

Malibu/Mirage Training Syllabus

Student's Name _____

Address _____

Certificate Number _____

Telephone Number _____

Instructors Name _____

Lesson #1 (5 hrs Ground)

Aircraft Systems

Aircraft Limitations.....

Aircraft Performance

Day 2

Lesson #2 (2 hours Ground/ 4 hrs Flight).....

Review Aircraft Systems

Normal Operations

Slow Flight, Stalls, and Performance Maneuvers.....

Takeoffs, Landings and Go-A rounds.....

Day 3

Lesson #2 (4hrs Ground / 3 hrs Flight)

Review Aircraft Systems

Plan and Execute Cross Country Flight.....

Practice Instrument Approach Procedures (if instrument Rated)

Day 4

Lesson #4 (2hrs Ground /5hrs Flight)

Emergency Procedures

Proficiency and time building (conducting cross country flights and takeoffs and landings and simulated equipment malfunctions)

Day 5

Lesson #5 (5hrs flight)

Proficiency and time building (conducting cross country flights, practicing takeoffs and landing and simulated equipment malfunctions)

LESSON #1 (5 Hrs Ground)

Review Piper Malibu Mirage Systems using POH/ Information Manual

- 1) Propeller
- 2) Engine
- 3) Air induction system
- 4) Engine controls
- 5) Engine Monitoring Instrument System
- 6) Fuel System
- 7) Electrical System
- 8) Environmental System
- 9) Hydraulic Systems (landing Gear and Brakes)
- 10) Flight Control Systems
- 11) Pitot Static System
- 12) Vacuum System
- 13) Bleed Air and Pressurization systems
- 14) Radar

Review Aircraft Limitations using POH/Information Manual

- 1) Airspeed Limitations
- 2) Power Plant Limitations
- 3) Weight, Center of Gravity, and Load Factor Limits
- 4) Fuel Limits
- 5) Altitude Limitations and Cabin Pressure Limits
- 6) Air Conditioning System Limitations
- 7) Icing Information
- 8) Placards

Review Aircraft Performance using POH/Information Manual

- 1) Takeoff and Landing distance data
- 2) Climb Performance
- 3) Cruise Performance
- 4) Fuel burn and range
- 5) Review Performance Graphs

Brief: _____

Student: _____ Date: _____

Instructor: _____ Date: _____

Lesson #2 (2hrs Ground / 4 hrs Flight)

Ground:

Review Aircraft Systems

Review Normal Operations Using POH/Information Manual

- 1) Airspeeds for Normal Operations
- 2) Normal Procedures Checklist
 - >Preflight
 - >Before Engine Start
 - >Normal Start (cold and hot)
 - >Flooded Start
 - >Starting Engine with External Power
 - >Before Taxi, Taxi, and Ground Check Checklist
 - >Before Takeoff
 - >Takeoff
 - >Climb and Cruise Checklist
 - >Normal and Reduced Power Descents
 - >Before Landing Checklist
 - >After Landing and Stopping Engine Checklist
- 3) Review Flight Maneuvers
 - >Slow Flight
 - >Power On Stalls, Power Off Stalls, and Stall Recovery Procedures
 - >Steep Turns
- 4) Review Takeoffs, Landings, and Go-arounds
 - >Normal and Crosswind Takeoff and Landings
 - >Short Field Takeoff and Landing
 - >Go-around Procedures

Flight: Select a safe area with appropriate airspace that is clear of dense traffic and obstructions to practice flight maneuvers. Also select an appropriate airport or airports to practice takeoffs, landings and go-arounds.

- 1) Engine Starting
- 2) Taxiing and Runway Incursion prevention Procedures
- 3) Run-up and Pre-takeoff Procedures
- 4) Normal/Crosswind Takeoff and Climb
- 5) Power Settings and Mixture Leaning Procedures
- 6) Practice Flight Maneuvers (Slow Flight, Stalls and Stall recovery and Steep Turns)
- 7) Normal and Cross Wind Takeoffs and Landings
- 8) Short Field Takeoffs and Landings
- 9) Go-arounds

Pre and Post Flight Brief: _____ Flight Time: _____

Student: _____ Date: _____

Instructor: _____ Date: _____

Lesson #3 (4hrs Ground /3 hrs Flight)

Ground:

Review and discuss aircraft systems

Review Cross-Country flight Planning Procedures

- 1) AFD and Other Resources to research airport
- 2) Use weather resources to get through weather brief
 - >Aviationweather.gov
 - >DUATS
 - >FSS
- 3) Use performance charts in POH/Information manual to determine A/C performance
 - >Takeoff and Landing Distance
 - >Fuel burn in taxi, takeoff, climb, cruise, descent
 - >Weight and balance
- 4) Airspace/ Special Use Airspace operating procedures and weather minimums (VFR)
- 5) Low and High enroute charts (IFR)
- 6) ODPs, SID's and STAR's (IFR)
- 7) IAP's (IFR)
- 8) High altitude operations
- 9) Filing, Activating, and Closing flight plans (IFR, VFR)

FLIGHT:

Execute a cross country (VFR or IFR)to demonstrate proper operation of the aircraft systems and high altitude operations.

- 1) Preflight procedures
- 2) Copy IFR clearance or activate VFR flight plan
- 3) Normal /crosswind takeoff
- 4) Departure and enroute procedures
- 5) Auto pilot operations
- 6) Checklist use
- 7) ATC procedures and clearances
- 8) High altitude operations
- 9) Arrival procedures
- 10) Holding procedures
- 11) IAP's
- 12) Normal/crosswind landing

Pre and Post Flight Brief: _____ Flight Time: _____

Student: _____ Date: _____

Instructor: _____ Date: _____

Lesson #4 (2hrs Ground/5hrs Flight)

Ground:

Review troubleshooting of instruments and equipment malfunctions, in-flight emergencies and emergency procedures using POH/Information Manual.

- 1) Troubleshooting
 - >Electrical system malfunctions
 - >Autopilot Malfunctions
 - >Communications Malfunctions
 - >Loss of engine performance
 - >Pressurization malfunctions
 - >Low oil pressure
 - >Landing gear malfunctions
 - >Hydraulic system malfunction

- 2) Emergency Procedures
 - >Engine Failures
 - >On Takeoff, in climb, during cruise flight and in traffic pattern
 - >Engine fires
 - >During engine start
 - >IN FLIGHT
 - >Electrical fires
 - >Emergency descents
 - >Emergency Exit procedures
 - >Spin Recovery procedures

Pre and Post Flight Brief: _____ Flight Time: _____

Student: _____ Date: _____

Instructor: _____ Date: _____

FLIGHT #5 (5 hrs flight)

Flight: Plan and execute cross country flight to multiple airports.

>Practice takeoffs, landing s and go-arounds

>simulate equipment malfunctions

>build time and proficiency

Pre and Post Flight Brief: _____ Flight Time: _____

Student: _____ Date: _____

Instructor: _____ Date: _____



Total Brief: _____ Total Flight Time: _____

Student: _____ Date: _____

Instructor: _____ Date: _____



I certify that _____ holder of
_____ certificate # _____ has
received the required training of 61.31 by completing the Air training course in a
_____. I have determined that he/she is proficient in the operation and systems of this
Aircraft.

Signature: _____ Date: _____

Certificate # : _____ Exp Date: _____