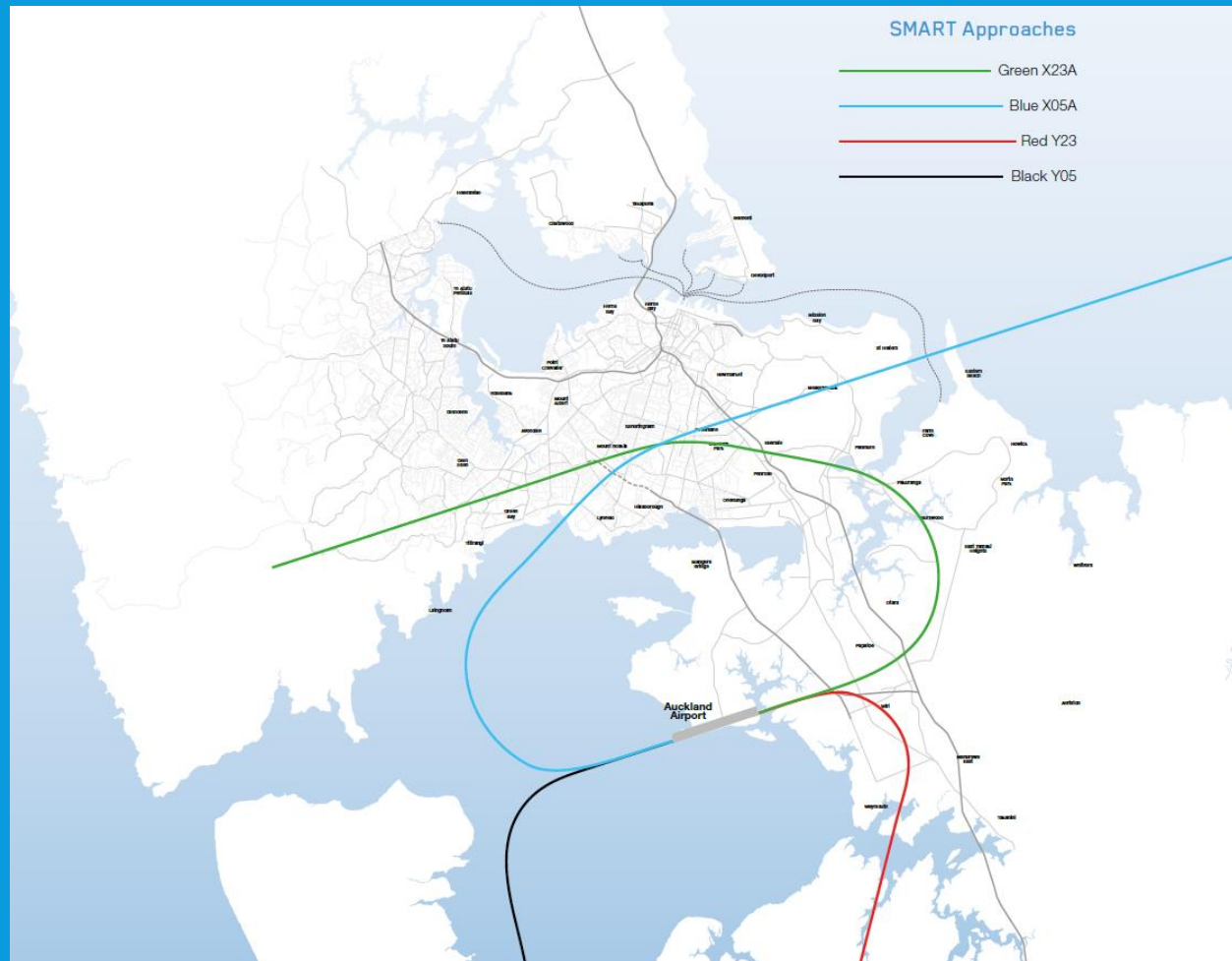


# Auckland SMART Approaches Update to ANCCG

# SMART APPROACHES

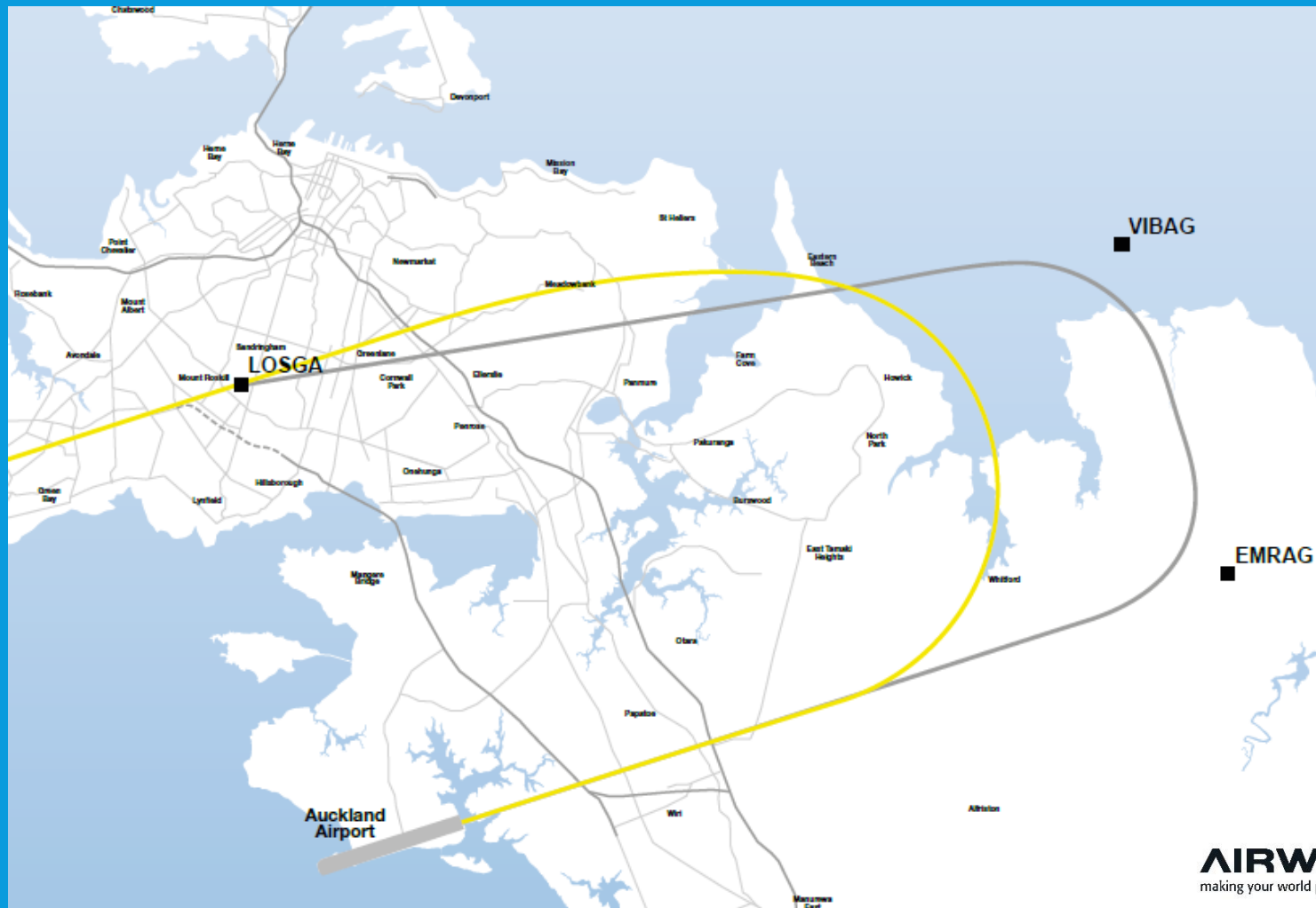
- Global initiative which uses satellite navigation technology for approaches & departures
- In 2007 ICAO urged member countries to move to performance based navigation (PBN) (SMART Approaches)
- NZ agreed in 2011 and PBN is a key component of National Airspace Policy and National Airspace and Air Navigation Plan – New Southern Sky.
- Since 2003 in Queenstown and since 2012 in Auckland.
- Enable curved approach paths to the runway, so aircraft establish on the extended runway centreline much closer to runway than possible using ground based instrument landing systems.
- Reduce aviation congestion, conserve fuel, protect the environment, maintain reliable all-weather operations.
- Less aircraft noise and shorter flight paths, resulting in fewer residents being overflown.

# AUCKLAND'S SMART APPROACHES



- 4 SMART Approaches
- 2 from north and 2 from south
- BlackY05 implemented in 2011.
- 2012-2013 trial and public consultation on GreenX23, BlueX05 and RedY23.
- BlueX05A & GreenX23A: 7am-10pm and 10 per day max.
- RedY23: 7am – 10pm & uncapped
- BlackY05: 24 hrs per day & uncapped.
- Trial of a third SMART Approach from the north to Runway 23L (Yellow U23) signalled in 2012-2013

# 2015-2016 YELLOW U<sub>23</sub> TRIAL



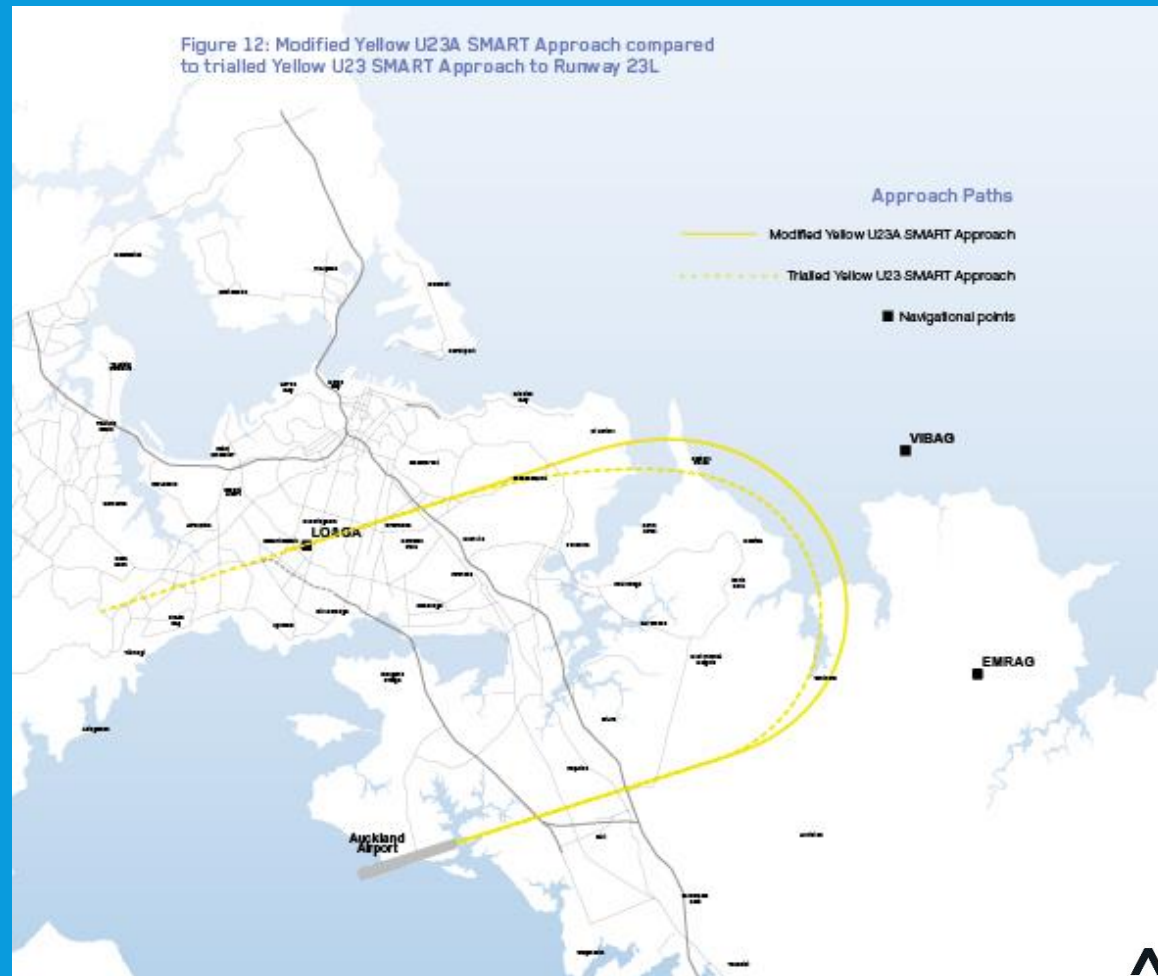
# 2015-2016 YELLOW U23 TRIAL

- Why? Higher demand for Runway 23L approaches; future demand would exceed Green X23A's cap of 10 flights per day.
- Incorporated lessons from 2012-2013 trial and was designed higher and approach curve wider than trialled flight paths.
- Followed a long-established visual arrival flight path / STAR but SMART aircraft required to pass over LOSGA at or above 6,000ft (1,000ft higher than other aircraft using the STAR), so quieter.
- Only CAA approved airlines and A380, A320, B737, B777 & B787 aircraft with qualified crews permitted to fly trial flight path.
- Trial: Sept 2015–Aug 2016; 7am-10pm; max 10 flights p/day.
- Sought to evaluate aircraft performance; airspace management; operational benefits – including time, distance, fuel savings and carbon emissions; noise monitor results and public feedback.

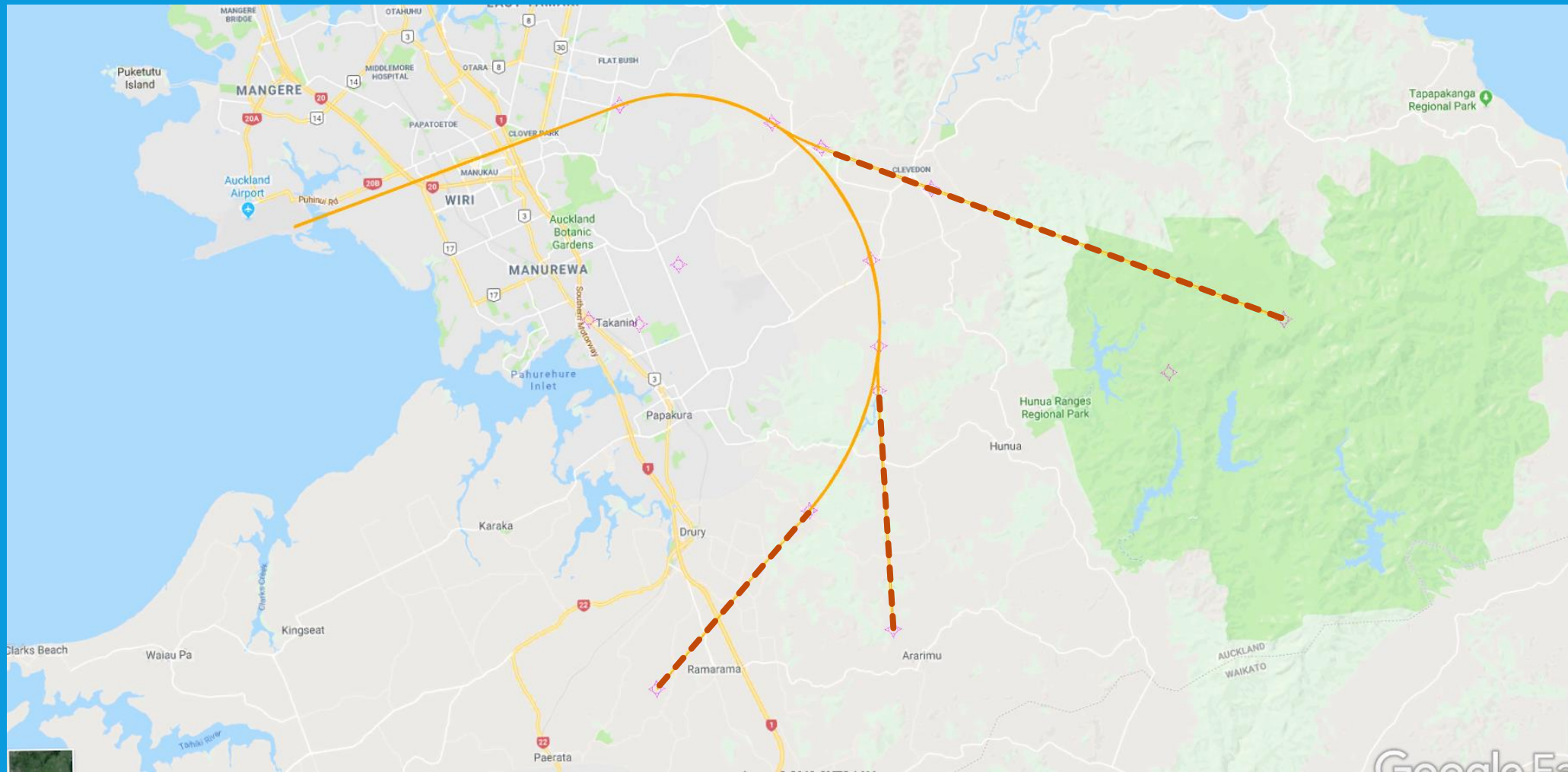
# YELLOW U<sub>23</sub>A: REDESIGNED FLIGHT PATH

- As a result of the public feedback, and to reduce the impact of the flight path on the local community, Airways, BARNZ and Auckland Airport have modified the trial Yellow U<sub>23</sub> flight path. The modified flight path is known as the Yellow U<sub>23</sub>A SMART Approach flight path.
- The key changes to the U<sub>23</sub>A approach are:
  - It is located on average 1.4km off the coast of Eastern Beach, Mellons Bay, Cockle Bay and Waikiteora Reserve – this is on average 950m further off the coast than during the U<sub>23</sub> trial.
  - The revised U<sub>23</sub>A is 500m south-east of Whitford. This is 750m further south-east than during the trial.
  - 5,000 feet when passing over Bucklands Beach. This is 300 feet higher than during the trial; and
  - 2,800 feet when passing 500m south-east of Whitford. This is 200 feet higher than during the trial.
  - Permanent approach start on 31 March 2019, 6 flights a day from 07:00 to 22:00.

# YELLOW U<sub>23</sub>A: REDESIGNED FLIGHT PATH

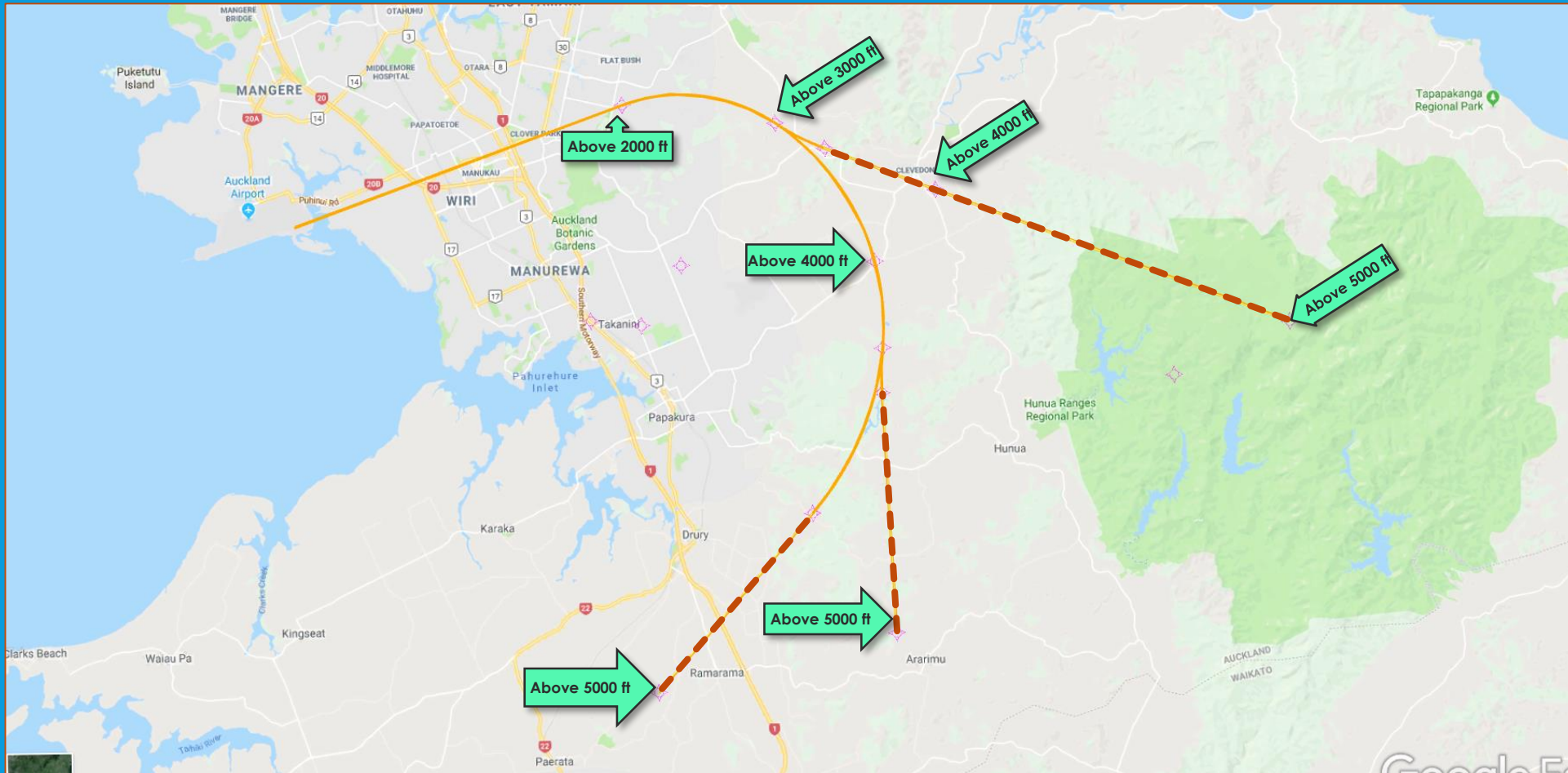


# AUCKLAND ORANGE S<sub>23</sub> – TRIAL – FLIGHT PATHS

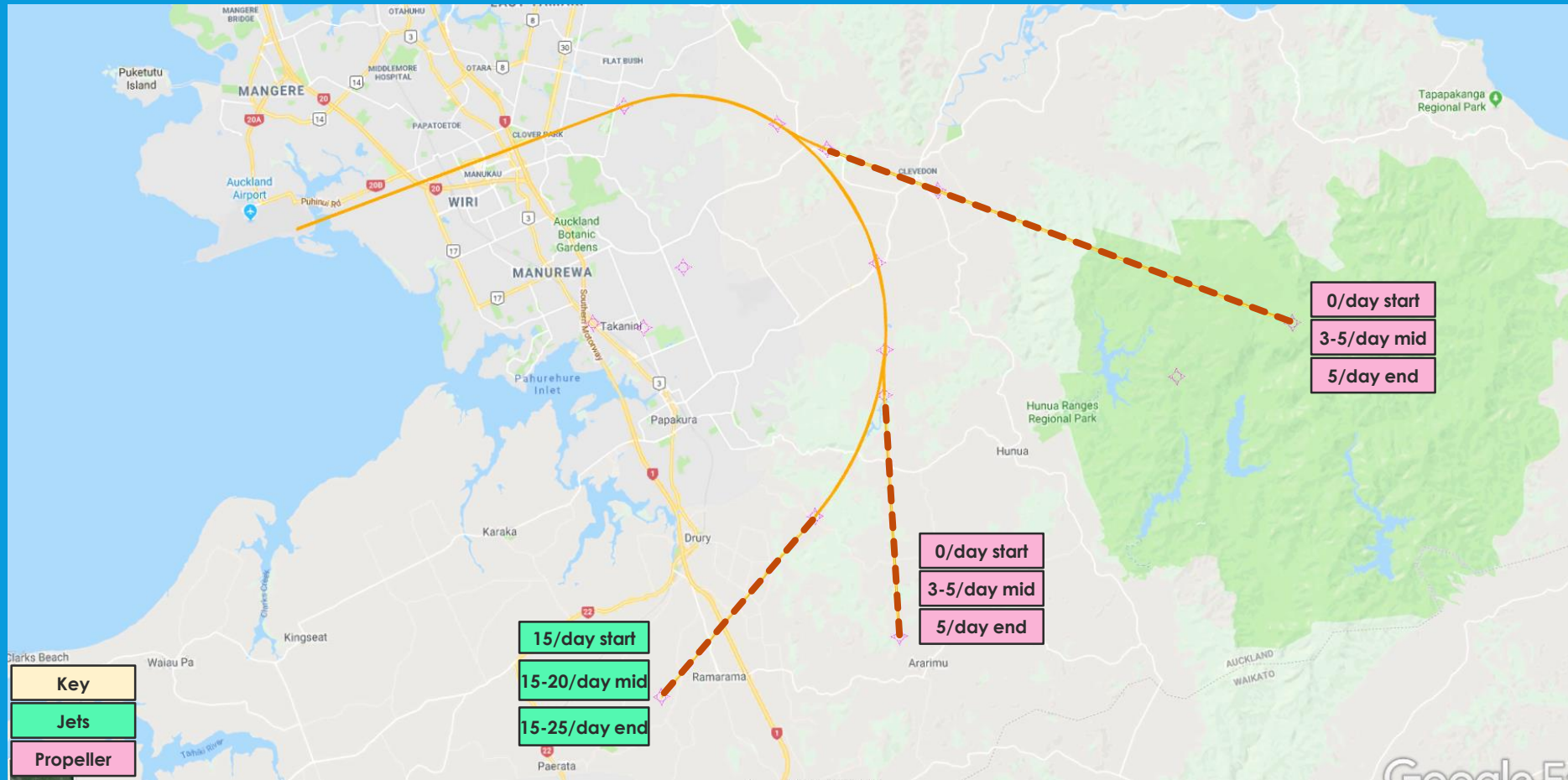




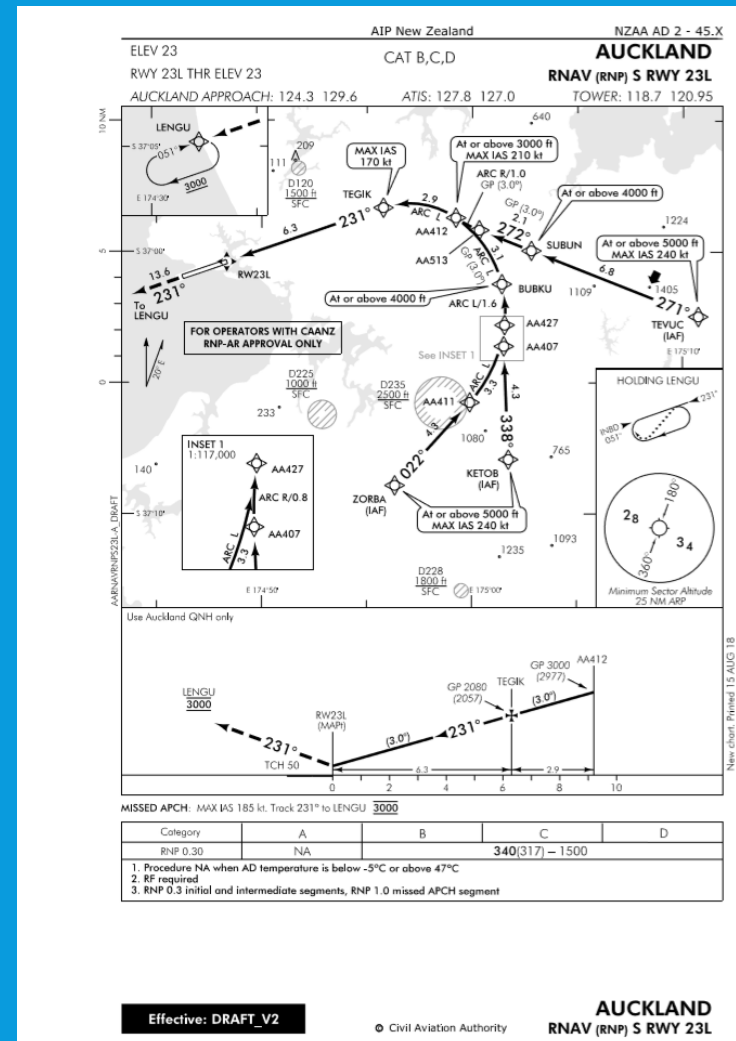
# AUCKLAND ORANGE S<sub>23</sub> – TRIAL – FLIGHT ALTITUDES



# AUCKLAND ORANGE S<sub>23</sub> – TRIAL – FLIGHT USAGE



# AUCKLAND ORANGE S<sub>23</sub> – TRIAL – FLIGHT PROCEDURE



Thank You