PRIVATE/COMMERCIAL ADD-ON FLIGHT BRIEF

Paperwork

- Customer Information Sheet
- Customer File Complete
  - Passport
  - Pilot's License
  - Driver's License
  - Medical
- Credit Card Authorization Form
- Email Sammy (sammy.protocom@gmail.com) or bring copies to office on day of training
- AFSP Candidates must have picture taken

ADMIN

Experience

- Overall Currency
- Background
- Primary Aircraft
- Instrument Experience
- Multi Engine Experience

Billing Policy

- Program Materials
- Billing (Protocom Aviation Services)
  - Hobbs meter
  - Aircraft rental (Wet): $400 per hour
  - Flight Instruction: $70 per hour
  - Credit Card Processing Fee: 3.5%
- Examiner Fee
  - $600 – Paid directly to examiner
- Discontinuance Policy
  - If at anytime you decide to discontinue training, Protocom Aviation reserves the right to bill the student all prior services rendered

Timeline

- Training Order
- Training Complete Time
- Lunch
- Checkride Order
- Contingency Plan

SAFETY

3-way positive change of controls

- Student: “You have the flight controls”
- Instructor: “I have the flight controls”
- Student: “You have the flight controls”

View Limiting Device

- They will be worn for all One Engine Inoperative training
- Simulating IMC on approach
- “Breaking Out”

See and Avoid

- Instructor/Examiner
  - Safety of flight calls / flight management
- Student roles
  - Execute maneuvers / procedures
  - Verify flight path clear
    - Clearing Turn
    - Visual & Vocal (look left, “clear left”)
- Observer roles
  - descriptive/directive
  - Questions
- Extra vigilance
  - Missed approach
  - Circling Approach

Cockpit Management

- Paper Checklist
  - Preflight
- Checklists on iPad in Foreflight
  - All on deck operations
  - Maneuvers
- Window Checklist
  - Instrument Approach Procedures

CRM

- Single pilot mindset
- Bugs
- Electric Trim
- Autopilot use

Communications

- Taxi
- Crossing runways
- Takeoff
- Clear of runway after landing

- Responses to ATC
  - Instructor (ICS)
  - Actual ATC

Loss of Directional Control

- All training will be conducted above V_{SSE} (92 MPH)
  - Except for stalls and V_{MC} demonstration
- When below
- Primary responsibility of pilot flying will be maintaining directional control
- Procedure
  - Power: IDLE
  - Ailerons: NEUTRALIZE
  - Rudder: FULL AGAINST YAW/ROLL
  - Elevator: LOWER THE NOSE AND REDUCE AOA

Fuel Management

- Fuel Capacity
  - Gauges
  - Fuel Used
- Switching Tanks
- Crossfeeding
- Mixtures
  - Taxi
  - Climb
  - Cruise

Baron Areas of Emphasis

- Elevator and Aileron Trim
- Brakes
- Gear and Flap switches
- Power Management
- Autopilot integration

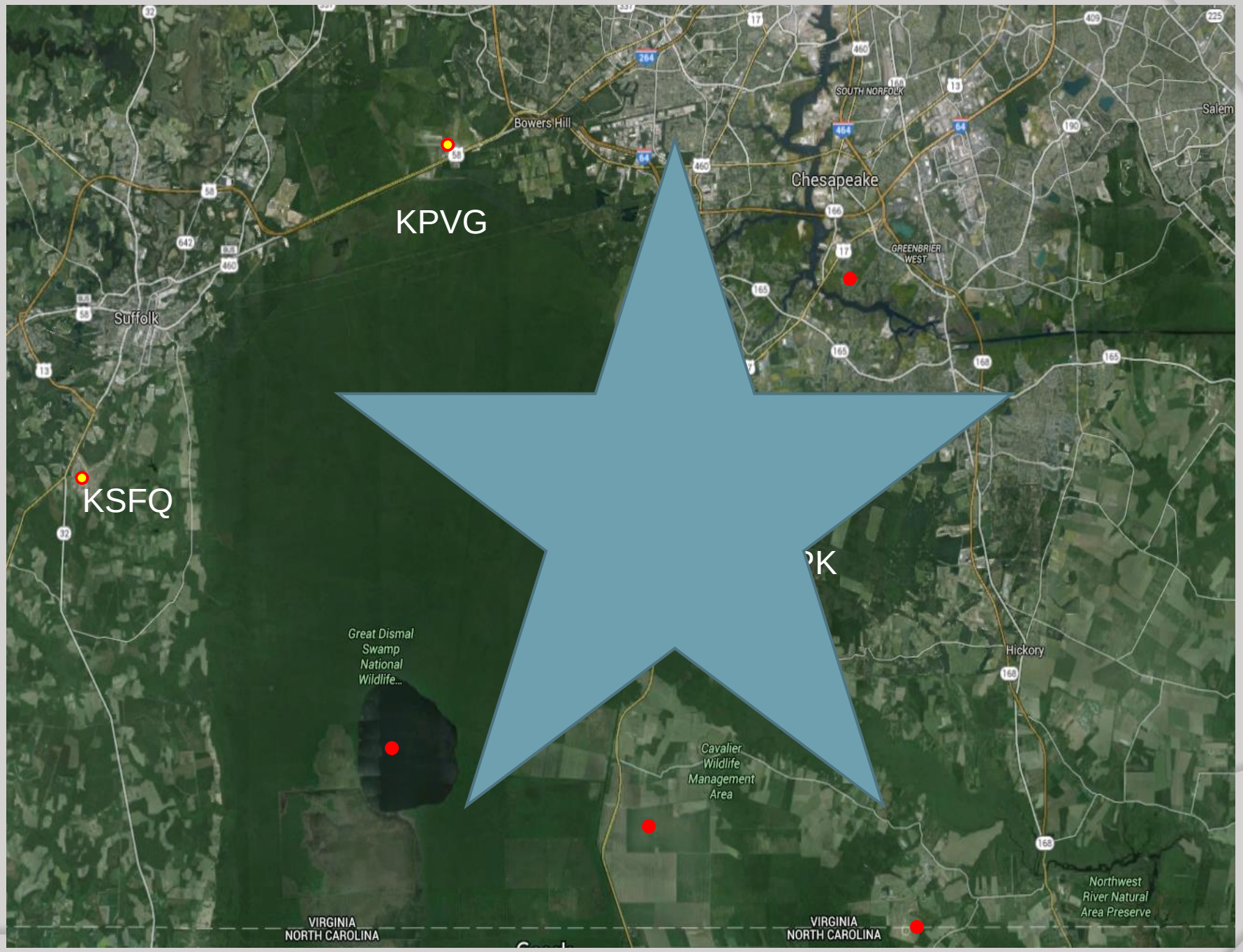
Air Sickness Issues

- Instructor cannot read your mind
- Options
  - Straight and Level Time
  - Discontinue flight
- Sick Sac
- Food and Hydration

Emergencies

- Simulated vs. Actual
- Aviate, Navigate, Communicate
- CRM
- Safety

Risk Assessment


KPVG
KSFQ
Bowers Hill
Chesapeake
SOUTH NORFOLK
GREENBRIER WEST
Salem
Suffolk
Great Dismal Swamp National Wildlife...
Cavalier Wildlife Management Area
Hickory
Northwest River Natural Area Preserve
VIRGINIA
NORTH CAROLINA
VIRGINIA
NORTH CAROLINA

SAFETY

Preflight

- Checklist & Flow
- Objective & Time to Complete
- Critical Items
  - Chocks / Tie downs removed
  - Fuel checked and caps closed
  - Oil checked, dipstick snug, panel secured
  - Doors closed

Pre-Start

- Entering cockpit
- Verify Times
- Passenger brief
- Taxi brief
- Headset

Engine Start

- Parking Brake
- Technique
- 10 Second Starter Limit
- Post start check
  - Oil pressure
  - Volts
  - Vacuum

Taxi

- Ground speed management
- Centerline management
- Radio Call
- Clearing intersections

Hampton Roads Executive (KPVG)

GROUND OPERATIONS

Take Off

- Power addition
- Heels on deck
- Crosswind input
- Hands on throttle and yoke

Aborted Takeoff

- Mixture pulled by instructor to create asymmetric thrust
- Procedure
  - Both throttles to IDLE immediately
  - Get back over to centerline
  - Light braking to come to a stop
- NO COPILOT BRAKES

Sequence

- High Work
- Approaches
- Landing Pattern

Concepts Review

- V_{MC}
- Critical Engine
- Stall/Spin

Aircraft Performance

- Performance Card
- Takeoff / Landing Distance
- Accelerate Stop
- Airspeeds

	Airspeed Limitations	MPH
V_{S0}	Stall in Landing Configuration	68
V_{S1}	Stall in Clean Configuration	74
V_{MC}	Minimum Control Airspeed – Single Engine	80
V_{R}	Rotation Speed	85
V_{X}	Best Angle of Climb	107
V_{SSE}	Simulated Single Engine Speed	92
V_{Y}	Best Rate of Climb	120
V_{XSE}	Best Angle of Climb – Single Engine	102
V_{YSE}	Best Rate of Climb – Single Engine	107
V_{FE}	Maximum Flaps Extended Speed (1/4 Flaps)	160
V_{FE}	Maximum Flaps Extended Speed (1/2 Flaps)	140
V_{FE}	Maximum Flaps Extended Speed (Full Flaps)	125
V_{A}	Maneuvering Speed	149
$V_{LO/LE}$	Max Gear Operating Speed / Extended	150
V_{NO}	Maximum structural cruising speed	198
V_{NE}	Never Exceed Speed	249
	Maximum Demonstrated Crosswind Component	12 Knots

Aircraft Performance

- On Approach - 120 KIAS
  - 15” MP (Non Precision)
  - 17” MP (Precision)
  - 19” MP (Single Engine)
- Level off (pattern) – 110 to 120 KIAS
  - 20” MP
- Final - 100 KIAS
  - 15” MP (Full flaps or flaps approach SSE)
- Threshold
  - 90 KIAS minimum

Autopilot

- Test
- HDG & ALT bugs
- Procedure
- Altitude change

Engine Failure Procedures

Engine Failure Procedures

- Immediate Action Items briefed before each flight
- Simulated engine failures shall not be conducted
  - Below 400 ft. AGL
  - Below 92 MPH airborne
  - Above 40 MPH on deck
- Methods to simulate
  - Fuel Selector
  - Mixture
  - Throttle
- Failure to restart

Engine Failures During Training

- High Work
  - Simulated PAR
    - Fuel selector
    - Profiles
  - Shutdown scenario
    - Engine Fire
    - Precautionary Shutdown
  - Secure and Restart
    - Autopilot
    - Trim
    - Checklist
- Instrument Approaches
  - Missed Approach
  - Prior to Final Approach Fix

Landing Checklist

- G.U.M.P.F.S
- Flow
- Priorities

Instrument Approach Procedure

Approach Brief

Stabilize on altitude and heading

Autopilot / FD (GPSS OFF vectors)

Cruise Checklist Complete

Activate Approach (IAF or Vectors)

CTAF (COM1)

AWOS (COM2)

NAVAIDs (NAV1&2)

Source

GTN 650 (GPS / VLOC)

PFD CDI Source (GPS1 / VLOC1)

Course - Verify Final Approach Course

Altitude - Stepdown / Mins (Bug)

Power Setting - Brief

Circling Plan - Brief (if required)

Missed Approach - Hdg Bug / Alt Bug

Instrument Approach

3 NM from FAF

Fuel Selectors - MAINS

Flaps - 15 (UP Single Engine)

Lights - Airport (7 clicks) / Aircraft

2 NM from FAF

Mixtures - FULL RICH

Props - 2500 RPMs

Throttles - SET FOR APPROACH

1 Dot Above Glide Slope (Precision)

1 NM From FAF (Non Precision)

Course - TRACKING

Source - GPS or VLOC

Gear - DOWN (Light / Nose Arrow)

Stabilize on Approach (120 KIAS)

Landing Checklist Complete

Climb

Pitch Attitude - 7.5° Nose Up

Throttles - 25" Manifold Pressure

Props - 2500 RPM

Cowl Flaps - OPEN

Taxi / Landing Light - OFF

Cruise

Throttles - 17" MP

Props - 2300 RPM

Mixtures - 10 GPH

Cowl Flaps - CLOSE

Missed Approach

Power Controls - FULL FORWARD

Pitch & Power - SET FOR CLIMB

Flaps - UP

Positive Rate of Climb - GEAR UP

GTN 650 - Activate Missed

Foreflight Familiarization

- Checklists
- Taxiway Diagram
- Airport Information
- Maps
- Plates Page

- Clear out plates page and load approaches expected

Landing Pattern

- Configuring Flaps and Gear
- Pattern altitude – 1,000 Ft. AGL
- All landings to touch and go
- Instructor will reconfigure flaps
- Full stop if less than 2,000 feet remaining

Last Landing and Parking

- Braking
- Centerline
- Radio call
- Checklist
- Record times
- Post Flight
- Chocks / Door
- Fuel

Parking

FLIGHT OBJECTIVES

Training Requirements (Private/Commercial)

- Takeoffs, Landings, and Go Arounds
  - **Normal Takeoff and Landing**
  - **Short Field Takeoff and Landing**
- Performance and Ground Reference
  - **Steep Turns**
- Slow Flight and Stalls
  - **Slow Flight**
  - **Power On**
  - **Power Off**
  - **Accelerated Stall**
- Emergency Operations
  - **Engine Failure During Takeoff Before V_{MC}**
  - **Engine Failure After Liftoff**
  - **Approach and Landing with and Inoperative Engine**
  - **Emergency Descent**
- Multiengine Operations
  - **Maneuvering with One Engine Inoperative**
  - **V_{MC} Demonstration**
  - **Engine Failure During Flight (On Instruments)**
  - **Engine Approach and Landing with Inoperative Engine**

Weather / NOTAMS

- KCVO
- KEUG
- KPDX
- Favored Runway
- VFR / IFR

Flight 1 Sequence of Events

- Normal Takeoff
- Maneuvers
  - Steep Turns
  - Slow Flight
  - Stalls
  - V_{MC} Demonstration Practice
  - Engine Failure Procedure Introduction
  - Emergency Descent
- Instrument Approach (Both engines operating)
  - Vectors ILS-17

  OR
  - Vectors RNAV-35
- VFR Pattern Entry
  - Normal Landings
  - Go Around

Flight 2 Sequence of Events

- Abort to Short Field Takeoff
- Review of maneuvers (as required)
- One Engine Inoperative Practice
  - V_{MC} Demo
  - Engine Failure Practice
  - Engine Shutdown, Secure, and Restart
- Emergency Descent
- Simulate Single Engine Instrument Approach
  - Vectors ILS-17

  Or
  - Vectors RNAV-35
- Traffic Pattern
  - Short Field
  - Simulated Single Engine

Flight 3 Sequence of Events

Mock Checkride

- Aborted Takeoff to Normal Takeoff
- Maneuvers
  - Steep Turns
  - Slow Flight
  - Stalls
  - V_{MC} Demonstration
- Engine Shutdown and Restart
- Emergency Descent
- Simulated Single Engine Approach
  - ILS-17 or RNAV-35
  - Straight In to Landing
- Traffic Pattern
  - Short Field
  - Simulated Single Engine
  - Go Around
  - Normal Landing

POST TRAINING COMPLETE

Debrief

- Questions on brief or conduct
- Learning Points
- Billing

Checkride

- Location
- Examiner
- Roles
- Oral
- Conduct
- Preflight
- Clearing turns
- Landings
- Checklists
- Comm Calls
- ACS
- Post Flight
- Paperwork
- Payment

IACRA and Endorsements

- Logbook entries endorsed by instructor
- Endorsement sticker(s) or digitally signed copies
  - Practical Test
  - PIC in Multi Engine Airplane
  - Complex
  - High Performance
- IACRA
  - Application submitted by applicant
  - Reviewed & signed by instructor (Need applicant FTN)