

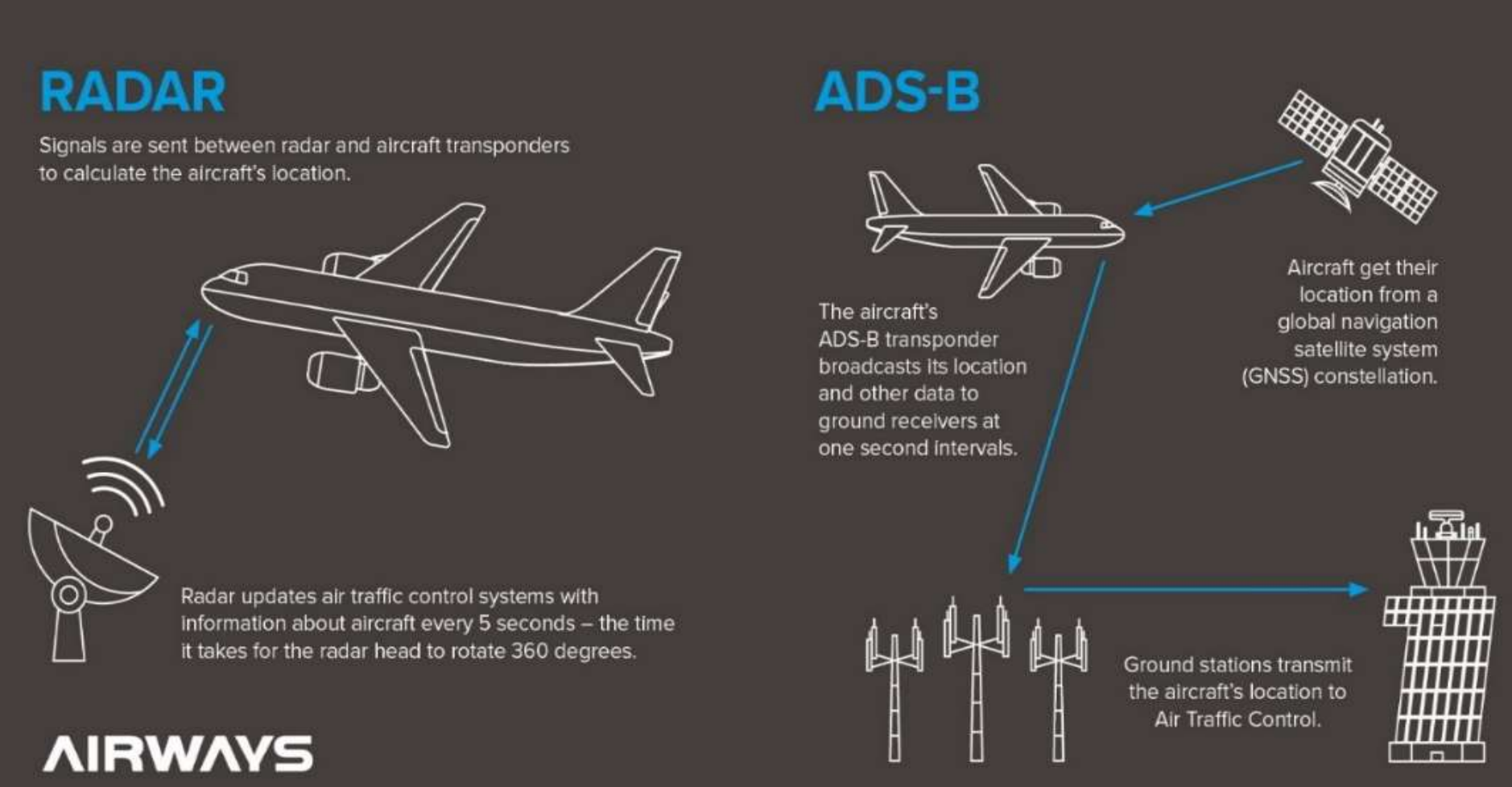
# ADS-B update

## Approach 19

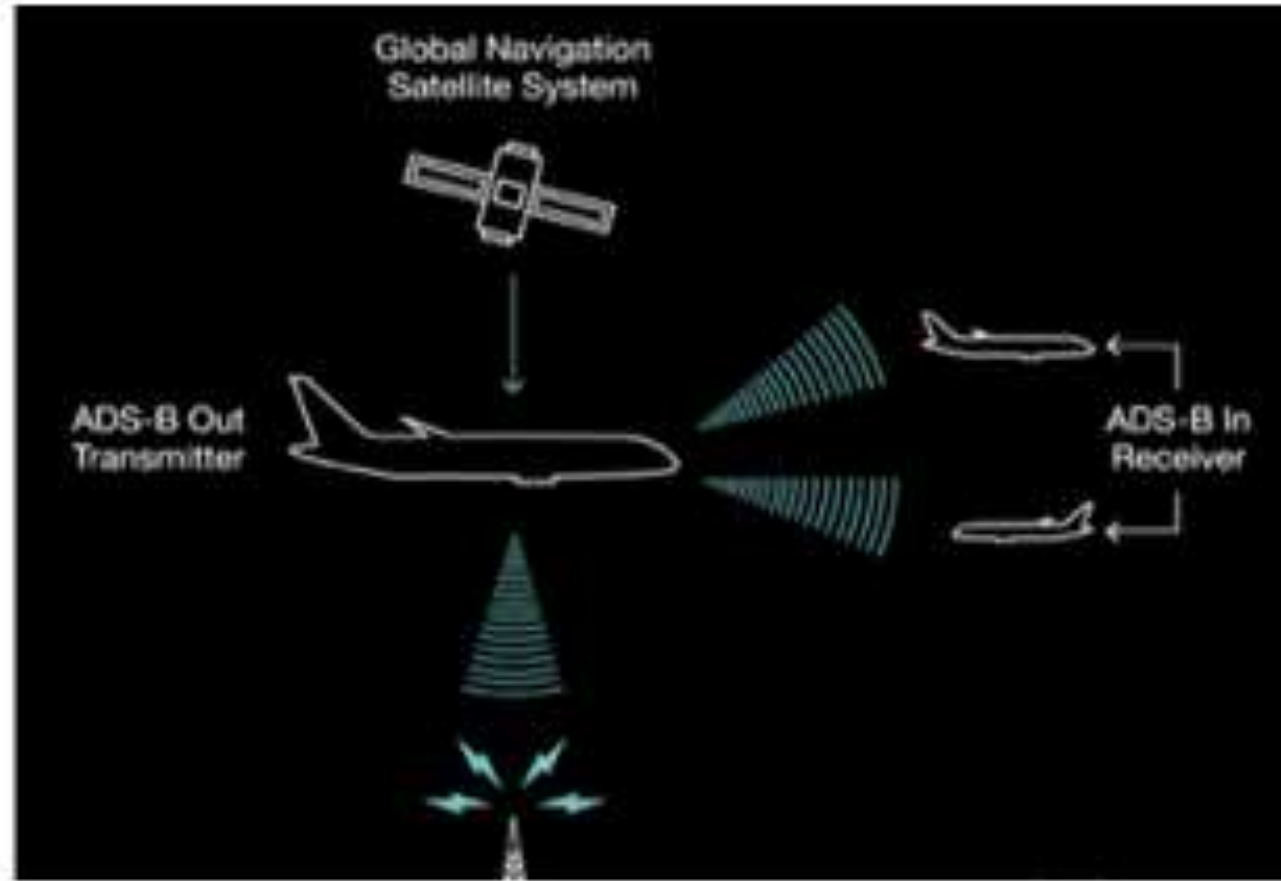


KATIE GUNATUNGA

# What is ADS-B?



# ADS-B IN



# AIRWAYS' ADS-B GROUND NETWORK

Airways New Zealand is responsible for providing surveillance infrastructure for the national ADS-B network.

- The ADS-B ground network includes 27 receiver stations nationally. Many in remote locations.
- Installation began in 2017 and the full network is in place now. The full complement of receiver sites will come online in December, providing coverage down to the ground coverage at all controlled aerodromes and in areas previously not seen by radar.
- The network will provide significantly increased low level coverage in areas including Northland, Hawkes Bay, Gisborne, Taranaki, Nelson and West Coast of the South Island.



# Benefits of ADS-B



A modern, more accurate surveillance system.



Visibility to air traffic control over a larger area in the New Zealand FIR - 45% more coverage.



More precise information on your aircraft's position in an emergency.



The option of installing ADS-B IN which can significantly improve your situational awareness.



# Contingency Surveillance Coverage



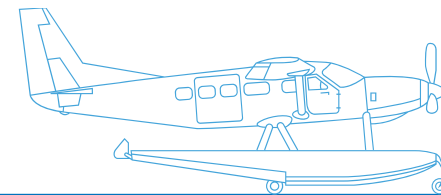
GPS / GNSS is highly reliable technology but still vulnerable

Secondary Surveillance Radar installations will be reduced from 6 to 3 sites to provide:

- Non GPS dependent surveillance
- Coverage of main centre air routes.
- Risk mitigation
- Safe recovery of airborne flights
- Support contingency operations
- Low level radar coverage changes
- Improving resilience of WAM

# Existing ADS-B Rules

- Rule mandates ADS-B OUT for aircraft that fly in controlled airspace above FL 245  
..... →
- Rule 91.258 and associated Notice: equipment and performance standards for all ADS-B systems
- Can't transmit non-compliant ADS-B data



# Acceptable Technical Data

..... →

- AC43.14 amended for ADS-B
- Provides ATD for 'all in one' ADS-B systems if aircraft is not covered by an STC
- Consultation closes 8 April.



# What is changing?

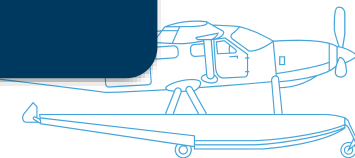
The current secondary surveillance radar comes to end of life at the end of 2021, and will be replaced by ADS-B



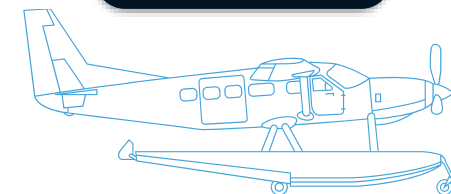
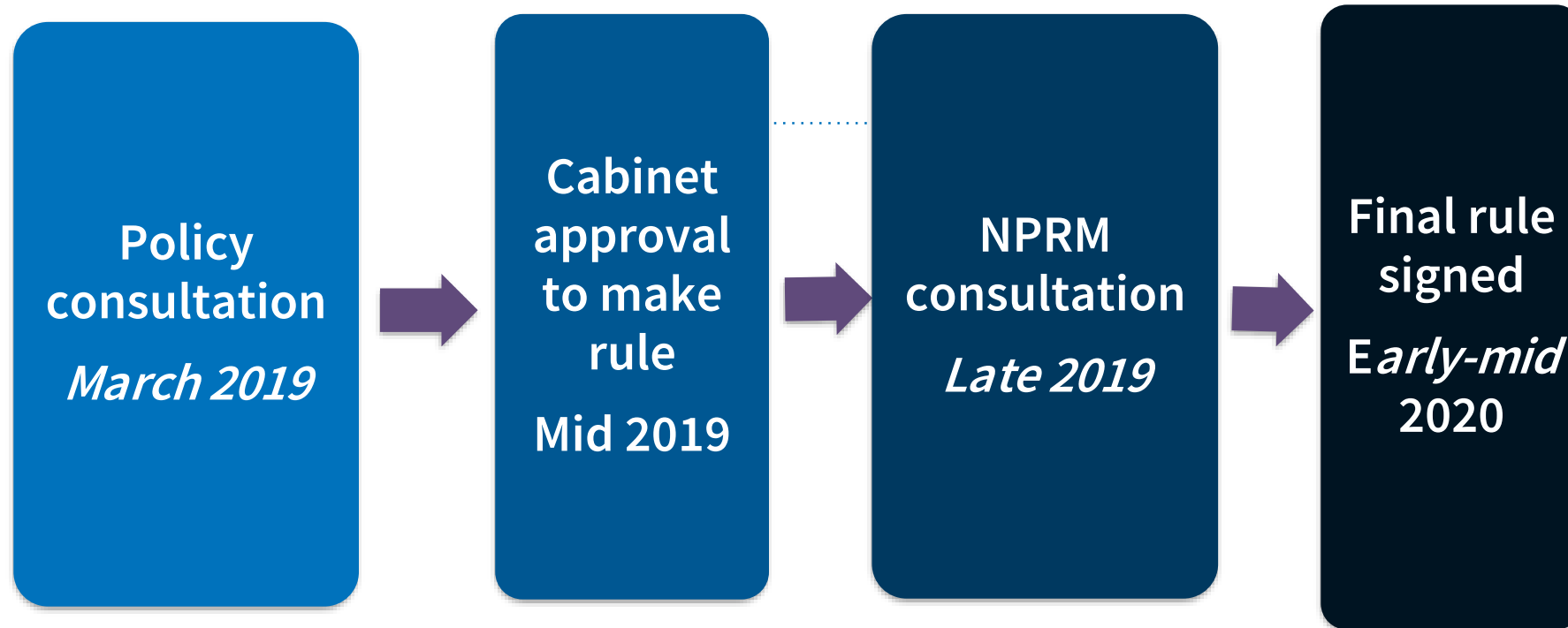
Current Mode A/C transponders are not compatible with ADS-B ground infrastructure.

A back-up surveillance network will remain in place. It won't be an alternative to ADS-B.

A full replacement of the SSR network in addition to ADS-B is not feasible through Airways' charges.



# The Rule process



# ADS-B Consultation



- Closes 5 April 2018
- Send submissions to [consultation@caa.govt.nz](mailto:consultation@caa.govt.nz)
- Questionnaire at [www.caa.govt.nz/ads-b](http://www.caa.govt.nz/ads-b)