



PLANNING

- Although often extremely advanced in technology aircraft and their components unfortunately do not maintain themselves. Of the many critical processes used, one of the key elements is the planning process.
- This process defines the actions to be carried out during any maintenance event. It forms part of the "who, what, and when" (not "why") of the maintenance function.





EVALUATION AND ACQUISITION

 Evaluation and acquisition are not, strictly speaking, a part of the aircraft maintenance function. However, because the aircraft, engine, and components are all products that must be maintained, consideration of the capabilities, qualities, and design are critical for the planning and development of the maintenance program. Each design manufacturer tends to focus on specific characteristics that differentiate its products from those of its competitors.

OPERATION

In many instances, corporate requirements have a direct impact on the planning issues for aircraft maintenance, such as resource availability, management capacity, and labor relations. The planning for such maintenance must also take into account the manner in which the aircraft is operated. Situations in which the aircraft is most often operated at high gross weights necessitate frequent attention to engine conditions because those weights normally require high power application to achieve takeoff. Similarly, aircraft that operate into short landing runways will require frequent inspections of landing gear components such as tires and brakes, as well as thrust reversers and wing spoiler mechanisms.

MAINTENANCE

 It is important to discriminate between maintenance planning, which is the micro-planning in great detail of the maintenance of the aircraft and its components, and maintenance scheduling (see Chapter 5), which is the macro-planning of the major maintenance events and, in particular for the aircraft and engines, to meet operational and commercial demands.



MAINTENANCE

• The advent of modern jet-powered aircraft in the early 1960s provided a major opportunity to revise the approach to aircraft maintenance and particularly to maintenance planning. The previously described MSG development process required assessment of each element of the aircraft and its components as to criticality (e.g., wing structure is more critical than cargo compartment linings) for safety of flight. The analysis was carried further and determined the potential effects of each element failure-benign (passive), latent, or fatal; hidden or visible; observable to the flight crew or normal maintenance inspections-and again, whether the effect of any such hidden failure impacts the safety of flight.

