

Bristell NG-5 NORMAL PROCEDURES

Bristell NG-5 NORMAL PROCEDURES (CONT'D)

PREFLIGHT (CABIN)

AROWS documents .. ON BOARD
 Control stick lock..... REMOVE
 Flight controlsFREE & CORRECT
 Parking brake SET
 Ignitions (Lane A,B) OFF
 Back Up EFIS ON
 GPS Database..... CHECK
 Hobbs/Tach..... RECORD
 Inspections CURRENT
 Fuel Remaining Check & Set L / R
 Circuit breakers..... IN
 Back Up EFIS OFF
 Master switch ON
 Flaps..... 30°
 External lights CHECK
 Master switch OFF
 Canopy CHECK/CLEAN

PREFLIGHT (EXTERIOR)

Left flap, aileron, wing..... CHECK
 Left wing locker LOCKED
 Strobe/Nav Light CHECK
 Fuel vent CHECK
 Pitot tube CHECK
 Tie-down REMOVE
 Landing Light CHECK
 Fuel sump DRAIN
 Fuel quantity..... CHECK
 Fuel filler cap SECURE
 Chocks REMOVE
Left main tire..... 26psi CHECK
 Left air inlet..... CLEAR
 Engine Cowling Check Condition
 Remove the top engine cowling to inspect the muffler for cracks, and check the coolant level

Oil Open Dipstick
 Burp Engine When Cold
 Oil & Coolant Check Levels
 Never add more than ¼ qt. at a time

Engine Mount & Exhaust INSPECT
 Propeller & spinner CHECK
 Induction air inlet CHECK
 Nose wheel chocks REMOVE
 Nose wheel tire..... 20psi CHECK
Right air inlet CHECK
 Chocks REMOVE
 Right main tire 26psi CHECK
 Fuel sump DRAIN
 Fuel quantity..... CHECK
 Fuel filler cap SECURE
 Landing Light CHECK
 Tie-down REMOVE
 Fuel vent CHECK

Strobe/Nav Light CHECK
 Right flap, aileron, wing... CHECK
Right wing locker LOCKED
 Right side of fuselage..... CHECK
 Antennae SECURE
 Right Static Port CHECK
 Empennage..... CHECK
 Tail tie-down REMOVE
 Rudder Gust Lock REMOVE
 Left Static Port CHECK
 Left side of fuselage CHECK
 General inspectionWALK AROUND

BEFORE ENGINE START

Crew & passengers..... BRIEF
 Rudder Pedals Adjust
 Safety Harness Adjust & Lock
 Fuel selector LOWEST TANK
 Parking brake SET
 Circuit breakers..... IN
 Electrical Equipment OFF
 Avionics switch OFF
 Canopy AS DESIRED

STARTING ENGINE

Strobe Lights ON
 Master switch ON
 EFIS ON
 G3X . Confirm Set & Engine Page
 Main Fuel Pump ON
 Ignition (Lane A,B) ON
 Start Power Switch ON (15s Max)
 Warning Lamps should illuminate then Extinguish after about 3 sec.
 Fuel Pressure Approx. 42 PSI
 Throttle 3/4" OPEN
 Propeller area CLEAR
 Start Button..... ENGAGE

AFTER ENGINE START

Throttle ...2,500 RPM / 2,000 RPM
 Start Power Switch OFF
 Oil pressure CHECK
 Engine Instruments CHECK
 Amps Check For Charge
 Lights As Required
 Avionics Switch ON
 Flaps RETRACT
 GTN 750 Check:
 Database Date CHECK
 LCDI, LFLG, VCDI, VFLG . CHECK
 To/From, RMI, OBS, DTK . CHECK
 ATIS/Clearance..... RECORD
 Flight instruments... SET/CHECK

TAXIING

Parking brake..... RELEASE/test
 Flight instruments..... CHECK

ENGINE RUNUP

Parking brake..... SET
 Check area CLEAR
 Canopy AS DESIRED
 Engine Instruments No Red X
 Fuel selector FULLEST TANK
 Set Fuel Timer 30 Minutes
 Elevator Trim Neutral
 Aileron Trim Neutral
 Max. Power ... Check Static RPMs
 Engine Instruments Within Limits
 Throttle 4,000 RPM
 Lane A Off RPM Drop < 180
 Check Lane A Light Comes ... ON
 GPH; Oil PSI; EGT & CLNT Red X'd
 Lane A ON
 Lane A Light..... OFF
 Lane B Off RPM Drop < 180
 Check Lane B Light Comes ... ON
 GPH; Oil PSI & Oil °F Red X'd
 Lane B ON
 Lane Lights off / Red X's OFF
 Throttle Idle -3sec
 Throttle 2,000 RPM
 Aux Fuel Pump ON
 Main Fuel Pump OFF -5sec
 Fuel pressure..... Within Limits
 Main Fuel Pump ON
 Amps Increase load / CHECK

BEFORE TAKEOFF

Safety Harness Adjust & Lock
 Elevator Trim Neutral
 Aileron Trim Neutra
 Flaps SET
 Flight controlsFREE & CORRECT
 Engine gauges..... CHECK
 Flight instruments..... CHECK
 Avionics / Transponder SET
 Circuit breakers..... IN
 Autopilot..... CHECK then OFF
 Takeoff briefing GIVEN

HOLDING SHORT / LINEUP

Trims NEUTRAL
 Flaps SET
 Autopilot..... OFF
 Takeoff Time NOTED
 Landing light ON
 Aux. pump ON
 Transponder VERIFY CODE
 Canopy CLOSED

TAKEOFF

Throttle FULL POWER
 Do not maintain power above 5,500 RPM for more than 5 min
 RPMs & Instruments CHECK
 Nose Wheel Rotate at 30 KIAS
 Lift-Off..... 40 KIAS
 Flaps Retract.. > 65 KIAS & 150 ft

AFTER TAKEOFF / CLIMB

Flaps UP
 Throttle < 5,500 RPM
 Cruise climb 75 KIAS
 Engine instruments CHECK
 Fuel Pumps On if Switching Tanks & Check Fuel Flow Immediately After

CRUISE CHECK

Power SET
 Aux. Pump OFF
 Engine instruments CHECK
 Landing light OFF

PRE-MANEUVER CHECK

Altitude CHECK
 Landing light ON
 Aux. Pump ON
 Fuel selector PROPER TANK
 Safety Harness Adjust & Lock
 Cockpit area SECURED
 Clearing turns EXECUTE

POST-MANEUVER CHECK

Landing light OFF
 Aux. Pump OFF

DESCENT

Power > 3,000 RPM

APPROACH & LANDING

ATIS RECORD
 Approach briefing..... GIVEN
 Landing light ON
 Aux. Pump ON
 Fuel selector PROPER TANK
 Safety Harness Adjust & Lock
 Autopilot..... OFF

AFTER LANDING

Flaps RETRACT
 Throttle 2,000 RPM
 Aux. Pump OFF
 Landing light OFF
 Trims NEUTRAL

ENGINE SHUTDOWN

Throttle IDLE
 Engine Instruments Within Limits
 Avionics master/radios OFF
 Flaps 30°
 Ignitions Lane A, Then Lane B OFF
 Main Pump OFF
 Hobbs/Tach RECORD
 Master switch OFF
 EFIS OFF
 All Electrical Switches OFF

PARKING

Control lock..... INSTALLED
 Canopy..... Secured & Locked
 Master switch OFF
 Tie-downs/chocks SECURE
 Fuel ORDERED
 Cabin cover INSTALLED
 Post Flight WALK AROUND

FUEL MEASURING CHART

Fuel Remaining..... Dipstick on Outboard Side

0.5 in..... 6 gal
 1.0 in..... 7 gal
 1.5 in..... 8 gal
 2.0 in..... 9 gal
 3.0 in..... 10 gal
 3.5 in..... 11 gal
 4.0 in..... 12 gal
 4.75 in..... 13 gal
 5.00 in..... 14 gal
 5.75 in..... 15 gal

Airspeeds (KIAS)	V _{BEST GLIDE} 65	V _{R.SH.FLD} 30	V _A 96	V _{NE} 157	Usable Fuel:	Max. gross weight: 1,320 lbs
	V _{S0} 37	V _X 60	V _{FE} 75	V _{L.APP} 65	Full tanks: 2 x 15.7 gal = 31.4 gal	Max. aft baggage weight: 33 lbs
	V _{S1} 44	V _Y 72	V _{NO} 129	V _{F.APP NORM} 60	Max crosswind: 16 kts	Max. wing locker baggage weight
	V _{R.NORM} 40	V _{ENROUTE CLIMB} 75		V _{F.APP SH.FIELD} 55	Max headwind: 40 kts	2 x 22 lbs = 44 lb

ENGINE FIRE DURING ENGINE START

Starter..... CONTINUE
 Fuel Selector..... Off
 Throttle..... FULL OPEN
 Ignitions (Lane A, B) ... BOTH OFF
 Master Switch..... Off
 Airplane..... EVACUATE
 Fire..... EXTINGUISH

ENGINE FIRE AFTER ENGINE START

Airspeed..... 65 KIAS if During T/O
 Cabin Heater..... CLOSE
 Fuel Selector..... OFF
 Throttle..... FULL OPEN
 Ignitions (Lane A, B) ... BOTH OFF
 Land & Stop If Airborne
 Airplane..... EVACUATE
 Fire..... EXTINGUISH

ENGINE FAILURE DURING TAKEOFF RUN

Throttle..... IDLE
 Brakes..... APPLY
 Ignition (Lane A, B) OFF

ENGINE FAILURE AFTER TAKEOFF

Fuel Selector..... Switch Tanks
 Airspeed..... 65 KIAS
 Landing Site..... SELECT
 Flaps..... AS NEEDED
 Fuel Selector..... OFF
 Ignition (Lane A, B) OFF
 Safety Harness..... TIGHTEN
 Master Switch..... OFF

ENGINE FAILURE IN FLIGHT

Airspeed..... 65 KIAS
 Landing Site..... SELECT
 Both Pumps..... ON
 Fuel Selector..... Switch Tanks
 Throttle..... IDLE
 Back Up Battery (If EMS Failure) ON
 EMS Main Switch..... AUTO
 Ignition (Lane A, B) BOTH ON
 Start Power Switch..... ON
 Starter ON if Prop not windmilling
 Start Power Switch OFF After 15sec

POWER OFF LANDING

Airspeed..... 65 KIAS
 Trim..... ADJUST
 Safety Harness..... TIGHTEN
 Flaps..... AS NEEDED
 Radio/Squawk 7700/ Alert ATC or 121.5

Fuel Selector..... OFF
 Ignition (Lane A, B) OFF
 Master Switch..... OFF
 Approach..... Avoid Steep Turns

PRECAUTIONARY LANDING WITH ENGINE POWER

Landing Site..... SELECT
 Radio/Squawk 7700/ Alert ATC or 121.5
 Landing Site.....
 Low Fly Over/Inspect
 Circle Pattern..... PERFORM
 Flaps..... FULL (On Final)
 Airspeed..... 65 KIAS (On Final)
 Touchdown At Very Beginning of Site
After Stopping the Airplane
 All Switches..... OFF
 Fuel Selector..... OFF
 Airplane..... LOCK

LOW / HIGH OIL PRESSURE

Throttle..... MIN NECESSARY
 Precautionary Landing EXECUTE

VIBRATIONS

Throttle..... REDUCE Vibrations
 Precautionary Landing EXECUTE

ENGINE FIRE IN FLIGHT

Cabin Heater & Air Vents.. CLOSE
 Fuel Selector..... OFF
 Throttle..... FULL OPEN
 Ignitions (Lane A, B) .. BOTH OFF
 Master Switch..... OFF
 Landing Site..... SELECT
 Flaps..... RETRACT
 Airspeed..... 129 KIAS or as Necessary
 Steep Spiral Dive... Max 60° Bank
 Emergency Landing..... EXECUTE
 Airplane..... EVACUATE
 Fire..... EXTINGUISH

WING FIRE

Landing Light..... OFF
 Navigation Lights..... OFF
 Strobe Light Switch..... OFF
 Perform a side slip to keep the flames away from the fuel tank and cabin, and land as soon as possible

FIRE IN THE COCKPIT

Master Switch..... OFF
 Cabin Heater..... CLOSED
 Fire Extinguisher (if available) USE
 All Switches except Ignitions OFF

If Fire Has Not Been Extinguished

Rapid Descent..... EXECUTE
 Panel Power..... ON
 Radio/Squawk 7700/ Alert ATC or 121.5
 Emergency Landing..... EXECUTE
If Fire Has Been Extinguished
 Cabin Vents..... OPEN
 Circuit Breakers - Check Faulty Circuit
 Faulty circuit should not be reset
 Master Switch..... ON
 Avionics Switch / EFIS..... ON
 Land..... ASAP

AUTOPILOT MALFUNCTION

AP Stop Switch..... PUSH

FLAPS MALFUNCTION

Flap Selector Knob.. AS DESIRED
 Flap Circuit Breaker CHECK/RESET
 Electrical Load..... REDUCE
 Back Up Battery..... ON

EMS PWR SUPPLY FAILURE

If the EMS power supplies (Alt A) fails then the ECU automatically switches one-time over to the 2nd EMS power supply (Alt B)
Note: No charging of battery!
 While Alt B runs, no power drop is recognizable. Failure of Both EMS power supplies (Alt A/B) result in engine stoppage
 Back Up Battery..... ON
 Land..... ASAP

DITCHING

Radio..... Mayday on 121.5
 Transponder..... 7700
 Heavy Objects..... SECURE
 Safety Harness..... TIGHTEN
 Flaps..... AS NECESSARY
 Power..... 300 ft/min descent
 Approach
 High Wnd/Heavy Seas..... Into the Wind
 Calm Wnd/Heavy Swells.. Parallel the Swells
 Touchdown ... Lvl Attitude @ 300 ft/min
 Face..... Cushion at touchdown
 Airplane..... Evacuate

LANDING WITH FLAT TIRE

Damaged Wheel.....
 Keep Airborne As Long As Possible
 Directional Control..... MAINTAIN

RECOVERY FROM UNINTENTIONAL SPIN

Warning: Intentional spins are prohibited!
 Throttle..... IDLE
 Ailerons..... NEUTRAL
 Rudder..... Full Opposite Of Spin & Neutralize When Rotation Stops
 Pitch..... Neutral / Push Forward
 Recover From Dive