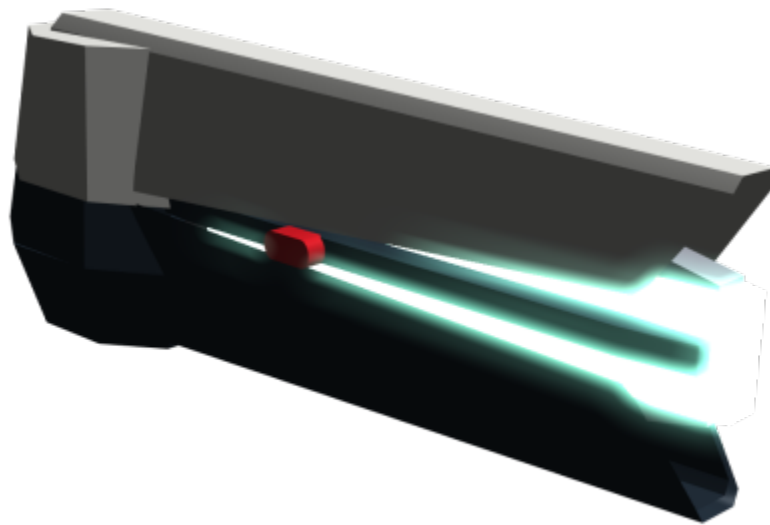


NH-M-M5 Magnetically Attenuated Plasma Scramjet "MAPS"

The Magnetically Attenuated Plasma Scramjet, "MAPS", are an enhancement/encasement for the [Inline Aether to Plasma Drive](#) (IAPD) system. It uses the original drive system as a component, shaping and controlling the drive's thrust to greatly improve acceleration and power at the cost of a significantly increased length.

Introduced to Noval's products in [YE 42](#).



Designer:	Noval Defense, Space, and Security
Nomenclature:	NH-M-M4
Manufacturer:	Noval Heavy Industries
Fielded by:	Noval Heavy Industries, New Dusk Conclave
Availability:	Only as a component of Noval and Noval-related products.

History

In the pursuit of a high-quality, high-output drive system, Noval discovered [Origin Industries's Inline Aether to Plasma Drive](#). The system was efficient, required no external fuel system, and generally met the majority of the corporation's requirements.

The question then came about how to integrate the technology into Noval's own designs. An enclosure was selected that would focus and increase the IAPD's output while using a core drive system.

Function and Design

The MAPS is a simple [scramjet](#) design applied to a plasma drive system. While not a true scramjet, as it lacks the various atmospheric and combustion requirements, the MAPS uses the dynamics behind the scramjet concept. This additional setup requires a decent amount of extra space to effectively shape the high-velocity plasma emerging from the original drive system.

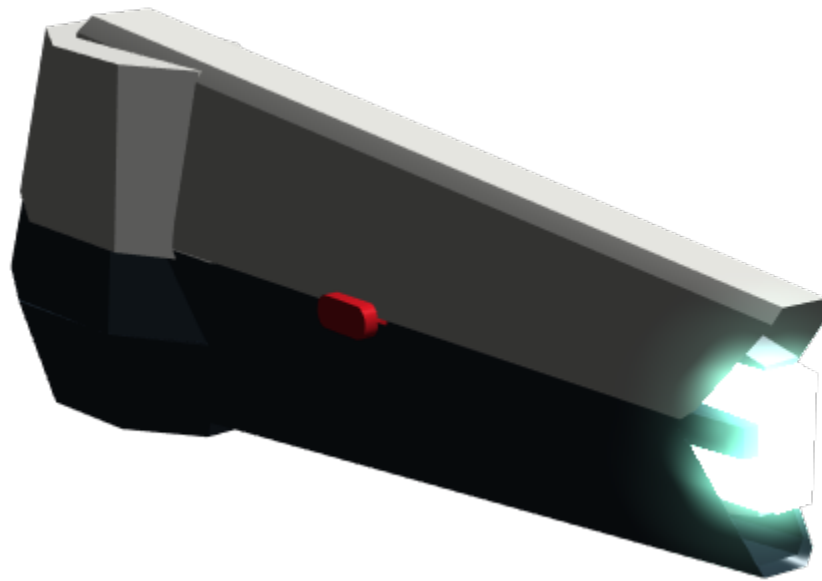
The [drive](#)'s output is directed down a magnetic corridor formed by the MAPS' central pylon. It is then condensed and focused by way of a magnetic field shaping before expansion, yielding a stronger energy-to-thrust ratio. This gives the MAPS an improved speed-to-fuel ratio, at the cost of increased overall mass of the drive system itself.

Normally, these benefits would not be consistently available across all output profiles. To deal with this, the components that handle shaping the MAPS' containment fields, the upper and lower 'exhaust vanes', can open and close to adjust the shaping field's properties. This shaping provides both [thrust vectoring](#) and the necessary scramjet dynamics. At lower levels of thrust, they open somewhat to allow the [IAPD](#) to operate normally. As the IAPD's output increases, the vanes begin to close, focusing the drive's output and increasing the overall thrust.

As with the original device, excess heat is captured and returned back into the system as additional power. Similarly, the IAPD's ability to provide energy to the craft it is attached to has remained unchanged.

Appearance

A long pair of 'exhaust vanes' emerge from a forward area that contains the majority of the [IAPD's](#) original hardware. The forward component can vary in shape or size, but the vanes and center pylon, which contain the majority of the magnetic shaping tech, stay relatively consistent between implementations.



Power

The MAPS drive takes advantage of the IAPD's ability to generate its own aether. The majority of the power it generates is used for thrust, but enough excess is produced to allow it to power other systems. This allows the MAPS, like the IAPD it encloses, to act as both thruster and power plant for the craft and ships that it is attached to.

Availability

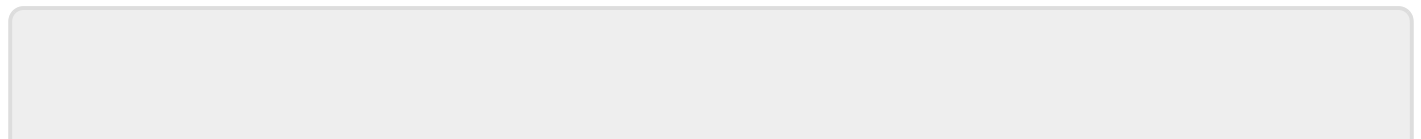
Available as part of Noval products only.

OOO Notes

[Whisper](#) created this article on 2020/04/27 18:57.

- The original [Inline Aether to Plasma Drive](#) is already awesome. My main goal is putting an article together to explain why all of Noval's drives have a consistent look. There are no *actual* functional changes to the IAPD presented in this article.
- The MAPS aren't *recreations* of the IAPD - they use the IAPD as a component.

Approved by [Syaoran](#) on 12/26/2020



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