Module 3 Assignment

Steve Mazza

# Information Supporting System Maintenance

Information included in the system maintenance concept should include logistical, cost, and material data. Logistical data could include airplane hangar size and runway length, for example, or environmental storage requirements for vaccines in a lab, or facilities for delivering supplies to remote or austere observation facilities (e.g., Antarctic research labs). Cost data should include projections for procurement of spares based on MTBF projections; consumables such as gaskets, tires, belts, and fuel; and labor, overhead, and storage costs associated with the program. Material data, motivated by MTBF and MTD calculations, should include number of spares, manpower and tooling requirements, and shipping/delivery logistics.

# Development of Information

Information is developed during architecture and engineering and is based on knowledge of the material used in fabrication and production, engineering calculations of MTBF and MDT, historical data from related programs, and field trials (i.e., what can be studied, looked up, calculated, or observed).

# Influence of Operational Concept on Maintenance

The operational concepts (CONOPS) developed in support of use cases (part of the system architecture process) drive the programmatic and engineering understanding of constraints on operational availability, reliability, maintenance overhead, spares, and mean down time. All of these factors influence and inform the maintenance concept. Real world constraints on the ability to reasonably meet these goals have a reciprocal influence on shaping the CONOPS.