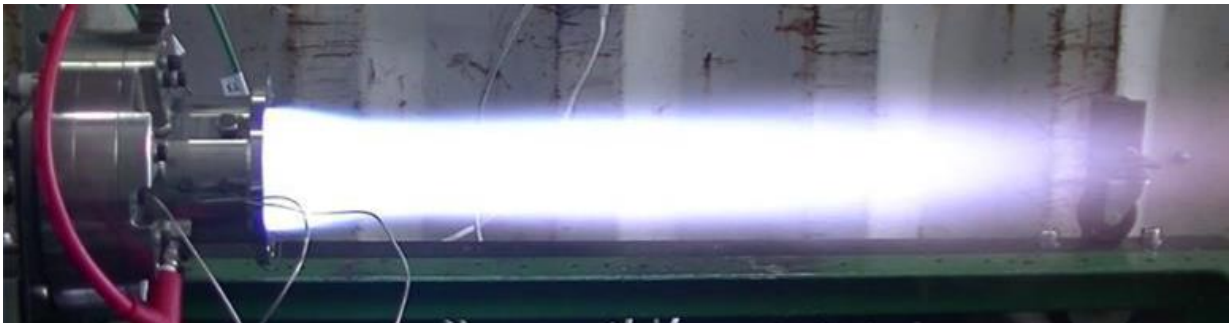
PRESS RELEASE

April 5, 2022
PD AeroSpace, LTD.

Demonstrates the World's First RDE-based Jet/Rocket Mode Switching Technology



NAGOYA, JAPAN, April 5, 2022 – PD AeroSpace, LTD. ("PDAS") has successfully demonstrated the world's first Jet/Rocket combustion mode switching in a rotating detonation engine ("RDE").

Conventional jet engine cannot be used in the space where air is not available. Thus, rocket engine with oxidizer is required for the space flight. In order to efficiently fly within both the atmosphere and the space, both jet and rocket engines need to be on board, or aircraft and spacecraft needed to be operated individually as two systems. PDAS's jet/rocket combustion mode switching engine aims to solve this issue.

PDAS started developing the jet/rocket switching concept in a Pulse Detonation Engine (PDE), and successfully validated the concept in 2017. After the validation, PDAS started developing and successfully validated the same concept in RDE. PDAS has already submitted the patent application for the RDE-based Jet/Rocket combustion mode switching technology on March 8 2022, and presented the results in the academic conference on March 10 2022.

The successful demonstration of the Jet/Rocket mode switching is a major milestone for PDAS's goal of providing safe and efficient space transportation systems. PDAS will continue to develop the engine to be used as the main engine for its unmanned suborbital spaceplane ("PDAS-X07") in 2024.

■ **PD AeroSpace, LTD.**

1)	Founded	May 30, 2007
2)	Representative	Shuji Ogawa, CEO/CTO
3)	Locations	Headquarters 3519 Arimatsu Midori-ku Nagoya Aichi 458-0924, JAPAN R&D Center 1-27 Minatohonmachi, Hekinan, Aichi 447-0844, JAPAN
4)	Business	1) Development and manufacturing of Spaceplane and engine 2) Space transportation (including Space tuorism) 3) Spaceport businesses
5)	Website	https://pdas.co.jp/en

Overseas Media Relations:
Please direct inquiries to PD AeroSpace, LTD.
Tel: +81-566-95-8228 / Email: info@pdas.co.jp
Hours of operation: Mon-Fri 9:00am – 6:00pm JST