

COLUMBIA 350 — NORMAL PROCEDURES

TABLE OF CONTENTS

PREFLIGHT	1 to 4
STARTING AND NORMAL FLIGHT PROCEDURES	
Before Starting	5
Starting Engine.....	6
After Engine Start	7
Crosstie Operation	8
Autopilot Check	9
SpeedBrake™ Ground Operations	9
Before Taxi	9
Taxiing	10
Before Takeoff.....	11-13
Minor Spark Plug Fouling	14
Normal Takeoff.....	14
Normal Climb	15
Cruise	16
Descent.....	16
Expedited Descents.....	17
Before Landing	17
Normal Landing.....	18

Balked Landing.....	18
After Landing.....	19
Shutdown	19
MAXIMUM PERFORMANCE OPERATIONS	
Maximum Performance Climb	20
Short Field Takeoff.....	20
Short Field Landing	21
USEFUL INFORMATION.....	22
TAKEOFF DISTANCE – TAKEOFF FLAPS	23
LANDING DISTANCE – LANDING FLAPS.....	24

NOTE

This checklist is not part of any revision cycle and is not FAA approved. While this checklist is similar to the one contained in the FAA approved Airplane Flight Manual/Pilot’s Operating Handbook (AFM/POH), it is not a substitute for the FAA approved document. The pilot is responsible for updating this checklist when changes to the checklist are made in the AFM/POH.

PREFLIGHT

Area 1 (The Cabin)

1. Pitot Tube Cover — REMOVE AND STORE/CHECK FOR OBSTRUCTION
2. *Required Aircraft Documents* — AVAILABLE IN THE AIRPLANE
3. Ignition Switch — SET TO OFF
4. Mixture — SET TO IDLE CUT OFF
5. Avionics Master Switch — SET TO OFF
6. Crosstie Switch — SET TO OFF
7. Left Battery Switch — ON (Press right side of split rocker switch.)
8. Right Battery Switch — ON (Press right side of split rocker switch.)
9. Trim System Switch — CHECK SET TO THE ON POSITION
10. Flaps — SET TO LANDING POSITION
11. Trim Tabs — SET TO NEUTRAL
12. Fuel Quantity Indicators — CHECK FUEL QUANTITY
13. Fuel Annunciators — NOT ILLUMINATED (Set fuel selector valve to left and right tanks.)
14. Rudder Limiter — PRESS TO TEST
15. Pitot Heat — ON, CHECK OPERATION (Warning: Pitot tube is HOT!)
16. Stall Horn/Rudder Limiter — CHECK OPERATION
17. Pitot Heat — SET TO OFF
18. Left and Right Battery Switches — SET TO OFF (Or as desired to warm up PFD.)

Area 2 (Left Wing Flap, Trailing Edge and Wing Tip)

1. Flap — CHECK (Visually check for proper extension and security of hardware.)
2. Left Wing Tie-down — REMOVE
3. Aileron — CHECK (Freedom of movement.)
4. Aileron Servo Tab — CHECK FOR PROPER OPERATION
5. Static Wicks (2) — CHECK FOR INSTALLATION AND CONDITION
6. Wing Tip — CHECK (Look for damage; check security of position and anti-collision lights.)

Area 3 (Left Wing Leading Edge, Fuel Tank, Left Tire)

1. Leading Edge — CHECK (Look for damage.)
2. Fuel Vent — CHECK FOR OBSTRUCTIONS
3. Landing Light — CHECK (Look for lens cracks and check security.)
4. Fuel Quantity — CHECK VISUALLY AND SECURE FILLER CAP
5. Wing Fuel Drain — CHECK FOR CONTAMINATION
6. Left Main Strut and Tire — CHECK (Remove wheel chocks.)
7. Main Fuel Drain/Strainer — CHECK FOR CONTAMINATION

Area 4 (Nose Section)

1. Cowling — INSPECT SCREWS AND CONDITION
2. Engine Oil — CHECK LEVEL (Between 6 and 8 quarts/fill to 8 quarts for extended flights.)
3. Engine Oil Filler Cap and Accessory Door — CAP AND DOOR SECURE
4. Propeller, Spinner, and Alt Belt — CHECK (Nicks, security, and evidence of oil leakage.)
5. Nose Wheel Strut — CHECK INFLATION (3 to 4 inches of chrome strut visible.)
6. Nose Tire — CHECK (Remove wheel chocks, check tire for proper inflation.)
7. Engine Nostrils — CLEAR
8. Fresh Air Inlet — CLEAR

Area 5 (Right Wing Leading Edge, Fuel Tank, Right Tire)

1. Wing Fuel Drain — CHECK FOR CONTAMINATION (First flight or after refueling.)
2. Right Main Strut and Tire — CHECK (Remove wheel chocks.)
3. Leading Edge — CHECK (Look for damage.)
4. Fuel Quantity — CHECK VISUALLY AND SECURE FILLER CAP
5. Fuel Vent — CHECK FOR OBSTRUCTIONS

Area 6 (Right Wing Tip, Trailing Edge, Wing Flap, and Right Fuselage Area)

1. Wing Tip — CHECK (Damage; check security of position and anti-collision lights.)
2. Aileron — CHECK (Freedom of movement.)
3. Trim Tab — CHECK (Neutral Tab Position.)
4. Static Wicks (2) — CHECK FOR INSTALLATION AND CONDITION
5. Right Wing Tie-down — REMOVE

...AREA 6 CONTINUED NEXT PAGE...

Area 6 (CONTINUED)

6. Flap — CHECK (Visually check for proper extension and security of hardware.)
7. Static Air Vent — CHECK FOR BLOCKAGE
8. Antennas Bottom of Fuselage — CHECK FOR SECURITY

Area 7 (Tail Section)

1. Leading Edge of Horizontal and Vertical Surfaces — CHECK (Look for damage.)
2. Antennas Vertical Stabilizer — CHECK FOR SECURITY
3. Rudder/Elevator Hardware — CHECK (General condition and security.)
4. Rudder Surface — CHECK (Freedom of movement.)
5. Elevator Surface — CHECK (Freedom of movement.)
6. Elevator Trim Tab — CHECK FOR NEUTRAL POSITION
7. Static Wicks (5) — CHECK FOR INSTALLATION AND CONDITION
8. Tail Tie-down — REMOVE

Area 8 (Aft Fuselage and Cabin)

1. Baggage Door — CHECK CLOSED AND LOCKED
2. Fire Extinguisher — CHECK FOR PRESENCE, SECURITY, AND EXPIRATION DATE
3. Crash Ax/Hatchet — CHECK FOR PRESENCE AND SECURITY

STARTING AND NORMAL FLIGHT PROCEDURES

BEFORE ENGINE STARTING

1. Preflight Inspection — COMPLETE
2. Fresh Air Vents — AS REQUIRED (Close fresh air vents of unoccupied seats.)
3. Seat Belts and Shoulder Harnesses — SECURE (Stow all unused seat belts.)
4. Fuel Selector Valve — SET TO LEFT OR RIGHT TANK
5. Avionics Master Switch — SET TO OFF
6. Nav/Com Bypass Switch — SET TO OFF
7. Autopilot Master — SET TO OFF
8. Brakes — TESTED AND SET
9. All Circuit Breakers — CHECK IN

STARTING ENGINE

1. Mixture Control — RICH
2. Propeller Control — SET TO HIGH RPM
3. Vapor Suppression — SET TO OFF
4. Induction Heated Air — SET TO OFF POSITION
5. Throttle Control — SET TO CLOSED, THEN ADVANCE ABOUT ONE INCH
6. Left and Right Bus Switches — SET TO ON
7. Crosstie Switch — OFF
8. Alt/Batt Gauge — BATT POSITION
9. Primer Pump — PUSH IN (About 5 seconds for a cold engine. Fuel Flow should read about 12 GPH; HOT ENGINE pull mixture out run low boost for 1 minute, then perform normal start.)
10. Throttle Control — CLOSED AND THEN OPEN SLIGHTLY ABOUT 1/8 INCH
11. Check Propeller Area — CLEAR (Ensure people/equipment are not in the propeller area.)
12. Ignition Switch — TURN TO START
13. Ammeter — MONITOR (Both left and right batteries should discharge the same amount during start.)

AFTER ENGINE START

1. Throttle Control — ADJUST IDLE (900 to 1000 RPM.)
2. Oil Pressure — CHECK (Annunciator off/pressure gauge reads 30 to 60 psi.)
3. Ammeters — CHECK (Ensure the red alternator annunciator lights are off and that the ammeters are indicating the left and right systems are charging.)
4. Position and Anti-collision Lights — SET AS REQUIRED
5. Avionics Master Switch — SET TO ON POSITION
6. Autopilot Master — ON (Desired mode.)
7. Transponder
 - CHECK ENCODER
 - SET COUNTDOWN TIMER (30 MIN.)
8. GPS — SET NAV/COMS AND WAYPOINTS (As required.)
9. MFD — SET FUEL, CROSS CHECK ENGINE INSTRUMENTS
10. PFD
 - SET PRESELECTED VALUES
 - SET BAROMETRIC PRESSURE
 - CHECK NAV INDICATIONS

CROSSTIE OPERATION

LEFT BUS

1. Left Battery Bus Switch — SET TO OFF (Ensure essential and avionics buses are energized.)
2. LH BUS OFF Annunciator — ILLUMINATED
3. Crosstie Switch — SET TO ON (Ensure right ammeter is showing charge for left and right buses.)
4. LH BUS OFF Annunciator — EXTINGUISHED
5. Crosstie Switch — SET TO OFF
6. Left Battery Bus Switch — SET TO ON

RIGHT BUS

1. Right Battery Bus Switch — SET TO OFF (Ensure essential and avionics buses are energized.)
2. RH BUS OFF Annunciator — ILLUMINATED
3. Crosstie Switch — SET TO ON (Ensure left ammeter is showing charge for left and right buses.)
4. RH BUS OFF Annunciator — EXTINGUISHED
5. Crosstie Switch — SET TO OFF
6. Right Battery Bus Switch — SET TO ON

SPEEDBRAKE™ GROUND OPERATIONS

1. SpeedBrake™ Rocker Switch — ON/UP POSITION
2. Rudder Limiter — TEST (Ensure SpeedBrakes™ have stowed after the Rudder Limiter LED has illuminated.)
3. SpeedBrake™ Rocker Switch — OFF/DOWN POSITION (Ensure SpeedBrake™ annunciator is off and both SpeedBrakes™ are retracted.)
4. Cycle SpeedBrake™

BEFORE TAXI

1. Engine Instruments — CHECK (Within proper ranges - Cross check.)
2. Fuel Gauges — CHECK PROPER INDICATION (Cross check.)
3. Ammeters — CHARGING
4. Wing Flaps — SET TO UP (Cruise position.)
5. Auto Pilot Test — COMPLETE
6. Radio Clearance — AS REQUIRED
7. Taxi Light — SET TO ON (As required.)
8. HSI — Cross Check to Magnetic Compass
9. Passenger Briefing Card — ADVISE PASSENGERS TO REVIEW
10. Brakes — RELEASE

TAXIING

1. Brakes — CHECK FOR PROPER OPERATION (Pilot and Co-pilot side.)
2. PFD Function Check
 - INCLONEMETER
 - RATE OF TURN
 - HSI MOVEMENT
3. Turn Coordinator — CHECK FOR PROPER OPERATION
4. Directional Gyro/HSI — CHECK FOR PROPER OPERATION

BEFORE TAKEOFF (Runup)

1. Run Up Position — MAXIMUM HEADWIND COMPONENT
2. Parking Brake/Foot Brakes — SET OR HOLD
3. Flight Controls — FREE AND CORRECT
4. **Trim Tabs — SET FOR TAKEOFF**
5. Flight Instruments — Indicating Normal (Cross Check.)
6. Fuel Selector Valve — CHECK OUT OF DETENT ANNUNCIATION
7. Fuel Selector Valve — SET TO FULLER TANK
8. **Autopilot Master Switch — READY POSITION**
9. Cabin Doors — CLOSED AND LATCHED (Check that annunciator door light is off.)
10. Passenger Side Door Lock — IN THE UNLOCKED POSITION

IF FULL RUNUP IS NOT REQUIRED, COMPLETE BOLD ITEMS ONLY.

...CONTINUED ON NEXT PAGE...

BEFORE TAKEOFF (Runup Continued)

1. Engine Runup — OIL TEMPERATURE CHECK (Above 75°F.)
2. Throttle — SET TO 1700 RPM
3. Crosstie Switch — SET TO OFF
4. Ignition Switch — R POSITION (25 RPM drop min, 150 RPM drop max, Cross Check.)
5. Ignition Switch — L POSITION (25 RPM drop min, 150 RPM drop max, Cross Check.)
6. Ignition Switch — R/L POSITION (Both.)
7. Propeller — CHECK OPERATION (Cycle from high to low RPM 2-3 times.)
8. Engine Instruments and Ammeter — CHECK (Within proper ranges.)
9. Throttle — SET TO IDLE (Adjust friction lock as required.)
10. Annunciator Bulb Test — ALL LAMPS ILLUMINATED
11. **Radios — SET OR RECHECK**
 - **AUTOPILOT SET AS REQUIRED**
 - **TRANSPONDER SET CODE AND SET TO ALT**
 - **GPS SET COMS AND WAYPOINTS**
 - **MFD SET**
 - **PFD SET PRESELECTED VALUES**

IF FULL RUNUP IS NOT REQUIRED, COMPLETE BOLD ITEMS ONLY.

...CONTINUED ON NEXT PAGE...

BEFORE TAKEOFF (RUNUP CONTINUED)

12. **Wing Flaps — TAKEOFF POSITION**
13. **Doors — LATCHED AND DETENTED**
14. **Annunciator Panel — ALL LIGHTS OFF**
15. **Door Seals — ON**
16. **Backup Boost Pump — ARMED**
17. **Time — NOTED (Start Count-Down Timer.)**
18. **Brakes — RELEASE**

IF FULL RUNUP IS NOT REQUIRED, COMPLETE BOLD ITEMS ONLY.

MINOR SPARK PLUG FOULING (Clear minor plug fouling as follows.)

1. Throttle/Brakes — HOLD BRAKES MANUALLY AND SET THROTTLE TO 2200 RPM
2. Mixture — ADJUST FOR MAXIMUM PERFORMANCE (Lean until RPM peaks, hold for 10 seconds, return to full rich.)
3. Throttle — SET TO 1700 RPM
4. Magnetos — RECHECK (50 RPM difference with a maximum drop of 150 RPM.)
5. Throttle — SET TO IDLE (900 to 1000 RPM.)

NORMAL TAKEOFF

1. Landing/Taxi Lights — AS REQUIRED
2. Mixture — ADJUST AS REQUIRED
3. Power — SET THROTTLE CONTROL TO FULL (2700 RPM.)
4. Elevator Control — LIFT NOSE AT 70-75 KIAS
5. Climb Speed — BEST RATE OF CLIMB SPEED (To 1000 feet AGL.)
6. Wing Flaps — RETRACT (At 400 feet AGL, and at or above the best rate of climb speed.)
7. Landing/Taxi Lights — OFF (Or as required.)

NORMAL CLIMB (1000 feet AGL)

1. Airspeed — SET FOR CRUISE CLIMB (See cruise climb discussion on page 4-21.)
2. Flaps — VERIFY UP
3. Throttle — ADJUST AS NECESSARY (Full Open above 5,000 feet MSL.)
4. Propeller — SET 2700 RPM
5. Fuel Selector Valve — SET TO RIGHT OR LEFT (As appropriate.)
6. CHT — MONITOR
7. Mixture — LEAN AS NECESSARY (If CHTs are within the Normal Range, i.e. <380° F.)
8. Backup Boost Pump — UNARMED

MAXIMUM PERFORMANCE CLIMB

1. Airspeed — 106 to 93 KIAS (Sea level and 10,000 feet respectively)
2. Power Settings — 2700 RPM AND FULL THROTTLE
3. Fuel Selector Valve — SET TO RIGHT OR LEFT TANK (As appropriate.)
4. Mixture — NEAR OR AT FULL RICH (When climbing at V_Y or V_X)
5. Backup Boost Pump — UNARMED
6. CHT — MONITOR

CRUISE

1. Throttle Control — SET AS APPROPRIATE (18 to 28 inches Hg.)
2. Propeller Control — SET AS APPROPRIATE (2000 to 2700 RPM)
3. Mixture — LEAN AS REQUIRED (Use EGT gauge or fuel flow.)
4. Backup Boost Pump — UNARMED
5. Fuel Selector — CHANGE AS REQUIRED (Maximum fuel imbalance—10 gallons.)
6. Vapor Suppression — SET TO ON DURING FUEL TANK CHANGEOVERS

DESCENT

1. Fuel Selector Valve — SET TO RIGHT OR LEFT (As appropriate.)
2. Power Settings — AS REQUIRED
3. Mixture — MOVE TO RICHER SETTING AS REQUIRED
4. Backup Boost Pump — UNARMED
5. Landing/Taxi Light — AS REQUIRED
6. CHT — MONITOR
7. Altimeter — SET (Current barometric pressure.)

EXPEDITED DESCENTS

1. Power — 2400 RPM and 25 INCHES M.P.
2. SpeedBrake™ switch — ON/UP POSITION
3. Airspeed — 165 KIAS
4. SpeedBrake™ switch — OFF/DOWN POSITION

BEFORE LANDING

1. Seat Belts and Shoulder Harnesses — SECURE (Both pilot and passengers.)
2. Mixture Control — SET AS REQUIRED FOR CONDITIONS
3. Fuel Selector Valve — SET TO RIGHT OR LEFT (As appropriate.)
4. Backup Boost Pump — UNARMED
5. Propeller Control — SET TO HIGH RPM
6. Autopilot — SET TO OFF (If applicable.)
7. Landing/Taxi Lights — AS REQUIRED

NORMAL LANDING

1. Approach Airspeed — AS REQUIRED FOR CONFIGURATION
 - Flaps (Cruise Position)..... 95 to 100 KIAS
 - Flaps (Takeoff Position) 90 to 95 KIAS
 - Flaps (Landing Position)..... 80 to 85 KIAS
2. Trim Tabs (2) — ADJUST AS REQUIRED
3. Touchdown — MAIN WHEELS FIRST
4. Landing Roll — GENTLY LOWER NOSE WHEEL
5. Braking — AS REQUIRED

BALKED LANDING (Go Around)

1. Power — SET THROTTLE TO FULL and MAXIMUM RPM (2700 RPM)
2. SpeedBrake™ switch — OFF/DOWN POSITION
3. Wing Flaps — SET TO TAKEOFF POSITION
4. Airspeed — 80 KIAS
5. Mixture — FULL RICH or Set As Appropriate
6. Backup Boost Pump — ARMED
7. Climb — POSITIVE (Establish positive rate of climb.)
8. Wing Flaps — SET TO CRUISE AT BEST RATE OF CLIMB
(More than 400 feet above the surface.)

AFTER LANDING

1. Wing Flaps — SET TO UP (Cruise or Up Position.)
2. Transponder — SET TO STANDBY
3. Door Seal — SET TO OFF
4. Time — NOTE

SHUTDOWN

1. Parking Brake — SET AS REQUIRED
2. Throttle — SET (900 to 1000 RPM)
3. Autopilot — SET TO OFF
4. ELT — CHECK NOT ACTIVATED (Check before shutdown.)
5. Trim Tabs (2) — SET ALL TO NEUTRAL
6. Avionics Master Switch — SET TO OFF (Ensure MFD is ready for shutdown.)
7. All Electrical Equipment — SET TO OFF (Check that all rocker switches are down.)
8. Nav/Com Bypass Switch — SET TO OFF
9. Mixture — SET TO IDLE CUT OFF
10. Ignition Switch — SET TO OFF (After engine stops.)
11. Left and Right Bus Switches — SET TO OFF

REMEMBER TO CLOSE FLIGHT PLAN

MAXIMUM PERFORMANCE OPERATIONS

MAXIMUM PERFORMANCE CLIMB

1. Airspeed — 106 to 93 KIAS (Sea level and 10,000 feet, respectively.)
2. Power Settings — 2700 RPM AND FULL THROTTLE
3. Fuel Selector Valve — SET TO RIGHT OR LEFT (As appropriate.)
4. Mixture — NEAR OR AT FULL RICH (When climbing at V_Y or V_X —See POH.)
5. Backup Boost Pump — UNARMED
6. CHT — MONITOR

SHORT FIELD TAKEOFF (Complete “*Before Takeoff Checklist*” First)

1. Backup Boost Pump — ARMED
2. Wing Flaps — (TAKEOFF Position)
3. Brakes — APPLY
4. Power — SET THROTTLE CONTROL TO FULL
5. Mixture — ADJUST AS REQUIRED (High altitude airport operations may require leaning.)
6. Brakes — RELEASE
7. Elevator Control — MAINTAIN LEVEL NOSE ATTITUDE
8. Rotate Speed — 65 KIAS (5° nose up pitch attitude.)
9. Climb Speed — 78 KIAS (Until clear of obstacles then accelerate to best rate of climb.)
10. Wing Flaps — RETRACT (At 400 AGL.)

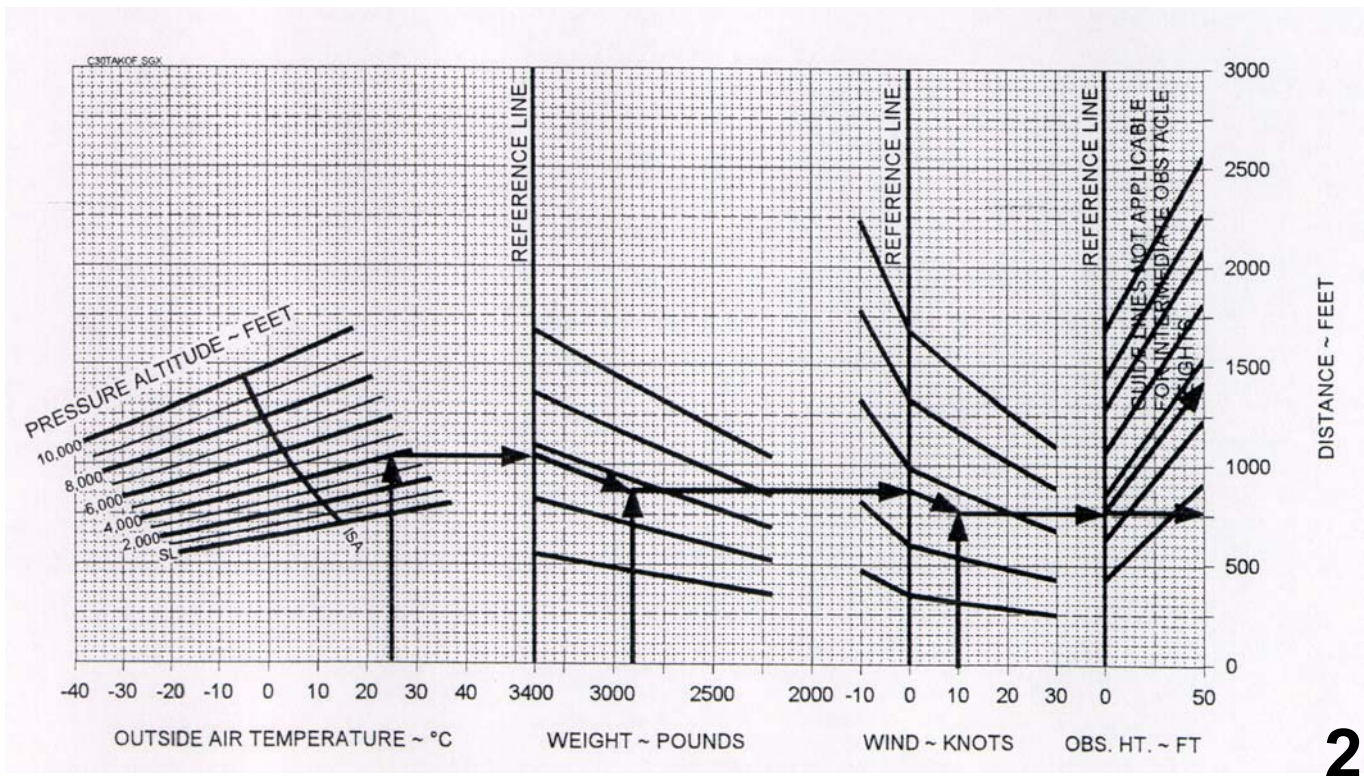
SHORT FIELD LANDING (Complete “*Before Landing Checklist*” First)

1. Initial Approach Airspeed — 90 to 110 KIAS (Depending on flap setting.)
2. Backup Boost Pump — UNARMED
3. Wing Flaps — SET TO LANDING POSITION (Maximum Extension Speed 119 KIAS)
4. Minimum Approach Speed with Wing Flaps in Landing Position — 78 KIAS
5. Trim Tabs (2) — ADJUST AS REQUIRED
6. Power — REDUCE AT THE FLARE POINT
7. Touchdown — MAIN WHEEL FIRST
8. Landing Roll — LOWER NOSE WHEEL SMOOTHLY AND QUICKLY
9. Braking and Flaps — APPLY HEAVY BRAKING AND RETRACT FLAPS (Up Position)

USEFUL INFORMATION

Transponder Codes			AIRSPEEDS	
1200 VFR	7600 Lost Communications		CONFIGURATION	KIAS
7500 Hijack	7700 Emergency		Stall Speed – Flaps Up (0°)	71
Light Signals Used by Control Towers			Stall Speed – Flaps Takeoff (12°)	65
Light Signal	On the Ground	In Flight	Stall Speed – Flaps Landing (40°)	57
Steady Green	Cleared for T/O	Cleared to Land	Maximum Distance Glide Speed (3400 lbs)	106
Flashing Green	Cleared to Taxi	Return to Land	Maximum Distance Glide Speed (2500 lbs)	93
Steady Red	STOP	Yield to Other A/C & Continue Circling	Maximum Endurance Glide Speed (3400 lbs)	85
Flashing Red	Taxi Clear of the Runway	Airport Unsafe – Do Not Land	Maximum Endurance Glide Speed (2500 lbs)	80
Flashing White	Return to Starting Point on Airport	Not Applicable	Best Rate of Climb Speed – Sea Level	106
Alternating Green & Red	EXERCISE EXTREME CAUTION		Best Angle of Climb Speed – Sea Level	80
Low Altitude Flight Watch Frequency		122.0	Weather Briefing	1-800 WX BRIEF 1-800-992-7433

TAKEOFF DISTANCE – TAKEOFF FLAPS



LANDING DISTANCE - LANDING FLAPS

