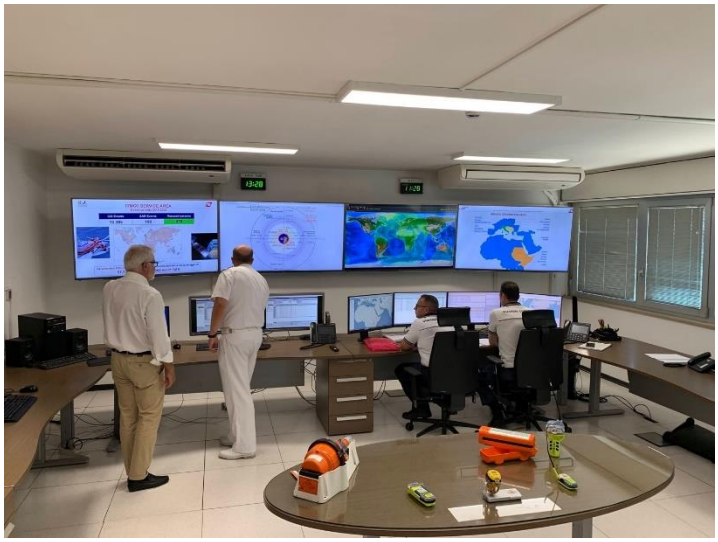
NEWSLETTER

EUROPE AIR SPORTS

SEPTEMBER 2023



Europe Air Sports President Andrea Anesini at the Italian Cospas-Sarsat Mission Control Center (Photo Rodolfo Saccani)

See page 5 for the story

Welcome to the September issue of the Europe Air Sports Newsletter! In addition to reports on technical and regulatory developments, we have two general interest topics – one about the background technology to Search and Rescue and the other about the annual electric fly-in. Abbreviations and their explanations are shown in full and in green, so that you can find the full meaning.

News in this issue:

AN INTRODUCTION FROM EAS PRESIDENT ANDREA ANESINI

Dear reader friends,

In November we will hold the 2023 Technical Conference in Dubendorf (CH), guests of the Swiss Aero Club and the Swiss Military Aviation. It is dedicated to the most urgent issues that characterise the current regulatory situation in the EU.

Naturally we will publish the reports and the summary of the debate after the Conference in the next edition of the newsletter you are reading. However I would like to tell you the contents of the agenda right now. We will discuss, among other things, crucial issues such as:

- U-Space and Drones - Regulatory framework and market evolution: it is the theme of the near future for all of us, which will influence the way of flying of all our categories of airspace users
- EU Climate agenda:
  - Increasing pressure in Europe, with risks for our community
  - Combustion engines and Avgas Problems
  - Electric aircraft, costs, risk, usage, evolution of the market

  The ecological pressure is increasing and we must prepare to manage the effects
- Rulemaking tasks Update - Programme manager report: many issues with an impact on regulation, which we will analyse together
- Medical certifications in our world: a necessary update on possible developments (which also take into account the new and often not implemented at national level) LAPL Medical legislation.

I believe that this year too we will have highly topical matters to report to the technicians nominated by our Members, naturally listening to their points of view.

So ... if you will not be in Dubendorf, see us again in the next newsletter with presentations and reports on the crucial points of the discussion.

EAS Senior Vice-president Rudolf Schuegraf reports on two useful developments at EASA

EASA STAKEHOLDER ADVISORY BOARD (SAB) CHANGES ITS STRUCTURE AND COMPOSITION

Europe Air Sports (EAS) has represented its members since 2003 in the Stakeholder Advisory Board (SAB). This is the high level consulting body of the aviation users' community affected by EASA activities. In cooperation with the Management Board, which is the representation of the EASA Member States and their aviation authorities, the SAB delivers the overall strategic inputs of the aviation users into the EASA system. To increase efficiency the SAB has recently streamlined its structure of the main body and its sub-organisations together with a request to renew the nominations of special experts into the different sub-bodies.

On behalf of Europe Air Sports, President Anesini wrote to EASA in August, detailing the EAS experts for the Main body and the six sub-bodies called "Communities", plus certain Activity Groups if established. EAS is the only association accepted by the Agency entitled to represent the interests of airsports in the EASA system.

In the next edition we will further inform you about the progress and the acceptance of the EAS nominated team of experts. The SAB will need some time to make the necessary decisions, update the composition of the user community and decide about the setup of Activity Groups.

Further and detailed information on Advisory bodies, the SAB and its sub-bodies is available on the EASA website following the link: https://www.easa.europa.eu/en/the-agency/advisory-bodies

The website will be updated as soon as possible to reflect the new setup of the SAB.

For detailed information and questions feel free to contact VP Rudolf Schuegraf via r.schuegraf@europe-air-sports.org

MORE POSITIVE NEWS: EASA WEBSITE LIGHT NOW MULTILINGUAL

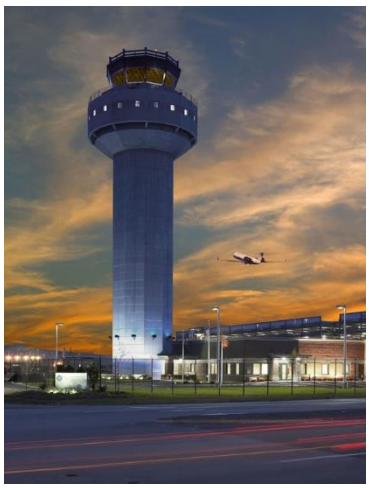
If you visited the light version of EASA's website recently you might have noticed a major change, a move in the direction Europe Air Sports fought for, for nearly 20 years. The light version of the website is now available in all EU languages. This is an important step for inclusivity and to be able to reach European aviators in their native language. The outgoing Executive Director Patrick Ky said: "We hope the multilingual EASA Light will make EASA activities more transparent for EU citizens and the understanding of this exciting industry."

With the following link you can open the light version of the website and select the language you want in the upper right corner of the initial page. https://www.easa.europa.eu/en/light

You then have access in your selected language to many subjects and issues, from flying a drone to ReFuelEU Aviation, Urban Air Mobility, EASA's Standardisation activities and many other topics. We recommend you to register and open an account. EASA will provide the information you want.

EASA light is your place for air safety information in your own language. The Pro version remains in English as the source for the detailed legislation, rulemaking processes and official safety information.

SINGLE EUROPEAN SKY: EASA'S AIR TRAFFIC MANAGEMENT RESPONSIBILITY CONSOLIDATED THROUGH NEW REGULATIONS - 15 SEP 2023 EASA PRESS RELEASE – *Presented by Rudolf Schuegraf*



Personnel, procedures and equipment for Air Traffic Management (ATM) and Air Navigation Services (ANS) will in future all fall under the regulatory framework of the European Union Aviation Safety Agency, laying the basis for a more efficient and consistent approach to evolution of operations in support of the deployment of the Single European Sky.

The European Commission published five regulations comprising a new regulatory framework to manage the interoperability of systems and constituents used to provide ATM/ANS, which were adopted on the basis of EASA Opinion No 01/2023 in September's European Union Official Journal.

The package reinforces the role of EASA by bringing ATM/ANS equipment under the EASA certification framework, therefore ensuring that all elements impacting the performance of ATM/ANS services are consistently managed from an end-to-end perspective.

'This publication marks a key milestone for the modernisation of the European air traffic management system,' said EASA Acting Executive Director Luc Tytgat. 'For the first time, there will be a single EU regulatory framework covering all aviation domains on the ground and in the sky, driving the transformation of the air transport system.'

The framework introduces harmonised requirements for the certification or declaration of ATM/ANS equipment, as well as the procedures for the approval of organisations involved in the design or production of such equipment. The driving principle is the essential need to achieve a single and mutually recognised compliance demonstration methodology for the equipment used to support ATM/ANS service provision.

This addresses previous interoperability shortcomings and enables a more efficient EU market for this equipment, resulting in a safer, more secure, interoperable and efficient operation of the European ATM network for all phases of flight.

The new rules will also strengthen the value of industrial standards in demonstrating compliance with the Single European Sky needs and requirements. EASA is working intensively with industry partners to support the implementation of the package.

Single European Sky: EASA's Air Traffic Management responsibility consolidated through new Regulations, all passed on 15 September 2023:

- Commission Implementing Regulation (EU) 2023/1770
- Commission Implementing Regulation (EU) 2023/1769
- Commission Delegated Regulation (EU) 2023/1768
- Commission Implementing Regulation (EU) 2023/1772
- Commission Implementing Regulation (EU) 2023/1771

Michel Rocca explains the significance of these changes.

The repealing of the Single European Sky (SES) regulation No 552/2004 was announced in the title itself of the new Basic Regulation voted in 2018. It comes into effect today.

The following abstract from the European Commission explains why it is so important for Air Traffic Management and for aviation as a whole.

A new framework for interoperability rules

The European Commission has adopted new rules to better manage **interoperability between the systems and constituents used to provide air traffic management (ATM) and air navigation services (ANS)**. The new framework of five regulations will increase interoperability, make the performance of ATM ground equipment more uniform, and support the introduction of innovative technologies.

The new rules take a single market approach, reducing fragmentation within the ATM ground equipment market, and clearly allocating responsibilities for demonstrating compliance, in particular on the detailed specifications that will now be issued by the EASA.

They also strengthen its role as certifying authority for both airborne and ground equipment, ensuring that both are designed and done consistently. They make sense with digitalisation and data exchange between systems on the ground and in the air.

Finally, the new conformity assessment framework consolidates existing interoperability rules, adapting them to the EASA framework. This includes, for example, rules on the equipment required on board aircraft for the use of the SES airspace, common requirements for ATM/ANS providers concerning datalink and surveillance, as well as flight planning elements within the Standardised European Rules of the Air (SERA).

Watch this space for more information on how sports and general aviation is affected!

FROM THE PROGRAMME MANAGER'S DESK - *Nils Rostedt reports on news about new and ongoing rulemaking activities by EASA and EU*

1. Recent Rulemaking

There is one new recent EASA item of interest to EAS members.

EASA Opinion 2023-03 was published on 01/09/2023

The main contents of this large proposal is new rules for operation of drones, including initial airworthiness and continuing airworthiness rules, and does not concern the manned aircraft community. But one part of this Opinion covers operation of "manned VTOL-capable Aircraft" (MVCA), also called eVTOLs (Vertical Take off and Landing) or "air taxis". This section includes two potentially problematic rules for our community:

1. An AoC (Air Operator Certificate) is required to operate VTOL-capable aircraft
2. A CPL (commercial licence) is required for PICs of VTOL-capable aircraft

These requirements are understandable when it comes to commercial "air taxi" operations, but at the same time they would make private non-commercial flying with this new and exciting category of aircraft very complex, compared to e.g. the rules for flying a helicopter on a PPL(H) licence.

Is this a serious problem? On one hand it can be argued that this is not fair for those who desire to fly these new aircraft non-commercially. On the other, despite the great media buzz about the "revolutionary" eVTOL industry, the jury is still out if and when these "air taxi" aircraft will be successful in the market outside of some special types of operation such as medical transports.

The Opinion now goes to the Commission's EASA Committee for final debate/approval, and this is a final opportunity for the light aviation community to react to this proposed rule.

2. Rulemaking in Progress

Active NPAs (Notices of Proposed Amendments)

NPA 2023-02 Training the next generation of ATCOs (Air Traffic Control Officers)

EAS submitted comments in August 2023 to the EASA NPA consultation.

Quick summary of EAS's response:

- EAS pointed out that the ATCO training shall give good competence to ATCOs to handle interaction with VFR traffic and with various aircraft categories, in addition to the controlling of large commercial aircraft.
- In this NPA, annexes 2 to 7, which listed and prescribed the detailed training contents, have been removed. The general listing which replaces the details in ATCO.D.010 initial training are too general.

Focused Consultation NPA 2023-10x on RMT.0728: Ground Handling

Summary

In general, this new NPA is for the big airports and airlines. Its main new proposals are that a Ground Handling (GH) service provider will:

1) need to declare itself to the authority;
2) need to establish an SMS (safety management system) including occurrence reporting; and
3) prepare a GOM (Ground Operations Manual). Concerning the sports and general aviation community: NCO (Non-Commercial Operations with Non-Complex Aircraft) and NCC (Non-Commercial Operations with Complex Aircraft) operations are exempted from the new ground handling rules. This is good news.

This consultation is ongoing at the time of writing, but the EAS experts who are preparing our response have the view that there should be a clarification that gliding and any part of the necessary support operation do not fall under this regulation of Ground Handling.

3. Upcoming Rulemaking

As I write, it seems that there are several postponements by EASA in the publication of new rulemaking consultations. I have therefore removed the planned dates from the list below, but nevertheless include the headings for your convenience. Here's the list of the major tasks of interest:

- *FCL: Simpler, lighter GA*
- *FCL: Instructor requirements + CPL Learning Objectives*
- *EPL: Electronic personnel licences (concerns FCL, ATCO, Part-66 licences)*
- *Parachuting operations:* In addition, an EASA BIS (best intervention strategy) for parachuting operations is expected.

4. Other

EASA Consultation regarding the initial draft of next year's EPAS (European Plan for Aviation Safety)

EAS had the opportunity to comment on EASA's initial draft of changes in next year's EPAS update. We submitted around 10 comments, of which the most significant is our insistence of keeping up the speed of developing the LAFI (Light Aircraft Flight Instructor) rules. EASA has proposed to delay this rulemaking task.

Occupations in aviation – Informal request

EAS received an informal request from the EUROCAE WG125 working group to provide a list of "occupations in aviation", with a special focus on sports aviation.

It is not always well known among all aviation authorities that there are a number of "occupations" (or titles) ranging from aerobatics judges to safety managers, which in the sports and general aviation arena are either voluntary tasks or paid positions. So an expanded list was developed and submitted to the WG.

COSPAS-SARSAT – *reported by Vice President Rodolfo Saccani*

On August 3 2023, President Andrea Anesini and I visited the Italian COSPAS-SARSAT satellite station in Bari. We were greeted by the director, Commander Giuseppe Pasquino. Andrea and I had already held videoconferences with Commander Pasquino and with the principal operation officer of COSPAS-SARSAT Cheryl Bertoia, who is based in Canada. They invited EAS for an official visit to one of their mission control centres.

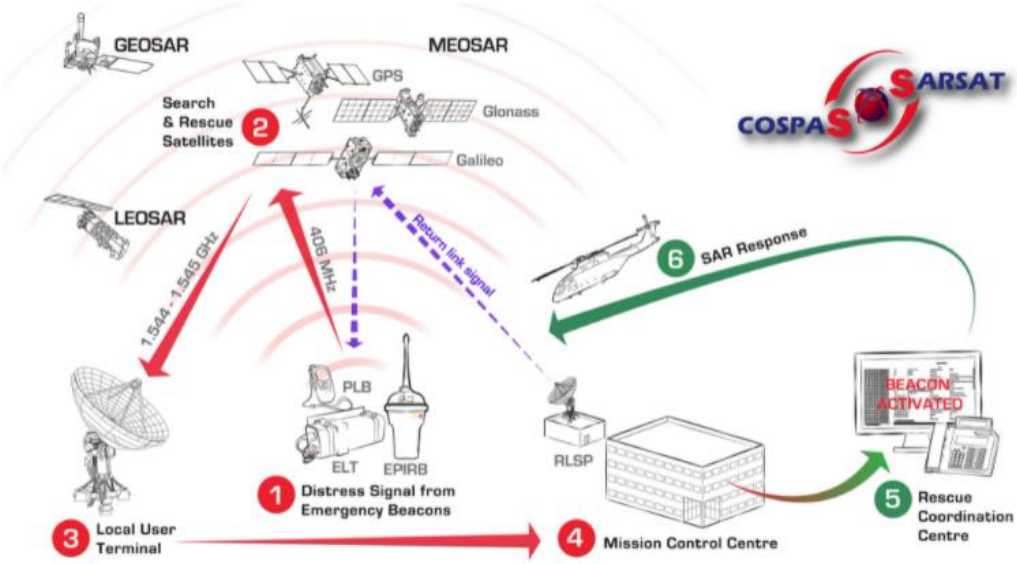
We headed to the Maritime Directorate of Bari, which oversees the satellite station, where we met Admiral Vincenzo Leone, the Maritime Director of the south-eastern area of the country. General Giampaolo Miniscalco, Director-General of the Aero Club d'Italia, also joined this meeting.

We next headed to the mission control centre of the satellite station, at the Coast Guard Naval Station. The facility covers the SAR (Search and Rescue) areas of Central-Eastern Europe, the Mediterranean, parts of the Middle East, and parts of Central-Eastern Africa.

The COSPAS-SARSAT system is an international satellite system designed for search and rescue operations. Originally conceived by Canada, France, the USA, and Russia, many other countries have since joined the system. The service is entirely free for users, requiring no subscriptions. The only cost involved is the purchase of the device (known as a beacon) for use in case of emergencies.

The satellite constellation is based on three types of satellites.

LEOSAR satellites are in low Earth orbit (about 800 km from the Earth's surface), covering the entire planet, including polar regions. Their low orbit involves rapid travel, resulting in relatively short visibility windows. GEOSAR satellites are geostationary satellites positioned some 36,000 km from Earth. They maintain a fixed position relative to the Earth's surface and can receive alerts from 70° North to 70° South latitude. Lastly, MEOSAR satellites are in intermediate orbit (19,000 to 24,000 km), representing the best compromise: global coverage, low latency, and reachability with low power (a 1-watt transmitter is sufficient). For these reasons, the system has progressively relied more on MEOSAR.



COSPAS-SARSAT System Architecture

Currently, there are five LEOSAR satellites, ten GEOSAR satellites, and fifty MEOSAR satellites, ensuring optimal global coverage. These satellites are responsible for receiving distress signals transmitted by beacons.

Available beacons on the market fall into three categories:

EPIRBs (Emergency Position Indicating Radio Beacons) - designed for boats and, in addition to manual activation, feature automatic activation upon contact with seawater.

ELTs (Emergency Locator Transmitters) are designed for installation on aircraft and, in addition to manual activation, include automatic activation in case of a strong impact.

PLBs (Personal Locator Beacons) are designed for personal use. Typically the size of a radio, they have no automatic activation. Pressing a button initiates a Rescue request.

The COSPAS-SARSAT system operates on a 406MHz digital signal that transmits a digital identifier and, if supported by the device (which is now commonplace), GPS coordinates. In the absence of GPS coordinates, the satellite system can still locate the device, albeit

with lower precision using the Doppler effect measurement. The optimal choice is a 406MHz beacon equipped with GPS. Many of these beacons also transmit an analog signal on the old 121.5MHz frequency, which is not received by satellites but can be used as a locating aid by rescuers in the area if they have a radio direction finder. Some of these beacons also have a strobe and infrared light for visual location.

Some devices also support the Return Link Service (RLS), a return channel that confirms the signal has been received and taken over by search and rescue services.

Location is determined through the transmission of GPS coordinates along with a unique identifier. This allows the mission control centre to identify the user and, through the user database, obtain essential information for efficient rescue management. Therefore, it is crucial to register the device after purchase, a simple and free process but of utmost importance.

Currently, there are approximately three million registered devices worldwide, saving around three thousand lives each year thanks to this system.

How does it work in practical terms? In an emergency, the user presses the distress button or the system auto-activates through its acceleration detector, then transmits a signal, continually updating the position for at least 24 hours. All satellites (LEOSAR, MEOSAR, GEOSAR) receive the distress signal and relay it to both the territorial competence station and the station where the device is registered. These stations have strong connections to national institutions and SAR chains. This ensures that SAR operations are carried out as efficiently as possible. They verify the distress request, check for errors or unintentional activations (through the provided contacts), and coordinate SAR operations.

A SAR satellite management system significantly increases the chances of survival in emergency situations. The distress request can be sent from anywhere in the world, even in the absence of cellular network coverage, and the management of the request is swift and efficient, thanks to the user information database.

For recreational and sports activities, there are commercial alternatives to COSPAS-SARSAT, such as SPOT (which relies on the Globalstar constellation of 48 low Earth orbit satellites) and Garmin's offering (which uses the Iridium constellation of 66 low Earth orbit satellites). The advantages of choosing a COSPAS-SARSAT beacon over the alternatives are:

- No subscription is required. The only costs are to purchase the device (250-300 euros) and battery replacement, typically required every 7 years or after activation.
- The network upon which a COSPAS-SARSAT beacon relies is reliable and well-distributed both in terms of satellite coverage and ground operational support, managed professionally by national institutions with direct connections to local rescue services.
- COSPAS-SARSAT beacons are rigorously designed to function under extreme conditions, with wide temperature tolerances and resistance to heavy physical shocks. Technical requirements are standardised and every new device is tested and certified by COSPAS-SARSAT. The batteries are of high quality and guarantee many years of operation. Manufacturers also include a monthly self-test function, allowing users to periodically verify the device's functionality.

ELECTRIFLY-IN 2023 AT BERN AIRPORT - *Martin Ryff reports*

The 7th Electrifly-In took place on September 9/10 in best weather conditions at Bern-Belp airport. The event attracted a total of 1000 visitors. Representatives of the German Aerospace Centre, the winners of the Sustainable Aviation Awards 2023, Kasaero HYFLY, the electric aircraft manufacturer Elfly, Pie Aeronefs, Zuri and the developers of electric propulsion systems from H55 provided insights into the future of electric flying.

Smartflyer, a 4-seater with a range extender allowing a flight range 400 NM at 120 kts, was present with a booth at the static exhibition and aims at demonstrating their aircraft in flight in 2 years. Elfly gave a visual presentation of their project of a full electric amphibious aircraft named "Noemi" (no emissions). They expect to present a full-scale prototype in 2025 and commercial operation in 2030. They focus on flights in the coastal

regions of Norway, where the supply of electricity is guaranteed, as many ferries in Norway are already electrically powered.

Pipistrel Velis (photo Martin Ryff)

One of the most critical topics regarding electric flying is still the battery technology. Unfortunately, no "bombshell" could be presented in Bern. Today's batteries allow for flights of hardly an hour endurance. H55 – a spin-off from Solarimpulse - announced an endurance of 60 minutes plus 30 minutes reserve for the electric version of the Bristell B23. The plane should be available in late 2024.

During a symposium, experts from different aviation training entities and pilots discussed the pro and cons of electric flying. They agreed that nowadays electric aircraft are a good option for initial training, but not yet suitable for country flights. They also stressed that the transition from electric to traditionally powered aircraft poses no problem to student pilots. The experts expect that a full electric PPL should be feasible in about 10 years.

The next event will take place on 7 & 8 September 2024, again at Bern Airport.

Seven pilots took part in a contest for the aircraft flying into the event, based on the greatest distance flown to the event, with penalties for arriving too early or too late. There were three categories – 'Electric' won by an Elektra Trainer, 'Hybrid', won by Project wings for the Planet Sol. Ex and 'Glider', won by a JS-3.

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If you would like to make any comments, ask questions, send ideas or suggest a topic that you'd like to know about, please do get in touch at d.king@europe-air-sports.org

KEY CONTACTS

President	Andrea Anesini	andrea.anesini@europe-air-sports.org
Senior Vice-President	Rudi Schuegraf	r.schuegraf@europe-air-sports.org
General Secretary – central EAS management & administration	Pierre Leonard	p.leonard@europe-air-sports.org
Programme Manager and regulatory work	Nils Rostedt	n.rostedt@europe-air-sports.org
Newsletter Editor	Diana King	d.king@europe-air-sports.org