
airservices
Stop Bars
Safety Services
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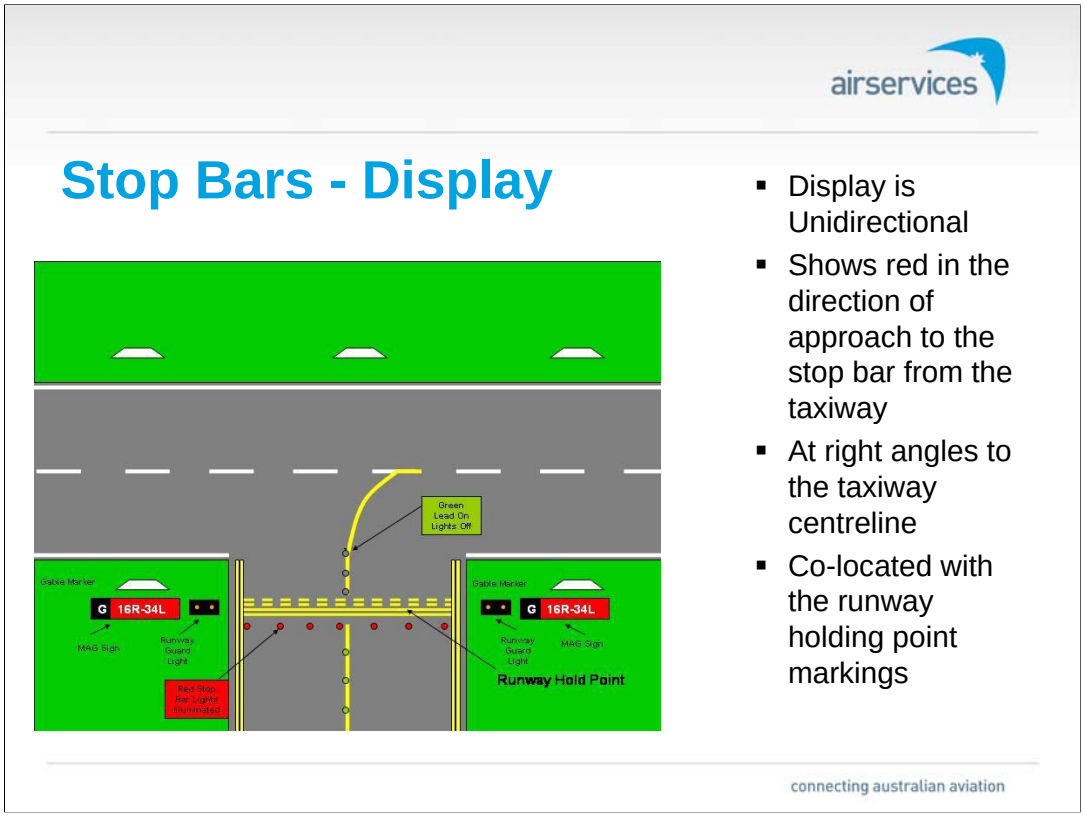
<u>Runway Stop Bars</u>

Stop bars are considered a valuable defence against aircraft and vehicles inadvertently entering a runway without Air Traffic Control (ATC) clearance.

Many Runway Incursion (RI) incidents result from pilots/drivers acknowledging ATC hold short instructions and then continuing to proceed across the runway holding point line.

Stop bar lighting is prescribed in International Civil Aviation Organization (ICAO) Annex 14 for low visibility operations and is in use at many international airports. Several Australian airports have installed stop bar lighting to enhance low visibility operations at the airport. The installation of stop bars, together with other new facilities, will allow landings and take-offs to take place in low visibility conditions where otherwise extensive delays would occur.

Stop bar operations require no special equipment in aircraft or vehicles but merely require the pilot/driver to stop and hold at a lit stop bar and to **only proceed when ATC gives the appropriate verbal instruction and switches <u>off</u> the stop bar.**



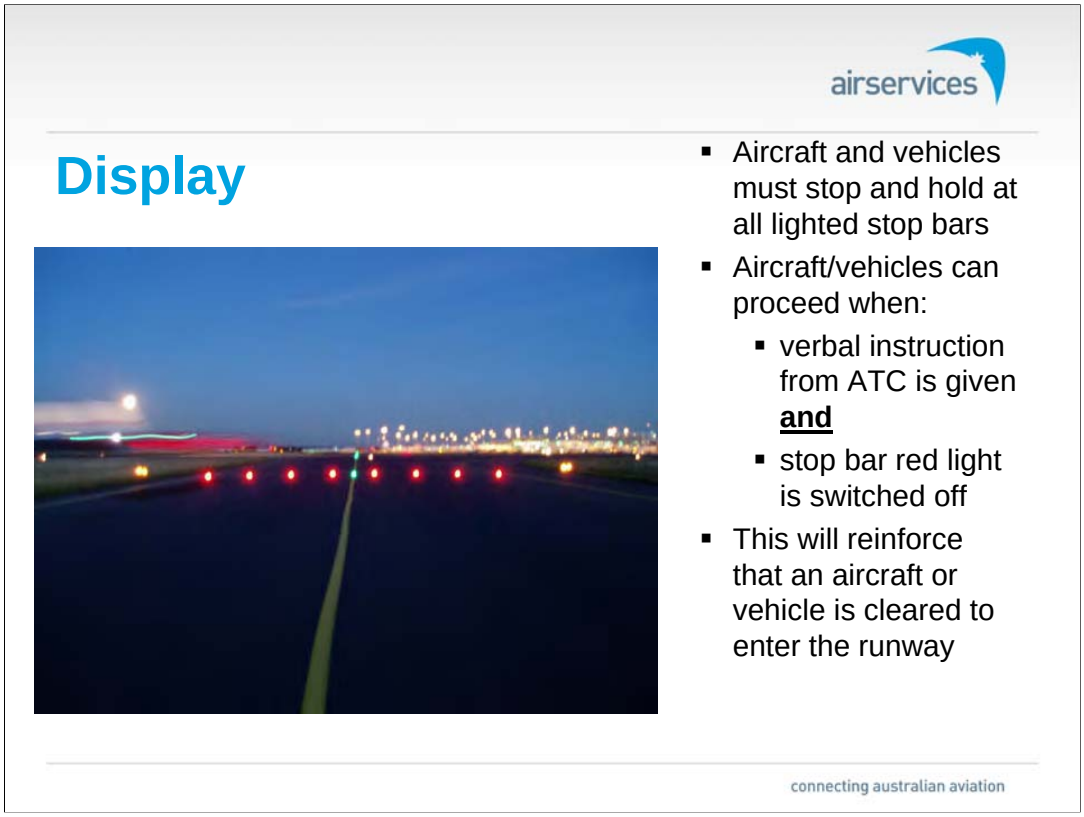
Runway holding point markings

Runway holding point markings on taxiways, identify the location where an aircraft/vehicle is required to stop when it does not have a clearance to proceed onto a runway. A red and white runway holding point sign and possibly runway guard lights or Stop Bars also provide visual aids.

When instructed by ATC to **"Hold Short of Runway XX"** or **"Taxi to Holding Point XX"**, you should read back and stop so no part of the aircraft/vehicle extends over the first solid line of the runway holding point marking. Keep your head up – distances of runway holding point markings from the centreline of a runway can vary even at the same aerodrome.

When approaching the runway holding point marking, you should not cross the marking without ATC clearance.

An aircraft/vehicle exiting a runway is not clear of the runway until all parts of the aircraft/vehicle have crossed the applicable runway holding point marking.



Stop bar lighting display

The red stop bar light is switched off as the verbal instruction is given to reinforce that an aircraft or vehicle is cleared to enter the runway.

An aircraft taxiing or a vehicle operating on the manoeuvring area must stop and hold at all lighted stop bars. The aircraft or vehicle may only proceed further when in receipt of a clearance by ATC **and** the stop bar lights have been switched off.

If the stop bar lights have not been switched off after receipt of a clearance, the pilot or vehicle driver MUST seek clarification from ATC. Do not cross an illuminated stop bar.

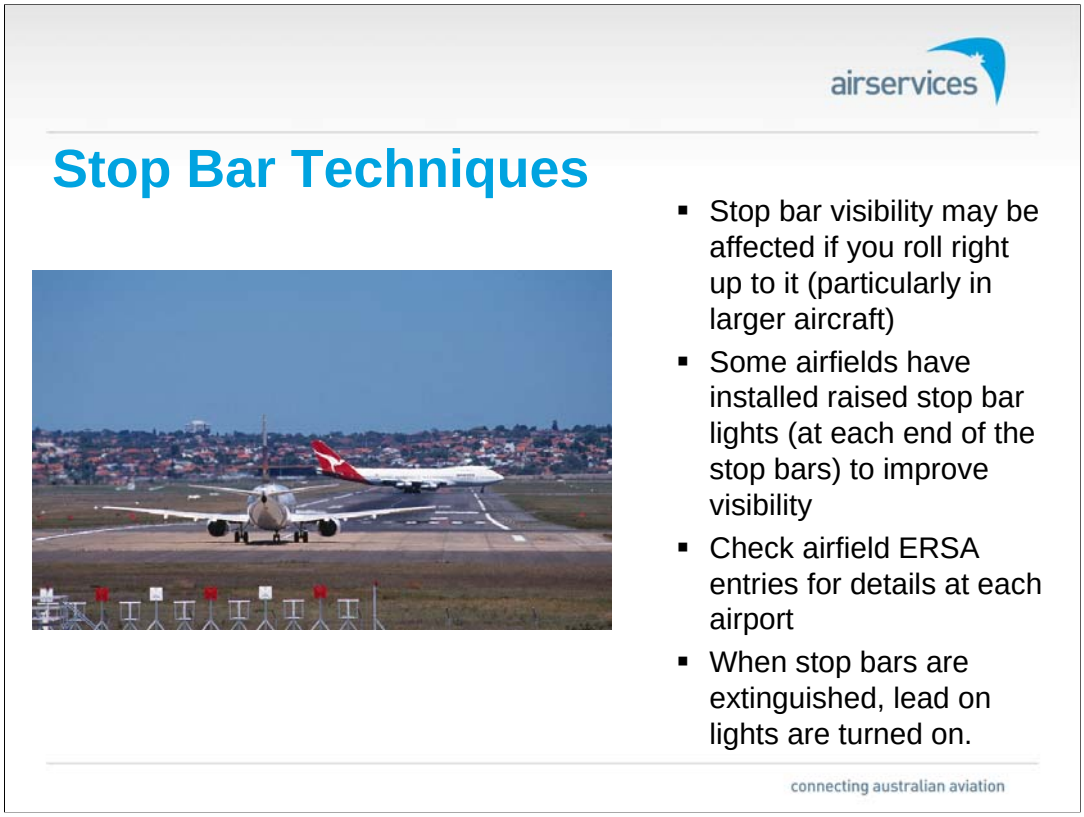
Important notes

Conditional clearances will not be used if stop bars are operating.

Regardless of an ATC instruction, aircraft/vehicles **MUST NOT** cross the illuminated stop bar**.**

Some stop bars are touch operated and therefore may not actually work immediately following the clearance. Again aircraft and vehicles **MUST NOT** cross the illuminated stop bar.

Stop bars are a defence against human error in situation awareness. Remember, **NEVER** cross an illuminated stop bar. If in doubt, query ATC as to the intent of the instruction.



Stop Bar visibility

Several incidents have occurred where crew have rolled right up to the holding point line thereby impairing their ability to view the lights. Some points to note include:

- With bigger aircraft, the closer you are, the more difficult they are to see.
- If you sit a little bit back from the stop bar, one or both pilots can sight and confirm the stop bar de-illumination.

However, at some airports, there may be a requirement to taxi right up to the holding point to maintain the airport's operational capacity (line up efficiency) or because there is a lack of taxiway flexibility (space) behind an aircraft at a holding point; Sydney, for example is severely limited in taxi space behind aircraft at holding points. At some airports, raised stop bar lights have been installed at each end of the stop bar to ensure visibility of the lights in this scenario.

Check ERSA for the airport you are operating at to see if raised stop bars are installed.

When the stop bars are extinguished, the lead on lights will come on again.

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