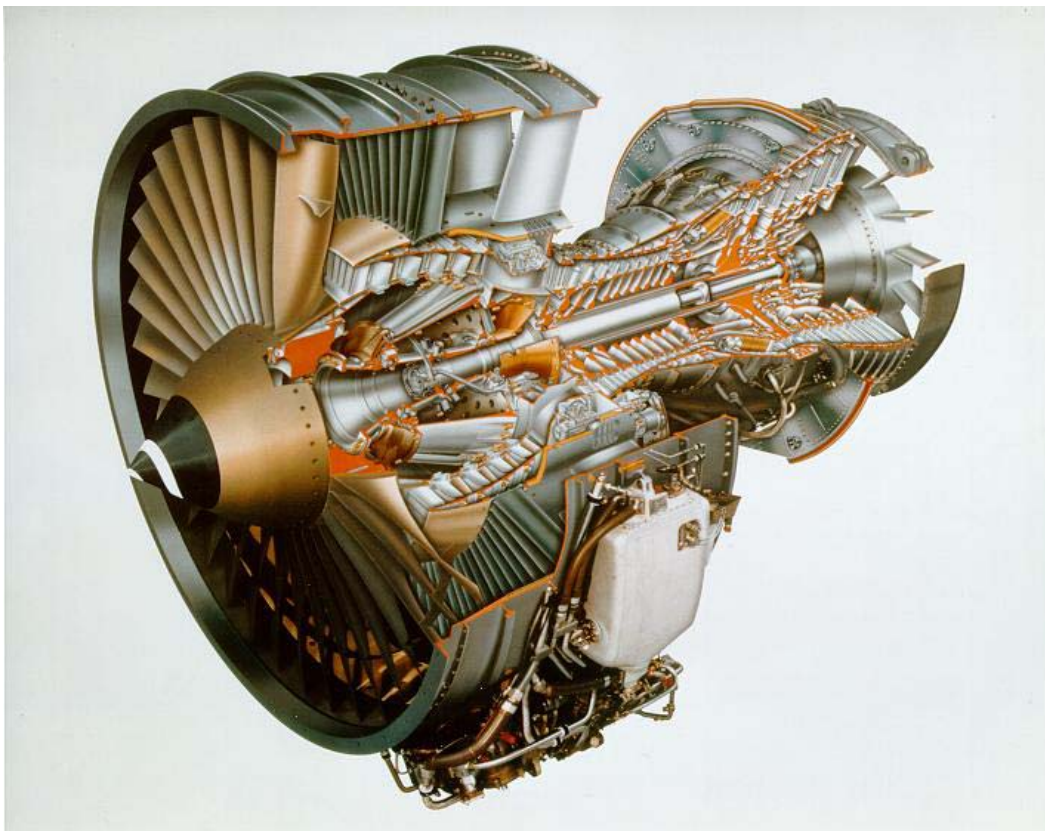


# Advanced Engine Maintenance Planning Systems

Embedding **intelligence** in your Engine MRO  
(maintenance, repair, overhaul)

**OnDemand Service – No Need to Purchase Software**  
[www.aemps.com](http://www.aemps.com)



**Best-in-class Solution**

offering Software as a Service (SaaS)

***CA Advisors***

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**Bring in  
Lean MRO  
No Software needed**

In today's business environment, operators must be exceptionally efficient and cost-conscious to survive. Success requires meticulous planning and management of resources, particularly with critical big-budget items such as powerplant MRO (maintenance, repair, overhaul).

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**Planning in a  
highly cost-conscious  
environment**

Our engine maintenance planning solution consists of four, fully-integrated systems: Engine Reliability System (ERS), Engine Removal Forecast (ERF), Engine Life Optimizer (ELO), Spare Engine Planning System (SEPS).

Designed after substantial research, testing, and validation in real-world applications, these powerful systems incorporate advanced analytical methodologies and applied statistical principles. This gives you the highly reliable, timely information needed for better decisions in the face of the considerable uncertainty and variability inherent in powerplant maintenance.

A key objective in designing our solution was to ensure compatibility with existing or planned information systems. CA Advisors' advanced engine maintenance planning solution can easily use the data from a variety of systems. Further, it offers options for sharing outputs with your other information systems, as well as with four linked, yet independent systems that comprise our total solution.

The result is a fully automated process, leading to more accurate information and additional savings in time and money.

Finally, our OnDemand service guarantees that you'll be able to use our solution right away without a need to purchase any software.

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**A helping hand  
from our system  
experts**

CA Advisors experts will work with you so that you will gain the most out of our Software-as-a-Service offering.

In addition, we will see to it that our solution is fully integrated with your existing business processes. Our goal is to ensure that you streamline your engine MRO operations to meet the challenges of an increasingly demanding environment. We will work with you to achieve that Lean MRO goal.

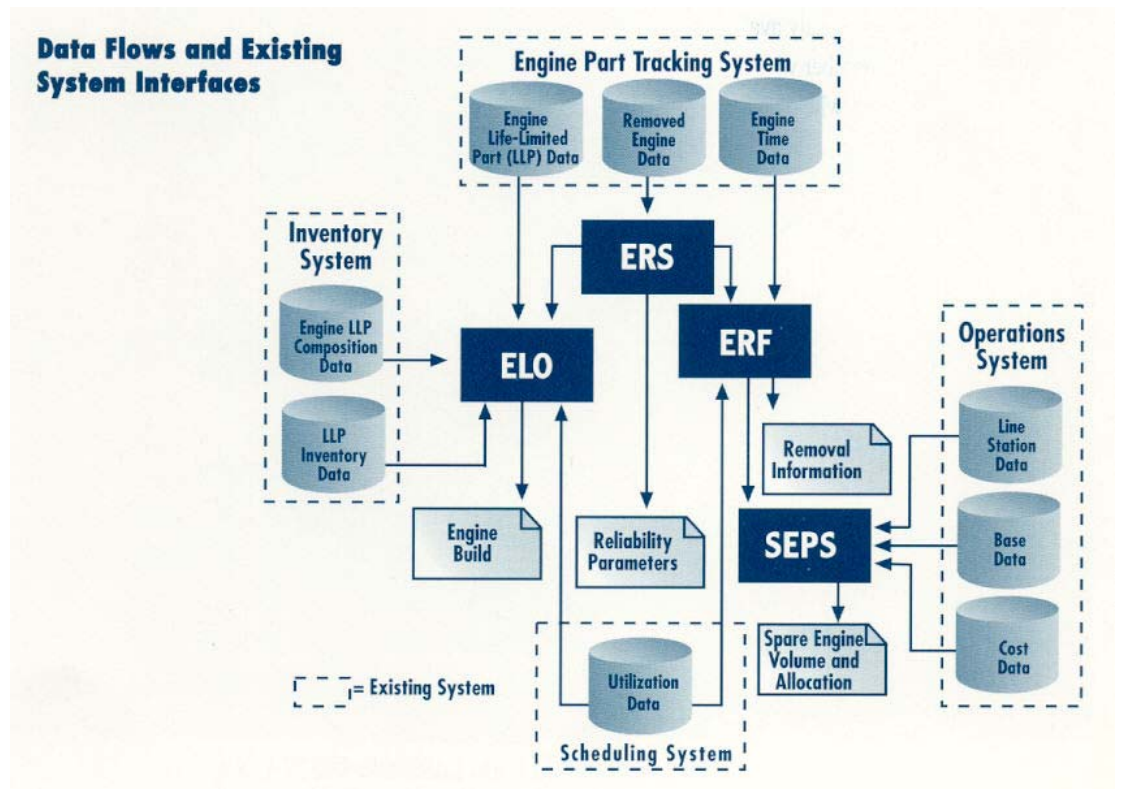
**Four integrated,  
yet independent  
systems provide a  
complete solution**

The **Engine Reliability System (ERS)** determines reliability parameters by engine type. The system evaluates the premature removal rate (PRR) of engines in a given fleet, as well as other critical performance indicators, such as Weibull slope and characteristic life. Because requirements for engine maintenance resources are dictated by these parameters, more accurate and timely information will lead to better decisions.

The **Engine Removal Forecast (ERF)** determines the removal volume of any engine-type fleet for a specific time period. In addition, the system calculates other removal characteristic indicators – such as probability of survival until the next scheduled removal and expected flying time until the next removal. Precise forecasts are essential for allocating resources and optimizing your maintenance operations.

The **Engine Life Optimizer (ELO)** specifies the most cost-effective life-limited parts replacement policy for your engines. Replacement decisions for life-limited parts, such as discs, are vital to engine maintenance planning because selection practices directly influence engine lifetime. With ELO, you can reduce engine maintenance cost per flying hour by optimizing engine lifetimes. ELO also includes a built-in inventory control system to track the availability of life-limited parts.

The **Spare Engine Planning System (SEPS)** not only determines the number of spare engines needed to support your air operations, but also specifies the proper allocation of engines throughout your operation network. In addition, you can use SEPS to decide how many engines to stock at the base and maintenance stations for a given number of spares, and what protection levels and fill rates can be expected at different stations for various allocation scenarios.



## About CA Advisors

CA Advisors is a leading consulting firm that specializes in applying quantitative techniques to help clients improve their decision making and gain a competitive advantage. Throughout many years of professional work, we have combined state-of-the-art analytical methods with practical experience to consult on projects in a wide variety of areas, ranging from operations management and planning to decision analysis and R&D. To enhance the results, CA Advisors collaborates closely with clients, communicates clearly about problems and solutions, and provides scientifically-based tools that are easy to use.

CA Advisors has a core expertise in air transportation with a focus on powerplant maintenance. Our consulting services consist of a unique blend of academic expertise and practical hands-on experience in engine maintenance planning.

***CA Advisors***

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