

Malibu/Mirage
Training Syllabus

Student's Name _____

Address _____

Certificate Number _____

Telephone Number _____

Instructors Name _____

Day 1

Lesson #1 (2 hrs Ground)

Aircraft Systems

Aircraft Limitations.....

Aircraft Performance

Emergency Procedures

Day 2

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

Review Aircraft Systems

Normal Operations

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

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

Day 3

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

Review Aircraft Systems

Plan and Execute Cross Country Flight.....

Practice Instrument Approach Procedures (if instrument Rated)

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

LESSON #1 (2 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 / 2 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 (2hrs Ground /2hrs 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

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

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

- >Practice takeoffs, landings 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: _____