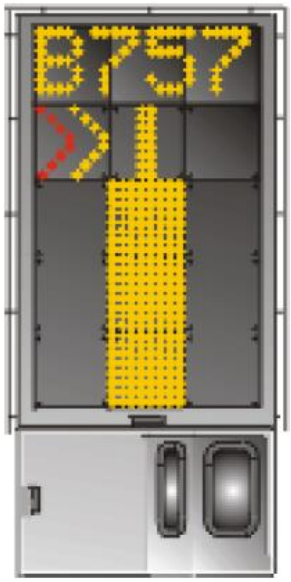
AIRCRAFT DOCKING GUIDANCE SYSTEM



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AVTORSKE PRAVICE

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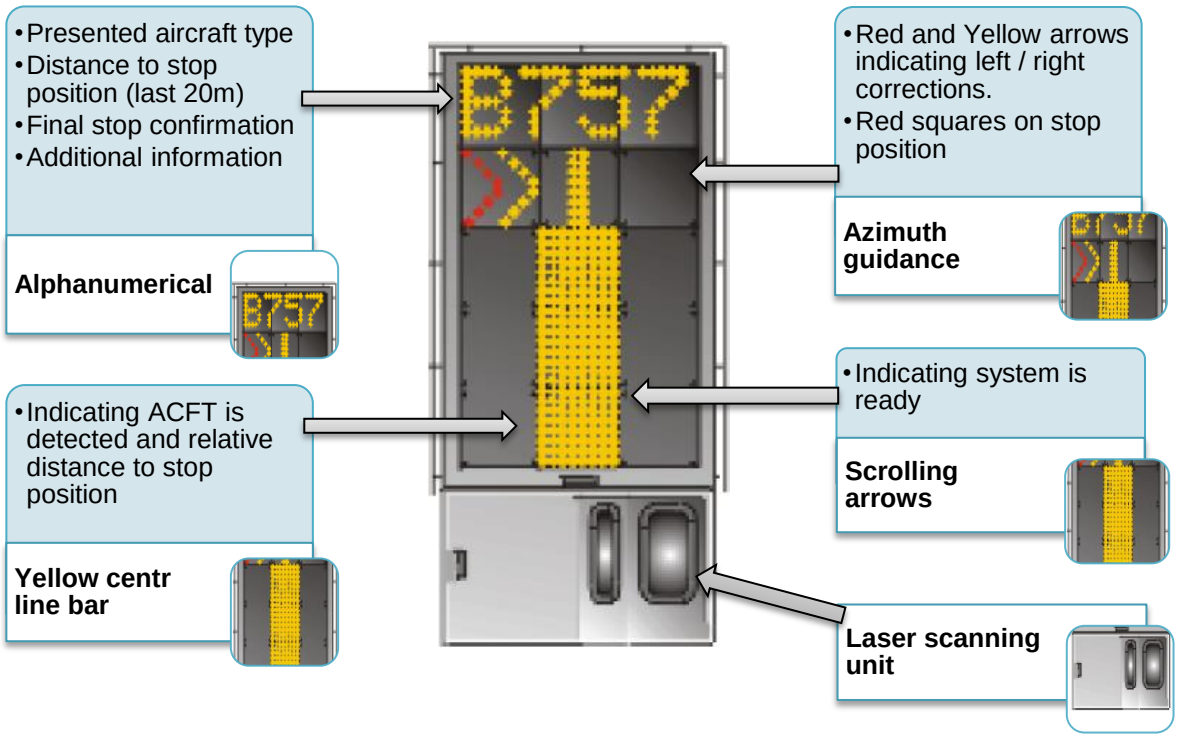
Skrbnik dokumenta mora obvezno vsako revizijo dokumenta posredovati skrbniku dokumentnega portala.

DOCK – STANDS LJU

Aircraft Docking Guidance System ˝Safedock˝

1. SYSTEM DESCRIPTION

- The system is based on laser scanning technique which tracks the lateral and longitudinal position of the aircraft.
- The system will recognise the incoming aircraft and check it against the one selected by the operator.
- The system is operated on Automatic Mode.
- If the system fails, the aircraft must be positioned by a Marshaller.
- Azimuth guidance, continuous closing rate information, aircraft type etc. are shown on a single display visible for pilot and co-pilot.
- Display and Laser Scanning Unit are mounted on the terminal in front of the aircraft stand.



2. DOCKING PROCEDURE

START UP-MODE

The system is started by Ground Staff, selecting the appropriate aircraft type on the Operator Panel.

WAIT will be displayed together with red stop light squares during the system start-up phase.

CAPTURE-MODE

The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft.

- Check for correct aircraft type on display. (ICAO Designator)
- Follow the lead-in line
- Do not proceed beyond the bridge unless the floating arrows have been superseded by the yellow centre line bar

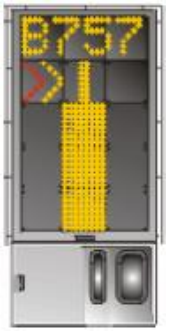
TRACKING-MODE / AZIMUTH GUIDANCE

Caught by the laser, the floating arrow is replaced by the yellow centre line bar.

The flashing red arrow indicates the direction to turn.

The yellow arrow shows position in relation to the centre line. This indicator gives relative position to the centreline and azimuth guidance

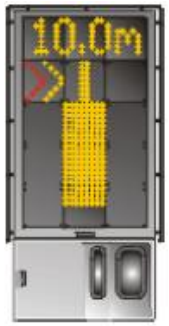
The absence of any direction arrow indicates the aircraft is on centre line.



CLOSING RATE

Display of digital countdown will start when the aircraft is 20 metres before stop position.

When the aircraft is less than 12 metres before the stop position, the closing rate is indicated by turning off one row of the yellow centre line bar per 0.5 metres covered by the aircraft.



STOP POSITION REACHED

When the correct stop-position is reached, the display will show **STOP** together with red stop light squares.

DOCKING COMPLETED

When the aircraft has parked, **OK** will be displayed.

CHOCKS ON

CHOCK ON will be displayed, when the Ground Staff has finalised with aircraft chocking.

BAD WEATHER CONDITION

During heavy fog, rain or snow, the visibility for docking system can be reduced.

When the system is activated and in capture mode, the display will show the floating arrows and display **SLOW** and the **Aircraft Type.**

As soon as the system detects the approaching aircraft, the yellow centre line bar will appear.

- Do not taxi beyond the bridge, unless the display shows the yellow centre line bar

3. FAULT MESSAGES AND SAFETY PROCEDURES

TAXI SPEED TOO FAST

If the aircraft is approaching faster than the accepted speed, **SLOW / DOWN** will alternately be displayed.

- Taxi slow

TOO FAST

If the aircraft approaches with a speed higher than the docking system can handle, the message **STOP** (with red squares) and **TOO FAST** will be displayed.

The docking system must-be restarted or the docking procedure completed by manual guidance.

- Keep engines running
- Request a Marshaller

AIRCRAFT LOST DURING DOCKING

If the aircraft is lost during docking at a distance greater than STOP plus the distance between nose and engine, the display will show **SLOW**.

As soon as the system detects the approaching aircraft, the yellow centre line bar will appear.

- Taxi slow
- Do not taxi beyond the bridge, unless the display shows the yellow centre line bar

STOP TOO FAR

If the aircraft has overshot the stop-position, **TOO FAR** will be displayed.

- Request a Marshaller to check aircraft position

STOP TO SHORT

If the aircraft is found to be standing still a short distance from the stop position, the docking procedure will end with a **STOP OK** message together with red stop light squares.

- Keep engines running
- Request a Marshaller to check aircraft position

AIRCRAFT VERIFICATION FAILURE

If the verification is not made 12 metres before the stop-position, the display will alternately show **STOP**, **ID** and **FAIL** together with red stop light squares.

- Keep engines running
- Request a Marshaller

GATE BLOCKED

If an object is found blocking the view from DGS to the planned stop position for the aircraft, the docking procedure will be halted with a **WAIT** and **GATE / BLOCK** message. The docking procedure will resume as soon as the blocking object has been removed.

- Do not taxi beyond the bridge, unless the **WAIT** message has been superseded by yellow closing rate bar.

VIEW BLOCKED

If the view towards the approaching aircraft is hindered, for instance by dirt on the window, the DGS will report a **VIEW / BLOCK** condition. Once the system is able to see the aircraft, the message will be replaced with a closing rate display.

- Do not taxi beyond the bridge, unless the **WAIT** message has been superseded by yellow closing rate bar.

SBU-STOP

Any unrecoverable error during the docking procedure will generate a **S**afety **B**ack **U**p (SBU) condition. The display will alternately show **STOP / SBU** together with red stop light squares.

- Keep engines running
- Request a Marshaller

ERROR

If a system error occurs, the message **ERR** is displayed with a code, together with red stop light squares.

The code is maintenance purpose.

- Keep engines running
- Request a Marshaller

SYSTEM BREAKDOWN

In case of a severe system failure, the display will go black, except for the red stop light squares.

- Keep engines running
- Request a Marshaller

POWER FAILURE

In case of power failure, the display will be completely black.

- Keep engines running
- Request a Marshaller