



Aero Club of South Africa Approved Person Scheme for NTCA

by Jacobus Gertenbach

Most recreational pilots fly Non-Type Certified Aircraft. "Non-Type Certified Aircraft" (NTCA) means any aircraft that does not qualify for the issue of a certificate of airworthiness in terms of Part 21 of the Civil Aviation Regulations (CARS) of 1997, as amended.

NTCA can be divided into five categories, viz. Amateur-built aircraft or Homebuilt aircraft, Production-built aircraft, Veteran aircraft, Ex-military aircraft or any other aircraft not qualifying, or no longer qualifying, for the issue of a Certificate of Airworthiness in terms of Part 21, and it includes any Type Certified Aircraft that has been scrapped, of which the original identification plate has been removed and returned to the applicable aviation authority and is rebuilt as a full-scale replica.

(a) Amateur-built or Homebuilt aircraft

These aircraft are built by their owners using materials varying from wood, tube and fabric, sheet metal and composites. In order to qualify as an amateur-built aircraft, the owner must perform most of the construction work himself as a one-off project for the purpose of flying the aircraft himself. The aircraft in this category can be classified as either kit or plan-built and can include conventional 3-axis aeroplanes, weight shift aeroplanes, helicopters, gyroplanes, gyro-gliders, gliders (including self-launching gliders and touring gliders), manned captive and manned free balloons.

(b) Production-built aircraft

These aircraft are constructed or assembled at CAA approved facilities situated all over South Africa and can be referred to as over the counter or off the shelf aircraft, i.e. you pay your money and fly away. These aircraft include specified conventional 3-axis aeroplanes, specified weight shift aeroplanes and specified gyroplanes.

(c) Veteran aircraft

These aircraft are traditionally aircraft that have lost their Type Certificate for some or other reason.

(d) Ex-military aircraft

All aircraft previously operated by military air forces all over the world, i.e. Yak52, L29 and L39, Impala, Bosbok, Kudu, Harvard, etc.

(e) Any other aircraft not qualifying, or no longer qualifying for the issue of a Certificate of Airworthiness in terms of Part 21, which includes any Type Certified Aircraft that has been scrapped, of which the original identification plate has been removed and returned to the applicable aviation authority and is rebuilt as a full-scale replica.

NTCA, like any other certified aircraft, need to be serviced and maintained to ensure safe and trouble-free operation. NTCA used for recreational flying as above were, under the LS1 legislation, maintained or inspected by people within our own flying community or so-called Approved Persons. There were Amateur-built APs, Microlight APs, Gyrocopter APs, etc. Under the new CARS of 1997, the construction and maintenance or restoration of Non-Type Certified Aircraft is covered by Part 24, and provision for overseeing the construction and maintenance or restoration of the aircraft mentioned by Approved Persons, is made in Part 66 Sub-section 10 of the Regulations.

"Approved person" means a natural person who has been authorised by the Commissioner or a body appointed in terms of Part 149 to carry out maintenance on a Non-Type Certified Aircraft, in compliance with the applicable aircraft maintenance schedule, and includes the owner of an amateur-built or production-built aircraft that has been built by such owner in accordance with the provisions in Part 24.

However, before the Commissioner could delegate the functions of an Approved Person Scheme to the owners, builders and operators of NTCA, an Aviation Recreational Organisation (ARO) had to be formed in accordance with Part 149 of the CARS of 1997.

All persons operating one of the following for recreational purposes:

- (a) microlight aeroplanes and powered paragliders;
- (b) gliders;
- (c) free balloons;
- (d) gyroplanes;
- (e) hang gliders and non-powered paragliders;
- (f) parachutes; or
- (g) non-certified aircraft;

must belong to an ARO in terms of the CARS.

In terms of Part 66 of the regulations, an Approved Person (AP) can be defined as one of the following:

- Firstly, an Approved Person can be a licensed aircraft maintenance engineer (AME), with the required ratings endorsed on his AME licence by the CAA. However, AME licences are internationally recognised licences in terms of ICAO types which are mostly certified aircraft. It is therefore not possible to add Non-Type Certified Aircraft types to an AME licence, because the Non-Type Certified Aircraft does not comply with airworthiness standards recognised

by the Convention and is therefore not an internationally recognised commodity. Worldwide, each country deals with NTCA in its own way. There are, however, a few NTCA which have ICAO type ratings, with examples mostly being previously Type-Certified Aircraft of which the type certification has been withdrawn and now falls in the veteran class for NTCA, such as for example Fairchilds, Short Wing Pipers, Tiger Moths or replicas of such aircraft. Therefore, an AME that want to inspect or repair any other type of NTCA will have to be an AP who is a natural person authorised by the Commissioner to do such inspections or repairs to NTCA as requested by the owner from time to time.

- Secondly, an Approved Person can be a natural person who has been authorised by the Commissioner or the organisation approved for the purpose in terms of Part 149, which in this case is the AeCSA Approved Person Scheme, to carry out maintenance on a NTCA aircraft in compliance with the applicable aircraft maintenance schedule, and includes the owner of an amateur-built or production-built aircraft that has been built by such owner in accordance with the provisions of Part 24.

- Thirdly, an Owner-Builder AP is the owner who is also the primary builder of an amateur-built or a production-built aircraft who may issue a release to service, as prescribed in Part 43 for his or her own aircraft after it has been issued with an Authority to Fly, provided the provisions of Part 24 have been met in respect of the aircraft's airworthiness.

There seems to be a myth that an Aircraft Maintenance Organisation (AMO) can sign out an aircraft after an inspection or a service when it has been rated to do so by the CAA. An AMO can be compared to an institution that provides a professional service, such as for instance a hospital. The hospital has all the facilities to care for sick people, but only the doctors can perform operations, write out prescriptions, etc. Similarly, an AMO has all the equipment and facilities to perform the servicing or repair on a NTCA, but can only release an aircraft to service once an approved person (AME or AP) has inspected the aircraft and the work performed, and he or she has signed out the work that was performed on that aircraft in the aircraft's logbook. This is a very important point, especially when you are involved in an accident and you need your insurance to pay for the repairs to your trusty steed. If the aircraft was not signed out by an appropriately rated AME or AP you might be in a bit of trouble.

Please note that the holder of an Approved Person Certificate who wishes to carry out maintenance or repair work on NTCA operated under Part 96 (commercial operations, which includes flight training, flipping, etc.) shall apply to the Commissioner for such approval.

According to Part 24, the owner remains responsible for the maintenance of his aircraft and thus he or she must ensure that the Approved Person performing an inspection or repair to his aircraft has the required categories, ratings, class, group and types endorsed on his Approved Person

certificate. Failure to do so might land you in trouble with your insurance company in the event of a claim.

Nowadays, homebuilt as well as production-built aircraft can fall into a category that is frequently referred to as microlight aircraft. However, the term microlight refers to the type of licence required to operate that aircraft, i.e. a pilot in possession of a MPL can fly any aircraft weighing less than 450kg, provided that he has a current rating on that specific type of aircraft. The same applies to gyroplanes. With space-age materials and technology becoming more readily available for the construction of aircraft, a drastic improvement in the power to weight ratios of aircraft has been noticed. As a result, aircraft became not only faster but also technologically more complex in terms of operation and maintenance. Therefore the owner of a composite aircraft powered by a 100HP engine with retracting gear must not be ignorant of the fact that he is actually flying a highly complex machine in terms of maintenance.

Although the various sections of the Aero Club of South Africa (AeCSA) operate various types of aircraft varying from 3-axis to weight shift, rotorcraft, gliders and balloons, we have many aspects in common when it comes to building or maintaining these machines. Based on these commonalities, it was only natural to form a single body which will represent all the sections of the AeCSA in matters relating to the maintenance and construction of NTCA in South Africa, hence the founding of the AeCSA-Approved Person Scheme for NTCA.

The Aero Club of South Africa Approved Person Scheme committee, which is referred to as the AeCSA Technical Committee (or Technical Committee for short) under the leadership of the Responsible Person (RP), Johan Lok, is directly responsible for the control and supervision required by this ARO.

The AeCSA-Approved Person Scheme is a properly constituted ARO to which the Commissioner has granted the following powers:

- Appointing Approved Persons (Part 66.10.2)
- Testing the theoretical knowledge of applicants applying for an Approved Person Certificate using examination papers (Part 66.10.9)
- Amending Approved Person Certificates (Part 66.10.11)
- Issuing and Renewal of Approved Person Certificates (Part 66.10.14)
- Reissue of Approved Person Certificates (Part 66.10.15)
- Determining the Privileges and limitations of Approved Persons (Part 66.10.16)
- Keeping a record of Approved Persons (Part 66.10.17)
- Suspending and Cancelling of Approved Person Certificates, as well as dealing with appeals (Part 66.10.19)

The AeCSA Approved Persons scheme is just one of the many ways in which the Aero Club of South Africa is trying to make sport and recreational aviation more accessible and affordable for all South Africans.