



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

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Attachment 9 – British Airways Rejected Takeoff Procedure

OPERATIONAL FACTORS

DCA15FA185

Pilot Flying	Pilot Monitoring
<ul style="list-style-type: none"> • Call "PULL UP, GO-AROUND". • Disengage autopilot • Disconnect autothrottle(s) • Aggressively apply maximum* thrust • Simultaneously roll wings level and rotate to an initial pitch attitude of 20° • Retract speedbrakes • If terrain remains a threat, continue rotation up to the pitch limit indicator or stick shaker or initial buffet 	<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 gear or flap configuration until terrain separation is assured • Monitor radio altimeter for sustained or increasing terrain separation • When clear of the terrain, slowly decrease pitch attitude and accelerate towards selected speed. Continue with go-around procedures as required 	<ul style="list-style-type: none"> • Monitor vertical speed and altitude (radio altitude for terrain clearance and barometric altitude for a minimum safe altitude) • Call out any trend toward terrain contact

Note: 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 positive terrain separation. Smooth, steady control will avoid a pitch attitude overshoot and stall.

Note: Do not use flight director commands.

Note: * 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.

Rejected Takeoff

The decision to reject the takeoff must be made in time to start the maneuver by V1. The Captain shall call "STOP" if the takeoff is to be rejected, or "CONTINUE" if the takeoff is to be continued. If "STOP" is called, PF shall immediately start the rejected takeoff maneuver. The First Officer is authorized to call "STOP" for items marked with an asterisk.

Prior to 80 knots, the Captain (or First Officer where permitted) should call "STOP" for any of the following:

- activation of the master caution system
- system failure(s)
- unusual noise or vibration
- tire failure
- abnormally slow acceleration
- takeoff configuration warning
- fire or fire warning*

- engine failure*
- predictive windshear warning*
- RAAS runway alert*
- if the airplane is unsafe or unable to fly

Above 80 knots and prior to V1, the Captain or First Officer shall call “STOP” for any of the following:

- fire or fire warning*
- engine failure*
- predictive windshear warning*
- if the airplane is unsafe or unable to fly

At all times when the First Officer is PF he may, in addition call “STOP” for a significant handling difficulty or a blocked runway.

During the takeoff, the crew member observing the non-normal situation will immediately call it out as clearly as possible.

Pilot Flying	Pilot Monitoring
<p>Without delay: Simultaneously close thrust levers, disengage autothrottles, and apply maximum manual wheel brakes or verify operation of RTO autobrakes. If RTO autobrakes is selected, monitor system performance and apply manual wheel brakes if the AUTOBRAKE message is displayed or deceleration is not adequate.</p> <p>Verify speedbrake lever UP. Continue maximum braking until certain the airplane will stop on the runway.</p>	<p>Verify actions as follows: Thrust levers closed. Autothrottles disengaged. Maximum brakes applied. Apply reverse thrust up to the maximum amount consistent with conditions. Verify the speedbrakes are extended, if not manually select speedbrake lever UP, and call “SPEEDBRAKES UP.” If speedbrake lever cannot be selected UP call “SPEEDBRAKES NOT UP.” When both REV indication(s) are green, call “REVERSERS NORMAL”. If there is no REV indication(s) or the indication(s) stay amber, call “NO REVERSER LEFT ENGINE”, or “NO REVERSER RIGHT ENGINE” or “NO REVERSERS”. Call out any omitted action items.</p>
<p>When speed is decreasing below 60 knots and Field Length permitting, call “REVERSE IDLE.” Safe stop assured and taxi speed reached call “FORWARD IDLE.” Stop on the runway. Set Parking Brake.</p>	<p>Call out 60 knots. Initiate movement of the reverse thrust levers to be at the reverse idle detent before taxi speed.</p> <p>Note: If stopping from below 60 knots only reverse IDLE is required.</p>

When the Parking Brake is set, the Captain shall take control and assume the role of P1 by calling “I HAVE CONTROL”.

When the airplane is stopped, perform procedures as required. The Captain’s primary responsibility is to co-ordinate all subsequent activity to ensure a safe outcome; the First Officer may therefore conduct Non Normal checklists unmonitored at the Captain’s command. The Captain should communicate the reject decision to the control tower as soon as practical.

Review Brake Cooling Schedule for brake cooling time and precautions (refer to the Performance Inflight chapter).

Consider the following:

- 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
- releasing the parking brake unless passenger evacuation is necessary
- advising the ground crew of the hot brake hazard
- advising passengers and crew of the need to remain seated or evacuate
- completion of Non-Normal checklist (if appropriate) for conditions which caused the RTO
- maintenance action is required before the next takeoff if RTO braking was activated
- maintenance action is required on RR TRENT engines following deployment of reverse thrust during an RTO.

Runway Awareness and Advisory System (RAAS)

G-STBA - G-STBL

Runway Callouts

Purpose: To provide flight crew the awareness of the runway being approached or entered.

Accomplish the following manoeuvre for any of these aural callouts differ from the flight crew’s expectations:

- APPROACHING (RUNWAY IDENTIFIER)
- APPROACHING RUNWAYS
- ON RUNWAY (RUNWAY IDENTIFIER)

Handling Pilot	Non-Handling Pilot
Verify position and planned runway. Contact ATC for assistance, if needed.	

Distance Remaining Callouts

Purpose: To enhance flight crew's awareness of the approaching runway end during a landing rollout or an RTO.

Accomplish the following manoeuvre for either of the following aural callouts:

- (METERS) REMAINING
- THIRTY REMAINING