

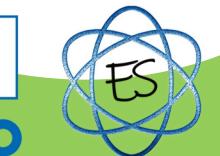


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HED-000086424



# Interactive game created on the Moodle platform using HTML5



POLITÉCNICA

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MENZIES  
AVIATION

The video scenario shows the ground crew procedures for a Ryanair Boeing 737. The student is required to make decisions at key moments.



The initial scene shows the Ryanair aircraft arriving at the gate. The interactive video starts with this introduction.

The student needs to choose the first action taken by the ground crew.



What is the first action taken by the ground crew after the aircraft stops at the gate?



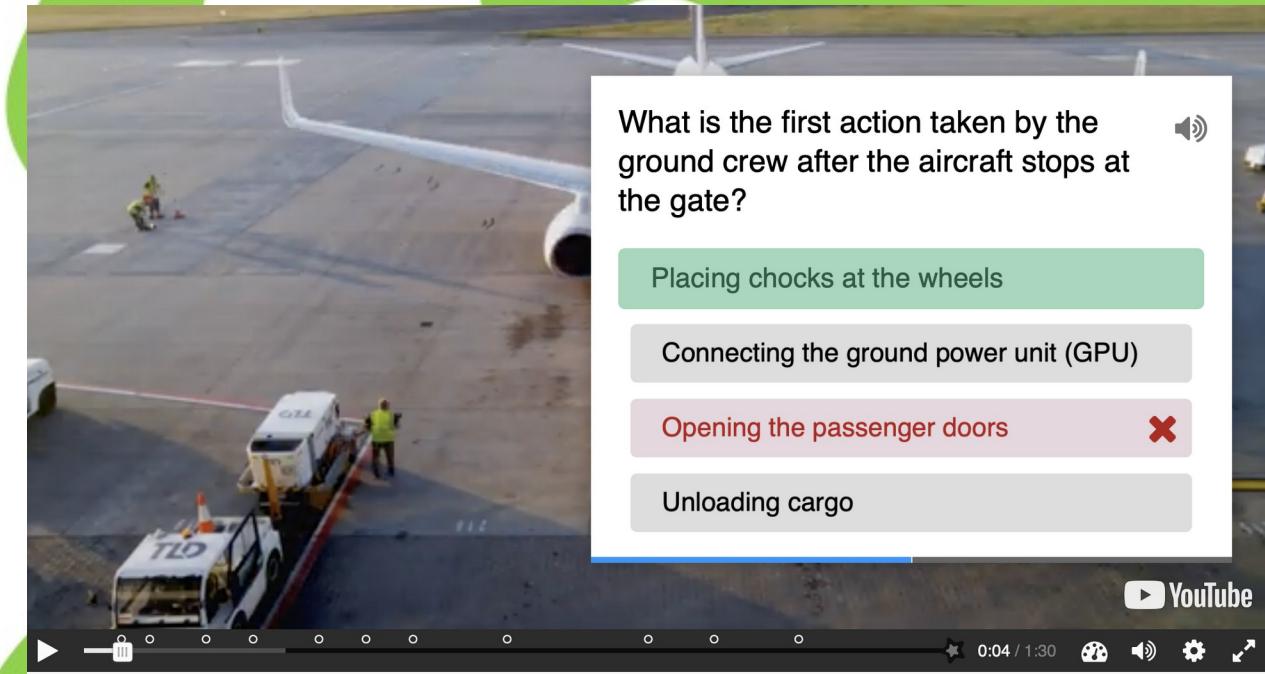
Placing chocks at the wheels

Connecting the ground power unit (GPU)

Opening the passenger doors

Unloading cargo

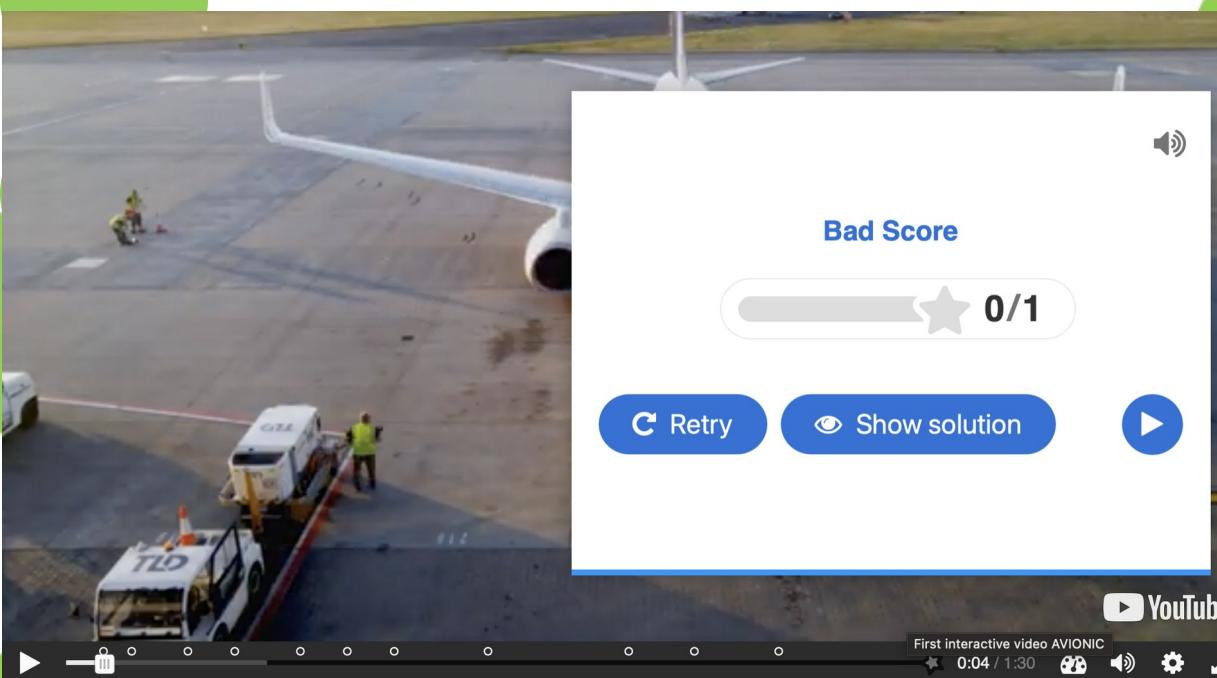
If the student selects an incorrect answer, they receive negative feedback ("Bad Score")  and are given the option to retry.



What is the first action taken by the ground crew after the aircraft stops at the gate?

- Placing chocks at the wheels
- Connecting the ground power unit (GPU)
- Opening the passenger doors** 
- Unloading cargo

YouTube 0:04 / 1:30



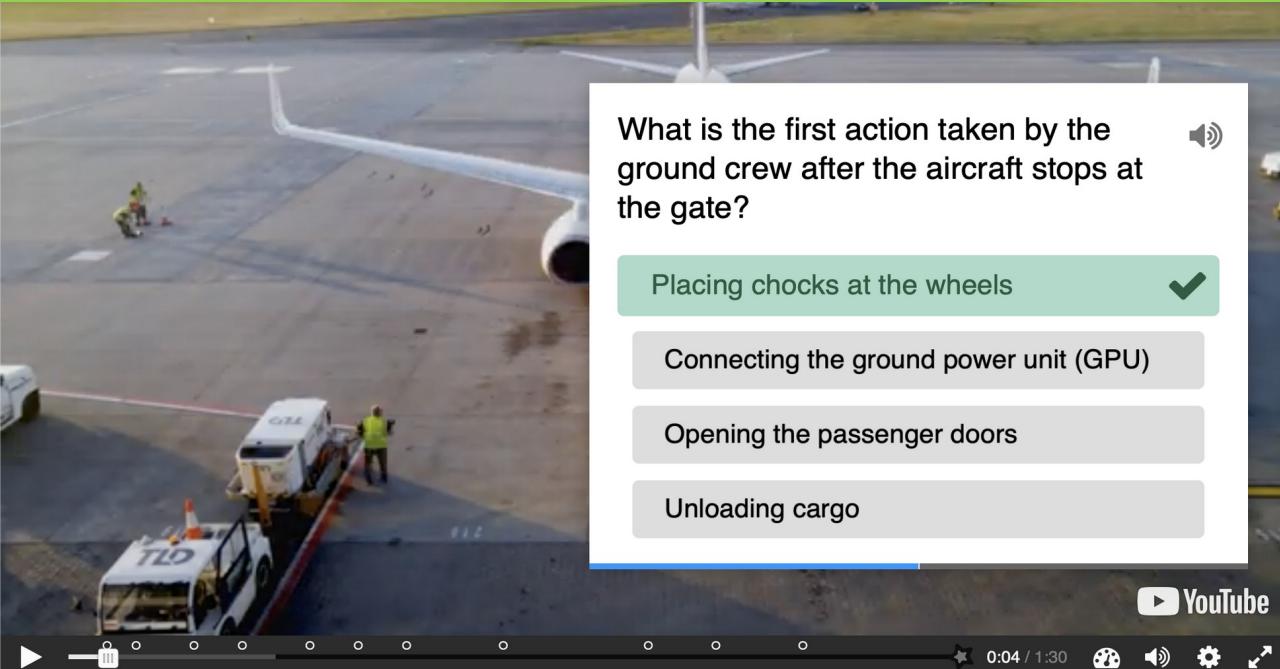
**Bad Score**

0/1

 Retry  Show solution

YouTube

First interactive video AVIONIC 0:04 / 1:30



What is the first action taken by the ground crew after the aircraft stops at the gate?

Placing chocks at the wheels

Connecting the ground power unit (GPU)

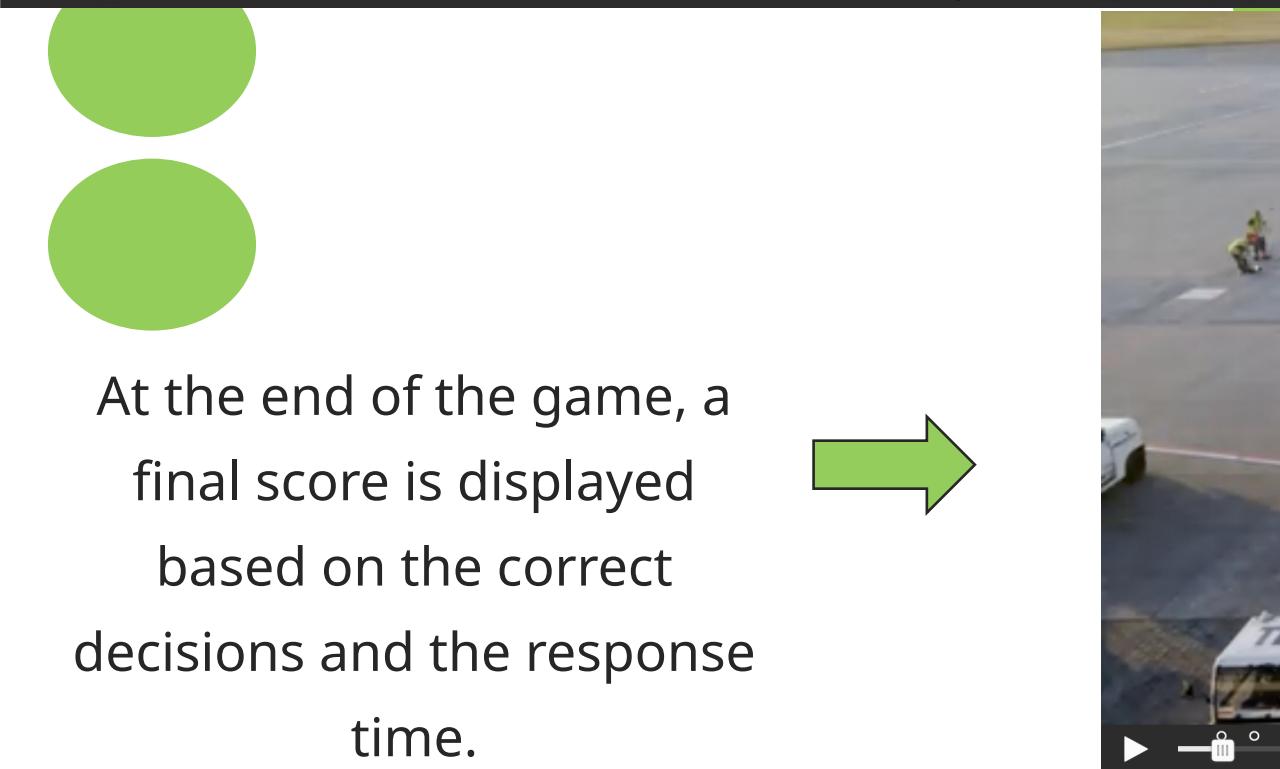
Opening the passenger doors

Unloading cargo

YouTube 0:04 / 1:30

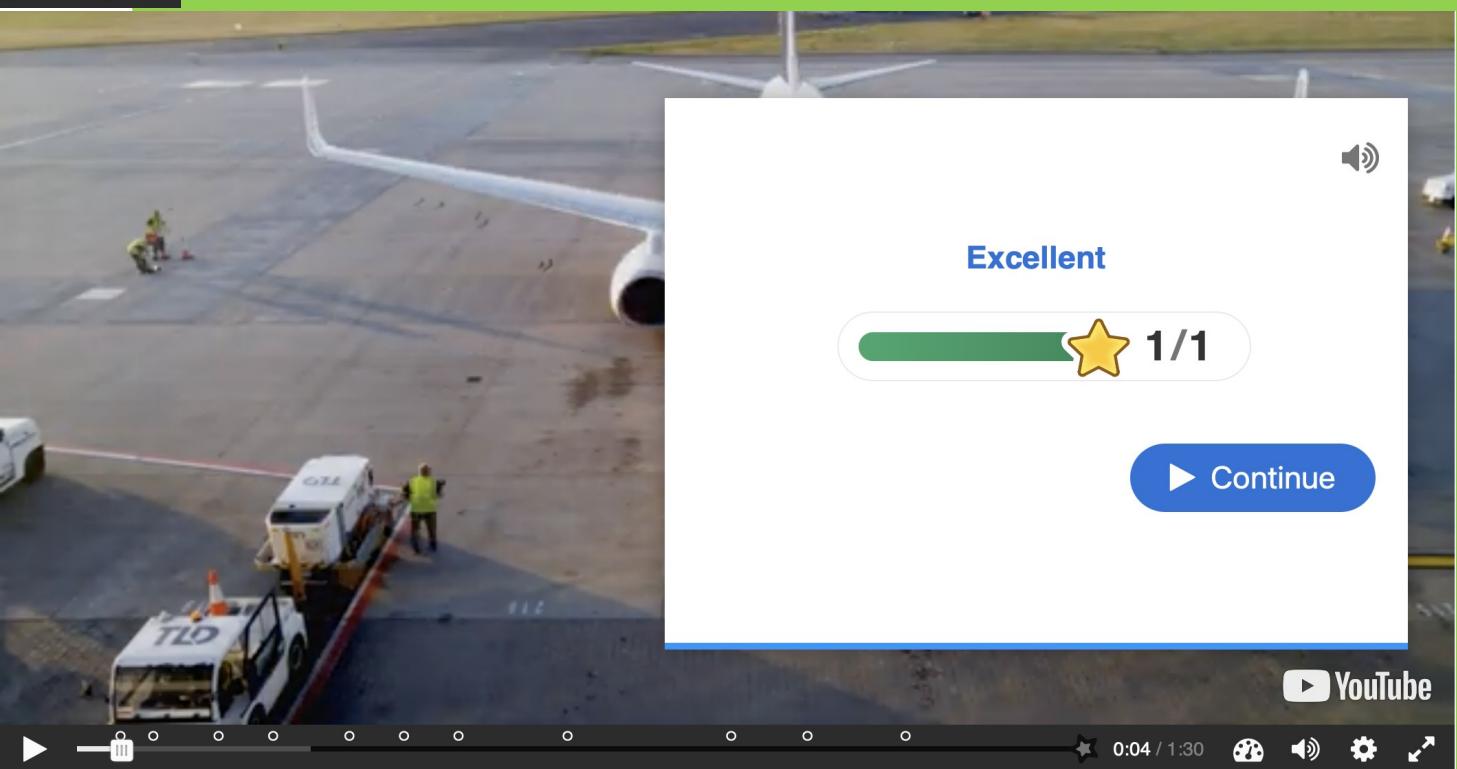


If the answer is correct ("Placing chocks at the wheels"), the student receives positive feedback, and the game continues with the next actions.



At the end of the game, a final score is displayed based on the correct decisions and the response time.

Green arrow pointing right.



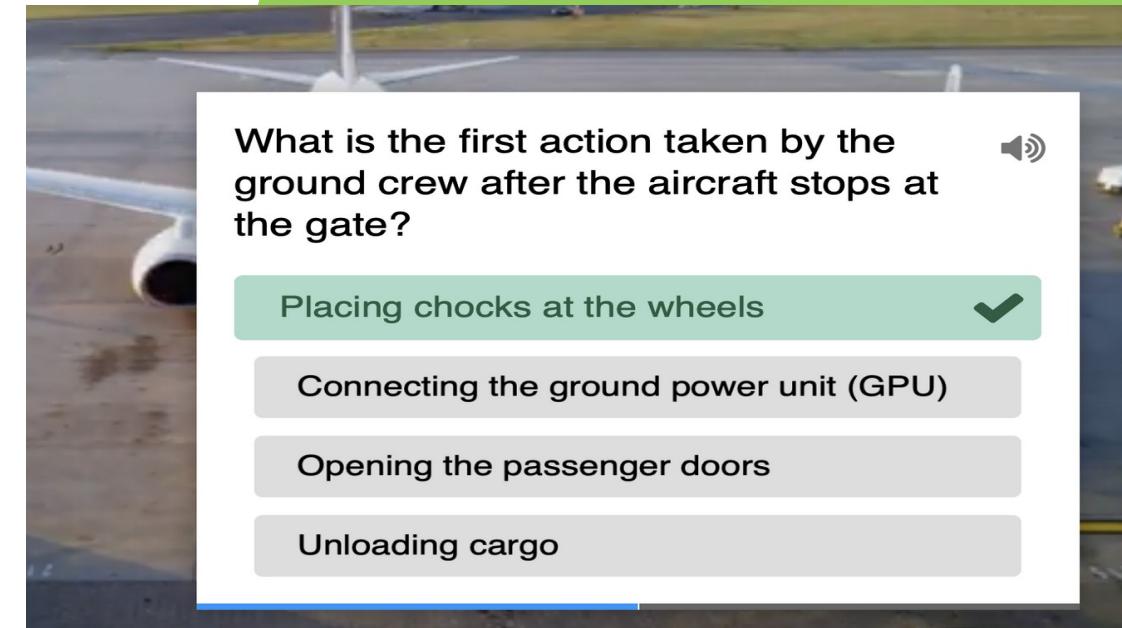
Excellent

1/1

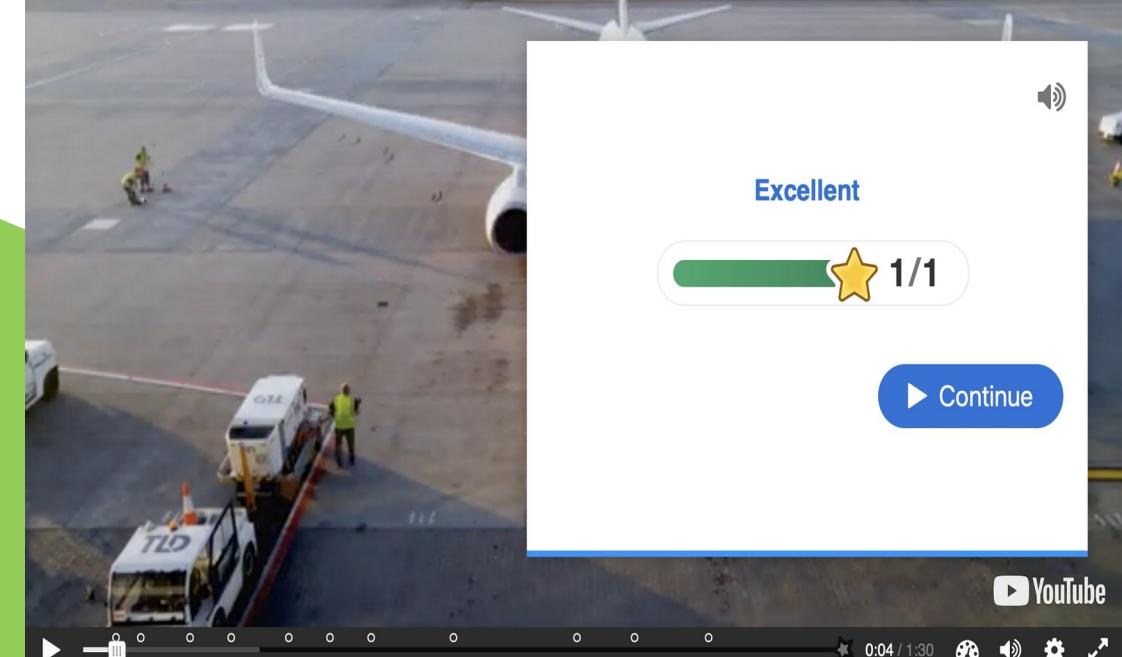
Continue

YouTube 0:04 / 1:30

If the answer is correct ("Placing chocks at the wheels"), the student receives positive feedback, and the game continues with the next actions.

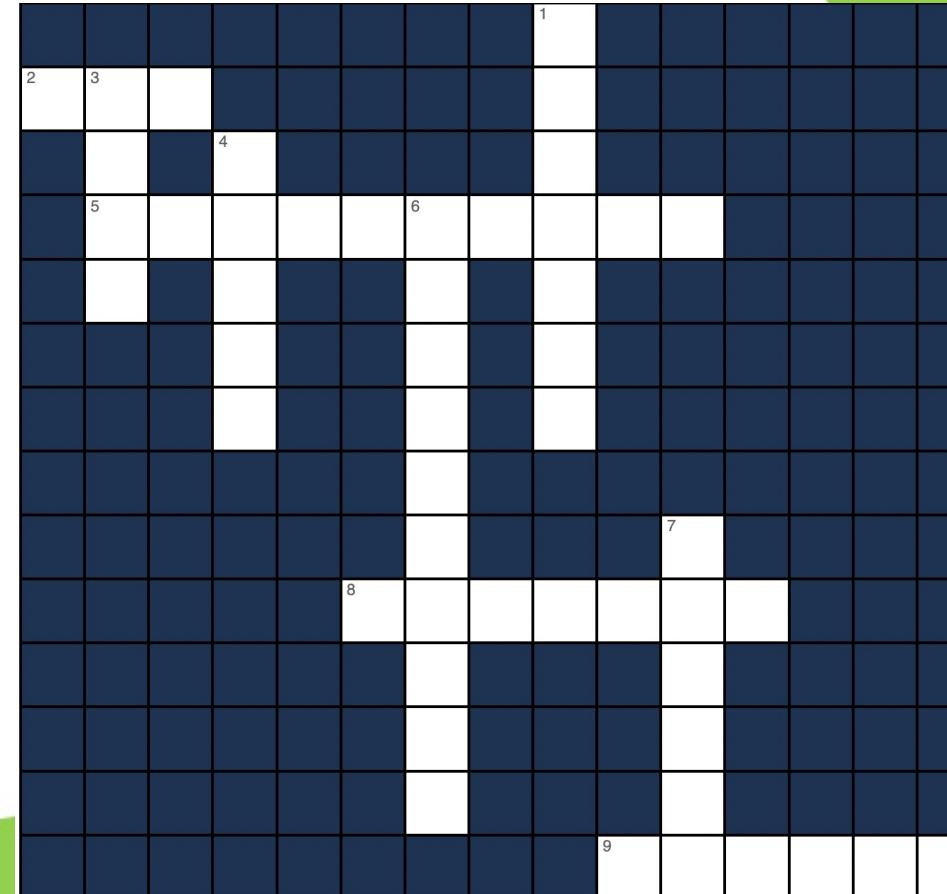
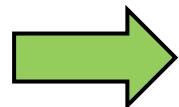


At the end of the game, a final score is displayed based on the correct decisions and the response time.



# Aviation Crossword

This game aims to reinforce aviation-specific vocabulary. The student must complete a crossword puzzle with aviation-related terms.



## Across

2 The navigational aid used for instrument landings. (3)

---

5 A document that provides information on the flight route. (10)

---

8 The process of clearing ice from an airplane. (7)

---

9 The light signals used on airport runways (6)

---

## Down

1 The term for the maximum weight an aircraft can safely carry. (7)

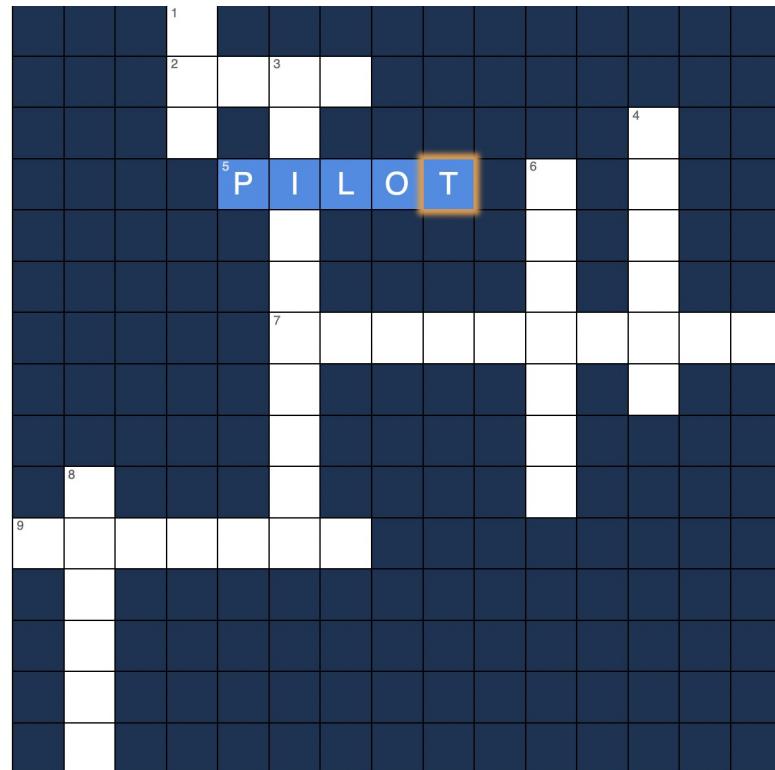
---

3 The force that lifts an airplane into the air. (4)

---

4 The person responsible for flying the plane. (5)

---



Check

Retry



Similar rules to a classic **Sudoku**:  
each **row**, **column** and **block** must  
contain unique **aviation** symbols.

#### Across

2 The force that lifts an airplane into the air.  
(4)

5 The person responsible for flying the  
plane. (5)

PILOT

7 The term for air disturbances that can make  
a flight bumpy. (10)

9 The process of clearing ice from an  
airplane. (7)

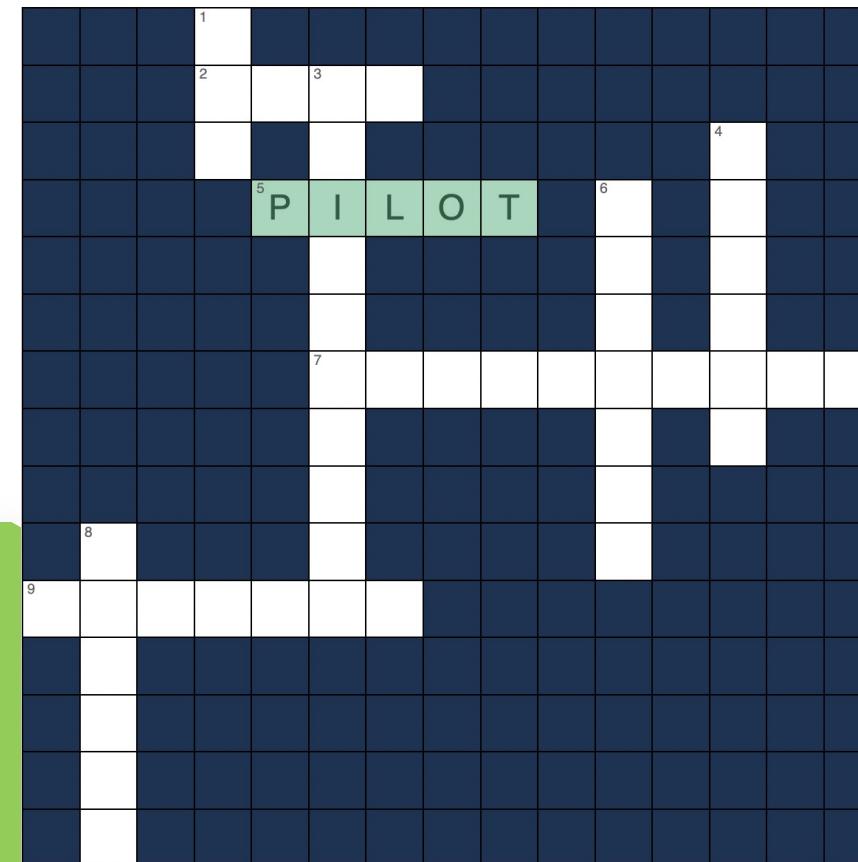
#### Down

1 The navigational aid used for instrument  
landings. (3)

3 A document that provides information on  
the flight route. (10)

4 The part of the airplane that generates  
thrust. (6)

6 The term for the maximum weight an  
aircraft can safely carry. (7)



1/9

Retry

For every correct symbol placement,  
the student receives feedback.  
The game ends with a final score based  
on accuracy and speed.



#### Across

2 The force that lifts an airplane into the air.  
(4)

5 The person responsible for flying the  
plane. (5)

PILOT

+1

7 The term for air disturbances that can make  
a flight bumpy. (10)

9 The process of clearing ice from an  
airplane. (7)

#### Down

1 The navigational aid used for instrument  
landings. (3)

THRUST

3 A document that provides information on  
the flight route. (10)

# Bratching scenario

## Main Scenario: Preventing an Aviation Incident



Main scenario: Preventing an aviation incident

Structure of the game:

- Level 1: The starting situation.
- Level 2: Two options, each with their own scenarios.
- Level 3: Each branch branches into two other options.
- Level 4: Continue in the same way.
- Level 5: Reaches the final solutions (right or wrong answer).

[Start the course →](#)

**Responsibility:** You are responsible for the operational safety of the airport.

**Objective:** Make the right decisions to prevent aviation incidents.

### **Game Structure:**

**Level 1:** Initial situation

**Level 2-4:** Decisions and scenarios branching

**Level 5:** Right or wrong outcome

Main scenario: Preventing an aviation incident

Main scenario: Preventing an aviation incident

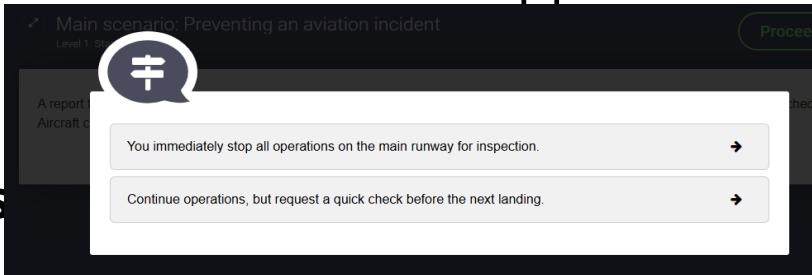
[Proceed »](#)

Background: You are responsible for operational safety at an airport. Every decision you make influences the safety, efficiency and reputation of the airport. Your goal is to arrive at the right solution through responsible choices.

# Decision-Making and Outcomes

**Situation:** Control tower reports an obstacle on the main runway. Aircraft continue to approach for landing.

## Initial options



### Branching after the initial choice:

#### If you stop operations:

- The problem is identified and remedied.
- **Result:** You ensured operational safety.

#### If you continue operations:

- The obstacle may cause an incident.
- **Result:** The problem persists and is getting worse.

Congratulations! You ensured operational safety.

Always choose the branch that prioritizes operational safety (e.g., stopping operations, investigating problems, and implementing preventive measures). Neglecting or postponing problems leads to the wrong ramifications.

 [Restart the course](#)



The problem persists! Go back to the original situation and choose again.

Always choose the branch that prioritizes operational safety (e.g., stopping operations, investigating problems, and implementing preventive measures). Neglecting or postponing problems leads to the wrong ramifications.

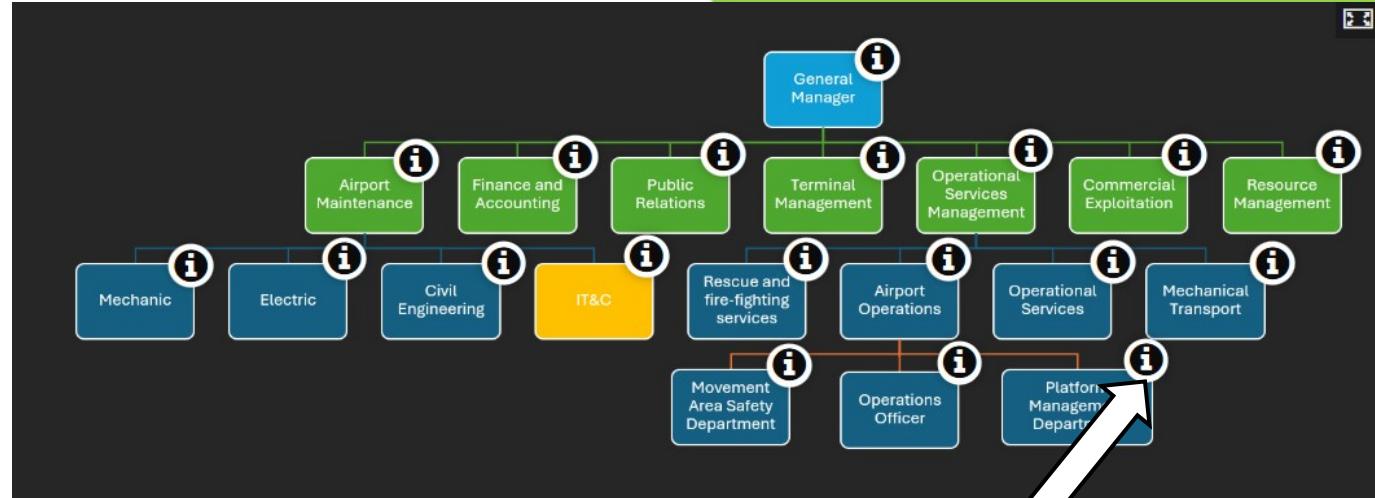
 [Restart the course](#)

# Organizational Chart Overview

## Organizational Structure – Operational Departments

- This organizational chart visually outlines the operational departments and hierarchy.

Interactive "i" icons offer details on each role. Exploring the chart helps users understand team organization and collaboration for the airport's efficient and safe operation.



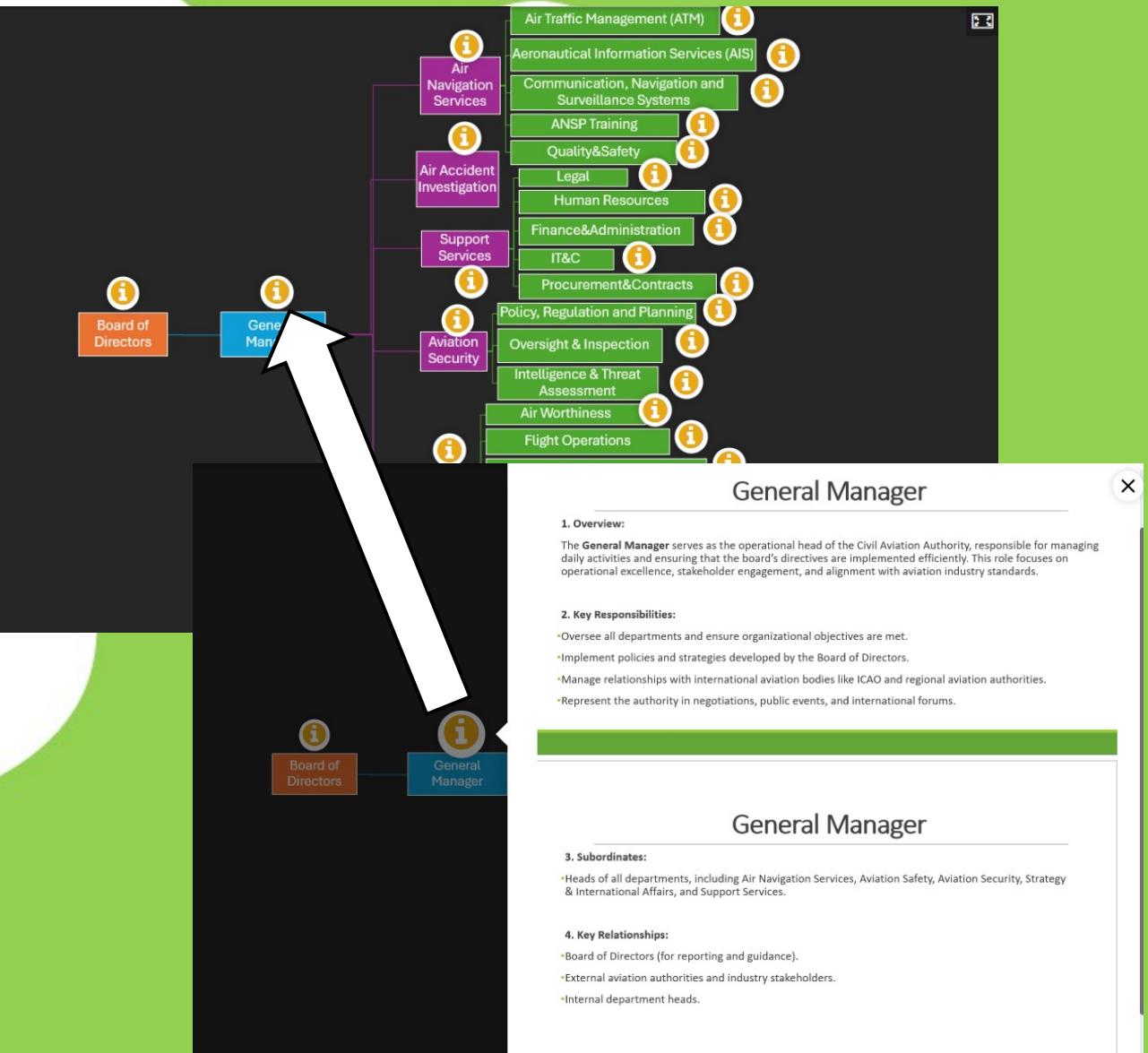
### Platform Management Department

Manages aircraft stand allocation and platform safety. Responsibilities include:

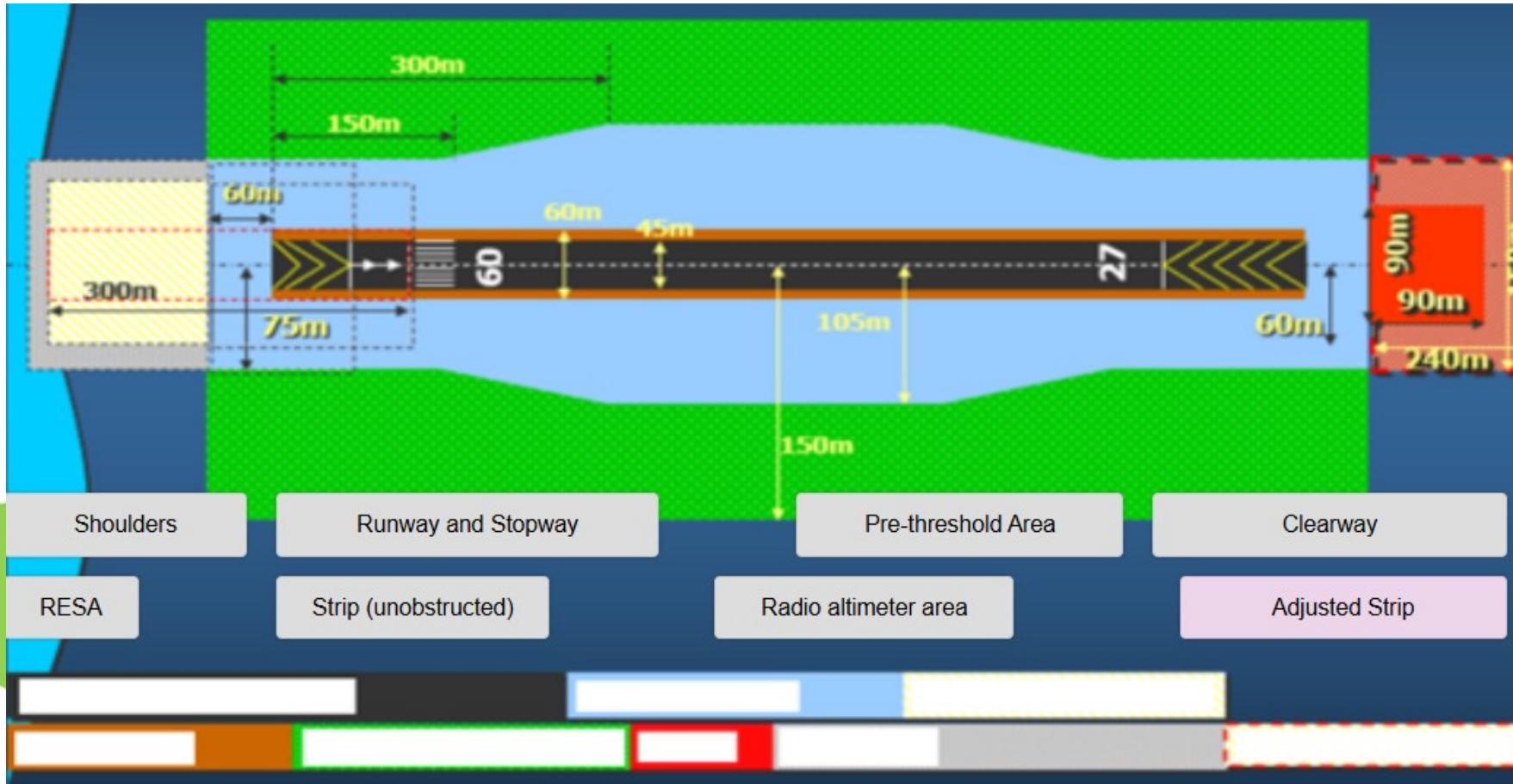
- Allocating parking stands and coordinating with ground handling teams.
- Ensuring safe operations on aprons, including refueling and baggage handling areas.
- Monitoring ground movements to minimize delays and improve efficiency.

# Organizational Structure: Regulatory and Support Divisions

- This chart clearly presents the organization's structure and hierarchy. Interactive "i" icons provide details about each department's roles. Exploring the chart shows how teams work together for safe and efficient airport operations.



# Drag & Drop – Runway Components Overview



- This interactive **Drag & Drop** activity helps to correctly identify the components of a runway.
- Each label must be placed correctly on the runway diagram.

# Drag & Drop - Feedback and Correction

- After label placement, the system provides visual feedback:
- Green: Correct answer.
- Red: Incorrect answer, requires correction.
- You can use the Retry button to redo the exercise.
- This activity supports hands-on learning and error correction.

