CIAM Flyer
The Introduction to the Modelaircraft World
FAI AEROMODELLING COMMISSION
No. 5 - 2011

Aeromodelling – How to Stay Safe

All beginnings are easy – but nevertheless potentially risky

The new generation of ready-built model aeroplanes and helicopters – mostly made from foam materials – make aeromodelling easily accessible for everyone. While getting started is easy, a few safety issues must nevertheless be considered. These include insurance, legal regulations, handling of technology and flying itself.

Not to forgotten - insurance

Delighted with your newly acquired flying model, including engine and radio control, you'll immediately want to rush outside, find the nearest field and launch your fantastic machine. But wait! Have you checked whether you have insurance that will cover you for damage caused by model aircraft? Should you lose control over it, even a relatively small model plane has a certain hazard potential and can damage property or cause personal injury. This could be expensive for you. Read your insurance policy carefully and check if model flying is covered. If not, have the policy changed accordingly.

Legal regulations

Numerous countries have regulations regarding model flying. In most cases, these are issued by the ministries of aviation and are available from there. The most important and also most common regulations regard:

- insurance requirements for model flyers
- model flying in the vicinity of airports
- weight limitations of models
- FPV "first person view", also called immersion or camera flying
- permitted radio control frequencies

National aeromodelling organisations and associations are well informed in these matters. If you cannot find anything on their websites, individual enquiries will no doubt be readily answered.

The technology of modern aeromodelling

The technology involved in aeromodelling has rapidly evolved in recent years – especially with regard to microelectronics.
The areas most affected by this are propulsion technology, remote control technology and on-board electronics with data

transmission to the pilot, stabilising instruments, GPS, etc. In addition to conventional internal combustion engines, gas turbines and increasingly electric motors are used today. While handling turbines requires a large degree of know-how, electric motors are easier to work with but do present certain hazards.

Individuals must always stay behind the propeller. A propeller that has become detached and is whizzing through the air can release a large amount of energy and cause serious injury.

If you want to change any settings on your transmitter, always make sure the power supply to the electric motor has been disconnected to ensure that it will not suddenly start. Sadly, accidents due to unintentionally and suddenly starting motors do keep occurring – both with planes and helicopters.

Many radio control systems have the option of programming a so-called fail safe. All functions can be set so that a loss of transmission immediately causes the engine to stop and the control surfaces to assume a neutral position. This may not always enable you to recover your plane but it does dramatically reduce the risk of an accident occurring. A quick and simple test: hold your plane, with transmitter and receiver turned on and the motor connected but switched off, from behind and turn now off the transmitter. If the motor does not start, you've got it right.

You should generally make sure that the RC system is working properly. Both receiver and transmitter batteries must be full charged. The proper functioning of the entire system should be checked regularly and especially prior to initial flights. The RC system manuals include information about the procedure for checking the range of the system (distance check).

...and now it's time to take to the air

Once you've done everything conceivable to ensure your model is safe to fly, it's time to take to the air. If taking off – after the function check – with motorised model planes or helicopters, no people or animals may be present in the flying area. Distances must always be sufficiently large – 20 metres for smaller aircraft and at least 50 metres for larger and faster machines. Avoid flying near buildings or roads. The risks of gliding on slopes are also often underestimated. In slope winds, modern gliders in CFC construction can easily reach speeds of 200 km/h or even much higher. Sufficient distances to other pilots and spectators must be observed. Zooming closely past spectators is no heroic achievement – on the contrary, it's irresponsible and criminal!

Vitally important

In strong or turbulent wind conditions or poor visibility, always make the safe decision. And should something be wrong with the model, if there are people or animals in the flying area or anything occurs that makes you feel unsure – don't start and err on the side of caution. This way you won't experience any unpleasant incidents to spoil your enjoyment of model flying. Good luck and have fun with your model airplane!