TURBOPROP ENGINE MALFUNCTION RECOGNITION AND RESPONSE

The attached materials were developed to assist flight crews in understanding the operation and typical malfunctions of turboprop engines and propellers. As this information was designed to apply to a generic turboprop engine, it can be used to develop ab initio material, or to enhance current flight crew training and operational understanding. In all cases, training specifically designed for a particular airplane or operation should take precedence over this generic material.

Background

In November 1998, the Propulsion System Malfunction Plus Inappropriate Crew Response (PSM+ICR) Working Group issued its final report, entitled "AIA/AECMA Project Report on PSM+ICR." This report concluded that, "Although the vast majority of propulsion system malfunctions are recognized and handled appropriately, there is sufficient evidence to suggest that many pilots have difficulty identifying certain propulsion system malfunctions and reacting appropriately." The report further concluded that training material on the subject of modern propulsion system malfunction recognition should be improved and made available to flight crews.

One of the report's recommendations was, "The aviation industry should undertake as a matter of high priority the development of basic generic text and video training material on turboprop and turbofan propulsion system malfunctions, recognition, procedures, and airplane effects." To address this recommendation, the Turboprop Engine Malfunction Recognition and Response Working Group was jointly sponsored by the Flight Operations division of the United Kingdom's Civil Aviation Authority (CAA) and the Engine & Propeller Directorate, Aircraft Certification Service of the United States' Federal Aviation Administration (FAA) to develop training aids for generic engine malfunction recognition.

The developed package, in CD format, contains a 20-minute video, background material and accident synopses, and textual training material to provide additional information. Note that the video production was subject to limitations on available video footage.

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Similar material, available through the FAA, has been developed for turbofan engines.

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