



## LAUNCH WINDOW

14 Sept - 20 Sept 2020  
(28 Sept - 4 Oct 2020)

Daily Launch Opportunity:  
10:00 – 16:00 ACST

## LAUNCH SITE

Koonibba Test Range,  
South Australia



**SOCIAL MEDIA**  
@southernlaunch



# TED-01 MISSION OVERVIEW

Southern Launch is targeting Saturday 19<sup>th</sup> September, at 10:09am ACST for the next launch of the TED-01 DART rocket from the Koonibba Test Range in South Australia.

The launch window extends from Monday 14<sup>th</sup> September, through to Sunday 20<sup>th</sup> September with a backup launch window of 28<sup>th</sup> September to 4<sup>th</sup> October 2020. Southern Launch still have the opportunity for 2 launches conducted within these launch windows, dependent on weather.

The TED-01 DART is a 2-stage rocket, with the unpropelled second stage separating from the first stage motor after 6 seconds of burning. The DART will be carrying a DEWC Systems miniature payload (DEWC-SP1) which will be released at 65km altitude, continuing along with the DART to 85km before falling back to earth approximately 95km North of the launch point.

The DART rocket weighs only 34kg and is 3.4m long, has one rocket engine, is spin stabilised and unguided. Its payload, the DEWC-SP1, is less than 27cm long, 3cm in diameter and weighs less than 500 grams. This tiny payload will conduct an important sensing mission as it descends to Earth, paving the way for future planned developments by DEWC Systems. This miniaturised suite of antennas, sensors and communication links will endure up to 50 times its own weight due to the G-forces at launch, freezing temperatures in space and extreme heat as it reaches up to five times the speed of sound as it re-enters Earth's atmosphere.

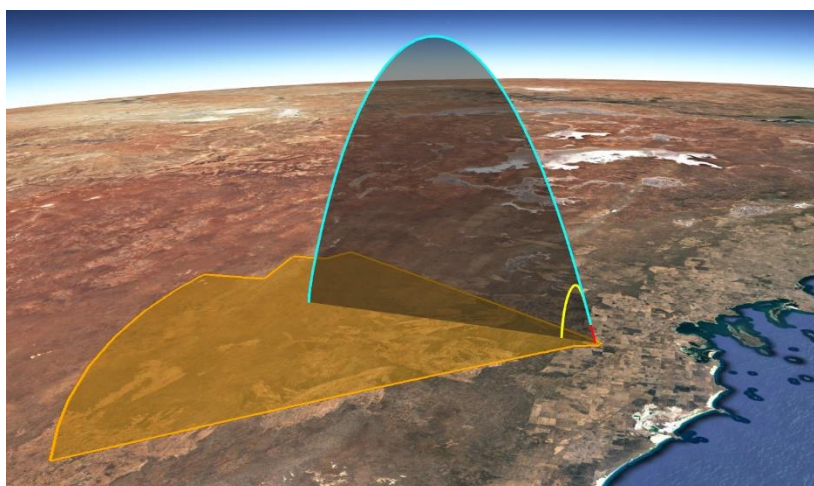
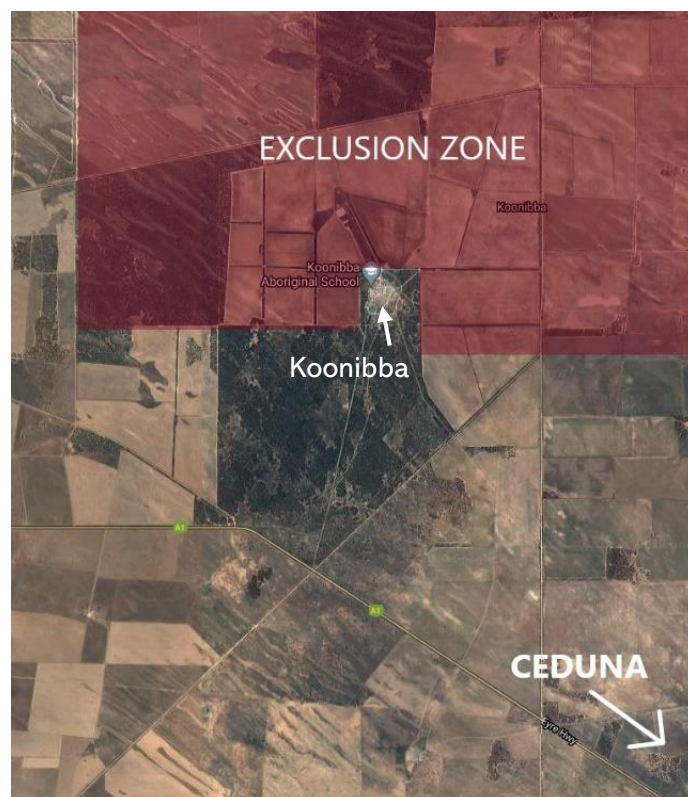


Figure 1 TED-01 DART Trajectory – The DART flies northwards from Koonibba

## TIMELINE OF EVENTS

HOUR:MIN:SEC	EVENT
- 04:00:00	Commence Pad 20 Site Setup
- 03:00:00	Setup roadblocks & exclusion zone patrols Range exclusion of non-launch staff begins
- 01:20:00	Prepare and release T-1h weather balloon
- 01:00:00	Commence hazardous procedures Commence local airspace warning broadcasts Commence rocket loading procedure
- 00:30:00	Verify that weather conditions are within operational limits TRA/NOTAM Activated
- 00:15:00	Launcher preparation complete
- 00:10:00	Request clearance to enter launch sequence
- 00:05:00	Confirm airspace is clear
- 00:02:00	Commence firing procedure
- 00:00:10	Begin 10s countdown
<b>00:00:00</b>	<b>Lift-off</b>
+ 00:00:06	Engine Shutoff
+ 00:00:06	Dart separates from Booster
+ 00:01:06	Payload Deployed
+ 00:02:17	Apogee achieved
+ 00:04:55	Dart Impact
+ 00:31:25	Payload Impact TRA/NOTAM Deactivated
+ 00:60:00	Range exclusion ends

## EXCLUSION ZONES & ROADBLOCKS



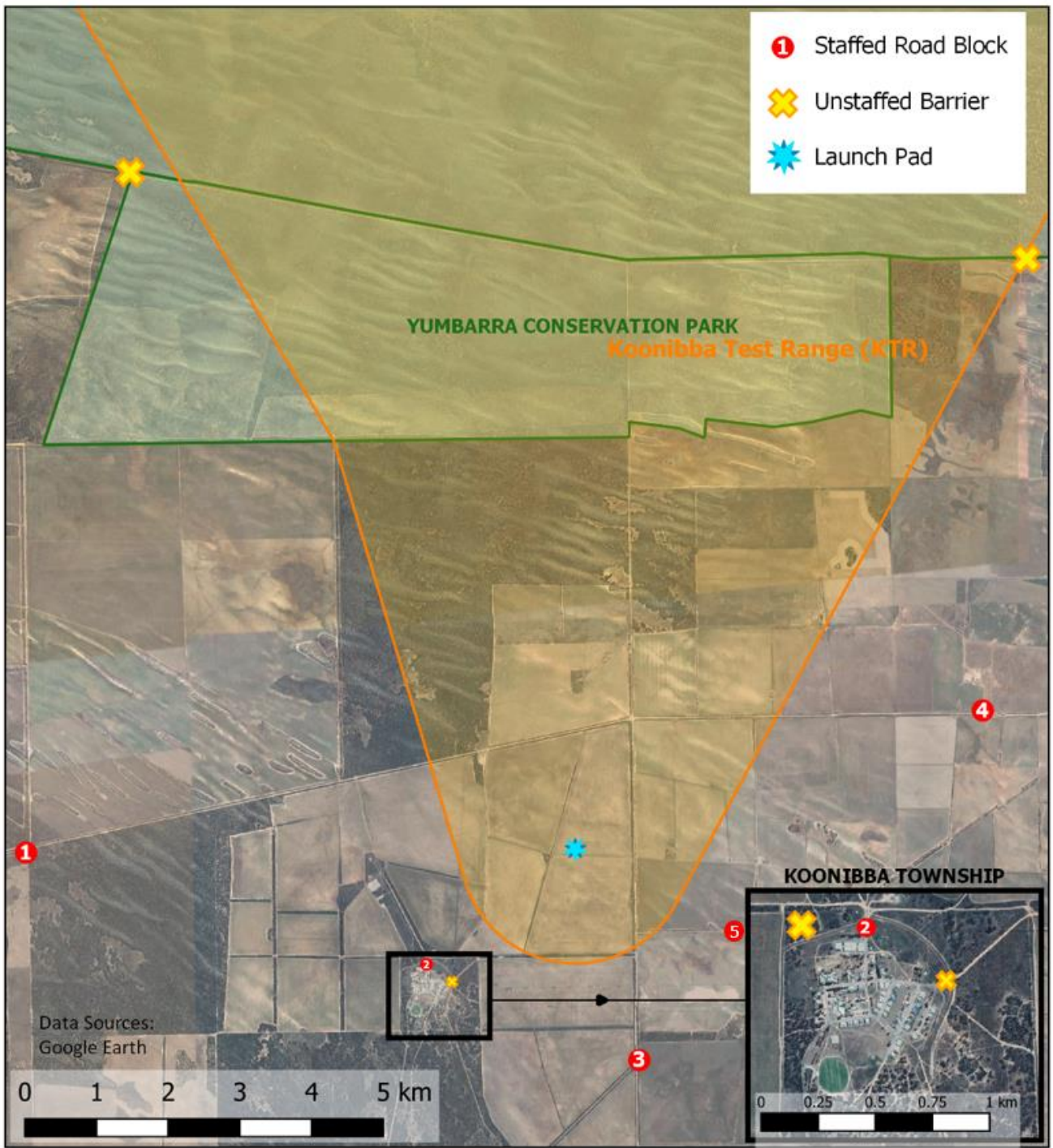
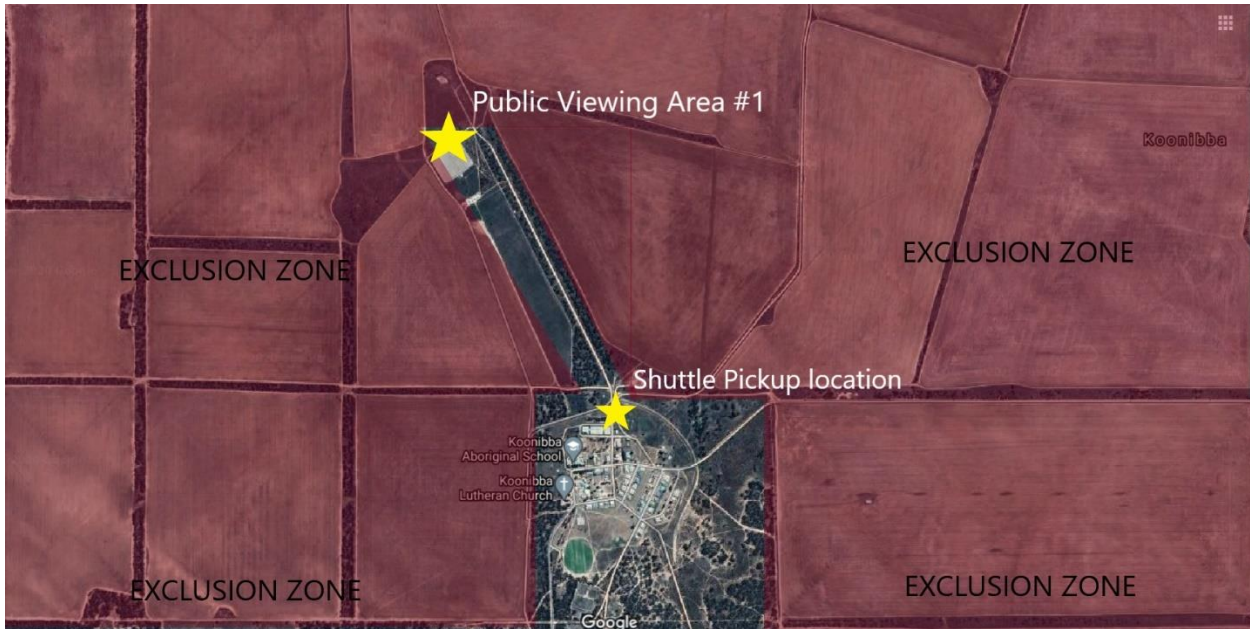


Figure 2 – Roadblocks in place on launch days during launch operations

# PUBLIC VIEWING

The public are welcome to come and watch the rocket launch. There will be limited availability at the official public viewing area arranged by the Koonibba Aboriginal Community which will offer the best view of the launch pad. Limited public vehicles will be allowed on the day into the Koonibba Community and will be advised where to park. They will then be escorted to an area where a bus will shuttle them to the viewing area.

When leaving Ceduna, drive NW along the Eyre Hwy for roughly 30km until you reach Micky Free Lawrie Drv, the Koonibba entrance road. Turn right towards the town of Koonibba and continue until you reach the checkpoint where you will receive parking instructions.



Once the maximum capacity has been reached within the Koonibba Community, the secondary viewing area will be along Foggos Rd, south-east of Koonibba, as per the map below.

