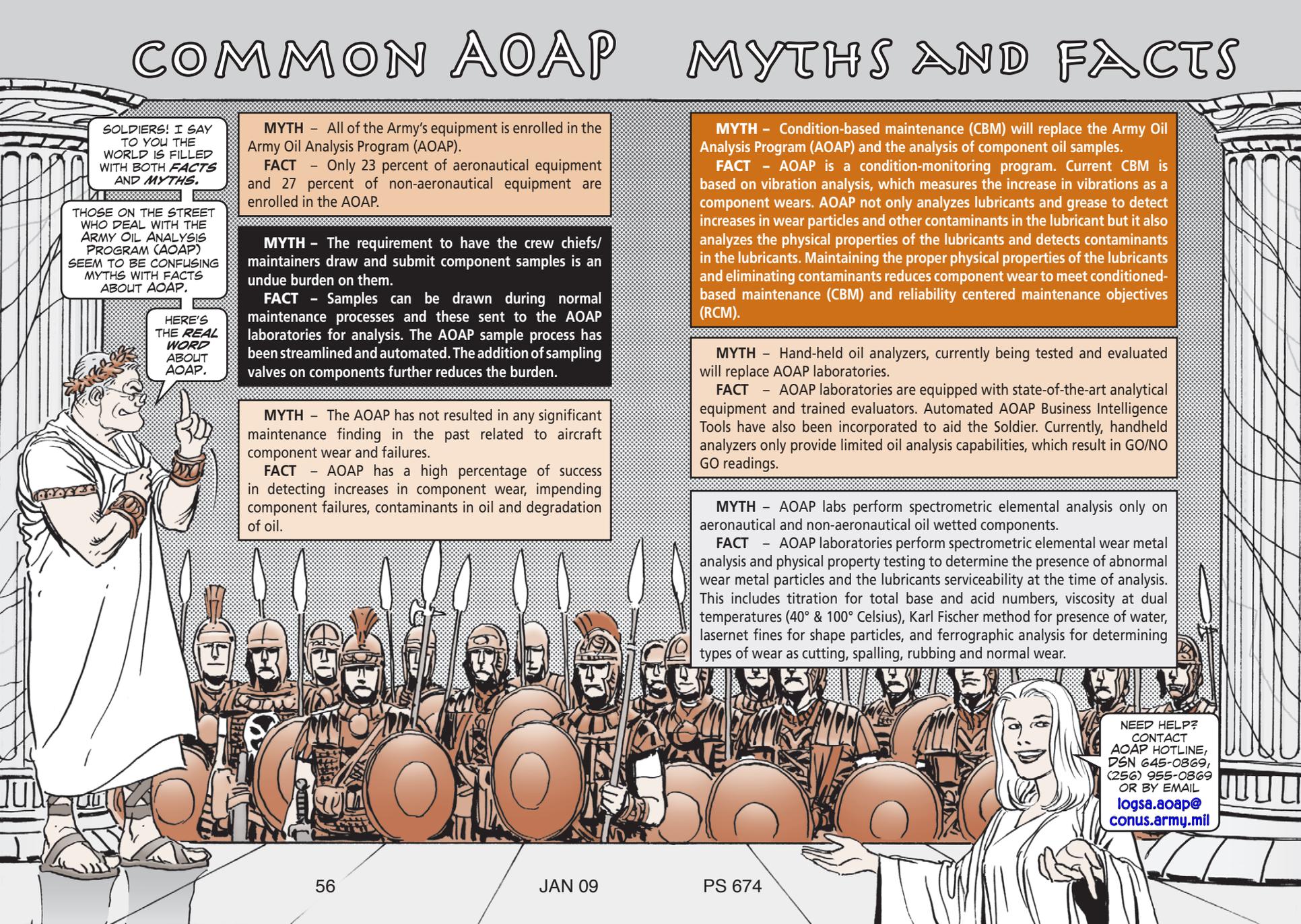


# COMMON AOAP

# MYTHS AND FACTS



SOLDIERS! I SAY TO YOU THE WORLD IS FILLED WITH BOTH **FACTS** AND **MYTHS**.

THOSE ON THE STREET WHO DEAL WITH THE ARMY OIL ANALYSIS PROGRAM (AOAP) SEEM TO BE CONFUSING MYTHS WITH FACTS ABOUT AOAP.

HERE'S THE **REAL WORD** ABOUT AOAP.

**MYTH** – All of the Army's equipment is enrolled in the Army Oil Analysis Program (AOAP).

**FACT** – Only 23 percent of aeronautical equipment and 27 percent of non-aeronautical equipment are enrolled in the AOAP.

**MYTH** – The requirement to have the crew chiefs/maintainers draw and submit component samples is an undue burden on them.

**FACT** – Samples can be drawn during normal maintenance processes and these sent to the AOAP laboratories for analysis. The AOAP sample process has been streamlined and automated. The addition of sampling valves on components further reduces the burden.

**MYTH** – The AOAP has not resulted in any significant maintenance finding in the past related to aircraft component wear and failures.

**FACT** – AOAP has a high percentage of success in detecting increases in component wear, impending component failures, contaminants in oil and degradation of oil.

**MYTH** – Condition-based maintenance (CBM) will replace the Army Oil Analysis Program (AOAP) and the analysis of component oil samples.

**FACT** – AOAP is a condition-monitoring program. Current CBM is based on vibration analysis, which measures the increase in vibrations as a component wears. AOAP not only analyzes lubricants and grease to detect increases in wear particles and other contaminants in the lubricant but it also analyzes the physical properties of the lubricants and detects contaminants in the lubricants. Maintaining the proper physical properties of the lubricants and eliminating contaminants reduces component wear to meet condition-based maintenance (CBM) and reliability centered maintenance objectives (RCM).

**MYTH** – Hand-held oil analyzers, currently being tested and evaluated will replace AOAP laboratories.

**FACT** – AOAP laboratories are equipped with state-of-the-art analytical equipment and trained evaluators. Automated AOAP Business Intelligence Tools have also been incorporated to aid the Soldier. Currently, handheld analyzers only provide limited oil analysis capabilities, which result in GO/NO GO readings.

**MYTH** – AOAP labs perform spectrometric elemental analysis only on aeronautical and non-aeronautical oil wetted components.

**FACT** – AOAP laboratories perform spectrometric elemental wear metal analysis and physical property testing to determine the presence of abnormal wear metal particles and the lubricants serviceability at the time of analysis. This includes titration for total base and acid numbers, viscosity at dual temperatures (40° & 100° Celsius), Karl Fischer method for presence of water, lasernet fines for shape particles, and ferrographic analysis for determining types of wear as cutting, spalling, rubbing and normal wear.

NEED HELP?  
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