

R490 CHECKRIDE

R490 CHECKRIDE PROFILE

Plan to accomplish all + items listed in the syllabus for the R490, plus any optional items included in the table below for your assigned checkride profile. Your flight commander, assistant flight commander, or USEM can assign your checkride profile. If items listed as optional in the syllabus must be omitted from the profile due to unusual circumstances (e.g., weather), the checkride will be considered complete if all + items have been accomplished.

MANEUVER	(Heads/Odds)	(Tails/Evens)
	PROFILE A	PROFILE B
Go-Around (+)	✓	✓
Normal Approach and Landing (+)	✓	✓
No-Flap Approach and Landing (+)	✓	✓
Pattern SFL (+)	✓	✓
Forward Slip Approach and Landing (+)	✓	✓
Steep Turns (Left and Right) (+)	✓	✓
Slow Flight Maneuvering (+)	Flaps CRUISE	Flaps LDG
Power-On Stall (+)	Straight	Turning
Power-Off Stall (+)	Turning	Straight
Area SFL (+)	✓	✓
Ground Reference Maneuver (+)	Turns Around a Point	S-Turns Across a Road

R490 MANEUVERS

- **Steep Turns.** Perform two 360° steep turns (one right turn and one left turn in either order) at the desired altitude. Each turn will be graded separately based on actual entry and exit headings.
- **Slow Flight.** Accomplish slow flight maneuvering with the flap setting specified in the checkride profile.
- **Power-On and Power-Off Stalls.** Perform one power-on stall and one power-off stall (one turning and one straight-ahead as specified in the checkride profile). The direction of turn is at the student's discretion.
- **Area SFL.** Perform one Area SFL. The student chooses one of the scenarios detailed in LFP chapter 5 (engine fire or engine stoppage).
- **Ground Reference Maneuver.** Perform one ground reference maneuver, as specified in the checkride profile.
- **Go-Around.** Perform one go-around from an approach with flaps LDG. Students will plan and call their own go-around. An unplanned go-around (e.g., directed by ATC, or if required for safety) may also satisfy this requirement.
- **No-Flap Approach and Landing.** Perform one no-flap approach and landing.
- **Forward Slip Approach and Landing.** Perform one forward slip during an approach to landing. The approach that includes a graded forward slip approach and landing must continue all the way to touchdown.
- **Pattern SFL.** Perform one Pattern SFL. Plan to continue the pattern SFL all the way to touchdown. However, a pattern SFL that terminates in an unplanned go-around may be considered complete at the check pilot's discretion.
- **Normal Approach and Landing.** Perform one normal approach and landing.

R490 GROUND EVALUATION

Situational EP. The student will accomplish one tabletop EP that includes one of the following in-flight emergencies:

- Engine Fire During Flight
- Engine Stoppage During Flight

General Knowledge Topics. During the R490 ground evaluation, the check pilot will ask a cross-section of general knowledge questions appropriate to this phase of training, with special emphasis on the following:

Airspace

- Airspace (A,B,C,D,E,G) including entry requirements, and how to identify airspace boundaries/dimensions on a sectional or TAC chart
- VFR weather minimums and cloud clearance requirements
- Airspeed limitations
- Minimum altitude requirements

Aerodynamics

- Lift, weight, thrust, and drag
- Angle of attack
- Stalls and spins
- Adverse yaw and P-factor
- Stability

Airport Operations

- Traffic patterns
- Wake turbulence avoidance
- ATC clearances and instructions
- Airport signs and markings

Weather

- METAR and TAF
- Wind shear

DA20-C1 Operation

- Normal procedures checklists
- Emergency procedures checklists
- Prohibited maneuvers
- Operating limitations
- Airspeeds
- Taxi and ground operations
- Wind limits takeoff/landing

DA20-C1 Aircraft Systems

- Pre- and Post-flight checks
- Electrical system (ammeter, voltmeter)
- Warning lights (gen, start, canopy)

Emergency Procedures

- Lost procedures
- Radio Failure

R1090 CHECKRIDE

R1090 CHECKRIDE PROFILE

Plan to accomplish all + items listed in the syllabus for the R1090, plus any optional items included in the table below for your assigned checkride profile. Your flight commander, assistant flight commander, or USEM can assign your checkride profile. If items listed as optional in the syllabus must be omitted from the profile due to unusual circumstances (e.g., weather), the checkride will be considered complete if all + items have been accomplished.

MANEUVER	(Heads/Odds)	(Tails/Evens)
	PROFILE A	PROFILE B
Basic Instrument Maneuvers (+)	✓	✓
Slow Flight Maneuvering		✓
Unusual Attitude Recovery		✓
Steeps Turns	✓	
Power-On Turning Stall	✓	
Area SFL	✓	
Pattern SFL		✓
Forward Slip Approach and Landing		✓
No-flap Approach and Landing	✓	
Soft Field Takeoff and Landing		✓
Short Field Takeoff and Landing	✓	
Normal Approach and Landing (+)	✓	✓

R1090 MANEUVERS

- **Basic Instrument Maneuvers.** Wearing a vision restriction device, perform a sampling of straight-and-level flight, standard-rate turns to headings, and constant-air-speed climbs/descents at the discretion of the check pilot.
- **Slow Flight.** Accomplish slow flight maneuvering with flaps LDG.
- **Unusual Attitude Recovery.** Perform one unusual attitude recovery. The setup (nose-high or nose-low) is at the discretion of the check pilot and is not specified prior to flight.
- **Steep Turns.** Perform two 360° steep turns (one right turn and one left turn in either order) at the desired altitude. Each turn will be graded separately based on actual entry and exit headings.
- **Power-On Turning Stall.** Perform one power-on turning stall. The direction of turn is at the student's discretion.
- **Area SFL.** Perform one Area SFL. The student chooses one of the scenarios detailed in LFP chapter 5 (engine fire or engine stoppage).
- **Pattern SFL.** Perform one Pattern SFL. Plan to continue the pattern SFL all the way to touchdown. However, a pattern SFL that terminates in an unplanned go-around may be considered complete at the check pilot's discretion.
- **Forward Slip Approach and Landing.** Perform one forward slip during an approach to landing. The approach that includes a graded forward slip approach and landing must continue all the way to touchdown.
- **No-Flap Approach and Landing.** Perform one no-flap approach and landing.
- **Soft-Field Takeoff and Landing.** Perform one soft-field takeoff and one soft-field landing. Plan the first takeoff of the sortie as the simulated soft field takeoff.
- **Short-Field Takeoff and Landing.** Perform one short-field takeoff and one short-field landing.
- **Normal Approach and Landing.** Perform one normal approach and landing.

R1090 GROUND EVALUATION

Situational EP. The student will accomplish one tabletop EP that includes one of the following in-flight emergencies:

- Electrical Fire During Flight (during cross-country flight)
- Engine Running Roughly (during cross-country flight)

Dead Reckoning Problem. The student will accomplish one DR problem similar to the example posted on the operations intranet page. The specific scenario is at the discretion of the check pilot.

General Knowledge Topics. During the R1090 ground evaluation, the check pilot will ask a cross-section of general knowledge questions that cover the entire scope of IFS. However, special emphasis will be placed on the following topics:

Navigation

- Dead reckoning: TC, VAR, MC, DC, MH; wind triangle; E6-B calculations
- Pilotage: clock-to-map-to-ground; contour map reading; estimating distances; position fixing
- VOR/GPS navigation
- Radar services

Sectional Aeronautical Charts

- Aeronautical information: airports; NAVAIDS; controlled airspace; special use airspace; military training routes; VOR federal airways; chart tabulations
- Topographical information: contour lines; elevation tints; shading; spot elevations; obstructions; maximum elevation figures; hydrography; cultural features

Weather

- Weather reports and forecasts
- Recognizing hazardous weather
- Icing

Night Operations

- Aircraft lighting: position lights; anti-collision lights; strobe lights
- Airport lighting: visual glide slope indicators; airport beacons; runway lighting; taxiway lighting

Instrument Flight

- Control and performance method
- Unusual attitude recovery

DA20-C1 Aircraft Systems

- Pitot-static flight instruments
- Gyroscopic flight instruments
- Fuel system and fuel planning

Emergency Procedures

- Diversion
- Short-field and soft-field PEL/FL
- Spin recovery