ROUTINE MAINTENANCE OF PROPELLER BLADES

1. Instances have occurred where propeller blade tips have been lost in flight because of fatigue cracks resulting from improper maintenance. Investigation has revealed that these cracks occurred because blade damage such as nicks, dents, gouges and corrosion had not received the recommended attention.

2. Propeller constructions clearly define, in the appropriate manuals, blade damage which need not be reworked until the next overhaul. Any blade damage exceeding such limitations must be reworked, in accordance with the constructor’s recommendations, prior to the next flight. Any evidence of corrosion must be treated in accordance with the manufacturer’s recommendations.

3. The consequences of not reworking gross blade damage, or neglecting the presence of surface corrosion, are such that airworthiness is impaired. The presence of corrosion, nicks and dents will produce undesirable stress concentrations which under continuous operating conditions can and will cause blade failure. Furthermore, it must be borne in mind that all assessments of the airworthiness of propellers from the fatigue aspect have been made assuming that the blades will be properly maintained.

4. Certificates of Airworthiness will not be issued or renewed and Licensed Aircraft Engineers should not sign Certificate of Release or Maintenance Review where it is noted that propeller blade maintenance has been inadequate. In addition, DCA Airworthiness Surveyors may recommend the cancellation of the Certificate of Airworthiness or a reduction in the period between overhauls if, in their opinion, the condition of a propeller indicates inadequate maintenance.

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