

T-41A CHECKLIST PROCEDURES

PREFLIGHT INSPECTION

- Tie downs, Covers & Chocks
..... Removed

Cabin

- Notebook Time chk & Grips
- AROW Paperwork
Airworthiness Cert, Registration
Operating Handbook, Wgt & Bal
- Control Wheel Lock..... Remove
- MAGS Key available, Switch Off
- Avionics Master Off
- Master Switch On
- Pitot Heat..... On
- Fuel Gauges..... Check
- Extend Flaps..... ~20°
- Lights (if night flying) Check
- Stall Warning..... Test
- Pitot Tube Warm
- Switches Off
- Master Switch Off

Fuel & Oil

- Wing Fuel Sump & Quantity
- Cowling Fuel Strainer 3-4 sec.
- Oil (6-8 qt)..... Check

Left Nose / Wing / Gear

- Cowling Fasteners..... In Place/Tight
- Static Port Clear
- Vents (3)..... Clear
- Pitot Tube Clear
- Fuel Tank Vent Clear
- Landing Light.....Check for Condition
- Left Wing & StrutNo Damage
- Wing Tip/LightsNo Damage

- Aileron
. Move/Hinges, Bolts & Nuts in Place
- Flap Track Guides/Actuating Rods
- Tire/Brakes/Brake Line OK/24PSI

Left Empennage / Tail

- Baggage Door Secure
- Side
Free of Damage & Lose Rivets
- Horizontal Stab & Rudder
Free & No Damage
Hinges, Bolts & Nuts in Place
- Flashing Beacon..... Complete

Right Empennage / Wing / Gear

- Fuel Caps In Position
- Antennas Attached
- Side ... Free of Damage & Lose Rivets
- Flap Track Guides/Actuating Rods
- Aileron
Move/Hinges, Bolts & Nuts in Place
- Wing Tip/Lights No Damage
- Right Wing & Strut..... No Damage
- Tire/Brakes/Brake Line OK/24PSI

Nose

- Cowling Fasteners In Place / Tight
- Oil Dip Stick Double Check Secure
- Propeller Free of Cracks/ Dents
- Spinner Free of Dents/Cracks
- Intake Openings No Obstructions
- Air Filter Check for Restrictions
- Nose Wheel and Strut 1-3"/26PSI

Approach Briefing Checklist (VFR)

- Aircraft Status
- Fuel Status
- ATIS / AWOS
- Airport Elevation
- Traffic Pattern Altitude
- Minimum Safe Altitude
- Pattern Entry
- Landing Distance
- Runway Length
- Headwind / Crosswind
- Approach Speeds
- Flap Steeings
- Stabilization Altitude
- Go-Around Procedure
- Expected Turn-off
- FBO Name

AIRSPEEDS MPH

- V_{SO} 38
- V_{S1} 45
- V_R 60
- V_X 65
- Short/Soft Final (40° flaps) 70
- Normal Final (30° flaps) 75
- V_Y 80
- V_{Max Glide} 80
(Glide Ratio = 1.5 SM/1,000' AGL)
- Final (0° flaps) 80
- Base (20° flaps) 80
- Past Abeam (10° flaps) 90
- Cruise Climb 90
- V_{FE} 100
- Downwind 100
- V_A 122
- V_{NO} 140
- V_{NE} 174
- Max Demonstrated X-Wind 13

RADIO FREQS AT KRST & KTOB

- ATIS 120.5
- GROUND 121.9
- TOWER 118.3
- APPR/DEP 119.8 or 119.2
- CTAF 118.3
- UNICOM 122.95
- RCO 122.45 (PRINCETON FSS)
- VOR/DME 112.0
- RST ASOS 507-285-0298
- RST Tower 507-289-3198
- Dodge Center CTAF 122.9
- Dodge Center AWOS 119.075
- TOB AWOS 507-374-6369

BEFORE STARTING ENGINE

- Preflight Inspection..... Complete
- Cowling Fuel Strainer Complete
- Chocks Removed
- Passengers Briefed
Exits, Seat Belts, Control Transfer,
Quiet Cockpit
- Cell Phones Off
- Seats, Belts, Shoulder Harness
Adjust & Track Locked
- Brakes Test
- Fuel Selector Cycle then Both
- Mixture Rich
- Carb Heat Cold
- Rotating Beacon..... On
- Circuit Breakers..... In
- Avionics Switch Off

STARTING ENGINE

- Prime..... As Required
(2 to 6 strokes; none if eng warm)
- Master Switch On
- Throttle Open 1/8 Inch
- Propeller Area Clear
- Ignition Switch Start
(Release when engine starts)
- Oil Pressure Check
- Amp Meter Check
- RPM 1000
- Mixture Lean
- Avionics Master On
- Flaps Up
- GPS / Radios / Transponder Set
- ATIS, Ground Check / Clearance
- Taxi Flight Instruments
Flight Ctls Position IAW Winds

BEFORE TAKEOFF (Last Chance)

- Brakes Set
- Radio Tower or CTAF
- Flight Controls Free & Correct
- Fuel Selector Valve Both
- Elevator Trim Takeoff
- Mixture Rich
- Primer Locked
- Throttle Friction Lock Adjust
- Throttle 1700 RPM
- Magnetos Check
(RPM should not drop more than 125
RPM on either Mag or 50 RPM
differential between mags)
- Carburetor Heat RPM drop
- Engine, Ammeter, Suction, Check
- Throttle 800-1000 RPM
- Flight Instruments Set & Check
- Radios & Transponder Preset
- Lights As Required
- Doors and Windows
Closed and Locked
- LAST CHANCE Pointie-Checkiel

TAKE OFF

- Wing Flaps Up
10° soft/rough-field
10° short field with no obstacle
- DG Runway Heading
- Throttle Full
- Static RPM Green
- Oil Pressure Green
- Rotate 60 mph
- Vx 65 mph
- Vy 80 mph

ENROUTE CLIMB

- Vclimb 90 mph
- Throttle Full Open
- Mixture Full Rich
(May be leaned above 3000')
- Landing Light Off

CRUISE

- Throttle 2200-2700 RPM
(no more than 75%)
2350 RPM is ~65% Power
- Mixture Lean
- Single Tank Feed >5000'

OPS CHECK

- DG Set
- Engine Gauges Check
- Amp Meter Check
- Suction Gauge Check
- Fuel Tank Balance

PRE-DESCENT

- ATIS/AWOS Copy
- Altimeter Set
- Avionics Set

See Approach Briefing Checklist
for Detail

DESCENT

- Fuel Selector Both
- Mixture Richen As Required
- Carburetor Heat As Required
- Power As Desired
- Landing Light On

BEFORE LANDING

- Fuel Selector Valve Both
- Mixture Rich
- Carburetor Heat On

AFTER CLEARING RUNWAY

- Wing Flaps Up
- Carb. Heat Cold
- Mixture Lean
- Landing Light Off
- Pitot Heat Off
- Ground Control If Required
- Fuel Selector Right

SHUT DOWN

- Brakes Set
- Avionics Master Off
- Mags Grounding Check
- Mixture Idle Cut Off

After engine comes to a stop

- Ignition Switch Off
- Master Switch Off
- Lights Off
- Key Secure
- Tach Record
- Control Lock Install
- Wheels Chock
- Flight Plan Closed
- Cell Phone On

BALKED LANDING (go around)

- Throttle Full Open
- Carb. Heat Cold
- Airspeed 65 mph
- Establish Positive Rate of Climb
- Wing Flaps Retract Slowly

EMERGENCIES

FIRES

Engine Fire During Ground Start

- Cranking Continue
- **If Engine Starts**
- Power. 1700 RPM for a few minutes
- Engine Shutdown & Inspect Damage

If Engine Fails to Start

- Throttle Full Open
- Mixture Idle Cut-Off
- Cranking Continue (2-3 minutes)
- Fire Extinguisher Use if able
- Engine Secure
 - a. Master Switch Off
 - b. Ignition Switch Off
 - c. Fuel Shutoff Valve Off
- Fire Extinguish

ENGINE FIRE DURING FLIGHT

- Mixture Idle Cut-Off
- Fuel Selector Valve Off
- Master Switch Off
- Cabin Heat and Air Off
- Except Overhead Vents
- Airspeed AFAP
- Forced Landing Execute

ELECTRICAL FIRE IN FLIGHT

- Master Switch Off
 - All Other Switches (except Mags) Off
 - Vents / Cabin Air / Heat Closed
 - Fire Extinguisher Activate
- If fire appears out and electrical power is necessary for continuance of flight:
- Master Switch On
 - Circuit Breakers Check
 - For faulty circuit, do not reset.
 - Radio / Electrical Switches On one at a time
 - Delay after each switch until short circuit is localized
 - Vents / Cabin Air / Heat Open
 - When it is ascertained that fire is completely extinguished

CABIN FIRE OR SMOKE IN COCKPIT

- Master Switch Off
- Vents / Cabin Air / Heat Closed
- Fire Extinguisher Activate
- Land as soon as possible to inspect damage

WING FIRE

- Nav Light Switch Off
- Pitot Heat Switch Off
- Perform sideslip to keep flames away from fuel tank and cabin
- Land ASAP
- Flaps Only If Required

ENGINE - OTHER

ENGINE FAILURE DURING TAKE OFF RUN

- Throttle Idle
- Brakes Apply
- Wing Flaps Retract
- Mixture Idle Cut-Off
- Ignition Switch Off

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

- Airspeed 80 mph (Flaps UP)
- 75 mph (Flaps Down)
- Fuel Selector Valve Off
- Mixture Idle Cut-Off
- Ignition Off
- Wing Flaps As Required
- Master Switch Off

ENGINE FAILURE DURING FLIGHT (start attempt)

- Carb. Heat On
- Airspeed 80 mph
- Field Pick
- Fuel Selector Valve Both
- Mixture Rich
- Ignition Switch Both (or start if propeller is stopped)
- Primer In and Locked
- Radio Tell Someone (MAYDAY)
- Squawk 7700

EMERGENCY LANDING WITHOUT ENGINE POWER

(If time is available, Mayday call and squawk 7700)

- Airspeed 80 mph
- Fuel Selector Valve Off
- Mixture Idle Cut-Off
- Ignition Switch Off
- Wing Flaps As Required
- Master Switch Off
- Doors Unlatch
- Touchdown As Slow as Possible
- Brakes Apply Heavily

EMERGENCY LANDING WITH ENGINE POWER

- Radio Tell Someone (Mayday)
- Squawk 7700
- Flaps 20°
- Airspeed 70 mph
- Field Fly Over
- Radio / Electrical Switches Off
- Flaps on final 40°
- Airspeed 70 mph
- Master Switch Off
- Doors Unlatched
- Fuel Selector Valve Off
- Touchdown As Slow as Possible
- Ignition Switch Off
- Brakes Apply Heavily
- Fuel Off

ENGINE - OTHER

ENGINE ROUGHNESS

If over 5,000' MSL:

- Vapor In Fuel Tank EXECUTE

If 5,000' MSL or below, or Vapor In Fuel Tank procedure doesn't correct:

- Carb Heat ON
- If roughness continues after 1 min:*

- Carb Heat OFF
- Mixture ADJUST FOR MAX SMOOTHNESS
- Fuel Selector BOTH
- Primer IN & LOCKED
- Engine Gauges CHECK
- Mags L then R then BOTH
- Mags SMOOTHEST SETTING
- Power REDUCE
- Mixture FULL RICH
- LAND AT NEAREST AIRPORT

VAPOR IN FUEL TANK

(ABOVE 5000 MSL)

During Operation on a Single Tank:

- Fuel Selector
- SWITCH TO OPPOSITE TANK

During Operation on Both Tanks:

- Fuel Selector
- SWITCH TO A SINGLE TANK FOR 60 SECONDS
- Fuel Selector
- SWITCH TO OPPOSITE TANK

- HIGH OIL TEMP
 - Power REDUCE
 - Mixture RICH
 - Airspeed INCREASE
- If high temp persists:*
- LAND AT NEAREST AIRPORT

LOSS OF OIL PRESSURE

- Oil Temp CHECK
 - Power REDUCE
- If oil temp shows rise, engine failure imminent:*

- Forced Landing EXECUTE
- If oil temp does not show rise:*

- LAND AT NEAREST AIRPORT

ELECTRICAL

OVER-VOLTAGE

- Master Switch..... Off (both sides)
- Master Switch..... On
- If over-voltage lgt illuminates again:
- Flight..... Terminate ASAP

AMMETER SHOWS DISCHARGE

- Alternator Off
- Nonessential Electrical Equipment
- Flight..... Terminate ASAP

ICING (Inadvertent Icing Encounter)

- Pitot Heat On
- Heading / Altitude..... Change
- Go back, climb, Descent
- Cabin Heat Control..... Full

- Defroster Airflow Full
- Throttle Full
- Carb Ice Watch For Ice
- Lean For Max RPM
- Land ASAP
- ¼" ice Increases Stall Speed
- Flaps Leave Retracted
- Window
Open for visibility (if required)
- Slip If Required for visibility
- Landing Speed AFAP
- Landing Attitude Level

MISCELLANEOUS INFORMATION

FLOODED ENGINE

- Mixture..... FULL LEAN
- Throttle FULL OPEN
- Mags..... START
- hold for several revolutions
- Repeat START checklist
- (do not reprime).

FOWLED MAGS

- Mixture..... RICH
- Throttle 2,000 RPM
- Mixture..... LEAN TO 50 RPM DROP
- BELOW BEST POWER
- After 1 minute:
- Mixture..... RICH
- Mags..... RECHECK

RADIO FAILURE

- Volume..... CHECK
- Headset Connection..... CHECK
- Audio Controls CHECK
- Circuit Breakers..... CHECK
- Speake..... ON
- Hand-Held Microphone CHECK

- Frequency SWITCH
 - If IFR (or VFR in Class B, C, D airspace): Transponder – 7600
- If failure occurs in VFR conditions, or VFR conditions are encountered after failure, continue flight under VFR and land as soon as practicable.*

If failure occurs in IFR conditions, continue flight according to the following:

Route to Fly (in order): (AVE. F)

- A – Assigned
- V – Vectored
- E – Expected
- F – Filed

Altitude (highest of for the route segment being flown): (MEA)

- M – Minimum IFR Altitude
- E – Expected as Advised by ATC
- A – Assigned by ATC

Descent for Approach:

From enroute altitude upon reaching the IAF but not before:

- Expect-further-clearance time (if given)
- ETA as calculated from filed ETE