

AOPA LUXEMBOURG



YEARBOOK 2021/2022





AOPA LUXEMBOURG YEARBOOK 2021/2022

President's corner 2022	4
Meet our new Board Members	9
Digital AOPA Luxembourg	١0
AOPA Luxembourg Calendar 2022	۱1
Luxembourg Holidays 2022	١2
AOPA Luxembourg Position Paper 20221	۱2
Innovating the General Aviation Community of Luxembourg	۱2
AOPA Luxembourg Ordinary General e-Assembly 2021 1	١7
Executive Committee 2021	L8
AOPA Member Survey 2021	١9
POYEKHALI !!! -12th April 2021	23
AOPA Safety Seminar / Mountain Flying Webinar 20212	<u>2</u> 4
AOPA NavRefresher 2021 (cancelled)	24
AOPA Rally 2021	<u>2</u> 5
Safety in Mind - Playing The 'What If?' Game2	27
St Yan	<u> 1</u> 9
UL flight to Denmark from Micheville3	34
Eastern European Tour 2021	35
Mountain Flying in Annecy 20214	l 1
Replacement of AVGAS 100LL in the Making4	1 7
Droneport In Belgium: A Model For Luxembourg ?	19
The Path to Future GA Airplanes5	6
RNP Approaches5	59
News from EASA6	50
AOPA Works for YOU6	54
About AOPA and IAOPA6	6



President's corner 2022

Dear pilots, plane owners, and aviation enthusiasts,

Although 2021 was certainly not the year of returning to great freedom for aviation, the recreational pilot has found his way back to flying. AOPA itself organised a very successful webinar on Alpenfliegen. We represented the interests of our members in several representative bodies as well in the informal gatherings with aviation authorities.

AOPA had several conversations with the mobility, sports, and environment ministries. Discussions and collaboration with the authorities were very cordial and open-minded.

For the second year in a row, we are going for a digitally organised General Assembly. When this sanitary crisis started back in March 2020, few expected would impact us for such a long time. But we've adapted to the new situation.

FVFNTS 2021

We had to cancel some of the classic events of AOPA Luxembourg. But the summer Months allowed us to have some friendly group flying activities after all: St Yan, Annecy, the AOPA Rallye. Also, we moved on with the digital innovation program of our association. You've seen the first webinar we organised last summer about Alpenfliegen. That worked very well. This webinar formula will more often be used shortly again.

There are a couple of things I would like to cover today:

TAXES AND FEES

This first one touches all of us; With AOPA, we've noticed that existing Terminal Navigation Charges of ANA at Luxembourg airport have been going up a lot. Also, Lux-Airport created a new fee due for take-offs and landings. These two fees combine, increasing the cost per flight considerably. The finger is too often pointed to "EASA and European legislation."



ACCES TO LUXEMBOURG AIPORT

Besides, there are so many other fees in the life of a pilot added to the cost of flying. There is the cost of getting an access badge to Luxembourg Airport. We are driven by over-regulation. It could take five months from submitting the paperwork to getting the new badge in your hands. There was an issue that the Police department doing the background checks for Lux Airport. They did not have enough human resources to do the job. We hear this issue is addressed, and things should go faster now. Why can't the clubs be involved in the training process for the necessary security? It seems to be possible for Cargolux. We believe there is room for improvement here by empowering the flying clubs.

THE HANGARS

The plane hangars issue is only partially solved. Yes, the flight schools have a new longer-term agreement in place. That's good to hear.

But the people taking care of the flight schools are often the Plane owners. It is one community. The plane owners are treated unequally; their rental price for the hangars went up a lot (more than double).

On top of that, no stability is given as the rental agreements are only valid until 2023. This is a severe showstopper to the Plane Owners.

From an outsider's point of view, one could say that Plane Owners are big fat cats who can bear these costs. This is, however, very untrue. The reality is that we often have multiple pilots owning together an older plane than ourselves. These Plane Owners are the persons volunteering at the flying clubs. These hangars are way more than a "man-cave." With the pending reorganisation of Parking 6, it may well be that some of the hangars will be shortened or disappear. We ask continuity and stability for our Plane Owners, a minimum for living together in decent conditions at Findel.

ONE COMMUNITY: DIMAS AND FLIGHT SCHOOLS

We just mentioned the one community which exists around Parking 6

Since the 2018-2019 school year, more than a hundred Luxembourg high school students have had the opportunity to discover the world of aeronautics as part of an optional workshop offered by LFTA that allows them to obtain the Diploma of Initiation to Aeronautical and Space Professions (DIMAS). Four high schools are taking part in this project supported by SCRIPT: Lycée Aline Mayrisch (LAML), Lënster Lycée Junglinster (LLJ), Lycée Classique de Diekirch (LCD) and Lycée Privé Emile Metz (LTPEM).

The objective of DIMAS is to introduce students to all sectors of aeronautics (pilot, engineer, air traffic controller, meteorologist, maintenance, logistics, security, etc.) to show them a path they had not thought of; and motivate them to take an aviation profession.

There are plans for lycées to start offering aeronautical sections.

When our population uses Luxair and others to get to their holiday destination in Tenerife or their Business Meeting in Milan, they often fly with Pilots who started their training at one of our flight schools here at Findel, with Aviasport or the LFTA of Aéro-Sport. We stress the clear and present link between the training programs of our schools and the pilots of Luxair. This is too often being forgotten.



An essential part of General Aviation here are approved flying schools that train pilots for motor planes, ultralights, helicopters, and sailplanes. One school alone has produced more than 100 certified pilots with an increasing admission of new students over the past years.

Pilots can advance their training to become commercial and air transport pilots in Luxembourg. National commercial aviation operators like Cargolux, Luxair, Luxaviation, and more can recruit pilots trained here. LFTA initially trained some 50 commercial pilots in their modular courses.

ROOM FOR AERONAUTICAL INNOVATION IN LUXEMBOURG

A whole new wave of European Aerotech is taking off, radically innovating the world of General Aviation. It is all on the radar screen for satellite imagery, autonomous flying taxis, electric propulsion & electric planes... it is all coming. 5G will enable the deployment of self-driving robots in airports. The aviation industry is undergoing a profound change, with new composite materials deployed.

Many eco-friendlier engines are developed and available that can fly more economically with lead-free UL91 instead of traditional AVGAS. Aéro-Sport recently invested in a Tecnam plane, capable of flying with UL91 instead of AVGAS.

Although most aircraft engines today run on fossil fuels like Jet A1 and AVGAS, electric technology will change how we think about aircraft propulsion - sooner rather than later. Our flying clubs are pro-innovation. Aviasport explores putting together a plan to get some electrical planes in the air for training purposes.

THINKING OUT OF THE BOX

Luxembourg has only two airports for motor-powered planes: Luxembourg Airport and Noertrange. The latter is very small and not suited for general operations.

With traffic growing with a two digits figure a year (pre-Covid) according to ANA, the General non-commercial aviation gets more and more squeezed between commercial operations at Luxembourg Airport. The more there is only a single runway available at Findel.

It is only a matter of years before saturation will be reached.

Besides, the cost of flying keeps going up. It takes more and more time from the moment an engine of a small helicopter plane is turned on take-off is realised.

To achieve innovation around aviation with the introduction of new models, it is clear that space and the whole environment are lacking at Luxembourg-Airport.

There are student programs; we have flight schools, we are one of the countries in the world with the highest density of pilots per capita. Nearly all the elements are there.

CALL FOR AN AERONAUTICAL INNOVATION HUB IN LUXEMBOURG WITH A GENERAL AVIATION AIRFIELD

With AOPA, we ambitiously encourage the creation of an aeronautical innovation hub in Luxembourg. This should become a place where R&D, aerospace start-up initiatives, and the State and private sectors come together around a new airfield.

All that we just explained shows there's a clear need to have an airfield dedicated to General Aviation and Aeronautical Innovation like in Aachen or Droneport in Sint Truiden.



Using the Noertrange site is not feasible; Findel cannot fulfil that role. Some officials might think that moving out to Bitburg is an option; we like to keep the innovation and jobs we can create with the aeronautical sector here in Luxembourg.

With AOPA Luxembourg, we call upon the public authorities to order in 2022 a study exploring the creation of an aeronautical innovation & infrastructure hub in Luxembourg between 2025 and 2030, where the General Aviation community can find a new home.

This year, the visit we organised to Droneport Sint Truiden brings together University, DAC and LuxInnovation, taught us that the skillsets coming from manned aviation are fuelling aeronautical innovation. We are nearly 1000 pilots at Parking 6, each with their skillsets. As Luxembourg is looking for a new business segment to attract investment, we have the opportunity to make it happen.

The world of Ultra-Light Aircrafts is going through a profound innovation. Look at the performances of Shark or VL3 planes equipped with European non-AVGAS engines. They are amazing. We find it hard to see that this aviation branch has no space anymore in Luxembourg. While exploring a new aeronautical innovation & infrastructure hub in Luxembourg, we would like to see the ULM community get their place at this new Luxembourg airfield as well.

HOW AOPA WILL PROCEED

In recent Months AOPA Luxembourg has been putting together all the elements I mentioned here in a Position Paper. We consulted the various clubs of Parking 6 on the subject.

The plan for 2022 is to bring this AOPA Position paper to the attention of Public and Private authorities.

We will present it to the different political factions in the Parliament. We will deliver the AOPA Position paper to the highest level of the Ministry of Transport. We'll discuss it with the classic stakeholders such as FAL, ANA, DAC, and Lux-Airport, and address the specific points to each of them.

But we will also bring this Position Paper to the attention of Luxinnovation, Technoport, the House of Entrepreneurship the University, and the Chamber of Commerce.

With AOPA, we'll do our homework.

WE NEED YOUR HELP

AOPA is a volunteer-driven organisation. We need your help to share that we are pursuing the creation of an aeronautical innovation & infrastructure hub in Luxembourg, where the General Aviation community can have its airstrip of some 1000 meter length.

But we also like to call upon you, our members: the pilots, plane owners, and aviation enthusiasts listening today and reading this. Every one of you has its network of relations and contacts. Please use your interpersonal relations to help our community move forward. Speak to the members of Parliament or Ministers you know well, talk to the state employees you understand at the Ministry, approach your contacts from the public agencies or private companies. That is what we like to ask you, our respected members. Together, we can succeed.

Some water will have to flow through the Moselle before reaching our goal, but with combined efforts, we can overcome not only the current problems of our General Aviation Community. It will allow us to renew our fleets and go for the next generation of General Aviation.



WHAT DOES AOPA PLAN AND HOPE TO DO FOR ITS MEMBERS IN 2022?

Besides approaching the various stakeholders related to AOPA Position points themes and actions as outlined here, we also plan more instructive and fun activities.

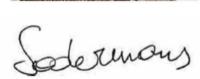
The Safety Seminar will be organised in webinar form.

Hopefully, we can organise the NAV refresher and the AOPA Rallye. Besides, we hope to fly this year to the Scilly Isles, St-Yan. Fun guaranteed!

...and enjoy reading this fourth edition of the Yearbook of AOPA Luxembourg.

Peter Sodermans
President
Peter.Sodermans@aopa.lu





Reinhard Krommes
Secretary-General
Reinhard.Krommes@aopa.lu







Meet our new Board Members

Chris Berens-Scott

Hi there!



As a new member of the AOPA board, I would like to introduce myself:

I am a lawyer working for the Luxembourg Government. I co-own a Dynamic WT9 (Ultralight aircraft) in our hangar at Micheville airfield (LF5422, right next to Esch/Alzette). I recently became a PPL pilot and fly as well in south-western France, where I have a 2nd residence and a hangar. I have travelled there and back with my Dynamic several times.

I would like to contribute to the association's activities, especially concerning travels and meetings. Following the disastrous weather last Year, I was the only member to represent AOPA Luxembourg in

St Yan! (I went by car).

I'm a member of the FFPLUM (Fédération Française d'ULM) and of the FFA (Fédération Française Aeronautique). I'm also interested in Seaplane flying and have good contacts with the Association Française d'hydravion in Biscarosse, where I'm sure we could organise a visit and some flying.

Kind regards and safe landings!

Chris

Marina Paralingova



My name is Marina Paralingova. I have my PPL licence since 27.07.2020. Since then, I enjoy improving my skills and discovering new areas from above.

I am also impressed by the aviation world and the positive spirit driving everyone close to it.

It is an honour and pleasure to contribute a bit more to this amazing community by joining the AOPA Luxembourg board and I thank all of you for your confidence.

I am happy to bring my skills and passion to writing and organising different events. I am also always curious to try new tasks and new

things. I cannot wait to learn more from you.

Best Regards

Marina



Digital AOPA Luxembourg

Are you aware of AOPA Luxembourg's presence on the Web and in social media? Go and look regularly for News, Information and Tips from the world of Aviation. Scan the QR code with your smartphone to get there!



AOPA Luxembourgs's Website: https://www.aopa.lu





AOPA Luxembourg on Twitter: https://twitter.com/aopaluxembourg/





AOPA Luxembourg on Facebook: https://www.facebook.com/AOPAluxembourg/





AOPA Luxembourg on Instagram: https://www.instagram.com/aopaluxembourg/





AOPA Luxembourg on YouTube: https://www.youtube.com/channel/UCIJ1gtLj9pZCnKINNUYHjcQ





AOPA Luxembourg Calendar 2022

The developing COVID crisis makes it again very difficult to plan for 2022, especially for fly-outs and meetings. We endeavour to come up with a planned event as soon as we can.

Hopefully, we can organise our cherished NAV Refresher Flyout, visiting the AERO 2022 exhibition in Friedrichshafen and the St Yan air show.

Other hopefuls are the Scilly Islands (West of Cornwall in the UK), Mountain Flying in Annecy and the AOPA Luxembourg Rally. We shall keep you posted, also about more events that will turn out to be viable.

Subject to changes, Here is the tentative event schedule for 2022:

Date	Event	Place	
From March	AOPA Safety Webinars	Online	
27.04.2022	AERO 2022	Friedrichshafen	
2629.05.2022	Seaplane Meeting	Biscarosse	
11.06.2022	NAV Refresher	Luxembourg	
0910.07.2022	Meaux Air Show	Meaux	
1719.07.2022	Fly-In	Saint Yan	
June/July 2022	Scilly Isles	Southwest UK	
July/August 2022	Welcoming Aéroclub d'Annecy Haute-Savoie	Luxembourg	
August 2022	Visit JMB Aircraft for VL3 UL Plane	Choceň/Czech Rep.	
0304.09.2022	Mountain Flying	Annecy	
17.09.2022	AOPA Rally	Luxembourg	

Further exciting events for Aviators are here:

Date	Event	Place	Action	
June 2022	Hans Gutmann Memorial Rally	ELLX - LPSC - LXGB - GEML - LECH - Piacenza - LQBI - LOWS	Fun Travel	
1631.07.2022	Tour Aérien des Jeunes Pilotes	France	Fédération Française Aéronautique	
28.0902.10.2022	Air Navigation Race	Poland	Europe Air Sports	
01.10.2022	Aéro-Sport Rally	Luxembourg	Bernard Frechen	



Luxembourg Holidays 2022

Sunday-Monday 1718. 04. 2022	Easter (Paques)
Sunday 01.05.2022	Labour Day (fête du travail)
Monday 09.05.2022	Europe Day (Journée de l'Europe)
Thursday 26.05.2022	Ascension Day (I'Ascension)
Sunday-Monday 0506.06. 2022	Pentecost Holiday (congé de la Pentecôte)
Thursday 23.06.2022	National Holiday
Saturday 16.07 Wednesday 14.09.2022	Summer vacation (vacances d'été)
Monday 15.08.2022	Assumption Day (Assomption)

AOPA Luxembourg Position Paper 2022

Innovating the General Aviation Community of Luxembourg





- The Aircraft Owners and Pilots Association Luxembourg (AOPA) is part of the world's largest association of pilots and plane owners, with over 430,000 members in 82 autonomous, nongovernmental, national general aviation organisations in over 79 countries and all continents.
- AOPA Luxembourg is a non-profit organisation whose mission is to Advance, Promote, and Preserve the Freedom to Fly. In Luxembourg, there is a vital community of 1000+ individuals acting as plane owners, pilots, instructors, service providers, and other roles, making General Aviation an essential player. AOPA Luxembourg is defending and helping its members and fighting to preserve all participants' free flying in general aviation. The association aims to serve the interests of its members, promoting the economy, safety, utility, innovation, and popularity of general aviation. We are open to all pilots and owners of any kind of General Aviation aircraft, with fixed-wing singles, twin-piston and turbine, airships, helicopters, microlights, gliders, etc.



- Luxembourg is proud to be home to multiple Flying Clubs with schools based at Luxembourg
 Airport and Ultralight-, helicopters schools, Gliding clubs and flight maintenance organisations.
 They provide many future pilots and play a significant role in pilot training. One school alone has
 produced more than 100 certified pilots with an increasing admission of new students over the
 past years. Based on the overall volunteer approach, part of the staff of those schools are coming
 from the Plane Owner community.
- Professional pilots usually start as private pilots. They can advance their training and are often offered the possibility to grow to a professional career level and become commercial and air transport pilots in Luxembourg or elsewhere. It is clear that those aviation schools benefit national commercial aviation operators like Luxair, Luxaviation, Cargolux to recruit pilots trained here. Most people engaged in the flight schools are volunteers. AOPA supports this community, so crucial for the existence of aviation schools and to maintain the possibility to train future pilots for commercial or general aviation.
- General Aviation works with its DIMAS programme run by LFTA for the National Education System. DIMAS not only creates awareness but also provides courses to students stimulating them for later involvement in aviation and aerospace. More than 350 students from different lycées have already passed the DIMAS course.
- AOPA Luxembourg is a member of all national commissions and working groups dealing with aeronautical issues. We interact directly with DAC, ANA, Lux-Airport, and the Luxembourg Government. Relations with the Luxembourg administration should be further strengthened because of new regulations and tax increases. AOPA is looking for an open discussion to correctly interpret new laws and regulations.
- Through its representation in international organisations dealing with institutional and regulatory issues affecting civil aviation, we offer sound, professional advice and positions in the interest of General Aviation and fairness in the skies.
- In summary, AOPA Luxembourg is always listening to its members and defending its rights. The association is always taking position whenever infrastructure or equipment changes or new requirements are about to occur, or new rules, regulations and procedures are introduced. AOPA Luxembourg is looking after the interests of its members.
 - AOPA Luxembourg comments, observes. AOPA is always present, nationally and internationally.
 - AOPA Luxembourg has access to ICAO, EASA, EUROCONTROL, EUROPEAN COMMISSION and other organisations operating worldwide through IAOPA.
 - AOPA Luxembourg opposes decisions that violate international agreements or standards or constitute discrimination of General Aviation.

CURRENT SITUATION

Luxembourg has only two airports for motor-powered planes: Luxembourg Airport and Noertrange. The latter is very small and not suitable for general operations. Using the Noertrange site is not feasible. With traffic growing with two digits figure a year (pre-Covid data), according to ANA, the non-commercial General aviation gets more and more squeezed between commercial operations at Luxembourg Airport. The more, there is only one runway available at Findel. It is only a matter of time before saturation will be reached. Ultralight associations were already driven outside Luxembourg and operated from France and Belgium.

Between 2010 and 2020, DAC, ANA and LuxAirport have substantially increased the fees borne by the general aviation pilots. The cost of flying also keeps going up as it takes more and more time from the moment an engine is started until a small plane takes off.



Costs ATO also explode mainly because of a rigid interpretation of the legislation. Before they were 5000€/year and now: 6000€/year plus 120€/ per hour, equal to 14.000€/year, it will hurt the future number of students and even the existence of those schools.

A big part of General Aviation uses basic light aircraft that cannot be considered luxury items and can be compared to motorbikes or sports cars. Many pilots fly in aviation clubs in a sharing economy model of airplanes to bear the cost. The sum of rising maintenance costs, increased fuel prices, continuously introduced regulations, and new and increasing airport fees start to weigh upon the activity and the freedom to fly for those parts of General Aviation.

Flying clubs/schools based for decades at Luxembourg Airport were under pressure with new hangar rental contracts. Their rental agreements imposed by Lux-Airport had a short-term rental duration. The problem seems to be resolved now. Hangar rental agreement between Aviasport and Lux-Airport is now in place for a 15 years duration, of which the start was retroactive.

The situation for private airplanes was the same. This approach of Luxembourg Airport created massive uncertainty within the plane owner community as the investment cycles are long. Moreover, the significantly higher rental rates imposed on the Plane Owners community create discrimination between private owners and flying clubs as they are charged at different prices per square meter.

CHALLENGES FACING GENERAL AVIATION IN LUXEMBOURG

AN ALTERNATIVE AIRFIELD IN LUXEMBOURG IS MISSING.

With the current situation, there is a clear need to have an airfield dedicated to General Aviation. AOPA considers which steps should be most appropriate to find a solution that would answer general aviation's needs and assure freedom of flight. Contacts with concerned administrations have already been made. The issue is very delicate and challenging, but we are decided to continue looking for a solution.

NEED OF A STABLE ENVIRONMENT FOR GENERAL AVIATION IN LUXEMBOURG

To achieve innovation around aviation with the introduction of new models, it is clear that space and the whole environment are lacking at Luxembourg-Airport and should be improved.

Plane owners are worried about the announced reorganisation of P6, where some private pilot hangar space is likely to be lost as Lux Airport intends to create a turning point. AOPA plans to discuss the issue with the airport authorities.

AVGAS 100LL for piston engines will eventually be replaced at Lux-Airport because of noxious substances. Provision of alternative fuels like MOGAS, UL 91 or future UL 100 and electric chargers will be required.

The current ageing fleet of airplanes based on obsolete technologies will be increasingly replaced by fast-developing ultralights reaching or exceeding the specifications of light airplanes and be certified as such. Within a decade, the ultralights evolved so much in quality, efficiency, speed – and using lead-free UL91 driven engines – that there is no reason anymore from banning ultralight planes having their home base at Findel or simply landing at Lux-Airport at first.



AIRPORT, MAINTENANCE, AND LICENCE FEES

As it was already mentioned, DAC, ANA and LuxAirport have substantially increased the fees borne by the general aviation pilots. Due to this increase, between 2010 and 2020, the hourly cost for a typical Piper Warrior led from about 120€ to about 220€ an hour.

About airport fees increase, the local maintenance organisation for non-commercial Aviation saw their hangar rental fees increase. These increased rental prices are passed on to their clients and thus to the pilot community, at this moment putting further pressure on the flying cost per hour.

Various fees related to licenses, English language proficiency certification and navigation/landings are not adequate and reasonable for non-commercial General Aviation operations.

URGENT REFORM OF ACCESS PASS PROCESSING

Access to Luxembourg Airport for the Private Pilot community becomes increasingly complicated. Not only the price tag goes up. The procedure to get an access badge entails a compulsory class course, whereas this could be organised at the club level to shorten delays.

IMPROVEMENT OF THE IMAGE OF GENERAL AVIATION AROUND THE AIRPORT

The non-commercial General Aviation is confronted with a minority of local activists who do not accept that living close to an international airport, not only has advantages, but may also create noise. These plane haters now systematically file complaints against our pilots and plane owners trying to force them in unrealistic and dangerous traffic patterns. They would preferably see us disappear. Our flight procedures are well determined and regulated, and we need support against those unjustified attacks.

That's why training flights here have significantly decreased. Lots of the activity, the typical touch & go exercises, have been displaced to German and French airfields because of these haters and to avoid dangerous situations. Again, at the expense of our students who now need extra flying time from their base at Luxembourg Airport to practice these "touch & go's" in Germany and France.

ROOM FOR AVIATION TECHNOLOGY INNOVATION IN LUXEMBOURG

The current fleet of the non-commercial General Aviation is still flying with planes designed with classic material of more than half a century ago. Also, the engines of our planes date from the last century with engines designed long ago, using AVGAS, when fuel saving was not a top priority. The aviation industry is undergoing a profound change, with new composite materials being deployed. Also, there are in the EU now many eco-friendlier engines developed and available that are capable of flying more economically with lead-free UL91 instead of AVGAS.

Mobility and its pillars of transport are at the very centre of our socio-economic fabric. Innovation in technology and methodologies (e.g., redefining travel efficiencies) is essential to develop mobility further. Brand new technology to transform the mobility system is creating solid opportunities for the Luxembourg economy, e.g. unmanned aircraft; artificial intelligence; biometrics; robotics; blockchain; alternative fuels and electric aircraft. . General Aviation is therefore ideally positioned to support innovation and its potential impact on new mobility. These new technologies are driven by people from the aviation industry and the University community who drive for innovation. Our Pilot and Plane Owner community likes to be part of and contribute to this innovation movement.

Two eFlyer Electric Aircraft are expected to be deployed at Findel for training by Aviasport https://www.aerospace-technology.com/projects/sun-flyer-2-electric-aircraft/. The noise reduction is expected to be 2/3 compared to a classical small plane. The purchase cost of both machines



together is roughly 1 Mio USD. Minister Bausch likes the idea of the electrical plane deployment. Aviasport looks for a financial partnering model. State-driven funding would be beneficial as there is no necessity that Aviasport has ownership. Contacts have been developed with LIST management to combine with their project of electrical planes.

The need for chargers for the project is agreed in principle with Lux-Airport. The idea is to install chargers at the hangars and a supercharger at Parking 5, but no formal agreement exists.

This would lower the tensions with the noise complaining neighbours of the airport.

LOOKING AHEAD

AN INNOVATION HUB, COMBINED WITH A GENERAL AVIATION AIRFIELD ON LUXEMBOURG SOIL MUST BE PUT ON THE POLITICAL AGENDA

Post-Corona increase for commercial traffic of more than 10% per year at Luxembourg Airport shows that rather sooner than later, General Aviation becomes marginalised with slots, waiting and holding times and pressure on space available. The current all-in-one model at Lux-Airport has served out. For all the reasons mentioned in this document, AOPA Luxembourg advocates the creation of an aviation innovation hub with an airstrip for the non-commercial General Aviation in Luxembourg.

GENERAL AVIATION, INNOVATION AND OPPORTUNITIES IN AEROSPACE

Luxembourg champions a leading role in aerospace research and development to establish industries in the country. Some initiatives are drones and autonomous drone operations, satellite communication, and developments in electric powered airplanes and autonomous air taxis. Belgium and Germany show successful synergies between universities, start-up companies and General Aviation Actors. Here are two examples of such aeronautical innovation hubs, which are driven by pilots:

- Droneport in St Truiden Belgium (https://droneport.eu/). On the airfield synergies are created by joining infrastructure for air traffic, drone operations with training facilities and incubators for start-ups in the drone/aviation industry.
- Innovation Factory at the Aachen-Merzbrück Research-Airport (https://rwth-if.com/aktuelles/silent-air-taxi-forscher-und-forscherinnen-der-rwth-aachen-university-und-fh-aachen-zeigen-den-weg-zum-leisen-fliegen/). Created by the University of Aachen and the state of North-Rhine-Westphalia, this hub incorporates infrastructure for air traffic, drone and airplane testing and incubators for aviation start-ups like air taxis and electric propulsion. An Aeropark industrial zone is attached to the airport.

An Aviation Ecosystem

Luxembourg is ambitious in aerospace R&D and encourages start-up industries. Creating a focal point with a suitable and adequate new infrastructure and airfield for aviation, aerospace research and development, testing, and production would join the national ambition for the arising business areas in the aerospace sector. Opportunities are abounded and can only be outlined here:

- CO2 reduction and fuel/energy efficiency in airplanes
- Silent propulsion engines
- Alternative propulsion engines
- Air traffic management with unattended vehicles
- Autonomous airplanes



- Defence and security applications
- Associated training and services

AOPA Luxembourg invites the Government, the University, investors and interested parties to come together and bring this innovation project around aviation to life.



AOPA Luxembourg Ordinary General e-Assembly 2021

By Reinhard Krommes

The Ordinary General Assembly brings together many of our friends and members. We look back, plan for the coming year and elect the president and the board. Beyond the association's business, we welcome honoured guests to speak, and we share views and reports on flying events, have a drink and a festive dinner.

Not so in 2021. Restrictions through the COVID-19 pandemic forced us to prepare for an electronic general assembly. We decided to use our mailing lists to distribute all documents necessary by our statute and proven software to have a reliable and transparent process for the statutory elections.

As opposed to our usual in-person Ordinary General Assembly, the entire process took some time for preparation and to vote on all required items and the board.



One hundred twenty-one members voted a large majority approved the accounts, the budget and the outgoing board's discharge. Jean Claude Frank and Marc Jacoby were confirmed as external auditors for 2021/2022.

Peter Sodermans, as the only candidate, was re-elected for President by 119 votes.

Four of our eight board members were outgoing and re-eligible, and one member (Dr Rajiv Aurora) was outgoing and did not run again. Two new candidates, Chris Berens-Scott and Marina Paralingova, presented themselves for election. This made up for six candidates for five places.

Mikhail Kornev had the least votes and dropped out of the board. All remaining board members and the two new candidates were elected to the board.

We thank Rajiv and Mikhail for their excellent contributions to organising fly-outs and AOPA partner channels. Now Mikhail, as is Marco Felten, co-opted for their valued work. Other contributors to AOPA are Pascal Kremer, who organizes the Flight Safety seminar and Jos Schockmel, contributing to the organisation of the AOPA Rally and the Pinch Hitter courses.

Further below is the composition of the current AOPA Luxembourg Board.

We thank all of our members who had participated online, for their effort and solidarity to make the Ordinary General Assembly possible - despite COVID-19 times.

Executive Committee 2021

Name	Function	E-mail	
Peter Sodermans	President	peter.sodermans@aopa.lu	
BOARD:			
Nicolas Bannasch	Vice-President & legal affairs	nicolas.bannasch@aopa.lu	
Chris Berens-Scott	Vice-President &UL Affairs	chris.berens-scott@aopa.lu	
Shahriar Agaajani	Treasurer	shahriar.agaajani@aopa.lu	
Reinhard Krommes	Secretary General	reinhard.krommes@aopa.lu	
Marina Paralingova	Deputy Secretary General & Events	marina.paralingova@aoap.lu	
Jean Birgen	Event coordinator, communication	jean.birgen@aopa.lu	
Bernard Frechen	Event coordinator	bernard.frechen@aopa.lu	
Guy Zenner	Digital innovation team	guy.zenner@aopa.lu	
CO-OPTED:			
Marco Felten	Finance and member management	marco.felten@aopa.lu	
Mikhail Kornev	Partner channel management	mike.kornev@aopa.lu	

The general email address is <u>info@aopa.lu</u> which is received by all the executive committee members.

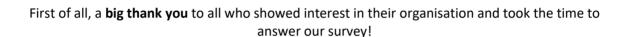


AOPA Member Survey 2021

By Reinhard Krommes

COVID-19 lockdowns of all kinds, the danger of being forced out of the Findel, the flood of changed and new rules, rising costs. AOPA Luxembourg shares the concerns of the General Aviation Community and acts. Because of the cancellation of our events and the physical general meeting, many conversations and discussions that we otherwise share, have not taken place. We also see that many of you "forget" to pay the annual membership fee or some even resign from AOPA.

Therefore during summer, we launched the online member survey and here we summarize the results.



The survey was, of course anonymous, so here is a selection of rounded percentage figures. Multiple answers were admitted therefore percentages may sum up to more than 100%.

WHO ARE WE?

- 74 members took part (about 32 % of the members). A slightly disappointing figure, but still a significant number participated.
- 85% are "Best Agers" between 31 and 70 years old, and the vast majority is male. Only 8% are under 30 years old.
- 20% hold a UL licence, the rest a PPL or higher.
- 62% have a night rating, 35% instrument, 14% multi, 20% are instructor.
- More than 50% fly more than 50 hours a year. Most others are distributed between 11 and 40 hours a year.

OUR AVIATION ACTIVITIES?

- 67% fly in club airplanes, 47% own or share an airplane, 11% fly as passengers. 12% (also) fly professionally.
- For 81% Luxembourg is the main base for aviation activities, followed by Chambley (16%), Trier (14%), Bitburg and Zoufftgen (9%), Micheville (6%).

 26% are distributed mostly to places in our region and to a smaller extent Europe.

AOPA MEMBERSHIP?

- We joined AOPA initially for various reasons. On top having influence, being with friends and seminars; followed by member-card, fly-outs, magazines, benefits and rallies. Apparently pinch-hitter is a less popular motive.
- Nearly 90% find the membership fee of 50€ a year adequate compared to the expected benefits.

How should we communicate, influence?

- Members want to be informed by <u>Newsletter (93%)</u>, AOPA Website (64%) and Magazine (46%). Social media rank behind with Facebook (24%), YouTube (19%), Instagram (14%), Twitter (9%).



- The public should be informed by the Press (86%), AOPA Website (72%), Facebook (45%), Newsletter (38%), Twitter (32%), YouTube (27%), Instagram (26%).
- The notes, 1 bad 5 very good, for AOPA intervening with media, government, agencies and authorities is varied. 5% bad=1, 39% good-very good=4-5, 55% in-between=2-3.
- 70% want us to work with professional lobbyists or influencers to point out our position.

How to handle our Big Challenges?

Presence at ELLX:

97% want to continue negotiations, 38% legal actions, 14% do nothing or wait for new government.

Some other suggestions range from hopeless case to new airport, more publicity on benefits of aviation, education, noise reduction and – to be bold.

Environment (Noise, CO₂,...):

65% want to promote positive actions by owners and pilots (avoid pollution, modernise equipment, alternate fuel,...), 57% feel that determined action is helpful (as compared to motor-bikers, racing,...), 41% influence rules.

Some suggestions:

"communicate proactively on noise levels to the public (not to regulators)."

"Get the circuit height to standard 1000' above ground. This will reduce ground noise drastically." "proactively looking for alternatives to AVGAS."

Safety:

88% want to promote seminars and brochures, 86% training events, 64% modern equipment, 39% influence rules.

One of the suggestions:

"Education, publicity, seminars, practices, case-studies. Look on AOPA US Safety channel on voutube."

MORE ACTIVISM?

- Promote New Airfield for GA:

57% want to act for a new airfield in Luxembourg only, 31% in the region. 7% do not want financial involvement, 5% no new airfield at all.

- Act stronger in International Committees:

74% EASA, 69% IAOPA, 19% FAI-Europe Air-Sports, 7% EBAA, 9% not at all.

Other suggestions:

FAA, EU.

WHICH ACTIVITIES TO ATTEND?

68% want our Safety Seminar to be continued, 57% request safety training.
 65% for fly-outs in general, 36% for long range flights, 30% for rallies, 23% for Pinch Hitter, 4% none at all.

Other suggestions:

Language proficiency, GA in Luxembourg.

WHERE TO FLY-OUT?

Destinations in demand are quite equally distributed all over Europe, with NAV-Refresher and France clearly on top (43%), Eastern Europe slightly less popular (27%). No Fly-Outs at all 15%. Other suggestions:

St Yan, Oshkosh, North Cape.



WANT TO BE ACTIVE IN AOPA?

47% do not want to actively organize an AOPA event.
 34% would organize a Fly Out, 20% a long range flight, 14% a Rally, 11% the Safety Seminar, 5% a safety training or pinch hitter. 7% others

COMMENTS?

35% have agreed to be contacted by the board which we will do during the coming weeks.

Here is a selection from the 22% who commented:

- Thank you for your efforts in defending GA's interests.
- Actively promote women in GA.
- We should ask or suggest to the Luxembourgish authorities to create an airport for GA in Luxembourg.
 - Make AOPA Lux more visible in the aviation sector and in the public because many pilots that I know haven't known AOPA yet.
 - I would also like to help AOPA in these topics (more knowledge in marketing then building a GA base.
- upl should promote cooperation and work against the silly quarrelling between ACB for ex.
 organize fly-ins of the different ACB ELUS ELNT, common porte ouverte at ELLX etc.
- you as a team are doing a great job, thank you for your engagement!
- stay on the ball and communicate
- Lobbying against airspace closures in favour of drone zones. We need general aviation to train young and future airline pilots.
- Being of help against luxairport and its intransigent anti-GA attitudes.
- Break luxembourg « rulings » (avoid big local lux organizations to impose rules to all GA stakeholders) & open to the great région & create real synergies between GA stakeholders in the great region.
- Thank you for your work with the USpace issue and for emailing out updates on all your other efforts.
- Demonstrated to the authorities in an even more energetic way our freedom to steal and to refuse the regulations which would be likely to restrict this freedom.
- Get Aviasport, ULM and glider reps onboard as well.
- Defend GA and negotiate implementation rules with DACL and Fight to keep GA active in Findel and in Luxembourg.
- Push for realistic Easa rules in regards to drones operating in the future.
- 2nd small aerodrome for PPL an UL in Lux. (e.g. on the landfill site for construction rubble (Bauschuttdeponie) like in Roost near GoodYear 800m, although there is a high voltage line running here...)Address the growing complexity of airspaces and flight planning across Europe



What Do We Learn from the Survey?

Assuming that the 32% of our members who responded are representative, we see that the challenges faced by the GA-Community in Luxembourg are the main concern of our members. The key is more communication and activism - internally and in the public.

Resources of AOPA Luxembourg are limited, although the annual membership fee of 50€ is considered adequate (in comparison: US 67€, D 130€, CH 230€).

Much more important are human resources. There is no full time staff, all is done by volunteers.

Newsletter and the Press are privileged communication media.

There is a sustained interest in events like the Safety Seminar, fly-outs and rallies like the NAV-Refresher.

The board goes along the following lines to advance and improve the support for GA.

- We will call for an action plan and specific actions to advance GA and members should be involved using their networking, insights and relations to influence aviation stakeholders in politics and industries.
- We may try to work with lobbyist assistance for specific issues, if funding is available.
- More regular information to members is on its way.
- We will increase our drive to join AOPA, especially in the Luxembourg flying associations to showcase benefits to be part of AOPA.
- More access via IAOPA to an increasing list of benefits for pilots.
- After the COVID restrictions, the Safety Seminar will resume, hopefully in February 2022.
- 2022 will see the most popular fly-outs being organized.



POYEKHALI!!! -12th April 2021

By Chris Scott

AOPA Luxembourg commemorated the 60th anniversary of the 1st manned flight to Space by the cosmonaut Yuri Gagarin.

A few members of the Board got together at the "Fliegermusee" (Luxembourg aviation museum) in Mondorf-les-Bains on 12th April 2021 to honour the cosmonaut and pilot Yuri Gagarin, who deceased on 28th March 1968 in a MiG-15 plane crash.

The Covid restrictions forbidding gatherings as well as alcohol consumption, unfortunately we were not to be able to organize a get together or offer a Russian toast and cry out « POYEKHALI!!! » the famous « let's go !!! » pronounced by Yuri Gagarin as his spacecraft « Vostok » launched 60 Years ago on this day & completed an orbit of the Earth.



So there we were, just a few pilots with with a few spring flowers in front of the Luxembourg Aviation Museum in Mondorf-les-Bains. This place in 1910 was the scene of the first flight in Luxembourg airspace.

In front of the Museum there is a bronze bust of Yuri Gagarin wearing his space helmet. This sculpture is by Alexei Leonov who was the 1st cosmonaut to take a spacewalk in 1965.

To end the little reunion, we reflected on one of Yuri Gagarin's quotes: he said: « I like flying. My biggest wish is to fly towards Venus, towards Mars, which is really flying. »

Before leaving we wished all pilots safe flights, beautiful sights, happy landings, blue skies and no turbulence.



AOPA Safety Seminar / Mountain Flying Webinar 2021



The Pandemic constraints kept us from inviting you to our annual Safety Seminar which we all missed. We managed however to present to you in July 2021 a Webinar on Mountain Flying where well known author and mountain pilot Robert Sentef gave you the information to safely fly through the mountains. He covered may items like

- Accurate flight preparation: "Can I fly now or not?"
- How to create a good and suitable weather briefing
- Alpine weather phenomena: The weather in the mountains can be treacherous
- How to choose my route and the best route tips over the Alps
- The most common mistakes of pilots in mountain flying
- Many members registered and participated. The positive feedback incites us to present more information and training events in this form.

For the Webinar video go to https://youtu.be/UBbgmqrEeRE

AOPA NavRefresher 2021 (cancelled)



Sadly, because of the COVID-19 Pandemic, we also had to cancel the AOPA NAV Refresher Rally in 2021. This popular event, always perfectly organised by Bernard Frechen, will hopefully come back in 2022.



AOPA Rally 2021

By Reinhard Krommes

Finally, we were able to organise the 2021 AOPA Rally for Saturday 25th of September. Bernard Frechen and Marco Felten put everything into place to get started. 15 participants lined up for our well known competition items for a possible total 3.500 points including a bonus for student pilot crew members participating:

- Flight preparation; on time
- Navigation; accuracy of flight time
- Observation; identification of photos
- Precision landing
- Precision taxiing
- Questions

The navigation was split into two legs, in between was the precision landing at Trier airfield. Timing was checked by GPS data loggers. Along the navigation course, photos had to be located. As a special exercise, a square was to be flown between Medernach and Larochette.



The weather was fine to navigate but there were foggy patches on the ground. One of them covered the Trier airfield where precision landings were planned and Jos and Reinhard were eagerly waiting in the muck for planes to land. The fog cleared eventually, but the first runners could not make their precision touch and go. Therefore, to the dismay of those teams who could perform a smooth and exact touchdown, the precision landings had to be neutralised.

We closed the competition by 16:00h and Jos announced the scores and honoured the teams. Experienced or not, all did a remarkable job. Here is the list:



Place	Registration	A/C Type	Pilot	Co-Pilot	Total
1	LX-AID	C172	JANTUNEN Ari Pekka	SCHROEDER Chris	2.610,8
2	LX-AIO	C172SP	ENGLEBERT Christ	NUSSBAUM Alain	2.554,3
3	LX-AIF	P28A	GREINER Audrey	GUSENBURGER Tom	2.356,4
4	LX-AIO	C172SP	PARALINGOVA Marina	BARREAU Vincent	2.215,8
5	LX-RCD	DR40	GERLING Guy	RECKEL Roland	2.208,6
6	LX-AIC	C172	LERIN Marie	CIFTCI Attilla	2.189,0
7	LX-AIZ	C172	KREJZA Martin	CVELICH Michail	2.128,6
8	F-HNBB	DR20	AMBROISE Stephane	SCOTT Chris	2.026,8
9	LX-FAC	PA18	FELTES Goy	FELTES	2.016,0
10	LX-AIZ	C172	PELS Roel	SUIJLEN Maarten	1.986,5
12	LX-AIE	C172SP	MACK Frank	RASQUIN Marc	1.970,8
11	LX-AID	C172	NAVEZ Damien	TIASUET Loic	1.896,2
13	OO-SPQ	PA19	GASPAR David	RIGHI Kevin	1.863,3
14	F-AYAC	L19	SCHMITZ Jean-Claude	ELSEN Eugene	1.581,0
15	LX-AIF	P28A	FOUARGE Romain	MENENDEZ Cristina	1.265,0





Safety in Mind - Playing The 'What If?' Game

By Catherine Cavagnaro - AOPA USA

Upon departure from the Franklin County Airport in Tennessee, my aviation mentor Bill Kershner said, "Your engine just failed. Quick, what do you do?"



I said I'd push on the yoke to maintain best glide airspeed while surveying options for an emergency landing. I reported that I would veer slightly to the right into the wind, slip the airplane down into the golf course, and bleed off as much energy as possible before hitting any trees on the far west side. Around my home airport, there aren't many options, but thinking about these ahead of time should help in an engine failure after takeoff scenario.

Another day we were relaxing on the front porch of the Franklin County Airport and watching students perfect their takeoffs and landings, when Bill asked, "What if your throttle gets stuck and you're not able to move it from the setting at cruise? What will you do?" I replied that I could manoeuvre over an airport and pull the mixture control to cut off and perform a power-off landing on the runway. That scenario might seem unlikely, but I believe that early consideration helped me handle a similar situation on an instructional flight.

That day, I had underestimated how nervous my student was as I talked him through the spin recovery procedure in my Aerobat Wilbur. Instead of closing the throttle as part of the spin recovery, he pulled it back a couple of inches and, as he pushed the yoke forward, he pushed the throttle knob downward until it broke. Fortunately, we still had partial power, so I navigated Wilbur toward the nearest airport, pulled the mixture back, and glided to a landing without incident.

The "what if?" game that has served me well during my aviation career is rooted in teaching principles presented in the Aviation Instructor's Handbook. The reference explains that students learn in stages and progress through rote, understanding, application toward correlation and that it's important for pilots to achieve the highest level possible. To illustrate these levels with respect to, say, manoeuvring airspeed, a pilot who reports that VA is 130 KIAS for her airplane has exhibited rote knowledge of the subject. If she can explain that when an aircraft is flown at or below VA, an abrupt control deflection should not compromise the structural integrity of the aircraft and that VA is a



function of aircraft weight, then she understands manoeuvring speed. When she reduces her airspeed below VA before executing steep turns, she demonstrates the ability to apply the information she's learned.

I like to think of correlation as the application of knowledge to a new situation. Since turbulence can also impose structural damage on an aircraft, a pilot who slows to manoeuvring speed to minimize the chance of such damage has achieved this highest level of learning: correlation.

You may think that achieving a routine or even understanding level of knowledge means you can easily employ it when needed but I routinely witness the contrary. On a practical exam last fall, following the ground portion of the exam, we walked to the airplane so the candidate could perform the preflight inspection only to find a pool of liquid covering the glareshield and the magnetic compass card that normally floated in fluid was instead canted on its side. When I asked whether this will be a problem for our flight, he looked up at the gorgeous blue sky, admitted he rarely consults the compass anyway and said we're good to go since we had GPS. Unfortunately, this may prove wrong.

On another practical exam, the candidate started up the aircraft and the oil temperature needle immediately pegged on the high end of the dial. Because the aircraft had been parked for three hours, we both knew that the oil was cool and the gauge itself was most likely faulty. As I sat quietly, the candidate completed the balance of his pre-takeoff checklist and I watched with dread as he taxied to the runway for departure. I'm not sure whether he understood why an oil temperature gauge is important, but I certainly know he hadn't achieved application level of knowledge because he commenced his takeoff roll.

A failed practical exam is a bummer but that pales in comparison to making such a mistake in real life. In the debrief, I asked the candidate what he would do if the oil temperature gauge pegged during flight, and he reported that he'd find a nearby airport to land. "Then why would you take off with the same malfunction?"

Here's the deal: If you can't apply the information, it doesn't matter that you learned it at the routine or even understanding level. So how do you improve your knowledge or that of your student? The answer may lie in scenario-based training and we designated examiners can present scenarios to ensure that we are testing for the higher tiers of learning. The "what if?" game is nothing more than scenario-based training and the beauty is that we can play it on instructional flights, alone or kicking back at the airport with other aviators.

Pilot Workshops (https://pilotworkshop.com) provides yet another way to play the game. Each month, the group generates a scenario for VFR and IFR flight in which an in-flight problem has occurred along with several options for completing the flight. The viewer is asked to choose the safest course of action before continuing on. An expert then weighs in by selecting an option and explaining why it's the safest choice. Five more experts subsequently explain their choices and it's rare for all six to agree. Each time I engage with a Pilot Workshops module, I learn something new about my airplane or perhaps a regulation with which I was unfamiliar.

We owe it to our passengers and ourselves to aim for the highest level of learning we can. Whether you are an instructor shepherding your students toward a life of flying airplanes safely or are a pilot who wants to up his own skills, the "what if?" game is a fun way to prepare for the curve balls that inevitably get tossed our way.



St Yan

By Marina Paralingova

The air shows have amazed kids and Grown-ups since 1909. These unique moments are synonyms of sun, noise, fantasy et beauty, smiles and passion.

2020

The year 2020, dominated by the Covid pandemic, was not very beneficial for many social events, and most of them could not occur. The significant majority of the air shows also had to be cancelled



due to the health situation around the world. One of the very few maintained during the year was the one at St Yan. This air show, being an outstanding aviation meeting, could continue the beautiful tradition that started almost like a joke some 20 years ago and continues growing every year, thanks to Béatrice and Thierry.

During the 2020 edition, Béatrice and Thierry showed a lot of strong will and flexibility to maintain the tradition despite the sanitary restrictions.

Luxembourg was invited as a guest of honour to this edition. During a conference call, all teams of Luxembourg were able to show their great enthusiasm. Unfortunately, the weather decided otherwise. Because of the bad weather forecast, the teams of Luxembourg could not participate.

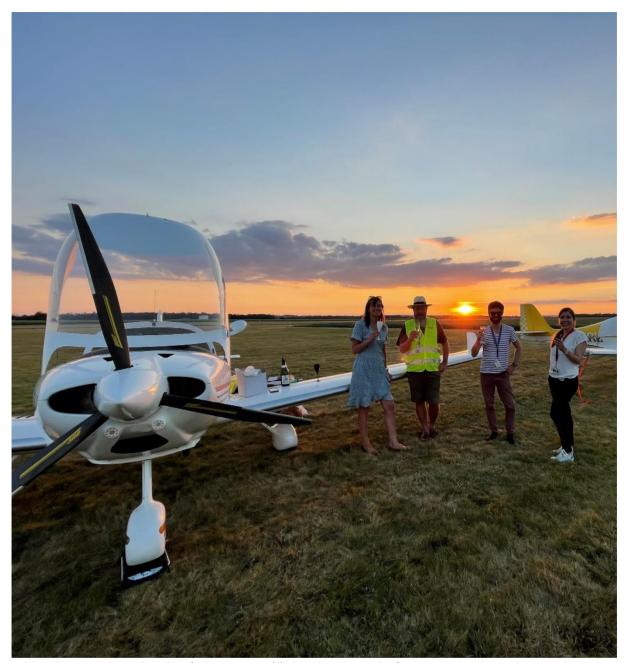
However, one person took the bet to join the show travelling by car. Béatrice de Reynal (organizer of the air show) was delighted to see at least one representative from Luxembourg.

Arriving just before sunset on Friday evening, our representative had the opportunity to see some impressive jets flying by.

The "Sparflex jets" team was present and went around the







tables sharing a huge bottle of Champagne (!) they had brought from Reims, where they are based.

On Saturday, the air show took place with those present despite the bad weather. Just before the end of the flights the "Patrouille de France" come for a brief hello and overfly the field.

At the Saturday evening dinner in the hangar, Béatrice said that the meeting was not as usual, because of the absence of crews from Luxembourg.

2021

2021 was a much brighter summer. It was decided by the organiser to invite Luxembourg as guest of honour for the second consecutive year. The show was planned for the 12th of June 2021.

In Luxembourg, we were all eager to fly together again. This was a perfect opportunity.

We decided to fly on Friday and to return on Sunday with several airplanes counting low wings, high wings, retractable gears, classic tail, a really beautiful fleet.



The information provided was great. We were briefed about the arrivals, how to proceed, the parking and contacts in case of need.

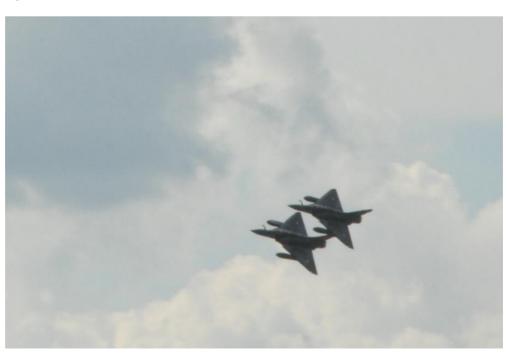
For my part, I was coming alone with a Piper. I received a thorough briefing especially about the Ground frequency and how to proceed. I was flying there for the first time. So, the idea was just after vacating the runway to wait for instructions from Ground.



Though, there was no one on the frequency. I started to call the numbers provided to us and at the end had a very nice person on the line and explain that I am at "Echo", just landed and wait for taxi instructions. He guided me and stayed on the phone for the whole time. While taxing, I was amazed by the jets flying for training and giving a pleasure to everyone present at this moment. The first "Aaah" where already shared. At some point, the person on the phone told me he hopes I look where I am going while taxiing and not looking up the sky. My answer was well no worries as I am not flying but driving.

I arrived one of the last ones and was greeted with a glass of champagne on the wing. What an amazing start of the weekend!

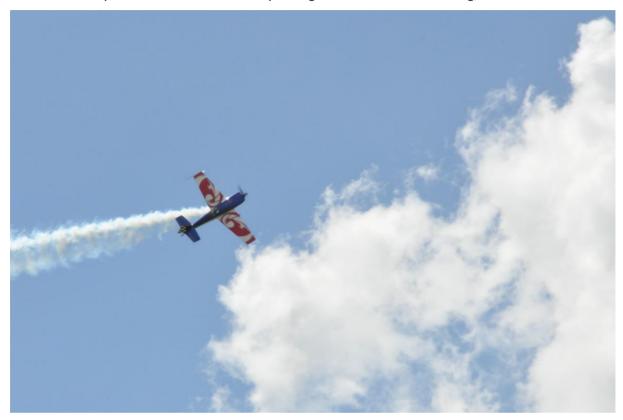
This evening, we were lucky to meet one of the former Concorde captains, Mr André Verhulst a very friendly





and impressive person who did the flight between Paris and St Yan in a glider. We were in the same hotel as him and had the opportunity to listen to some of his stories.

On Saturday, day T, the air show team counted 250 airplanes present for the meeting and more than 1000 persons watching. The latest arrivals were on Saturday shortly before lunch. At that moment the three runways were used simultaneously for a great dance. In the morning, we were able to





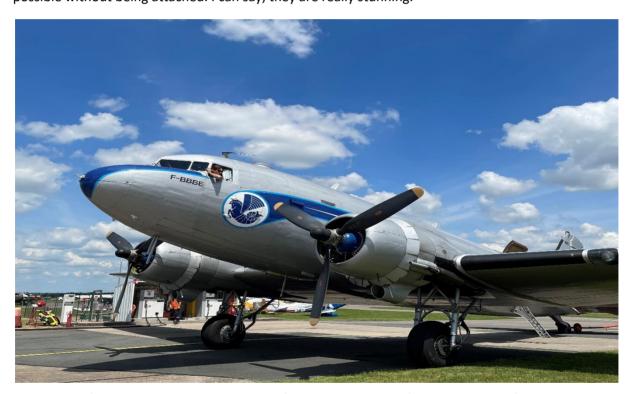


access the airplanes, but we were informed that we won't be allowed to stay there during the meeting. What a pity, not to be able to watch the show under our wings, but safety first.

The weather this day was great, CAVOK and very warm. The show started at 2pm with a presentation from EVAA (Equipe de Voltige de l'Armée de l'Air) and the famous Captain Popov. What a show was it! Just beautiful!

We could admire numerous other extraordinary performances during the meeting until almost 8pm. In between, an amazing Spitfire. He had some issues with the Pitot at first take off attempt. Luckily everything was in order fast thanks to the present mechanics, and we were able to enjoy his flight.

This year, and for the first time in St Yan, two Mirage 2000 showed us some tactical manoeuvres. Another flight which really impressed me was the one of the patrol "Fly & Fun" with 3 L39 Albatros. They were so close to each other realizing beautiful figures. I was even not expecting that to be possible without being attached. I can say, they are really stunning.



During this afternoon, we got what we came for, sunburns, a lot of noise and beautiful airplanes. However, we were getting tired. At that moment, a glider was pull by an aircraft. I was expecting nothing of it, but at the end it was one of those presentations I really appreciated. This glider performing aerobatics was graceful, perfectly executing the figures and beautifully illustrating the music chosen for the presentation.

At the end of the day, I think we were all tired but our minds full of great souvenirs and emotions. I was happy to fly back only the next day. On Sunday, the return day, I was sad that it's already over, but full of hopes for a great flying season.

One of the aircrafts from Luxembourg had a batterie problem. I stayed on the airfield longer, to ensure that the pilot can go back to Luxembourg. Luckily a group of aviators had a spare battery. They gave it to our pilot, and everything seemed to be alright. However, I decided to stay behind flying in formation, in case there is an issue with the batterie, and the radio is not working anymore. That was my first flight in formation. I discovered how difficult that could be and how much practice is most probably behind the pilots of "Fly & Fun". After a bit of time, as everything was working properly on the other airplane, we decided to split. From that moment, the return flight was uneventful.



We would like to thank once again Béatrice and all the volunteers, who did an incredible work for a great and successful meeting.

On St Yan side, the appointment is taken for the 2022 edition, which will be on the 17.06.2022. In case you want to enjoy a weekend entirely dedicated to aviation, I warmly recommend this aerial meeting.

UL flight to Denmark from Micheville

By -cbs



To visit Denmark in your Ultralight aircraft, you need prior permission to enter Danish airspace from Dulfu: the Danish Ultralight Flying Association.

There is a guide on their website: https://dulfu.dk/wp-content/uploads/2021/11/permission-to-fly.pdf

The required documents are your licence, a medical certificate, aircraft registration and airworthiness certificates as well as insurance and of course English FCL.055.

The permit to fly was delivered in a couple of days after having first given a phone call to the very friendly Dulfu office.

Filing the flight plan from ZZZZ to ZZZZ was a fun exercise, as the chosen destination was a private airfield on the island of Fanoe, South West Esbjerg to visit a friend from Luxembourg.

We chose to fly over Blexen EDWT and then North along the coast over the various islands.

The weather was perfect, we opted for FL055 and were cleared to transit Charly surprisingly at a given FL060.

At 75% power of the Rotax 100HP at 6000 feet our TAS was 213 Km/h, ground speed 227 km/h with 16 Liter/h fuel flow: the flight time was 3 hours and 13 minutes in the Dynamic WT9 mostly with the autopilot included in the Dynon EFIS switched on.

We noticed how air traffic control in the North of Germany wish pilots leaving the frequency "Gute Landung" (a good landing).

It was truly a privilege to be able to land directly on the Island of Fanoe, on a small airfield with a tiny wooden cabin for a terminal.

The grass runway of 400 meters is by definition only accessible to UL and STOL aircrafts.



The grass being a bit long, the owner actually cut it for us the next day!



For the homebound journey a few days later, the weather was a bit more touchy, we chose to fly over the broken layer which was at 2000 feet above the sea and progressively climbed to FL065 as the weather cleared out over Germany.

This experience shows that on VFR conditions one can travel across Europe just as easily in a UL aircraft such as a WT9 Dynamic as with an airplane, just as fast, for much less fuel and with the additional freedom of having a much larger range of airfields and grass strips to choose from as your destination.

Eastern European Tour 2021

By Peter Sodermans

THE PLAN

I am proud that I was able to inspire my younger nephew, Franky Coene, to become a private pilot as well. We agreed that once he had his PPL, we would fly with two planes, each carrying our spouses, to explore the Baltic states with the capital city Kuressaare on the island of Saaremaa as our final destination. As he managed to get his PPL recently, we started planning our summer holidays;

Great travel plans with many stops were discussed and developed. But flying VFR in combination with low pressure and a rainy outlook for most of the scheduled mid-August holiday week proved to be spoiling all these holiday plans. At the last minute, we decided to cancel our Eastern European



Baltics tour to a later date. We decided to simply fly to places where the weather outlook is much better than in Northern Europe.

FIRST DESTINATION: 12 AUGUST 2021 HÉVÍZ-BALATON AIRPORT: THE AIRPORT OF LAKE BALATON

We used Skydemon for navigation planning in combination with the apps aeroweather and flugwetter. This helped to develop a new plan in no time.



The weather proved to be way friendlier in Hungary on August 12, the day of our holiday start. We decided last-minute change plans completely and fly to Hungary. Franky and his wife Miriam in a DA40 and myself with my wife Kika and our son Alejandro in the 1994 Mooney M20J MSE. We planned a fuel stop in Hof Plauen in Eastern Germany before continuing to Hévíz-Balaton airport, the airport of lake Balaton in Hungary. All of this without hotel reservations. Pure adventure. confident that we'll find a bed somewhere

As the AIP mentioned that the airfield ops close at 6 pm, their administration told me that if I intended to land after 6 pm, there would be a price tag coming with it, and they discouraged me to do so. So I skipped the Hof Plauen intermediate landing. I flew directly from EBZW to LHSH via Neustadt and the Czech republic at a comfortable cruising speed of some 145 Kts. The flight went smooth, passing at the Eastern side of the Alps give us beautiful sights.

After a 4, 5 hours flight, we landed at 5.30 pm. The huge airfield was empty. Fees and admin went very smoothly, this is truly a nice GA airfield. My nephew arrived shortly later, all just in time.

SHAHRIAR (SHAH) AGAAJANI JOINING



The Mooney I fly

So here we are at an empty airfield in the early evening. I made some calls to hotels, the answer is everywhere the same. "Fully booked, it is the August 15th week". As we were hungry and thirsty, we called a taxi and drove to the nearby town of Hévíz, as I remembered having been there with my parents in the '70s. The taxi driver proved to be a very friendly guy, but all the hotels we stopped by proved to be fully booked.

The lady owning the restaurant where we had dinner knew



someone renting out a complete house with three apartments. As our friend Shahriar (Shah) Agaajani planned to join our group, I took this offer right away. It proved to be a very nice place with a little garden house and fully equipped. The only minus was that the old lady owner of the house would come in when we were not in our rooms.

Shah has also an adventurous mind, and the next day, he showed up at lake Balaton in his Mooney after a bumpy flight as he flew in from Romania. End good, all good. We rented a car and were ready to discover the area.

DISCOVERING LAKE BALATON

Memories from my youth came back as this is a lake where you can walk for almost a kilometer before you can start swimming. The water is warm, very warm, it feels swampy. It feels a bit like the '70s over there. We stayed a whole day at Lake Heviz, Europe's largest thermal lake. The lake at Hévíz became known over the centuries for the curative properties of its naturally warm spring waters that are full of minerals such as calcium and magnesium and are slightly radioactive. After playing in the



Our whole group

mud, we discovered the next day's town villages around Lake Balaton. Simply relaxing at the beach, strolling in the cities, and forgetting the Covid troubles. Nobody wears a mask here, this is a different planet.

I had some health issues during the whole trip and a permanent heavy headache caused by a dental infection. Lucky for me, the town of Hévíz proved to be the place where so many Austrians and Germans travel for dental surgery tourism. The dental clinics over there are huge. The dental clinic I visited had 60 dentists working there, a real dental factory. Very modern. One tooth was removed, but the headaches remained and so I had to continue my journey on Paracetamol, the dentist learned me. Nice!

Time to make plans for the next flight stop. Exploring options for the next stop were discussed with Franky and Shah and so we decided to fly to Sarajevo. We reached out to the Bosnian authorities, they proved to be very friendly and helpful. Not sure if many Private Pilots fly there. We love adventure, so we gave it a try.

At the airport whilst preparing to fly out of lake Balaton, we met a Turkish crew also in a similar Mooney like the one I'm flying. Their TC-RTO was also an MSE



Lake Balaton



version. Their Turkish pilots proved to be friends of Turgut, our Istanbul-based AOPA member and trusted friend, who has helped us out so many times. It is a small pilots world.

SECOND DESTINATION: 16 AUGUST 2021 SARAJEVO, BOSNIA



1The hills of Sarajevo with cemeteries everywhere...so painful for all the lost lives

So our three crews take off from Hévíz-Balaton airport. We fly further South-East, passing nearby Banja Luka. There are some wood fires here, causing the skies to become somewhat hazardous. The arrival at Sarajevo in a mountainous area was spectacular as we need to fly into a valley without seeing the airfield at first.

All three of us landed without any problems in Sarajevo. Coming with three small planes proved already to be a lot for the local authorities, as the parking spot for GA was way smaller than our P5 in Luxembourg. They sent some 6 (six!) workers to take care of us.

I know of the cultural ethnical diversity of Sarajevo but was nevertheless surprised to see so many huge commercial planes of the Arabic Peninsula over there. A lot. We had to go through the same customs line as regular tourists, almost all visitors were Muslims, with their spouses all dressed in Niqāb. The second surprise was that Sarajevo is a huge town, which seems to have nearly half a million people with the suburbs included. It is the capital city of Bosnia and Herzegovina. Amid

the rising tensions in this part of Europe between ethnical and religious fractions, we were feeling very privileged to be here, as this place comes with so much history

THE OLD TOWN, WHERE EAST MEETS WEST

Finding a hotel in Sarajevo was easy. We stayed in the Old Town. This is a conglomeration of narrow streets, crowded plazas, and stone inns protected by a low ceiling of wooden shop houses, matte domes, and jagged minarets. A place where East meets West. Also, for our spouses traveling with us, Sarajevo proved to be the highlight of our journey.

We visited the <u>Galerija 11/07/95 museum</u>. This is the exhibition space aiming to preserve the memory of the Srebrenica tragedy and 8372 persons who tragically lost their lives during the genocide. This exhibition touched our hearts, so painful to see what happened in Srebrenica.

Strolling through the city in the evening hours, we noticed that completely different worlds are living next to each other. In one street, we see young sexy girls and boys dancing in the streets on the tunes of loud music with street DJs, and in the next street, one can only drink a cup of tea in a bar, with only Muslims. It changes from street to street. Amazing.

We went for a healthy hike in the hills around Sarajevo and were surprised by a Thunderstorm. Better there than being in a plane. A friendly guy we met in the street helped us out. He drove our



group one by one back to town. Sarajevo has some amazing Turkish coffee houses. The strength of the coffee served made me forget my headaches and teeth problems.

ROADS SPLITTING AGAIN

After two nights in Sarajevo, the time came to move on.

Shah is heading with his Mooney for Constanza in Romania, to pick up his family. Weather outlook for Shah promises (again) a bumpy ride.

Franky and I decide to fly to Portoroz, as Jean (Jängi) Birgen told us many times this is a wonderful airfield with spectacular views on arrival every Pilot should have visited once in his life. We had a wonderful time together with our small three planes group. The red tape before leaving Sarajevo airport took a while, by all by all, everything went smoothly. We received a detailed weather report, which proved to be helpful.

THIRD DESTINATION: 18 AUGUST 2021 PORTOROZ, SLOVENIA

We had to change the plan to quit Sarajevo via the South and pass via the mountain passes to the Croatia coast. The clouds are quite low and this is unknown territory for us, with no Gafor routes or so available. So Franky and I decide to go for the safe option and fly a northern route with the Mooney and the Diamond 40. We climbed out in between the clouds until we could establish our flight VFR on top of the clouds. I don't like to stay too long at higher Flight Levels, without oxygen, especially not with ongoing headaches. As we passed over the Croatian mountain ridges and descended towards the Slovenian coast, the TCAS on board proved to be very helpful as it noticed on several occasions traffic, I didn't identify myself.

Approaching the Portoroz airfield after a 2,5 hours flight failed the first time, I was way too high. The second attempt worked out perfectly. This is indeed a unique airfield to fly to. They are AOPA friendly and I got some discounts in their pilot shop by simply showing our AOPA crew card. The whole set up around the Portoroz airfield is user-friendly. They even rent bikes. A perfect place to stay for a couple of days. But this was not the plan for today, we just went for a long lunch.

FOURTH DESTINATION: 18 AUGUST 2021 CANNES, FRANCE

After a relaxing lunch, we continued our longest flying day to Cannes in France. Taking off in Portoroz, we headed for the ROTAR waypoint some 30NM on the sea. From there we flew to the VOR of CHI (Chioggia) in Italia, which was another 30NM over the sea. The experience level as a pilot when flying longer distances changes rapidly, one feels more and more comfortable with the plane and its limits. We flew relatively low over Italy until Modena, where we had mountains in front of us and needed to climb above FL100 again. For flight planning, we use IFR waypoints all the time, sometimes in combination with VOR. On this road, we had some clouds but remained in VMC the whole time. Our route passed via KALIK and at RIVAP we started flying over the sea again.



A PLEASANT SURPRISE

We flew some 50 NM over the sea (Bay of Genoa) before reaching the coastline around Albenga. The Italian traffic controllers helped us very well on the way, their accent was funny, however. Being back with French air traffic control, we were very lucky as we were allowed to follow the helicopter route at a very low altitude south of Nice along the coastline. This was highly enjoyable for all of us. After 2,5 hours of flight, we arrived at Cannes Airport around sunset. Just in time as the customs office closed their doors when we arrived



Flying over the Sea

at their desk after having secured the plane.

I was especially proud to see how my younger nephew Franky Coene, being a newbie Private Pilot, was able to fly all these routes without any problem; he did a perfect job; amazing for a first-year private pilot in his DA40 and very promising. His enthusiasm for flying has further grown during this trip

FLYING NORTH: 20 AUGUST 2021

Cannes is a very comfy airport. During summertime, it is a full house. All well organized and a pleasure to be there. A true GA airport.

We headed to Fayence by car, staying there two nights, next to the airfield.

All good things come to an end; this flying trip gave us so many positive vibes and allowed us to forget the Covid troubles for a while;

Time to fly back home. The last leg, flying the Mooney back to its Belgian home base at Genk-Zwartberg, where it is hangared, took us some 4 hours.

FINAL REFLECTIONS

The fun of flying starts with the preparation of the trip. Although, during this summer trip, bad weather in Northern Europe proved to be a severe spoiler. We had to improvise a new trip ad hoc. As the purpose of such a summer flying trip is to fly to unusual places, passengers and the pilot needs to keep a flexible mindset at all times. This worked out very well and we acquired a lifetime memory.

Total flight time: 15 hours 23 minutes.



Mountain Flying in Annecy 2021

The AOPA Luxembourg Classic is Back!

By Reinhard Krommes

Here we are back with the AOPA Classic: After the scouting mission 2020 of the then freshly licensed pilot Marina Paralingova to Annecy (See her report in the AOPA Yearbook 2020/2021), it was time to profit from the relaxed situation last summer, to organise anew our yearly Mountain Flying Event.

Marina and Shahriar volunteered to take care of the organisation. Arrivals in Annecy were Thursday 2nd September and Friday 3rd September depending on the teams.

In spite of COVID-19 times, we had an impressive list of participating teams and 7 aircraft:



ALL ROADS LEAD TO ANNECY



Our "youngster" team, Greg Muller, Jerome Reinert and Ted Staggs did the most legs with LX-AIO to come to Annecy. They made stopovers in St Die, Innsbruck, Trento and Milan, before they arrived at Annecy airport. That was a fun journey travelling through most parts of the Alps.

- PA28 LX-AIF: Fernand Braun, Reinhard Krommes, Alphadio Jalloh
- L19 F-AYAK: Eugène Elsen, Jean-Claude Schmitz
- C210 LX-LCO: Malou, Nico Bannasch
- CH7A LX-AIL: Jan Nielsen
- C172 LX-AIO: Greg Muller, Jerome Reinert, Ted Staggs
- PA28 LX-AIB: Marina Paralingova
- M20K LX-LCT: Shahriar Agaajani, Krista, Alejandro, Peter Sodermans

To get from Luxembourg to Annecy, weather was next to perfect and all teams had no difficulties to fly to our destination. Two teams met at their usual stopover at Colmar for a quick lunch at the Courtepaille next to the airfield. Shahriar flew to southern France to make Peter Sodermans and family join us.

We were greeted by members of the Aéroclub D'Annecy Haute-Savoie and the two rental vans booked by Shahriar were picked up by him and Nico to provide the shuttle service to our two hotels near to each other, the Mercure and the well known Ibis in the old town of Annecy.



ANNECY



Annecy is always a destination by itself. Sitting with its castle by the Lac d'Annecy, boasting a well restored old town and surrounded by rising hills pointing to the nearby alps, it is always a delight to visit. It is crowded by tourists at times, especially on market days, where the streets and alleys are filled, even in COVID times.



It lies at the outflow of Lac d'Annecy into the Thiou stream. The city is best known for its old town, the Vieille Ville, with its cobblestone streets, meandering canals and pastel-coloured houses. The medieval Château d'Annecy, where the Counts of Geneva once resided, towers over the city.

The Annecy area is one of the world's leading locations for paragliding, an activity of some economic importance to the region. The area regularly hosts major competitions, more recently a leg of the

Paragliding World Cup in 2012. Flying along the slopes here requires lots of lookouts for the multicoloured pieces of silk fabric steered by the parapilots. We will see later that Annecy is the home of excellent restaurants offering the nourishing and delicious variants of Savoyan cuisine.

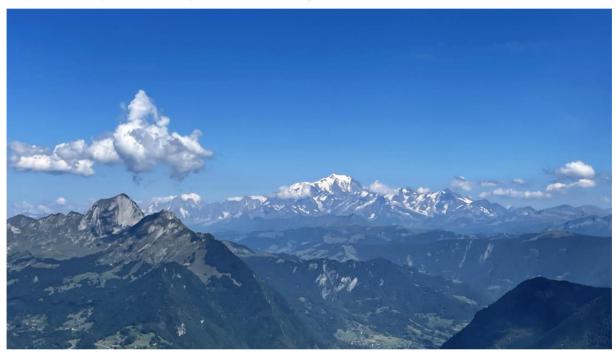




ALTIPORTS

This is why we come here: Learning to fly safely in high mountain terrain and, not least, experiencing and learning about the challenges of approaching and landing at an Altiport. It is a French speciality possibly derived from landing at sloped glacier surfaces. It consists of a short, strongly sloped runway where the pilot must land uphill and take off downhill.

Altitudes between 5000ft and 7000ft bite into the performance of your airplane. Go-arounds are no option! Mind the terrain. On some days, treacherous winds may make it difficult to control the approach path and speed and even make it impossible to visit Altiports to control speed. You need a special qualification signed off by an authorised instructor to land at Altiports. Thorough training and practice is of the essence, lots of planes get wrecked here. At least one Luxemburger made the experience, but luckily without injury. Altiports are rarely built elsewhere, you may need to travel to Nepal, the Marquesas or the Fijis to find something similar.



So, as usual, with the help of the we booked the experienced mountain instructor François to take us through the motions of mountain flying. With support of the Annecy airport became our provisional headquarters from where our airplanes took off in turn to practise mountain flying and landing at Altiports in the region. The weather in the mountains was a bit variable but most of the planned outings were possible.

One of the more accessible ones is Megève LFHM at the foot of the towering Mont Blanc. At 4830ft it has a sloping but wide 620m long runway. The chart and the images give an idea how to approach and land.



Two circuits made me nail the landing. The steep rocks behind the runway prevent you from the idea of touch and go, but rather roll up the slope turn the airplane around and take off again downhill.







Other visits went to Courchevel LFLJ and to Albertville LFKA. We explored flying routes through the valleys and the necessary tactics to cross mountain passes.



Courchevel at 6588ft and 537m runway is impressive and requires more training.

The threshold is above a steep wall and the runway is only 530m long. But even smaller twin engine turboprops manage to land and take off here.

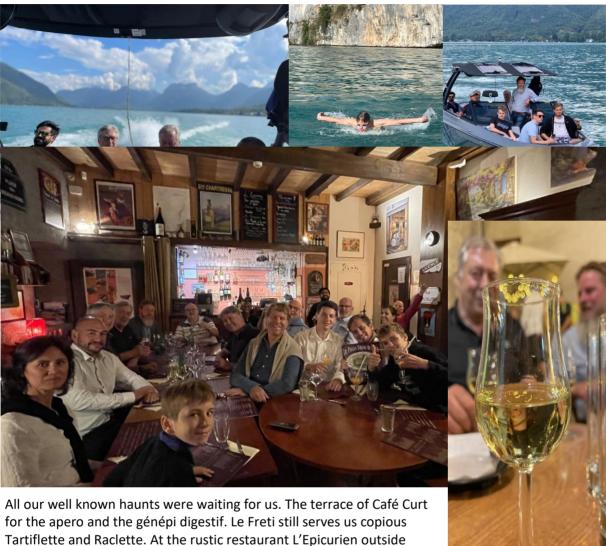


Albertville is a normal airfield in the valley, but you need a qualification to land there because of obstacles before the thresholds. Maybe a noise abatement method. Touch and go no problem there.



FUN AND GAMES

The mountains are inviting, but also the Lac d'Annecy. This time we rented a speed boat and those without flying appointments went racing over the waves and some even dared a swim.



Annecy, we were joined by the members of the board of the Aéroclub D'Annecy Haute-Savoie to celebrate the successful revival of the almost historical Mountain Flying event of AOPA Luxembourg.

Too soon it was time to say goodbye again. We left for Luxembourg again full of happy flying memories. Weather was again with us so the flights back were uneventful. Thanks to Marina, Shahriar, François and the Annecy Aéroclub who made this mountain flyout a memorable experience and – see you there next year!





Replacement of AVGAS 100LL in the Making

By AOPA Germany with Updates

NOT MUCH FUTURE FOR AVGAS 100LL

The future of Avgas 100LL has been discussed for many years, but the discussion is currently becoming much more concrete. The Chemical Agency ECHA of the European Union has taken on the additive tetraethyl lead (TEL) in Avgas 100LL and classified it as a substance of concern according to Article XIV of the European "REACH Regulation" for the registration, evaluation, authorisation and restriction of chemical substances. ECHA has now proposed to the member states to launch a so-called authorisation. This means that AVGAS 100LL suppliers would have to set out in a detailed application how they will use the additive TEL and how they will control its negative effects.

The Associations General Aviation Manufacturers Association (GAMA), Europe Air Sports (EAS), European Council of General Aviation Support (ECOGAS), European Business Aviation Association (EBAA), International Association of Aviation Personnel Schools (IAAPS), European Regional Aerodromes Community (ERAC), European Helicopter Association (EHA) and IAOPA Europe have pointed out in a joint letter that the entire industry has a very high interest in the introduction as soon as possible of an unleaded fuel with 100 octane, but also highlighted the great importance of a trouble-free transition. Therefore, the proposed authorization should be waived until an alternative fuel is developed and certified.

WHAT HAPPENS AFTER AN EU DECISION TO REQUIRE AUTHORISATION FOR TEL?

It seems however that the EU will go ahead with the REACH authorization requirement which is right now in the legislative circuit. It would be applicable at the latest 18 months after entry into force. The so called Sunset Date where Authorisation is mandatory is 18 months after entry into force. The result of the vote initiated by the EU member states at the end of September on the application for authorisation of TEL is expected at the end of October 2021, the final decision of the EU then at the turn of the year 2021/2022.

This means that In the worst case, such an application would not be made or approved, then 36 months after a decision in Europe, no TEL should be added to the aviation fuel. TEL should only be imported into the EU in diluted form, for example in the Avgas 100LL from overseas, which would of course be a logistical disaster, increase the price and ultimately not help the environment.

In the best case, the authorization would be requested by the industry and approved by the EU, then TEL should be used under certain conditions for further years, the consumers would hardly notice anything. And in the very best case, a lead-free fuel is also available after a transition phase. Moreover, AVGAS 100LL is produced worldwide only in a few refineries and the quantities produced are negligible. Producers might be reluctant to request authorisation.

This is obviously not a predominantly European problem, because political pressure on TEL is also increasing noticeably in the USA: A coalition of several environmental protection groups in the USA has demanded that the Environmental Protection Agency (EPA) formally declare a "endangerment finding" through the use of leaded aviation fuel Avgas 100LL in over 160,000 aircraft registered in the USA. This, in turn, would be the prerequisite for the ban on Avgas 100LL sought by the environmental associations.

It is also critical that there is only one manufacturer of TEL worldwide that serves the global market from Great Britain, with all the resulting dependencies.



WHAT CAN BE DONE?

Currently, work is being carried out at full speed on unleaded fuel additives, especially in the USA, but also in Europe. According to expert estimates, however, such an Avgas 100 UL (= UnLeaded) is not to be expected in the nationwide supply before 2026. A concrete glimpse of hope is the fuel from the American company GAMI, which has just received approval in the USA for several variants of the Cessna 172. Many more aircraft types are to follow. This AVGAS UL100 may also be used for high power and turbocharged engines.

We must also be aware that a number of piston engines run on UL91, in case they are approved for MOGAS and approved by manufacturers with an STC. By Service Bulletin SEB-28-01 und MEB-28-01, Textron has approved a number of engines for UL91 and provides a (paper only) conversion kit.

If you want to gain something positive from the whole thing, then it is probably the fact that you can no longer run away from this already long-known problem worldwide. Lead-free automotive gasoline has been around for over 40 years, and it is high time for a clean solution in aviation as well.





Droneport In Belgium: A Model For Luxembourg?

By Peter Sodermans

AOPA Luxembourg initiated a study trip to the renowned Droneport airfield, at the former military airfield of St-Truiden Brustem, north of Liège in Belgium. ICAO: EBST. The plan was to learn about the Droneport setup and initiate the discussions about a new airfield in Luxembourg in a possible similar setup

The Luxembourg delegation consisted of

DAC: Stéphane Vallance: Stephane.Vallance@av.etat.lu and Gauthier Pierlot

Gauthier.Pierlot@av.etat.lu

AOPA Luxembourg: Peter Sodermans and Nico Bannasch

Luxembourg University: Prof Holger Voos Holger. Voos@uni.lu; Grégoire DANOY

gregoire.danoy@uni.lu; Christophe HAUNOLD

christophe.haunold@uni.lu

Luxinnovation: Hoethker Anja <u>anja.hoethker@luxinnovation.lu</u>

We were lucky with the weather and Nico Bannasch and Peter Sodermans flew in the Cessna 182 LX-AIX of Aéro-Sport from to EBST.





DRONEPORT PRESENTATION BY JEROEN HUYSMANS AND NORE DYCKMANS

Introduction

<u>Jeroen Huysmans</u> is Managing Director at LRM (LRM is an investment company that develops and stimulates economic growth in Limburg) . He welcomes our Luxembourg delegation

Droneport is located at the former Military airfield basis of Brustem (Sint-Truiden). It is a spacious area with a local population being used since decennia to military flying activities. After the military left, the authorities acquired the premises. The investors considered this location as an interesting competitive advantage.

Droneport runs the operations and combines a manned and unmanned airfield in combination with an innovation hub (incubator), in cooperation with the regional entities in the Limburg area

SHAREHOLDERS

The shareholders of Droneport are as follows:

- 50% <u>LRM</u>
- 15% POM
- 20% City of St Truiden
- 15% JKI Invest

Whereas, **LRM** is a regional investment company that develops and stimulates economic growth in Limburg. LRM sees Limburg – with its available business parks and green zones – as a large laboratory to test experimental initiatives for their feasibility. We take the lead in developing ideas and projects that guarantee innovation. https://www.lrm.be/en

POM is the regional development of Limburg, commissioned by the provincial government. The POM team is working on innovative projects that make Limburg more digital, lower-carbon, and more scalable. They do this in seven core sectors: logistics, manufacturing economy, creative economy, energy, care economy, construction, circular economy, and digital economy. POM connects companies, employees, local authorities, knowledge institutions, and civil society. https://www.pomlimburg.be/

City of St Truiden: The Droneport facilities are located in the city of St Truiden. Sint-Truiden is located in the heart of Haspengouw, a region known for its agriculture and fruit growing.

JK Invest is the investment company of the private investors Jack Waldeyer and Kris Van den Bergh (pilot). Both are passionate about aviation and are active in several aviation-related activities.

With JK Invest, they mainly target technological start-ups and young growth companies that they try to take to a higher level with financial injections and coaching.

KEY FIGURES

There are some 25 companies located at Droneport.

There are about 1000 registered flights by 70 operators and 230 plus drones. However, during our visit, we did not see any drone activity, although weather conditions were optimal.



BUSINESS MODEL

As Droneport MD Jeroen Huysmans states, there's a gradual move from manned to unmanned aviation. The emerging unmanned aviation industry is delivered by people and pilots from the manned aviation industry as they have the technical skillset. That's why at Droneport, they have a manned aviation activity. Hangars were built and rented out to host some 50 manned planes. The manned aviation segment is also animating the unmanned segment, which is needed to make it a vibrant place.

The newly built plane hangars (6000m²) for manned have got an occupancy rate of some 75%. This business model works well and generates some revenues as the rent per plane is some 4.000€ a year (plus VAT). (The hangar parking spaces are way more spacious than at Findel)



The Droneport building is some 4000 m². It is a learning model. Some 30 million were invested. The warehouse investment was some 3,5 million.





Jeroen states we are in on a learning curve.

The occupancy rate in the building incubator is quite low compared to expectations, which is explained by 4 reasons:

- The Covid-19 crisis was a showstopper. Online events did not work and the community got lost
- There's some competition from other sites (Antwerp and port incubator).
- The EASA legislation causes that some basic UAV testing can be done on premises of companies, less need for testing at Droneport
- Amazon Prime air cut the drone part testing at Droneport

Via their shareholder POM, they have access to regulation. The changes in the newest UAV EASA legislation cause the business models around drones are less positive than previously expected (no Pizza style home delivery, now more focused on business applications – blood sample delivery, etc..).

Jeroen states that access to regulation is done via POM.

To raise awareness for the incubator, they reach out to FIT (https://www.flandersinvestmentandtrade.com/invest/en). The FIT relation is eg used to connect with UAV companies in Phoenix Arizona. Access to equity is covered by LRM, who's willing to take equity in innovative business models.

Jeroen states that the occupants of Droneport are not considered as consumers, but as part of the ecosystem, as they are trying to build a community.

The airfield (ICAO code: EBST) is the hardware. To succeed as a campus, one needs hardware and software. The one does not go with the other

There's a cooperation with the PXL https://www.pxl.be/ as education is key for future success. (Courses that PXL organizes are e.g. about "Rapid Drone Software Prototyping" (to develop on short terms tangible and practicable drone applications), Competence prognosis for the Drone Industry, Post Doc Drone business architecture, Smart Greenery Management: Integration of AI and drone images for inventory tree); bachelor drone management

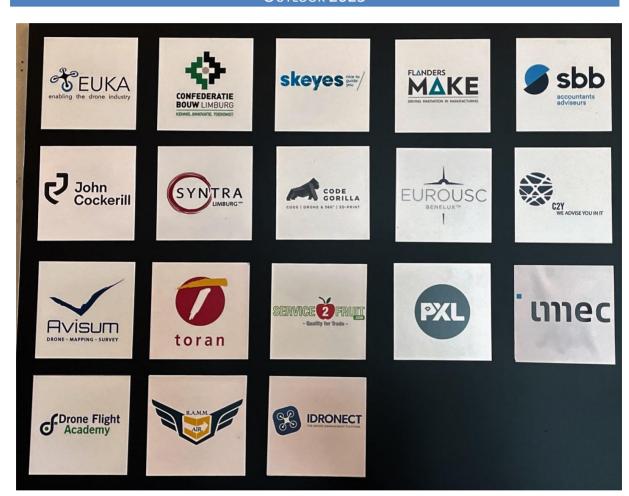


The incubator focus was initially looking for early-stage startups, but now in 2021, it would be better to attract some large UAV plants. with some derived products. Jeroen states the example of the former Ford factories in Genk, where the Ford suppliers in Genk were larger than Ford company itself

Following a question of Prof Holger Voos, it is confirmed that the site can be made available for a couple of Months for SnT test purposes

There are some management changes at Droneport. Clear is however, the investors are looking for long term profitability, rather than pursuing a yearly 25% yield.

О UTLOOK 2025



The shareholders continue to expand the infrastructure at various levels:

- Buildings and offices
- The runway (maintenance, instrument approach)
- Facilitate more and specific tests around 5G, radar, and UTM (Unmanned traffic management)
- Also, the airspace and test areas will be expanded. They'll continue to nurture the ecosystem
 and the network. The focus is shifting as they now aim to attract and support UAV and
 logistic operators

_



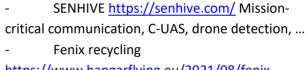
KEY ASSETS

- 1. "Purpose-built" droneport with runway, airspace and test areas
- 2. Available land for aviation development & UAV testing
- 3. Stable regulatory framework (land, airspace, EU)
- 4. UAV ecosystem (partners, universities, shareholders)
- 5. EU-central, competitive and innovative region (Flanders)

MAIN OCCUPANTS OF THE DRONEPORT INCUBATOR

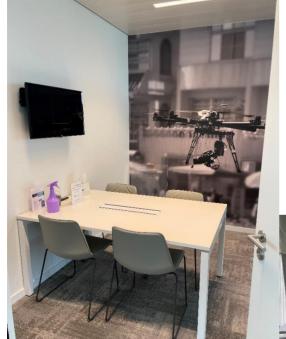
5 companies are permanently located at the incubator of Droneport, they are related to the drone business

- Intouch https://www.intouch.be/en (management parking spaces initially. Now skinny crash or incident sites for police within 10 minutes with UAV: Fragments, skid marks, and oil traces are mapped to the nearest centimeter)
- AIRobot https://airobot.eu/ lots of apps such as blood samples transport
- Crossroads Communications https://www.xcomm.be/ offering business-2-government and business-2-business software solutions and services.



https://www.hangarflying.eu/2021/08/fenix-recycling/ recycling precious drone materials

An MoU has just been signed with Skyeyes https://droneport.eu/residents/skeyes/?lang=en. They'll place a team over at Droneport to be part of the innovations related to UTM and they'll attach particular importance to safe drone traffic and the integration of manned and unmanned vehicles in the



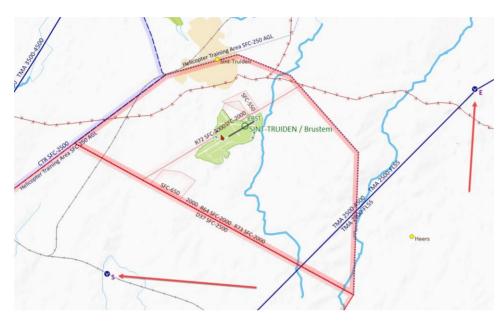
existing air traffic flows.

The second incubator floor had some 22 entities been rented since 2018, the Covid-19 crisis negatively impacted this startup segment. The offices are perfectly equipped and have all facilities available needed for an incubator.



AIRPORT INFRASTRUCTURE

We learned there are 15000 movements a year.



A fixed-wing drone needs 300 meters to take off, but so far no drones are using the runway yet.

A military drone could need up to 1km to take off. The military deploys drones at their airfield at Elsenborn so far.

The airfield is 1200 meters long, with a paved runway. The

BCAA can further extend the runway (there are plans to do so)

The airspace has an ATZ of 7 to 12 km

The ATZ is activated when there's drone activity, which is not too much for the moment. Only for special OPS. In 2019 it happened 25 times, none in 2020 (Covid). It is expected to rapidly grow. When the ATZ is activated the manned aviation needs to report at the Sierra



or Echo waypoint outside the ATZ.

Instrument approach equipment is to be installed in the upcoming years as a GPS approach is needed to allow joint operations between manned and unmanned traffic. The model outlook is positive

After the meeting, our hosts shared lunch with us and we all thanked the Droneport Management for taking time to give us insight into this innovative and future oriented aviation complex.



The Path to Future GA Airplanes

By Reinhard Krommes

IN 15 YEARS - WILL THERE BE LIGHT AIRCRAFT AS WE USE THEM TODAY?

Light aircraft in the category of 1000-2000kg MTOW have airframes, mostly designed decades ago



and piston engines designed 70 years ago. To continue to fly them for private use, training or commercially, there will be formidable challenges.

- The worldwide fleet of piston powered light aircraft is aging at a rapid pace and there are not many new ones built. Getting spare parts is increasingly difficult. Many of these planes need to be replaced, even assuming effective life cycles of 40 years or more.
- New and forward-looking developments focus on ultralight and on turbine airplanes. The market is picking up in these areas, but UL's are weight and range limited, turbines have very high operating cost.
- The GA community like all aviation has to face opposition and restrictions because of pollution created by their activities:
 - Noise emission
 - Emission of greenhouse gases, mainly CO₂
 - Use of fossil fuel with noxious additives

In comparison to other emitters, aviation's share is relatively small, but here as well, these issues must be addressed for survival of the aviation industry in the future. General Aviation is a niche market but for leisure, training and certain commercial activities, it will continue to have high potential.

More efficient Airframes

The blooming market for ultralights and their uptake in many pilot communities shows the way to go: Sleek design, advanced materials, excellent aerodynamics, low noise, moderate pricing and low threshold to join flying are the ingredients to extend this approach into more GA-like airframes. Four-seaters are already coming.



This dynamic evolution is not yet really impacting the "classic" light aircraft market which remains stagnant. Main reasons are certification issues and high prices. Think about 700k€+ for a Cirrus. However, the new FAA Part 23 and the nearly identical EASA CS-23 airworthiness specifications show that the GA industry finally can evolve to develop less expensive and more innovative airframes.

Bolder designs are coming with computer-controlled multiple propeller frames, even designed for vertical Take-off and landing. An example of such an advanced design is the Lilium Jet.

Many start-ups vying for funding and attention are pursuing advanced designs and the market shakeout is still to be seen.

ALTERNATIVE PROPULSION AND ENERGY

Typically our GA fleet is powered by piston engines. Turbines did only come through in the upper segment for commercial GA because of cost. Design and development of new and sufficiently powerful engines for planes with an MTOW of up to about 2000kg is lacking, with the exception of some diesel engines. The latter ones are sold for example by Continental and Austro-Engines, their market share remains limited. Anyway, to stem the climate change, the end of fossil fuel-powered piston engines seems to be coming fast.

So what next?

The commercial aviation industry bets on future use of "Sustainable Aviation Fuel" (SAF) for turbine powered airplanes to achieve "Net 0% Carbon" by 2050. The biggest part of this fuel is supposed to come from biofuels and even more from electric power to fuel. The required electrical energy would be tremendous. Think about an additional 10000 Tera-Wh of renewable electricity needed for the world-wide aviation fleet!

The same type of SAF could be available for diesel engines that are using jet fuel today. Unleaded aviation gas or automotive fuel is available for low power engines as in ultralights. This will shape the development of new and more efficient engines and airframes.



The holy grail for zero emission airplanes is the direct electric powertrain. Many developments are underway and the first airplane - the Velis-Electro from Slovenian company Pipistrel - is EASA certifed. Designs not conceivable before will come with multiple computer controlled engines and induce novel airplane.

With present battery technology, flight time is limited to about 90 minutes. The potential is however significant because the basic technology is very simple. Soon, lighter and better solid state batteries and/or fuel cells will be gamechangers.



SMART AIRPLANES

High tech is slowly trickling down from military and commercial airplanes to the GA. Glass cockpits with primary flight displays and multifunctional displays even showing terrain and satellite weather are already commonplace. Autopilots and integrated flight management computers are even available in many ultralights.



With ever denser air traffic, collision detection and avoidance capabilities are ever more relevant for the safety of general aviation. The lowest airspace band will be shared with more and UAS (Drones). See and avoid is no longer an option. Airplanes over 5700 kg will have a mandatory collision avoidance system based on Mode S transponders and ADS-B. Alternative systems like FLARM and 4G/5G mobile phone solutions are competing to enter the market for GA.

In the US and elsewhere ADS-B is being extended for GA and even for drones by UAT (Universal Access Transceiver) allowing for data exchange between airplanes and ground stations. This would provide not only for collision avoidance, but also for radar-like services and additional information like real time weather. Additional frequency spectrum necessary is available in the US but not in Europe.

With these elements coming into place with smaller and cheaper electronics, autonomous airplanes without pilot intervention will be in sight. The GA community may not want to have this, but assistance system for flight management, collision avoidance and real time flight data like weather will increase safety and utility of GA.

SOMETHING'S GOT TO GIVE?

As long as fuel, spare parts and regulations allow, we may continue to fly our GA planes until they fall apart. Meanwhile, the world continues to turn - regulations, markets and needs from different groups of users will show the way. Viable ecosystems exist today for ultralights and high end commercial GA with turbine airplanes. For GA, as for private and training light aircraft, cost and accessibility remain the defining factors. Apart from some happy few, GA operations run on a shoestring, so change and innovation are hard to come by.

Solutions to keep us flying may come from the ultralight manufacturers moving into the light aircraft market as well as economies of scale coming down from the commercial industry. Powering the aircraft with net zero carbon energy will remain one of the main challenges in the future.

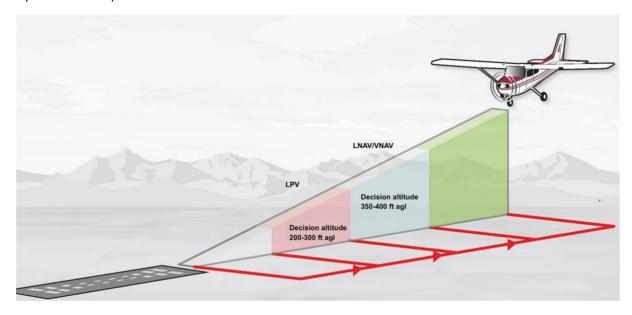
No doubt, the dream of flying will stay alive – possibly at a a price.



RNP Approaches

Comfortingly Familiar, Incredibly Accurate

By AOPA USA + Updates



To pilots, the beauty of RNP approaches is that they look and feel just like traditional precision approaches—even though technically they're not.

RNP approaches are possible through SBAS - Satellite-Based Augmentation Systems or GBAS - Ground-Based Augmentation Systems. In Europe, this is the EGNOS - European Geostationary Navigation Overlay Service. As its name says, EGNOS provides through geostationary satellites an additional corrective signal to equipped GPS receivers in order to achieve the required precision for approaches.

When flying Required Navigational Performance approaches, we intercept and track the "localizer," configure the airplane for landing, then follow the "glideslope" down to the runway. RNP brings lots of new acronyms, but the process of actually flying these approaches is comfortingly familiar, and they're incredibly accurate.

GPS-based RNP approaches are attractive because they're much less costly to establish and maintain than the instrument approaches they replace. There's virtually no ground infrastructure to install or maintain. And RNP approaches are safer than legacy non-precision approaches because they contain vertical guidance, which enhances pilot situational awareness, gives us a powerful tool to avoid terrain, and promotes stabilized approaches at constant airspeeds and rates of descent.

The higher accuracy and integrity of RNP guidance allows aircraft to descend farther by reference to instruments on RNP-based approaches. LPV approaches typically have decision altitudes between 200 and 300 feet above the threshold, and LNAV/VNAV approaches have decision altitudes from about 350 to 400 feet above threshold. Compare that to regular GPS approaches (green on the diagram above), whose minimum descent altitudes range from 400 to 600 feet above the threshold.

The gold standard for RNP approaches is the LPV, which stands for localizer performance with vertical guidance. Flying an LPV approach is virtually identical to an ILS (instrument landing system)—and LPV approaches allow descents as low as 200 to 250 feet above the runway, just like an old-school ILS.



LNAV, or lateral navigation, is a less sensitive type of GPS approach that typically allows descents to about 400 feet above the runway with the right equipment—and you don't need RNP to legally fly an LNAV approach. Any IFR-approved GPS receiver will do. But RNP simplifies LNAV approaches by providing vertical guidance (LNAV/VNAV). And vertical guidance simplifies the process of flying the approach because it eliminates the old "dive-and-drive" practice of rushing down to the decision altitude, then plodding along in level flight searching for the runway. LNAV/VNAV lets you descend at a normal rate in landing configuration to the decision altitude, then execute the missed approach if you don't see the runway.

The final flavor of RNP approach is the LP—and it's the rarest. LP (localizer performance) approaches have a highly accurate localizer to aid with runway lineup, but no vertical guidance. LPs are typically located at runways where obstacles on the final approach course require unusually steep descents, and they're meant to be flown like old-fashioned localizers.

News from EASA

European Plan for Aviation Safety 2022 - 2026

Safety Promotion Publication Type

Highlights of this 11th edition of the European Plan for Aviation Safety (EPAS) are:



- Addressing the safety issues emerging from COVID-19, this edition supports the further modernisation of the aviation system, in the areas of safety, efficiency, level playing field and environmental protection.
- 19 new research projects (RES) are included with many of them addressing innovative technologies, such as remote flight instruction, risk assessment of complex systems, use of machine learning (ML) in certification, electric and hybrid propulsion, or digital transformation.
- A new rulemaking task is included, to create a European digital pilot licence system.
- In the drones (Unmanned Aircraft Systems) domain, several concepts, platform architectures and practical demonstrators continue to be developed at high pace across Europe. COVID-19 accelerated the development of certain use cases, such as for the delivery of vital supplies to medical personnel, humanitarian

aid and emergency/disaster response. EPAS, in line with the European Commissions' 'Drone Strategy 2.0', will continue to foster the development of a drone ecosystem in Europe.

 The strategic priority 'Environmental protection' is reinforced in this edition, on the basis of the Agency's sustainable aviation programme. Initiatives include actions to increase CO2 efficiency, prepare for electric and hybrid propulsion technology, sustainable aviation fuels, carbon offsetting, as well as for the development of an environmental label.



 Volume III, first introduced with EPAS 2021-2025, provides the latest set of domain Safety Risk Portfolios with 219 individual safety issues described and prioritised. A dedicated COVID-19 portfolio as well as the newly established Safety Risk Portfolio for the rotorcraft domain are included.

https://www.easa.europa.eu/publication-types/european-plan-aviation-safety

Allowance Of Third Country Licenses In Europe Expires: Very Last Call From The European Commission

By AOPA Germany



There are still a large number of pilots residing in the EU (And also in Luxembourg) who fly with licenses from third countries – mainly with FAA licenses. Their exact number is unknown, but it seems that their number goes into the thousands.

According to EASA's Basic Regulation, persons flying aircraft registered in third countries with permanent location in the EU

should have an EASA license. The deadline for the entry into force of this regulation has been repeatedly postponed from the original 2014 onwards, as they have been waiting for the conclusion of the bilateral agreement between the EU and the USA, which will mutually simplify licensing recognitions. Since 2020, this agreement called "BASA" has been in force and consequently the EU no longer intends to extend the deadline in Article 12(4) of FCL Regulation 1178/2011 beyond 20 June 2022. In addition, many EU member states banned the use of these third-country licenses in their airspace years ago.



The EU Commission and EASA have now asked the associations to point out the end of this deadline with an "Absolute Last Call", which we are doing again. Many license holders have by now obtained an EASA license in addition to their original FAA license. Of course, maintaining both licenses in parallel causes a certain amount of effort. If you only have an EU license, then according to US regulations you may only fly to a limited extent in the airspace of the respective licensed state:

FAR § 61.3 Requirement for certificates, ratings, and authorizations. (a) Required pilot certificate for operating a civil aircraft of the United States. No person may serve as a required pilot flight crewmember of a civil aircraft of the United States, unless that person: (1) Has in the person's physical possession or readily accessible in the aircraft when exercising the privileges of that pilot certificate or authorization — (vii) When operating an aircraft within a foreign country, a pilot license issued by that country may be used. Nor can this rule be interpreted in such a way that the FAA understands European airspace as a single cross-border block. Article 32 b) of the Chicago Convention of the ICAO is unfortunately clear here:

'Each State Party reserves the right to refuse, for flying over its own territory, the recognition of certificates of competency and identity cards issued to one of its nationals by another State Party.' Even a U.S. citizen cannot trust to permanently station a D-registered aircraft in the U.S. and be able to fly with an LBA license.

So: If you still have a third-country flight license, but no EU license, you should try to do so as soon as possible. June 20, 2022 is coming faster than you think!



EASA publishes Guidance on Carriage of Electronic Documents

Increased digitalisation has radically transformed many established processes and practices. The aviation sector is no exception to this and is already a big user of digital data and processes. With the advent of electronic solutions, such as the Electronic Flight Bag (EFB), many of the paper-based documents found in an aircraft, such as manuals or charts, are already carried in a digital format. Aircraft involved in international operations are additionally required to carry originals or copies of certificates and other legal documents. However, ensuring that the correct and updated documents are on board the aircraft can be handled considerably more efficiently with the usage of digital rather than traditional, paper-based documents.

This guidance from EASA is addressed to the Member States and clarifies that there are no obstacles in EU law preventing the carriage of electronic documents for these purposes. The Guidance also provides clarification with respect to the EU legal framework for the issuance of electronic certificates, as well as examples of good practical implementation in Spain.

EASA hopes that this guidance will help the EU Member States and industry to accelerate their uptake of digitalisation. As aviation obviously goes beyond the borders of the European Union, the Agency is also actively cooperating with ICAO and major international regulators to promote the same level of acceptance of digital certificates.

https://www.easa.europa.eu/downloads/134895/en

EASA publishes Easy Access Rules for Standardised European Rules of the Air (SERA)

This Revision from November 2021 incorporates the requirements for manned aviation operating in U-space airspace, introduced to SERA by Regulation (EU) 2021/666.

EAR for SERA are displayed in a consolidated, easy-to-read format with advanced navigation features through links and bookmarks.

The document is available for free download from the EASA website in pdf format and as online dynamic publication, and will be updated regularly to incorporate further changes and evolutions to its content.

https://www.easa.europa.eu/newsroom-and-events/news/easa-publishes-easy-access-rules-standardised-european-rules-air-sera

Fit for 55 and ReFuelEU Aviation



The EU has set ambitious targets to reduce net emissions with the aim of becoming the first climate neutral continent by 2050.

Detailed goals and milestones are laid down in the first ever <u>European Climate Law</u> and in the 'Fit for 55' package, setting out an initial target of reduction in emissions by 55% in 2030 (compared with the level of 1990).



We have compiled information on how this will impact air transport, and specifically the important role sustainable aviation fuels will play.

BOOSTING SAF UPTAKE IN AIR TRANSPORT

As part of the 'Fit for 55' package, the Commission proposed to boost the uptake of sustainable aviation fuels (SAF) in air transport.

SAF have a significant role to play in the decarbonisation of the sector, but currently their share in EU aviation is negligible.

You can find more information on Sustainable Aviation Fuels, in our previous article on EASA Light.

ALL FLIGHTS FROM EU AIRPORTS TO USE SAF

The proposed rules set out EU-level harmonised obligations on fuel suppliers and airlines to scale up the uptake of SAF, by introducing a mandate applied to all flights departing from European airports.

This means that every flight leaving the larger EU airports, will carry a minimum amount of SAF, no matter whether the airline is an EU airline or not.

The table below shows the binding SAF targets, starting with 2% in 2025 and reaching 5% in 2030.

In order to meet the EU's climate objectives, it is expected that by 2050, at least 63% of all aviation fuel used for flights departing from EU airports should be SAF.

Synthetic fuels (or e-fuels) will play a major role in the decarbonisation of the air transport market and have great potential. The proposed rules therefore set a sub-target to ensure that a certain amount of SAF used are synthetic fuels (see green reference in table).

TOTAL SHARES IN FUEL MIX

	2025	2030	2035	2040	2045	2050
Percentage of SAF used in air transport:	2%	5%	20%	32%	38%	63%
Of which: sub-mandate Synthetic fuels (or e-fuels):	-	0.7%	5%	8%	11%	28%

WHAT SORTS OF SAFS ARE CONSIDERED?

Looking at the range of SAFs and their respective feedstock, the regulation considers the following SAF categories:

- So-called advanced biofuels, which are fuels that are produced from feedstock listed in Annex IX, Part A of the Renewable Energy Directive
- Fuels produced form feedstock listed in Part B
- Synthetic Aviation fuels (Power-to-Liquid or e-fuels)

The fuels also need to comply with the sustainability and greenhouse gas emissions criteria laid down in the Renewable Energy Directive.

SYNTHETIC AVIATION FUELS (OR E-FUELS)

Synthetic fuels, e-fuels or Power-to-liquid (PtL) fuels are fuels made from renewable sources other than biomass, e.g. wind and solar power. As a basic explanation, the renewable energy and water are used in an electrolyser to produce hydrogen, which is subsequently synthesised with CO_2 into syngas. The resulting syngas is then further processed into fuel.

LONG-TERM POLICY FOR SAF

As this represents an important challenge, the objective of the proposed Regulation is to provide a long-term policy to ensure that the aviation single market is well equipped for the mandatory



blending of SAF into conventional kerosene and provides the necessary push for investments to increase SAF production capacity.

EASA'S TASK - MONITORING & REPORTING

Within this proposal, EASA is tasked with monitoring and reporting tasks which will ensure the obligations are met and that will provide important insights into the evolving and growing SAF market.

This regulation will be an important pillar in making aviation fit for the future by ensuring a well-functioning market providing sustainable mobility for benefits of citizens. It will position EU as the global leader on cutting-edge transport fuels and, most importantly, offer substantial climate benefits by significant in-sector emissions savings.

https://ec.europa.eu/commission/presscorner/detail/en/ip_21_3541

AOPA Works for YOU

AOPA speaks up in your favour whenever infrastructure or equipment changes, or new requirements are about to occur or when new rules and regulations and procedures are to be introduced. Through its representation in international organizations dealing with institutional and regulatory issues affecting civil aviation, AOPA is frequently consulted: "What is your opinion?" and we offer sound, professional advice and positions in the interest of General Aviation and fairness in the skies.

AOPA Luxembourg comments: AOPA is always present, nationally and internationally, to comment and step in if necessary, for example when changes are likely to adversely influence general aviation operations.

NATIONAL COOPERATION

AOPA is a member of all national commissions and working groups dealing with aeronautical issues.

Also, in 2021 AOPA Luxembourg has brought forward and contributed important items with the Luxemburgish Administration:

- U-Space (Rulings for airspace for Drones (UAV)
- Noise abatement possibilities
- Parking space at ELLX
- Aviation Fuel availability
- Aerospace Hub in Luxembourg

AOPA has thus a direct influence on proposed rulemaking and legislation. AOPA opposes decisions that violate international agreements, standards or constitute a discrimination of General Aviation.

International Cooperation

AOPA and the European arm of IAOPA are excellent partners in promoting GA views and requirements. They coordinate opinions with the European authorities involved.

Current cooperation is on:

- U-Space (Rulings for airspace for Drones (UAV)
- ADS B evolution for GA



Aviation Fuel

AOPA has access to ICAO, EASA, EUROCONTROL, EUROPEAN COMMISSION, JAA and other organizations operating world-wide through IAOPA. It thereby obtains first-hand information and has the opportunity to influence developments at international levels.

AOPA GETS THE BEST OUT OF YOUR FLYING PASSION

In Luxembourg, we are known as the non-profit organization AOPA Luxembourg asbl and we're aiming as well promoting your freedom to fly in Luxembourg and throughout Europe. We serve the interests of our members as aircraft owners and pilots, promoting the economy, safety, utility, and popularity of flight in general aviation aircraft. That means we cater for all pilots and owners of any kind of general aviation aircraft, including fixed-wing singles, twin piston and turbine, microlights, gliders, airships, helicopters, and balloons.

We organise many events throughout the year, most of which have a long tradition. Volunteer members of the association and friends organise Fly-Outs and Rallies, as well as Safety Seminars. Well known regular events include among others:

- AOPA Safety Seminar
- NAV Refresher Fly Out
- Hans Gutmann Long Range Rally
- Mountain Flying Fly Out and Training
- AOPA-Rally

Through IAOPA, the international community of national AOPA's, we have access to many special member benefits for aviation and navigation products, airport fees, hotels, rental cars etc.

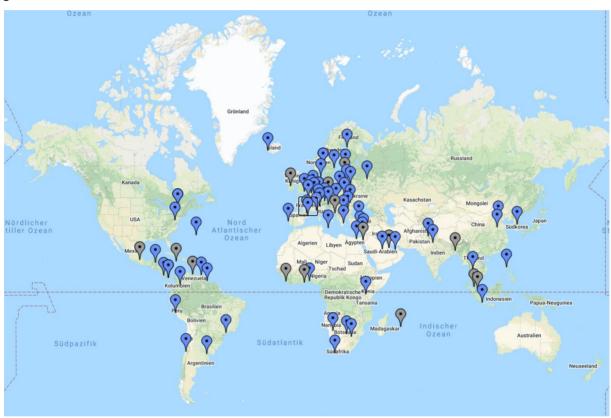




About AOPA and IAOPA

By Peter Sodermans

Our non-profit Luxembourg Pilots association is indeed the Luxembourg branch of AOPA, which was created in 1932 in the USA. Throughout they years, AOPA served the interests of its members as aircraft owners and pilots, and promotes the economy, safety, utility, and popularity of flight in general aviation aircraft.



Countries with an AOPA organisation

Now, it is an organisation with some 400,000 members worldwide. AOPA USA is the biggest one and the largest, most influential general aviation association in the world. It is providing member services that range from representation at the federal, state, and local levels to legal services, advice, and other assistance. This prominent position of AOPA was achieved through effective advocacy, safety education and training, enlightened leadership, technical competence, and simplyhard work.

But there is also IAOPA! www.iaopa.org This is the International council of AOPA which we are an active part of. There are some 79 IAOPA Member Organisations, a number which keeps growing. IAOPA obtained official observer Status with ICAO (International Civil Aviation Organization) and we are proud to note that nearly half of the pilots worldwide are a member of AOPA. IAOPA-Europe is a group within IAOPA focussing on matters of European Interest.

The numbers of members outside of the USA are varying a lot. Given the size of our country, we perform particularly well with Luxembourg.



