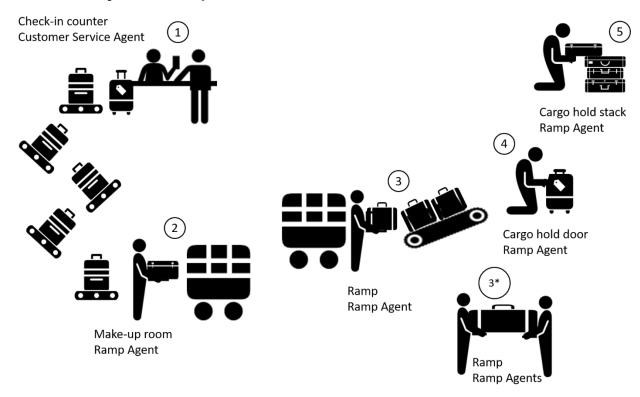
Washington State Department of Ergonomic Rulemaking Scoping

Preliminary Scoping Assessment Ground Crew - Process Flow

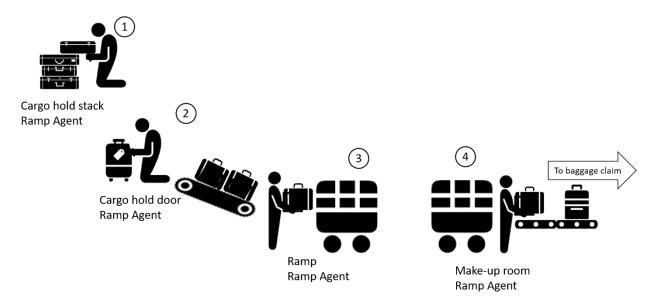
Narrow-body Aircraft Upload



- 1. A Customer Service Agent may need to lift the bag from the scale to a take-away conveyor. A sorting system sends each bag along a series of automated conveyors inside the terminal.
- 2. A Ramp Agent lifts bags and cargo from the conveyor, which can be a carousel, a straight conveyor (single pier), or a double level set of straight conveyors (double decker piers). Bags are loaded onto carts for delivery to the ramp.
- 3. A Ramp Agent drives a tug, towing baggage carts, to the ramp. One or more Ramp Agents take bags off the carts and places them on a belt loader, a powered conveyor that takes them up to the door of the aircraft. 3* oversize and overweight items (luggage, cargo, wheelchairs, etc.) are team lifted.
- 4. At the cargo hold door, a Ramp Agent pushes or throws bags to another Ramp Agent who is deeper in the cargo hold. Headroom is limited, so Ramp Agents inside the cargo hold need to kneel, squat, stoop, or sit on the floor.
- 5. The other Ramp Agent stacks bags from floor to near ceiling height. They leave a gap at the top for the fire suppression system.

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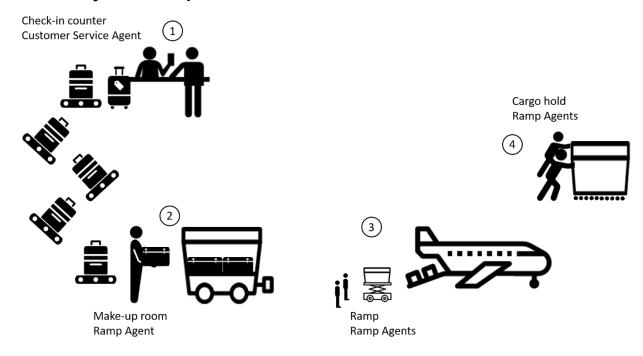
Narrow-body Aircraft Download



- 1. A Ramp Agent pulls bags off the stack and slides or throws them to the Ramp Agent at the door of the
- 2. The Ramp Agent slides bags onto the belt loader.
- 3. Ramp Agents take bags from the belt loader and stack them in carts. The carts are then taken by tug to the make-up room.
- 4. Ramp Agents unload the carts onto a conveyor that takes the bags to baggage claim.

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Wide-body Aircraft Upload



- 1. A Customer Service agent may need to lift the bag from the scale to a take-away conveyor. A sorting system sends each bag along a series of automated conveyors inside the terminal.
- 2. A Ramp Agent lifts bags and cargo from the conveyor and loads into Unit Load Devices (ULDs) for delivery to the ramp.
- 3. ULDs are loaded into the cargo hold by a cargo loader, a mechanized device that adjusts to the height of the cargo hold door and automatically transfer the ULD into the hold.
- 4. Ramp Agents push the ULDs into place on rollers. On some aircraft, ULDs are automatically secured in place. In other aircraft, Ramp Agents must bend down to manually secure them.

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Wide-body Aircraft Download



- 1. Ramp Agents unlock the ULDs and push them to the cargo hold door.
- 2. ULDs are transferred to the cargo loader, and then moved to carts to be driven by tug to the terminal.
- 3. Ramp Agents unload the ULDs onto a conveyor that takes the bags to baggage claim.

Cancelled flights and unclaimed luggage

If a flight is cancelled, checked baggage is taken to a baggage service office or other location for passenger retrieval. Bags might be lifted onto carts or onto shelves. Heavier bags with wheels can be rolled and left at floor level. Unclaimed luggage at baggage claim is also handled in a similar way.