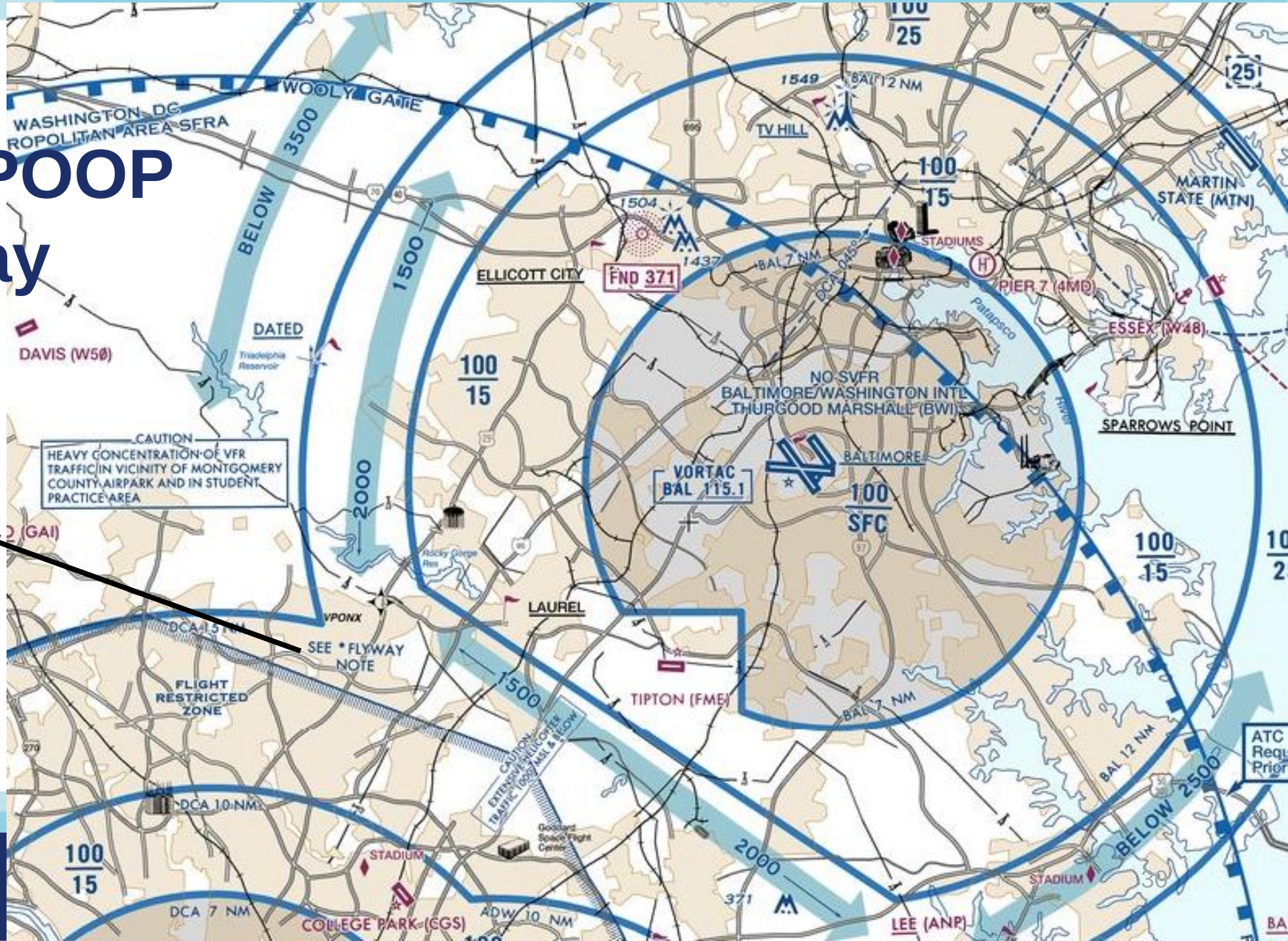
- Multiple Class B
- MOAs
- Restricted
- Prohibited
- Pop-up TFRs



DC-SFRA Fly


VFR FLYWAY PLANNING CHART
BALTIMORE - WASHINGTON
NOT TO BE USED FOR NAVIGATION
P-40
R-4009
WARNING AVOID PROHIBITED AREA
R-4009 OVERLIES P-40

DC-SFRA VPONX-VPOOP VFR Flyway



Have you earned your *WINGS*?

- **Proficient Pilots are:**
  - Confident
  - Capable
  - Safe
- ***WINGS*** will keep you on top of your game

Thank you for attending

- **You are vital members of our GA safety community**

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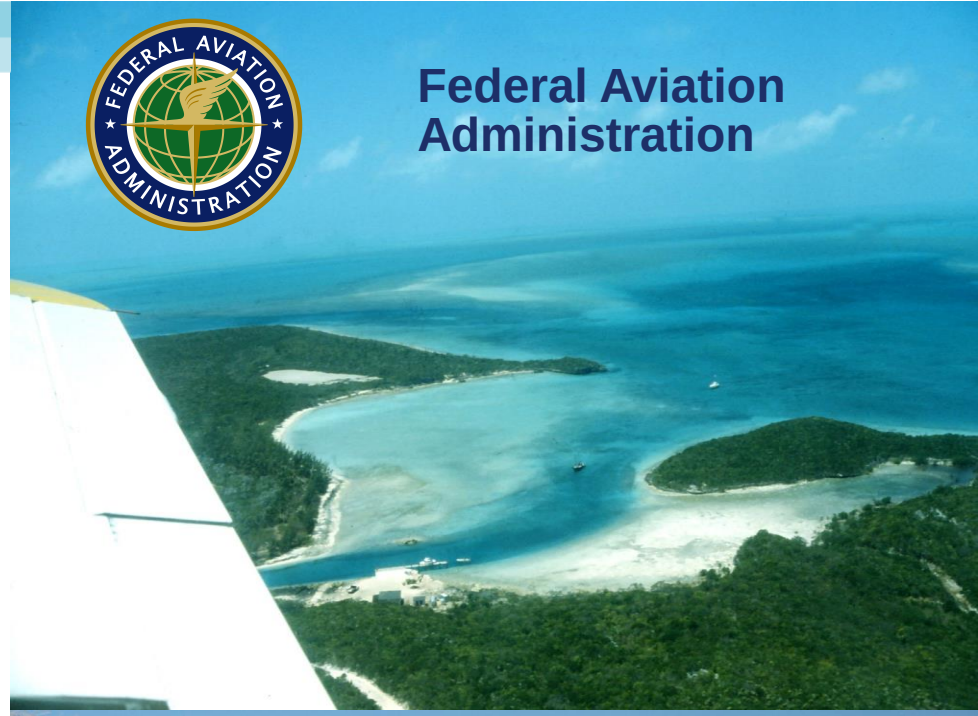

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