

SOUTHERN LAUNCH



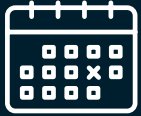
TED 3 VE²NOM

MISSION OVERVIEW | AUGUST 2022

LAUNCH DETAILS



LAUNCH COMPLEX
Koonibba Test Range
Koonibba, South Australia



LAUNCH WINDOW
Opens August 29



DAILY LAUNCH OPPORTUNITY
08:00 - 16:00



LAUNCH VEHICLE
2 x T-Minus Engineering DART rockets



PAYLOAD
TMESLA-1323



CUSTOMER
T-Minus Engineering, Asension

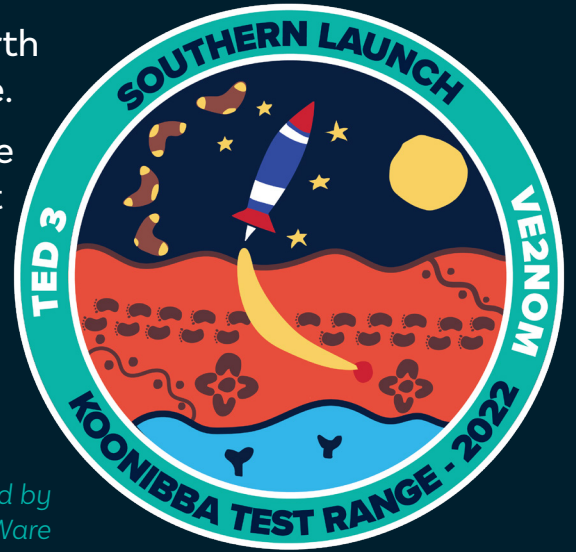


MISSION OVERVIEW

The TED 3/VE²NOM mission will be the third and fourth launch from Southern Launch's Koonibba Test Range.

The rocket will carry small payloads close to the edge of space. The payloads will separate from the rocket and fall back to Earth using a parachute.

Scientists and engineers will then recover the payloads to examine how they performed under the pressures of launch.



TED 3/VE2NOM mission patch designed by Koonibba artist Kevina Ware

For the TED3/VE²NOM mission, Southern Launch will successively launch two DART rockets each carrying two small payloads.

The DART rocket is manufactured in the Netherlands by T-Minus Engineering. The payloads have been designed by T-Minus Engineering, Southern Launch and Asension.

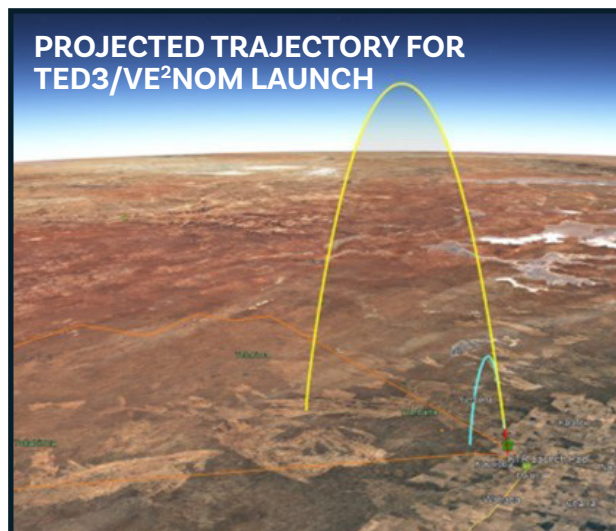
Launched northwards over the uninhabited Koonibba Test Range, each rocket will travel at Mach 5 or approximately 1.5km per second. The rockets will reach an altitude of 75 kilometres above Earth.

The rocket engine will burn out of fuel 7 seconds after lift-off. The front 'Dart' section of the rocket will separate and continue up to 75kms above Earth while the rocket motor will fall back into a designated area within the Koonibba Test Range.

The motor and payloads will be recovered from the test range by a specialist team made up of the Koonibba community, engineers and environmental experts.

The TED 3/VE²NOM mission is the second time that Southern Launch has partnered with T-Minus Engineering to launch DART rockets from the Koonibba Test Range.

In 2020, Southern Launch, DEWC Systems (now Asension), T-Minus Engineering and the Koonibba Community Aboriginal Corporation entered the history books as the first entities to launch a commercial rocket to the edge of space from Australia.



DART ROCKET

Dimensions

Diameter - 35mm
Length - 1.12m

Weight

Total mass - 3.5kg
Payload mass - 0.5kg

Loads

Max longitudinal acceleration - <60G
Max mach number - 5.2

DART BOOSTER

Dimensions

Diameter - 118mm
Length - 2.3m

Weight

Propellant mass - 19.7kg
Loaded mass - 25.7kg

Motor performance

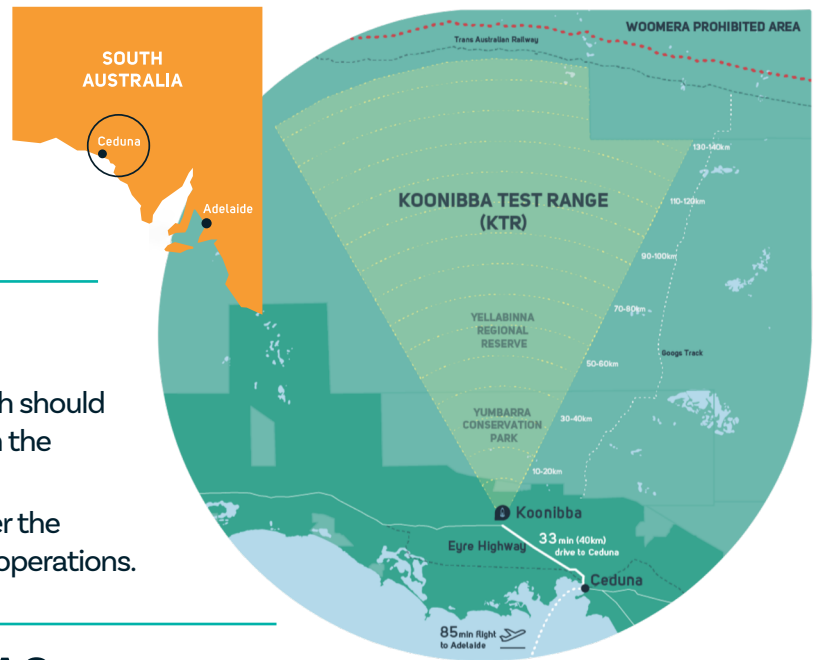
Burn time - 7 seconds
Average thrust - 8.0kN



COMMUNITY INFORMATION

KOONIBBA TEST RANGE

The Koonibba Test Range (KTR) is located 40km north-west of Ceduna on the West Coast of the Eyre Peninsula, South Australia.



PUBLIC VIEWING

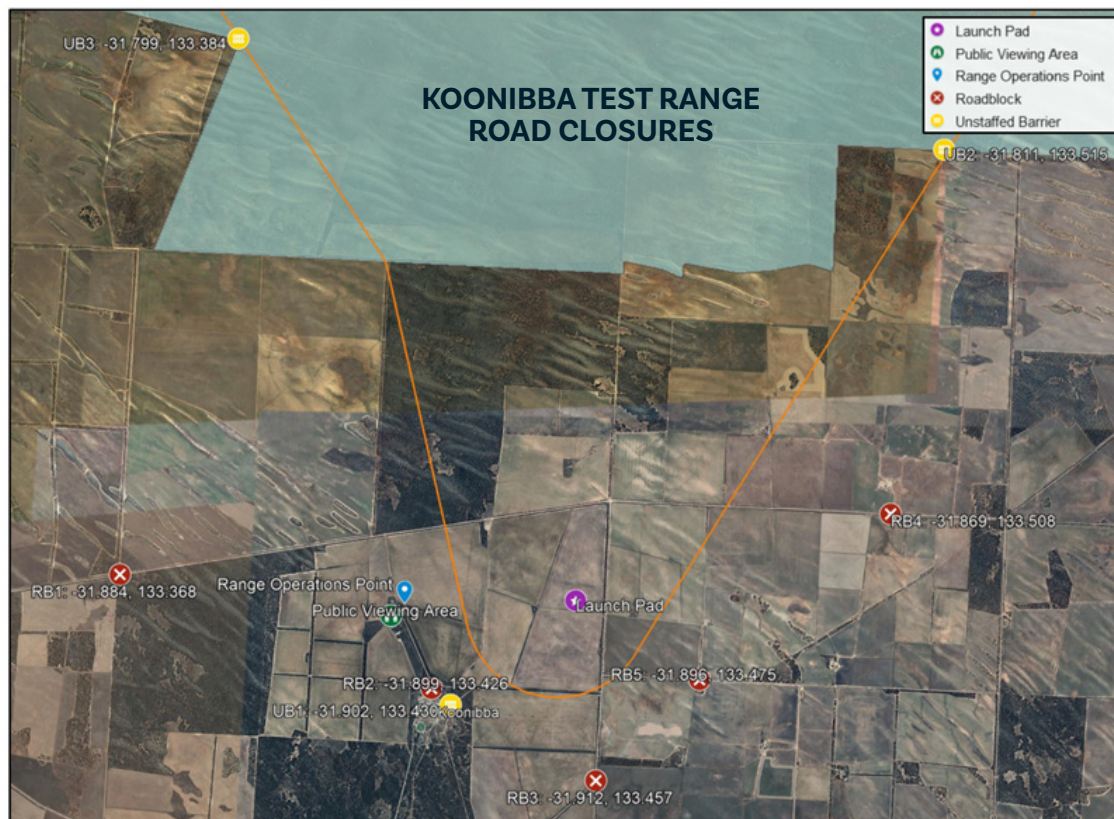
Members of the public wishing to view the launch should follow the directions to the public viewing area in the township of Koonibba.

Members of the public are not permitted to enter the Koonibba Test Range at any point during launch operations.

LAUNCH EXCLUSION AREAS

GROUND EXCLUSION AREA

Roads surrounding the Koonibba Test Range will be closed to ensure the safety of the surrounding community on the day of launch. Trained members of the Koonibba Community will staff roadblocks preventing entry into the range area. To minimise disruptions to community members, road closures will be in place for the minimum amount of time possible.



AIRSPACE RESTRICTIONS

A Notice to Airmen (NOTAM) providing details of airspace restrictions will be published on the National Aeronautical Information Processing System (NAIPS).

SOUTHERN LAUNCH

Southern Launch is a launch service provider, headquartered in Adelaide, South Australia. Our offering includes the Southern Launch Orbital Launch Complex, and the Koonibba Test Range, our suborbital testing facility.

Launch

As the evolution of technology continues, launch performs the key role in sending satellites into space. Without space launch, there is no GPS, no broadband internet, and no effective way to monitor the environment or handle emergency situations. Space technologies are also critical for national security.

Southern Launch's unique offering relates to all elements of launch, including designing, building, testing, and flying the next generation of smart rocket vehicles.

Land

The Southern Launch orbital and suborbital launch facilities are located on the Eyre Peninsula in South Australia. The preservation of this land is at the forefront of how we work, including paying our respect to traditional landowners including the Barngarla (Port Lincoln area), Nauo (southern side), and Wirangu (further west coast) peoples.

We believe that the space industry and biodiversity conservation can coexist. Our Conservation Policy Statement and our Biodiversity Management Strategy illustrate our commitment to establishing two world-class launch complexes that minimise the impact on biodiversity, natural scenic beauty and cultural heritage conservation.

As part of the development of our launch sites, we have consulted with experts from numerous disciplines to ensure our developments have minimal environmental and cultural impacts.

Throughout the development of the Southern Launch Orbital Launch Complex, we will be introducing infrastructure to help eradicate feral animals and weeds to protect native flora and fauna.

Leadership

Southern Launch has been at the forefront of fostering a full-spectrum, strategic, sovereign and globally engaged Australian space sector.

We believe Australia is ideally placed to be the leading Indo-Pacific hub for launch operations and to play an innovative and significant role in shaping the future global space economy.

We remain a close and committed partner of the Australian Space Agency in pursuit of its vision and strategic objectives.

SOUTHERN LAUNCH 

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