

MODEL AERONAUTICAL
ASSOCIATION OF AUSTRALIA INC.

Newsletter

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1st July 1998 - From the Federal Secretary

Change of Title

Some two years ago, a majority of the State and Territory Associations accepted by postal vote what were termed "Safety Guidelines for the Operation of Miniature Gas Turbines". These guidelines had been prepared by the MAAA Gas Turbine Subcommittee which members had been nominated by State/Territory Associations because of their experience with gas turbines, miniature and/or large. When preparing the guidelines, the Subcommittee members were aware of the regulations imposed both by the Academy of Model Aeronautics (USA) and the British Model Flying Association.

The guidelines (which have been available on request) were recently described as unduly restrictive and the question "what legal authority does the MAAA have to enforce them?" was asked. The guidelines are admittedly restrictive but not unduly so. For example, they contain a process leading to the acceptance of home-built engines. The AMA regulations prohibit them. I have written before about the unique operating conditions of gas turbine and will not repeat them. Simply stated, they are different and require some knowledge of their characteristics for their safe operation and for their installation in an airframe.

Regarding the legal authority to impose the guidelines, at the present time there is none. This might change after the MAAA is recognised by the Civil Aviation Safety Authority as an Aviation Administration Organisation under Part 149 of Civil Aviation Regulations. However, when accepting the risk associated with the operation of model aircraft, our Underwriters did so on the condition that our models are operated in accordance with published rules and guidelines. If these rules and guidelines are not complied with, the

Underwriter will have cause to refuse liability. OPERATION OF GAS TURBINES OUTSIDE OF THE MAAA GUIDELINES COULD PREJUDICE THE OPERATOR'S PUBLIC LIABILITY COVER. This use of insurance to enforce regulations is not unique. Because there is currently no regulation similar to our CAO 95-21 in the USA on the operation of model aircraft, the AMA depends on its insurance to enforce compliance with its regulations. With litigation so common there, this is sufficient

To reduce the likelihood of misunderstanding, the term "Guidelines" has now been replaced by "Regulation".

CAR Part 101

Advice is that the draft CAR Part 101 - Unmanned Aircraft and Rockets - will be issued in July as a Notice of Proposed Rule Making. On receipt, copies will be sent to all State/Territory Associations and to the Special Interest Groups. It will also be able to be downloaded from the CASA Web site at <http://www.casa.gov.au>. As advised in previous Newsletters, it will eventually replace the existing CAO 95-21. The equivalent of the Manual of Procedures will also have to be issued. This is likely to be based on the United Kingdom's CAP 658.

With the lead time associated with the publishing of these Newsletters (at least two States have only just been able to issue Newsletter 3/98 sent out at the beginning of May), it is likely that the deadline for responses to the NPRM has passed.

When you see a copy of Part 101, I ask that you do not read extracts or skim it. You must read and understand Sub Parts A (General), F (Model Aircraft) and G (Pyrotechnic Displays) and should read Sub Part E (Unmanned Aerial Vehicles).

You will note that our model aircraft are defined as those being used for sport and recreation. Models used for other purposes are defined as UAVs and Sub Part E applies to them. I should point out that our models when used for instruction are still regarded as being used for sport and recreation.

The original draft, which was restrictive, was revised after discussion principally between the Past MAAA President (Ron Ericson) and CASA. Some changes agreed but subsequently deleted were re-instated when our current President together with Ron Ericson again discussed the draft with CASA during a visit to Canberra. CASA had used as a starting point the regulations applying to the operation of model aircraft in the USA, New Zealand, Canada and the United Kingdom. The end result is one not as liberal as that applying in the USA (where almost anything goes and to which CASA would not agree) but generally better than those in force elsewhere..

Flying of R/C Models Indoors

The flying of any model aircraft indoors is not controlled by the current CAO 95-21 or by the proposed CAR Part 101.

Radio controlled model aircraft is a rapidly developing class of indoor models. Almost all are electrically powered. One type has a wingspan of about 130 cm and a maximum weight of about 225 grams. Such a model is available as a kit and is claimed to fly at less than two metres/second that is, walking pace. Other examples weigh less than 28 grams and have a wingspan of less than 60 cm. Already someone in the USA is ready to claim a duration record and is a little annoyed that the CIAM did not foresee a need for a record class. (There are currently no CIAM rules for R/C indoor models; the CIAM does not generate rules but considers and perhaps adopts rules submitted to it. Because of the (in)frequency of Plenary meetings, it would usually require a minimum of eighteen months to have new rules accepted and even then probably would not become official until 2001).

A major concern is for the safety of spectators. The traditional free flight model flown indoors presented little hazard to any spectators; in fact, spectators are a major hazard for models such as the FAI class F1D. This class weigh one gram without the rubber motor and have a maximum wingspan of 65 cm. They are covered with “microfilm”, the thickness of which is measured by the colour produced by light interference (in the way an oil film on a water surface is coloured) in the film. The film itself is made by pouring dope, plasticised by additives such as castor oil, onto water. These models fly at far less than walking speed and are upset by the thermals generated by the body heat of a person standing under one. Often, F1D events are not given wide publicity to reduce the number of spectators on the floor.

Compared with these, a R/C indoor model has far greater kinetic energy. Canada has a weight limit of one ounce (about 28 grams) before protection of spectators is required. The Executive is considering what, if any, regulations should be imposed. Comment will be sought through the State/Territory Associations.

Small R/C Aircraft.

A much different class of aircraft was described in the issue for the 8th June 1998 of “Aviation Week”. These are unmanned aerial vehicles being developed for the US military. The article has some four pages with photographs and cannot be easily precisised. To give an example, there is a 15 cm moulded disc powered by a geared electric motor that has flown for 16 minutes. A similar disc carrying a black and white TV camera has flown for more than two minutes. The company responsible hopes to fly the disc at a weight of 50 gram carrying a B/W video camera out to 10 km . The prototypes used cut-down piezo gyros from R/C Helicopters.

Mention has been made in a Free flight e-mail list of several top class aeromodellers being recruited to work on a US military project. It would seem a progress report has been issued.

Rule Book

The Australian section of the rule book has been printed and is now available. Only 200 copies have been printed; that was all that was sold of the last print in 1995. The small quantity has resulted in a higher cost. Changes to rules meant that most of the pages had to be replaced and so the section has been completely reprinted. The price differential between the complete reprint and printing only the changed pages did not justify the work of removing and replacing pages.

The cost of the Australian Section is \$16.50 with postage and packing costing another \$6.50. If you require a binder, the cost is \$20.00 plus \$8.00 for postage. If your State/Territory Association cannot provide them, I can do so. Because I do not have a record of who owns Rule Books, you will need to let me know if you require a binder.

I am a little disappointed at the number of rule books distributed. We have over 300 clubs and 9427 members.

Insurance.

To date, two claims for property damage have been made under the new public liability cover. One involved damage to a security fence and the other damage to a motor vehicle. The MAAA has paid a total of \$701.95 of the excess with the members involved and club/state association paying the rest. I write club/state association because one state association has decided to pay the second \$250.00 of the excess instead of the member's club. Further, a postal vote has also been issued that, if passed, will have the MAAA pay up to \$750.00 of the excess with the member paying only the first \$250.00. The result of this vote will not be known until early August.

There were also two reports of personal injury. One was caused by a R/C Glider and the other by a chainsaw during a club working bee. Although the reports have been submitted to the Underwriters, present advice is that claims will not be made.

So that we can better assess the cause of incidents and what can be done to improve safety, additional detail will be sought about future incidents. Sketch maps will be required showing the relative location of pits, car parking, pilot's flight line, wind direction, other transmitters, crash site etc. A list of frequencies in use at the time of the incident will also be asked for.