A E R I A L A G R I C U L T U R A L
A S S O C I A T I O N O F A U S T R A L I A L T D.

ABN 13 002 501 886 • ACN 002 501 886

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AAAA Submission - AD Prop 1
June 2015

Introduction

The proposed removal of AD Prop 1 is highly problematic for the industry and is not based on a sound safety case from CASA.

CASA has made no effort to establish the cost of the proposal as it is required to do in the Minister's Letter of Expectations to the CASA Board.

AAAA refers the officers dealing with AD Prop 1 and related AD reviews to the recent DAS Directive 01/2015 and asks that it be applied in this case.

Consequently, the proposal to amend AD Prop 1 should be withdrawn as it is not compliant with Government policy, international practice, and has no identified problem solving value or improvement in safety.

Issues

Safety Impact / Safety Case
AAAA understands that various maintenance organisations are also providing submissions to CASA on AD Prop 1 and those submissions detail the lack of evidence of any safety concerns that would warrant the removal or amendment of AD Prop 1.

As CASA has provided no clear or detailed safety case for the proposed changes and has not detailed particular risks that the proposed changes will address, the proposal should be withdrawn.

Cost Impact
The cost impact of the removal of AD Prop 1 is significant across the industry and severe for those aircraft owners with propellers on aircraft that may be opened up to an overhaul regime and small 'life' periods that are simply not backed by safety evidence.

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For example, Hartzell propellers fitted to aircraft used for agricultural operations will have an imposed life of only three years, arguably because of the 'high corrosion environment' encountered in agricultural operations. This is blatant nonsense, especially when compared to aircraft that, unlike much of the Australian agricultural fleet, are stationed in coastal areas but will not be subject to the same requirements from Hartzel.

It could be argued that if the propeller is in a 'high corrosion environment' then the pilot must be flying the aircraft backwards - as that is where the spray is deposited and there is no known physical mechanism for spray to reach the propeller from the spray boom positioned behind the wing. It is more likely that in a the Australian environment, there is no more exposure to corrosion that any other operation and therefore the Hartzel requirement is extremely punative for no safety benefit.

In particular, the seasonal nature of the aerial application industry must be taken into account when considering the overhaul life of components including propellers.

For example, Australia's aerial application fleet spent much of 2007, 2008, 2009 on the ground or incurring very low hours because of drought. If AD Prop 1 is removed and the sector is required to comply with the onerous and non-safety related requirements for overhaul, just as the industry was emerging from drought, many propellers – with very little time on them – would be required to be overhauled.

If only one quarter of the Australian fleet were affected by the above scenario, the likely – unwarranted – cost would be in the order of $750,000 every three years.

Given there is no safety basis to the requirement, this would clearly result in a significant distortion in the market and massive costs imposed by CASA for no safety gain.

If the issue were about safety, then the manufacturer would be more likely to recommend or allow various inspections that could establish if the propeller and its constituent safety critical parts are within specifications and safe for further operation without overhaul.

The Minister's Letter of Expectations to the CASA Board clearly establishes a requirement for CASA to consider the cost impact on industry of regulatory changes:

> *15. Consider the economic and cost impact on individuals, businesses and the community in the development and finalisation of new or amended regulatory changes.*

The DAS's new *DAS Directive 01/2015 – Development and Application of Risk Based and Cost-Effective Aviation Safety Regulations* also places a serious requirement on CASA staff to consider reasonable proposals from industry for the adoption of any safety outcome equivalent alternative that is 'more cost-effective or otherwise less onerous' than the CASA proposal.

Such a proposal for an aerial application sector approved system of maintenance is included in this submission.

As CASA has provided no analysis of the cost of its proposed changes to AD Prop 1, AAAA suggests that firstly the proposal should be immediately withdrawn before further consultation with industry.

Competition/Fair Trading Issues

AAAA is very concerned at the potential impact on industry of the removal of AD Prop 1 in terms of opening industry up to potential unconscionable conduct by aircraft propeller manufacturers who are left to their own devices in determining the life of their products - without a balancing need for those TBOs to be based on and substantiated by safety concerns and detailed engineering analysis – as distinct from the economic and business concerns of the manufacturer.

In the absence of any safety data to the contrary, CASA appears to not be acting in the best interests of the industry by protecting the Australian aviation industry's consumer rights through the provision of safety based instruments such as AD Prop 1.

AAAA also understands that CASA has not consulted widely with industry in the development of its proposed approach. Certainly, no effort has been made to work with organisations like AAAA that represent both aircraft owners and operators and AOC holders who also run maintenance facilities.

AAAA would be particularly concerned if CASA had consulted with propeller workshops without a balancing view being obtained by the people who pay the bills – namely the aircraft owners and operators.

Clearly, there is a vested interest in seeking input from commercial enterprises that would benefit significantly from any requirement for a more onorous overhaul regime for propellers.

International Practice

AAAA's advice is that the FAA simply doesn't mandate these types of requirements by signing over *carte blanche* responsibility to the manufacturers.

CASA should provide more information on international practice in terms of ADs similar to AD Prop 1. In the meantime, the proposal should be withdrawn.

Other AD Reviews

AAAA understands that a key motivation for CASA seeking to change its approach to a range of ADs that are highly valued by industry is either a misguided attempt to reduce the perception of CASA liability, or motivated by the perceived need for 'administrative neatness' (CASA staffs' words), whereby the following ADs/ instruments are considered to be not 'real' ADs and therefore in need of 'reform':

- AD Prop 1
- AD ENG 4
- AD ENG 5
- Sched 5

Both of these motivations for change are spurious, not based on safety grounds and would cause significant unnecessary difficulties for industry and costs.

Any move to dis-establish the current approach to providing a balancing range of safe alternative means of compliance in the maintenance area must be judged against an overall test of not only 'what is in the best interests of safety', but also 'what is the least damaging pathway to industry'?

This test is expressed in both the Government's response to the ASRR Report and the Minister's Letter of Expectations to the CASA Board when the Minister clearly instructs CASA:

> *15. Consider the economic and cost impact on individuals, businesses and the community in the development and finalisation of new or amended regulatory changes.*

As CASA has clearly not undertaken this process – and certainly not with input from industry regarding the establishment of the real costs of the current proposal – the proposed AD should be withdrawn.

Aerial Application Standard Approved System of Maintenance

AAAA has a standard operations manual (SOM) that is already approved by CASA in operation with the majority of the aerial application industry. The standard manual is supplemented by a standard Schedule of Differences that enables companies to vary their procedures and practices to suit their particular operations.

The AAAA SOM saves industry thousands of dollars with every issue, and saves CASA even larger amounts in time and resources that are no longer required to review each and every 113 page manual that is submitted. Thanks to the SOM, CASA only has to review the relatively few pages of the Schedule of Difference for each AOC - as the main body of the manual has already been reviewed and approved by CASA.

In addition to cost and resource savings, the AAAA SOM has had a significant impact in improving standardisation across the industry – a critical safety feature when the highly mobile nature of personnel within the sector is understood.

A standard approved system of maintenance would similarly assist CASA and the industry and would provide maintenance workshops with a clear and consistent pathway for the appropriate maintenance of aerial application aircraft.

AAAA would welcome the opportunity to work with CASA to establish an approved system of maintenance for aerial application aircraft in Australia modelled on the success of the AAAA SOM.

In particular, AAAA would like to establish a permanent 'home' for the content of various ADs and other instruments that are regularly applied to aerial application aircraft including:

- AD Prop 1
- AD ENG 4
- AD ENG 5
- Sched 5

There are also many industry- specific issues that could be addressed through such a standardised approach, including maintenance of role equipment, training of staff, record keeping, and engine trend monitoring and reviews.

Using an approved system of maintenance, CASA and industry would be able to develop a more mature approach to the issue of propeller safety by establishing, potentially, a range of checks or inspections that could confirm that a propeller can continue to be used because it still meets the specifications and tolerances required – regardless of the calendar TBO from the manufacturer.

'On condition' is a reasonable approach used broadly in a range of countries for aerial application maintenance/overhaul issues. The concept is embedded in the safety-based approach of AD Eng 4 and 5. There has been no identified trend of failures using that approach in aerial application and there are significant cost and flexibility advantages for a highly seasonal industry.

For example, McCauley propellers have no TBO calendar life, and industry is not aware of any identified trend of failures that would lead to concern.

The fundamental failing of the CASA proposal to defer to manufacturer's TBOs is simply that it has no grounding in safety – there is no 'problem' identified that requires solving.

Recommendations

1) As CASA has provided no analysis of the cost of its proposed changes to AD Prop 1, which is clearly non-compliant with government policy (red tape reduction principles), the Minister's Letter of Expectation to the CASA Board and the DAS Directive 01/2015, CASA should immediately withdraw the AD Prop 1 proposed changes.

2) CASA should maintain AD Prop 1 in its previous form whereby industry is given the flexibility to manage the safety of propellers within well-established engineering practices and methods.

3) CASA should work with AAAA to establish an aerial application industry wide standard approved system of maintenance that incorporates the current content and intent of the following ADs and instruments and any additional guidance relevant in the aerial application maintenance field:

    a) AD Prop 1
    b) AD ENG 4
    c) AD ENG 5
    d) Sched 5

Further Information

For further information or to discuss any of the issues raised in this submission, please contact the AAAA CEO Phil Hurst on 02 6241 2100 or by email: phil@aerialag.com.au