Issue 2 – 2023/24

transmission

The DFS magazine

We are air navigation services
People at DFS talk about their jobs

We love flying
Our fascination with flying

Peak performance
A sense of responsibility and a passion –
DFS staff give their best for safe air traffic

Dear reader

Any company is only as good as the sum of its employees. Once again this year, the staff at DFS have shown great commitment to ensuring that passengers and crews reach their destinations safely. A duty of care, a sense of responsibility, enjoyment of their work and identification with air navigation services – these are all important qualities that you will encounter at our company.

This issue of the DFS magazine is all about staff motivation and a readiness to step up and do your bit for the company and beyond. As representatives of some 5,600 employees, we present five colleagues from different professions who contribute to the safety of air traffic: from air traffic controllers and IT specialists to engineers who repair our air navigation services facilities. They are all prepared to give their best at all times.

For many DFS staff, the idea of giving their all stretches to activities beyond the company. What drives competitive athletes and how can they incorporate these traits into their working life in a meaningful way? The transmission editorial team explores these questions in three portraits of athletes – all DFS employees who have recently achieved extraordinary sporting success. In addition to above-average discipline, a high degree of mental strength is one of their outstanding characteristics. Attributes that are particularly in demand in a company where everything revolves around safety.

We are also continuing our "We love flying" series in this issue because a passion for aviation is an integral trait running through our workforce.

DFS can look back on a successful year thanks to its committed and hard-working employees. We expect a further increase in air traffic in 2024 and we have ambitious plans for the coming years. We need to recruit new specialists and advance air navigation services technology for even greater safety and more capacity.

I wish you and your families a festive holiday season and a happy new year!

Arndt Schoenemann

Chairman and Chief Executive Officer

We are air navigation services

Around 5,600 men and women work together to ensure safe air traffic control. In this issue, five DFS staff members talk about their jobs.

A tower in Langen, kilometres away from the airport? No, it is not a planning error: DFS operates numerous simulators for instruction and training, which perfectly replicate the workplaces of air traffic controllers.

Simulators are Oliver Rühl's world. He joined DFS as a simulator pilot in 1999. He took on the role of the pilots, while the air traffic controllers trained on the opposite side. Since 2006, he and his colleagues in Product Management at the DFS Simulator Centre have been responsible for the tower simulators. They also look after the simulators for radar controllers and two flight simulators.

Tower simulators are located in the DFS Academy, where budding air traffic controllers are trained. At the DFS branches, such as Berlin or Stuttgart, they ensure that new procedures or the use of new software can be trained. They are also deployed at subsidiaries. "When I started, there were two tower simulators at the Academy," recalled the 48-year-old. Today, there are five there alone, two of which are 360-degree simulators.

Kaufbeuren ATM Training GmbH, where Bundeswehr controllers are trained, also has a 360-degree simulator. In this case, the controllers are surrounded by a projection of a computer-animated airport. Lots of traffic, not much traffic, sun, darkness, snow, storms, an emergency landing – a simulator has all these scenarios and many more at the ready, as well as numerous airport layouts.

The simulator in Kaufbeuren went into operation in 2017. But that does not mean that it does not need to be maintained. Oliver Rühl is already planning to replace the projection system, which will reach the guaranteed number of operating hours in 2024.

Speech recognition is another key issue. In the past, simulation pilots were needed but today the computer takes over to some extent and responds to the controller's instructions. The current system already offers a very wide range of functions but requires precise adherence to the predefined phraseology. However, there are more advanced versions that can handle deviations much better. A successful test run has already taken place.

The new technology will continue to change training in the simulator. "That's the great thing about my job," said Rühl. "It simply never gets boring."

–Christopher Belz–

Jason Wayne Brawley is an air traffic controller at the DFS control centre in Langen. As an approach controller, he is responsible for inbound and outbound air traffic in Baden-Württemberg and in areas close to the border with eastern France and northern Switzerland.

In his sector, known as sector family 08 at DFS, Brawley and his colleagues control air traffic from the ground to flight level 140, which is around 4,000 metres above sea level. "We guide the aircraft to various airports, mainly Stuttgart but also to Schwäbisch Hall, Karlsruhe Baden-Baden, Strasbourg and Lahr airports," explained Brawley. What is special about his sector is the frequent VFR traffic, gliders, parachute jumps and aerobatic areas. "The mixed traffic makes these airspaces very diverse."

The 30-year-old, who comes from an American military family, began training as an air traffic controller in 2014. At the DFS Academy, he initially completed basic courses such as aeronautics, aviation law and meteorology. After the subsequent simulator training, he completed his simulator and on-the-job training in 2016.

He particularly enjoys working in a team. "There are at least two of us working together and we have direct, immediate contact with each other," he said. "As an air traffic controller, you have an idea and develop a plan on how to organise air traffic and share it with your colleagues." He appreciates the close collaboration, the trust and the fact that he and his colleagues can rely on each other.

Jason Brawley appreciates the dependability at DFS. "I have the feeling that my job is secure and that I can also continue my education in a variety of fields." In future, he will also be responsible for training new air traffic controllers who come to the control centre from the DFS Academy for on-the-job training.

–Sven Chamberlain–

As an engineer, Michael Opitz is responsible for the remote monitoring of radar systems and other surveillance systems at DFS. As product manager, he is in charge of the MAC/S system used for this purpose and is responsible for its management, maintenance and servicing.

Michael Opitz studied electrical engineering. He specialised in software development during his studies, even though IT was still in its infancy at the time. "I was still programming punch cards," he said.

In 1996, he began his career in air traffic control, already at that time in surveillance. The DFS surveillance systems provide the data for displaying air traffic at the air traffic controllers' working positions. Primary and secondary radar systems are used, as well as other systems such as multilateration. Opitz has continuously developed the MAC/S system for remote monitoring of the systems. He also trains colleagues who work with the system. MAC/S is to be replaced in future by an in-house DFS development, which the engineer and his team colleagues are currently working on.

"What I like most about my job is the technical aspect and the fact that I can work on modern software methodologies," said Opitz, who works at the DFS Headquarters in Langen. He enjoys a great deal of personal responsibility and has a free hand within the DFS system of rules and regulations. He also appreciates working in a team and the cross-divisional cooperation with users and network specialists. "We are all engineers and computer scientists, and the collaboration is collegial and very professional."

At DFS, the air navigation services engineer appreciates the good social environment and the opportunity to work from home. "For someone like me, who mainly works with software, this is a great advantage."

–Sandra Ciupka–

Dr Alexandra Dix and her team develop air traffic control systems in the department for software development of ATS products at DFS. She is head of the group responsible for software development HMI, data planning and support.

The mother of three studied mathematics at the Technical University of Darmstadt, where she also completed her doctorate, before joining DFS in 2008. She has worked in the DFS Systems House from the very beginning and, among other things, helped develop the iCAS air traffic control system, which has been in use at the DFS control centre in Karlsruhe since 2017. She was also involved in the development of a drone tracker for the integration of unmanned aircraft systems into airspace.

Since 2021, the 50-year-old has been the manager of 16 IT experts. Her task is to provide operational air traffic control personnel with functional, reliable software that has been developed in line with user requirements. In her department, the software is programmed and thoroughly tested prior to deployment. She works closely with air traffic controllers and flight data specialists as well as with product and requirements managers.

"My area of responsibility is particularly exciting at the moment because we are implementing a new system strategy for air traffic control systems, and this involves a lot of change and movement." This strategy includes using a cloud infrastructure for operational systems. She particularly enjoys the teamwork and the technical aspects of her work. "We all are working as one towards the goal of enabling safe, efficient and environmentally friendly air traffic."

–Sandra Ciupka–

Francois Boungouendji Moubindji is part of the navigation team of the Technical Operations and Infrastructure unit at DFS Branch South. He is responsible for the monitoring, commissioning, maintenance and repair of instrument landing systems (ILS) at Munich, Stuttgart and Nürnberg airports.

Since April, he has also been passing on his knowledge of ILS facilities as an instructor at the DFS Air Navigation Services Academy.

The father of four daughters and a son grew up in Libreville, the capital of Gabon, and knew early on that he wanted to do something technical in his career. "I need something hands-on where I can see a tangible result of my work at the end."

The 41-year-old came to Germany on a scholarship in 2002, where he studied electrical engineering at Gießen University of Applied Sciences, specialising in information and communication technology. After a brief interlude at Deutsche Telekom, the newly qualified engineer joined DFS in 2009.

In his work, he both monitors the facilities and works directly on site. The ILS systems at seven German airports – Munich, Stuttgart, Nürnberg, Leipzig, Berlin, Erfurt and Dresden – are monitored from Munich. He can see on dedicated monitors whether the individual ILS systems are functioning properly. If a monitor indicates a fault on a system, Moubindji informs the system managers on site, who investigate the fault directly and repair any defects. When necessary, he travels to the airports himself and works directly on the ILS facilities, carrying out regular maintenance and any necessary repair work.

"ILS systems enable passenger aircraft to land safely in all types of weather," said Moubindji. "Maintaining and servicing them is a huge responsibility, because if we do something wrong, it can have serious consequences. Our work safeguards safety.

–Holger Matthies–

How DFS finances itself

01 Air navigation services charges

Airlines pay charges to DFS to guide their aircraft safely to their destinations. These charges are the main source of revenue for DFS. They also cover the costs of the German Meteorological Service (DWD), the national supervisory authorities, EUROCONTROL and the Maastricht upper area control centre.

02 Terminal charges

Terminal charges are based on the maximum take-off weight of the aircraft, or MTOW for short. From 2024, the unit rate for terminal services amounts to around €271. For an A320 with a maximum take-off weight of 73.5 tonnes, this would mean around €355 are due. Terminal charges are only levied once, when the aircraft takes off.

$$\text{Charge} = \left(\frac{\text{MTOW (t)}}{50}\right)^{0.7} \times \text{unit rate}$$

$$€355 = \left(\frac{73.5\text{(t)}}{50}\right)^{0.7} \times €271$$

03 En-route charges

In addition to the weight, en-route charges also take route length into account. This charge is levied centrally by EUROCONTROL, which distributes the money among the national air navigation service providers. The national unit rate for en-route services amounts to around €80 from 2024. An Airbus A320 with a maximum take-off weight of 73.5 tonnes has to pay around €543 in en-route charges for a flight from Hamburg to Munich.

$$\text{Charge} = \sqrt{\frac{\text{MTOW (t)}}{50}} \text{ x } \frac{\text{distance in km}}{100}$$

$$€543 = \sqrt{\frac{73.5\text{ (t)}}{50}} \text{ x } \frac{560\text{km}}{100}$$

04 Route length

En-route charges are not calculated according to the length of the actual distance flown. The decisive factor is rather the great circle distance, i.e. the shortest distance. Measurements are taken between the entry and exit points of the flight information regions through which the aircraft flies. The terminal control area, i.e. the immediate vicinity around an airport (20km), is excluded.

05 Development of charges

Air navigation charges have risen. The main reason for this is the massive decline in traffic during the COVID-19 pandemic, which led to a revenue shortfall for DFS. These losses are being partly borne by DFS and partly offset by higher charges spread over several years, as stipulated by European regulation. By the same token, a sharp increase in traffic would lead to a reduction in charges.

"I have never given up..."

Nothing comes from nothing, is Sandra Stark's motto. For her, grit, determination and the willingness to push yourself to your limits are essential to achieving good results – both at work and in sport.

At the beginning of 2018, DFS faced a challenge. Traffic volumes were rising faster than DFS could train new air traffic controllers. "My boss at the time came to me and said: 'We urgently need new air traffic controllers and therefore want to revive the Recruiting Day. Please take care of it'," said Sandra Stark, now senior expert for operational strategy, who at the time was working as a senior expert for the Director of the DFS Air Navigation Services Academy. She was suddenly not only under enormous time pressure but also faced with a task that had nothing to do with her actual area of expertise: organising a major event for over one and a half thousand visitors within just a few weeks.

"I quickly looked for suitable people and put together an organisational team." She combed through old documents from the last event in 2013. Her intensive research and good network within the company paid off. After a five-year break, the Recruiting Day celebrated an impressive comeback in June 2018 with more than 1,400 visitors. Many of the young people then found their way to DFS, helping to close the training gap. "I enjoy working in a team," said Stark, who played no small part in this success.

However, she achieved one of her most recent successes completely on her own. At the Ironman in Frankfurt in July this year, she qualified for the Women's Ironman World Championship in Hawaii. There, on 14 October, she finished 722nd out of more than 2,100 starters. "That was the competition of my life," said the passionate endurance athlete at the finish line after 11:55:28 hours and 3.8 kilometres of swimming, 180 kilometres of cycling and 42.195 kilometres of running.

"I want to keep pushing myself..."

Stark is convinced that you cannot perform well without personal commitment, a will to fight and resilience – neither in sport nor at work. "It's important not to let yourself get rattled, always stay focused and never lose sight of your goal." Resting on her laurels is not her style. "I want to keep pushing myself," said the 40-year-old.

A private pilot for 15 years

She joined DFS in 2008 after studying industrial engineering with a focus on aviation and first completed the two-year engineering trainee programme. Shortly afterwards, the young engineer was responsible for a major software project – the sale of the PHOENIX air traffic control system to the Canadian air navigation service provider NAV CANADA.

She then took care of the marketing of ATC training programmes and, after six years, she moved to the DFS Academy, where her responsibilities included the introduction of speech recognition software. In collaboration with Worms University of Applied Sciences, she designed the new Air Traffic Management degree programme, which enables student air traffic controllers to combine training as an air traffic controller with a degree.

She later supervised dual students at the Young Talent Management unit, to whom she was able to pass on her experience. "I enjoyed that a lot but I wanted to get closer to the operational business again," said Stark, who therefore looked for a new role. In the Operational Strategy department, she is currently working on concepts for the air traffic of tomorrow. Airspace optimisation, flexible usage concepts and capacity are just some of the issues.

She knew she wanted to work in aviation ever since she first boarded a holiday flight to Menorca in Spain at the age of ten. Becoming a pilot was her dream job but at 1.60 metres tall, she was five centimetres

too short for pilot training at Lufthansa. She applied to DFS and made up her mind: "If I get a permanent contract, I'll learn to fly anyway." She has now been flying as a private pilot for almost 15 years.

When asked where her ambition and striving for improvement comes from, she mentions her time as a judo practitioner during her school and teenage years. "I learnt the values of discipline, punctuality, hard work and fighting spirit there." Her coach at the time, a national league judo practitioner who came from Leipzig Sports University, played a special role in this. "I owe him an incredible amount. He was very strict and unyielding and turned us into a high-performance group. With methods that would perhaps be considered too harsh today. I've never given up in a competition."

Her trainer taught her two fundamental lessons: "Never give up. Always stick at it. Bide your time and pick up the pace even when you think you can't go on. Nothing comes from nothing." She has a fixed objective for her career: "I want to work as an executive one day. Helping people to develop and giving them the feeling that they are doing something important – that's something incredibly rewarding."

–Holger Matthies–

One wheel, one goal

You need to possess a few skills to shoot a tennis ball into a goal about two metres wide and one metre high with a hockey stick while balancing on a unicycle. First and foremost, the fine sense of balance and manoeuvring skills on a unicycle. Felix Caspelherr has these skills in spades. The DFS employee is a unicycle hockey player, and a German champion. With his team, SKV Mörfelden Jokers, he won the championships in the German Unicycle Hockey League for the sixth time this year.

"Unicycle hockey is fast, acrobatic and a team sport," said Caspelherr, summarising the sport. In unicycle hockey, two teams of five players compete on an indoor pitch. The aim is to hit a tennis ball into the opponent's goal with a hockey stick on a unicycle. "That requires a lot of coordination within the team," said Caspelherr. "To actively participate in the game, the player may not have any contact with the ground," he continued. The players need to master the unicycle like others master normal cycling. "I don't even think about unicycling during the game." The playing time varies from 15 to 20 minutes per half depending on the tournament.

The German Unicycle Hockey League, in which Felix Caspelherr plays with his team, now consists of more than 70 teams. Two years ago, a German national squad was also founded, with which he competes at European and World Championships. With the second team of the squad, Caspelherr achieved third place at the World Championships in Grenoble last year, behind the first German team in second place and the world champions Switzerland. Switzerland also became European champions this year, with the German squad finishing in 4th place. Caspelherr helped organise this year's European Unicycle Hockey Championships. "The championships were supposed to take place in the Czech Republic but the organisers had to cancel at short notice," he said. "So, I sat down with my team to organise the European Championships here in Germany."

"It's not a commercial sport, the focus is on having fun…"

Unicycling in Germany is organised by the German Cycling Federation (BDR) and the German Unicycle Society (EVD). The latter is a sub-organisation of the International Unicycling Federation (IUF), which organises unicycling worldwide. There are now many unicycling disciplines. In addition to unicycle hockey, there is unicycle basketball, track racing over several distances, long jump and high jump, individual and group freestyle, trial, cross country, street and flatland. The IUF even maintains world records in various disciplines. The German Niklas Wojtek holds the record for the 100-metre sprint with 12.473 seconds, the Japanese Asahi Takada for the fastest marathon in one hour and 45 minutes, the Frenchman Simon Jan has covered the longest distance, 33.365 kilometres, in one hour, and Qiu Hongying from China has managed 220 rope jumps in one minute.

A quarter of a century

Caspelherr has also taken part in open races but is mainly involved in unicycle hockey. What makes the sport special for him? "It's not a commercial sport, the focus is on having fun," he replied. The team spirit among the unicycle hockey professionals is great, even beyond his own team. "Opposing teams have sometimes made their own homes available to us for overnight stays during away games."

The computer scientist, who is team leader in the DFS Requirements (Operations) department, has been involved in the sport for almost 25 years. "I watched a street performer on a unicycle while I was on holiday, and I said to myself that I wanted to learn how to do it, too." Back home, he found out more about unicycling and found the

right address in his hometown: the Mörfelden sports club. "Back then, during the trial training in the sports hall, unicycle training took place on one half and unicycle hockey training on the other," he recalled. While watching, he became captivated by the sport.

Open to all ages

Felix Caspelherr is happy to pass on his passion. "Over the years, I've become more and more involved and I've been coaching unicycle hockey and unicycle freestyle for almost 17 years." The unicycle pro spends eight to ten hours a week on the indoor court, training both with his team and with budding players. He first teaches them how to ride a unicycle and then how to play unicycle hockey. "You can learn to keep your balance on a unicycle in just a few hours," he said. "It takes a few months to master the unicycle confidently with a hockey stick." Riding on the spot, cornering and also riding straight ahead – his players should be able to do all of this without leaning on the stick. For him, there is no age limit when it comes to unicycling. "We've even had a 70-year-old retired doctor in our club who wanted to learn how to unicycle," he related. "Everyone is welcome here."

–Sven Chamberlain–

Keeping your orientation when you're head over heels

As an air traffic controller at the DFS control centre in Karlsruhe, Manuela Pach controls the upper airspace over Germany. She also demonstrates good orientation in the air as a diver, where she became a two-time Masters champion this year.

It would not have taken much for Pach to have missed her crucial aptitude test at DFS 22 years ago. After passing the first round of tests, she used the time until the final test in September 2001 for a trip to the United States. In the late evening of 10 September, she boarded the plane in San Francisco for the flight home. Hours later, terrorists hijacked four passenger planes in New York and Washington and used them to carry out the terrorist attacks of 11 September.

When all air traffic in US-American airspace was subsequently grounded, her plane was already over the Atlantic. "I only found out what had happened after I landed in Germany," said Pach, who passed the final test the following day and began her training as an air traffic controller at DFS in early 2002. She has been working at the Karlsruhe control centre for two decades, where she controls air traffic in upper airspace, that is above 24,500 feet (around 7,500 metres). She says that working as an air traffic controller requires not only a certain relaxed attitude but above all a willingness to make decisions.

"You have to make decisions." In lower airspace, many ad-hoc decisions are necessary to ensure the safe, orderly and efficient handling of traffic. "In upper airspace, we do more forward planning, where the decision on how to deal with a potential problem is made 100 kilometres in advance."

World champion in Japan

An air traffic controller should also have good spatial awareness. This is no problem for Pach, as she also needs this for the sport, which she practised at a competitive level as a child. "I got my good spatial orientation from diving," she said. "When I jump from the tower and turn during a twist, I always know exactly where I am in the air." She recently showed again just how good this orientation was at the World Aquatics Masters Championships in Japan in August: Competing in seven disciplines, she returned home with two gold medals and one silver.

She owes the fact that she was able to travel to the championships in Japan during the summer peak season to the support of her family and her colleagues at the Karlsruhe control centre. While her two sons, aged 10 and 13, and her husband, who is also an air traffic controller, had her back at home, her colleagues in the control room organised replacements for the time she was away, swapped shifts and moved shifts and ensured that someone stood in for her at the DFS Academy in Langen, where she was scheduled to be an examiner for the trainees. "I couldn't have done it without the support of my family and the help of my colleagues."

Pach got into diving at the age of five when the talent scouts at a sports club in Dresden were looking for sporty children in her kindergarten. "I was small, slim, fast and agile, and people thought that made me suitable for diving." In the second year, she went to a specialist sports secondary school, where sport and school ran in parallel – training and lessons took place every day from Monday to Saturday. A strict programme that required a lot of discipline. Pach was never afraid of jumping from the 10-metre tower. "I loved this sport," she said, describing herself as a "child of the East German competitive sports system".

Au-pair in the United States

After reunification, she made it to the German junior national team before ending her sports career as a competitive athlete after graduating from upper secondary school. "I wanted to go to the United States as an au pair, and the job security as a competitive athlete seemed too uncertain." After returning, she began studying nutritional science in Jena. This is when she became aware of DFS, which was urgently looking for air traffic controllers at the time and had therefore advertised everywhere. "So, I said to myself – just give it a try."

After a break of almost two decades, she returned to diving by chance when she met a former fellow competitor who was training children in diving at the Fächerbad swimming pool in Karlsruhe while swimming with her sons. At his instigation, she started training again and the two have been competing together regularly ever since, winning the European title in synchronised diving last year. She also works as a coach. At the SSC Karlsruhe sports club, the 44-year-old supervises a training group with children twice a week who she tries to teach the basics of her sport. "I enjoy that," she said. The training should also be fun for her protégés but Pach doesn't want to give up on one thing: "I want to see them try their hardest."

–Holger Matthies–

We love flying

Many DFS employees are passionate about aviation in both their work lives and their private lives. *transmission* portrays two colleagues who are fascinated by the world of aviation in all its facets.

Muharrem Sahiner is a tower controller at Frankfurt Airport. He holds a pilot licence for light aircraft. For many years, his main passion was gliding.

At the age of twelve, Sahiner was already interested in cockpits and aircraft systems. "I tried to understand the technology behind them," he said. He completed his first flights on his home computer. "I was still at lower secondary school at the time. I immersed myself in Airbus manuals and procedures. That was my motivational evening read, so to speak."

In 2011, the now 28-year-old started gliding in his home near Lörrach, in the south of Germany. Once he had his gliding licence in his pocket, he concentrated on cross-country gliding. At the same time, his school career also took off. In 2012, he transferred to a technical upper secondary school, where he completed his university entrance qualification, before moving to Aachen to study mechanical engineering at RWTH Aachen University. There, he specialised in aerospace engineering.

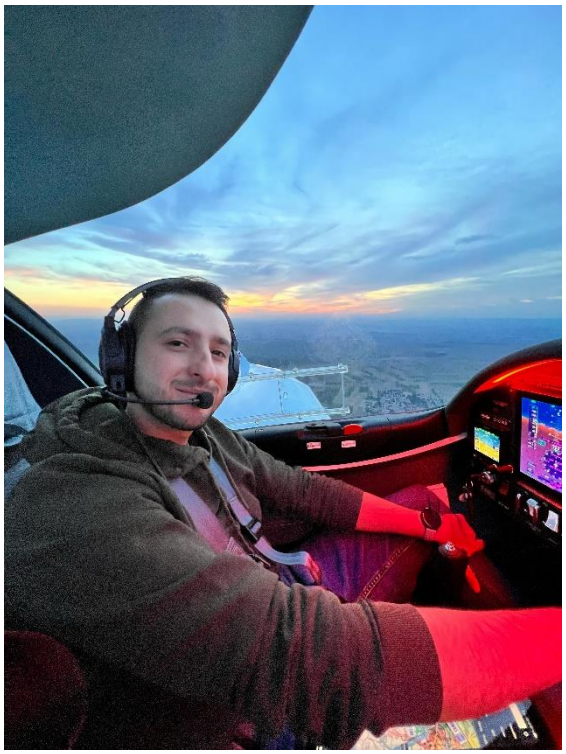
"I saw on Facebook that DFS was looking for student air traffic controllers," said Sahiner. During his studies, he realised that he wanted to be even closer to flying. "After a visit to the control centre of the Swiss air navigation service provider, I was drawn to the profession of air traffic controller."

In 2016, he passed the selection process and began his tower training at DFS. "The experience I gained from the flight simulator and flying still helps me in my day-to-day work today," he said. In the meantime, Müllheim (near Lörrach) and Mainz have become his new flying bases.

"I'm currently working on my instrument rating."

As gliding is very time-consuming, he had to put his favourite hobby on the back burner. Instead, he extended his licence to include a motor glider rating. This was followed by licences for ultralight aircraft and light aircraft with a night rating. "I'm currently working on my instrument rating," said the air traffic controller.

What fascinates him about flying is seeing new places and flying to challenging airports and aerodromes abroad. "Nevertheless, gliding is still the most beautiful and challenging type of flying for me," he emphasised. He can also imagine working as a flight instructor in the future.



Martin Trotz grew up right next to the Mainz Finthen aerodrome, a general aviation airfield located southwest of Mainz and less than an hour's drive from DFS Headquarters. It took him only three minutes to walk to the runway. Nowadays, he is an air traffic controller at Frankfurt Airport and an avid amateur pilot.

Being a tower controller at one of Europe's largest airports is a dream job for Martin Trotz, even though he wanted to become a professional pilot as a child. He was already fascinated by flying as a little boy. He spent many hours on his computer's flight simulator and piloted model aircraft for several years. "When I finished school in 2012, however, the aviation industry was not doing particularly well and it was clear that it would become increasingly difficult to fly professionally," he recounted. DFS was not hiring any student controllers at the time, either. The Mainz native therefore decided to study aeronautical engineering in Ingolstadt, Bavaria.

However, he was never really entirely content with this choice: "I felt it was too far away from flying." Nevertheless, he pressed on, completing internships at Lufthansa Technik and later wrote his bachelor's thesis there. "From my office at Lufthansa Technik, I could see the DFS tower at Frankfurt Airport, which triggered the notion that I could still apply to become an air traffic controller after all." Shortly before the end of his studies, he did so, passed the demanding aptitude test and started at the DFS Air Navigation Services Academy in Langen in 2017.

The 30-year-old learnt to fly before he was legally permitted to drive a car. On his 16th birthday, he had his first flying lesson in an ultralight aircraft. At 17, the minimum age, he got his pilot's licence and then went on trips across Europe. "A driving licence was no longer so important to me; I had the plane as a means of transport". He usually split the costs of the flights with friends from his flying club (Luftfahrtverein Mainz e.V.) who flew with him. In addition to the compulsory hours he had to do as a club member, he also worked in aerodrome operations at the tower at Mainz Finthen.

Martin Trotz looks back fondly on this time. "I quickly realised that this kind of work was exactly my thing." This affinity later stood him in good stead during his training as an air traffic controller, especially as he was already very familiar with radiotelephony.

He has since upgraded his ultralight licence to a PPL(A) licence for light airplanes. "I can only ever take just one passenger with me in ultralight aeroplanes, which wasn't enough for me in the long run," he explained. He has retained a penchant for flying abroad – he recently flew to Norway, for example. One of his favourite destinations is the southern islands of Denmark, where he loves spending the night in a tent under the plane. Several times a year, he also visits the North Sea island of Langeoog, where his grandmother lives right next to the aerodrome. "It no longer takes me eight hours to travel by car, then on by ferry and train as it used to but only two hours by plane from door to door." He often combines flying with another hobby – photography. Even as a teenager, he specialised in aviation imagery. Ever since he started flying himself, air-to-air photography has been his passion.

Trotz says that flying has given him a very large circle of friends. Many of his flying companions, who also spent their free time at Finthen airfield back then, are now professional pilots with various airlines. "We often joke that we all have bigger toys now than we did back then – they have bigger aeroplanes and I have a bigger tower," said Trotz. He even met his girlfriend at the

airfield in Mainz Finthen when she was working in the restaurant there.

The air traffic controller now has around 700 flight hours and wants to continue his flight training, with a night flight qualification and training to become a flight instructor. In the long term, he is then looking to obtain a licence under instrument flight rules. "That will also provide additional safety."

–Sandra Ciupka–

The DFS Flying Club – All are welcome

Back in 1966, a few aviation enthusiasts from the then German Federal Administration of Air Navigation Services (BFS), the predecessor organisation to DFS, got together and founded the BFS Flying Club. Initially, the club had a strong leisure orientation for hobby pilots but it developed rapidly after the turn of the millennium. Flight activities were increased and pilot training intensified. Since then, the DFS Flying Club, as it is called today, has not only produced a large number of enthusiastic private pilots but also several professional pilots who now fly for well-known airlines such as Condor or Eurowings.

Further information (in German) at www.dfs-fliegerclub.de.

BAF moves into new home

The German Federal Supervisory Authority for Air Navigation Services (BAF) officially moved into its new offices in Monzastraße in Langen in mid-November 2023, a stone's throw from DFS Headquarters.

The ceremony was attended by numerous guests from the aviation section of the German Federal Ministry for Digital and Transport (BMDV) as well as European institutions and partner authorities, including DFS CEO Arndt Schoenemann. "The new building is a symbol of the fact that BAF has now moved on from its development phase since its foundation in 2009," said BAF Director Dr Karsten Baumann. "As a full-service provider of air traffic control supervision, BAF is constantly evolving and facing up to new challenges such as unmanned aviation." In doing so, it is essential that BAF remembers its three founding pillars – independence in organisation, personnel and budget – and adapts these to the changing challenges.

New BAF building

German-Greek co-operation

A delegation from DFS visited the Hellenic air navigation service provider HASP in Athens to intensify international relations in the aviation industry.

The head of HASP, Giorgos Dritsakos, and the CEO of DFS, Arndt Schoenemann, exchanged views on common matters and agreed to continue these talks and work together in the future.

Representatives of DFS Aviation Services GmbH, the subsidiary responsible for the commercial business of the DFS Group, also took part in the meetings. During the visit, the DFS delegation also toured the control centre in Athens.

Testing automated drone deployment

The two companies Droniq and Eviden have carried out test operations at Paderborn Lippstadt Airport in which the automated drone inspection of a car fire, including the search for people using a thermal imaging camera, was simulated.

Paderborn wants to be the first district in the whole of Germany to establish automated drone systems for emergency operations.

In an automated drone operation, the drone flies independently to the scene of the incident, receiving the command to take-off from an emergency response centre. A pilot who sets up and controls the drone at the scene of the incident is no longer necessary. The drone can be charged and kept ready for operation in a "drone garage" so that it is ready to take off at any time. When a mission command is given, the weatherproof station opens and the drone flies its route before returning there. The drone is integrated into air traffic via a transponder, enabling safe operation together with other aircraft.

During the demonstration at Paderborn/Lippstadt Airport, the DFS subsidiary Droniq handled the flight and the integration of the drone into airspace. Droniq had already applied for the necessary flight permit. Eviden was responsible for communication at the control station. Commenting on the development, Droniq CEO Jan-Eric Putze said: "The automated use of drones marks the next logical step in the utilisation of this technology, which can benefit fire brigades and other emergency services, for example."

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