



Aircraft Maintenance Procedures Fact Sheet

American Airlines is proud of its maintenance record, procedures and employees. The airline performs 11 man-hours of maintenance for every one hour of flight time on its aircraft. The time frame for maintenance procedures is based on a combination of the number of hours the aircraft flies, the number of take-offs and landings (referred to as "cycles") it makes, plus the age of the aircraft.

A brief explanation of American's maintenance check procedures:

"PS" Daily Checks

Each aircraft is checked every 2-3 days in its "PS" (Periodic Service) check. The aircraft is visually inspected and its maintenance log book is checked for entries and maintenance needs. The "PS" check can be performed overnight or during downtime during the flight day. It averages approximately two man-hours.

"A" Checks

The "A" check is more detailed than the "PS" check. "A" checks are performed every 7- 9 days (approximately 80 - 100 flight hours). The "A" check is performed at one of 40 stations around American's system. It averages 10 - 20 man-hours.

"B" Checks

The "B" check is an even more thorough maintenance check. The "B" check is accomplished approximately every two months (roughly 500 - 600 flight hours). Besides specific service performed on the aircraft, a detailed series of systems and operational checks are performed. American always performs "B" checks inside one of its hangars at seven different cities around its system. A "B" check requires approximately 100 man-hours on narrowbody aircraft (those with only one aisle) and approximately 200 - 300 man-hours on widebody aircraft (those with two aisles).

"C" Checks

The "C" check is the most thorough type of maintenance work performed by American. The airframe - virtually the entire aircraft - goes through an exhaustive series of checks, inspections and overhaul work. It is performed at either of American's heavy maintenance and engineering centers in Tulsa, Oklahoma or the Alliance Maintenance Facility in Fort Worth, Texas. There are different levels of "C" checks depending on the type of aircraft.

- **Narrowbody "C" Checks**

American does two types of "C" checks on its narrowbody planes. The first is a "Light C" check, which occurs approximately every 15 - 18 months. It requires approximately 2,100 man-hours and three days to accomplish. Every fourth "Light C" check becomes a "Heavy C" check. This check requires 20,000 - 30,000 man-hours and takes from three to five weeks to accomplish.

- **Widebody "C" Checks**

Because of the complexity of widebody aircraft, all "C" checks are "Heavy C" checks. The complete airframe inspection and service is done every 24 - 30 months. It takes approximately 10,000 man-hours and from two to four weeks to accomplish a widebody "C" check.

- **Jet Engine Overhauls**

Modern jet engines are among the most reliable devices in aviation. American does not replace and overhaul jet engines at a specific number of hours. Instead, American uses a 24-hour-a-day "condition monitoring" process that scientifically tracks the condition of every engine on every aircraft. Besides visual inspection, technicians monitor the internal condition of every engine, using such procedures as boroscope inspections and oil sample spectographs. The goal is to replace and overhaul an engine before a problem can occur. Engine overhauls are performed at the Tulsa and Alliance-Fort Worth Maintenance and Engineering facilities. The engine replacement is usually performed at one of the six "B" check hangar locations around the country.