

# IT Working Group report for CIMA Plenary 2020

V1: Richard Meredith-Hardy Nov 2020

WG Members: Richard MEREDITH-HARDY (CIMA President of Honor), Krzysztof ROMICKI (POL)  
Barney TOWNSEND (GBR) Lukas BEHONEK (CZE).

## Wiki

Maintained by RMH at <http://wiki.fai.org>

Since the wiki was moved to a new server in August 2019 it became increasingly unreliable....

Eventually, rmh found a way to generate much better internal logging. After a lot of hunting around it showed the failures were consistently

*caused by: javax.servlet.ServletException: Servlet execution threw an exception*

*at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:313)*

*caused by: java.lang.OutOfMemoryError: Java heap space*

... this setting has never been changed since 2010, so he thinks what happened is that as the wiki got bigger over the years it slowly became increasingly sensitive to heap space - the memory allocated to the wiki – to the point at which it was hopelessly unreliable.

The simple solution was to increase the heap space setting from 512 to 1024.

Since this change in early November 2020 there have been NO FAILURES – let us hope this continues.

rmh offers many apologies for the inconvenience.

## Wiki users

Some CIMA delegates may not be aware that there is much more content in the wiki when they are logged in, AND they can add and edit content, AND delegates can activate a useful setting so they are emailed when there's a change or addition to content.

It is some years since the wiki users have been updated, please can delegates who don't have a login get in touch with rmh at [r.mh@flymicro.com](mailto:r.mh@flymicro.com) and one will be arranged.

The CIMA wiki is not hard to use and there's quite an extensive help section to get you started. Wikipedia is an example of how the right tool has promoted the creation of a colossal piece of knowledge. It's almost like magic. The message from the CIMA IT Working Group to CIMA Delegates about the CIMA wiki is simple: **Don't be scared to break it, you can't. Use it, magic follows.**

## FAI New Technology Working Group (NTWG)

Established September 2019 by EB, tasked to present a proposal for the FAI's GC 2021. Contains delegates from most commissions; RMH for CIMA.

A message was recently received from Angel Casado as follows:

This group has been silent for a while, let me update you on several subjects of your interest I think.

The IGC released a new device called the OGN/IGC Tracker, it is a device to track the glider (but also paragliders, GA, Balloons, etc, ...), see the sales brochure for the FollowMe 868 OGN/IGC Tracker at <http://wiki.fai.org/download/attachments/2752563/OGN+Tracker.pdf>

This week we are very proud to announce that we finished the implementation of the LoRaWan support on the OGN/IGC trackers, that means that the trackers, in addition to send the information to the 2500+ OGN stations worldwide, it also sends the information (position and status) to the 15000+ LoRaWan stations in particular to TheThingsNetwork (TTN) <https://www.thethingsnetwork.org/>

Each week there are another 100+ stations more worldwide). With the explosion of the Internet of Things (IoT), we can expect that network to have hundreds of thousands stations worldwide. The TTN is a community based project with hundreds of applications, devices, stations, gateways, etc., so now the OGN/IGC trackers are (or may be) part of that project, allowing us to expand by several orders of magnitude the coverage of those devices. In a nutshell, the trackers will send the information (position and status) to be received:

- by other trackers that it will do RELAY of that,
- by OGN stations
- and by the TTN stations,

We receive all of that information on the internet and consolidate that information on the OGN servers, ready to be distributed to anyone subscribing to our data feed. The new software is compatible with the current OGN/IGC trackers that we have.

Also this week we released the new software version of the OGN base stations, version 0.2.8, that version was designed specifically for support the OGN/IGC trackers, it was in beta since February and now is officially released, the self distribution system made that now is practically deployed in all the OGN stations worldwide.

In addition to support our trackers, it supports the FANET devices, very popular along the paragliders and the Pilot Aware devices, very popular along the GA aircrafts. Also we implemented the ADSB to OGN gateway and we are able to display the ADSB traffic in our websites.

<http://live.glidernet.org/#c=39.66217,-2.54142&z=8&s=1&l=ar&w=0>

In parallel, we keep working on the certification of the OGN/IGC tracker as a certified Flight Recorder (FR). I wrote an small paper of how to do a server based validation of the IGC files, right now it is in revision by the GFAC and some other security experts, once that we reach a consensus, we will implement that on the OGN/IGC trackers as a proof of it and the rest of the FR can benefit of that improved security, that again it is a big jump in terms of reliability and security for our FRs, it makes sense with the nowadays of the modern MCUs.

Where exactly this is taking us is difficult to say, but it is clear that OGN is gaining a lot of traction with increasing use by IGC.

We still have reservations about the OGN system in as much as it is 'fire and forget' which is fine for tracking on visual displays Etc. but does not really address the concept of 'real-time-scoring' in as much as if one critical position, eg over a turnpoint or near a gate is fired, but not received, there is no mechanism to ask the transmitter to send it again.

This means that real-time scoring can only be provisional until the complete track has been downloaded from the device after the pilot has returned – which is ultimately no great advance on what we've been doing with the AMODs for years.

Nevertheless, due to the increasing shortage of AMODs it might be a very good idea for CIMA to sponsor a trial of some of these trackers at WPC or WMC 2021 to see how it really works.

### **The LAA Czech Logger**

Lukáš Běhounek has been asked for an update. It will be included here when received.

### **Post meeting Notes**

*During the plenary Lukáš replied: We've got a working prototype, fully functional (4G, logging & live tracking, as we discussed, fully tested during flights & driving & walking) and in order to move it to production version we'll need some funding as it's still a lot of work. The development is stopped now. If we had funding I'd be able to pay for the development but I'm unable to pay for it on my own now.*

*In the plenary, Antonio Marchesi (ESP) mentioned a live tracking system. He says: This is ANR (Air Navigation Race), a navigation competition format developed by GA spanish pilots and technicals, used for national competitions during last 5-6 years and FAI international competitions last two years as they are very active members of the General Aviation FAI Commision.*

*Both systems will be investigated and developments posted on the wiki.*