

WestJet Elevates Engine Reliability

Canada's Second-Largest Airline Dramatically Reduces IDG Replacements with Mobil Jet™ Oil II

Maintenance challenge

Global airline WestJet takes pride in its innovative approach to maintenance. With some 22 million annual passengers, uptime is critical for its fleet of 150-plus aircraft.

Looking to optimize their Boeing 737 fleet reliability, WestJet identified the Integrated Drive Generator (IDG) as a key component of improvement. These generators provide reliable power needed to operate all of the aircraft's electrical systems, so its continued operation is critical.

Despite incorporating latest OEM updates, from 2010 to 2017 WestJet recorded 308 Delta Pressure Indicator (DPI) alerts and 53 IDG replacements over its growing fleet of 737's due to filter plugging. Procedures mandate that after three DPI events, the IDG must be replaced which adds considerable cost and inconvenience to the airline.

In an effort to improve reliability, in 2014 WestJet increased the oil drain frequency from 1,800 hours to 1,400 hours. Turbine oil plays a critical role in IDG performance as it functions to lubricate, cool and dissipate static electricity. While the increased oil changes lead to some improvements in DPI alerts, charge pressure switch and diode performance decreased correspondingly.

The solution

In 2017, WestJet worked closely with ExxonMobil engineers and turned to Mobil Jet Oil II to lubricate its engines, APU's and accessories. Mobil Jet Oil II's unique chemistry and proven IDG performance helped WestJet see noticeable performance improvements in DPI events, charge pressure switch and diode failures.

The results

Since switching to Mobil Jet Oil II over four years ago, WestJet has seen a transformative increase in reliability.



80%

Reduction in the number of IDG replacements, from an annual average of 27 to 3

24

IDG replacements avoided annually

Annual IDG replacements due to DPI dropped from 7.75 to zero; diode failure from 6.75 to 1; and charge pressure switches were cut from 12.75 to 2 annually

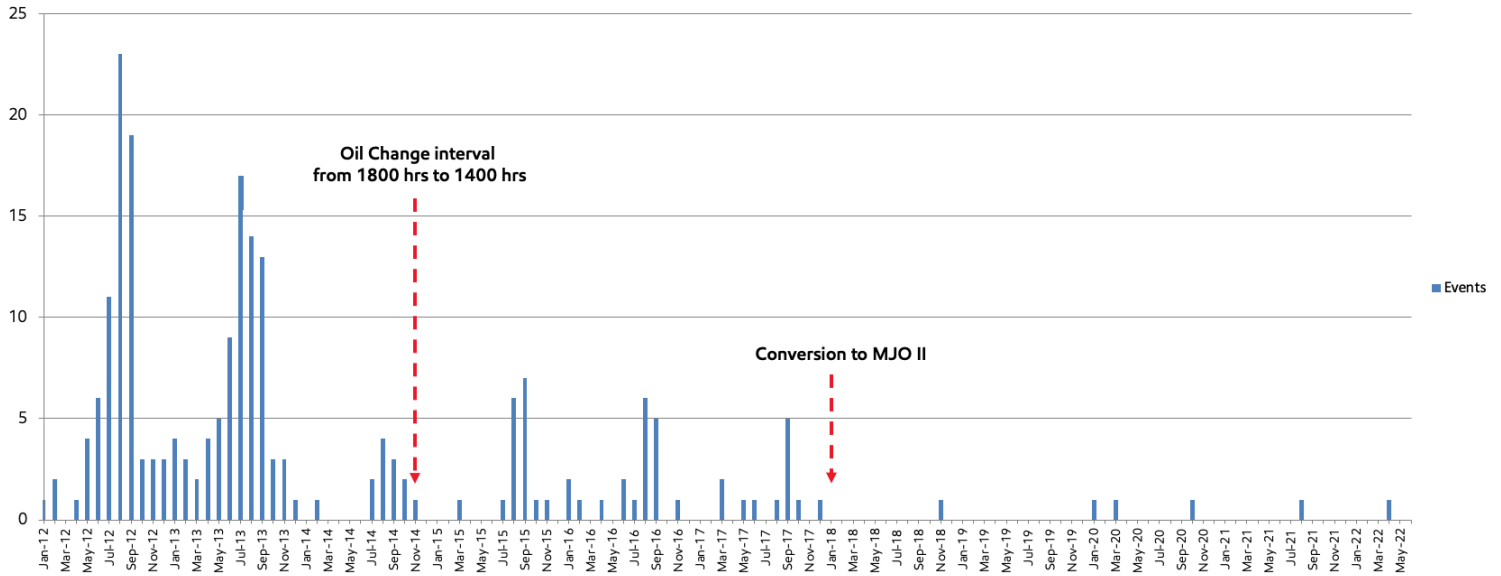
Mobil Jet Oil II helped WestJet minimize turbine oil consumption and reduce costs from unplanned downtime



“ExxonMobil’s Mobil Jet Oil II lubricant has been a revelation for our fleet maintenance. Since switching, we’ve seen noticeable improvements in IDG reliability and overall maintenance costs.”

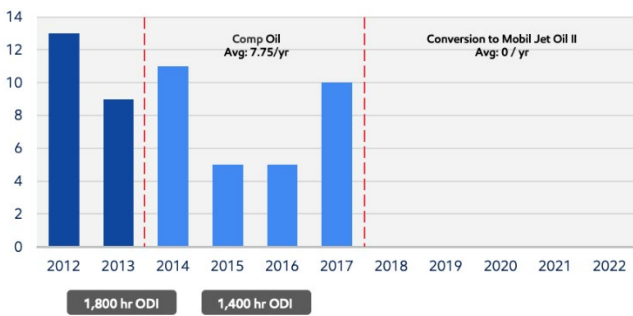
Rabieh Habr, Senior Manager – Technical Services & Maintenance Programs | WestJet

DPI Events

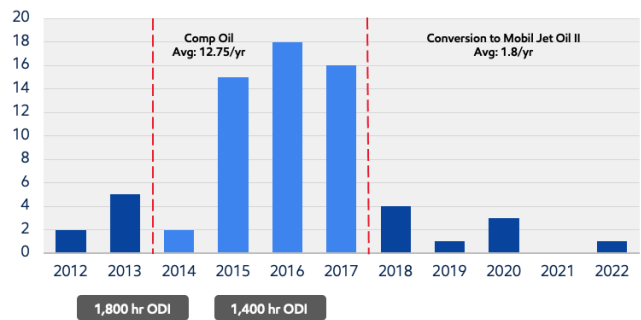


IDG Removal Causes

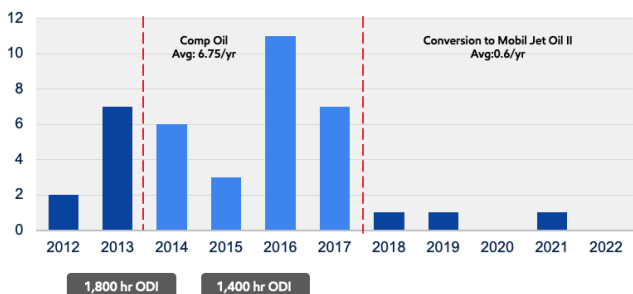
DPI (Bore wear)



CPS



Diode



“We’re thrilled to see just how effective Mobil Jet Oil II has been in helping WestJet solve its maintenance challenges. The engineering that goes into our products and the collaboration we have with WestJet is something we’re exceptionally proud of.”

Tom Kim, Aviation Area Manager | ExxonMobil