



IRAD Proposal:

REDACTED /JP-5 Exhaust Reduction in Military Aircraft

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Overview

The War Related Illness and Injury study Center which has notated diesel exhaust as a probable leading cause in lung cancer for military veterans. They are a part of the office of Public Health and a subset of REDACTED. Independent studies by REDACTED, REDACTED and the REDACTED's REDACTED for REDACTED have supported these findings. REDACTED in Miners study evaluated 12,000 workers in 8 locations inhaling similar diesel exhaust. The findings were linked to REDACTED of negative lung pathologies.

Safety Benefits

1. This health initiative can be demonstrated to improve the safety of soldiers in under REDACTED due to the vast amount of information and funding REDACTED is already investing in this safety area such as:

This safety initiative correlates with REDACTED's \$100M investment in REDACTED REDACTED. The primary purpose of that venture capital fund was acceleration of widespread adoption of sustainable aviation fuels.

One of the largest goals in Aviation is to achieve net zero commercial emissions by REDACTED. There are currently less than .1% of the global aviation fuel supply using sustainable aviation fuels. This initiative is supported by more data than almost any other aerospace safety initiative due to roadmaps such as REDACTED model.²

- i. Sustainability Chief Engineers such as REDACTED are already presenting internally how electric propulsion can move REDACTED into the future. He is also the Chief Executive of REDACTED's Joint Wisk Aero Initiative. REDACTED 787's already enable 1.5 megawatts of supplemental electric power and storage. REDACTED's electrified powertrain flight demonstrator is another current electric propulsion REDACTED and REDACTED partnership.³
- ii. REDACTED, Chief Sustainability Officer for REDACTED, is currently demonstrating the possibilities behind hydro REDACTED n-powered aircraft.⁴

Goals

2. The core data science team would aim to mathematically demonstrate causation between the ^{REDACTED}_{ED} /JP-5 fuels and lung cancer
3. The core data science team would aim to identify the root cause of the issue within the system and recommend a design change

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The full technical REDACTED will be outlined in a separate road-map

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REDACTED information will need to be made available per platform for analysis. Structural engineers for military aircraft will need to be made available to confirm findings.

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Partnering with additional teams within ^{REDACTED} already working toward net zero ^{REDACTED} would accelerate electric and hydrogen propulsion roadmaps and reduce soldier exposure to harmful emissions.

II. REDACTED

REDACTED that confirm a high correlation will support a causation hypothesis

III. Root cause

Identifying a way to enhance the design practice will enable health improvements

Work cited:

- ¹ = REDACTED REDACTED
- ² = REDACTED REDACTED

- ³ = REDACTED
- ⁴ =
REDACTED
REDACTED [-powered-commercial-flights-before-2050/](#)