Aircraft Checklist

USAF T-41C (Cessna 172E)

A/C # N7752L

Kirtland Flight Center
3400 Clark Rd. Building 333, Base Operations
Kirtland AFB, NM  87117
Comm:  505-846-1072
DSN:  246-1072
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NORMAL PROCEDURES

NOTE: The inspections required by the pilot are the minimum requirement for safe flight. While making the exterior inspection, particular attention should be given to the following: check all surfaces for general condition, antennas and access plates secure; check for fuel, oil, and hydraulic leaks; all covers removed; all vents and openings clear; check tires, brakes, and brake lines; check strut for proper extension; and airplane properly chocked. Additional checks may be performed at the discretion of the pilot.

INTERIOR INSPECTION

1. Certificates / Documents..........................CHECKED
2. Control Lock..........................REMOVED / STOWED
3. Hobbs / Tachometer..........................CHECKED
4. Fuel Selector..................................BOTH
5. Mixture........................................IDLE, CUT-OFF
6. Elevator Trim..................................CHECK
7. Parking Brake..................................RELEASED
8. Fuel Shutoff Knob.....................SAFETY WIRED IN
9. Auxiliary Fuel Pump Switch...........GUARDED
10. Primer..........................IN AND LOCKED
11. Ignition Switch..............................OFF
12. Fuel Strainer.........................DRAIN, 4 Seconds
13. Master Switch..............................ON
14. Lights / Strobes.........................CHECK, then OFF
15. Fuel Quantity.............................CHECK
16. Flaps.......................................LOWER
17. Master Switch..............................OFF
18. Loose Articles..............................SECURE
19. Fuel Sample Cup..............................OBTAIN

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EXTERIOR INSPECTION

1. LEFT WING
   a. Tiedown, grounding wire, chock, pitot cover………………………………………REMOVE
   b. Landing Gear / Tire…………………………CHECK
      NOTE: Check inflation, cuts, blisters, or cord showing.
   c. Brake Assembly…………………………CHECK
      NOTE: Check security, leakage, and brake pad thickness (3/32 inch minimum).
   d. Fuel Tank Drain…………………………DRAIN
   e. Flap………………………………….CHECK
   f. Aileron……………………………….CHECK
      WARNING: Do not place any part of the hand between wing and aileron. Movement of the surface can cause injury.
   g. Wing tip / Strobe / Navigation light…..CHECK
   h. Landing / Taxi Light…………………..CHECK
   i. Leading Edge………………………CHECK
      CAUTION: Inspect pitot tube visually only. Check inlet and drain hole for obstructions. Improper handling can misalign the pitot head, causing inaccurate airspeed indications.
   j. Stall Warning…………………………CHECK
   k. Fuel Tank Vent…………………………CHECK
   l. Pitot Tube………………………….…CHECK
   m. Wing Strut…………………………CHECK
   n. Fuel Tank…………………………CHECK VISUALLY / CAP SECURE
   o. Top of Wing…………………………CHECK
2. **ENGINE / COWLING**
   a. Cowling………………………………….SECURE
   b. External Power Access Door…………SECURE
   c. Oil Quantity……………………………CHECK
      
      6 Quarts Minimum
      7 Quarts Normal
      8 Quarts Maximum
   d. Oil Cap………………………………….SECURE
   e. Fuel Strainer (52L Only)……..DRAIN, 4 Seconds
   f. Oil Access Door………………………SECURE
   g. Propeller / Propeller Seal Plug……..CHECK
   h. Nose Gear Assembly / Tire / Shimmy Damper.…
      ………………………………………….CHECK
   i. Nose Strut (Strut 1 – 3 inches)………..CHECK
   j. Windscreen…………………………..CLEAN
   k. Fuel Drain (2 places)…………………..DRAIN

3. **RIGHT WING**
   a. Fuel Tank..........................CHECK VISUALLY / CAP SECURE
   b. Top of Wing..........................CHECK
   c. Wing Strut..........................CHECK
   d. Leading Edge..........................CHECK
   e. Wing Tip / Strobe / Navigation Light………
      ………………………………………….CHECK
   f. Aileron................................CHECK
   g. Flap..................................CHECK
   h. Fuel Tank Drain.................DRAIN
   i. Landing Gear / Tire...............CHECK

**NOTE:** Roll aircraft to check all tires.
j. Brake Assembly……………………CHECK

**NOTE:** Check security, leakage, and brake pad thickness (3/32 inch minimum).

k. Tiedown, Grounding Wire, Chock….REMOVE

4. **FUSELAGE – RIGHT SIDE**
   a. Visually Check Condition…………CHECK
   b. Static Port…………………………CHECK
   c. Antennas…………………………CHECK

5. **EMPENNAGE**
   a. Vertical Stabilizer and Rudder……CHECK
   b. Horizontal Stabilizer and Rudder……CHECK
   c. Anti-Collision Light………………CHECK
   d. Navigation Light……………………CHECK
   e. Stabilizer and Trim Tab……………CHECK
   f. Tie down and Ground Wire………..REMOVE

6. **FUSELAGE LEFT SIDE**
   a. Antennas…………………………CHECK
   b. Static Port…………………………CHECK
   c. Baggage Door…………………CLOSED

**BEFORE STARTING ENGINE**
1. Seatbelt and Shoulder Harness........ADJUSTED /
   LOCKED
2. Passenger Briefing……………………COMPLETE
3. Radios…………………………………OFF
4. Circuit Breakers………………………CHECKED

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5. Pitot Heat..............................................OFF
6. Flight Controls..................FREE AND CORRECT

STARTING ENGINE

1. Mixture..............................................RICH
2. Throttle............................................CLOSED
3. Propeller........................................VISUALLY CLEAR
4. Master Switch....................................ON
5. Primer..............................................IN AND LOCKED
6. Anti-Collision Lights / Strobes..................ON
7. Propeller…VERBALLY AND VISUALLY CLEAR
8. Brakes..............................................CHECKED SET
9. Throttle...........................................FULL OPEN
10. Auxiliary Fuel Pump..............................HIGH

NOTE: Cold – Greater than 10 PSI for 3 seconds
Hot – Greater than 10 PSI for 1 second
11. Auxiliary Fuel Pump..............OFF AND GUARDED
12. Throttle........................................OPEN 1/4 to 1/2 INCH
13. Ignition..............................................START

NOTE: Release ignition when engine starts or 30 seconds maximum continuous operation.
14. Throttle........................................1000 RPM
15. Oil Pressure and Ammeter..................CHECK
16. Flaps..............................................UP

BEFORE TAXI

1. Radios..............................................ON / SET
2. Transponder.................................STANDBY
3. Clock................................................SET
4. Attitude and Heading Indicator........CHECK / SET
5. Clearance.................................OBATIN / ANNOUNCE
6. Transponder...............................SET / ALT
CESSNA T41C

TAXI
1. Aircraft Area..........................................................CLEAR
2. Flight Controls.................................POSITION FOR WIND
3. Gyros...............................................................CHECK

ENGINE RUN-UP
1. Nose Wheel......................................................CENTERED
2. Parking Brake....................................................SET
3. Mixture..............................................................RICH
4. Throttle..........................................................1800 RPM
5. Engine Instruments / Suction Gage.............CHECK
6. Magnetos............................................................CHECK
   NOTE: Maximum drop – 150 RPM. Maximum difference – 50 RPM.
7. Throttle.......................IDLE (Watch for engine stop)
8. Throttle........................................................1000 RPM

BEFORE TAKE-OFF
1. Trim.................................................................CHECK
2. Fuel Selector....................................................BOTH
3. Flight and Engine Instruments...............CHECK
4. Mixture..............................................................RICH
5. Radio....................................................................SET
6. Clearance.........................OBTAIN / ANNOUNCE
7. Doors / Windows.........................CLOSED and LOCKED
8. Safety Belt / Shoulder Harness..........SECURE
9. Strobes.................................................................ON
10. Landing Light..................AS REQUIRED

NORMAL TAKE-OFF
1. Flaps.................................................................UP
2. Align Aircraft With Runway Centerline
3. Heading Indicator..................CHECK / SET
4. Advance Throttle……………………FULL POWER
   **NOTE:** Minimum 2270 RPM
5. Fuel Flow…………………………………….CHECK
6. Rotate..50 to 60 MPH (70MPH for Strong Crosswinds)
7. Climb…………………………………………..95 MPH

**SHORT FIELD TAKE-OFF**
1. Flaps……………………………………………10°
2. Throttle……………………………………..FULL POWER
   **NOTE:** Minimum 2270 RPM
3. Best Angle of Climb \( (V_X) \) for obstacle clearance

<table>
<thead>
<tr>
<th>Weight</th>
<th>IAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500 lbs</td>
<td>70 MPH</td>
</tr>
<tr>
<td>2200 lbs</td>
<td>66 MPH</td>
</tr>
</tbody>
</table>

4. Clear of Obstacles……..ACCELERATE TO 95 MPH
5. Flaps (above 200 feet, 80 MPH)………RETRACT

**SOFT FIELD TAKE-OFF**
1. Flaps……………………………………………10°
2. Throttle……………………………………..FULL-CHECK POWER
3. Lift Off……………………………….IN GROUND EFFECT
4. Accelerate to \( V_X \)………………..SEE CHART ABOVE
5. Flaps (above 200 feet, 80 MPH)……….RETRACT
6. Reaching Sufficient Altitude……ACCELERATE…………………TO 95 MPH

**CLIMB**

**NOTE:** Refer to table for climb speed vs. altitude.
Interpolate for correct speed vs. weight.

<table>
<thead>
<tr>
<th>Altitude (ft)</th>
<th>Utility – 2200 lbs</th>
<th>Normal – 2500 lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Level</td>
<td>97</td>
<td>100</td>
</tr>
<tr>
<td>5,000</td>
<td>92</td>
<td>95</td>
</tr>
<tr>
<td>10,000</td>
<td>89</td>
<td>91</td>
</tr>
<tr>
<td>15,000</td>
<td>85</td>
<td>87</td>
</tr>
</tbody>
</table>
CESSNA T41C

CRUISE
1. Power (See Performance Section)...2300 – 2600 RPM
2. Mixture.........................LEAN AS NECESSARY

   CAUTION: Improper leaning procedures will greatly reduce endurance.

3. Landing Light.................................OFF
4. Engine Gauges / Instruments...............MONITOR

DESCENT
1. Fuel Quantity....................................CHECK
   NOTE: Select fullest tank or BOTH.

2. Mixture...........................................RICH
3. Flight Instruments............................CHECK / SET
4. Compass heading, altimeter..............CHECKED

BEFORE LANDING
1. Fuel Selector.................................BOTH
2. Mixture...........................................RICH
3. Landing Light.................................ON
4. Safety Belt / Shoulder Harness............SECURE

NORMAL LANDING
1. Flaps UP................................85 MPH
2. Flaps DOWN.................................70 MPH
   CAUTION: Do not slip when using over 30 degrees of flaps due to a possible downward pitch under certain combinations of airspeed and sideslip angle.

3. Touch Down.........................BRAKE AS REQUIRED
   CAUTION: If landing on slippery runways, aerobrake as long as possible with back pressure until the nose gear can no longer be held off the runway. Then raise the flaps and brake lightly. If the brakes are applied suddenly or too hard, a skid will likely result.
CESSNA T41C

SHORT FIELD LANDING
1. Flaps.........................................................40°
2. Airspeed:
   Normal Category (2500 lbs)  75 MPH
   Utility Category (2200 lbs)  65 MPH
3. Roll-out.........................BRAKES AS REQUIRED
4. Flaps (After Touch Down).........RETRACT

GO AROUND
1. Throttle..................................................FULL
2. Flaps.....................................................20°
   NOTE: Raise the flaps to 20° as soon as conditions permit. Raise the flaps to 0° after attaining a speed of 80 MPH.
3. Accelerate..............................................85 MPH
4. Flaps (above 200 ft).........................RETRACT

TOUCH AND GO (Private Pilots or Higher)
1. Throttle..................................................FULL
2. Flaps.....................................................20°
3. Flaps (above 80)..............................RETRACT

AFTER LANDING (Clear of Runway)
1. Strobe Lights............................AS REQUIRED
2. Pitot Heat.................................OFF
3. Landing Light............................AS REQUIRED
4. Flaps.................................................UP
5. Transponder............................AS REQUIRED
6. Radio..........................AS REQUIRED

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ENGINE SHUTDOWN
1. Nosewheel........................................CENTERED
2. Communication / Navigation Radios..............OFF
3. Throttle.................................................IDLE
4. Magnetos..................................GROUNDING CHECK
5. Throttle..............................................1000 – 1200 RPM
6. Mixture..............................................IDLE CUT-OFF
7. Navigation Lights..............................OFF
8. Strobe Light..........................................ON
9. Master Switch......................................OFF
10. Ignition Switch..................................OFF
11. Fuel Selector..............................LEFT or RIGHT

REFUELING
1. Aircraft........................................CHOCK AND GROUND
2. Fuel Counter.........................................RESET
3. Fuel..................................................AS REQUIRED / CAPS SECURE
4. Windscreens........................................CLean
5. Chocks / Ground Wire..........................REMOVED / STOWED
6. Fuel Counter.........................................RESET
7. Tow / Taxi aircraft to parking

SECURING
1. Tach / Hobbs time, Fuel, Oil................RECORDED
2. Discrepancies........................................RECORDED
3. Personal Belongings and Trash................REMOVED
4. Control Lock........................................INSTALLED
5. Seatbelts..............................................FASTENED
6. Sunvisor.............................................INSTALLED
7. Brakes...............................................RELEASED
8. Windows / Doors..............................CLOSED / LOCKED
9. Pitot Cover........................................INSTALLED
10. Chocks, Tiedowns, Ground Wire........INSTALLED
EMERGENCY PPROCEDURES

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NON-CRITICAL ACTIONS

1. Maintain Aircraft Control.
2. Analyze the Situation and Take Proper Action.
3. Land As Soon As Practicable.

GROUND EMERGENCIES

EMERGENCY ENGINE SHUTDOWN

NOTE: If an immediate engine shutdown becomes necessary while on the ground, proceed as follows.

1. Mixture…………………………..IDLE CUT-OFF
2. Fuel Shutoff Knob………………..PULL OUT
3. Ignition Switch…………………………..OFF
4. Master Switch…………………………..OFF

TAKEOFF EMERGENCIES

ABORTED TAKEOFF

NOTE: If an abort is necessary for any reason, accomplish the following.

1. Throttle…………………………………….IDLE
2. Brake……………………………………..AS REQUIRED
ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

1. Glide........................................ESTABLISH
2. Flaps.......................................AS REQUIRED

<table>
<thead>
<tr>
<th>Flaps Condition</th>
<th>Speed (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAPS UP</td>
<td>85</td>
</tr>
<tr>
<td>FLAPS 20°</td>
<td>80</td>
</tr>
<tr>
<td>FLAPS OVER 20°</td>
<td>75</td>
</tr>
</tbody>
</table>

3. Land Straight Ahead.

If Time Permits

4. Mixture..................................FULL LEAN
5. Fuel Shutoff Knob........................PULL OUT
6. Ignition Switch..........................OFF
7. Master Switch...........................OFF
8. Cabin Doors.............................UNLOCKED / OPEN

IN-FLIGHT EMERGENCIES

ENGINE RESTART DURING FLIGHT

NOTE: If a restart is to be attempted, accomplish the following.

1. Glide......................................ESTABLISH

<table>
<thead>
<tr>
<th>Flaps Condition</th>
<th>Speed (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAPS UP</td>
<td>85</td>
</tr>
<tr>
<td>FLAPS 20°</td>
<td>80</td>
</tr>
<tr>
<td>FLAPS OVER 20°</td>
<td>75</td>
</tr>
</tbody>
</table>

2. Mixture..................................RICH
3. Throttle……………………………IN HALF-WAY
4. Fuel Selector………………………………..BOTH
5. Fuel Shutoff Knob…………………………..IN
6. Ignition Switch………………………………BOTH
7. Master Switch………………………………ON
8. Aux Fuel Pump Switch…………………….LOW
9. If Propeller is stopped…………ENGAGE STARTER
10. Mixture…………………………ADJUST
11. If Restart Is Unsuccessful, Refer to Forced Landing Checklist

PARTIAL ENGINE FAILURE DURING FLIGHT
1. Mixture………………………………..RICH
2. Fuel Selector…………………………..BOTH
3. Fuel Shutoff Knob………………………….IN
4. Manual Primer……………………..IN AND LOCKED
5. Master Switch………………………….ON
6. Ignition Switch………………………….ON
7. Auxiliary Fuel Pump Switch…..AS REQUIRED
8. Mixture…………………………ADJUST
9. Land As Soon As Practical

ENGINE FIRE DURING FLIGHT
Apply the following procedures in the event of an engine fire during flight.

1. Mixture………………………………FULL LEAN
2. Fuel Shutoff Knob………………………..PULL OUT
3. Ignition Switch…………………………OFF
4. Glide………………………………ESTABLISH
5. Flaps…………………………AS REQUIRED
6. Master Switch…………………………OFF
7. Refer To Forced Landing Checklist
ELECTRICAL FIRE / HIGH AMMETER
1. Master Switch…………………………………….OFF
2. Land As Soon As Practical

SMOKE AND FUMES ELIMINATION
1. Cabin Heat Knob…………………………………IN
2. Cabin Air Knob…………………………………IN
3. Upper Air Vents………………………………OPEN
4. Pilot’s Window…………………………..AS REQUIRED
   NOTE: If necessary, the window may be opened to assist in clearing the smoke or fumes from the cabin.

NEGATIVE AMMETER READING
1. Electrical Load…………………………..REDUCE
2. Land As Soon As Practical

OIL SYSTEM MALFUNCTION
1. Throttle…………………………..AS REQUIRED
   NOTE: If possible, adjust the throttle to maintain the oil pressure within limits.

2. Mixture…………………………………..RICH
   NOTE: A rich running engine runs cooler than a lean running engine.

3. Land As Soon As Practical

STRUCTURAL DAMAGE / CONTROLABILITY CHECK
   CAUTION: Do not reset the flaps if significant structural damage is located in the wings.

1. Climb to at least 1500’ AGL (if practical) at a controllable airspeed.
2. Simulate landing approach and determine the airspeed at which the aircraft becomes difficult to control (minimum controllable airspeed).

3. Plan to fly a straight-in approach. Fly normal approach airspeed for your flap setting, or 5 to 10 MPH above the minimum controllable airspeed, whichever is higher. For asymmetrical flaps, use your minimum flap setting for approach airspeed.

4. Plan to touch down at no less than minimum controllable airspeed. Do not begin to reduce to final airspeed until the aircraft is very close to the ground.

PITOT STATIC MALFUNCTION

1. If icing is suspected, turn on the pitot heat.

2. If the airspeed indicator proves unreliable, advise ATC if appropriate.

3. Fly a wider than normal pattern maintaining 2400 RPM on the downwind, maintain 1700 RPM on base and final. Close the throttle in the round-out.

4. Do not exceed 20 degrees of bank.

5. If you receive a stall warning indication prior to round-out, go around.
LANDING EMERGENCIES

FORCED LANDING
1. Glide................................................ESTABLISH
2. Mixture...........................................IDLE CUT-OFF
3. Fuel Shutoff Knob.................................PULL OUT
4. Ignition Switch....................................OFF
5. Flaps.............................................AS REQUIRED
6. Master Switch....................................OFF
7. Seatbelts.........................................FASTENED
8. Shoulder Harness...............................LOCKED
9. Cabin Doors.................................UNLOCKED / OPEN

LANDING WITH A FLAT TIRE
1. Main Gear: Land on the side of the runway corresponding to the good tire.

2. Nose Gear: Land in the center of the runway, hold nose wheel off the ground as long as possible.

3. Stop the aircraft on the runway. Shut down the aircraft and call for assistance.
INTENTIONALLY LEFT BLANK
### Take-Off Data

**HARD SURFACE RUNWAY, FLAPS 10°**

<table>
<thead>
<tr>
<th>GROSS WEIGHT LBS</th>
<th>IAS AT 50 FT MPH</th>
<th>HEAD WIND KNOTS</th>
<th>@ S.L. &amp; 59°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
<th>@ 2,500 FT &amp; 50°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
<th>@ 5,000 FT &amp; 41°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
<th>@ 7,500 FT &amp; 32°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500</td>
<td>70</td>
<td>0</td>
<td>860</td>
<td>1360</td>
<td>1000</td>
<td>1555</td>
<td>1135</td>
<td>1765</td>
<td>1435</td>
<td>2225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>605</td>
<td>1020</td>
<td>710</td>
<td>1175</td>
<td>820</td>
<td>1350</td>
<td>1050</td>
<td>1730</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20</td>
<td>390</td>
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<td>470</td>
<td>840</td>
<td>550</td>
<td>980</td>
<td>730</td>
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<tr>
<td>2200</td>
<td>66</td>
<td>0</td>
<td>645</td>
<td>1055</td>
<td>750</td>
<td>1200</td>
<td>845</td>
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<td>1070</td>
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<td>470</td>
<td>805</td>
<td>540</td>
<td>905</td>
<td>610</td>
<td>1000</td>
<td>770</td>
<td>1230</td>
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<td></td>
<td>10</td>
<td>310</td>
<td>580</td>
<td>365</td>
<td>860</td>
<td>415</td>
<td>740</td>
<td>535</td>
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<td>180</td>
<td>390</td>
<td>220</td>
<td>445</td>
<td>250</td>
<td>510</td>
<td>340</td>
<td>640</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Increase distance 10% for each 25°F above standard temperature for particular altitude.
2. For operation on a dry, grass runway, increase distance (both "ground run" and "total to clear 50 ft obstacle") by 7% of the "total to clear 50 ft obstacle" figure.

### Landing Distance Table

**LANDING DISTANCE WITH FULL FLAPS, POWER OFF, AND NO WIND ON HARD SURFACE RUNWAY**

<table>
<thead>
<tr>
<th>GROSS WEIGHT LBS</th>
<th>APPROACH IAS MPH</th>
<th>@ S.L. &amp; 59°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
<th>@ 2,500 FT &amp; 50°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
<th>@ 5,000 FT &amp; 41°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
<th>@ 7,500 FT &amp; 32°F GROUND RUN</th>
<th>TOTAL TO CLEAR 50’ OBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500</td>
<td>75</td>
<td>610</td>
<td>1320</td>
<td>650</td>
<td>1390</td>
<td>685</td>
<td>1470</td>
<td>725</td>
<td>1560</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Reduce landing distance 10% for each 5 knots of headwind.
2. For operation on a dry, grass runway, increase distance (both "ground roll" and "total to clear 50 ft obstacle") by 20% of the "total to clear 50 ft obstacle" figure.
### CESSNA T41C

#### STALLING SPEEDS

**POWER OFF MPH, CAS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Angle of Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0°</td>
</tr>
<tr>
<td>Flaps Up</td>
<td>60</td>
</tr>
<tr>
<td>Flaps 20°</td>
<td>55</td>
</tr>
<tr>
<td>Flaps 40°</td>
<td>49</td>
</tr>
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</table>

**Figure 6-1**

#### STALLING SPEEDS

**POWER OFF MPH, CAS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Angle of Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0°</td>
</tr>
<tr>
<td>Flaps Up</td>
<td>64</td>
</tr>
<tr>
<td>Flaps 20°</td>
<td>58</td>
</tr>
<tr>
<td>Flaps 40°</td>
<td>53</td>
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</table>

#### MAXIMUM RATE-OF-CLimb DATA

<table>
<thead>
<tr>
<th>GROSS WEIGHT LBS</th>
<th>IAS MPH</th>
<th>@ S.L. &amp; 59°F</th>
<th>GAL OF FUEL USED</th>
<th>@ 5,000 ft &amp; 41°F</th>
<th>RATE OF CLIMB FT/MIN</th>
<th>FROM S.L. FUEL USED</th>
<th>@ 10,000 ft &amp; 23°F</th>
<th>RATE OF CLIMB FT/MIN</th>
<th>FROM S.L. FUEL USED</th>
<th>@ 15,000 ft &amp; 5°F</th>
<th>RATE OF CLIMB FT/MIN</th>
<th>FROM S.L. FUEL USED</th>
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<tr>
<td>2500</td>
<td>100</td>
<td>880</td>
<td>1.3</td>
<td>95</td>
<td>620</td>
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<td>91</td>
<td>395</td>
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<td>87</td>
<td>150</td>
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<td>2200</td>
<td>97</td>
<td>1070</td>
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<td>92</td>
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<td>2.6</td>
<td>89</td>
<td>530</td>
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<td>695</td>
<td>3.5</td>
<td>83</td>
<td>390</td>
<td>5.1</td>
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**NOTES:**
1. Flaps up, full throttle, and mixture at recommended leaning schedule.
2. Fuel used includes warm-up and take-off allowance.
### CRUISE & RANGE PERFORMANCE

Gross Weight - 2,500 Lbs  
Standard Conditions  
Zero Wind  
46 Gal of Fuel (No Reserve)

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<th>ALT.</th>
<th>RPM</th>
<th>% BHP</th>
<th>TAS MPH</th>
<th>GAL/HOUR</th>
<th>ENDR. HOURS</th>
<th>RANGE MILES</th>
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<td>4.9</td>
<td>610</td>
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<tr>
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<td>118</td>
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<td>640</td>
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<td>111</td>
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<td>670</td>
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<tr>
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<td>640</td>
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<td>670</td>
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<td>635</td>
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MISCELLANEOUS INFORMATION

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M-1
CAUTION: Treat the propeller with extreme caution. Always assume the ignition switch is on. If ignition switch is on, the propeller can move unexpectedly with sufficient force to inflict FATAL injury.

- Do not push or pull the aircraft by the propeller.
- Do not push on the empennage to turn the aircraft.
- Do not exceed the nose gear steering unit.

MANUAL / TUG TOWING

1. Ignition Switch.......................................................OFF
2. Groundwire, Tiedowns, Chocks..................REMOVED /
   ..................................................STOWED
3. Parking Brake.....................................................RELEASED
4. Towbar.................................................................ATTACHED
   CAUTION: In congested areas, obtain assistance to assure adequate aircraft clearance. Brief helpers on the NO PUSH points prior to aircraft movement.

5. Aircraft..................................................TOW AS REQUIRED
   NOTE: If a tug us used – tow at a speed consistent with safety.

6. Towbar..................................................DISCONNECTED
7. Complete Aircraft Securing Checklist
### ATC LIGHT SIGNALS

<table>
<thead>
<tr>
<th>Color and Type</th>
<th>Viewed on the Surface</th>
<th>Viewed in Flight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady Green</td>
<td>Cleared for Takeoff</td>
<td>Cleared to Land</td>
</tr>
<tr>
<td>Flashing Green</td>
<td>Cleared to Taxi</td>
<td>Return for Landing</td>
</tr>
<tr>
<td>Steady Red</td>
<td>STOP</td>
<td>Give way to other aircraft, continue circling</td>
</tr>
<tr>
<td>Flashing Red</td>
<td>Taxi clear of runway in use</td>
<td>Airport unsafe – do not land</td>
</tr>
<tr>
<td>Flashing White</td>
<td>Return to starting point on airport</td>
<td>N/A</td>
</tr>
<tr>
<td>Alternating Red and Green</td>
<td>Exercise Extreme Caution</td>
<td>Exercise Extreme Caution</td>
</tr>
</tbody>
</table>

### LOST COMMUNICATION PROCEDURES

#### Albuquerque Area

1. If you are **WITHIN** 50 miles of Albuquerque and are not able to contact Albuquerque Approach, land at a non-towered airport (Belen, Socorro) and call Kirtland Flight Center.

2. If you are **NOT WITHIN** 50 miles of Albuquerque, land at the nearest unrestricted, hard-surfaced, non-towered airport and call the Kirtland Flight Center.

3. If you have lost communications after contact with Albuquerque Approach Control, continue according to the last instructions for landing.
CAUTION: Carefully evaluate the situation. It may be safer to exit the Class C Airspace and recover at Belen than to continue towards Albuquerque. Once safely on the ground, you can coordinate a no-radio return to Albuquerque. Approach and tower will give you a discrete transponder code and specific landing instructions.

4. In not cleared to land and entering the traffic area:

   FROM THE NORTH: Circle above the I-40 and I-25 intersection and hold for a green light from the tower, then follow light signal messages.

   FROM THE SOUTH: Circle above the Isleta Pueblo (use casino as a landmark) until you receive a light signal for the tower.

5. Proceed with caution if cleared to land. Clear the runway to the nearest general aviation area or the Flight Center and park. Call for assistance if necessary.

LOST PROCEDURES

1. Attempt to tune in any VOR in your area. When you have positively identified a VOR, rotate the OMNI bearing selector until the needle centers with a TO indication. Check the compass and adjust the DG heading indicator as necessary.

2. Turn to the TO heading and track to the station. When over the station, evaluate the situation and decide
whether to proceed to your original destination, or land at the nearest suitable airport.

3. If you are unable to determine your position using the VOR, try the 5 C’s below:

   a. **CLIMB** – Altitude enables you to see farther and improves radio communication and reception.
   b. **COMMUNICATE** – Transmit on 121.5 and request assistance.
   c. **CONFESS** – Admit to yourself and the ground station that you have a problem.
   d. **COMPLY** – Follow the instructions you receive unless they compromise safety.
   e. **CONSERVE** – Conserve your fuel as much as possible.

4. If lost and darkness is approaching, or you are low in fuel, **LAND** on the best available surface. It is better to land with some light and fuel than to perform a forced landing at night over unfamiliar terrain.

**SEVERE WEATHER RECALL**

**AUTHORITY:** The Aero Club Manager, Chief Flight Instructor, Supervisor of Flying, or any instructor may institute this procedure.

1. In the local area, all aircraft will monitor 122.8 or remain with approach control on the appropriate frequency.
2. When a recall is started, the initiator will broadcast a recall announcement on 122.8 using the Flight Center’s portable radio or a radio in a Flight Center aircraft on the ramp.
3. The initiator will also notify Albuquerque Approach Control and request they broadcast the recall on their frequencies.
4. If the weather precludes a safe recovery at Albuquerque (i.e. severe thunderstorms or high winds), the pilot will land at the nearest safe airport and secure the aircraft as appropriate.
5. Pilots should not attempt to refuel the aircraft if weather conditions are deteriorating and / or thunderstorms are observed / reported within 5 nm of the airport.

REMAIN-OVER-NIGHT (RON) PROCEDURES

1. Pilots will follow this guide when RONing at other than Albuquerque.
2. If the RON is part of a scheduled cross-country, the aircraft will be serviced and secured as appropriate. The pilot is responsible for parking and hangar fees. The pilot will let airport personnel know where he / she can be reached.
3. If the RON is unscheduled, comply with Paragraph 2 and then notify the Flight Center as soon as possible.
4. If your flight itinerary must be changed significantly, contact the Flight Center at DSN 246-1072 or Commercial (505) 846-1072. Commercial calls may be made collect if necessary.
ALTERNATE AIRFIELD PROCEDURES

1. When landing at an alternate field, use standard procedures as published in the AIM for controlled or uncontrolled airports.
2. The chart below contains information on the local airports.
3. See aircraft binder for local area chart showing the alternate airports.

<table>
<thead>
<tr>
<th>Airport</th>
<th>Dist from ABQ</th>
<th>TWR</th>
<th>GND</th>
<th>Clearance</th>
<th>CTAF</th>
<th>Weather Info</th>
<th>FSS</th>
<th>Pattern Alt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albuquerque</td>
<td>120.3</td>
<td>121.9</td>
<td>119.2</td>
<td></td>
<td>118.00</td>
<td></td>
<td>122.55</td>
<td>6500</td>
</tr>
<tr>
<td>Double Eagle</td>
<td>293°@11 nm</td>
<td>120.15</td>
<td>121.625</td>
<td>120.15</td>
<td>119.02</td>
<td></td>
<td>122.55</td>
<td>6800</td>
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<tr>
<td>Belen</td>
<td>193°@26 nm</td>
<td></td>
<td></td>
<td></td>
<td>122.8</td>
<td>118.55</td>
<td>122.55</td>
<td>6200</td>
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<tr>
<td>Santa Fe</td>
<td>025°@42.9nm</td>
<td>119.5</td>
<td>121.7</td>
<td>121.7</td>
<td>122.95</td>
<td>128.55</td>
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<td>Moriarty</td>
<td>100°@33nm</td>
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<td></td>
<td>122.9</td>
<td>118.05</td>
<td>122.3</td>
<td>7200</td>
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<td>Grants*</td>
<td>265°@64nm</td>
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<td>Socorro*</td>
<td>181°@63nm</td>
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*Grants and Socorro Approach and Departure service provided by Albuquerque ARTCC on frequency 124.32.

ALBUQUERQUE APPROACH CONTROL

Northeast – 127.4
Southeast – 123.9

These frequencies are often combined.

IMPORTANT TELEPHONE NUMBERS
Kirtland Flight Center Manager – Joanna Erni: Cell (505) 220-5250
Kirtland AFB Operations – (505) 846-8335
Chief Flight Instructor – Larry Goodwin: Cell (505) 715-1012
<table>
<thead>
<tr>
<th>Block</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Check the type flight plan. Check both the VFR and IFR blocks if composite VFR/IFR.</td>
</tr>
<tr>
<td>2.</td>
<td>Enter your complete aircraft identification including the prefix “N” if applicable.</td>
</tr>
<tr>
<td>3.</td>
<td>Enter the designator for the aircraft, or if unknown, consult an FSS briefer.</td>
</tr>
<tr>
<td>4.</td>
<td>Enter your true airspeed (TAS).</td>
</tr>
<tr>
<td>5.</td>
<td>Enter the departure airport identifier code, or if unknown, the name of the airport.</td>
</tr>
<tr>
<td>6.</td>
<td>Enter the proposed departure time in Coordinated Universal Time (UTC) (Z). If airborne, specify the actual or proposed departure time as appropriate.</td>
</tr>
<tr>
<td>7.</td>
<td>Enter the appropriate VFR altitude (to assist the briefer in providing weather and wind information).</td>
</tr>
<tr>
<td>8.</td>
<td>Define the route of flight by using NAVAID identifier codes and airways.</td>
</tr>
<tr>
<td>9.</td>
<td>Enter the destination airport identifier code, or if unknown, the airport name. <strong>NOTE:</strong> Include the city name (or even the state name) if needed for clarity.</td>
</tr>
<tr>
<td>10.</td>
<td>Enter your estimated time en route in hours and minutes.</td>
</tr>
<tr>
<td>11.</td>
<td>Enter only those remarks pertinent to ATC or to the clarification of other flight plan information, such as the appropriate radiotelephony (call sign) associated with the designator filed in Block 2. Items of a personal nature are not accepted.</td>
</tr>
<tr>
<td>12.</td>
<td>Specify the fuel on board in hours and minutes.</td>
</tr>
<tr>
<td>13.</td>
<td>Specify an alternate airport if desired.</td>
</tr>
<tr>
<td>14.</td>
<td>Enter your complete name, address, and telephone number. Enter sufficient information to identify home base, airport, or operator. <strong>NOTE:</strong> This information is essential in the event of search and rescue operations.</td>
</tr>
<tr>
<td>15.</td>
<td>Enter total number of persons on board (POB) including crew.</td>
</tr>
<tr>
<td>16.</td>
<td>Enter the predominant colors.</td>
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CESSNA T41C

PIREP FORMAT

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<tr>
<th>PI REP CODE</th>
<th>INFORMATION</th>
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<td>Location</td>
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<td>TM</td>
<td>Time (Z)</td>
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<tr>
<td>FL</td>
<td>Altitude (MSL)</td>
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<tr>
<td>TP</td>
<td>Type (aircraft)</td>
</tr>
<tr>
<td>SK</td>
<td>Sky cover</td>
</tr>
<tr>
<td>WX</td>
<td>Visibility, weather</td>
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<td>TA</td>
<td>Temperature (°C)</td>
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<td>WV</td>
<td>Wind velocity</td>
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<td>TB</td>
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<td>Icing</td>
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<tr>
<td>RM</td>
<td>Remarks</td>
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</table>

Kirtland Flight Center – Maximum headwind 25 knots; maximum crosswind 15 knots

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