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## 2-3-8. Systems/Powerplant Task Interval Determination

### 1. General

As part of the MSG-3 Logic-Analysis, the Maintenance Working Group (MWG) determines the interval of each scheduled maintenance task that satisfies both the applicability & effectiveness criteria. The MWGs should select the most appropriate interval for each maintenance task based on available data and good engineering judgment. In the absence of specific data on failure rates & characteristics, intervals for systems tasks are largely determined based on service experience with similar systems/components.

The information needed to determine optimum intervals is ordinarily not available until after the equipment enters service. In many cases previous experience with the same or a similar item serves as a guide. The difficulty of establishing "correct" intervals for maintenance tasks is essentially an information problem and one that continues throughout the operating life of the equipment.

A task should not be done more often than experience or other data suggests simply because it is easily accomplished (doing tasks more often than necessary increases the chance for maintenance-induced errors and may have an adverse effect on reliability and safety).

### 2. Sources of Information

The MWG should consider the following in determining the most appropriate task interval:

- manufacturer's tests and technical analysis
- manufacturer's data and/or vendor recommendations
- customer requirements
- service experience gained with comparable or identical components and subsystems
- 'best engineering estimates'

In order to arrive at the ~~best initial maintenance interval~~ for each task, each MWG must assess the interval based on all relevant data that is available. As part of this assessment, the MWG should consider answering the following questions in order to determine the most appropriate interval:

- What service experience is available for common/similar parts/components/systems on other aircraft that defines an effective task interval?
- What design improvements have been incorporated that warrant a longer interval between checks?
- What task interval is recommended by the vendor/manufacturer based on test data or failure analysis?

### 3. Task Interval Parameters

Task intervals are established in terms of the measure of exposure to the conditions that cause the failure at which the task is directed. The most widely used usage parameters are:

- calendar time
- flight hours
- flight cycles
- Engine/APU hours/cycles.

**minimum scheduled interval/tasking requirements**

Task interval determination consists of identifying the correct usage parameter and its associated numerical interval or the appropriate letter check. Both intervals expressed in usage parameters and/or letter checks are acceptable and may be used in line with specific procedures established for a given program. If an interval is to be expressed in a usage parameter, interval determination consists of the following steps:

- The first step is to define the predominant (governing) usage parameter(s). For many Systems/Powerplant tasks, flight