Microlight radios

CAA in its long process of developing rules had put through a Notice of proposed rule making (NPRM) which would require all aircraft which enter controlled airspace to have 24 monthly radio inspections; currently this rule applies only to IFR aircraft. Microlights were to be exempt from this new rule
"in order to minimise the regulatory compliance burden on microlight aircraft operators."
But it was pointed out that;
"The CAA does now accept that microlight aircraft using the types of controlled airspace that require radio equipment for communication with ATS (as prescribed in 91.513) should be required to comply to the same communications standards as other VFR aircraft."
You would think from this statement that it was a done deal, but fortunately for us CAA has a duty to consult all affected parties before a rule can be passed onto law and this clearly was not done in this case. What this means is that all VFR aircraft have had a reprieve for the time being, probably 2 to 3 years. What this also means is that all radio installations will need to be robust enough to pass the inspections. The full details of the inspection can be found in CAA rule 43 appendix B the basic intent is summed up by;
"*43 Appendix B. (7) inspect and test the VHF Comm system to ensure that the performance of the system is acceptable during normal operation."*
While hand held radios would not normally be an acceptable type of installation one which was fixed to the aircraft with a permanently fixed quarter wave aerial would probably pass the inspection. It is also important to note that it is only the installation which is tested with no regard to who preformed the installation.
Most of us would agree that there are a number of microlights who's radio transmissions are a bit on the reading you 1 to 2 side. This would not be acceptable to ATC as it would cause many repeated and confused messages. Now would be the time to consider panel mount systems or more permanent fixing of your hand held radio.
One of the main causes of poor transmission is static interference from the ignition system, this can be reduced by correctly shielding ignition cables and magnetos and the use of non solid core 50ohm coax cable for the aerial system. The aerial itself should be placed as far away from the engine as possible and should be well earthed at both ends. Panel mount systems should be well bonded to the airframe.
Another excellent system to help is an active noise reduction system as part of the intercom system, these are relatively inexpensive and can reduce engine noise dramatically, when used in combination with good static reduction techniques the results should be very acceptable.
Further information on the NPRM can be found at:
http://www.caa.govt.nz/rules/Draft_Rules/DFR_Part_43_General_Maintenance.pdf
Goto (91.605 (e)(1))