

ABORTED ENGINE START

ENGINE START LEVER.....CUTOFF

LOSS OF THRUST ON BOTH ENGINES

ENGINE START SWITCHES.....FLT

ENGINE START LEVERS.....CUTOFF

EGT decreasing:

ENGINE START LEVERS.....IDLE DETENT

*****NG ONLY*****

If EGT reaches 950°C :

ENGINE START Lever (Affected engine).....CUTOFF
then IDLE DETENT

Repeat the above steps as needed.

ENGINE LIMIT/ SURGE/ STALL

AUTOTHROTTLE (if engaged).....DISENGAGE

[Allows thrust lever to remain where manually positioned]

THRUST lever.....RETARD

Retard until indications remain within appropriate limits or the thrust lever is closed.

ENGINE FIRE, SEVERE DAMAGE OR SEPARATION

AUTOTHROTTLE (if engaged).....DISENGAGE

[Allows thrust lever to remain where manually positioned.]

THRUST Lever.....CLOSE

[Assists in recognition of the affected engine]

ENGINE START lever.....CUT OFF

ENGINE FIRE WARNING Switch.....Pull
To manually unlock the engine fire warning switch, press the override and pull.

If the engine fire warning switch or ENG OVERHEAT light remains illuminated:

ENGINE FIRE WARNING switch.....ROTATE L or R

Rotate to the stop and hold for 1 second.

If after 30 seconds the engine fire warning switch or ENG OVERHEAT light remains illuminated:

ENGINE FIRE WARNING SWITCH.....Rotate to remaining bottle

Rotate to the opposite stop and hold for one second.

ENGINE OVERHEAT

AUTOTHROTTLE (if engaged).....DISENGAGE

[Allows thrust lever to remain where manually positioned.]

THRUST Lever.....CLOSE

If the ENG OVERHEAT light remains illuminated:

Accomplish the ENGINE FIRE, SEVERE DAMAGE OR SEPARATION checklist.



UNCOMMANDED RUDDER/ YAW OR ROLL

AUTOPILOT (if engaged).....DISENGAGE

Maintain control of the aeroplane with all available flight controls. If roll is uncontrollable, immediately reduce pitch/ angle of attack and increase airspeed. Do not attempt to maintain altitude until control is recovered.

AUTOTHROTTLE (if engaged).....DISENGAGE

Verify thrust is symmetrical.

RUNAWAY STABILIZER

Control Column.....Hold firmly

AUTOPILOT (if engaged).....DISENGAGE

Do not re-engage the autopilot.
Control aeroplane pitch attitude manually with control column and main electric trim as required.

If runaway continues:

STABILIZER TRIM CUTOFF Switches.....CUT OUT

If runaway continues:

Stabilizer trim wheel.....Grasp & hold

AIRSPEED UNRELIABLE

Aeroplane attitude/thrust.....Adjust
Maintain aeroplane control. Attitude and thrust information is provided in the Performance-Inflight section.

PROBE HEAT.....Check ON

MACH/ AIRSPEED indicators.....Cross check

CABIN ALTITUDE (RAPID DEPRESSURISATION)

OXYGEN MASKS AND REGULATORS.....ON, 100%

Crew Communications.....Establish

PRESSURISATION MODE Selector.....MAN

OUTFLOW VALVE Switch.....CLOSE

If pressurisation is restored, continue manual operation to maintain proper cabin altitude.

Passenger Signs.....ON

If cabin altitude is uncontrollable:

PASSENGER OXYGEN Switch.....ON

Activate passenger oxygen if cabin altitude exceeds or is expected to exceed 14,000 feet.

EMERGENCY DESCENT.....Initiate

Accomplish the EMERGENCY DECENT checklist if the aeroplane is above 14,000 feet MSL and control of cabin pressure is not possible, or cabin pressure is lost.

WARNING HORN – CABIN ALTITUDE OR CONFIGURATION

If an intermittent horn sounds inflight:

OXYGEN MASKS AND REGULATORS.....ON, 100%

Crew communications.....Establish

Do the CABIN ALTITUDE WARNING OR RAPID DEPRESSURIZATION checklist.



If an intermittent horn sounds on the ground:

Assure proper airplane takeoff configuration.



If a steady horn sounds inflight:

Assure proper airplane landing configuration.



EMERGENCY DESCENT

EMERGENCY DESCENT.....Announce

The captain will advise the cabin crew, on the PA system, of impending rapid descent. First Officer will advise ATC and obtain the area altimeter setting.

ENGINE START Switches.....CONT

THRUST Levers.....CLOSE

Reduce thrust to min. or as needed for anti-ice.

SPEED BRAKE.....FLIGHT DETENT

DESCENT.....Initiate

TARGET SPEED.....Mmo/Vmo

If structural integrity is in doubt, limit speed as much as possible and avoid high manoeuvring loads.

Level-off altitude.....Lowest safe altitude or 10,000FT, whichever is higher

EVACUATION

FLAP LEVER.....40

The First Officer selects flaps 40 [speed < 60kts]

GROUND PROXIMITY ALERT

Correct the flight path or the aeroplane configuration.

OVERSPEED

Reduce thrust and, if needed, adjust attitude to reduce airspeed to less than Vmo/Mmo.

APPROACH TO STALL RECOVERY

PF	PNF
<ul style="list-style-type: none"> Advance thrust levers to maximum thrust. Smoothly adjusting pitch attitude * to avoid ground contact or obstacles. Level the wings (do not change flaps or landing gear configuration.) Retract the speedbrakes. 	<ul style="list-style-type: none"> Verify maximum thrust. Monitor altitude and airspeed. Call out any trend towards terrain contact.
<p>When ground contact is no longer a factor:</p> <ul style="list-style-type: none"> Adjust pitch attitude to accelerate the aircraft while minimising altitude loss. Return to speed appropriate for the configuration. 	

* At high altitudes it may be necessary to decrease pitch attitude below the horizon to achieve acceleration.

REJECTED TAKEOFF

LHS	RHS
<p>Call “REJECT”</p> <p>Without delay:</p> <p>Simultaneously close thrust levers disengage autothrottles and apply maximum manual wheel brakes or verify operation of RTO autobrakes.</p> <p>If RTO autobrakes is selected, monitor system performance and apply manual wheel brakes if the AUTOBRAKE DISARM light illuminates or deceleration is not adequate.</p> <p>Raise SPEED BRAKE lever.</p> <p>Apply maximum reverse thrust consistent with conditions.</p> <p>Continue maximum braking until certain the aeroplane will stop on the runway.</p>	<p>Verify actions as follows:</p> <p>Thrust levers closed.</p> <p>Autothrottle disengaged.</p> <p>Maximum brakes applied.</p> <p>Verify SPEED BRAKE lever UP and call “SPEEDBRAKES UP.”</p> <p>If SPEED BRAKE lever not up call “NO SPEEDBRAKES.”</p> <p>Reverse thrust applied.</p> <p>Call out omitted action items.</p>
<p>Field length permitting:</p> <p>Initiate movement of the reverse thrust levers to reach the reverse idle detent by taxi speed.</p>	<p>Call out 60 knots.</p> <p>Select flaps 40.</p> <p>Communicate the reject decision to the control tower and cabin as soon as practical.</p>
<p>When the aeroplane is stopped, perform procedures as required.</p> <p>Review Brake Cooling Schedule for brake cooling time and precautions (refer to Performance Inflight Chapter).</p> <p>Consider the following:</p> <ul style="list-style-type: none"> The possibility of wheel fuse plugs melting The need to clear the runway The requirement for remote parking Wind direction in case of fire Alerting fire equipment Not setting the parking brake unless passenger evacuation is necessary Advising the ground crew of the hot brake hazard Advising passengers of the need to remain seated or evacuate Completion of Non-Normal checklist (if appropriate) for conditions which caused the RTO 	

TERRAIN AVOIDANCE MANOEUVRES

Ground Proximity Caution	
PF	PNF
<p>Correct the flight path or aircraft configuration.</p>	
Ground Proximity Warning	
PF	PNF
<p>Disconnect autopilot. Disconnect Autothrottle. Aggressively apply maximum * thrust.</p> <p>Simultaneously roll wings level and rotate to an initial pitch attitude of 20°.</p> <p>Retract speedbrakes.</p> <p>If terrain remains a threat, continue rotation up to the pitch limit indicator (if available) or stick shaker or initial buffet.</p>	<p>Assure maximum * thrust.</p> <p>Verify all required actions have been completed and call out any omissions.</p>
<p>Do not change gear or flap configuration until terrain separation is assured.</p> <p>Monitor radio altimeter for sustained or increasing terrain separation.</p> <p>When clear of terrain, slowly decrease pitch attitude and accelerate.</p>	<p>Monitor vertical speed and altitude (radio altitude for terrain clearance and barometric altitude for a minimum safe altitude.)</p> <p>Call out any trend towards terrain contact.</p>

Maximum thrust can be obtained by advancing the thrust levers to the take-off or go-around limit. If terrain contact is imminent, advance thrust levers full forward.

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Maximum thrust can be obtained by advancing the thrust levers full forward if the EECs are in the normal mode. If terrain contact is imminent, advance thrust levers full forward.

TCAS MANOEUVRES

A TCAS Traffic Advisory	
PF	PM
<p>Look for traffic using traffic display as a guide. Call out any conflicting traffic.</p>	
<p>If traffic is sighted, manoeuvre as required.</p>	

A TCAS Resolution Advisory, except a climb in landing configuration:

WARNING: A DESCEND (fly down) RA issued below 1000 feet AGL should not be followed.

PF	PM
<p>If manoeuvring is required, disengage autopilot and autothrottle.</p> <p>Smoothly adjust pitch and thrust to satisfy the RA command. Follow the planned lateral flight path unless visual contact with the conflicting traffic requires other action.</p>	<p><i>Attempt to establish visual contact.</i></p> <p><i>Call ATC “TCAS Climb” or “TCAS Descent” as appropriate.</i></p> <p><i>Call out any omissions.</i></p>
<p>Attempt to establish visual contact. Call out any conflicting traffic.</p>	

TCAS Climb RA in the landing configuration:

PF	PNF
<p>Disengage autopilot and autothrottle.</p> <p>Advance thrust levers forward to ensure maximum thrust is attained and call for “Flaps 15”.</p> <p>Smoothly adjust pitch to satisfy RA command. Follow the planned lateral flight path unless visual contact with the conflicting traffic requires other action.</p>	<p>Verify maximum thrust set.</p> <p>Position flap lever to 15 detent.</p> <p><i>Call out any omissions.</i></p> <p><i>When positive rate of climb indicated, call “Positive rate”.</i></p>
<p>After positive rate of climb established, Call for “Gear UP”.</p>	<p>Position gear lever up.</p>
<p>Attempt to establish visual contact. Call out any conflicting traffic.</p>	

WINDSHEAR MANOEUVRES

PF	PNF
<p>MANUAL FLIGHT</p> <ul style="list-style-type: none"> Disengage autopilot Press either TO/GA switch Aggressively apply maximum thrust * Disconnect autothrottle Simultaneously roll wings level and rotate toward an initial pitch attitude of 15° Retract speedbrakes Follow Flight Director TO/GA guidance (if available). <p>AUTOMATIC FLIGHT</p> <ul style="list-style-type: none"> Press either TO/GA switch Verify TO/GA mode annunciation Verify thrust advances to GA power Retract speedbrakes Monitor system performance*** <p>If terrain contact is a threat, continue rotation up to the pitch limit indicator (if available) or stick shaker or initial buffet.</p>	<ul style="list-style-type: none"> Assure maximum * thrust Verify all required actions have been completed and call out any omissions.
<ul style="list-style-type: none"> Do not change flap or gear configuration until windshear is no longer a factor Monitor vertical speed and altitude Do not attempt to regain lost airspeed until windshear is no longer a factor 	<ul style="list-style-type: none"> Monitor vertical speed and altitude Call out any trend towards terrain contact, descending flight path, or significant airspeed changes

Aft control column force increases as the airspeed decreases. In all cases, the pitch attitude that results in intermittent stick shaker or initial buffet is the upper pitch attitude limit. Flight at intermittent stick shaker may be required to obtain a positive terrain separation. Smooth, steady control will avoid a pitch attitude overshoot and stall.

* Maximum thrust can be obtained by advancing the thrust levers to the takeoff or go-around limit. If terrain contact is imminent, advance thrust levers full forward.

NG
 * Maximum thrust can be obtained by advancing the thrust levers full forward if the EECs are in the normal mode. If terrain contact is imminent, advance thrust levers full forward.

*** If TO/GO is not available, disconnect autopilot and autothrottle and fly manually.

WARNING: * Severe windshear may exceed the performance of the AFDS. The pilot flying must be prepared to disconnect the autopilot and autothrottle and fly manually.**

NOSE HIGH RECOVERY

PF	PNF
<ul style="list-style-type: none"> Recognise and confirm the situation 	
<ul style="list-style-type: none"> Disconnect autopilot and autothrottle Apply as much as full nose-down elevator * Apply appropriate nose down stabilizer trim Reduce thrust *Roll (adjust bank angle) to obtain a nose down pitch rate <p>Complete the recovery:</p> <ul style="list-style-type: none"> When approaching the horizon roll to wings level Check airspeed and adjust thrust Establish pitch attitude 	<ul style="list-style-type: none"> Call out attitude, airspeed and altitude throughout the recovery Verify all required actions have been completed and call out any omissions.

NOSE LOW RECOVERY

PF	PNF
<ul style="list-style-type: none"> Recognise and confirm the situation 	
<ul style="list-style-type: none"> Disconnect autopilot and autothrottle Recover from stall, if required * Roll in shortest direction to wings level (unload and roll if bank angle is more than 90°) <p>Recover to level flight:</p> <ul style="list-style-type: none"> Apply nose up elevator *Apply nose up trim, if required Adjust thrust and drag as required 	<ul style="list-style-type: none"> Call out attitude, airspeed and altitude throughout the recovery Verify all required actions have been completed and call out any omissions.

WARNING: * Excessive use of pitch trim or rudder may aggravate an upset situation or may result in loss of control and/ or high structural loads.**