



## **Czech Sport Aircraft – SportCruiser / PiperSport Restricted Type Certificate (RTC) Briefing Paper July 2010**



### *What is an RTC?*

A Restricted Type Certificate is an aircraft Type Certificate that is available to be issued to an aircraft that would not normally qualify for a full Type Certificate. In the case of the SportCruiser / PiperSport – not every part of the aircraft is fully certified, and hence the RTC would be applicable instead of a full Type Certificate.

### *What are the the Restrictions of an RTC?*

Typically (or certainly in the case of the SportCruiser / PiperSport) the restrictions on use will be none, so that the aircraft can be used exactly as if it had a full Type Certificate, and for commercial flight training / club hire purposes.

### *What difference does it make that not everything is fully certified?*

The traditional process of full certification for aircraft parts is a slow and costly process, so many modern avionics manufacturers choose not to burden themselves with the costs of certification. This means that the time and money that would have been spent on paperwork surrounding certification can now be passed as a benefit to their customers in the form of lower cost avionics, and also faster development cycles – typically uncertified equipment will be no lesser quality than certified components, and will offer more advanced features for your money.

In the case of some components in the PiperSport like the Rotax engine – the 912 engine is available in fully Certified and uncertified forms – in both cases the engine is physically almost identical, but the uncertified version enjoys lower purchase costs, and also lower ongoing part costs due to the lighter regulatory requirements. These benefits equate to a saving in your pocket at the end of the day, and ability to enjoy the latest technologies in your PiperSport aircraft.

### *What will the RTC allow the SportCruiser / PiperSport to be used for?*

The RTC will allow the aircraft to be flown by both private owners, and commercial clubs / training organisations, and used for hire and training purposes. The 'Sport can also be used for towing of banners and gliders. The approval for the PiperSport reflects the purpose and design of the aircraft - being primarily for VFR day flight, though it is possible that further approvals may be latterly sought and granted. Whilst the PiperSport should be flown in VFR conditions, IMC training is permitted as long as this is conducted under VFR. Depending on the level of equipment specified in an individual aircraft, the PiperSport can support VOR / ILS & HSI displays for instrument navigation training.

### *How proven is the SportCruiser / PiperSport in the training role?*

Whilst the aircraft is just about to be approved for training and commercial use in Europe, it is already well proven in the training role around the world. Currently the aircraft can be used for flight training from countries from South Africa through to the USA, where many of the aircraft are in use, and racking up the hours bringing on a new generation of pilots. This international experience has led to the aircraft becoming a mature trainer which is now well honed and proven in the role.

### *Who issues an RTC?*

The Restricted Type Certificate approval under the new CS-LSA class is issued by EASA – the European Aviation Safety Agency, who have extensively audited the aircraft and manufacturer - Czech Sport Aircraft and passed the final assessment against all the required criteria. The certificate for an individual aircraft is issued by the national CAA, based on the EASA approval of the aircraft. In the UK, the CAA have also confirmed that they see no impediment to use of the aircraft for flight training once EASA have approved it for such use.

### *Who are EASA and what authority do they have (how do they relate to a national CAA)?*

Before the advent of EASA, the approval of aircraft had to be done individually by each of the 26 EU member countries, so this meant much duplicated effort, and expense in translations and submissions for each territory to the national authority. EASA is a relatively new body which now centrally manages the process of approvals and safety monitoring, and works in conjunction with each national authority. This makes a lot of sense, as it allows EASA to do a very full and thorough evaluation of an aircraft.

At the time of writing (July 2010), individual nation states can opt not to accept EASA approvals, though in the UK they are fully accepted. This situation will soon change however, as in 2011 they will be compelled to accept EASA as the legal status of the organisation in the EU constitution will compel this upon national CAAs and there is no opt out available. Hence it is certain that the PiperSport will be available for full flight training purposes across all of Europe.

### *Does an RTC Have an Expiry Date?*

The RTC program is a permanent issue with no expiry, and upon this, a Certificate of Airworthiness is issued by the national CAA – typically issued for two years and renewable.

### *What is the maintenance regime for a PiperSport aircraft with an RTC?*

The PiperSport under the RTC should normally be maintained according to the manufacturer's recommended maintenance program. If used privately, then an owner can exercise the option to do a lot of maintenance themselves under the oversight of an approved (Part M) maintenance organisation. When used for flight training / commercial purposes, the aircraft must be professionally maintained by an approved maintenance organisation.

### *Will existing SportCruiser / PiperSport Aircraft be eligible for the RTC?*

Existing SportCruiser / PiperSport aircraft which have been built at the factory and are currently flying under an EASA Permit to Fly will be eligible to transfer into the Restricted Type certificate, as it is the same aircraft that has been approved for under both evaluations. Experimental / amateur kit built aircraft will not be eligible for transfer to the RTC.

### *What licence must you have to fly the SportCruiser / PiperSport*

The PiperSport can be flown on a JAR PPL, NPPL, or the forthcoming European Sport Pilot Licence, or flown under the guidance (with RTC) of an approved instructor.

*Are there any changes to the aircraft for the RTC?*

The aircraft is technically the same as approved for Permit to Fly and Restricted Type Certificate, and this allows the one to dovetail into the other. There are always small incremental improvements in the aircraft over time as it continues to mature, but these are only relatively minor differences.

*When will the PiperSport with the RTC be available?*

The PiperSport can be ordered now for delivery with an RTC, so that it can be used for training straight away once built and delivered. The Czech Sport Aircraft factory has been fully audited and vetted to the satisfaction of EASA, so the process now is one of paperwork and patience. It is anticipated that the aircraft shall be fully granted the RTC and available for delivery in Q4 2010 to the first of the many flying schools that are expected to take the aircraft.

*What are the economics of running a PiperSport under the RTC as a training aircraft?*

Compared to running a traditional training aircraft such as a C-152, 172, Tomahawk or PA28 Warrior, the PiperSport will come as a breath of fresh air – sipping unleaded fuel at a realistic rate of 16-18 litres per hour and consuming around 3 litres of oil in 50 hours, the PiperSport changes the whole economics of flight training. We also calculate that if a fleet switches from a legacy fleet to the PiperSport, then this can be an almost cost neutral exercise, as the difference in running costs very closely matches the finance cost on the aircraft – so that for the same money as operating the time served fleet, a school can fly brand new PiperSport aircraft. Students much prefer to fly in the PiperSport to the legacy fleet. We have found that post training club aircraft hire take-up to be much greater, so that it is often improved by a factor of ten in volume, stickiness and hence profitability.

The maintenance costs of the PiperSport are very low – the design is modern but the build of the aircraft beverages decades of experience in the Czech Republic of light aircraft evolution. Widely available parts and an extensive and dedicated dealer support network ensure that the aircraft stays in the air not in the hanger.

*Where can I find further information, try and buy a PiperSport?*

The joint channels of Czech Sport Aircraft and Piper distribution are in the process of consolidating, so there are a wide range of locations where the you can test fly & evaluate the PiperSport for your needs, and where you can be furnished with further information and the full running cost spreadsheet etc. Some of these European contacts are listed overleaf, but check the web for further contacts.

Useful Websites:

[www.czechsportaircraft.com](http://www.czechsportaircraft.com)  
[www.pipersport.com](http://www.pipersport.com)  
[www.facebook.com/pipersport](http://www.facebook.com/pipersport)  
[www.youtube.com/pipersport](http://www.youtube.com/pipersport)  
[czechsportaircraft.ning.com](http://czechsportaircraft.ning.com)

England (UK)	<p>Ben Fitzgerald-O'Connor                      Onega Aviation / Czech Sport Aircraft UK / PiperSport UK                      North Weald Airfield  <a href="mailto:sales@czechsportaircraft.co.uk">sales@czechsportaircraft.co.uk</a>  <a href="http://www.czechsportaircraft.co.uk">www.czechsportaircraft.co.uk</a>                      Tel. +44 (0)207 536 6356                      Fax +44 (0)870 060 1311</p> <p>Sales ✓                      Service Network ✓                      Demonstration Aircraft ✓</p>
France	<p>Alexandre Patte                      Czech Sport Aircraft France                      Aerodrome de Voves-Viabon  <a href="mailto:info@czechsportaircraft.fr">info@czechsportaircraft.fr</a>  <a href="http://www.czechsportaircraft.fr">www.czechsportaircraft.fr</a>                      Tel. +33 (0)2 37 99 17 17</p> <p>Sales ✓                      Service Network ✓                      Demonstration Aircraft ✓</p>
Germany	<p>Piper Deutschland AG                      Flughafen Kassel, Calden  <a href="http://www.piper-germany.de">www.piper-germany.de</a>                      Tel. +49 (0)5674 704 45</p> <p>Sales ✓                      Service Network ✓                      Demonstration Aircraft ✓</p>
Italy	<p>Nico Mastrorillo                      Czech Sport Aircraft Italia S.R.L.  <a href="mailto:nico.mastrorillo@czechsportaircraft.it">nico.mastrorillo@czechsportaircraft.it</a>  <a href="http://www.czechsportaircraft.it">www.czechsportaircraft.it</a>                      Tel. +39 334 17 22 061</p> <p>Sales ✓                      Service Network ✓                      Demonstration Aircraft ✓</p>
Portugal & Spain	<p>Leonardo Sayago                      Aero Marine Aircraft                      Monte do Lago Airfield  <a href="http://www.aeromarine.eu">www.aeromarine.eu</a>  <a href="mailto:aeronarine.eu@gmail.com">aeronarine.eu@gmail.com</a>                      Tel. +351 917 50 55 20</p> <p>Sales ✓                      Service Network ✓                      Demonstration Aircraft ✓</p>