



## FAI Amateur Built & Experimental Aircraft Commission (CIACA) Report to the 111<sup>th</sup> FAI General Conference

Lausanne, 26-27 October 2017

Reported by : Alfons HUBMANN - President

---

### 1. Important activities, projects or events since last FAI General Conference:

The presentation of FAI CIACA at the AERO 17 in Friedrichshafen, Germany has been very successful.

#### Projects:

New technologies and new power sources are our first priorities for many years already. History shows that it takes a long time until such development becomes visible. Now the visibility has improved remarkably and will developed over the next few years tremendously.

Our constant influence has induced our constructing engineers and aircraft builders to develop a high sense for ecology and sustainability.

Electric Experimental Aircraft, new batteries, hydrogen, solar power, competitions and records

#### Solar Impulse

Solar Impulse is still present in all minds. After this successful project, many new one's follow immediately behind. Our SI-Mission is completed and CIACA is looking now for new similar projects.

#### Solar Stratos

Solar Stratos is the first commercial two-seater solar plane in history, to penetrate the stratosphere. The Solar Stratos Mission will fly at an altitude little frequented in a fragile environment, propelled solely by solar energy without any pollutant emissions. Meetings are already planned to develop the environment for challenging records starting 2018.

**aEro / H55 – Electric Aerobatic** This electric version based on the Silence Twister has performed many aerobatic missions since its maiden flights in 2017. It will continue its successful way in 2018 after the necessary first complete overhaul.

#### Evolaris Electric Aerobatic

Evolaris is the first Votec-Design under construction with the Swiss Votec Fuselage which will be equipped with two easily removable wings.

This will enable a fast transfer between competitions of this Electric Aerobatic Aircraft with a roll rate of 460°/sec.

#### Long distance cruise – 4-seat – electric Aircraft Smartflyer Hybrid

Smartflyer will be optimized for a comfortable and most economic cruise. Today's batteries are not sufficient for longer flights, but the capacity is increasing every year. To compensate the insufficient battery capacity, the

*Fédération  
Aéronautique  
Internationale*

smartflyer is equipped with a range extender which is a modern, highly efficient engine to which a generator is coupled in order to produce electricity whenever needed. The electric engine with the propeller is installed on the vertical fin.

### **Traveller Hybrid**

Traveller Hybrid is the electric 4-seat-version of Traveller TR230 piston MSW Aircraft.

We expect, that within this decade the hybrid engines will slowly start to fade away with the rapid improvement of the batteries and/or the appearance of affordable hydrogen converters.

### **Equator P2 versatility**

Equator P2, this nearly decade-long project has reached a happy completion. The Equator P2, born in the mind of a talented industrial designer, seemed like a nice dream when we first saw it in renderings. As one would expect from an accomplished product designer, the aircraft looked wonderful, set in inspiring backgrounds.

Fantasy brings amphibian flying to a new level.

### **Events:**

Our presence at AERO Friedrichshafen will be further expanded for AERO 18. Contacts to experimental aircraft constructors including exponents of the industry have already been established.

In September 2017 “Europe’s 1st Fly-In for electric powered aircraft» has had its inauguration under the name of «smartflyer**challenge**», at Grenchen Airport (LSZG) in Switzerland. FAI CIACA is one of the main actors of this trendsetting event.

We are happy to report that this Fly-In has created big attention. Aircraft builders/constructors from all over Europe have joined in to show their projects. The approach to establish a platform for Electric Aircraft innovations at Grenchen Airport has been extremely successful.

## **2. Positive and negative results:**

*+CIACA has established contacts to pilots enthusiastically involved in competitions, racings, records etc.*

*>100 NAC’s Worldwide; CIACA Delegates join from 33 Countries only.*

***NAC’s should motivate better.***

*-Up to now still only one third of all the NAC’s have delegated members to the FAI CIACA commission in order to establish worldwide connections mainly regarding the fast development of electric Aircraft, which are our contribution to fly with less environmental pollution.*

## **3. Main problem(s) encountered and solutions adopted :**

Initiatives regarding international racings and competitions are still delayed.

The reporting quality of CIACA Members regarding the worldwide development of their aircraft is rather reluctant.

Transparent connection to other competing commissions are activated.

The increased awareness of the Experimental Building Community towards ecology and sustainability is remarkable.

#### **4. Planned activities and projects for next year**

Several Meetings with the Board of Smartflyer AG and "smartflyerchallenge" are already planned.

The annual general meeting will be held at AERO 2018 Friedrichshafen.

A symposium about electric aircraft will be organized at AERO 2018 as well.

Many contributors have already agreed to join in and contribute to this pathbreaking event.

Starting September 2018, the well introduced "smartflyerchallenge" will be relaunched at Grenchen Airport in an adapted edition.

In order to have the relevant success, we have achieved personal contact to many leading bodies.

Future budgets must take care of this situation and the funds must be included to meet with these leaders. If a main sponsor is prepared to contribute an important amount, FAI CIACA is in the position to organise an environmental Competition for Experimental Aircraft causing the least impact for the environment.

Preparation of the World Air Games 2019 will be one of the topics as well.

#### **5. Proposals (if any) to FAI Executive Board, FAI Head Office or for the next General Conference :**

The worldwide NAC's which have not yet direct connection to the aircraft building enthusiasts in their country should ensure that those are getting part of FAI CIACA.

The ASC Presidents should be invited to all events which are going to be conducted in the same country.

#### **6. Free reporting:**

Our sincere gratitude to the whole team in the offices of Lausanne for their contribution and help.

Date: Bern, 14. September 2017

Signature : FAI CIACA

Alfons Hubmann

