



Minutes EHPU AGM Stockholm 2020-02-08

Participant delegates:

Hans-Peter P Fallesen (SE), Martin Will (SE), Patrik Gårdmo (SE), Sanne Both (NL), Mark Shaw (UK), Marc Asquith (UK), Angus Pinkerton (UK), Esther Rodriguez (SP), Javier Gonzalez (SP), Thomas Senac (FR), Marion Varner (FR), Urs Frei (CH), Christian Boppert (CH), Charlie Jost (DE), Robin Friess (DE), Karl Slezak (DE), Helmut Bach (DE), Ewald Kaltenhofer (AT), Bojan Žižmond (SL), Trond Nilsen (NO), Rodolfo Saccani (IT), Miroslav Fejt (CZ), Antonio Fernandes (PT), Valentin Popa (RO), Steen Poulsen (DK), Laszlo Szollosi (HU)

Absence:

Jean-Yves Squifflet (BE), Veronique Gensac (FR),

Invitations:

EAS President Andrea Anesini (IT)

1. Opening of EHPU AGM 2020

President Hans-Peter P. Fallesen opened the meeting and welcomed everybody.

2. Presentation of Delegates

Each delegate presented themselves.

Voting

Meet director: Hans-Peter P. Fallesen

Secretary minutes: Martin Will

Signing of minutes: Thomas Senac and Steen Poulsen.

3. Non-European Observers

Invitation were sent to USA, Canada, Australia and New Zealand.

No answers have been received.

4. General secretary report

Bojan Žižmond presented his report. See Appendix 1.

5. Work of Management Committee

Hans-Peter P Fallesen presented his report. See Appendix 2.

6. ESTC report

Rodolfo Saccani presented his report. See Appendix 3.

7. WG 6 Report

Angus Pinkerton presented his report. See Appendix 4.

8. Environmental Officer's report

Thomas Senac had nothing to report.

Christian Boppart informed the meeting that Switzerland has initiated a project to investigate the impact on nature from HG/PG.

9. U space and Electronic Conspicuity

EAS President Andrea Anesini informed the meeting of the current situation.

Huge forces are moving to acquire control lower airspace (U space), e.g. private air controllers, private airports, amongst others. These players are very rich and do a lot of lobbying. They have very little interest in acknowledging our needs.

The EHPU represents 1/6 of all EAS members. Andrea's vision is that EAS shall take care of the whole family of flying members. Historically, EAS has had its focus on General Aviation.

The common principle today when talking about airspace is "See and be seen".

That does not apply 100% to HG/PG. We do not need to "see" (and the distraction of looking at a screen could be dangerous in the environments we fly in). EAS' point of view for solving this is by cheap and simple technology. EAS has formed a technical working group of which Rodolfo Saccani is a member. EAS needs our knowledge in this field.

Andrea also pointed out the necessity for EAS to be active and pro-active against EASA.

10. Introduction of the new Airspace Officer, and his report.

Helmut Bach introduced himself to the group and made a report. See Appendix 5.

Helmut asked for help from each country to inform him if there is anything special going on regarding airspace.

11. "Reply of Questioner to paragliding manufactory's"

Marion Varner had asked the General Secretary to send out a questionnaire to all paragliding manufacturers. The aim of the questionnaire was to get information from each manufacturer about how many gliders they have sold in each test class (EN A-D).

Bojan informed the meeting that only one manufacturer had responded (Nova).

12. Report from CIVL AGM

Robin Friess made a short report, having participated in the meeting.

The most interesting topic from the EHPU point of view was the addition of a Class 6 (Tandem) on the IPPI card. The amendment had already been asked for in 2017. In 2018 it was withdrawn by the assembly, but in November 2019 it came back on the agenda and was implemented by the bureau. There was no further vote at the plenary after noticing that there were several concerns mentioned by several nations.

Germany had suggested the following proposal which was approved unanimously:

World and European Championships may comprise hang-gliders in each of Class 1, Class 5 and Class 1 Women combined. In the event that an organiser submits a bid for a combined championship including any combination of Class 1, Class 5 and Class 1 women, such a combined competition may be held in the odd-numbered year.

FAI in general seems to have some internal problems after failure with World Air Games. FAI's President Stephane Malbos had reported that the FAI lost about 1 million € in marketing expenditures. They have also lost some big sponsors (Breitling, Red Bull).

The next CIVL meeting takes place from the 4th to the 7th of February 2021 in Belgrade.

13. EHPU European Accident Database

Karl Slezak made a short presentation of the EHPU European Accident Database. He has been approached by a manufacturer who would like access to the database to see incidents where their equipment was involved. This is technically feasible and the database could easily perform this function, but it still requires a lot of work and costs for DHV. An initial cost of 3000 to 4000 Euros was mentioned. Discussion followed. The issue of fake data was discussed, and the group considered the creation of a separate database for manufacturers. The forum generally supported the idea of manufacturers having access - it could be a positive step in improving information for manufacturers' development work, and would create an additional income for EHPU.

DECISION: The Management Committee should take on this task, and

then circulate a proposal for approval.

ESTC was given a work task to see if reports of accidents could be made even better.

14. EHPU EPI card report

Rodolfo Saccani made a report.

The work initially sprung from the lack of interest from CIVL to handle the tandem issue. The AGM in Madrid 2019 tasked ESTC to start working on a proposal for a European tandem 'equivalency' card, enabling a bearer to carry a recognition for his/her tandem qualification that is recognised across European flying associations.

A subgroup within ESTC have put a lot of work into this task. They have come to the conclusion that it is not a good idea to have the tandem qualification only via IPPI. They are also not satisfied by the new IPPI class 6 Tandem. The name presented by Rodolfo for the proposed new European equivalency system is EPI (European Pilot Identification).

The ESTC subgroup have asked for information from all EHPU members about their national requirements for their tandem licenses.

A big advantage with the EPI card is that it is controlled by EHPU, while the international IPPI card is outside EHPU control. It is rumoured that some NACs just issue the IPPI card to get an extra income.

ESTC has also started looking into expanding the EPI card to include solo requirements. ESTC believes that in the future there will be requirements from EU about a standardised education system. With the EPI system we would be "a step ahead".

Rodolfo showed examples of possible designs of an EPI card. It could either be a separate card or printed together on the license card that is issued by associations. There are lots of more details, and all are encouraged to read the full report. See Appendix 6.

Rodolfo asked for a vote on further work on this task. Should ESTC continue working with creating an EPI system?

DECISION: ESTC should continue with the work and present a concrete proposal at the next AGM.

France and Switzerland voted against supporting the proposal in its current form.

15. Report from EAS meeting Lisbon

Marc Asquith made a short report. EHPU were represented by General Secretary Bojan Žižmond, Antonio Fernandes and Marc himself. EHPU made an approach at the right time and was able to show that we are to be counted

in the future, as we represent 1/6 of all EAS members. We shall continue our presence at EAS and our goal is to get one of us onto the board of EAS.

16. Presentation of EHPU Powerpoint file

Bojan Žižmond presented the Powerpoint document describing the EHPU and its work. See Appendix 7.

17. EHPU home page

Our home page has been renewed by links to Safety Notices and EHPU flight rules.

In the near future there will also be new possibilities to store all our documents on our internal site. Robin Friess will send out instructions as soon as it is implemented.

Delegates agreed that the look and function of the home page is very old-fashioned. To make a new, updated and modern version would cost an estimated € 2.500, using DHV's assistance.

DECISION: We shall renew our home page.

19. Change of statutes

Hans-Peter P. Fallesen presented an amendment to our statutes. See Appendix 8.

It will be voted on at our next AGM.

20. Result 2019, Budget 2020

Treasurer Marc Asquith was to make a presentation but had a problem with his voice. Hans-Peter P Fallesen took over the presentation. See Appendix 9.

DECISION: The budget for 2020 was approved.

21. Elections

President: Urs Frei (CH) was elected

Treasurer: Hans-Peter P Fallesen was elected

General Secretary: Mark Shaw (UK) was elected

Airspace Officer: Helmut Bach (DE) was elected

Management Committee: Urs Frei (CH)

Hans-Peter P Fallesen (SE)

Robin Friess (DE)

Marion Varner (FR)

Marc Asquith (UK)

Bojan Žižmond (SL)

were elected to the Management Committee.

21. Next year's presidency

Leaving president Hans-Peter P Fallesen thanked all for their good support in his work. He handed over the presidency to Switzerland together with a chairman's gavel as a present and wished Urs Frei good luck as EHPU President 2020.

22. Next year AGM

Urs Frei informed that the date for next year AGM will be 20th February 2021.

Most likely it will take place in Villeneuve, Switzerland.

Marc Asquith informed the group that the UK (due to hold the presidency after Switzerland) has already started planning the 2022 meeting. It will be hosted at a location in the north of the UK (delegates expected to fly into Manchester), and the meeting date would be 5th of February 2022.

23. End of meeting

Hans-Peter P Fallesen thanked everybody for a good and constructive meeting and closed the 2020 AGM.



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Sign of minutes

Thomas Senac

Sign of minutes

Steen Poulsen

NOTE:

Thomas Senac has elected not to sign the minutes because individuals' names rather than Federations are recorded as being elected to the Management Committee. Whilst the statutes say that appointment to the Management Committee is for elected delegates rather than Federations, it has highlighted an issue that will be dealt with by an amendment of the statutes which will be considered at the next AGM.



General Secretary report EHPU AGM 2020 Stockholm

Dear delegates ,

First year of my work is ended. We started very active. After my election for General Secretary in Madrid I have small problem to get all documents from my predecessor Arne. In order to avoid such unpleasant events, I wish that all the information, documents and the work of the Secretary Managing Group, ESTC,... are stored in a place where authorized personnel will have access. I hope this solution we can resolve in this year for better future work.

First we visit EAS AGM in Lisbon. With good presence of EHPU , Antonio Fernandez, Marc Asquit, Steen Poulsen, and me we are been good team on this meeting. More about this meeting Marc can say two words after. I would present in short way the fact of membership in European Air Sports is:

- More than 100.000 pilots we are huge member union. The second.
- We represent one-sixth of all members
- We don't have no any delegate in member board (means we don't have power to create our needs) It's only my personal meaning
- We pay each year big bill for this organization without no any benefitts.
- In this moment EAS following and working for other air sports. Air sport wich it was before our.

Our future membership in this big organization need active work. Our presence on their meetings must be more than one person. We need to create our needing.(EASA flying rules for all Europe, Flying maps for all EU, maybe education system,)

Before Lisbon we have first internet meeting where we made proposal of different important points. Internet meetings we done 05.03.2019, 18.04.2019, 19.06.2019, 16.09.2019, 20.11.2019, 09.01.2020 Total was six meetings. All minutes you have under internal on our web page. Username: member Password: flyhigh. Some of this thematic we can listen on this meeting some is still under construction and some we done.

- We work on SERA common flying rules
- EPPI card
- Presentation EHPU within new power point file
- How to save all EHPU documents and where.
- Can we made accident data base for public
- U-urban space proposal for EASA
- Invitation Non EU observers
- Link under each flag to flying rules in each country
- Renew of our home page
- Link of SERA common flying rules

- Link of safety notes on our home page
- Question to all manufacturers about quantity of sold gliders in different class.
- Invitation of European non member country to join us.
- New airspace officer Mr. Helmut Bach

ESTC in Nova Gorica was under my organization. My feeling was very good regarding decision to made proposal for EPPI card and decision to have link all safety notes on our home page. Night before meeting we have interesting discussion about folding lines and comment together with Slovenian paragliders maker brothers Valič. Mark Shawn show us very good results of the research task of opening reserve. You can find on youtube <https://www.youtube.com/watch?v=HS1ppN6vw4&t=1735s> and each pilot need to watch. The move is instructed. ESTC group for EPPI card have meeting 24.11.2019 in Gmund am Tegernsee (Germany) The Rodolfo team make excellent work. Thank you Rodolfo and team.

Conclusion of all meetings and of course decision on last AGM in Madrid to create Managing Group (MG) was correct and efficient. The idea to create MG was in precedent Secretary report 2015. It's really a pity we didn't make that decision earlier. Now we need to fly active. The way back is gone. If all agree to push this Union step up then we can do it together.

I would like to say thank you Hans Peter for very good cooperation and excellent work. It was pleasure to work with you. Each of us can make some small step for this union.

My work in this union is began I like team work and I like to keep it in next year if you are satisfied with me of course.

Thank you for attention.

Bojan Žižmond



Report from Management Committee 2019

Participants:

President	Hans-Peter P Fallesen (SE)
Treasure	Marc Asquith (UK)
General secretary	Bojan Žižmond (SL)
Delegate	Christian Boppart (CH)
Delegate	Robin Friess (DE)
Delegate	László Szöllösi (HU)
Delegate	Marion Varner (FR)
Adjunct	Rodolfo Sacconi (IT) ESTC chairman

2019 became a major change in the work of EHPU.

Following up the work and proposal of former general secretary Arne Hillerstad (NO) EHPU decided on its AGM in Madrid to create a Management Committee.

Under lead of HP P Fallesen the committee started up with its first internet meeting 5:th Mars. During the year there have been 6 meetings. Minutes from meetings have been circulated to all delegates.

The committee realised that it would be of great advantage if the chairman of ESTC also could attend the meetings. Rodolfo participated as adjunct at meeting no. 5 and 6.

Major task assignments 2019

- U-space
- Building up relations, and work with EAS
- EPI card
- EHPU accident data base
- Air space manager
- EHPU presentation material
- Renew EHPU home page
- Contact EU association still not EHPU members

- Invitation to non EU associations as observer at AGM
- Link to national flight rules at EHPU home page

The Management Committee was proud to announce the election of a new Air space manager Helmut Bach in January 2020.

For details about above look at the Management Committee minutes.

I would like to thank all participants during the year for good and efficient work together.

I wish the new Management Committee 2020 good luck and keep up the good work.

Hans-Peter P Fallesen

President EHPU 2019

ESTC chairman report

This report summarizes the activities of ESTC since EHPU AGM 2019.

EHPU accident database

The accident database now contains over 5500 accidents. This is valuable data that can be used for preventing accidents in combination with expert analysis. An automatic statistical analysis is not very effective for many reasons among which the fact that the numbers are small (for example one fatality per year for landings in water should trigger our action but the numbers are too small to be caught by an automated statistical tool). Some analysis is so complex that it cannot even be formalized into an automated tool.

This is why ESTC appointed Karl Slezak to keep an eye on the numbers of the accident database, perform expert analysis and alert us when something requires attention.

Karl performed an analysis on accidents involving rescue parachutes and reported about many interesting findings:

- When maximum weight of the parachute is less than 20% higher than the total weight in flight, serious consequences start to arise on landing.
- This leads to the advice to keep the maximum weight of the parachute at least 20% higher than the total weight in flight. Example: total weight in flight 100kg, then the parachute should have a maximum weight of at least 120kg.
- This probably happens because the testing on rescue parachutes is done with a maximum acceptable vertical speed of 5.5m/s, which is ok in order to save lives but too high to avoid physical consequences on landing.
- Also, the test is done by disconnecting the glider which is an ideal and unrealistic condition.
- Round canopies are behaving well as long as the above mentioned weight constraints are respected.
- Incompatibilities among rescue components are decreasing.

- A few data is available on the use of steerable reserve, this small amount of data suggests a high incidence of misopenings (for example line-over). Packing of these rescues is complex and the use of these rescues seems not to be suitable to non-expert pilots.
- Launching too late is still an issue, the perception of time is altered during an emergency and attention should be posed to suggesting prompt action to the pilots.
- Front containers with soft (non-rigid) construction and/or only two attachment points can make parachute extraction harder: when pulling the handle the container deforms or moves requiring a bigger pull.
- With pod harnesses it is quite common to get a twist after a big collapse. Pilots flying with stable gliders may underestimate turbulence and end-up getting a big collapse that ends up in a twist.
- About one fatality a year is related to the rescue getting caught in the glider and not opening or not opening completely.

Other findings:

- Analysis of fatal accidents on C gliders involving the pilot falling into the glider after a collapse suggests that C gliders may be getting more demanding and that collapses simulated during SIV courses may not be that realistic.
- Collapses ending up in a cravat followed by a spiral are observed with high- end B gliders, not observed on low-end B gliders
- In general, performance of gliders seems to be over-estimated: only 18% of pilots perform XC flying or participate in competitions

ESTC also discussed about giving to manufacturers access to the database. We agreed that manufacturers could have access to accident data (cleaned by all data that could lead to personal identification) as long as they cover the development costs for this new feature.

IPPI rating

A comparison between the old IPPI SafePro requirements and the new ones performed by Dave Thompson has been analyzed by ESTC. The new requirements have been criticized by many ESTC members and considered non-practically usable (especially level 4).

ESTC discussed at length the issue and took the decision to start a working group with the task to create an EHPU rating standard both for tandem and solo.

The working group gathered and compared information about the training standards, compared this with the minimum requirements for foreign pilots in different countries and defined a standard that matches this standards so that a pilot with an EPI card can be

recognized and accepted in the hosting countries because the standard guarantees that the minimum requirements are matched.

A separate document has been provided to explain in detail the proposal for this new EPI standard.

EAS, u-space and electronic visibility

Andrea Anesini, EAS president, has been a guest of the ESTC. ESTC discussed the issues related to the upcoming u-space legislation and decided to appoint Rodolfo to start a discussion with EAS.

Later on, Rodolfo has entered the EAS working group about electronic conspicuity, participated to a few meetings and circulated information about the specific characteristics of free flight leading to a proposal of:

- Not requiring that we see other traffic: to be seen is acceptable but we should not be required to electronically monitor surrounding traffic
- Proposing to use the smartphone as the means of sharing positioning information

The discussion is still going on.

Certifications

ESTC keeps pushing for objective measurements in the certification process. This should be the priority in the certification process because as long as we are not capable of measuring the parameters that define the glider classification it is pointless to make adjustments to the classification itself.

ESTC also took position against the proposal to extend the use of folding lines to the certification of C gliders and to the removal of many constraints to the geometry and positioning of the folding lines.

Flying rules

ESTC keeps pushing for the adoption of thermal flight rules in SERA. The discussion is still progressing with EAS.

Research on human factors and physiology

A very interesting study has been published in UK on the use of rescue parachute in conditions of cognition overload.

The study lead to very interesting recommendations to manufacturers (in particular about the positioning of the handle and the direction of the traction).

This branch of research on “extreme sports” is growing worldwide. In July 2019 I have been invited to hold a speech at the 1st extreme sports medicine congress (around 120 researchers participating from 4 continents). Connections are now in place and we have been offered to be connected to researchers who are willing to research on free flight. We have the chance of proposing research topics on our sport. Whoever has ideas and/or is interested please get in touch with me.

EHPU safety notice system

A proposal of setting up an european safety notice system to collect, dispatch and publish safety notes with common processes and standards has been discussed.

Currently not all safety notes reach all pilots, not all the safety notes are of the same quality. A single safety notes management process would solve many issues.

The discussion on how to get it is still going on.

Rodolfo Saccani

EHPU 2020 Annual Meeting (Stockholm): Airworthiness Officer's Report.

Airworthiness Standards Development.

Four Working Group 6 (WG6) meetings were held in 2019, two physical meetings and two meetings by web-conference. In addition, work was undertaken between these meetings by the members.

EN 1651 paraglider harness standard.

At the beginning of 2018 the revised paraglider harness standard EN 1651 was published, however the requirement for an amendment was identified last year to add a test to measure the force required to deploy an emergency parachute inner bag from an integrated outer container (built into a paragliding harness). In addition an amendment to the manufacturer's attestation in Annex A was also approved, to assist manufacturers in correctly recording on the attestation form the tests they perform to demonstrate deployment of the emergency parachute under g force. Publication of the revised standard is expected before summer 2020.

EN 12491 emergency parachute standard.

Following practical experience of using the emergency parachute standard EN 12491 for testing, the Swiss and German Working Group 6 members raised a number of formal comments about the experimental impracticality of measuring the horizontal air speed and glide angle of emergency parachutes (as required by the standard). The Working Group has addressed the comments through the formal amendment process and removed this requirement.

Significant work was made on a proposed revision to this standard to classify emergency parachutes into two definite categories – those that are drag-based and those that work on the principle of gliding flight (such as ram-air or Rogallo types). Drag-based emergency parachutes will be sub-categorised into non-steerable and "orientable". For both types, the descent is near vertical, but the orientable emergency parachute has controls allowing the user to rotate the parachute by changing the yaw orientation and hence allowing landing facing the direction of travel. This work will be progressed as a future revision.

EN 926-2 paraglider flight safety characteristics standard.

Amendment to current standard:

Although it has been agreed that a full revision of the standard will be undertaken, the Working Group obtained approval from CEN to deal with amendments on some specific items in the current (2013) standard, rather than waiting for them to be incorporated into the full review of the standard. This year, a formal vote on folding lines approved the option to use them on EN-C class paragliders. A test pilots' symposium took place in 2019 which generally supported folding lines in the EN-C class. The symposium provided to WG6 useful information on asymmetric collapse testing and recommendations on the use of folding lines for the performance of the tests.

Systematic Full Review Project:

The five-year systematic review of the standard began in 2018. Over the last year, WG6 has examined the existing classifications; the existing flight tests; the addition of new flight tests; the incorporation of new technology to gather test data, and the information given to pilots in users' manuals.

The original EN class definitions were intended to make it easy for manufacturers to design paragliders for pilots, based on their piloting skill levels and experience. In practice, some "high-end B" gliders are really more suited to "C-class" pilots. Had the original intention of the standard been followed, these gliders would probably have been classified as "EN-C", notwithstanding the 'lower' results they achieve in the flight tests.

WG6 has examined the four classes in the current standard, taking into account the feedback from the survey promulgated by ESTC in 2018. Many survey responses echoed popular opinion across the market that a wide range of gliders exist in the B Class. Data shows that over 50% of all gliders on the test houses' databases fall into the EN-B class - almost twice as many as the EN-A class. WG6 proposes redefining the

B class by splitting it into two. There has been much discussion and debate about how to label this new class definition, the current favourite is to use B+ (being the 'lower' B) and B (being the 'higher' B). We believe that one of the causes of the classification problems has been the inclusion of pilot skill descriptions in the EN Class definitions. The EN Flight Tests do not measure pilot skills, they only measure the response of a glider to simulated turbulence. To make this distinction clearer, the pilot skill definitions in the current classification system will be removed. The new, refined and extended class definitions will describe how paragliders react when put into test manoeuvres, and the piloting inputs required to recover to normal flight.

As well as examining the classifications, the WG has begun to review the current flight tests and examine the possible addition of new tests, as well as the possibility of omitting a few of the existing flight manoeuvres. It is important to point out that any additional tests will incur additional costs that will be passed on to the glider purchasers.

The potential benefits of the use of data loggers to measure flight characteristics during tests has been recognised for some time, and in their submission to WG6, the ESTC promoted this development. A subgroup of WG6 has been tasked to explore the use of data loggers to collect test data on variables such as altitude, pitch angle, g force and yaw/rotation angles. The next step will be to identify the tests for which data loggers could be used, and then to start collecting data. The group has identified the benefit of collecting data from EN-B paraglider flight tests to inform the proposed splitting of this class. In addition, the Working Group will likely require additional cameras to be placed near the test pilots.

Manufacturers are currently required to make recommendations in the user manual on the levels of pilot skills for safe operation of the paraglider. The Working Group is exploring the use of standardised words and phrases to ensure consistency and clarity across manufacturers. We will continue to encourage Pilots' Associations to make recommendations to their members about the levels of skill and currency that they recommend before flying gliders in different classifications.

Work for 2020

In my last report I noted that a two-year period of research and meetings would be anticipated in order to conclude the EN 926-2 review, including time to practically test revised flight test manoeuvres. We now expect that suitable data logger technology will be available at realistic cost during the next two years, and are planning to develop test requirements making use of this technology. As this is a significant change of philosophy, and a significant body of work, I anticipate that two seasons' data will need to be collected in order to analyse the effectiveness of data loggers.

The technical amendments that have already been proposed to EN 926-2 will be incorporated into the existing standard through the amendment process.

The paraglider load test standard (EN926-1) and the emergency parachute standard (EN1 2491) were published in 2015. They are now due for review in accordance with the standard five-year review cycle.

The Working Group has already planned a two-day physical meeting in Nice in March 2020. A further physical meeting and other web meetings will be held later in 2020.

Impact Pads (back protectors) as Personal Protective Equipment (PPE) in France

This issue potentially affects both French-made harnesses with impact pads, and those made in other countries that are intended for sale in France.

As I informed you in 2019, the French Directorate General for Competition Policy, Consumer Affairs and Fraud Control (DGCCRF) directed a French accredited laboratory (CRITT) to establish whether paragliding impact pads are PPE, and to formulate its own impact pad certification test. I wrote to the PPE Working Group setting out reasons why Working Group 6 considers that harness impact pads should not be classed as PPE. I am disappointed not to have had a response from the PPE Working Group, so I have asked AFNOR to facilitate WG6 joining the PPE Working Group to ensure that this issue is resolved.

Funding of WG6

AFNOR has provided a formal activity report (which I have circulated with this report) and a budget estimate

for their Secretarial expenses in 2020 of €8000 (the same as last year).

I would remind you that there are many other expenses involved in the work of WG6 which are directly funded by the participating Associations, Test Houses and Manufacturers.

Following the discussions and decision last year, I request that the EHPU continue to fund the essential secretarial expenses.

Future Standards: What else might be useful beyond 2020?

Hang gliding harnesses - both strength and function (particularly the ease of getting into a landing position).

Hang gliding parachute deployment systems (the emergency parachutes can already be tested under EN 12491) – but here we would mainly be concerned about the head-down pilot attitude when descending under an emergency parachute.

Speed Flying wings - some mini wings are tested to EN 926-2, but many of the <16m² wings designed for high wing loading flight are only strength tested to EN 926-1.

Paramotor Wings - (complex and innovative designs with trim tabs, tip steering systems, reflex designs - requiring different flight test requirements). There is a trend in some countries for pilots to use highly loaded smaller wings at all-up weights giving wing loadings similar to those of small speed wings. Some users (and some manufacturers) refer to the DGAC expanded weight range as a "DGAC certified weight range", but the DGAC is not an independent certification, solely a manufacturer's declaration.

If any of these standards were considered desirable by EHPU Members, further funding would be necessary.

Closing Remarks

I would conclude by thanking again the EHPU and all our Presidents for their support in their home Associations. Without this I am sure that the significant safety progress we have made so far would not have been possible.

Angus Pinkerton
EHPU Airworthiness Officer
February 2020

I was asked by Bojan to make a small presentation of 15min.

Initially I wasn't sure of the subject, but, as I am applying for the job as "airspace officer" I thought I might as well talk about just that: Airspace.

You will find enough details about me anyway in the following 15 min or so.



Why?

When we muse about our needs for paragliding, we think of our equipment and some flying sites. Even today, when I travel and look at the scenery, I never stop thinking whether this could be a good launch site. I just can't stop it, it's a disease.

But never do we question if the sky above that potential flying site could be occupied or blocked by someone.

I can't spare you a little bit of history:

When I started Hanggliding in 1972 the responsible ministry in Germany allowed flights up to 150m above ground level. This was more altitude than we wanted to fall from one of these contraptions - and we were happy with it.



But every consecutive year brought us newer and better hanggliders (They were more expensive too) and we started flying away from the mountains and entering realms where others had their grandfather rights: Single engine airplanes, sailplanes, balloons, jets.



Airspace seldom was a problem: We were pretty ignorant about it as we had other problems: We flew, we crashed, some died.

The regulators still didn't want to have anything to do with us and were happy when the DAeC (German national aeroclub) promised to take matters in its hands.

Mostly, they took our money in their hands and that was it... We carried on.

But, we wouldn't be Germans if we could have lived without a decent Verein (which is German and means "club") and some regulations for long. So, in order to prevent us from hurting ourselves on a regular basis, the DHV was founded in 1979 and things really began to improve.

The eighties:

In 1980, when I started my professional career flying B727 for Lufthansa, we were even fitting engines to our gliders, commercial air traffic volume was low, and the control zones were small.



Live was good. That is, by the way, a B727...

It all changed in the eighties when cheap airfares became available, airlines and ATC became privatized, governments bought more military aircraft, and paragliding developed quickly into something flyable, and GPS was developed.

From 1980 until today, controlled airspace below FL100 (where we are allowed to fly) has grown by almost **200%**, while at the same time the number of Hanggliders and paragliders grew from about **4000** to **10** times that number: **40000** !

Passengervolume also has increased **4** times (Frankfurt 1980: 18 Millionen Passagiere, 220.000 movements, 2018: 70,5 millionen, 513.000 movements)

(DHV: Ca. 40.000 Piloten

Glider: Ca. 27.000 Piloten

DFV: Ca. 6.200 Piloten

UL (DULV): Ca. 5.500 Piloten in Deutschland

Anzahl Segelflugzeuge: Ca. 7.300

Einmotorige Flugzeuge bis 2 to Abfluggewicht (E-Klasse): Ca. 6.500

Ein- und zweimotorige Flugzeuge zw. 2 to und 5,7 to Abfluggewicht: Ca. 580

Zugelassene Flugzeuge ab 5,7 to bis über 20 to Abfluggewicht: Ca. 940

Bundeswehr: Ca. 400 Flächenflugzeuge, 300 Hubschrauber

Durch die DFS abgewickelten kommerziellen Flüge im deutschen Luftraum: 3,5 Mio)

As you can see, we are by far the largest community of pilots. !

But, why is restricting airspace getting so much bigger and bigger?

Of course, one of the mayor reasons is the increase in traffic volume.

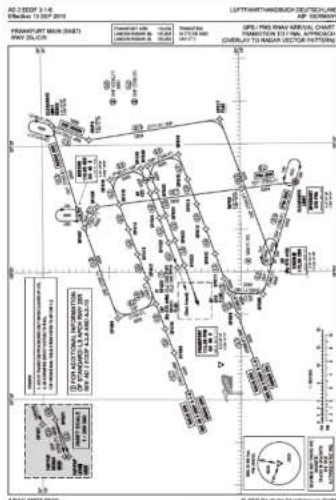
Low fare airlines started using secondary airports like Stanstad near London, Rome ciampigno,

Gerona near Barcelona, and Bergamo somewhere near Milan. Ex Military airports are used:

Frankfurt Hahn, nearnothing.

Airports like London Heathrow Frankfurt, Rome started using their two or three runway systems in

parallel mode, others added more runways to their single runway.

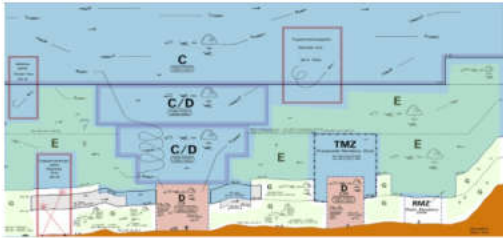


That was pretty cool sometimes, but regulators like ICAO wanted to keep the accident rates low and introduced a system which they called “**simultaneous independent parallel approaches to closely spaced runways**” You can see that not only the Germans make use of long and complicated titles.

Mainly, this procedure has increased the lateral and vertical airspace demand through to new separation criteria. (Schema von Parallel approaches mit STAR auf Flip-chart)

Where are we today?

As an example, let's use this schematic of the airspace structure of Germany today:
It is somewhat similar to airspace structures in other countries.

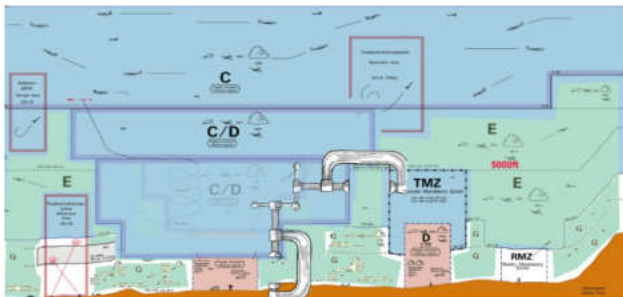


I give you a hint where to find us. The light green shaded area is the airspace we can use as of today. This is what is internationally known as airspace G (Golf) and E (Echo). Unless we have a transponder and a VHF Radio installed we can not use D and C – the blue and the red stuff.

By the way: Please do interrupt me if I talk about something that you might not be familiar with. I have been working with this subject for more than 40 years and it is kind of natural for me. But of course I can not assume that you have the same background – otherwise I wouldn't have to be here. So, please do ask questions!

If you look closer at the airspace boundaries you can find a little device called a clamp.

This is a very useful device and we will see it applied extensively in the future.



As you can see, the lateral and vertical extensions of airspace C/D do of course lessen the available airspace for us. That's not really something new.

Unfortunately, even around large airports like Frankfurt, Munich, Barcelona, Zurich and so on, there are many glider airports and paragliding fields. **Around Frankfurt, we have nearly 20 paragliding fields and the same number of smaller airports with glider traffic which are affected by this so-called "terminal area" Frankfurt.** So, there is a strong interest, to push back C/D or at least keep it at bay. By the way: Remember the **5000ft line** – we will need that soon.

If you think that is bad – it becomes worse:

This is part of the ICAO- Map of Belgium:



Can you find a spot where to fly? Red and red bordered is where we can not fly.



Netherlands:

At least they can fly on the coastline and have some winch-launch sites. XC is ----limited----

What can we do to change this?

I could simple say: Let's have a good airspace officer and I could finish my presentation.

But that's only part of the story. Again, allow me one step back in history.

In the 1980ies, as the airlines and airports demanded more and more airspace, the sailplane fraction of airports started to complain and wanted to see their interests considered as well. Legally, there is no law or paragraph that entitled the so called *private pilots* or *spare time fliers* to be heard.

But, in 1997 the airspace commission of the German aeroclub DAeC and the DHV managed to create a so-called "Luftraumkriterienkatalog" (now that's a word for your German-lessons) an "airspace-criteria-catalogue". Not only did they create it, but they managed to have it accepted by

the ministry of traffic as – and there is another word you need to learn: Verfahrensvorschrift - which means a “**rule-of-procedures**” and is almost as binding as a law: It is a legally binding obligation.

This catalogue of airspace criteria defines which airport gets which kind of airspace-protection depending on the traffic –volume. Smaller airports which only have a few IFR Departures and Arrivals get the very minimalistic RMZ (radio mandatory zone) and have to conduct a major part of their approach in airspace E. Frankfurt gets the whole works.

This developed into an **annual airspace – user – conference**, where delegates of ATC, airlines, pilots associations, military, the traffic ministry, and airports negotiate the demands of their clients.

I want to spare any organizational diagrams but I have to mention that the German Aero club DAeC became pretty incompetent and the glider pilots in that committee separated from the DAeC-they founded the DSV (German sailplane union). This is why you might see in some letters the DSV and the DHV logo side-by-side. Recently we also accommodated the Model-flying Union as well as the skydivers union.



Together or – depending on the task at hand -through mutual representation, we negotiate with the aforementioned stakeholders not only during the annual air-space-users-conference but in many sessions in-between. We are heard, we are considered, and sometimes we win.

Airlines tried to tell us they would need this and that airspace because there is no other way to fly, and all kind of other arguments. As a training captain and examiner on B737 I could rightfully tell them that this is not necessarily so. And I would prove it any time. Slowly their demands became more “civilized” and they accepted compromises. Today, we have a pretty good relationship. It also helped when I changed to a bigger aircraft.

After all: Size does matter !!!



So, this all worked more or less well in Germany, but **why do we need airspace officer in the EHPU?**

We need to expand that knowledge to the EU-wide level

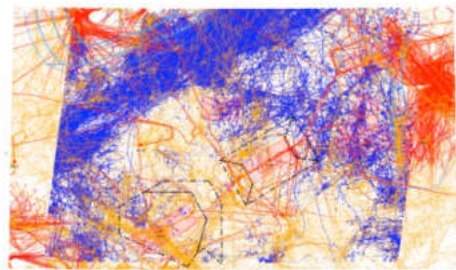
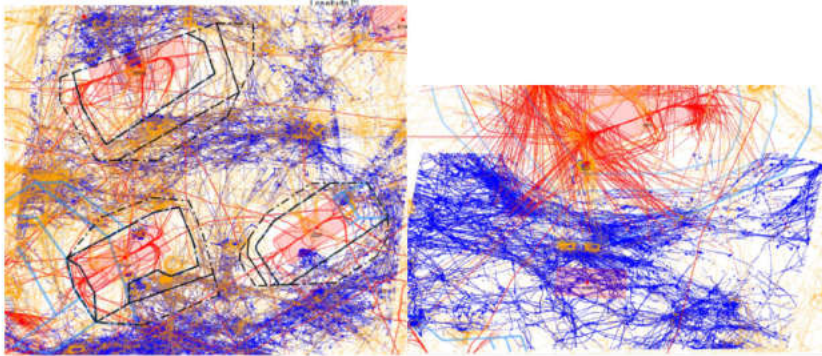
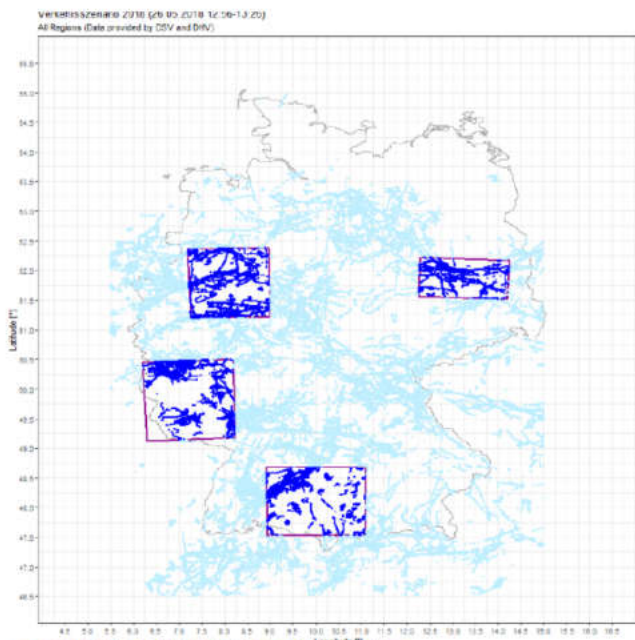
I will give you an example:

You remember that red 5000ft line in the previous schematic of the German airspace? Above that altitude, all general aviation traffic has to carry a transponder. *(It comes with a pricetag of at least 2000€ and has enough power to damage some vital reproduction parts of the pilot.)* Exemption: Sailplanes and all airports where not required to carry one of these monsters. But in 2017, the accident investigation branch of the german civil aviation administration, the BFU, strongly advised that all traffic, including airports, carry a transponder above that 5000ft.

A joined project group **“airspace and safety”** was formed with more or less than the same stakeholders than in the airspace user conference plus manufacturers of certain – now here comes the word – electronic conspicuity (EC) devices.

The German ATC (DFS) carried out very extensive and expensive simulations with data from their own track recordings and data from our online DHV XC servers like OLC (online contest). Everybody was surprised that, on a good summer day, there was much more VFR traffic than IFR traffic.

The following pictures show only the registered tracks of sailplanes and paragliders – on top of that there are at least twice as many pilots flying without downloading their tracks to any server



Eventually, we could prove that carrying transponders would not be the solution to the problem

(would be overloaded, reliability would be down to 82% (99% is required) and airtraffic controllers would be overloaded with information: They would simply blank these signals out. Nobody would have gained from that apart the manufacturers of transponder systems.

The final outcome of several long and frustrating meetings was the status quo: We will continue to educate not only the airports pilots, but also the commercial pilots who have an enormous lack of understanding what is happening around them.

To the **British fraction** of our EHPU this sounds all too familiar: They have had the same requirements slashed at them too, and the outcome of their research was: The same!!!

The **Dutch** have had a similar experience:

Since 2008, General Aviation Airplanes are required to carry Mode-S Transponders at all altitudes. In 2009, Pilots were told that around several larger airports (Amsterdam and so on) they would have to switch of their transponders due to radar clutter. But at the same time they wrote: *To be perfectly clear: the mandatory carriage of a mode S transponder is not changed.*

Now that is a joke to remember.

The consequence however was severe: All VFR Traffic below and around these terminal areas was banned!

If the DHV as a stakeholder in the aforementioned project group (airspace and safety) would have known that the British already had conducted some research, we would have referred to that and could have avoided a potential disaster.

U-SPACE:

Very recently, we were asked to share our opinion about U-space.

EASA through EAS requested our opinion on the:

High-level Regulatory Framework For The U-space (RMT .0230)

I contacted ATC, manufacturers and UAV DACH and commented extensively in this 34 page document. This encompassed not only the German interests, but has Europe wide implications!

We made very clear that we have the grandfather rights and our airspace is not for sale!!

BIS

And just a few days ago, we were told to comment on the BIS **airborne collision Risk** (BIS stands for *best intervention strategy*). If you haven't had the time to read it: In substance, it had again the same subject we had dealt with in our joint project group **airspace and safety** and the British effort to equip everything that flies with transponders. So, together with the EAS we shared our opinion. Only this time we were prepared by other member states and had quite a bit more information.

Different traffic rules:

The European Union Aviation Safety Agency EASA, founded in 2003, is more or less making the aviation and airspace related rules.

And yes, the British will have to stay in there as well. No brexit here.

These rules often contain some paragraphs or provisions for member states to adopt these rules or

to opt out. Thus, we already have slightly different traffic rules or airspace designs in different member states.

In the process of rulemaking, the EASA will eventually seek our opinion regarding equipment or traffic rules. They will eventually contact European airports. If it has something to do which could affect us, the paragliding and Hanggliding people, they are strongly advised to ask EHPU.

DHV has collected and published information from

Austria

Switzerland

Italy

Poland

Slowenia

Czech Republic

Our EHPU webpage lists all the different and very excellent flying rules.

But EASA will not consult every single publication – they will ask EAS and the EHPU airspace officer

I want to go one step further:

As proposed “airspace officer” in the EHPU, I want to know what is going on in your country regarding airspace. You will have to tell me your problems and you will have to tell me of any mayor changes in airspace rules as far as you are involved or informed.

Now, if you say that doesn’t really interest me – I am flying only in the mountains far away from any major airport – let me tell you: They will get you too.

You remember the clamp?

The ministry of environment protection (BfN) in Germany has contracted a law firm to find out whether they would have the right to establish airspace restrictions above nature preserves in Germany.

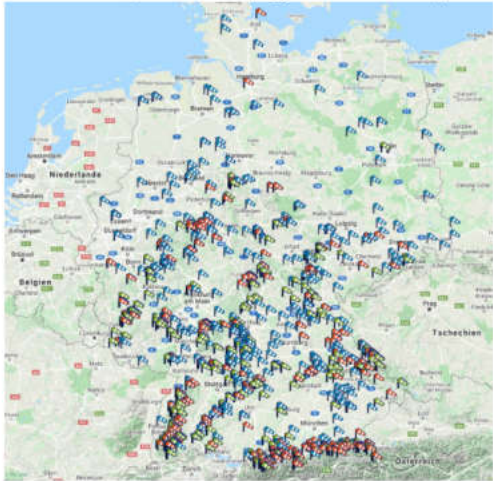
Presently, a few “aircraft relevant bird areas” are established by the ministry of transport, who so far is the only ministry entitled to design airspace.

But the outcome of that 64 page long legal opinion was a shock for all of us: The BfN can – in accordance with German and European law – establish areas over nature reserves of different kind a minimum flight altitude of 600m. In this paper it is mentioned that about 18% of the landscape is protected by national and European protection law. Doesn’t sound like much.....

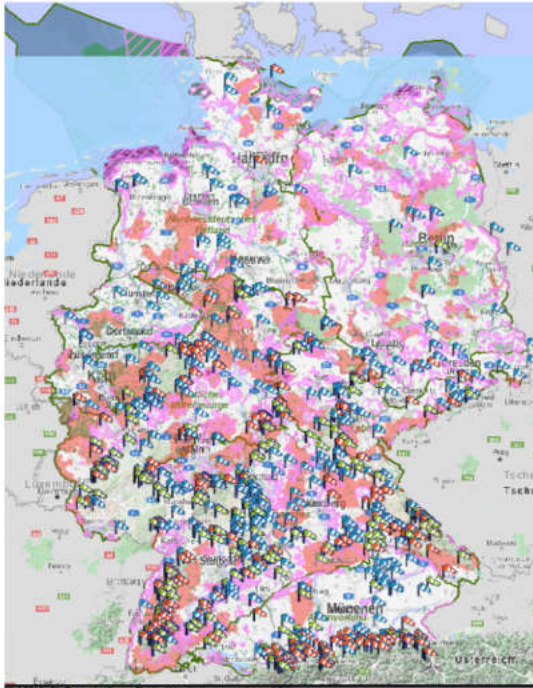
This is again a map of Germany with the major protected areas in pink.



This is the map of HG/PG flying sites in Germany:



And this is a simple overlay:



Almost all of the HG/PG sites are in or are bordering protected areas.
There will be loads and loads of work in the future for the DHV.

Puf, so, this is only germany, thanks god! Or not?

Let me get that straight:

Europe is covered by approximately 17% with nature reserves and the political landscape is shifting to green :



As soon as the Germans let the environmental departments design or influence the airspace, other countries with similar GREEN PARTY involvement will follow.

U-space again:

So, if 600m (2000ft) is covering so much of our country, what is happening to the UAVs and U-space?

U-space is commercial driven!!!

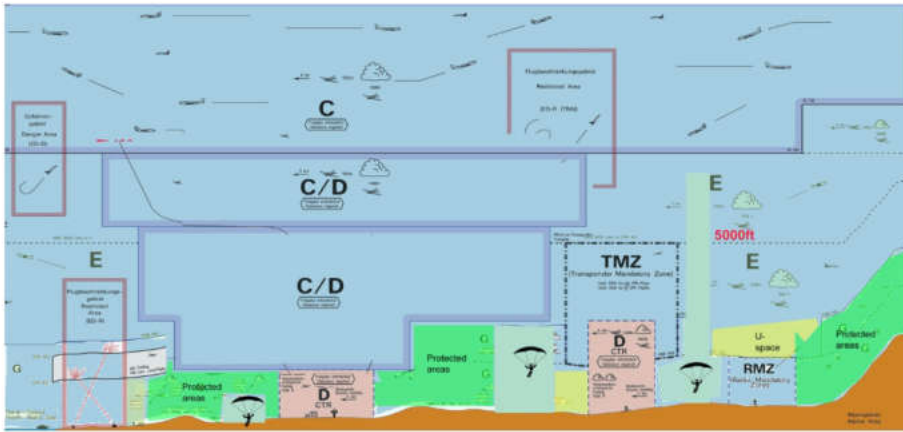
Whoever implements the infrastructure to protect their UAV's, they will not let you restrict their operation without being paid.

Andrea Anesini has given us enough insight on that.

The DHV has joined the UAV – DACH: The union of UAV stakeholders in Germany, Austria, and Switzerland. We will make sure on an European level to be involved and considered.

If not, it will look like this:

Look for yourself:



Is an airspace officer in our organisation worth the effort?

You decide.

EPI: European Pilot Identification

EHPU AGM 2020 Stockholm

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Introduction

This proposal has been drafted by the EPI subgroup of ESTC (Mark, Dave, Miroslav, Karl, Sanne and Rodolfo) and finalized during a two-day meeting held in November at the DHV headquarters.

We've settled to EPI as the acronym for this system, which stands for European Pilot Identification. It becomes EPIC if you add Card at the end (!)

The working group collected and compared information about the different European training and license systems, identifying the minimum common standards as the starting point for this work.

The minimum requirements we defined for EPI of course are higher than the minimum requirements in some countries, this was expected and it is actually a good thing: it raises standards and guarantees all EHPU hosting countries that visiting pilots match their own minimum requirements.

We need the EPI standard to be functional both for safety and for pilot circulation. For example some countries have strict requirements about foreign tandem pilots and we want to make sure that the EPI qualification meets these standards.

In order to allow hosting countries to easily identify pilots that match their national requirements, we compared the current legislative requirements about foreign pilots in the various European countries and we made sure that pilots matching the requirements for the EPI match the minimum requirements of the most restrictive countries usually visited by foreign pilots.

Do we need a European system to compare licenses?

EHPU, unlike FAI/CIVL, cares about the training system in Europe in general and the comparability in particular. We are in close contact, our experts meet in regular intervals, we have a common accident database, our pilots are traveling mainly in Europe, we have a common legal base (SERA) and a comparable liability situation.

There are many good reasons for EHPU to take this step.

Quality and control

With the latest revision of the IPPI system FAI/CIVL has demonstrated that there is no interest to cooperate with the European federations. EHPU has not been asked for its opinion.

There is general agreement among experts is that the work on this revision of the IPPI system is not well done and that the final result is not usable.

ESTC is the place where the top European experts in training and safety gather and work together, this ensures the highest quality. With all this knowledge within EHPU there is really no good reason to delegate it to third parties.

Last but not least, we can trust each other and can make sure that no pilot can simply buy a license like it seems to happen in some countries outside Europe.

Standardization

Currently in Europe paragliding and hang-gliding licenses are regulated by national laws (annex 1/2), this a unique exception from European regulation. How long will this status remain?

When sooner or later the European Commission will introduce common rules we must be prepared.

Things can happen quite fast as we have seen with the U-Space regulation.

Pilot circulation

It should be easy for the European federations to recognize the licenses from the other European federations

- for guest pilots.

- and as a base for achieving the national license.

This goal is much easier to reach if the training contents are comparable.

Currency

ESTC can keep the the EPI standard up-to-date by making changes as frequently as they are needed, without unneeded delays and through a process that is completely under EHPU's control.

Tandem

A unique tandem rating is all we need for tandem. Unlike the solo rating systems like IPPI, the tandem rating does not need different levels.

The final set of requirements that has been agreed upon matches the minimum legal requirements of the European countries that host foreign tandem pilots.

For the tandem EPI qualification we have defined a maximum validity of 3 years, which means that the Tandem EPI card must have an expiration written on the card and it cannot be more than 3 years in the future. Each country is free to issue cards with a shorter expiration but not longer.

The table below lists the requirements for the EPI tandem qualification.

EPI Tandem requirements	
<p>The minimum requirements defined below represent a minimum set of skills and qualities needed to get an EPI card in every country. Each country is free to define stricter requirements. All of these requirements must be met by the pilot in order to get the card.</p>	
Minimum requirements to get the EPI card	Additional requirements
24 months since the solo license has been obtained.	Passenger liability insurance is mandatory.
IPPI4 (EPI4) stage obtained.	Periodic re-evaluation is needed at least every 3 years
100 flying hours or 200 altitude flights with solo.	
Having done a SIV class.	
Having obtained the national tandem qualification which must include an initial assessment, a theory and a practical examination.	
Having logged 40 tandem flights after the national exam.	

Mono

For the mono EPI we started from the old IPPi classification.

The latest revision of the IPPi classification has been defined as “unusable” by many experts, this is the reason for starting from the old classification and improving it by reviewing all the requirements for all levels.

The requirements have been updated in order to make them current and have been integrated with additional requirements.

This work has been done through a current comparison of European education systems and legal requirements for foreign pilots.

EPI Level 1 + 2	
Objective: When the pilots have completed this stage, they should be capable of making higher flights in benign conditions under instruction, with smooth turns to allow the pilot to make a controlled landing in a defined area.	
Practical skills	Theoretical knowledge
- Preparations: Demonstrate how to unfold and put together the paragliding equipment. How to check that the equipment is airworthy. Demonstrate how to prepare and lay out the equipment ready for flight. Spreading out, attachment of harness, adjustments. Make a pre-flight check and a partner check. Perform a basic site and conditions assessment.	Flight practice (basic knowledge) - Flight planning: Basic evaluating of site and conditions. How to select the right area to set up, how to make a basic flight plan. - Pre-flight preparation: Pre-flight check, flight plan, take-off check, partner check Launch: Forward and reverse launch, phases, abort, hazards - Straight flight: Ground-position, best glide, minimum sink - Curves: Steering with brake lines and weight-shift, meaning of opposite brake, corrections - Special flight situations: Asymmetric and symmetric collapse, Deep-stall, stall and spin - Landing: U-approach, S-approach, landing technics in different wind - Special landing hazards: Obstacle fixation, tree-landing, tailwind-landing, Crosswind-landing - Human factors: Physical stress, psychological stress, illness, fear, alcohol, drugs, medicine, dehydration
- Ground based inflation exercises: Perform consistent inflations of the glider using a method appropriate to the conditions, and then performing a take-off abort. Consistently maintain the glider on a straight course, make left and right corrections, smoothly accelerate the wing, then performing a take-off abort. The pilot can smoothly accelerate the wing, controlling the angle of attack and getting airborne safely.	
- Flight exercises: Low flights >5m height above ground using directional corrections to maintain a straight course into wind. Develop from flights with directional control to maintain a straight path, to progressively increase turns 90° - 180°, gentle to medium bank, left and right. Best glide and minimum sink speed. Completing simple flight plans with minimal radio guidance by instructor.	Technics (basic knowledge) - Paraglider: Canopy, lines, and risers, construction, parts, limits for the use - Maintenance: Packing, storing, care of a paraglider, aging (sun, sand and misuse), regular checks - Harness: Types, parts, sizes, fixation, speed-system - Reserve parachute: Function, deployment, rules for maintenance
- Landing approaches: Perform consistent landing approaches in a defined area with corrections for drift. Landing approach with downwind, base and final Consistent landings on the feet, directly into wind.	Aerodynamic ((basic knowledge) - Airstream, different velocities, - Stall, spin
	Meteorology (basic knowledge) - Wind: Direction and strength, development during the day, gusts - Turbulence: Luv-side and lee-side, airflow and turbulence at the flying site, thermal turbulence and dynamic turbulence, turbulence lee-side of obstacles, wind-gradient, - Hazards: cold front thunderstorm, foehn, rain, clouds fog, dust devil - Forecast: forecast for flight sports, services, websites - Regional weather: special features for the sites
	Law (basic knowledge) - Basics of air traffic law regarding training and licenses, minimum age and suitability, insurance and liability, equipment-certification, maintenance, flying sites, responsibility as a pilot, flying rules
EXPERIENCE Requirements:	

A minimum of 6 flying days accumulated training.
A minimum of 30 successful flights, of which at least 10 are altitude gliding flights.

EPI Level 3	
Objective: When the pilots have completed this stage, they should be capable of making local altitude flights in calm conditions without instructor supervision.	
Practical skills	Theoretical knowledge
Stage 2 manoeuvres reviewed and performed to a reasonable and consistent level.	Flight practice (advanced knowledge) - Pre-flight preparations: laying out, pre-flight check, flight planning, take-off check, partner check - Launch: Forward and reverse launch, phases, abort, hazards, departure, errors and correction options - Straight flight: basic position, trim speed, best glide, minimum sink, full speed - Active flying: Pitching and stabilize, rolling and stabilize - Soaring and thermal flight - Coordinated turning with weight-shift, inner- and outer brake, different banks, frequent errors, dangers and correction options - Landing approach: U-approach, S-approach, phases, flight technology, landing in normal wind and in strong winds, frequent errors, wind-gradient, dangers and correction options - Landing: Landing techniques in normal and strong wind, techniques of flaring - Special wind situations: strong wind, crosswind, - Flight dangers and extreme flight manoeuvres: asymmetric collapse, frontal collapse, stable frontal collapse, cravat, stall, deep-stall, twist, stable spiral, correction options and frequent errors. - Rapid descent techniques: big-ears with acceleration, B-line stall, spiral - Special flight hazards: Steering line failure, unfasten buckles, knotted lines, collision, reserve deployment, hanging trauma. Special landing hazards: Outside landing, top landing, water landing, landing in power line or cable. - Hazards in the high mountains: cable car cable, altitude sickness, dangers from snow and glaciers, alpine rescue service (helicopter salvage) - Emergencies: first aid skills, emergency equipment, emergency signals, initiation of rescue - Human factors: fatigue, alcohol, drugs, medication, physical stress, illness, altitude sickness, stress, fear and fear management, G- force, - Human factors involving the decision to take off and safety in flight. the hazards of flying alone. Group pressure. - General airmanship: How to progress safely and achieve the next stage in your development as a pilot. - Nature protection: Protected areas, impact on wildlife, erosion prevention, waste prevention, forestry, agriculture and hunting, use of forest roads, hunting regulations, behaviour towards farmers, hunters, foresters.
Planning The process of flying, giving a flight plan.	
Perform accurate site and conditions assessments.	
Ground handling Control, correct procedures.	
Launch Take offs in zero wind, light wind and stronger wind up to 15 km/h	
Flight manoeuvres: - Speed control from minimum sink to full speed including use of the speed bar. - Co-ordinated turns left and right with minimum loss of height. - Use of rear risers for steering - corrections for wind drift, turns and reversing direction. - Manoeuvring according to terrain and other traffic, keeping a good lookout. - 360 degree turns: normal speed and on minimum sink, right and left, shallow to medium bank, without any sign of stalls or nose-down danger, and with safe height and distance to terrain. - Pitching and stabilize - Rolling and stabilize - Figure 8 (within 30 sec.), manoeuvring with the use of weight shift and the inside and outside brake (without any sign of a stall or nose down danger). - Asymmetrical collapses: 20-40% on one side (Safe altitude and distance.) Use of counter-steering and weight shift, pumping out deflations. - Big ears: Pulling down of both sides of outer A-lines to equal length and "folding in" of the wingtips, maintain a straight path, using weight shift only. Weight shift left and right sides, return to straight and level flight. Knowledge of the combined use of the accelerator and big ears, to increase sink-rates and avoid deep stalls.	
Slope flying:	Meteorology (advanced knowledge)

<ul style="list-style-type: none"> - Entering, turning and manoeuvring in lift, corrections and gradient, without any signs of stalls, knowledge of collision avoidance rules and regulations. The importance of maintaining a good lookout at all times. Practical exercises where possible 	<ul style="list-style-type: none"> - Atmosphere: structure, composition of the air - Troposphere: air pressure, air density, temperature, water balance, evaporation, condensation, sublimation, moisture measurement, ICAO standard atmosphere - Wind: Interaction high-low, coriolis-force, wind gradient, designation and conversion, isobar, pressure gradient - Turbulence: Thermal and dynamic turbulence, Luv and Lee, jet effect, ground turbulence, wind shear, wind gradient, Dust Devil - Wind circulation: Mountain/valley wind, land/sea wind, mountain circulation, slope upwind - Clouds and fog: Dew point, condensation, precipitation - Thermals: Thermal forms, adiabatics, stability/lability, inversion, cloud thermals, blue thermal - Weather development: Weather conditions, global context - High and low: Formation of low pressure areas, warm front, cold front, occlusion, ideal cyclones, formation of high pressure areas, weather phenomena in summer and winter - High pressure: high cold, heat high - Thunderstorms: Conditions for thunderstorm formation, phases of thunderstorm, types of thunderstorms, dangers - Foehn: Origin, signs, dangers - Cold front: weather conditions, signs, origin, dangers - Weather characteristics in the mountains: Turbulence, weather fall, cold air outflows, front modifications, thermal development, valley wind, turbulent east-wind conditions, glacial wind - Weather map: symbols, weather conditions - Forecast and advice: weather services, weather advice, suitable websites - Regional weather: special features, favorable and unfavourable/dangerous weather and wind situations in the trained region, regional weather information
<p>Planned approaches and landings</p> <ul style="list-style-type: none"> - Safe, straight final approach maintaining a good air speed and inside an area decided by the instructor. 	<p>Technics (advanced knowledge)</p> <ul style="list-style-type: none"> - Paraglider: Canopy, lines, components, acceleration system, materials, settings, repair, inspection, operating instructions, certification, EN-Test and classification, limitations - Maintenance: packing, storage, aging and maintenance of the paraglider, harmful influences - Harness: types, components, sizes, setting, certification, back protection - Reserve parachute: types, function, deployment, components, sizes, container systems with advantages and disadvantages, compatibility, packing intervals - Instruments and accessories: variometers, radios, altimeter, GPS, barograph, compass - Measuring bases: area, wingspan, recommended wing loading <p>National and European Law</p> <ul style="list-style-type: none"> - National legislation regarding: training and licenses, minimum age and suitability, insurance and liability, equipment-certification, maintenance, flying sites, responsibility as a pilot, flying rules.

	<ul style="list-style-type: none"> - European legislation <p>Competent authorities: ICAO, EASA</p> <p>Flight operations: Responsibility (SERA.2010), avoidance of collisions (SERA.3201), approach (SERA.3205), Visual Flight Rules (SERA.5001), minimum safety height (SERA.5005 (f)), distances, give-way-rules (SERA.3210), European thermal rules (EHPU.org), dropping of objects (SERA.3115), alcohol, drugs (SERA 2020)</p> <p>Airspace: ICAO airspace classification, flight restriction and restricted areas, military low-flying system, ICAO map</p> <p>Liability and insurance: Liability for fault and risk, limits of liability, insurance obligation, penalty and penalty provisions</p> <p>Responsible authorities: National authorities, EASA, EHPU</p> <p>Legislation: SERA, national law</p> <p>Publications: AIP, NOTAM</p> <p>Flying abroad: Information, IPPI-Card, EPI-Card</p>
	<p>Aerodynamics (advanced knowledge)</p> <ul style="list-style-type: none"> - Forces on the wing: center of gravity and pressure point, total air force, balance of forces - Lift: Formation, profile, pressure distribution, angle of attack, speed, sinking speed, deep-stall, stall - Drag: Shape resistance, induced resistance <p>Stability: rotation axes, directional stability</p> <ul style="list-style-type: none"> - Steering: Brakes, weight shifting - Curve flight: forces, curve sinking, G-load - Units of Measure: Glide-rate, Glide-angle, polar
<p>EXPERIENCE Requirements</p> <p>The pilot must log:</p> <p>A minimum of 30 successful flights.</p> <p>Flights from 3 different sites.</p> <p>A minimum of 1 hour accumulated air-time.</p>	

EPI Level 4	
Objective: When the pilots have completed this stage they should be capable of flying in light to moderate wind	
Practical skills	Theoretical knowledge
Stage 3 manoeuvres reviewed and performed to a reasonable and consistent level.	Discuss and explain human factors involving the decision to take off and safety in flight.
Planning: The process of flying, making a flight plan.	Discuss and explain the actions taken to recover from an asymmetric and symmetric collapse. (Showing in particular full awareness of the dangers of over-correcting and the dangers of low asymmetric deflations).
Demonstrate a variety of launching techniques appropriate for conditions ranging from light to moderate wind strength and gust conditions and emergency stop.	Discuss and explain the actions taken to recover from an asymmetric and symmetric stall.
360° turns, shallow to steep bank angle, left and right, across the speed range within safety limits. Figure 8 < 30 seconds.	
Flying in lift: entering, climbing and exiting safely.	
Understanding gusts and turbulence.	
Demonstrate understanding of the traffic rules, visual flight rules and a circuit landing approach.	
Manoeuvres: bank control with the outside brake, pitching and stabilize, rolling and stabilize, adaptive use of the speed system in turbulent air.	
Demonstrate suitable knowledge of their emergency parachute system – use and limitations.	
Demonstrate landing approaches and landings in different wind conditions, even at small places	
EXPERIENCE Requirements: (In addition to level 3) Minimum 10 flying hours, this should be a combination of thermal soaring and ridge soaring.	

EPI Level 5	
Objective: When the pilot has completed this stage they should be capable of planning and executing a cross country flight safely.	
Practical skills	Theoretical knowledge
Stage 4 manoeuvres reviewed and performed to a reasonable and consistent level.	Airspace General airspace structure, how to find information on airspace to allow safe and accurate flight planning and navigation.
Planning and executing a XC-flight plan, showing the ability to adapt to actual conditions.	How to avoid controlled airspace
Understand and demonstrate the principle of speed to fly.	How to set an altimeter relative to controlled airspace, actions to take in the event of electronic navigation device failing in flight.
	Factors involved in selecting appropriate equipment.
Out-landings Precision approach to unknown landing area: Selection of landing field, control of speed and glide angle.	Navigation <ul style="list-style-type: none"> - Basic terms: Movement of the earth, directions, location, course - Map theory: ICAO map, topographic map, scale, symbols, calculation of courses and distances - Units of Measure: Distance, heights, speed, flight level (FL) - Horizontal navigation: Course reference system, wind triangle, wind influence, geomagnetic, compass theory, variation, deviation - Vertical navigation: Standard pressure, QFE, QNH - Navigational aids: Altimeter, compass, GPS - Navigation on route flights: Route planning, route flight tactics, terrestrial navigation, fixed points, catchment lines, in-flight navigation decisions, navigation with GPS and digital maps - Documentation: IGC-file, online documentation
SIV Course Strong recommendation: the pilot has completed an SIV course over water, successfully undertaking (as a minimum) the following manoeuvres: large pitch angle control, collapse control and recovery, exit from developed 360° turn or a spiral dive.	
EXPERIENCE Requirements: A minimum of 25 flying hours. A total of 5 cross country flights in various types of lift, minimum 15 km each (ridge soaring and flying along the same ridge only is not valid).	

Next steps

Some more practical issues remain to be discussed: these are not technical or safety related so it might be material for discussion within the GM or for delegation to the MG.

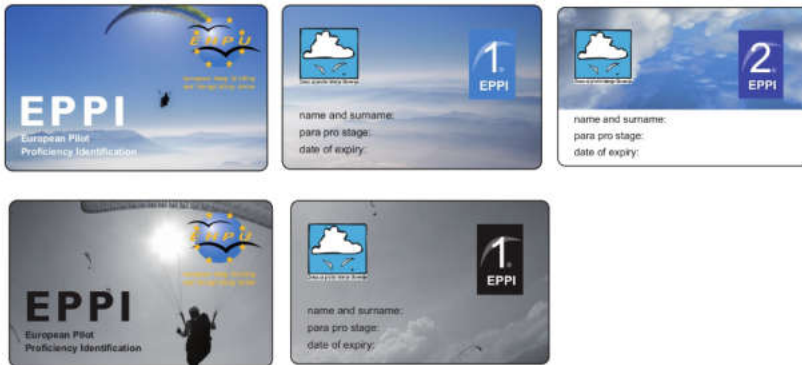
Logos and graphics

Here are a couple of samples of EPI logos provided by Bojan. These are the logos that could be printed on the cards for an easy recognition of the pilot's level.



Cards

Here are some samples of card designed provided by Bojan. These samples use the EPPI acronym rather than EPI, which is the one we settled on later on:



The EPI classification could be printed on a dedicated EPI card or the EPI logo could be added to the national membership card just like it can be done for the IPPI (France and Italy for example have been using this method). My proposal is to leave to each country the choice.

This is an example of how the IPPI logo has been placed on the FIVL membership card in 2017:



The EPI logo on a national membership card could look like this:



Having experimented this method with the IPPI card for two years in Italy we can testify that:

- it is easier to manage because we have only one card rather than a membership card and a separate EPI card
- the EPI certification expires with the membership card and thus allows a very current certification both for tandem and mono (license revocations and renewals are properly managed on a yearly basis)
- it helps small associations to maintain membership over time (not a safety-related issue but we also need to care about the health of our national organizations that have a voluntary membership to be renewed every year)
- the EPI card requires a national license anyway, allowing the two to merge into a single card makes sense

My proposal is that each country is free to choose whether to issue a separate card or an EPI certification on the membership card. The logos and the levels of course must be the same on all cards so that all the EPI certifications are easily recognized no matter who issued them.

Rodolfo Saccani
ESTC Charirman

*European Hang Gliding
and Paragliding Union*



European Hang Gliding and Paragliding Union

A short presentation

Summary

Members

19 European Associations, representing more than 100,000 pilots and aircraft since 2001.

Mission

Protecting the sports of hang gliding and paragliding, exchange of safety notes, creation of an international accidents database, EN Standardisation of equipment.

Organisation

Non-profit Union: President, General Secretary, Treasurer, Management Group (MG).

Finance

Annual income only from membership fees.

More information / Contact

www.ehpu.org,
ehpu@ehpu.org





Members

- **Members: National Hang Gliding and Paragliding Associations:**
- 19 countries: Austria, Belgium, Czech Rep., Denmark, France, Germany, Hungary, Ireland, Italy, Kosovo, Netherlands, Norway, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, United Kingdom.
- **Representing more than 100,000 pilots and aircraft.**
- Basis: Founded in 2001, Statutes.
- **Independent, self-governing and non-profit organisation.**





Mission



In general: To promote and protect hang gliding and paragliding.



Safety

Reduction of accidents: database, European Safety and Training committee (ESTC).

EN Standardisation: Safer equipment, transparent standards.

Co-operation: exchange of information (safety notes).



Influence: Lobbying and exchange on EU-Level, co-operation with EAS (Europe Air Sports).



Airspace, Environment: Following development and helping each other by exchanging information between countries.



Advantages of becoming an EHPU member: all of the above, EPPI card in next year and same flying rules for all members.



Organisation

- **Independent, self-governing and non-profit organisation**



President: Formal head of the Union, Each Member State holds the Presidency for one year, in alphabetical sequence.



General Secretary (GS): Salaried employee, elected by AGM each year.



Treasurer: In charge of the finances.



Annual General Meeting (AGM): Takes the important decisions, one country - one vote.



Management Group (MG): Manages the Union and GS between AGMs, 4 elected members from National Delegates plus President and Treasurer.



Finance

Income = Annual member fees

- From €60 (small Associations) to €4,270 (big Associations)
- Total €28,000

Expenditure

- | | |
|----------------------|----------|
| • EN Standardisation | € 8,000 |
| • EAS membership fee | € 9,500 |
| • Administration | € 4,000 |
| • Meetings | € 4,500 |
| • Reserve / gain | € 2,000 |
| • Total | € 28,000 |

More information / contact

- EHPU ehpu@ehpu.org
- www.ehpu.org
- Your own National Hang Gliding and Paragliding Association

Kind regards and always happy landings



Stockholm 2020-01-09

Proposal for AGM Stockholm

Change of statutes

We need to adjust our statutes after our first year of practical work in the Management Committee.

Statutes of today:

The Management Committee shall consist of the President and Treasurer as of right, plus 4 other elected Members.

Suggested change: The Management Committee shall consist of the President, Treasurer **and chairman of ESTC or his nominated deputy**, as of right, plus 4 other elected Members.



European Hang Gliding & Paragliding Union

Balance of the year 2019 in €

Subscription Income:

Federation	Fee
AVLE, Spain	610.00
AZLR, Romania (Fee 2018 + 2019)	120.00
BHPA, England	2440.00
DHPU, Denmark	610.00
DHV, Germany	4270.00
FBVL, Belgium	915.00
FFVL, France	3660.00
FIVL, Italy	1830.00
FPVL, Portugal	610.00
HFFA, Hungary	915.00
IHPA, Ireland	60.00
KNVvL, Netherlands	1465.00
KPA, Kosovo	60.00
LAA, Czech Republic	1465.00
NLF, Norway	1830.00
ÖAeC, Austria	1830.00
SFFA, Slovenia	915.00
SHV, Switzerland	3660.00
SSFF, Sweden	915.00
Total Subscription Income	28180.00

*EHPU c/o Schweizerischer Hängegleiter-Verband
Seefeldstrasse 224 • 8008 Zürich/Switzerland
homepage: www.shv-fsvl.ch • e-mail: shv-fsvl@bluewin.ch
phone: ++41(0)1 3874680 • fax: ++41(0)1 3874689*



European Hang Gliding & Paragliding Union

Balance of the year 2019 in €

Total Subscription Income **28180.00**

Expenditures:

AVLE: Reimb. for AGM Madrid 2000.00

Arne H. / Travelling Exp. AGM Madrid 494.87

Arne H. / Salary General Secretary
2018 4000.00

EAS Membership 2019 9500.00

Arne H. / Costs for posting GS Material to Bojan 86.50

AFNOR Co-Financing WG6 8000.00

SFFA: Organisation EXTC Meeting 1500.00

Bojan Z: EAS-Meeting Lisboa 583.00

Distribution Fee 12.05

Account Management Fee 43.62

Payment Transactions Fee 3.51

Total Expenditures **26223.55**

Total assets 2018 14833.86

Result year 2019 1956.45

Total assets 2019 **16790.31**

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European Hang Gliding & Paragliding Union

Budget 2020 in €

Subscription Income

Federation	Fee
AVLE, Spain	610.00
AZLR, Romania	60.00
BHPA, England	2440.00
DHPU, Denmark	610.00
DHV, Germany	4270.00
FBVL, Belgium	915.00
FFVL, France	3660.00
FIVL, Italy	1830.00
FPVL, Portugal	610.00
HFFA, Hungary	915.00
IHPA, Ireland	60.00
KNVvL, Netherlands	1465.00
KPA, Kosovo	60.00
LAA, Czech Republic	1465.00
NLF, Norway	1830.00
ÖAeC, Austria	1830.00
SFFA, Slovenia	915.00
SHV, Switzerland	3660.00
SSFF, Sweden	915.00
Total Subscription Income	28120.00
Assets 2019	16790.31
Total Assets	44910.31

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European Hang Gliding & Paragliding Union

Budget 2020 in €

Total Assets	44910.31
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Expenditures

EAS Membership 2020	9500.00
AFNOR Co-Financing WG6 ???	8000.00
Salary General Secretary	4000.00
EHPU AGM 2020	2000.00
Exp. for General Secretary	1600.00
Exp. for EAS and ESTC Meeting	2000.00

Total Expenditures	27100.00
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Expected assets 2020	17810.31
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