AVIATION MAINTENANCE REPAIR & OVERHAUL BUSINESS ASSOCIATION, INC

AMROBA®inc

ADVOCATE OF THE AVIATION MRO INDUSTRY

Newsletter Date
15/6/2013

Volume 10, Issue 6A
June – 2013

CASR Part 21 Issues

When CASR Part 21 was made back in 1998 it was based on implementing the FAR system of aircraft and product certification to assist manufacturing and acceptance of Australian approved alterations and repairs.

It meant the industry had to come to terms with American terminology that most of the non airline maintenance sector were fully conversant with because of the number of FAA type certificated aircraft and products used in the non airline sector.

The outcome has been a BASA/IMP with the US/FAA that has seen some success for some of our aircraft parts manufacturers.

However, recent changes to CASR Part 21 has seen a move away from US terminology that now raises many issues with 'legal' interpretation of terminology used in this Part.

CASR Part 21 adopted the FAR terms of "alteration" and "repair" instead of "modification" without adoption of other FAR requirements that, for example, define "major alteration" and "major repair".

To make matters more confusing, recent amendments to this Part reverted to terminology of the CARs and added 'modification' to the mix. Once again, no legal interpretation of what 'modification' means, especially how it impacts on other provisions of this Part.

The FARs include in Part 1.1. under definitions the meaning of major alteration:

Major alteration means an alteration not listed in the aircraft, aircraft engine, or propeller specifications-

(1) That might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or

(2) That is not done according to accepted practices or cannot be done by elementary operations.

A much needed definition for CASRs.

They also define major repairs in FAR Part 43. The failure not to adopt FAR Part 43 continues to raise interpretation requests in this Part.

If we look closely at CASR 21.470 we see that there are 4 separate methods of accepting foreign design data.

21.470 Foreign modification/repair designs

A design for a modification of, or repair to, an aircraft, aircraft engine, propeller or appliance is taken to have been approved for the purpose of these Regulations if the design is:

(a) approved by the NAA of a recognised country; or

(b) for a design of a modification or repair that relates to an aircraft, aircraft engine or propeller designed in a recognised country — published or issued by the foreign type certificate holder of the aircraft, aircraft engine or propeller under a system approved by the NAA of that country; or

(c) for a design of a modification or repair that relates to an appliance designed in a recognised country — published or issued by the manufacturer of the appliance under a system approved by the NAA of that country; or

(d) accepted by CASA under an agreement (however described) between CASA and the NAA of a Contracting State regarding approvals of designs for modifications and repairs.

Firstly, are 'alterations' included in this provision? We can accept 'modification' and 'repair' data under these 4 provisions without CASA/AP need for approval.

However, CASR Part 21 now uses all 3 terms without any legal definitions.

e.g. Under paragraph (a) above, if a FAA document stated that the Administrator approves the data for an alteration, could it legally be used in Australia?

AMROBA has asked CASA to clarify the "legal" difference between these terms so that our members can stay legal.

Like most things in criminal law, words need to be defined unless CASA intends to leave it to the Courts to one day decide there is a difference because the FARs clearly define a difference.

Pity the drafters did not stick with using the terminology used in the rest of the Part 21.

Design Approval Requirements

One of the real benefits of regulatory reform was the "adoption" of FAR Part 21 and the FAA system of certification of aircraft and products. This enabled a BASA/IMP to be signed with the US/FAA so that, with some limitations, parts manufacturing and designs can be accepted into the biggest aviation market in the world.

So what are the benefits?

1. The ability to accept, from a list of recognised countries, NAA Type Certificates by CASA issuing a Type Acceptance Certificate saving operators from the expense of having CASA duplicate the NAA's type certification program to enable new aircraft to be registered in Australia.
2. The same philosophy applied to STCs, however described, from recognised countries except there is no need for CASA to issue a TAC. This clarified the use of STCs without local approval unless previous repairs or modification prevented the STC instructions from being followed.
3. Production Certificates introduced the need for production (manufacture) of aircraft, components and parts. In addition, a regulatory change was added so a manufacturer could obtain a one-off approval to supply a part to a maintenance organisation.
4. The biggest change to the certificate of airworthiness provisions was the introduction of the 'experimental', 'primary' and 'intermediate' categories. In addition the 'permit to fly' was replaced with the FAA special flight permit.
5. The introduction of APMA and ATSO into the Australian system has started to have benefits for the local industry.
6. Part 21 adopted the FAA system of approval of design and manufacture which enabled CASA to adopt FAA processes to underpin the BASA/IMP. At the time, industry was encouraged to understand the FAA system so that approvals met FAA standards.
7. To verify that the system met FAA standards, CASA/industry had to demonstrate the approval process with some certification projects in Australia that were processed iaw the standards of the FAA.

The on-going acceptance is based on keeping the FAA system of product certification with Australian projects.

A concern is that the "language" used in amendments to CASR Part 21 is not the same as the "language" of the FARs. This means that within one part we have different words doing the same purpose but changing the intent and/or clarity of the FAR based rules.

E.g. "Alteration" & "Modification".

Post Acacia Ridge

It appears as if CASA has listened to the complaints regarding the 'road blocks' and 'changes of direction' in transitioning CAR30 maintenance organisations to CASR part 145.

Feedback from members confirm that CASA has suddenly begun to assist in the transition process so that many applicants can successfully make the transition.

It appears that some of the hurdles that attendees at the Acacia Ridge meeting identified have been lowered and CASA is actively assisting applicants to gain their 145 approval.

We must congratulate CASA on this change to the modus operandi that some members had been experiencing.

CASR Part 145 MoS would be more attractive to CAR 30 AMOs if it fully adopted the EASA Part 145 requirements.

The EASA Part 145 needs some minor changes to enable Australia's non airline sector to viably survive. EASA has recognised this and are in the process of making changes — we believe that it would be prudent to wait till EASA finalise their GA review and then analyse it to see if it is applicable to the Australian GA MRO industry.

It would be nice if CASA was more transparent and publically recognised that there were real concerns with the previous processes being used. We need a "Just Culture" throughout the system, not just industry.

When The Commercial Life Ends

Aviation has many vintage aircraft operating and some no longer have support from the manufacturer, including engines and propeller manufacturers. If any aircraft, of its components, no longer have on-going airworthiness support from the manufacturer then the aircraft's commercial operating life should come to an end.

The issue that now confronts the owner is maintaining the aircraft and its components in an airworthy condition when there is no manufacturer data that is being kept current.

For instance, if a propeller manufacturer no longer exists, or no longer provides on-going airworthiness support, what is the life limit of the propeller?

If the current AD/Prop/1 is cancelled, which we agree with CASA's proposal, then what are the minimum life periods for overhaul?

What are the minimum regulatory requirements in other regulatory systems that do not have an AD specifying these periods?

Under the US system, Part 91 does not mandate manufacturer's recommended life limits but FAA Special Airworthiness Instruction Bulletins recommend owners to follow the recommended periods. The CAA(UK) treats "recommended" as mandatory and all EASA CAMOs treat 'recommended' as mandatory.

This approach in Europe has also seen many private owners N- register their aircraft to take advantage of FAR Part 91 non mandatory approach to manufacturers' 'recommended' periods.

Propellers are probably the most stressed component on an aircraft. When aircraft have low utilisation, calendar periods even if recommended, should not be exceeded.

Corrosion is the enemy of low utilised propellers and is a reason for many a blade departing the aircraft during flight. In many cases, the engine follows the propeller blade as an out of balance propeller will destroy engine mounts.

Unseen internal corrosion kills most propellers.

Where a manufacturer does not provide a calendar overhaul period, the "recommended" overhaul period (hours) should become mandatory.

If CASA cancels AD/Prop/1 then they need to provide an AWB that recommends to owners the requirement to overhaul their propeller at a specified calendar period. What is wrong with reference to FAA AC43-37?

If the registered operator (RO) wants to continue past this period then the responsibility must be placed on the registered operator to justify, not maintenance organisations or personnel.

This applies to other components such as engine, prop governor, etc.

If the RO provides a written and signed works order to inspect, then the legal responsibility must reside with the RO. It is not the MRO industry that want aircraft and components to exceed there recommended life, it is the RO.

Unlike ICAO or the FARs, there is no legislative requirement for the registered operator to keep his/her aircraft airworthy.

Whereas, ICAO Annex 6, Part 1, paragraph 8.1.1 (a) places responsibility on the operator to ensure the aircraft is maintained in an airworthy condition. The same principle is in Annex 6, Parts II & III.

FAR Part 91.403 clearly places the responsibility on the owner/operator to have the aircraft maintained in an airworthy condition.

Because the criminal code is applied to our regulations, it must be made very clear in the legislation that ROs provide work orders to maintenance personnel to inspect aircraft/component to operate "on-condition" past recommended life, then the responsibility rests with the ROs to hold the justification.

AMROBA has submitted a proposal to CASA for the RO to hold the justification for exceeding manufacturers' recommended life periods. All the MRO should do is comply with the RO issued work order.

Civil Litigation — Reality

In the US, the home of civil litigation, it is becoming harder for LAMEs and AMOs to obtain insurance against civil actions post accidents or incidents. Australia is starting to catch up.
"This litigation explosion has created a nasty second-order problem: Liability insurance for mechanics and shops has become extraordinarily difficult to obtain in recent years. Many underwriters have abandoned the maintenance market, leaving maintainers with few market choices and little competitive pressure to keep premiums affordable. As a result, many shops and most individual mechanics are forced to "go bare," and those lucky enough to be able to find insurance often pay exorbitant premiums for unrealistically low coverage limits."
Even if you follow the aviation requirements rigorously, you can still be liable under civil law.

Become a Member

The adage "there is strength in numbers" is absolutely true when it comes to influencing government regulations and policy. No one company, no matter how big or successful, can keep up on all the regulatory issues directly impacting businesses.

AMROBA is dedicated to serving the businesses that are responsible for the in-service continuing airworthiness of aircraft and aeronautical products, including the manufacture of replacement parts for in-service aircraft. This segment of the industry has never had a dedicated advocate until now.

AMROBA membership form is available from the AMROBA website: http://amroba.org.au/become-a-member/

print the membership form http://amroba.org.au/index.php/download_file/view/15/

AVIATION MAINTENANCE REPAIR & OVERHAUL BUSINESS ASSOCIATION, inc

Postal Address:

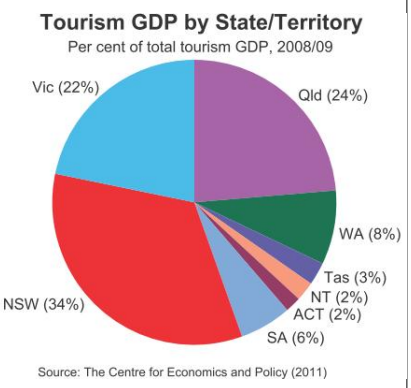
PO Box CP 443
Condell Park
NSW 2200

Phone: 61 (0)2 9759 2715
Fax: 61 (0)2 9759 2025
Email:
amroba@amroba.org.au
inquiries@amroba.org.au
Website:
www.amroba.org.au

Charter—Will it Rebound?

The tourism industry makes a significant contribution to the overall level of economic activity and employment in Australia. Though the large airlines statistics show increases in passengers carried, less domestic locations have air services.

The number of charter operators are decreasing but fixed-wing charter operators carried over 196 thousand passengers in March 2013, an increase of 13.9 per cent on March 2012. The increase is mainly due to FIFO operations.



Tourists need to have confidence in the safety of any air charter service. Accidents in the air charter sector in Australia have raised more than enough bad publicity.

The high level of publicity in this country of any regulatory action with any operator also negatively impacts on this sector of aviation.

Add government induced costs and delays to the industry relating to security, car parking, etc and many turn to road transport that are not subject to these regulatory imposed costs. Most people are sick of all the hidden charges and ridiculous airport prices.

One major downside to hiring an air charter is, of course, cost. Depending on the duration of the flight, the price of fuel, the size and type of aircraft chartered, and number of crew, expenses can be significant. This expense also factors into air-shipment arrangements.

Finding an ideal aircraft that would be viable under the current regulatory imposts in this country has become the real challenge. Many think that only aged piston-engine aircraft are viable but airport costs, environmental costs, etc impacts so heavily that, unless some government subsidy exists, they are not viable also.

Will the rebirth of the $2.5M Cessna 421 Excalibur later this year provide an aircraft that previously supported many smaller rural towns?

The Aircraft Maintenance Engineers/Technician Creed

Worth Remembering

"UPON MY *HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a qualified aircraft maintenance engineer/technician. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.*

IN DISCHARGING *this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge nor shall I allow any non qualified superior to persuade me to approve aircraft or equipment as airworthy against my better judgment, nor shall I permit my judgment to be influenced by money or other personal gain, nor shall I pass as airworthy aircraft or equipment about which I am in doubt either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.*

I REALIZE *the grave responsibility which is mine as a qualified aircraft maintenance engineer/technician, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation."*