

CHECKLIST for TOBAGO TB10

Revision 10-05-2008.

DISPATCH CHECK

1. **Weather & Notams & Squawks**
2. **Inspections** - 50/100 Hourly, Annual, ELT, Transponder, Pitot Static, VOR

ACCEPTANCE CHECK

1. **Fuel and Oil Level** – Determine/Obtain
2. **Baggage**- Unlock
3. **Control Lock** – Remove
4. **Avionics units** – All OFF
5. **Main Switch** – ON
6. **Pitot Heat Landing/Taxi/Nav lights Stall Bell** - ON/External Check/OFF, stow control lock
7. **Annunciators** - Test
8. **Fuel Gages** – Check Quantity
9. **Flaps** – TAKE OFF
10. **Main Switch** – OFF
11. **Mixture** – Idle cut off
12. **Propeller** – Full fine
13. **Throttle** – Full idle
14. **Carburetor Heat** - OFF
15. **Trim** – Set to TAKE OFF
16. **Friction lock**- Set desired
17. **Heating and Cooling Vents** – Set desired 11
18. **Fire Extinguisher** – Check integrity
19. **Circuit Breakers** –All in
20. **Magnetos/Ignition Switch** - OFF
21. **Alternate Static** - Operable
22. **Fuel Selector** – Set to least full
23. **Parking Brake** - Set
24. **Flight Controls** – Check free and correct
25. **Cabin Lights** – Set as desired
26. **ELT** – Auto
27. **Compass Card** – Installed
28. **Passengers**– Brief cards & sick sacks
29. **Documentation**- AROW
30. **Hobbs & Tach** - Record

EXTERIOR CHECK

1. **Cabin Roof** – Antennas inspect
2. **Left Main Landing Gear** – Inspect rear view. Tread, inflation, hub, disk, pads, lines, absorber
3. **Left Fuel Vent** - Clear
4. **Left Wing Cables** - Inspect
5. **Left Flap** – Hinges, bolts secure. Vertical play, No lateral play
6. **Left Wing Tie Down** - Untie
7. **Left Aileron** – Secure. Free & correct. Travel. Actuator has a play. Tabs folded. No lateral play
8. **Left Wing Tip** – Undamaged & secured
9. **Left Wing Surface, Lead edge, Underside** – Undamaged & riveted
10. **Stall warning Vane** - Undamaged.
11. **Pitot Tube** – Inspect
12. **Fuel Drain** – Sump & inspect
13. **Left Fuel Tank** –*Quantity checked?*
14. **Left Fuel Tank Cap** - Secured
15. **Main Landing Gear** – (forward view) Inspect
16. **Crank Case Oil Breather Intake** – Clear
17. **Underside Cowl Gaps** – Clear
18. **Front Landing Gear** - Inspect
19. **Left Cowl & Cabin Intake** - Inspect
20. **Carburetor Side Intake** – Clear
21. **Engine Cooling Intakes** – Clear
22. **Propeller** – Inspect
23. **Spinner** – Inspect screws, no cracks
24. **Right Cowl & Cabin Intake**- Inspect
25. **Oil Level** – Confirmed at 6 to 6.5 Qts
26. **Right Cowl Gap** – Clear
27. **Right Fuel Drain** – Sump & Inspect
28. **Right Fuel Tank** –*Quantity checked?*
29. **Right Fuel Tank Cap** – Secured
30. **Right Main Landing Gear** - Inspect front
31. **Right Wing Surface, Lead edge, Underside** - Undamaged and riveted
32. **Right Wingtip** –Undamaged & secured
33. **Right Aileron** – As with left
34. **Right Wing Flap** – As with left
35. **Right Wing Tie Down** - Untie
36. **Right Wing Underside** - Inspect

37. **Right Wing Cables** - Inspect
38. **Right Fuel Vent** - Clear
39. **Right Main Landing Gear** – as with left
42. **Underside** - Antennas & strakes inspect
43. **Right Fuselage** – Inspect
44. **Right Static Port** - Clear
45. **Vertical Stabilizer**- Secured
46. **Tail Cabin Intake** - Clear
47. **Rudder** – Undamaged. Has play
48. **Tail** - Cone screws secure. Untie
49. **Stabilator** – Free travel, undamaged Recess unobstructed.
50. **Stabilator Tab**- Secure. Has play
51. **Left Fuselage** – Inspect
52. **Left Static Port** – Clear
53. **Baggage door** – Locked shut
54. **WALK AROUND** – chocks, misc clear

PRESTART

1. **Passenger Brief** –
3. **Departure & noise abatement** - review
4. **Takeoff Emergency Brief** - Review
5. **Doors, Seat belts, Harnesses** – Secured

NORMAL START

1. **Voice Recorder** - On
2. **Auto WX & Clearance** – Obtain & review
3. **Main Switch** - ON
4. **Coms/Navs/OBS/GPS/Squawk** (Set/OFF)
4. **Fuel Selector** – Set to least full
6. **Mixture** - Rich
7. **Strobe** - ON
8. **Fuel Pump** - ON & Annunciator illuminates
9. **Fuel Pressure** - Green
10. **Throttle** - Cycle to prime as needed (3x)
- Set ¼ travel open
11. **Prop Area** – Visually clear
12. **Magnetos** – START
13. **Throttle** -1000 RPM (cold) 1200(hot)
14. **Mixture** - Lean for taxi

AFTER START CHECK

1. **Oil Pressure** – Green within 30 seconds
2. **Generation Warning Light - ON**
3. **Alternator Switch** – ON. Voltmeter Green, Generation Warning Light OFF
4. **Fuel Pump** - OFF. Press. green. Annun. Out
5. **Turn Coordinator-** ON
6. **Flaps** – Extend, Retract & Reset to *Take Off*.
7. **Landing, Taxi Lights** – Cycle & check voltage
8. **Flight Instruments** – Check and set
9. **Avionics** – ON, headsets on
10. **Radios** – Check
11. **Transponder** – standby
12. **Fuel Selector** – Switch to fullest
13. **Timer** – Start
14. **Brake** - Release

TAXI CHECK

1. **Brakes** – check operation
2. **Flight Instruments** – actuate

RUN UP CHECK

1. **Parking Brake** – Set
2. **Mixture** - Rich
3. **Throttle** – 2000 RPM
4. **Magneto Check** – L/Both, R/Both
(Max -175 RPMdrop/50 between)
5. **Propeller** – 3 x Cycles
#1 MP/RPM up/down. About 500 RPM drop
#2 Oil pressure varies
#3 No spray
6. **Governor Check** – (First flight of the day)
 - a. Prop back to 18-1900 RPM
 - b. MP +1”-2” & RPM steady @ -1900
 - c. Prop Full Increase
7. **Engine Instruments& Voltmeter** - Green
8. **Annunciator panel** – Unlit
9. **Vacuum Suction** - Green
10. **Carb heat** – ON/OFF, RPM falls/rises
11. **Throttle** –Smoothly to idle. RPM steady
12. **Throttle** – 1000 RPM
13. **Breakers** – Still flush
14. **Parking Brake** – Release

PRETAKE OFF CHECK

1. **Door, Belts, Harnesses** – Secured
2. **Flight Controls** – Free
3. **Fuel Selector** – Recheck on fullest
4. **Mixture** – Recheck
5. **Trim** – Recheck
6. **Fuel Pump-** ON
7. **Strobe** – Recheck ON
8. **Lights** – TAXI ON/LANDING at night
9. **Flaps** – Recheck Set
10. **Transponder** – Altitude
11. **Radio** – Recheck frequency
12. **Flow Check** – Complete
13. **Video** – Taping
14. **Base, Final, and Runway** – Clear

ROLL CHECK (review *prior* to departure)

1. **Upwind & Crosswind** - Clear
2. **Levers**– Full Forward/Max Power Check
3. **Engine Instruments** – Green, #in+2700RPM
4. **Brakes** – Release
5. **VR @ 65, VY @ 75-85kts** (73kts per POH)
500 Feet AGL (Memory Item)

1. **Flaps** - Retract
2. **Fuel Pump** – OFF & check Pressure
3. **Pitch** – 90 kt cruise climb (78 kts per POH)

CRUISE CHECK

1. **Power/Prop/Mix/Trim/Lights** – Set
2. **GPS/Nav** - As needed
3. **Engine Instruments**- monitor green
4. **DG** – monitor precession
5. **Fuel Tanks** – Switch every 30 minutes

INITIAL DESCENT CHECK (+86kts)

1. **Engine Instruments** - Green
2. **Auto Wx /Radio** – Check & Set
3. **Altimeter & DG** – Reset
4. **GPS/NAV switch** – Set
5. **Lights** – ON as needed
6. **Fuel Pump** – On
7. **Fuel Selector** – Fullest tank
8. **Magnetos** – BOTH
9. **Circuit Breakers** – in
10. **Seat belts & harnesses** – Secure

APPROACH/PATTERN ENTRY (Memory Item)

1. **1Up** (Mix Up)
2. **1 Down** (Carb. Heat On)
3. **20” Manifold Pressure**
4. **2Green** (Pump/Light) **No Red, Gear Down.**

FINAL DESCENT CHECK (Memory item)

1. **2 Up** (Mix, Prop), **2 Down** (Carb, Power)
2. **2 Green** (Pump, Light) **No Red** (Fuel, Oil light)
3. **Gear Down & Bolted**

AFTERLANDING CHECK

1. **Flaps** – retract to take off
2. **Carburetor Heat** – OFF
3. **Mixture** – lean for taxi
4. **Fuel Pump** – OFF
5. **Landing & or Taxi Light(s)-** OFF
6. **Transponder** – Standby
7. **Trim** – Set for take off
8. **Flight Plan** – CLOSED
9. **Pre-Taxi** - ELT quiet, Video Off

SHUT DOWN CHECK

1. **Parking Brake** – Set
2. **Turn Coordinator** – OFF
3. **ALL Avionics Units** – OFF
4. **Power** – Idle
5. **Magnetos** – Check grounding
6. **Power** – 1200 RPM
7. **Mixture** – Idle cut off
8. **Main & Alternator Switches** – OFF
9. **Magnetos** – OFF
10. **Fuel Selector** – OFF
11. **Cabin Panel & Overhead lights** – OFF
12. **Hobbs, & Tachometer times** – Record
13. **Squawks** – Record/**Voice Recorder** - Off

SECURE

1. **Tow bar** – Stowed
2. **Control Lock** – install
3. **Tire Condition** – Verify /**Lights/Pitot** Check operation / set OFF
4. **Main** - OFF
5. **Pitot Cover & Tie downs** – Secure
6. **Aircraft** – Lock cabin & cargo doors

TB10 MEMORY ITEMS

Revision 10-05-2008.

EMERGENCY PROCEDURES

ENGINE PROBLEMS

TAKE OFF ENGINE FAILURE

1. **With Runway, Idle Power, Max Brakes**
2. **NO Runway, NO Altitude – Secure**
 - a. **70 Kts, gentle banks only**
 - b. **Mixture** – Idle cut OFF
 - c. **Fuel Pump**- Off
 - d. **Fuel Selector** –Off
 - e. **Magnetos**- Off
 - f. **Doors** – Half Open
 - g. **Flaps** – As needed
 - h. **Main Switch** – OFF
 - i. **Land @ minimum speed & nose high**
3. **LOW Altitude – Troubleshoot**
 - a. **Mixture**- Adjust
 - b. **Carburetor** –Heat On
 - c. **Fuel Pump**- On
 - d. **Fuel Selector** – Switch tank
 - e. **Magnetos**- Both/Start
 - f. **Radio- Mayday call**
 - g. **Secure if no restart.**
Initial glide @ 86kts

SUDDEN POWER FAILURE

1. **Airspeed** – 86 Kts
2. **Troubleshoot**
 - a. **Mixture** – Rich
 - b. **Carburetor Heat** – On
 - c. **Fuel Pump** – On
 - d. **Fuel Selector** – Switch tank
 - e. **Magnetos** – L/R/Both/ Start

3. **Landing Field**- Identify
4. **Radio**- 121.5 Make Mayday call
5. **Transponder** -7700
6. **Secure**-
 - a. **Mixture** –Idle cut OFF
 - b. **Fuel Pump**- OFF
 - c. **Fuel Selector** -OFF
 - d. **Magnetos** – OFF
 - e. **Flaps** -as needed
 - f. **Main Switch** – OFF
 - g. **Doors**- Unlatch
9. **Land @ minimum speed with nose high**

PRECAUTIONARY LANDING

1. **Radio** - Distress Call 121.5
2. **Speed** – 70 kts
3. **Field** – Fly over prior to approach
4. **Main Switch** -OFF
5. **Landing**
 - a. Full Flaps, Nose high
 - b. Mixture off during flare
6. **Mags/Mixture** - OFF after landing

DITCHING

1. **Flaps** - Landing
2. **Speed** – 70 kts
3. **Secure** –
 - a. Main Switch - OFF
 - b. Mixture- OFF
 - c. Fuel Selector- OFF
4. **Touch down** –
 - a. Nose high
 - b. Parallel swells

FIRES

ENGINE FIRE DURING START

1. **Mixture**- Idle Cut-Off
2. **Magnetos** – “Start”
3. **Throttle**- Full forward
4. **Fuel Selector**- OFF
5. **Fire continuing**

- a. **Main and Mags** – OFF
- b. **Evacuate & Extinguish**

AIRBORNE ENGINE FIRE

1. **Dive** - To suffocate flames
2. **Air**- Fire Cut OFF
3. **Secure**-
 - a. **Mixture** - OFF
 - b. **Propeller** – Full aft if oil press. remains
 - c. **Throttle** - Idle
 - d. **Pump** – OFF
 - e. **Fuel Select** - OFF
 - f. **Mags** – OFF
4. **Emergency** - Declare
5. **Secure**- Continue
 - a. **Main Switch** – OFF
 - b. **Alt Switch** - OFF

AIRBORNE ELECTRICAL FIRE

1. **Main Switch** - OFF
2. **Air**– Fire Cut OFF
3. **Main & Alt. Switch Breakers** – All OFF
4. **Fire Out**-
 - a. **Main Switch** – On
 - b. **Breakers** – Do not reset if popped
 - c. **Electrical units** –
ON one at a time at intervals
 - d. **Air** – As needed

CABIN FIRE

1. **Main**- Off
2. **Extinguisher**- Activate
3. **Ventilate**- as needed
4. **Emergency** – Divert/land

WING FIRE

1. **Pitot Heat** – Off
2. **Navs, Taxi & Landing Light**- OFF
3. **Slip**- Keep flames off fuel tank and tail
4. **Dive** – Until extinguish flames
5. **Emergency** – Declare, Divert/Land

SYSTEM FAILURES

LOW FUEL FLOW (verify fuel gauges)

1. **Fuel Pump**- On
2. **Fuel Selector**- Switch Tank

STABILATOR FAILURE

1. **Trim** – 80 kts
2. **Flaps** – Landing
3. **Prop** – High
4. **Power** –
 - a. For 500 FPM descent
 - b. Carry into the landing flare
5. **Flare** – with trim

AILERON FAILURE

1. **Rudder** – lateral control
2. **Flaps** – Retracted
3. **Speed** – Greater than 70 kts

ALTERNATOR FAILURE

- (Annunciator on, voltmeter yellow or red)
1. **Alt. Switch and Circuit Breaker** – OFF/Pull
 2. **Alt. Switch and Circuit Breaker** – ON/Engage
 3. If **Annunciator** light constant,
 - a. Alt Switch & Circuit Breaker –OFF/ Pulled
 - b. Electrical load – reduce to minimum
 - c. Divert

AIRSPEED INDICATOR FAILURE

1. **Pitot Heat** – ON
2. **Alternate Static** – Pull
3. **Approach** - 15" & propeller full increase

GOVERNOR FAILURE/PROP OVERSPEED

1. **Manifold Pressure** - Decrease
2. **Angle of Attack** - Increase

LOW OIL PRESSURE

1. **Manifold Pressure** – Reduce
2. **Forced landing**- Plan

WEATHER

INADVERTANT ICING

1. **Divert**
 - a. Change altitude
 - b. 180 degree heading change
2. **Carb Heat**- ON/ Mix- Adjust
3. **Pitot Heat** – ON
4. **Demisting & Heating** – Max
5. **RPM** – High
 - a. Maintain high cruise power
 - b. Cycle RPM to max @ intervals

HIGH CROSSWIND (Normal Limit is 25 Kts)

1. **Take off**
 - a. Static Run-up
 - b. Forward Stab pressure to 65 kts
2. **Landing** – Minimum flaps

REGULAR PROCEDURES

PASSENGER BRIEFING

1. **Seat belt operation**
2. **Cabin Doors and Windows operation**
3. **No smoking**
4. **Moving Switches & Controls** – Permission
5. **Passenger illness**
 - a. Sick sack location
 - b. Diversion practical
7. **Forced landing**
 - a. Seats back, glasses off
 - b. Brace position
 - c. Unlatch doors
 - d. Exit 45 degrees to rear after landing
8. **Unnecessary conversion** - Avoid during critical phases
9. **Passengers assist in locating traffic**

MANEUVER CHECK

1. **Clearing Turns** – Left and Right
2. **Mixture** – Rich

3. **Prop** – Set
4. **Power** – Set
5. **Carb** – On
6. **Fuel Pump** – On
7. **Fuel Selector** - Fullst
8. **Magnetos** – Both
9. **Engine Instruments** – Green
10. **Announce** – start heading, altitude, speed

CLOSED TRAFFIC 78kt final

1. **“Mixture/ Carb heat”** Rich/ON Abeam #s
2. **“Prop Up”** – On Base
3. **“2 Up. 2 Down. 2 Green. No Red”** Final
4. **72 kts short final**

TOUCH AND GO

1. **Flaps** – verify retracted before apply power
2. **Trim** – adjust before apply power
3. **Runway** – confirm adequate remaining

GO AROUND 70 kts Initial pitch

1. **Power Quadrant** – Full forward
2. **Flaps** - Set **“Take off”** above 75 Kts & @ Positive Rate of Climb.
3. **Pitch** – 75-90kts then flaps retracted.

MANIFOLD PRESSURE

Approximated cruise info @ standard temp

	<u>ALT</u>	<u>MP</u>	<u>RPM</u>	<u>GPH</u>	<u>TAS</u>
75%	2000	23.5	2400	11	110
	4000	23.5	2300	10.75	112
	6000	22	2500	10.75	115
65%	2000	22	2300	9.5	105
	4000	21	2350	9.25	105
	6000	20.5	2300	9.0	105
55%	2000	20.0	2350	8.5	95
	4000	19.5	2350	8.5	95
	6000	19.0	2350	8.25	95

1 Knots = 1 NM = 1, 15 Static mile = 1852 m = 6080 Ft

1 Lt = 0,219 Imp. Gal = 0,264 US Gal 1 US Gal = 3,785 Lt

1 m = 3, 28 Ft 1 Ft = 0,305 m 1" = 2, 54 cm 1 cm = 0, 39"

1 Kg = 2,205 Lbs 1 Lbs = 0,453 Kg