

FUTURE
SURVEILLANCE
SYSTEMS

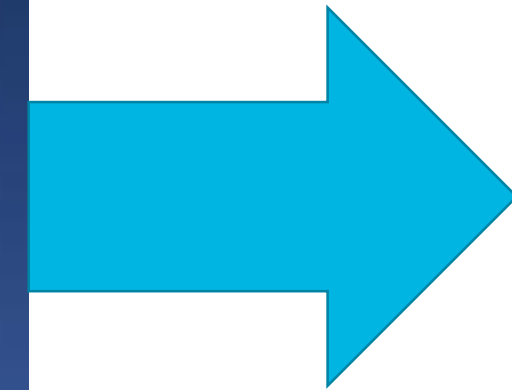
M E T S y m p o s i u m : U p d a t e

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Reducing our Dependence on RADAR

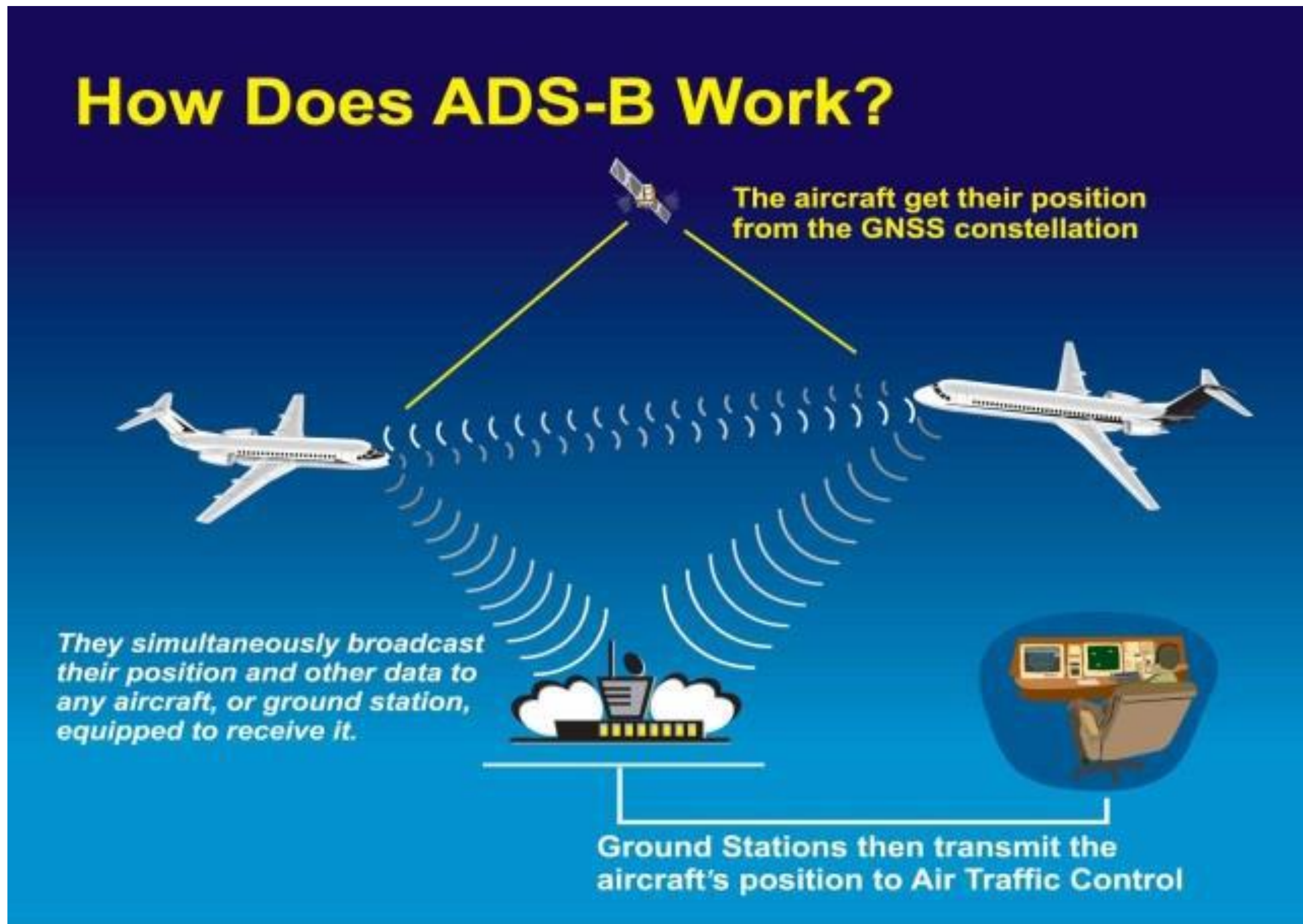
AIRWAYS



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Surveillance System Components

ADS-B (OUT/IN)



Aircraft Equipment Standards

- Mode S Transponder TSO 166
- GNSS Navigator TSO 145/146

Products

- Integrated avionics solution
- All in one box for less complex fitment
- Talk to your avionics suppliers for a range of compatible solutions

Airworthiness issues

- Transponder install considered a major mod.
- Need “acceptable technical data” (i.e. STC, AML)
- Refer to Part 145 / 146 organisation if no ATD.
- Talk to Airworthiness team at CAA or email airworthiness@caa.govt.nz

ADS-B Coverage @ 9000ft



Ground Receiver Network

- Phase 1: 11 sites Commissioned May 2018
- Phase 2: 15 sites Installation underway, commissioning scheduled December 2019
- 45% increase in coverage (by Volume)
- Greater resilience
- Enables improved tracking of low level flights and assistance in emergencies
- Supports Digital Tower Services
- Enables centralisation of regional approach services
- May assist unmanned aircraft BLOS ops

Contingency Radar Coverage @ 9000ft



- Contingency Radar sites located near AKL, WLG and CHC
- Radar coverage will be limited to the main air routes
- No low level coverage in the Waikato / BOP/ Manawatu or east coast of NI

Non – Cooperative Surveillance

Primary Surveillance Radar



Replacement Options being evaluated

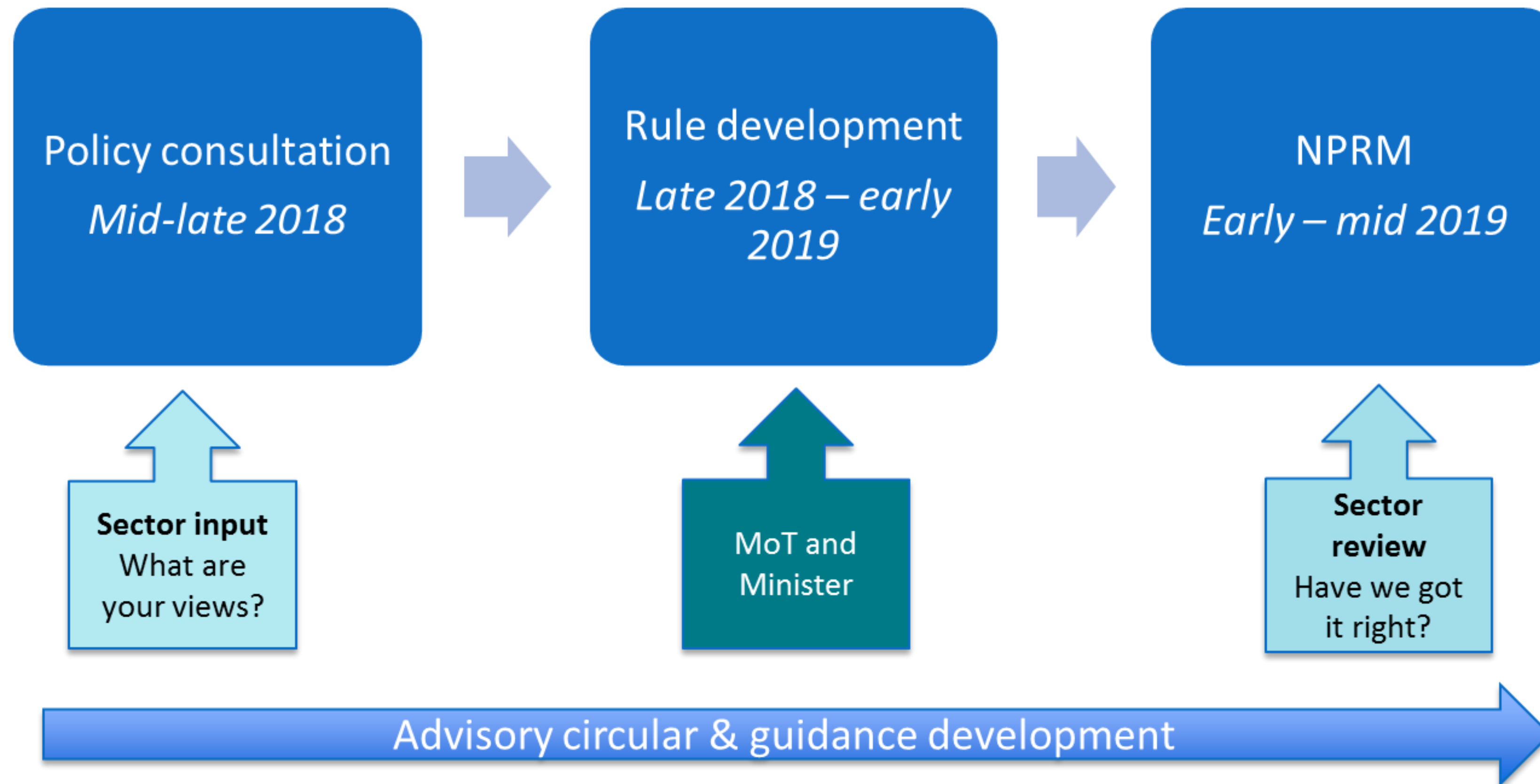
- Flat Panel Radars
- RF Sensor systems

Trials commencing in August 2018 to validate performance / effectiveness

Safety Case will determine the mix of technologies and where these systems are located / coverage areas

Existing PSRs will be decommissioned in 2021 – 2022 and replaced with future proofed alternative

Rulemaking Process for Below FL245 Mandate



Any questions about the rule process, email adsb@caa.govt.nz

QUESTIONS?

Email: wayne.blythe@airways.co.nz