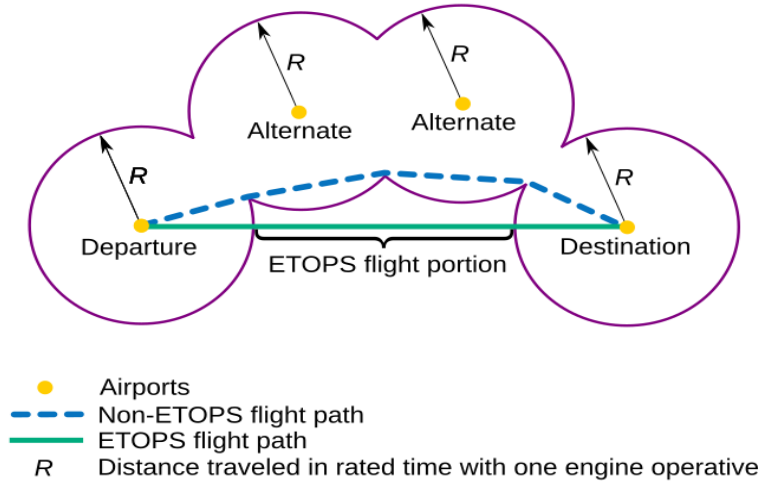
EMMPowered has over 20 years experience in providing our Engine Condition Monitoring services for customers to achieve, or who already achieved, varying levels of ETOPS certification



ETOPS - The Extended-range Twin-engine Operations Performance Standards

Safety standards set by the International Civil Aviation Organization (ICAO) for twin-engine commercial passenger aircraft operations intended to ensure that in the event of a single engine failure, an aircraft will still be able to reach a diversion airport using the remaining operational engine.

ETOPS approval is a two-step process.

1 - ETOPS Type Approval
The airframe and engine combination must satisfy the basic ETOPS requirements during its type certification. Such tests may include shutting down an engine and flying the remaining engine during the complete diversion time. It must be demonstrated that, during the diversion flight, the flight crew is not unduly burdened by the extra workload due to the lost engine and that the probability of the remaining engine failing is extremely remote.

2 - ETOPS Operational Certification
ETOPS flights must satisfy their own country's aviation regulators about their ability to conduct ETOPS flights, and it also involves compliance with additional special engineering and flight crew procedures in addition to the normal engineering and flight procedures. Pilots and engineering staff must be qualified and trained for ETOPS. An airline with extensive experience operating long-distance flights may be awarded ETOPS operational approval immediately, while others may need to demonstrate ability through a series of ETOPS proving flights.

Engines must have an in-flight shutdown (IFSD) rate better than:
1 per 20,000 hours for ETOPS-120
1 per 50,000 hours for ETOPS-180
1 per 100,000 hours for beyond ETOPS-180