

24 August 2026

ASX Release

# Successful Hypersonic Test Flight recorded incorporating Cadoux's premiumHPA®

## Highlights

- *Cadoux participated in a hypersonic test flight out of the USA with Pluto Aerospace (Pluto) to validate batteries incorporating Cadoux's premiumHPA® produced by battery development partners Navitas Systems and American Energy Technologies Company (AETC)*
- *The Pluto hyper-rocket successfully completed its test flight, validating the Navitas battery enhanced with premiumHPA®*
- *The Navitas battery performed to specification, withstanding extreme environmental conditions and managing thermal and physical challenges during the flight*
- *Navitas batteries were selected following the successful qualification and testing of their advanced battery cells incorporating recycled materials, demonstrating superior performance, reliability and safety.*
- *The successful hypersonic flight further endorses the qualification of Cadoux's premiumHPA®*

Emerging critical minerals producer Cadoux Ltd (ASX: 'CCM') ('Cadoux' or the 'Company') is pleased to announce the successful hypersonic test flight in the United States of America (USA) conducted by Pluto using batteries in the rockets onboard management system developed by suppliers AETC and Navitas featuring Cadoux's premiumHPA®.

## Navitas Battery Featuring Cadoux's premiumHPA®

The Navitas-designed battery incorporates AETC's advanced additives technology, which combines primary and recycled materials, enhanced with Cadoux's nanosized premiumHPA® alumina to boost battery performance, safety and operating life. This combination has enabled Navitas to achieve consistent and superior performance from its advanced lithium-ion battery, including under the extreme operating conditions and temperatures required for specialised applications.

The rocket's control management was powered by 3.8 Ah pouch cells manufactured by Navitas Systems, utilising natural and recycled materials and enhanced by Cadoux's premiumHPA® across the battery architecture. The battery is designed to operate in extreme conditions, including temperatures ranging from + 30° (ground level) to as low as -50° C in the troposphere

The successful hypersonic flight test demonstrated the battery's ability to reliably deliver power while maintaining performance, thermal stability, structural integrity and safety under extreme acceleration, vibration and temperature conditions.

## Dash Flight 008 Details

The flight was successfully conducted in the USA on Tuesday, 18 August 2026. The Pluto Dash One, Flight 008, a solid fuel rocket, achieved a maximum speed of 5.5 Mach and approached acceleration of 150 G (G-force) and a height of > 45,00ft.



*Image of a Pluto Aerospace rocket Flight 008 with Navitas battery launched from Spaceport America, New Mexico, USA*

## Hypersonic Flight Mission Achievements

The Pluto hypersonic test flight, using the installed Navitas battery utilising Cadoux's premiumHPA<sup>®</sup>, validated the battery across the following performance criteria:

- **Reliable power delivery** – consistent voltage, current and power output throughout the test profile.
- **High-rate performance** – ability to deliver the required power during rapid acceleration and the high-demand event.
- **Thermal stability** – maintaining safe operating temperatures despite extreme aerodynamic heating, vibration and rapid environmental changes.
- **Safety and stability** – no thermal runaway, venting, fire, leakage or other hazardous failure under the test conditions.
- **Vibration and shock resistance** – maintaining cell integrity and electrical performance under extreme vibration, acceleration and mechanical shock.
- **Pressure and environmental resilience** – reliable operation through rapid changes in altitude, pressure and temperature.
- **Energy retention** – maintaining expected energy capacity and voltage characteristics throughout the flight.
- **Structural integrity** – no physical damage, deformation or degradation of the cells, casing, connections or battery pack.
- **Post-flight performance** – battery remains electrically and physically stable following exposure to the hypersonic test environment.
- **Repeatability** – consistent performance across multiple cells and modules.



*Nose cone and Control Management Stage of the Navitas Pluto rocket – Flight 008.*

### Pluto Hypersonic Flight Program Partners

**Pluto Aerospace** is a USA based high speed flight research and development company providing rapid, iterative flight testing of reusable and recoverable hypersonic cargo vehicles.

**American Energy Technologies Company** is a USA-based technical partner in the SAFELOOP consortium who specialise in advanced materials research and development. AETC is a proud supply chain member of electric vehicles and an approved supplier to twelve battery manufacturers and one fuel cell producer in the US.

**Navitas Systems** is a wholly owned subsidiary of East Penn Manufacturing Company, Inc. (EPM, headquartered in Lyon Station, Pennsylvania, US). Navitas is a developer and manufacturer of high-performance battery systems and operates a full-service facility for the research, development, manufacturing, and testing of Li-ion cells and batteries to support military, commercial, and industrial customers. EPM is a 75-year-old, family-owned US company operating the largest single-site, lead acid battery manufacturing facility in the world.

**Cadoux Managing Director, Mr. Roland Hill commented:** “For Cadoux, the successful hypersonic test flight represents a further major step in the qualification and commercial de-risking of our premiumHPA®. The flight provided the opportunity to exhibit the battery’s operating performance in an advanced engineering application. The use of the Navitas battery in such flight conditions is a technology breakthrough and real-world demonstration of the performance, reliability and safety of the battery which incorporates Cadoux’s premiumHPA®”.

Authorised for release by Roland Hill, Managing Director.

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## About Cadoux Limited

**Through the dual overlays of robust project economics and ESG, Cadoux aims to increase long term shareholder value whilst fostering increasing project sustainability.**

Cadoux is an emerging developer of critical minerals projects, focused on two key materials essential for global electrification – high purity alumina (HPA) and rare earth minerals which are key feedstock for rare earth magnets. Cadoux is positioning itself to be a significant producer in both markets to take advantage of growing demand in rapidly developing high-tech product markets and contributing significantly to the global momentum for a decarbonised future.

Both Cadoux's HPA and 'Minhub' projects align strongly with Australia's critical minerals policy by inducing new supply of essential critical minerals and creating value-adding, new sovereign supply chains for strategic minerals.

HPA is increasingly becoming the preferred input material for certain high-tech products, principally for its unique characteristics and chemical properties in high specification requirements. Key markets include LEDs and other sapphire glass products, although a longer-term driver for HPA, with forecasts of up to 33% year-on-year growth (GAGR)\*in some categories, is the electric vehicle and static energy storage markets where the HPA increases power, functionality and safety when used as a separator material between the anode and cathode in high-performance batteries.

An innovative process designed by Cadoux has enabled the integrated production of high quality, high purity alumina (HPA) up to 99.999% (5N) purity at robust economically sustainable operating costs. This has been demonstrated through a pilot plant and extensive market studies. Cadoux is now looking to commercially develop that process through a staged development which includes a 1,000tpa small scale production facility in Western Australia followed by a 10,000tpa full scale commercial plant.

Cadoux's HPA strategy has won the backing of State and Federal governments, with Cadoux being the only junior developer with both Western Australian lead agency status and designated as Major Project Status by the Federal Government.

In the Northern Territory and through the development of the Minhub Project which will include a mineral separation and rare earths minerals processing facility in Darwin, Cadoux is looking to develop a new supply chain for Australia's emerging rare earths and mineral sands projects. Through a commercial framework, Minhub aims to process 3<sup>rd</sup> party mineral concentrate and supply rare earth rich xenotime and monazite mineral products to selected markets. This includes potentially supplying customers and interested parties with rare earths enabling a significant increase in the supply of critical magnet feed rare earth metals dysprosium and terbium for key markets such as Electric Vehicles.

\* Technavio (2024): Global High Purity Alumina Market 2024-2028