

Safety net – runway stop bars – what every pilot must know

Runway incursions are a serious safety threat often resulting from pilots or airside drivers acknowledging air traffic control (ATC) hold short instructions and then continuing to proceed across the runway holding point line.

Globally Runway Incursions have caused major accidents. Runway stop bars are considered as one of the most effective means of preventing runway incursions.

Stop bars are intended to provide additional protection of runway/taxiway intersections to reduce runway incursions by:

- enhancing visibility of holding points
- reinforcing the control of aircraft and vehicles in the vicinity of holding points
- increasing the defence against controller error in aircraft or vehicle identification.

Stop bars also enable low visibility operations such as CAT II/III instrument landing system approaches.

What is a stop bar?

Stop bars are a series of unidirectional red lights embedded in the pavement, at right angles to the taxiway centreline, at the associated runway holding position. The lights are spaced three metres apart and located 0.3m before the holding point.

Each airport may be subtly different and the configuration should be reviewed in AIP prior to operating at an aerodrome.

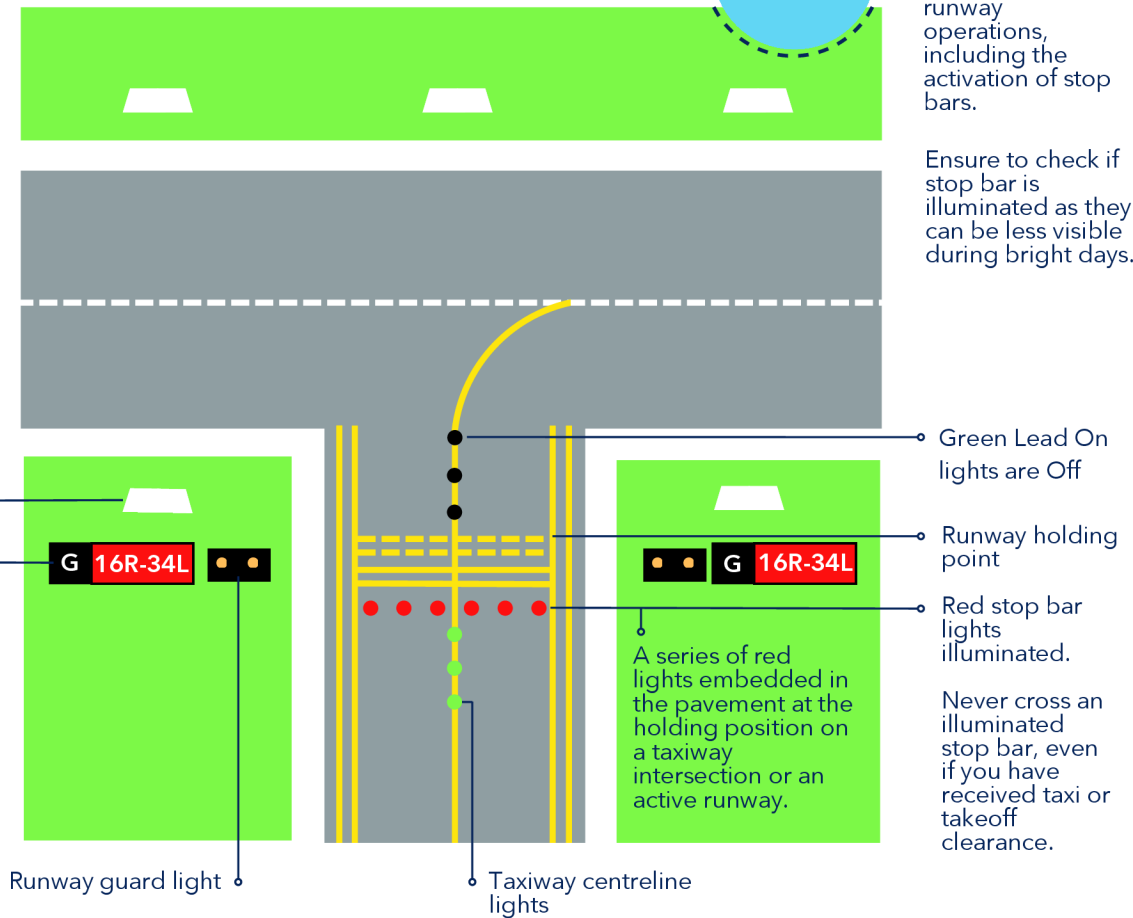
Stop at the red light

Pilots must comply with the following when stop bars are in operation:

- never cross an illuminated stop bar
- only proceed past a stop bar when ATC provides the appropriate verbal instruction and
- the stop bar light is extinguished.

Recommended practice:

- Ensure that at least one member of the crew is able to sight the stop bars
- Check stop bars every time before entering or crossing a runway
- Check stop bars when reading back ATC clearance to enter the runway



What if ATC give a clearance but the stop bar is still illuminated?

Pilots must remain behind an illuminated stop bar until it is extinguished. If you have been issued an instruction to proceed and the stop bar has not been extinguished:

- do not cross the illuminated stop bar
- immediately query the instruction with ATC.

For example:

"Stop bar on, [aircraft ID]."

Who controls the stop bars?

ATC manually controls the stop bars, with the controller responsible for the runway operating the stop bar. If the runway is active, the tower controller handles this task. For the Surface Movement Controller (SMC) to issue clearance to cross the runway, they must first coordinate with the Aerodrome Controller (ADC). The ADC authorizes the SMC to cross and then turns off the stop bar.

By the time the SMC has confirmed this coordination and issued the clearance to cross, the stop bar has already been off for at least 5 seconds. This delay can increase if two crossings are coordinated, with clearance being given to the other aircraft first, or if there are interruptions from unrelated communications.

Can I ever cross an illuminated stop bar?

It is possible that stop bars may malfunction and cannot be extinguished. In this case ATC will use specific phraseology to both advise that a stop bar is unserviceable and that it may be crossed while illuminated. These contingency procedures are detailed in the AIP.

Where are stop bars currently used?

Stop bars are continually being added to Australian aerodromes. The details of each aerodrome are available in ERSA.

More information

More pilot safety information is available on the Airservices Australia website at bit.ly/pilotsafety.



If you have any feedback or questions about this publication please email, safetypromotions@airservicesaustralia.com.

