

**DOCKET NO.: SA-515**

**NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C.**

**ATTACHMENT 8**

**COPY OF PILOT'S REJECTED TAKEOFF PROCEDURES  
(1 PAGE)**

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## PILOT'S REFERENCE MANUAL

### ABNORMAL FLIGHT PROFILES

#### REJECTED TAKEOFF (RTO)

##### General

The decision to reject the takeoff rests solely with the Captain, who must be prepared to stop the aircraft using maximum deceleration.

The Captain will place his hand on the top part of the throttles from initial power application until reaching  $V_1$ . As the speed approaches  $V_1$ , a decision to stop is recommended only for an engine failure or where a safety of flight condition exists.

If the Captain decides to reject the takeoff, he will command "ABORT" and will initiate the rejected takeoff procedure. If the First Officer is conducting the takeoff, the Captain will assume control of the aircraft. The First Officer should not abandon control of the aircraft until the Captain has assumed positive control of the aircraft. Maximum braking and reverse thrust should be maintained until a safe stop is assured.

##### Aborting the Takeoff

The Captain will:

- Simultaneously:
  - Command "ABORT" and take control of the aircraft.
  - Apply maximum braking (automatic or manual).
  - Retard the throttles to IDLE.
- Initiate reverse thrust.
- Extend ground spoilers manually, if required.

The First Officer will:

- Call out the airspeed at the time of the abort and during the deceleration phase of the rejected takeoff rollout. The First Officer should also monitor runway distance remaining by referencing the runway lighting, markings, and runway distance remaining signs when available.
- Ensure ground spoiler deployment and reverse thrust activation.
- Notify the tower of the abort, and request emergency equipment if necessary.

##### Once the Aircraft Has Stopped

The Captain will:

- Ensure flight attendants and passengers are informed.
- Initiate the EVACUATION Checklist, if necessary.
- Initiate the appropriate Abnormal checklist.
- Consult the ODM Brake Energy section and observe any limitations.
- Before taxiing, check the status of entry doors and exits. Confirm that passengers are seated.
- Initiate the AFTER LANDING Checklist.

##### Ground Spoilers

Ground spoilers significantly increase brake effectiveness. In order to achieve a maximum performance stop, ensure that ground spoilers have extended.

##### Braking

When applying maximum braking, hold maximum constant brake pedal pressure to maximize the effectiveness of the Anti-skid System (anti-skid cycling). Autobrakes are a backup in the event the Captain is late in applying maximum anti-skid braking. Autobraking begins when the ground spoilers have deployed.

Studies have shown that during high speed rejected takeoffs, the single most important element in successfully stopping the aircraft is an immediate and sustained use of maximum braking no later than  $V_1$ .

High energy stopping may result in brake or tire failure. In order to assist in brake cooling, avoid setting the parking brake. Avoid parking in congested areas. Ensure ground personnel approach the wheel areas only from the front or rear.

##### Reverse Thrust

Maximum reverse thrust should be used until a safe stop is assured. If directional control becomes a problem while in reverse thrust, reduce reverse thrust as necessary or use forward idle to regain directional control.

##### PA Announcements

A rejected takeoff can cause a great deal of anxiety among passengers. A prompt and professional announcement will reassure the passengers and may prevent an unwanted evacuation initiated by flight attendants or passengers. If an emergency evacuation is not required, the Captain should ensure the following announcement is made from the cockpit as soon as practical.

**"THIS IS THE CAPTAIN. WE HAVE DISCONTINUED THE TAKEOFF. PLEASE REMAIN SEATED WITH YOUR SEAT BELT FASTENED."**

When the decision is made to repeat the takeoff or return to the gate, a second PA announcement should be made to inform the passengers. If emergency equipment has been dispatched, advise the passengers that emergency equipment may be visible outside the aircraft.

