NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

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Attachment 17 - Boeing Rejected Takeoff Procedure

OPERATIONAL FACTORS/HUMAN PERFORMANCE

DCA17FA021

WARNING: *If the control column does not provide the needed response, stabilizer trim may be necessary. Excessive use of pitch trim may aggravate the condition, or may result in loss of control or in high structural loads.

WARNING: **Excessive use of pitch trim or rudder may aggravate the condition, or may result in loss of control or in high structural loads.

Rejected Takeoff

The captain has the sole responsibility for the decision to reject the takeoff. The decision must be made in time to start the rejected takeoff maneuver by V1. If the decision is to reject the takeoff, the captain must clearly announce "REJECT," immediately start the rejected takeoff maneuver, and assume control of the airplane. If the first officer is making the takeoff, the first officer must maintain control of the airplane until the captain makes a positive input to the controls.

Prior to 80 knots the takeoff should be rejected for any of the following:

- activation of the master caution
- system failure(s)
- unusual noise or vibration
- tire failure
- abnormally slow acceleration
- takeoff configuration warning
- fire or fire warning
- engine failure
- if a side window opens
- if the airplane is unsafe or unable to fly.
- predictive windshear warning

Above 80 knots and prior to V1, the takeoff should be rejected for any of the following:

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

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

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Captain	First Officer
Without delay: Simultaneously close the thrust levers, disengage the 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 AUTO BRAKES light illuminates or deceleration is not adequate. Raise SPEEDBRAKE lever. Apply reverse thrust up to the maximum amount consistent with conditions. Continue maximum braking until certain the airplane will stop on the runway.	Verify actions as follows: Thrust levers closed. Autothrottle disengaged. Maximum brakes applied. Verify speedbrake lever UP and call "SPEEDBRAKES UP." If speedbrake lever not UP call "SPEEDBRAKES NOT UP." Reverse thrust applied. When both REV indications are green, call "REVERSERS NORMAL." If there is no REV indication(s) or the indication(s) stays amber, call "NO REVERSER LEFT ENGINE", or "NO REVERSER RIGHT ENGINE", or "NO REVERSERS". Call out any omitted action items.
When stopping is assured: Start movement of the reverse thrust levers to reach the reverse idle detent before taxi speed. After the engines are at reverse idle, move the reverse thrust levers to full down.	Call out 60 knots. Communicate the reject decision to the control tower and cabin as soon as practical.

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Captain	First Officer
When the airplane is stopped, perform procedures as required. 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 • 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	

Ground Proximity Warning System (GPWS) Response

Ground Proximity GPWS Caution

Accomplish the following maneuver for any of these aural alerts*:

- CAUTION OBSTACLE
- CAUTION TERRAIN
- TERRAIN
- DON'T SINK
- GLIDESLOPE
- SINK RATE
- TOO LOW FLAPS
- TOO LOW GEAR
- TOO LOW TERRAIN
- BANK ANGLE

Pilot Flying	Pilot Monitoring
Correct the flight path or the airplane configuration.	

The below glideslope deviation alert may be cancelled or inhibited for:

- localizer or backcourse approach
- circling approach from an ILS
- when conditions require a deliberate approach below glideslope
- unreliable glideslope signal.

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Chapter Man - Maneuvers

Section 1 - Non-Normal Maneuvers

Rejected Takeoff

Man.1.3 - Added a step to move the reversers to full down for completeness and consistency with the landing roll procedure. Made some wording changes for standardization and per the Boeing standard.

Chapter CI - Checklist Instructions

Section 2 - Non-Normal Checklists

Non–Normal Checklist Use

CI.2.4 - Added reading the "airplane effectivity (if applicable) as needed to verify the correct checklist" to the Checklist Instructions – Non-Normal Checklist Use.

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