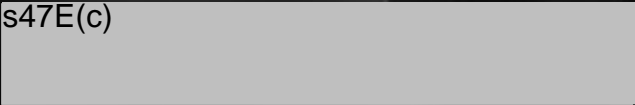




# Kings Coronation Fly Past

6<sup>th</sup> May 2023

s47E(c)



# To do

- Submit flight plan
- Products
- Inform external agencies
- Building access
- Classification access (safes/JMPS)

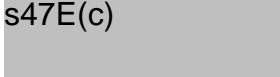


# Event details

- Where: Government House, Paddington
- What: Public open day for the Kings Coronation
  - Bands
  - Stalls
- When: 1300L 6<sup>th</sup> May 2023
- Requested:
  - 2 x fly pasts from 1300L
  - S-N and E-W directions



# Services on the day

- Building access
- OPS 1 access – 
- Classification/JMPS access
- ALS/Maint
- AMB ATC



# Products

- KPC
- Stick map
  - Airspace and freqs
  - Noise avoids and obstacles
  - TOT data
  - MSA
- Flight plan
- Mission load
  - Noise avoid GREF
  - Run in WYPTS



# Timings

- 1150: Start
- 1225: T/O
- 1230: Enter hold at Bigex
- 1253: Depart Bigex
- 1255 O/H AMB
- 1259: S+L flight along run in
- 1300: Fly past x 2
- 1315: Land



# Domestics

- Ground flow SOP
- Sufficient time to jump a spare and troubleshoot
- Fuels
  - Joker – Fuel at hold to continue fly past
  - Bingo – Visual 3.5 from O/H government house
- Doms out - Hold @ Bigex 5000ft
- Doms in – visual app
- Erase type



# Emergencies

- DSUP + Ops available
- IFR control for the day
- Diverts
  - AMB primary
  - BNE secondary
- Prior to exiting AMB asx
  - Hold O/H AMB or at bigex and troubleshoot
- BNE asx
  - Hold in consultation with BNE APP
  - Flow West to AMB for troubleshooting
- Ejection/Major – Climb and flow away from built up areas if able





# Wx/cloud

- Weather on the day
- Get visual in AMB asx and stay visual
- Request block altitude along route to avoid cloud
- Weather abort
  - OVC < 2500ft
  - SCT/BKN < 2000ft
- MSA
  - BBN: 10nm 2500ft, 25nm 3800ft
  - AMB: 10nm 3400ft



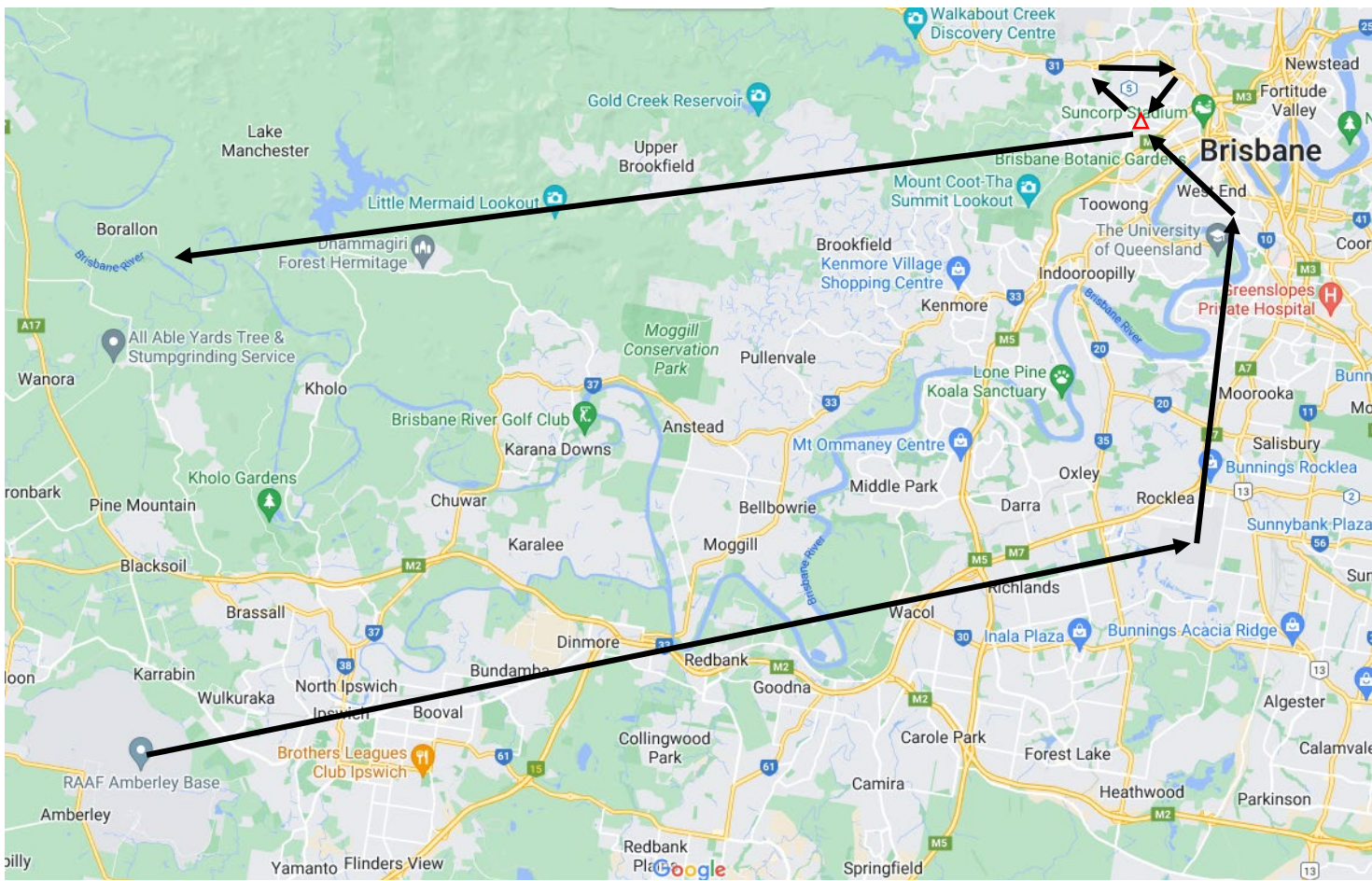
# Fly Past

- Max speed 450KCAS
  - Timing corrections
  - Traffic deconfliction
- Planned speed
  - Hold 250KCAS
  - Transit and 1<sup>st</sup> run 300KCAS
  - 2<sup>nd</sup> run 400 KCAS
- Altitude
  - Hold 5000ft
  - Transit 1000-2000ft
  - Flypast 250ft HAOW 600m



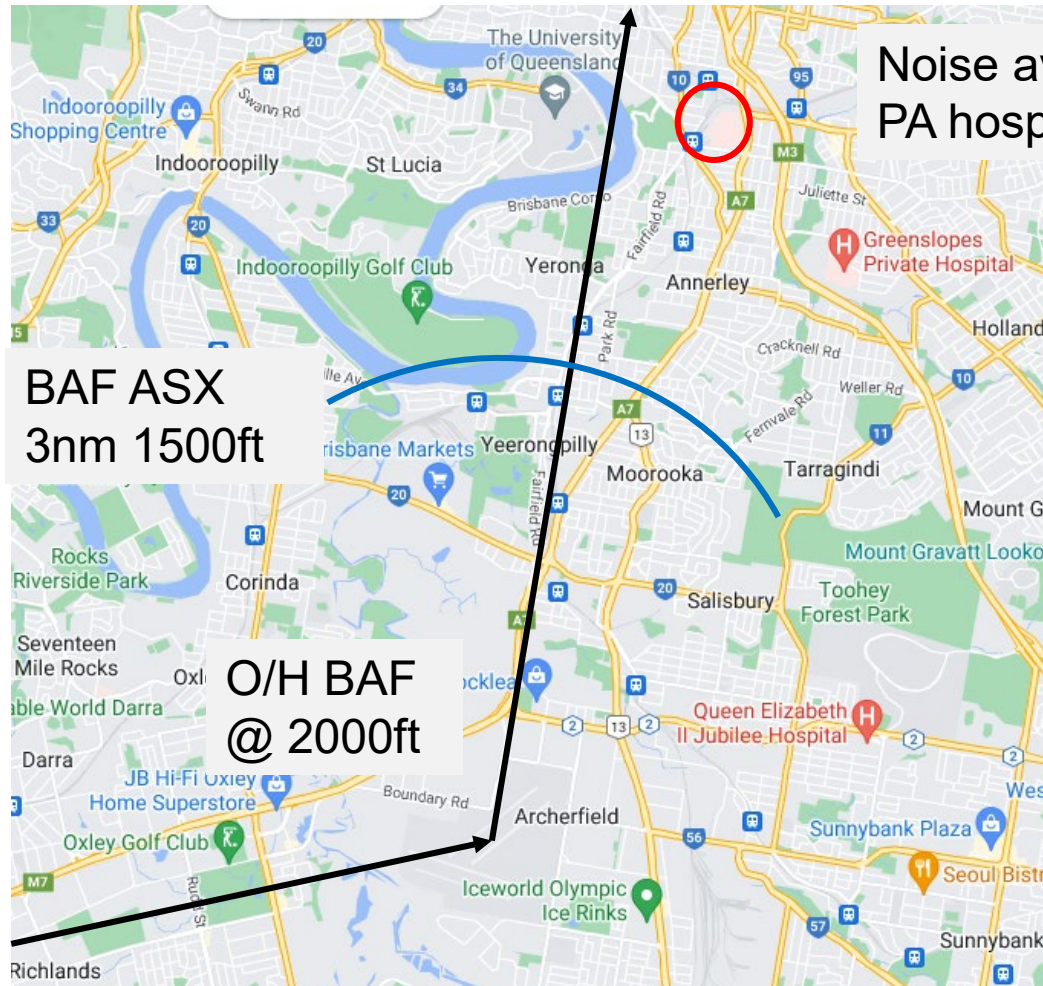
# Route

# THE FIGHTING FIRST



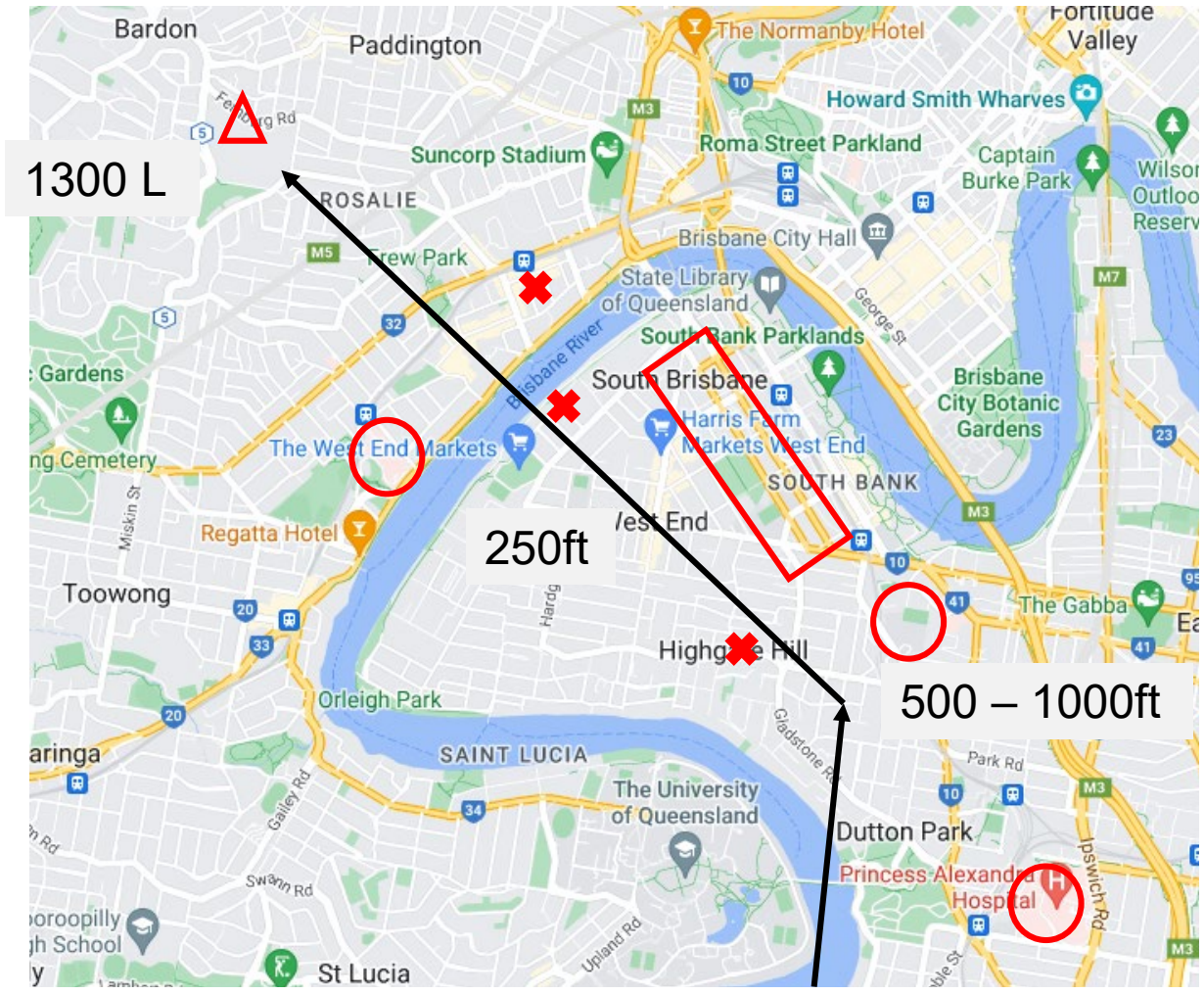
VIDEMUS AGAMUS

# Route



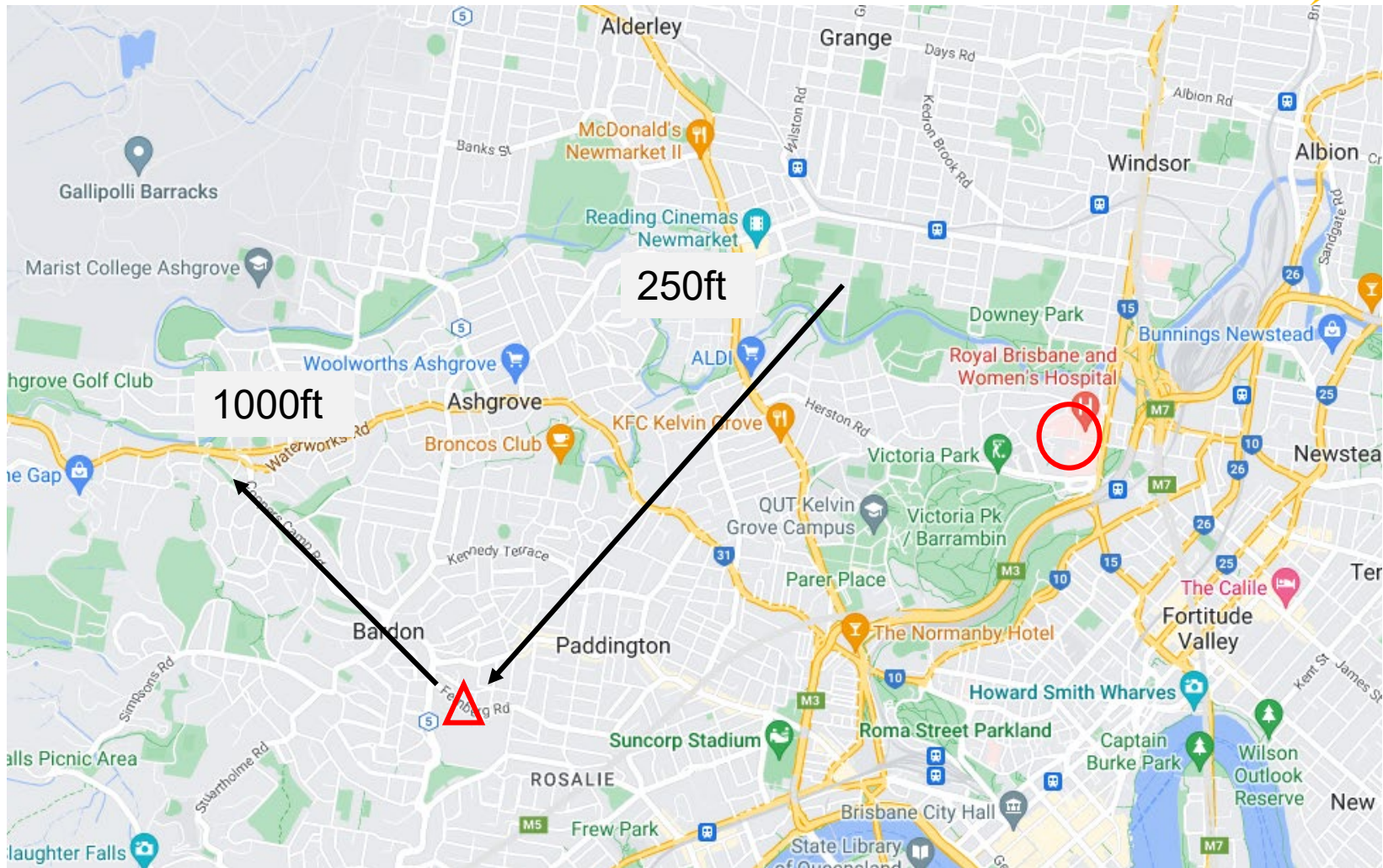


# Route



# Route

# THE FIGHTING FIRST



# Route

- AMB
- Bigex 5000ft
- Descend to 2000ft visual within AMB asx
- Track to Archerfield @ 2000ft
- Track to Fairfield shopping centre on descent 1000ft
- Track to Highgate Hill @ 1000ft
- Track direct Government House on descent 250ft HAOW 600m 300 KCAS
- Climb 1000ft RH turn to Lutwyche for 2<sup>nd</sup> setup
- Descend 250ft HAOW 600m S+L direct government house 400KCAS
- Climb 5000ft under ATC control to the West





# Obstacles/Noise avoids

- Buildings
  - Local apartment buildings
  - CBD (Highest building 890 ft)
  - Mt Cootha (741 ft)
- Hospitals
  - PA (Woolloongabba)
  - Mater (South Brisbane)
  - Wesley (Toowong)
  - RBWH (Herston)





# ASX/ATC

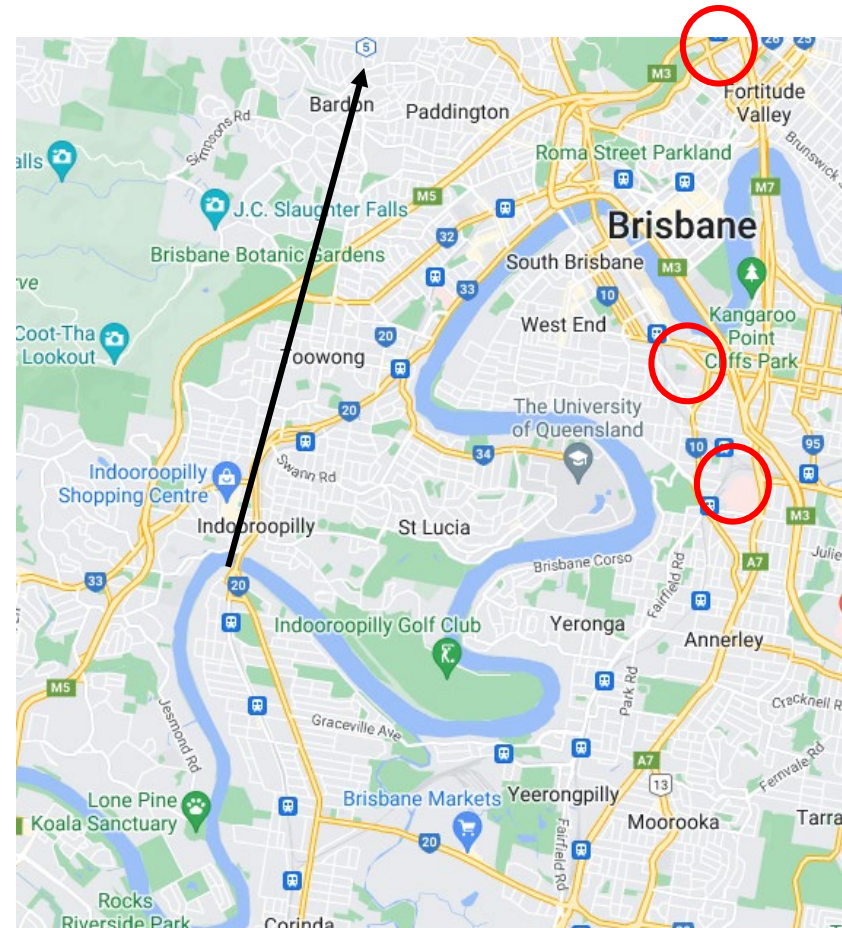
- AMB Control
  - Hold
  - RTB
- BNE Control
  - Fly past
  - IFR
  - Traffic separation
  - Block Alt
- Archerfield
  - Time deconfliction
  - Can hold traffic on the ground



# Traffic

## THE FIGHTING FIRST

- VFR Departures from Archerfield - 1000ft
- Medivac traffic to hospitals
- VFR heli tours through city



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THE FIGHTING  FIRST

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THE FIGHTING  FIRST

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# THE FIGHTING FIRST

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# POC

# THE FIGHTING FIRST

s47F



VIDEMUS AGAMUS

# THE FIGHTING FIRST





# F/A-18F Family Day Display 2023

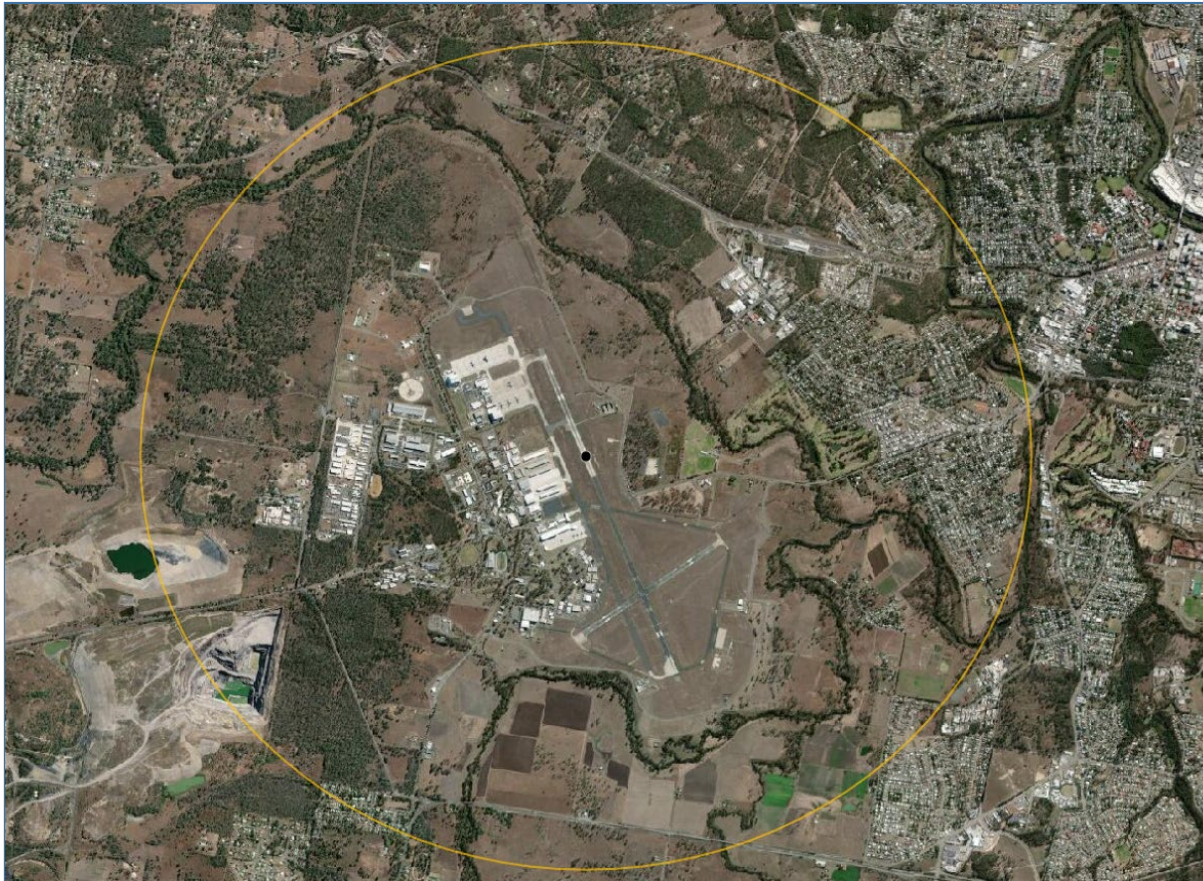
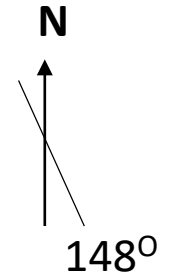
## ALE-47 Data

P4: 6 x flares @ 1sec intervals

P6: 4 x flares total

2 x simultaneous @ 1 sec interval

Circle = 2nm radius from show centre





**Takeoff:**

- MAX A/B
- 150kts rotate
- 15°NU flaps auto
- 45°NU gear up and roll

**½ Cuban:**

- 290kts / ~1000'
- 3G → 12°
- Apex: 34° to max 60ND
- Select 30ND at crowd centre
- P6 @ APEX



148°

N



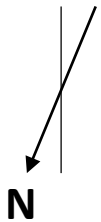
**Flat Plate** 290kts, 1200'  
34 $\alpha$  Pull, ~65°NU

**Turbo Nose Down**  
150kts, Full FWD Stick  
~20°ND  
P6

**Loaded Turn**  
15 $\alpha$ , 60° Turn  
Total 180°AoB to end inverted  
Derry Turn into Repo



148°





**Barrel Roll**

330kts, 500'

60° Turn away

25α Pull, ~45°NU – P6

360° Roll

**Flatplate**

170kts, Full Back Stick, 34α

150Kts, Full Fwd Stick – P4

Repo



148°

N



**Max Performance Turn**

380kts, 200'

7.5-5G

360° Turn

**Squat**

Approaching Crowd Centre

34α Squat thru 90°

Invert for 5 Sec – P6

Derry Repo



148°

N



**Aileron Roll**

340kts, 400'

360° Roll

Pull into Vertical 85°NU

P4, 6, 6

**Pirouette**

34α Pull out of vertical

Pirouette Controls at 60°ND

270° Pirouette

Repo



148°

N



**High Speed Pass**

~550kts, 200'

Canopy up pass

3G during the banana pass

Reverse

Idle, Max G Break

Derry Repo



148°





### High Alpha Pass

120kts, 700'

~25 $\alpha$

Afterburner past show centre  
in to climb for a reverse

½ Cuban Repo

P6



148°

N



**Vertical Departure**

450kts, 200'

6G Pull into Vertical

2x Aileron Rolls

P6 x 4

90°ND into descending Repo



148°

N



**Low pitch and Go Around**

400kts, 200'

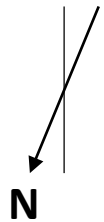
Down the runway for a derry pitch in front of crowd.

Go Around from the circuit to a high alpha squat in front on the crowd.

Land



148°





# Townsville 500 Flyover

# Mission Overview

- Townsville 500 V8 Supercar Flyover. Fixed ToT 14:26:20 AEST
- TGT : Boundary Street Straightaway/Finish Line
  - S 19 16.3240, E 146 48.6588
  - IP-TGT 5.9nm (01:00 at 350KCAS) 251°M 250' HAOW 600m
- 2x Repositions
  - 1x configured “dirty” pass (hook down, AAR probe out) 500ft
  - 1x High speed pass with a vertical pullout 250ft 500Kts MIL PWR

# AIM

- Conduct a safe flypast over Boundary Street Finish line in support of the Townsville 500 V8 Supercars

# Weather

- Updated 05/07/23 (4 days)

Cloud: FEW-SCT Sea Bases 4000ft

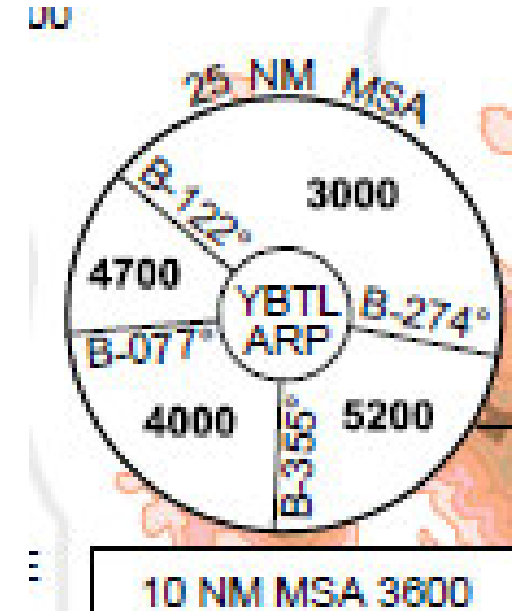
Wind: SSE 5-10kt

Weather: Nil

Visibility: 30km

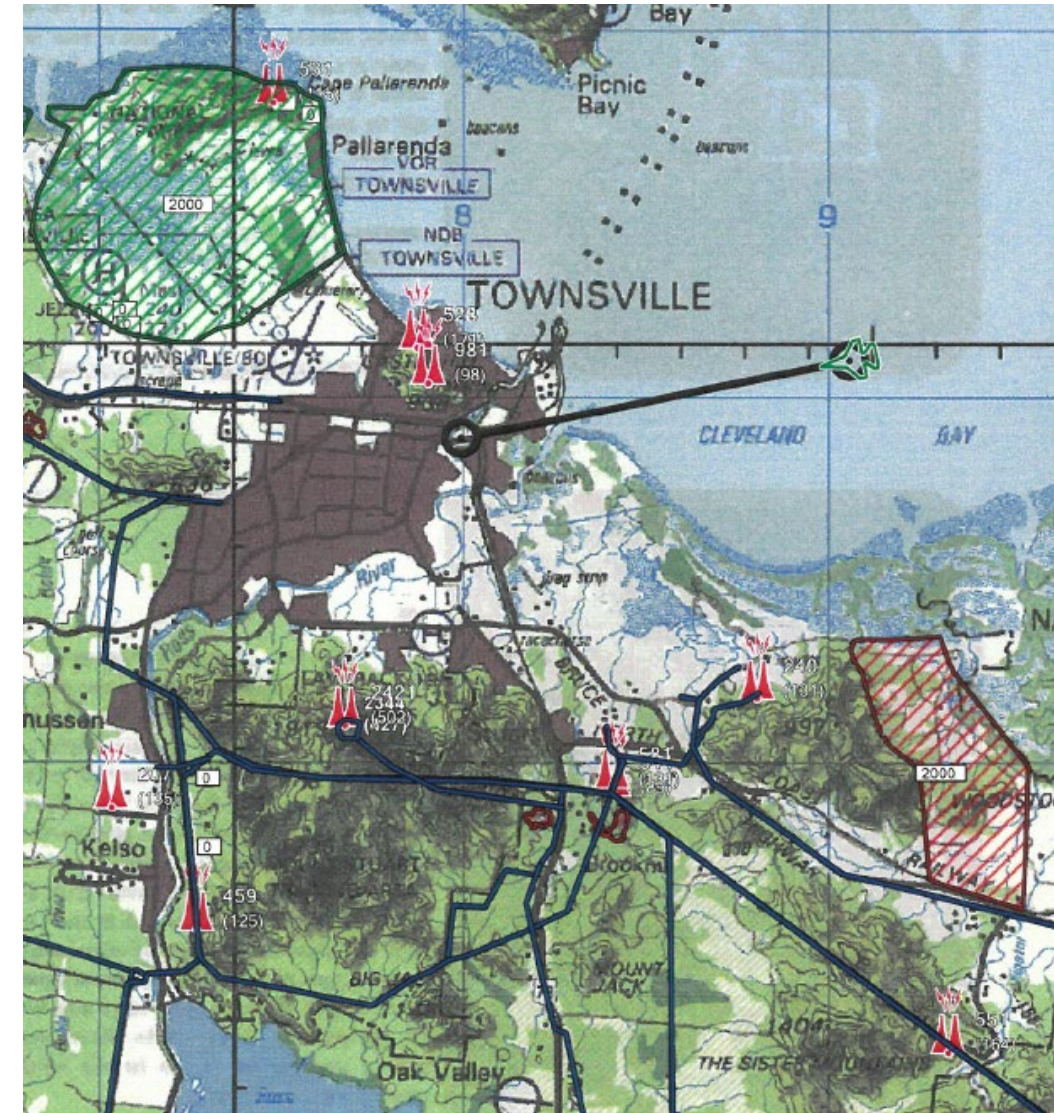
# SAFETY

- Conduct flypast IAW own organisations rules
- MSAs
  - 3600ft 10 DME YBTL (VOR 114.1 / RNAV AINS)
  - 3000ft 25nm Safe (Hold Posn.)
- CFIT
  - Route obstructions – Castle Hill, Mt Louisa, Cultural Buildup
  - Clear own flight path
  - RMP
- Separation
  - Airspace sanitised for flyover (YBTL Appr.)
  - Medevac Helo operating in YBTL CTZ takes priority. Separation will be above (Not below 2k'), rolex, or KIO. Comms passed via YBTL Appr.



# Hazards

- Terrain
  - North 1300m (0.7nm) Castle Hill
  - West 1450m (0.8nm) at closest point of approach Mt Louisa
- Powerlines
  - Western end of flyover (blue lines) – will be minimum 1000ft IVO powerlines
- Masts
  - Castle Hill Lookout
  - ESE Castle Hill (~1000m from run in)
- Avoids
  - Noise avoid NW of YBTL





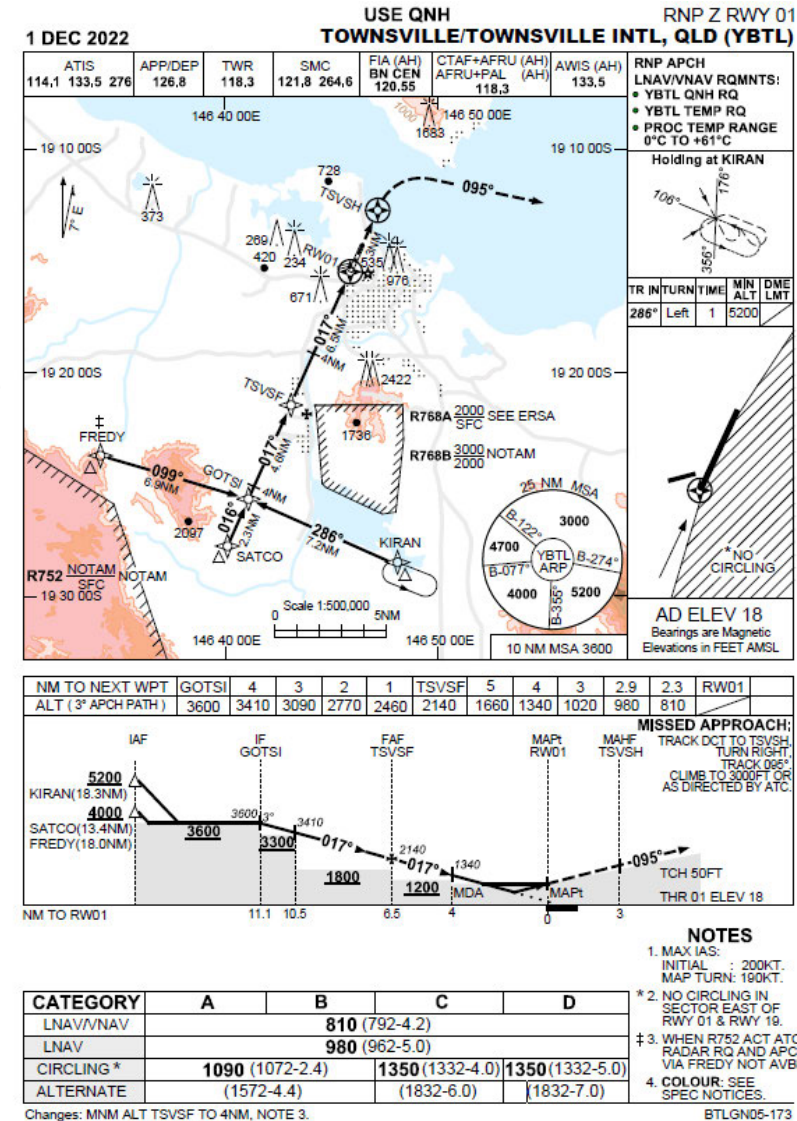
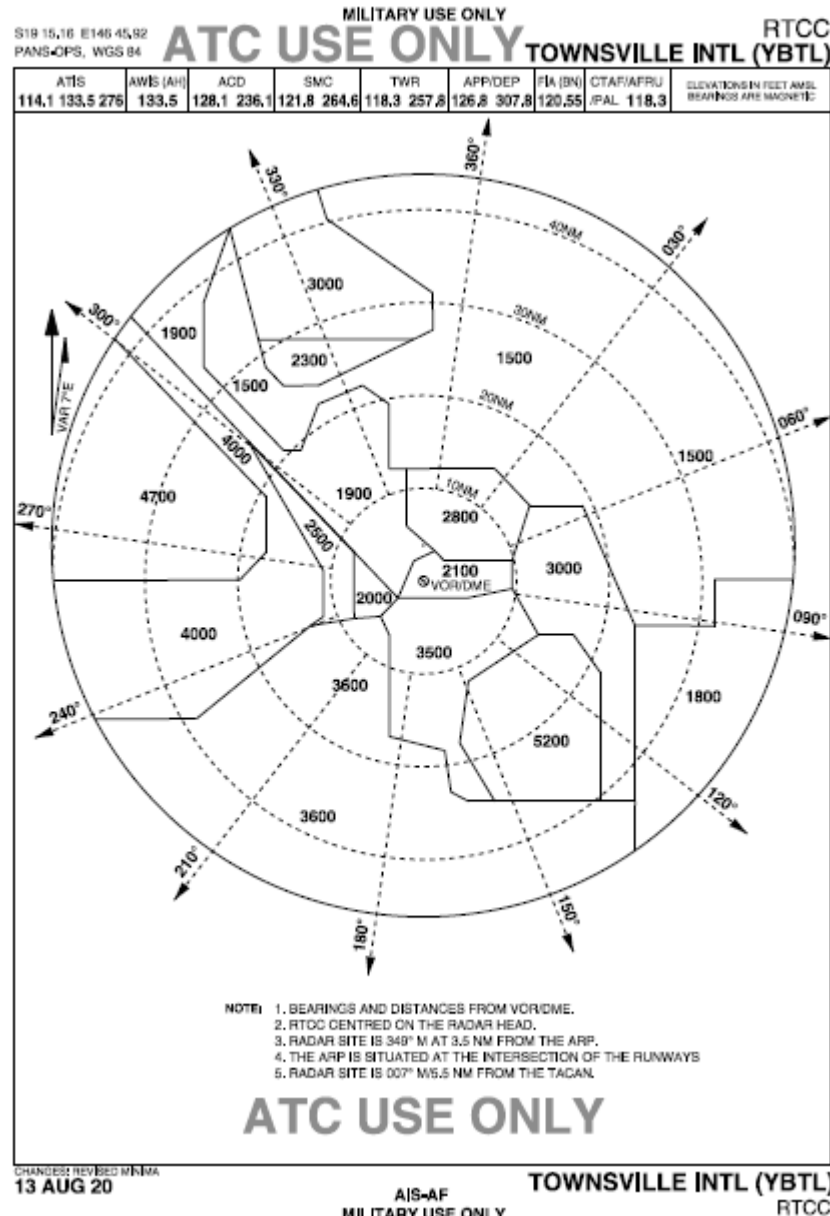
# Area Overview



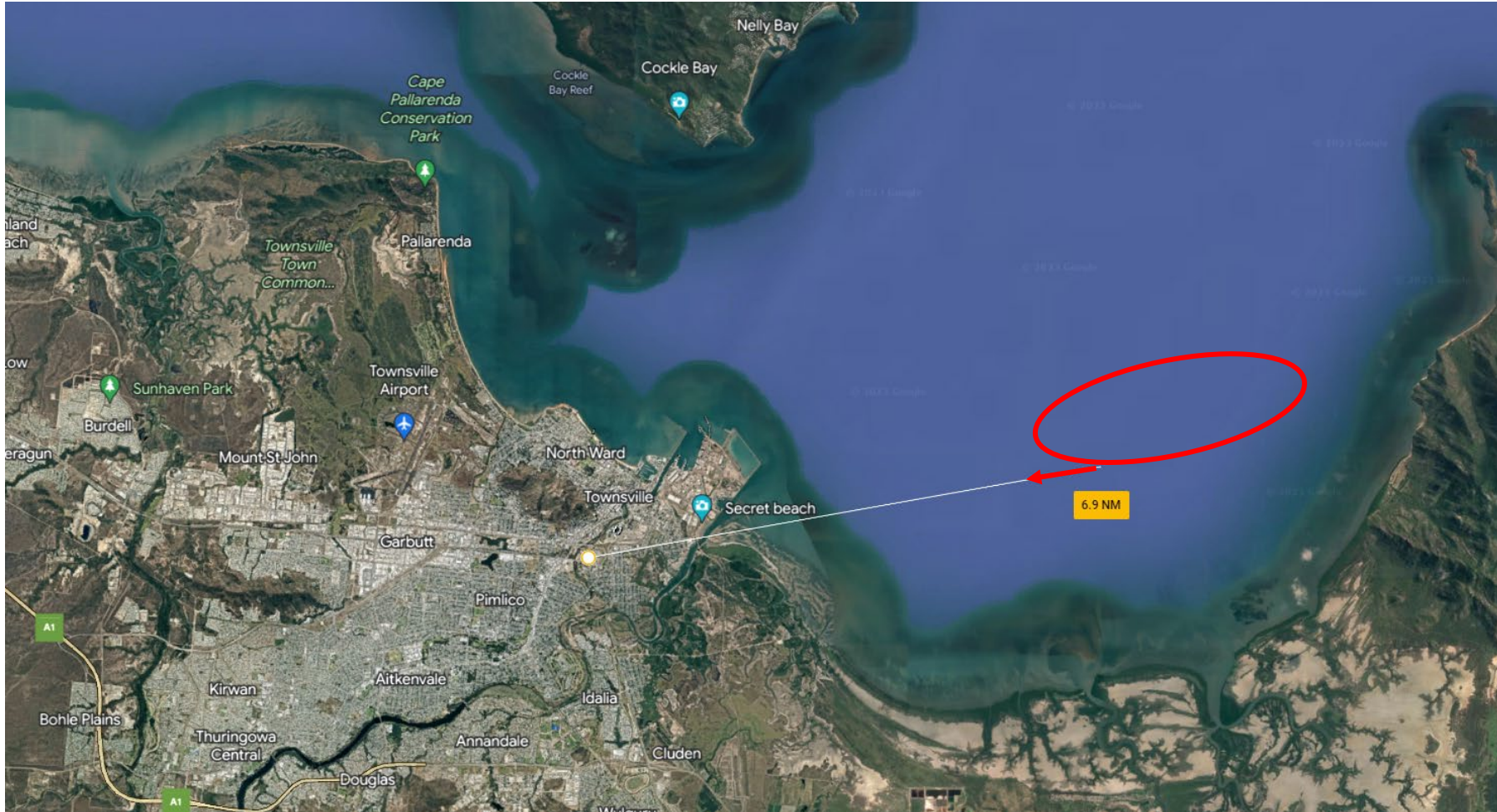


# Arrival – Visual Plan

- Primary
  - Descend visual maintaining inside CTA
- Secondary
  - Descend visual maintaining VMC OCTA or
  - Vectored below cloud
- Tertiary
  - Conduct approach into TVL then reposition OCTA



# Holding

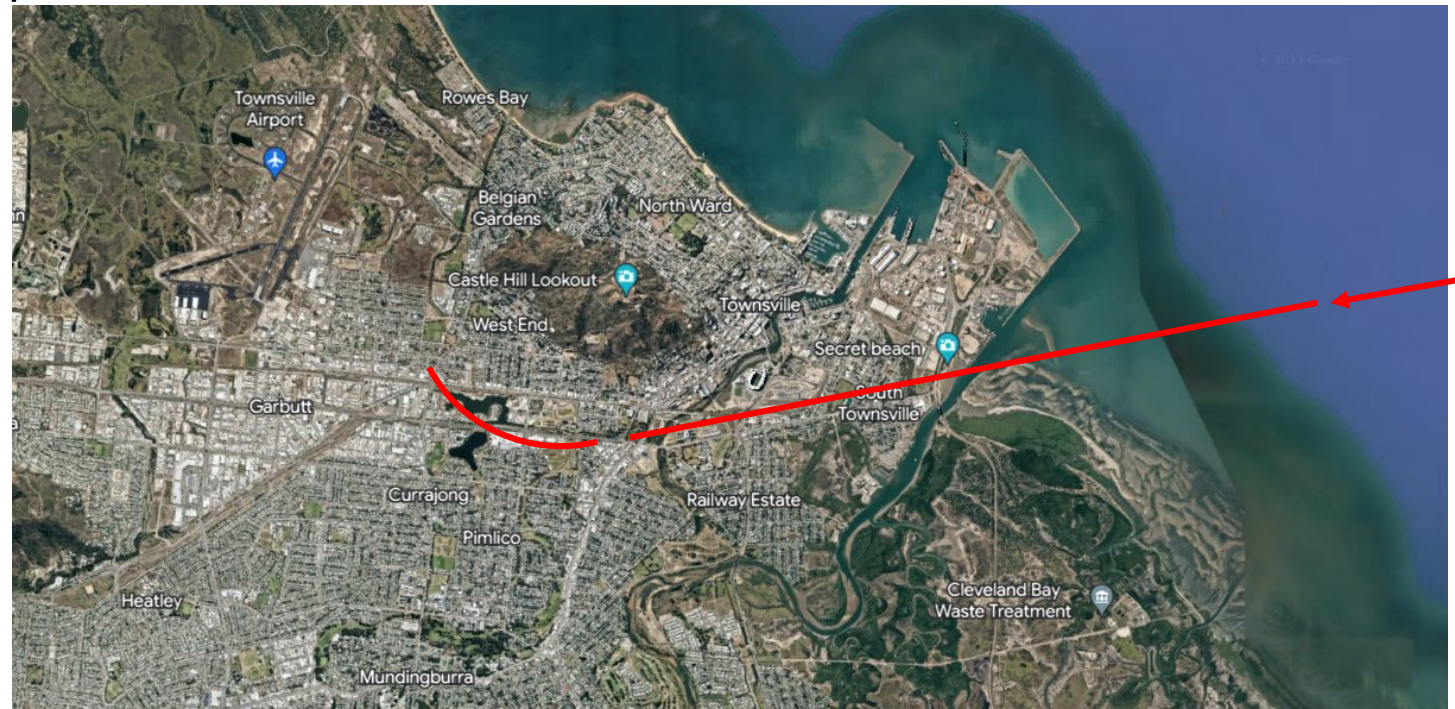


- Arrive ToT -15min
- Primary:
  - 3k' – Inside CTA
- Secondary (cloud):
  - 1000-1500' VMC – OCTA
- Comms:
  - YBTL Appr – For clearance into CTZ if req.
  - YBTL Tower – Inside CTZ



# ToT Run (post anthem)

- Comms for ToT
  - Primary 452SQN Rep on handheld radio OPS freq
  - Secondary 452SQN Rep on phone to YBTL Appr for updates
  - Tertiary Nocom push to hit ToT
- Alt/Speed
  - Initial run in 1000ft
  - Descend to 250ft - 350Kts
  - Climb to 1000ft for repo



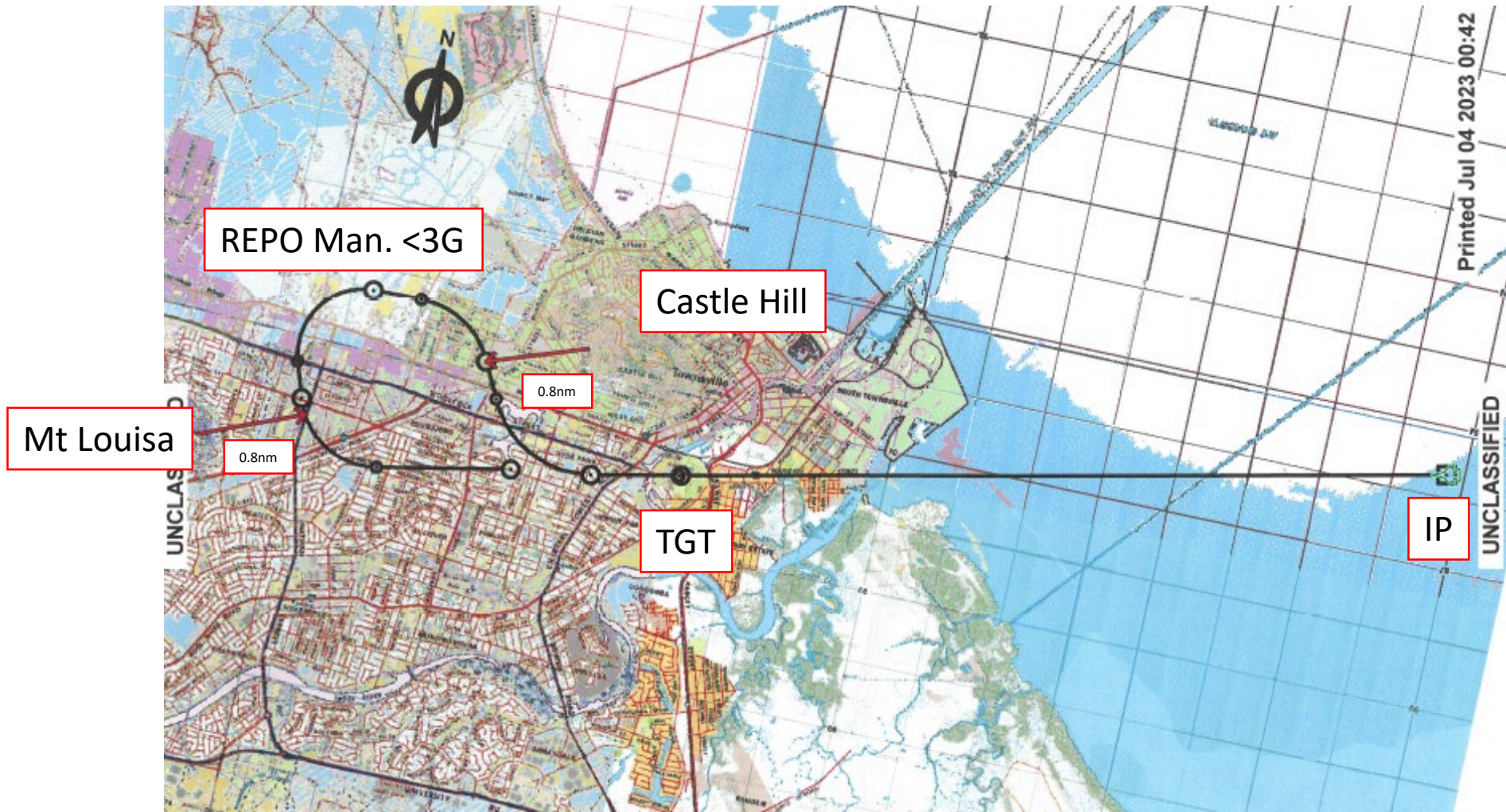


# ToT Run in View





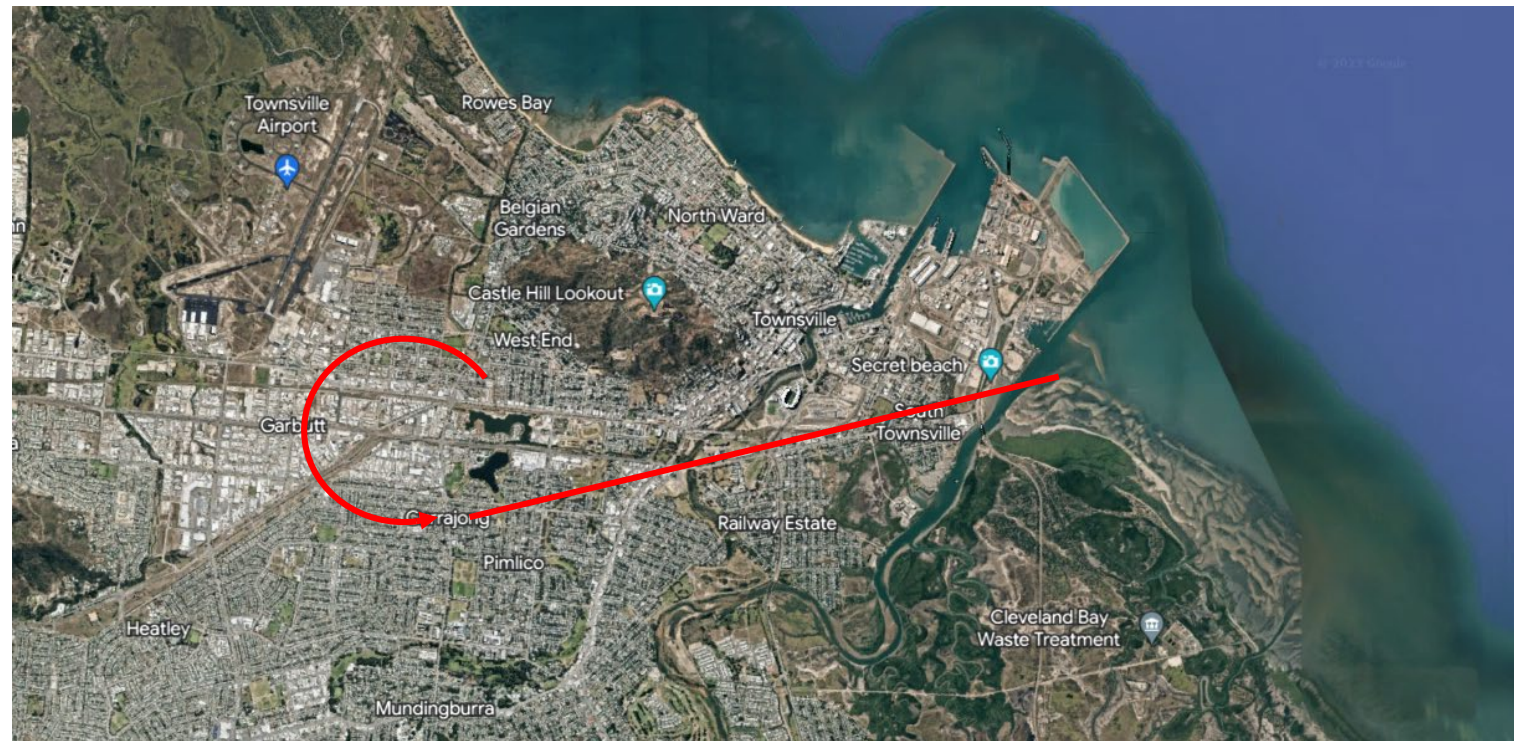
# Reposition Manoeuvre





# Dirty pass

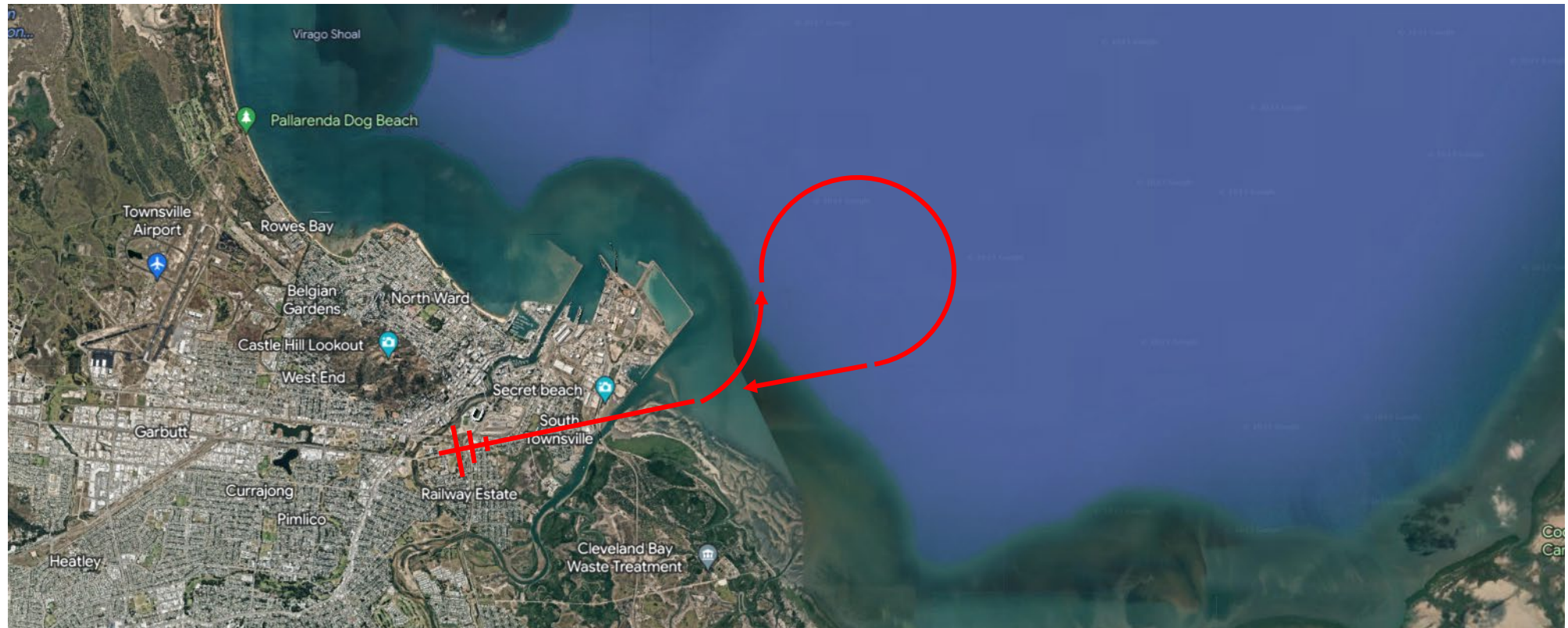
- Decel to configure in repo turn (1000ft)
- Configure rolling out onto run in HDG (Hook down AAR Probe out)
- Descend to 500ft
- 7.1AoA 20deg wing rocks
- Clean up abeam stadium
- Climb to 1000ft for repo





# Flyover Finish

- Repo over water 1000ft
- Accel to 400Kts until approaching TGT thence MIL for <500Kts overhead
- Flyover 250ft pull to near vertical and exit the area not above 18k' (or as cleared by ATC) – Min airspeed for exiting the vertical 250KCAS



# RULES

- WX Limits
  - VMC
    - 5km Vis, 1500m horizontally, 1000ft vertically
    - In YBTL CTA/CTR - If cleared Special VFR
      - Clear of Cloud, 1600m Vis
    - OCTA below 3000ft AMSL/1000ft AGL
      - Clear of cloud, 5km Vis
  - Low Flying Limitations
    - Military FW Aircraft IAW Auth
      - MSD IAW Plan and Auth
      - HAOW 600m

# Weather Minimums

- Special VFR
  - Cloud Base 1000ft Vis 5km
    - Will require a clearance for “IFR on completion”
    - Will provide visibility of Mt Louisa and Castle Hill for suitable terrain avoidance
- IFR/VFR
  - Cloud base 2000ft Vis 5km
    - Full up
- Medevac Helo Ops
  - Expected to be VFR/Special VFR not below 2000ft requiring suitable cloud clearance (1000ft vertical VFR or clear of cloud special VFR)

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