

ENGINE START

Sys/Sim Startup ... Complete
 Passenger Brief ... Complete
 Seats Adjust
 Brakes Set
 Circuit Brkrs In
 Elec Equipment Off
 Avionics Master Off
 Fuel Selector Both
 Fuel Shutoff On

Throttle **Open 1/4"**
 Mixture Idle Cutoff
 Area "CLEAR"
 Master On
 Beacon On

Prime Engine:

Fuel Pump On
 Mixture Full Rich (3-5 sec)
 Mixture Idle Cutoff
 Fuel Pump Off

Ignition Start
 Mixture Advance
 Oil Press Green (**< 30 sec**)

LEAN ON GND (>3K' MSL)

Throttle **1200 RPM**
 Mixture ... Lean (10-50 RPM rise)
 Throttle **800-1000 RPM**

TAXI

Nav Lights As Req'd
 Avionics Master On
 Radios On
 Flaps Retract
 Taxi Light As Req'd
 Panel Lights As Des'd
 Transponder STBY
 Weather Note
 Altimeter Set
 DG Align
 -- Taxi Check --
 Brakes Test
 Instruments ----- Turn Check
 DG/Mag Comp Rotating
 Att Ind Slight Bank
 Turn Coord Bank & Ball

RUN-UP

Brakes Set
 Doors As Des'd
 Controls Free & Correct
 Instruments & Radios -----
 Att Ind Match Reality
 Altimeter Field Elevation
 DG Align
 VSI Note "Level"

Gas -----
 Fuel Selector Both
 Mixture Rich
 Attitude -----
 Trim Set for Takeoff
 Flaps ... 0°-10° for Takeoff

Run-up ----- 1800 RPM

Oil Press Green
 Oil Temp Green
 Ammeter Positive
 Night Test ... Ldg Light - On
**3-5 sec, ammeter<1 needle width*
 Suction **4.5 - 5.5**
 Annunc Panel ... No Lights
 Magnetos Test
**RPM drop < 150 ea, 50 diff*

Throttle Idle Check
 Throttle Friction As Des'd

BEFORE TAKEOFF

Boost Pump As Des'd
 Lights ----- As Req'd
 Strobe Lights As Des'd
 Landing Light On
 Instr/Radios -- Set Departure
 DG/Mag Comp ... Rwy Hdg
 Com/Nav Pri/Stby Freqs
 GPS Flt Plans As Des'd
 Hdg Bug As Des'd
 CDI As Des'd

Transponder ALT
 Takeoff Time Record
 Safety & Switches -----
 Doors As Des'd
 Loose Items Stowed
 Pitot Heat As Req'd
 Lights (Int/Ext) ... As Req'd
 Takeoff Brief Complete
 Safety Brief Complete

TAKEOFF

Flaps 0° (10° short field)
 Throttle Full (**>2100 RPM**)
 Rotate **55(vr) KTS**
 Climb Speed **74(vy) KTS**
**Obst: 56 KTS, clear, 62(Vx) KTS*
 Flaps Retract (aft obst)

CLIMB

Throttle Full
 Speed **74(vy) KTS**
**75-85 KTS (enroute)*

Mixture Lean

LEVEL-OFF & CRUISE

Power ... 75% max (see chart)
 Mixture Lean
 Engine Instruments ... Check
 Lights/Switches As Req'd

DESCENT

Power As Des'd
 Mixture Richen (full for idle)
 Fuel Selector Both
 Flaps As Des'd
**White Arc < 85 KTS*

Altimeter Set
 Nav/GPS Switch Set

APPR & LANDING

Fuel Selector Both
 Mixture Full Rich
 Flaps As Des'd
**White Arc < 85 KTS*

Landing/Taxi Lights On
 Appr ... **65-75 KTS** (flaps up)
 Final **60-70 KTS** (+1/2 gust)

Short Field Landing:

Appr ... **65-75 KTS** (flaps up)
 Flaps 30° (full)
 Final **61 KTS** (until flare)
 Power ... Idle (aft obstacles)
 Brakes Apply Heavily
 Flaps Retract

GO-AROUND

Throttle Full
 Flaps 20° (aft pos climb)
 Climb Speed **60 KTS**
 Flaps 10° (to clear obst)
 ... Retract (safe alt & **65 KTS**)

ENGINE FAILURE

Best Glide **68 KTS**
 Landing Site **Select**
**Note wind direction & velocity*
 Fuel Shutoff Valve **Full In**
 Fuel Selector **Switch & Both**
 Fuel Pump **On**
 Mixture **Rich** (if no restart)
 Ignition **Start, then Both**
 Fuel Pump **Off** (On if 0 fuel flow)
-- IF NO RESTART --
execute EMERGENCY LANDING

EMERGENCY LANDING

Transponder Squawk **7700**
 Radio ... "MAY DAY" Call on **121.5**
 Seat Belts **Secure**
 Speed **65 KTS (70 no flaps)**
 Mixture **Idle Cutoff**
 Fuel Shutoff **Full Out**
 Ignition **Off**
 Flaps **As Req'd**
 Master **Off** (landing assured)
 Doors **Unlatched**

ENG FIRE DURING START

Ignition **Continue Cranking**
If engine starts:
 Power **1800 RPM (1-3 mins)**
 Engine **Shutdown & Inspect**
If engine fails to start:
 Throttle **Full**
 Mixture **Idle Cutoff**
 Ignition **Continue Cranking**
 Fuel Shutoff **Full Out**
 Fuel Pump **Off**
 Fire Extinguisher **Activate**
 Master & Ignition **Off**
*** EVACUATE ***

ICING

Pitot Heat **On**
 Cabin Ht & Defrost **Full Open**
 Crs or Alt **Change** (for better OAT)
*** complete expanded checklist ***

STATIC AIR BLOCKAGE

Static Air Source **Pull On**
add 3 KTS - see full checklist

ENGINE FIRE IN FLIGHT

Mixture **Idle Cutoff**
 Fuel Shutoff **Full Out**
 Fuel Pump **Off**
 Master **Off**
 Cabin Heat & Air **Off**
 Airspeed **100-163 KTS**
**To extinguish flames*
execute EMERGENCY LANDING

ELEC/CABIN FIRE IN FLT

Master **Off**
 Vents, Cabin Air & Ht **Closed**
 Fire Extinguisher **Activate**
*** complete expanded checklist ***

WING FIRE

Landing/Taxi Lights **Off**
 Nav Lights **Off**
 Strobe **Off**
 Pitot Heat **Off**
 Descent **Sideslip to Land ASAP**
**Keep flames away from tank/cabin*
 Flaps ... **Only if Req'd (Short Final)**

Airspeeds - KTS

TAKEOFF - DEPARTURE

V_r - Rotation - **55**
 Shrt Fld Climb, Flaps 10 - **56**
 V_x - Best Angle of Climb - **62**
 V_y - Best Rate of Climb - **74**
 Enroute Climb - **75-85**

STALLS - GLIDE

V_{so} - Stall, Flaps 30 - **40**
 V_{s1} - Stall, Flaps 10-20 - **43**
 V_s - Stall, No Flaps - **48**
 Best Glide - **68**
 *Glide Ratio 8.7:1

LIMITATIONS

V_{fe} - Max Flap Extend - **85**
 V_a - Maneuvering Speed - **105**
 V_{no} - Max Structural Cruise - **129**
 V_{ne} - Never Exceed - **163**
 X-wind (max demo'd) - **15**

APPROACH - LANDING

Flaps Up **65-75 KTS** ----- Flaps 10-20 **60-70 KTS** ----- Flaps 30 (Short Field) **61 KTS**

IA24 756' CTAF 122.9	KIOW 684' CTAF 122.8 ASOS 128.075	KCID 869' Tower 118.7 ATIS 124.15 Approach 119.7
CID 114.1 --- V67 --- 156° @ 8.4 NM		C11 712' CTAF 122.9
IOW 116.2 --- V67 --- 336° @ 15 NM		Guard 121.5 Air-to-Air 122.75
		EMERG 7700 NORDO 7600