

## 05.190.20 Pushback Procedures and Radio Communication

Revised: 05/01/2013

The number one priority involved in pushing back an aircraft is safety. At no time should safety be compromised. During the pushback, the Pushback Driver and Captain must maintain constant communication. The Pushback Driver must also stay in constant communication with the Guide Agent and maintain a clear line of sight. The Pushback Driver and any rider must remain seated at all times during the pushback or when riding back to the gate.

Note: Pushback procedures for AirTran Airways Employees require two Guide Agents for all departures unless wireless headsets are used.

Note: The Guide Agent(s) must walk and not ride. Check with airport authority regarding Guide Agent restrictions and driving regulations. Follow local airport rules to safely complete the tow and transportation of the towing crew to and from the aircraft.

Refer to the following sections for information on Pushback Driver and Guide Agent responsibilities:

- [05.190.23 Pushback Driver Responsibilities During Pushbacks](#)
- [05.190.24 Guide Agent Responsibilities During Pushbacks](#)

The following includes standard pushback procedures and proper radio communication with the Captain:

1. The Pushback Driver inspects the towbar for proper connection at the aircraft and the pushback tug. Refer to [05.120.00 Towbar Procedures](#) for more information.
2. In locations where wireless headsets are used, the Pushback Driver places the communications bag on the forward hinge of the nose gear door and connects the cord to the interphone panel. He tests and verifies the wireless system with the Flight Deck Crew and the Guide Agent as soon as it is practical.

Note: If the wireless system is inoperative, return all wireless components to their storage case (i.e., headsets and communications bag), then either obtain another wireless system from a neighboring gate or use a wired system.

- For B737 aircraft, the communications bag is placed on the forward hinge of the inside number two nose gear door.
  - For B717-200 aircraft, the communications bag is placed on the forward hinge of the outside number one nose gear door.
3. The Pushback Driver conducts a walkaround inspection to make sure cargo bin doors are secured, PC air is disconnected and the cradle is secured, and the safety zone is clear of

all personnel, ground equipment, and foreign object debris (FOD). Refer to [05.190.10 Walkaround Procedures](#) for more information.

4. The Guide Agent positions himself on the side in which the Pushback Driver's vision may be obstructed. Refer to [05.190.24 Guide Agent Responsibilities During Pushbacks](#) for more information.

Caution: If it is determined that both sides of the aircraft will be obstructed from the view of the Pushback Driver at the same time during the pushback, an additional Guide Agent is required. Refer to [05.190.25 Pushback Requiring an Additional Guide Agent](#) for more information.

Note: If the aircraft's interphone communication system is inoperable, or if lightning is reported within eight miles of the airport, a Guide Agent on the number one side of the aircraft relays information between the Captain and the Pushback Driver via hand signals. Refer to [05.190.26 Pushing the Aircraft with Hand Signals](#) for more information.

5. The Pushback Driver initiates communication with the Captain.

Ramp	"Aircraft nose number [state number]."
Captain	"This is aircraft nose number [states number]."
Ramp	"This will be a [state number] person push." "This is a wireless headset push." (when applicable)
Captain	"Understand. A [states number] person push." "Understand. A wireless headset push." (when applicable)
Captain	"A-pumps are off (Southwest Airlines B737 aircraft only), brakes are set."
Ramp	"A's off (Southwest Airlines B737 aircraft only), bypass pin is in, brakes set, walkaround complete. Bin doors and access panels secure. Safety zone is clear."
Captain	"Brakes released. Clear to push."
Ramp	"Brakes released. Clear to start both engines."

Note: AirTran Airways does not turn the "A" hydraulic pumps off during pushback procedures for B737 aircraft. B717-200 aircraft do not have "A" hydraulic pumps.

Note: Under certain conditions, the Pushback Driver may clear the Captain to start the engines one at a time or delay the start until the end of the push (e.g., slick ramp). Always communicate this to the Captain.

6. The Pushback Driver gives the ["Brakes Released"](#) signal to the Guide Agent to advise that the pushback is about to begin. During the pushback, the Guide Agent gives a **continuous** ["All Clear"](#) signal indicating that the path behind the aircraft is clear of all obstacles. Stop the aircraft if all Guide Agents are not in sight or are not providing the "All Clear" hand signal. Resume aircraft movement once all Guide Agents are in sight

and are providing the "All Clear" hand signal. **The aircraft must be pushed at walking speed.**

7. The Captain communicates the starting sequence of the engines to the driver.

Captain	<b>"Starting number [states number]."</b>
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8. The Pushback Driver signals the Guide Agent which engine is starting.
9. The Captain communicates the starting of the second engine to the driver (when applicable).

Captain	<b>"Starting number [states number]."</b> (Starts the remaining engine when applicable)
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10. The Pushback Driver signals the Guide Agent that the remaining engine is starting (when applicable).

WARNING: If the aircraft moves forward at any time during this procedure, the Captain should immediately set the brakes. The Pushback Driver must communicate verbally with the Captain to determine the cause.

11. Once the pushback is complete, the Pushback Driver should request to have the aircraft brakes set.

Ramp	<b>"Set parking brakes please."</b>
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Captain	<b>"The parking brakes are set."</b>
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12. The Pushback Driver gives the "[Brakes Set](#)" signal to the Guide Agent.
13. After receiving the "Brakes Set" signal from the driver, the Guide Agent disconnects the towbar. Refer to [05.120.10 B737 Towbar Procedures](#) for more information.
14. The Pushback Driver backs up to a distance where the end of the towbar is even with the nose of the aircraft.
15. The Guide Agent removes the bypass pin from the nose gear.
16. The Guide Agent proceeds to the interphone panel to wait for instructions from the Pushback Driver.

Ramp	<b>"Towbar has been disconnected and bypass pin has been removed."</b>
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Captain	<b>"You are cleared off."</b>
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Ramp	<b>"Have a nice day."</b>
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17. The Pushback Driver gives the "[Disconnect Headset](#)" signal to the Guide Agent.
18. The Guide Agent disconnects the cord and places it on the pushback tug. In locations where wireless headsets are used, the Guide Agent ensures all wireless components (i.e., headsets and communications bag) are removed and accounted for.
19. The Pushback Driver backs the pushback tug in clear sight of the Flight Deck Crew.

20. The Guide Agent moves to a position in clear view of the Captain, making sure not to cross over the towbar while doing so. After visually clearing the area of all personnel, ground equipment, and FOD, the Guide Agent displays the bypass pin to the Captain prior to giving the "[Clear to Taxi](#)" hand signal. In locations where wireless headsets are used, the Guide Agent displays the communications bag to the Flight Deck Crew.

Note: In a three-person pushback situation, the Guide Agent on the number one side stands in clear view of the Captain until the "[Clear to Taxi](#)" hand signal is given by the Guide Agent on the number two side of the aircraft.

21. In locations where wireless headsets are used, the Guide Agent returns the wireless headsets and communications bag to the storage case on the pushback tug.
22. The Pushback Driver and Guide Agent, abiding by the "no seat, no rider" rule, proceed back to the terminal after receiving a wave, salute, or taxi light flash indicating "All Clear" from the Flight Deck Crew.

Caution: The pushback tug may only be driven in reverse gear with the towbar connected to the forward hitch. The pushback may only be driven in forward gear if the towbar is attached to the rear hitch.

If the wireless system is inoperative, it must be tagged with a SA-M 449 *Unsafe Parts Tag* and returned to a Supervisor for troubleshooting.

## **05.190.23 Pushback Driver Responsibilities During Pushbacks**

Revised: 08/04/2010

All Ramp Employees are empowered to stop operations whenever injury or damage is imminent.

The Employee who stops the operation must inform Station Leadership and complete an online irregularity report via SOPI on SWALife. An investigation of the situation will help determine the need for communication with affected Employees and/or Customers. The investigation may include interviewing Employees and witnesses; examining the workplace for factors associated with the situation; determining causes; taking corrective actions for future prevention of the situation; and recording the findings and actions taken.

The Pushback Driver is ultimately responsible for ensuring that the aircraft is secured, all personnel involved in the pushback are in proper position, and the pushback is conducted in a safe manner. The Pushback Driver is required to use the [WN-1095 Prepush Checklist](#) when planning a pushback or tow. Follow pushback procedures and radio communication. For more information, refer to Section [05.190.20 Pushback Procedures and Radio Communication](#).

For more information regarding towing procedures, refer to Section [05.190.30 Towing Aircraft](#).

### **Prior to Pushback**

- Verify that the towbar and pushback tug are properly hooked up to the aircraft. For more information, refer to Section [05.120.10 B737 Towbar Procedures](#).
- Ensure that the headset is working prior to starting the pushback. For more information, refer to Sections [05.190.21 Headsets/Yellow Cords](#) and [05.190.22 Use Of Headsets](#).

Note: If the aircraft's interphone communication system is inoperable, or if lightning is reported within eight miles of the airport, the Guide Agent will relay information between the Captain and the Pushback Driver via hand signals. For more information, refer to Section [05.190.26 Pushing the Aircraft with Hand Signals](#).

- Verify that all panels and doors are secure and that the safety zone is clear of all personnel, equipment, and foreign object debris (FOD).
- Plan the pushback. Problem areas should be anticipated to determine where the Guide Agent should be positioned in order to provide the greatest visibility and ensure that the path is clear of obstacles.
- Prior to removing the chocks from the nose gear, verify with the Flight Crew that the aircraft brakes have been set.
- Communicate to the Guide Agent the planned direction and stopping point of the pushback.
- Be on the headset after checking the jetbridge for bags and before the jetbridge pulls back.
- Visually verify that the jetbridge has been pulled clear of the aircraft before beginning the pushback.

- At the beginning of the pushback, ensure the wheels of the pushback tug are aligned forward (not turned).
- Establish and then maintain constant communication with the Captain.
- Give the "[Brakes Released](#)" signal to the Guide Agent to advise that the pushback is about to begin.
- Before beginning the push, the Pushback Driver must receive the "[All Clear](#)" hand signal from the Guide Agent to indicate that the path behind the aircraft is clear of all obstacles.
- Visually inspect the clearance for the wing opposite the Guide Agent.

### **During Pushback**

WARNING: Never pull an aircraft forward with the engines running.

- Stop the aircraft if all Guide Agents are not in sight or not providing the "[All Clear](#)" hand signal. Resume aircraft movement once all Guide Agents are in sight and are providing the "All Clear" hand signal.
- Push back the aircraft at **walking speed**.
- Remain seated at all times.
- During turns, never allow the towbar to pass the white safety line of the nose gear door.

### **At the End of the Pushback**

- Ensure that the final positions of the pushback tug, towbar, nose gear, and aircraft meet either the recommended or acceptable position:

**Recommended:** At the completion of the pushback, ensure that the pushback tug, towbar, nose gear, and aircraft are in alignment (i.e., straight, forward position).

**Acceptable:** In situations where it is not possible to accomplish the recommended alignment listed above, it is acceptable at the completion of the pushback to ensure the pushback tug, towbar, and nose gear are in alignment (i.e., straight, forward position). Although the aircraft will still be at an angle, having the pushback tug, towbar, and nose gear in alignment allows the pushback tug driver to reverse straight back once the towbar is disconnected.

**Not Acceptable:** At the completion of the pushback, it is not acceptable for the pushback tug to be at a different angle than the towbar and nose gear. If the pushback tug, once released, has to turn instead of pulling straight back, the towbar can strike the nose gear, causing damage to the nose gear wheel.

- Place the pushback tug in neutral when the Captain verifies that the brakes are set (at the completion of the pushback).
- Follow towbar disconnecting procedures. For more information, refer to Section [05.120.10 B737 Towbar Procedures](#).

Caution: Ensure that the end of the towbar does not strike the nose gear.

- Maintain headset communication until cleared off by the Flight Crew.

Note: The Flight Crew will not clear the Pushback Driver off until both engines have been started.

- After the headset is disconnected, move the pushback tug back in clear sight of the Flight Crew.

Caution: Once the aircraft has been disconnected, the pushback may only be driven in reverse while the towbar is attached to the forward hitch. Anytime the towbar is attached to the rear hitch, the pushback may only be driven in forward gear.

## **05.190.24 Guide Agent Responsibilities During Pushbacks**

Revised: 03/01/2012

All Ramp Employees are empowered to stop operations whenever injury or damage is imminent.

The Employee who stops the operation must inform Station Leadership and complete an online irregularity report via SOPI on SWALife. An investigation of the situation will help determine the need for communication with affected Employees and/or Customers. The investigation may include interviewing Employees and witnesses; examining the workplace for factors associated with the situation; determining causes; taking corrective actions for future prevention of the situation; and recording the findings and actions taken.

A Guide Agent must be in position to ensure that the path of the aircraft is clear of obstacles whenever pushing off or towing an aircraft into a parking area (e.g., gate, remote, hard stand). Refer to [05.190.30 Towing Aircraft](#) for more information.

All signals provided by the Guide Agent must be given using either the day wands or the night wands. Refer to [05.100.10 Wands](#) for more information.

If more than one Guide Agent is needed, refer to [05.190.25 Pushback Requiring an Additional Guide Agent](#).

### **Prior to Pushback**

- Communicate with the Pushback Driver the planned direction and stopping point.
- The Guide Agent must always be positioned on the side of the aircraft where the Pushback Driver's vision will be obstructed but in full view of the Pushback Driver.
- Visually ensure that the safety zone is clear. Relay this information to the Pushback Driver using the appropriate hand signals. Before beginning the push, the Pushback Driver must receive the "[All Clear](#)" hand signal from the Guide Agent. In wireless headset locations, the Guide Agent must say "all clear" at the same time that he gives the "All Clear" hand signal. Refer to [05.100.20.S All Clear](#) for more information.

### **During Pushback**

WARNING: Stay at least 15 ft from the engine intakes. Observe the implied safety zone guidelines anytime the aircraft is in motion. Refer to [05.090.00 Aircraft Safety Zone](#) for more information.

WARNING: Never approach the area directly behind the engine exhaust.

- Continue to communicate the "[All Clear](#)" hand signal to the Pushback Driver indicating that the path of the aircraft is clear of all obstacles and that it is safe to proceed. In wireless headset locations, the Guide Agent must say "all clear" at the same time that he gives the "All Clear" hand signal. Refer to [05.100.20.S All Clear](#) for more information. If it is not safe to proceed, cross the wands to signal the Pushback Driver to stop. In wireless headset locations, the Guide Agent must say "stop the push" at the same time



that he gives the "Emergency Stop" hand signal. Refer to [05.100.20.F Emergency Stop](#) for more information.

- The Guide Agent must be aware of his position relative to the pushback tug and the aircraft at all times.
- Adjust position as needed while the aircraft is in motion to maintain visual contact with the Pushback Driver and to maintain the ability to see the area in front of the aircraft's path.

### **At the End of the Pushback**

- Receive the "[Brakes Set](#)" signal from the Pushback Driver before approaching the wheel well area to disconnect the towbar. In wireless headset locations, after the Pushback Driver gives the "[Brakes Set](#)" hand signal and says "brakes set," the Guide Agent must repeat "brakes set." **Never** step over the towbar. Cross from one side of the towbar to the other by walking behind the pushback tug only. Refer to [05.120.00 Towbar Procedures](#) for more information.
- Disconnect the towbar from aircraft. Refer to [05.120.00 Towbar Procedures](#) for more information.
- Remove the bypass pin from the nose gear.
- Disconnect the headset from the interphone panel after receiving the signal from the Pushback Driver, then close and secure the panel door. In wireless headset locations, the Guide Agent must remove the communications bag.
- Once the pushback tug is clear of the aircraft, proceed to an area in clear view of the Captain and display the bypass pin prior to giving the "[Clear to Taxi](#)" hand signal. In wireless headset locations, the Guide Agent must also display the communications bag.

Note: If any latches cannot be secured, inform the Pushback Driver who informs the Captain. If necessary, Operations may need to contact Southwest Airlines Line Maintenance or Maintenance Control. Marshal the aircraft out if necessary (due to obstructions or limited visibility).

### **General Responsibilities**

- Conduct all physical movement in a safe manner.
- To ensure the safety of Customers and Employees, the Guide Agent(s) must be on foot at a normal walking speed at all times whenever pushing off or towing an aircraft into a parking area.

Note: The Guide Agent(s) must walk and not ride. Check with airport authority regarding Guide Agent restrictions and driving regulations.

- Use appropriate hand signals at all times.

Note: If the aircraft's interphone communication system is inoperable or lightning is reported within eight miles of the airport, a Guide Agent on the number one engine side

relays information between the Captain and the Pushback Driver via hand signals. Refer to [05.190.26 Pushing the Aircraft with Hand Signals](#) for more information.

- The "no seat, no rider" rule applies when returning to the gate. Refer to [05.070.00 Ground Equipment General Driving Rules](#) for more information.

Refer to [05.190.25 Pushback Requiring an Additional Guide Agent](#) if more than one Guide Agent is needed.