#### **MiG-19 Normal Procedures**

Condensed by Eduardo "Rudel\_Chw" Ahumada In Blue, the steps that can be omitted when in a hurry. In Red, the emergency steps.

#### 1.- Cockpit Inspection:

- If dark, turn on the flashlight: LALT + L
- On the RH Side Panel, Turn ON the "BATTERY / GROUND POWER" switch. Check the Voltmeter, on the Main Instrument Panel, should read 24 V).
- Activate the canopy lighting, using the two Rheostats on the RH Side Panel.
- Check that the Landing Gear Handle is in the Neutral Position and with the Latch Locked
- Check that all the Circuit Breaker Switches (on the rear RH Side Panel) are in the ON position.
- Check that all the Switches for powering the Flight Control Instruments and Avionics on the RH Side Panel are in the OFF position (except the Battery).
- Check that the RH Side Panel Switches "LH/RH Engines Military Power and Afterburner Disconnect" are OFF.
- Check that the LH Side Panel Switches "LH/RH Engines Oil Cut-Off Valves" are OFF.
- Check that the RH Side Panel "Cockpit Pressurization" Lever is in the OPEN (Forward) position (Right click on it).
- Check that the RH "Cockpit Ventilation" Switch is in the OPEN (Up) position.
- On the Main Instrument Panel, the IK-18 Oxygen Pressure and Flow Indicator is indicating a pressure of 130-150 kg/cm<sup>2</sup>.
- Check the Clock time is set correctly, and the Chronometer is zeroed, ready for Engine starts.
- Adjust the Barometric Altimeter to the QFE given on the Briefing.



- Check the Pneumatic Systems Gauges on the RH Side Panel. The nominal pressures should be:
  - UC (UnderCarriage) Emergency Deployment Air Bottle: 50 kg/cm<sup>2</sup>
  - Flaps Emergency Deployment Bottle: 110-130 kg/cm<sup>2</sup>
  - Main Pneumatic System: 130-150 kg/cm<sup>2</sup>
  - Canopy Pressurization System: 50 kg/cm<sup>2</sup>
- Operate the Engine Throttles over their full operating range to check for free movement and that their respective locks in the STOP and IDLE positions are operating correctly.
- Check for the correct functioning of the Braking System by operating the Brake Lever on the Control Stick and observing the MA-12 Dual Brake Pressure Indicator located on the lower part of the Main Instrument Panel. It should read 10+0.5 kg/cm<sup>2</sup> when the Braking Lever is fully operated.



 Check the Flight Control Governing System ARU-2V Switch, on the LH Panel, should be in the "AUTO" (Up) position.



 Check that the BU-13M AILERON HIDRAULICS Booster Power Switch (1 on the figure), located on the horizontal LH Side Panel, is set to ON (Forward).



- On the LH Side Panel, check that the Oxygen Supply:
  - The Main Feed Valve should be Fully Open (turn Counter Clockwise)
  - Check that the Oxygen System Control Panel Selectors are set to "MIX" and "AUTO" respectively (left click on each).



 If the Aircraft has External Fuel Drop Tanks or Bombs fitted, check that both of the "Suspended Loads" lamps, located on the lower part of the Main Instrument Panel are illuminated.

### 2.- Before Starting the Engines:

- Contact the ground crew to connect the External Ground Power.
- If not already ON, Turn On (Up) the "Battery" switch. Check the Voltmeter, it should read 27-28 V
- The following Lamps should illuminate:
  - OIL for both the Left and Right Engines (red)
  - LEFT and RIGHT GENERATORS DISCONNECTED (red)
  - LOW PRESSURE HYD. SYSTEM, located on the Main Instrument Panel (red)
  - FUEL TANK 2 and FUEL TANKS 3, 4, located on the LH Side Panel (green)
- On the RH Side Panel, turn on the following Switches:
  - MUS-2 SYSTEM STAB.
  - AILERON TRIMMER / PITCH TRIM
  - o GIK AGI
- Align Navigation Instruments:
  - Turn On the EMERG AGI power Switch, located on the RH Side Panel.
  - Press the Right (Cage) Button of the AGI-1 Artificial Horizon, for 3-5 seconds (left click). The instruments sphere will start to move.
  - Press the GIK-1
    Compass Alignment
    Button on the Main
    Instrument Panel for 3-5
    seconds.
  - After 2-3 minutes both Instruments will show the correct aircraft heading and attitude.





- On the "Landing Gear, Flaps and Airbrake PPS-1 Position Indication Panel":
  - Confirm that the three Green Landing Gear Down lights are illuminated.
  - Press the "Lamp Control Test" button on the PPS-1 Panel and confirm that all the PPS-1 Panel lights are illuminated while button is pressed.
- Press the LH Side panel LAMP CONTROL test Buttons (two). The Green Lamps for Fuel Tanks 2, 3-4 and the Red "Fire" Lamp should illuminate.
- Check Fuel:
  - On the Main Instrument Panel, check that the Fuel Quantity Indicator is showing the correct quantity for the Aircraft Fuel Status. The Indicator must be at 1,400 Liters and all the Green Fuel Tank Lamps should be ON.



- The Red Warning Lamps "Tank 1" and "Rest 550" on the Warning Panel should be OFF.
- Check of the Engine Relight System, used for restarting the Engines in-flight:
  - Operate each of the two AIR START SYSTEM Switches for 2-3 seconds.
  - The Red Air Re-Light System Lamps, on the Main Instrument Panel, should illuminate and the sound of the Engine Ignition System should be heard.
  - After the test, turn OFF both Switches and close their protective caps.
- Turn On the EMERG ARK RADIO and RADIO power Switches, located on the RH Side Panel.
- Press the Frequency selector button corresponding to the Control Tower, adjust volume, and request permission for Engine Start.



- Set Radio Altimeter:
  - Turn On the BEACON R.ALT Switch, located on the RH Side Panel.
  - Select the desired Radio Altimeter Minimum Height setting with the selector knob on the LH Side Vertical Panel (use right & left mouse clicks)
- NOTE: If the Engines are to be started using the Aircraft Battery, do not connect any electrical consumers apart from Fuel Tank No. 1 Pump and Generators until both Engines are at Idle RPM.
- The Battery allows for 3 consecutive Engine starts.

### 3.- Starting the Engines:

Confirm that the "Battery" Switch, located on the RH Side Panel, is ON (Up)

- Activate Navigation Lights (front left panel).
- Activate Fuel Pumps, on the LH Side Panel:
  - PUMP TANK 1 : ON
  - PUMP TANK 2 : ON
  - PUMP TANK 3 : ON
  - PUMP TANK 4 : ON
  - The Green Lamps FUEL TANK 2 and FUEL TANK 3-4, adjacents to the Fuel Tank Pump Switches should turn OFF.
- Activate Systems, on the LH Side Panel:
  - FLIGHT INST & COCKPIT HEATING SYSTEM : ON
  - ANTI-SKID SYSTEM : ON
  - ENGINE START SYSTEM : ON
  - FUEL TANKS FIRE EXT SYSTEM : ON
- On the RH Side Panel:
  - GENERATOR AC LEFT & RIGHT : ON
- Put the Left Throttle into the IDLE position (RALT + HOME).
- WARNING: Check that the Throttle is in the IDLE position when starting the Engine and not moved a little forward in between Idle and Nominal positions to avoid a False Start or an excess of Fuel being dumped into the Combustion Chamber that can generate a Fire.
- Lift its cover and press the Left Engine START button for 2-3 seconds. Close the switch cover.
- DURING THE ENGINE START CYCLE THE FOLLOWING MUST BE CHECKED:
  - The Engine EGT may peak at 750°C, but should stabilize under 650 °C at idle RPM.
  - Engine EGT rise should not exceed a rate of 350 °C/second.

- The OIL Warning Lamp should turn OFF at 4,000 RPM, but it could flash sometimes when the Engine is below 6,000 RPM. Above 6,000 RPM, the Warning Lamp should remain OFF.
- The LEFT GENERATOR DISCONNECTED Lamp, on the Main Instrument Panel, should turn OFF when the Engine reaches Idle RPM.
- The MAIN HYD SYSTEM PRESSURE Gauge, on the RH Side Horizontal Panel, should indicate 142 kg/cm<sup>2</sup>.
- The LOW PRESSURE HYD. SYSTEM, on the Main Instrument Panel, should turn OFF.
- The Engine should take no more than 80 seconds to reach Idle RPM.
- Idle for the RD-9B engine is 4100 +200 RPM.
- WARNING: If the OIL Lamp does not turn off when the Engine reaches Idle RPM, immediately move the Throttle to the STOP Position.
- If the Engine EGT remains above 750°C when the engine is at Idle, there are 2 Options:
  - First, an excess of fuel in the combustion chamber may be causing the temperature to rise, so moving the throttle to the Nominal position may dump the fuel and the EGT should reduce below 650 °C. If the temperature does not reduce after 20 seconds, shut down the Engine.
  - Second, shut down the engine and inform the Ground Crew.
- Once the LH Engine has reached Idle RPM, contact Ground crew to disconnect External Ground Power.
- Place the Right Engine Throttle into the IDLE position (RSHIFT + HOME)
- Press the Right Engine START button for 2-3 seconds. Close the switch cover.
- Follow the same steps and checks as with the Left Engine.

- The Engines should only remain at Idle RPM for less than 10 minutes. If you plan to stay at Idle RPM for longer, increase the Engine RPM to 10,000 RPM every 5-7 minutes.
- When the Ambient Temperature is below -5 °C, Engine operation below 9,000 RPM should be for as short as possible in order to avoid ice formation.

## 4.- Pre-Flight Checks:

### 4.1- Engine Checks:

- Ensure that wheel chocks are in place.
- Increase the thrust on both engines to 10,000 RPM for around 40 seconds to warm up the engines.
- When doing the following tests, the Engines are tested in turns.
- Connect the Nose Gear Brake (brake lever horizontal) and increase the RPM to the Nominal Position:
  - The Tachometer should indicate 11,150+50 RPM.
  - Engine EGT should be less than 550 °C.
  - Oil Pressure Warning Lamps should remain Off.
- Operate the Throttle to the Military Power Position (7):
  - The Tachometer should indicate 11,150+50 RPM.
  - Engine EGT should be less than 650°C.
  - The Green Military Power Lamps should lit.



- The Oil Pressure Warning Lamps should be Off.
- To check the Afterburner function, operate the Afterburner Button (8) on the Throttle Quadrant and take a single engine at a time to the Afterburner Regime Position.
  - The "Afterburner" Lamp for the respective Engine should turn illuminate.
  - The Engine EGT temperature should remain below 680 °C.
- WARNING: The Afterburner Test should not exceed the limit of 10 seconds per Engine.
- Check Power Responsiveness of the Engines by moving the throttles from Idle to the Military Power Position within 1.2 2 seconds.
- During this test the EGT increase up to 750 °C and the RPM can rise to 11,600 for a short period of time (3-5 seconds).

• After this, the EGT should stabilize under 650 °C and the RPM at 11,150+50.

#### 4.2- Aileron Control Checks:

• Turn Off the Aileron Boosters (1) and move the Control Stick from the Left to Right and check that the Ailerons move smoothly. The Control Stick should remain in the position selected.



- Take the Control Stick to the extreme Left Position and then Switch On the Aileron Booster.
- The Control Stick should return to the Neutral Position.
- Repeat the same procedure for the extreme Right Position

#### 4.3- Stabilizer Control Checks:

- Ensure the Stabilizer Switch (3) is in the Hydraulic Control Mode. Check the Stabilizers by moving the Control Stick forwards and backwards to the extreme positions. There should be no jamming, rubbing or knocks when moving the Control Stick moves.
- The Main Hydraulic System Pressure Gauge may oscillate a small amount during testing.
- Turn On the Stabilizer Electric Control Mode and check that the stick moves smoothly.
- Operate the Stabilizer Hydraulic Mode and check that it works correctly.
- ARU-2V check: WARNING: To check the ARU-2V there must be pressure in the hydraulic system, or the MUS-2 stabilizer electric control must be activated.
  - Put the ARU Auto/Manual Mode Selector Switch (21) in the Manual position.



- Move the Control Stick to the extreme rearward 0 position.
- Using the "Long Lever Arm" and "Short Lever 0 Arm" Switch (22), increase and decrease the ARU-2V arm to the maximum and minimum values. Confirm this by looking at the ARU Arm Control Indicator. located on the Main Instrument Panel. The Needle on the Indicator should move to the Max, and Min, limits on the Indicator.



- Check the change in the 0 Stabilizer Deflection Angle visually.
- Release the Control Stick and put the ARU 0 Auto/Manual Mode Selector Switch back to the AUTO position.
- The ARU gauge should move to the longest arm 0 setting and the "ARU System in Take-Off and Landing Position" Lamp should illuminate.

#### 4.4- Trim Check:

- Move the Aileron Trim Tab by operating the "Aileron Trim" switch, check the "Aileron Trim Neutral" Lamp every time the trim tab moves through the neutral position.
- Using the Control Stick Pitch Trim Switch, move the Stabilizer Trim forwards and backwards to the extreme positions. The rearward trim should move the Control Stick all the way to the back of its travel and about 90% forward in travel. Check the "Pitch Trim Neutral" Lamp illuminates every time the Control Stick goes through the Neutral position.

#### 4.5- Flaps & Airbrake Check:

- Cycle through the Flap Positions. Check that the green "Flaps Deployed" indication on the PPS-1 panel illuminates when the flaps cycle through the Take-Off and Landing positions.
- Extend and Retract the Airbrakes. Check that the Green "Airbrake Extended" signal on the PPS-1 panel illuminates when the Airbrakes are Extended.
- Main System Hydraulic pressure could fluctuate but should quickly return to 142 kg/cm<sup>2</sup>.

### 5.- Before Taxi:

- Use the radio to ask ATC permission to taxi.
- Ask the Ground Crew to remove the wheel chocks.
- Close the Canopy (LCTL + C). Check that both the "Cockpit Pressurization" lever and "Cockpit Ventilation" switch are in the Open position.



- Turn On the "Sight Heating" power Switch (13). While the ASP-5 Gunsight and AR-18-8 Radar Sight indications appear instantly, the Sight Heating assures correct sight operation at Low Temperatures.
- Turn On the "Sight" power Switch (14). The Yellow Circle with the Center Dot Cannon Aiming Point should appear on the Glass of the ASP-5N Gunsight.
- Turn On the "Izumrud" (Radar) power Switch (15). The RP-5 "Izumrud" radar should take 2-3 minutes to warm up and be ready for use.
- Turn On the "O-57K" Rocket Pods power Switch (16)
- Turn On both "Left" And "Right" Cannon power Switches. (17 & 18)

## 5.- Taxi:

- Ensure that all Gauge indications are correct, Control Boosters are selected On and the Stabilizer Mode Selector is set to Hydraulic Control, verify all System switches are set to the correct positions and that the Cockpit is pressurized.
- Check that the "ARU System in Take-Off and Landing Position" Lamp is illuminated.
- Activate the Taxi Lights (front left panel)
- Extend the Flaps to the 15° "Take-Off" position. The signal lamp "Flaps Deployed" will illuminate on the PPS-1 panel.
- Check that the ASP-5N gunsight is in its "Caged" mode.
- Disconnect the Nose Wheel Brake. (lever vertical)
- Increase the Engine Power settings to approximately 10,050 RPM.
- As the Aircraft begins to move, operate the brake lever to check the Brakes for correct operation.
- Release the brakes and start to taxi towards the designated Active Runway. Speed should be no more than 30 km/h.
- Connect the "PVD Heat." and "Emerg. TP-156" switches (8 & 9) on the RH Side panel. This will activate the heating of both Main and Standby Air Data Probes. This must be done on the runway and disconnected again immediately after landing to avoid Ground Crew injuries from contact with hot Air Data Probes.



### 6.- Take-off:

- Use the radio to ask ATC permission to enter the runway.
- Enter the Active Runway when authorized and taxi straight for 10-15 meters to align with the center line.
- Connect the Nose Wheel Brake. (lever horizontal)
- Remove the Landing Gear Lever Lock.
- Operate the Brakes and increase the Throttles to 9,000-10,000 RPM.
- Release the Brakes and start increasing the Throttle Setting to Military Power or to Afterburner as needed.
- Correct any initial yaw by applying differential braking. As the speed increases, the Rudder becomes effective to correct any Yawing motion.
- As the speed reaches 200 km/h, move the Control Stick backwards to about 2/3 of its travel.
- At a speed between 230 and 250 km/h, the aircraft will gradually lift the nose wheel off the ground.
- The aircraft will easily come off the ground at a speed of 280 +/- 20 km/h.
- Retract the landing gear at an altitude of 15 meters and at no more than 550 km/h.
- Check the Retraction of the Landing Gear by the three illuminated Red lights and the "Retract Gear" signal going Off on the PPS-1 Panel. The Pilot can also check the three Mechanical Indicators in the upper part of the wing for the Main Landing Gear and to the Left of the Canopy for the Nose Landing Gear.
- Move the Landing Gear Selector Lever to the Neutral position.
- Retract the flaps at an altitude of 100 meters, after the Landing Gear has been retracted.
- WARNING: With flaps in 15°, the aircraft should not exceed an IAS of 800 km/h.
- If one of the afterburners fails, indicated by the "AB" Green Lamp Off and an associated EGT below 500
   °C, the Aircraft will Yaw towards the failed afterburner engine. However, this should not complicate the take-

off run. The tendency to Yaw to this side should be counteracted with Rudder and differential braking.

- Once in the airborne, circle the Airbase and land immediately.
- If one of the Red Landing Gear Position indication lights on the PPS-1 fails to illuminate, disconnect the Afterburner and repeat the Extension and Retraction process while maintaining a speed below 500 km/h. If the light still fails to illuminate, return and land immediately.

### 7.- Climb:

- Climb should be performed at Maximum Engine Power, in order to save Time and Fuel.
- The best Climb Speed with Afterburners engaged is M = 0.88-0.9.
- The best Altitude for Afterburner engagement is 7,000-8,000 meters. When engaging the afterburner at this Altitude, the climb will require less Time and Fuel than with Military Power selected.

### 8.- Cruise:

- The extension of the Airbrakes is allowed at all permissible airspeeds but may cause a slight vibration of the aircraft.
- While flying at speeds above M = 1.2, the extension of the airbrakes may generate momentary Longitudinal Oscillations.
- When flying at speeds close to the permissible limits, the following may happen:
  - If rudder pedals begin to pulse, stop accelerating.
  - If the Aircraft starts to Oscillate about the Longitudinal Axis, decrease thrust and smoothly pitch up in to a climb to decrease the speed. Extension of the Airbrakes may cause an increase in the severity of the Oscillations.
- The minimum indicated evolution speed is 350 km/h, at this speed the aircraft is stable and controllable.
- During Training Circuits or Flights with the Landing Gear Extended or Retracted, maintain an IAS of no more than 500 km/h.
- Level Flight at Altitudes between 5,000 and 7,000 meters and with Afterburners engaged will require a considerable Nose Down Trim position.
- When the Aircraft reaches Transonic Speeds in level flight, between M = 0.97-1.02, the Altimeter will display an increase in Altitude of about 600 meters and the Variometer might display as much as a 100 m/s climb. After the aircraft transits this speed zone, the Altimeter will decrease and display an Altitude about 100 meters above the actual and the Variometer will return to zero.
- At Altitudes above 16,000m, the Throttles should not be moved below Military Power, or the Engines will shut down.
- At altitudes from 14,000 to 16,000 meters, the Throttles should be moved slowly, taking a time of no less than 5 seconds to move from the Idle to Military Power positions.

- Flight time under negative G Conditions must be limited to 10 seconds if the engines are operating in Military power or Afterburner, or 15 seconds in any other Engine Throttle Setting.
- At Altitudes above 2,000 meters, the UVPD-15 Cockpit Altitude & Differential Pressure Dual Instrument must show a Cockpit Differential Pressure of about 0.28-0.32 kg/cm<sup>2</sup>. As the Altitude increases above 8,000 meters, the cockpit pressure should be no less than 0.24 kg/cm<sup>2</sup>.
- Cockpit Altitude must be the same as the Altimeter up to 4,000 meters, thereafter it should increase at half the speed of the Altimeter reaching a maximum value of 12,000 meters at the Aircraft Service Ceiling.
- If the Canopy freezes while descending from High Altitudes, check the following:
  - Check that the Cockpit Air Supply Lever is Open.
  - Check that the Canopy is Pressurized.
  - Select the Cockpit Temperature Switch to "Hot" and increase the Engine RPM.

### 9.- Fuel and External Fuel Tanks:

- On an Aircraft with no External Drop Tanks installed:
  - $\circ$   $\,$  100 Liters will be consumed from Fuel Tank No. 1  $\,$
  - Fuel Tanks No. 3, 4 and 2 will be Emptied concurrently
  - Remaining Fuel in Tank No. 1.
- On an aircraft with External Drop Tanks fitted:
  - 100 liters will be consumed from Fuel Tank No. 1
  - All the Fuel from the External Drop Tanks will be consumed
  - Another 100 liters will be consumed from fuel tank No. 1
  - Fuel Tanks No. 3, 4 and 2 will be Emptied concurrently
  - Remaining Fuel in Tank No. 1.

- When the External Fuel Drop Tanks are Empty, the Green "EXT.TANKS EMPTY" Lamp will illuminate.
- When Fuel Tanks No. 3 and 4 are Empty, the Green Lamp below the "PUMP TANK 3" and "PUMP TANK 4" Switches will turn illuminate.
- When Fuel Tank No. 2 is Empty, the Green Lamp below the "PUMP TANK 2" switch will illuminate.
- When the "REST 550L" Red Lamp illuminates on the T-6 Warning Panel, the Aircraft should enough Fuel for a Flight Time of approximately 20 Minutes at an Altitude of 500 meters and a Speed of 500 Km/h.
- When the "TANK 1" Red Lamp illuminates on the T-6 Warning Panel, the Fuel remaining in the Fuel Supply System may still be enough for a Flight Time of 5 Minutes depending on the Altitude and the Engine Throttle Settings.
- Maximum permissible IAS with External Fuel Drop Tanks installed is 1,000 km/h.
- 760-liter External Fuel Drop Tanks should be Jettisoned in the speed range of 400-800 km/h.
- To jettison the tanks, use the Switch (3):
- When Jettisoning the External Fuel Drop Tanks, check that the Green "Suspended Loads" Lamps are no longer illuminated.







### 10.- Before Landing:

#### • Use the radio to contact ATC for landing instructions.



- Safe the Weapons, by turning OFF:
  - O-57K (Rocket Pods)
  - LEFT and RIGHT CANNONS
  - o GCAM and GCAM EXT. (Gun Camera)

- Radar Mode Control Switch on the Radar Control Panel to OFF.
- Gun Trigger in Safe Position.
- Check the Main Hydraulic System Pressure.
- ANTI SKID Switch to ON (up, on Left vertical Panel)
- Set Nosewheel Brake Control Lever to CONNECTED (Horizontal position), to maximize your braking capability.
- Decrease the speed to 500 km/h. Use the Airbrakes if necessary.
- Enter the Landing Circuit of the airfield at an altitude of 500 meters.
- Lower Landing Gear in the Downwind Leg, before the third turn, at a maximum speed of 500 km/h.
- Check three Green lights on the PPS-1 panel. The Red "Retract Gear" Lamp on the PPS-1 must be Off after the Landing Gear is Extended.
- Before the final turn, put the Flaps in the "Take-Off" Position and then into the "Landing" position. Check this by verifying the illumination of the "Flaps Deployed" lamp on the PPS-1 panel.
- WARNING: If after Flap Deployment there is a sudden induced Roll, Retract the Flaps immediately.
- Approach the Base Leg after Flaps Deployment at a speed of 400 km/h.
- Check that the ARU-2V "ARU System In Take-Off And Landing Position" Lamp is illuminated and that the Indicator Pointer is in the leftmost position, indicating a "Long Lever Arm" Position of the System. NOTE: The Lamp may not illuminate at speeds above 420 km/h.
- The final turn must be performed at a speed above 380 km/h. The recovery from this turn should be completed at an altitude of 250 meters.
- After the final turn, decrease the speed to 300-310 km/h.

# 11.- Landing:

- On final approach, the aircraft loses its speed rather slowly and has a shallow Approach Angle. The Aircraft Nose at that Angle nearly intersects the Horizon.
- At an Altitude of 7-8 meters, pull the Control Stick slightly back and stop the descent around an Altitude of 1 meter. After this, close the Throttles to IDLE and proceed with levelling-off.
- While floating, apply the necessary back stick as to touch the runway with two wheels.
- Normal landing speed with Flaps Extended is around 235 km/h.
- Use of the Airbrakes during Landing does not generate any negative effect.
- Once the Nose Wheel is in contact with the ground, retract the Flaps and release the Drag Chute by pressing the "Brake Parachute" button on the upper LH Panel (2).
   WARNING: The Drag Chute must be deployed below a speed of 290 km/h.



- To avoid overheating of the brakes, start to brake when the speed decreases to 200 km/h.
- Landing Distance with all three Wheel Brakes is about 890 meters.
- Landing distance with all three Wheel Brakes and the Drag Chute is 610 meters.

## 12.- After Landing:

- After the Landing Roll-out, disconnect the Nose Wheel Brake (lever vertical) and un-pressurize the Cockpit (Switch 2 back). The Canopy can be opened if necessary.
- Ensure all Armament and Radar Switches are OFF and the Trigger is in its Safe Position.



- Taxi to the Parking Stand and, once Parked, increase Engine RPM to 10,000 for 1 minute.
- After this, put both Throttles in the "Stop" position.
- NOTE: If the Pilot wants to shut down one Engine while Taxiing to the Parking Stand, the LH Engine must be stopped first. This is because the Hydraulic Pump that controls the Afterburner Nozzle Petals is powered by the RH Engine.
- Turn Off all the Cockpit Switches except "Pump Tank 1" and "Battery". Once both Engines have completely stopped rotating, turn these OFF.