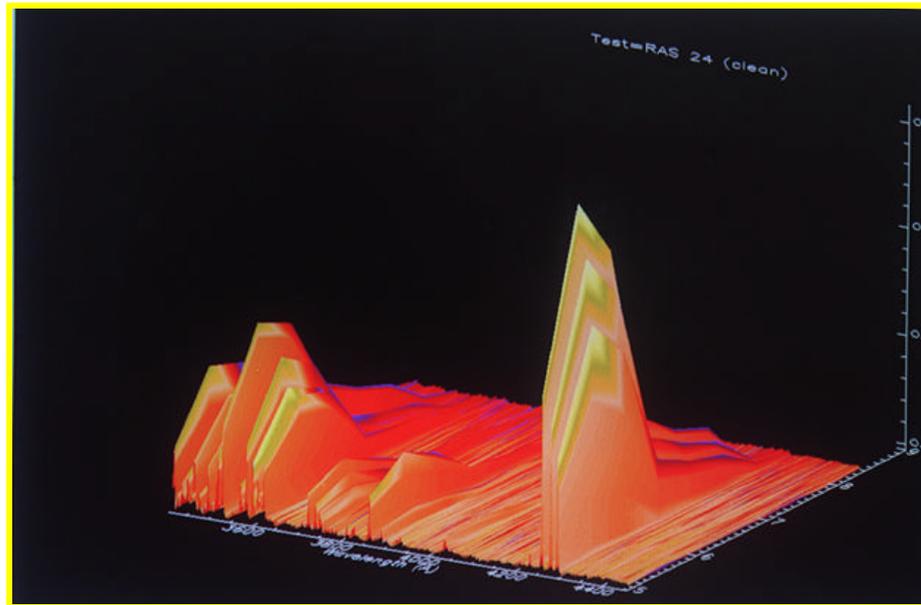




# Engine Diagnostic Filter System (EDIFIS)



## Objective

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The software analytical product receives inputs from the Optical Plume Anomaly Detection (OPAD) results and delivers an analysis of the source based on an aerothermodynamic model of the observed process. The output states an estimate of the amount of material seen in the source and "reliability of data" number. The systems will eventually operate autonomously, i.e. with no supervisory control and input.

## Why Needed

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Analysis of spectrum is required in timely fashion (near real time) to allow autonomous vehicle health monitoring and management. A complete analysis of the engine being surveyed allows decisions supporting faster turnaround of a vehicle and perhaps less total effort to be spent. The software is to be autonomous, requiring nothing more for input and control than the data file from a given flight. A subset of this, which could be flown and could yield limited results in near real time, is under current development.

## Point of Contact

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## Sponsor

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In-house Development