

Edition 1 – 2022

# transmission

The DFS magazine

Eyes for sight

Saskia Maack is a FIS specialist

The digital classroom

Paperless training at the DFS Air Navigation Services Academy

## Team players

In air navigation services, different professional groups guarantee safety.



DFS Deutsche Flugsicherung

## Dear reader

A brutal war is raging in the middle of Europe. Russia's attack on Ukraine has also changed air traffic control operations at DFS. The share of military aircraft movements surged at the beginning of the war. The German Air Force and its allies are securing the NATO eastern border using fighter jets. They are also flying refuelling missions and performing medical evacuation flights. The civil-military integration established in Germany has proven its worth: The well-rehearsed cooperation between DFS staff and those of the German Armed Forces and the German Ministry of Defence (BMVg) made rapid solutions possible. For this achievement, DFS received the Maverick Award in June 2022.

But it is not only military aircraft movements that have risen sharply; civil air traffic has also increased enormously. Volumes have rebounded to almost pre-pandemic levels much faster than predicted – and even exceed them at peak times. This poses challenges for the entire aviation industry.

DFS is continuing to look for more new staff – especially in air navigation services. And that does not just mean air traffic controllers. Operational occupational groups also include flight data specialist, FIS specialists, aerodrome coordinators and AIS officers. In this issue of the DFS Magazine, we present these

professions. For aviation enthusiasts and those who want to become one, these jobs offer an exciting environment. Many operational colleagues get involved in projects alongside their normal day-to-day business and work to make air navigation services even safer and better.

The fact that DFS has a great workforce was also evident at the beginning of the Ukraine war. Our human resources department organised refugee support in which numerous employees participated. They provided accommodation, collected relief supplies or acted as interpreters. Teamwork is an important element in air traffic control. This spirit is also evident in situations that are not directly related to air traffic control.

Commitment and team spirit are skills that will carry us through the coming, presumably difficult years. These qualities are our strength. Those who choose a career at DFS are choosing a supportive and positive environment. We are looking forward to welcoming you in the future.

Sincerely

Arndt Schoenemann

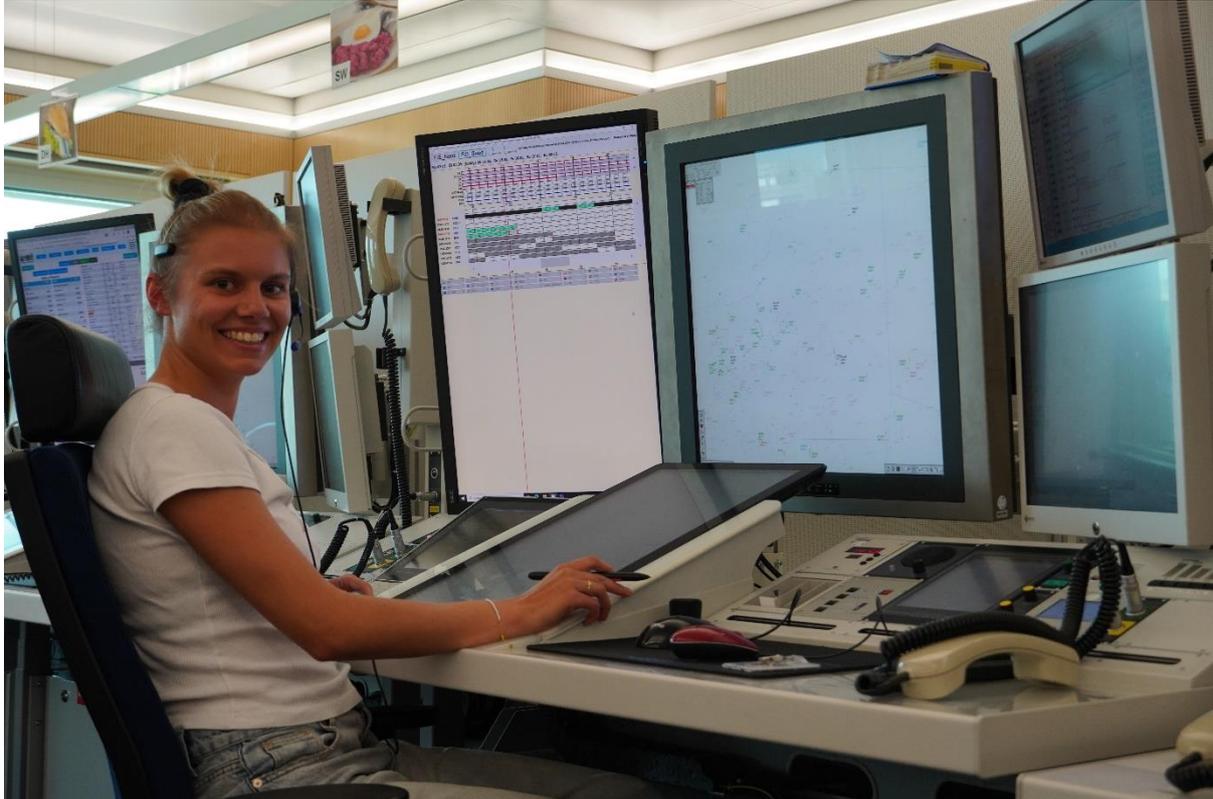


**Arndt Schoenemann**  
Chairman and Chief Executive Officer

## Eyes for sight

From her workplace, Saskia Maack keeps an eye on the airspace above the northern half of Germany. She supports pilots flying under visual flight rules (VFR) via radio.

*Visual flight rules means the weather is good enough for pilots to fly by looking for other aircraft and obstructions. They do not need to rely on their instruments.*



When Saskia Maack is asked what she does for a living, she says: "I work in air traffic control, but I am not an air traffic controller." Admittedly, this is a popular answer to this question among staff working for DFS, the German air navigation service provider responsible for the skies above Germany. Of the variety of jobs at DFS, Saskia Maack is right – her job has perhaps the most in common with that of an air traffic controller. Her working position consists of multiple monitors. One monitor has a radar display, one has meteorological information and in front of her is a touch display with flight progress strips showing information about the aircraft on her radar display. She communicates continuously with pilots via radio.

Saskia Maack is a zFIS specialist. The 'z' means it is a central DFS unit (for the German *zentral*) and FIS stands for the flight information service.

The central flight information service (zFIS) provides information to air traffic in airspace where no air traffic control clearance is required. Saskia has a supporting function, unlike the air traffic controllers at DFS, who guide the course of aircraft in controlled airspace by giving level, direction and speed clearances, among other things. Her customers are mainly private pilots and glider pilots, but also include police and rescue helicopters. These fly at low altitudes and under visual flight rules in contrast to commercial airline traffic.

The central flight information service supplies information to these pilots flying under visual flight rules on such issues as surrounding air traffic, the weather and controlled or closed airspaces. In addition, these specialists also provide support with recommendations on altitudes or course, obtain permission to cross

controlled airspace or ask about current weather conditions at the destination aerodrome. There are eleven sectors in Germany, each served by a zFIS specialist on a fixed radio frequency. Saskia is responsible for the sectors in the northern half of Germany. The area covers Düsseldorf, Frankfurt, Hamburg, Hannover and Berlin.

"We communicate using defined phraseology," said Saskia. "It's mandatory and also safer, too, because we avoid misunderstandings that way." The phraseology for the initial call usually contains the name of the frequency, the call sign and a greeting. The latter is not only about being polite, it also signals to the zFIS specialist that the caller is new on the frequency. After the call has been confirmed, the call sign, aircraft type, departure and destination aerodromes and altitude follow again. With the altitude, the zFIS colleagues match the information sent by the transponder on their radar displays and transmit the so-called QNH value, with which the altimeter is set to the surrounding pressure conditions. "But there are also many special cases that cannot be communicated with standard phraseology," Saskia told us. "I once had a case where an airport employee called me to tell me that the plane on my frequency that had taken off there earlier had left its fuel cap on the ground." She then informally advised the pilot to turn around and pick it up. "Even with weather phenomena, we sometimes deviate from the phraseologies and describe it a little more precisely for the pilots," she said. And if she notices that a pilot is unsure, she also helps him with the right radiotelephony phraseology: "With beginners, we just ask again if they have forgotten something in the radio message and monitor them a little more closely."

### Thank-you letters

The highest priority is safety. "The most important thing for us is to support pilots when they have problems so that they can land safely." However, she has to reprimand pilots if they do not follow the radiotelephony rules. "It's especially difficult when pilots don't stick to the NATO alphabet but spell with ABCDE. Some of the letters can't be understood over the radio." Overall, however, the interactions and communication are friendly. "Most pilots fly for

fun, are in a good mood and thank us for the service," she said. In return for their services, they sometimes receive postcards and e-mails from satisfied customers.

The service is popular. Especially in the summer months, she and her colleagues have a lot to do. "We don't know who is coming," said Saskia. In controlled airspace, which is monitored by air traffic controllers, the planes advertise themselves in advance by the flight plans they submit. Private pilots, on the other hand, can take off spontaneously without announcing anything in advance. "If there is good weather on weekends and holidays, we know it will be hard." She then sometimes has far more than 30 aircraft on her frequency which she takes care of at the same time. In addition, there are those who do not report to zFIS but are flying through her sector, which she also has to keep an eye on. "But with such a workload, it's hard for us to offer any additional service, we can only monitor that everyone gets safely to where they want to go." At such busy times, Saskia is on duty for up to three hours at a stretch. "During this time, you are fully concentrated and need a break afterwards

Her working day is eight and a half hours long, including the prescribed breaks. zFIS is available from 6 a.m. at the earliest to 10p.m. at the latest, depending on the season and brightness. "We work a relaxed version of shift-work, so to speak," she said. By this, she means that she is also on duty at weekends, but does not have to work any night shifts. The work rhythm of her and her colleagues is usually five days working and three days off.

Saskia applied to become an air traffic controller at DFS during her school years, but was eliminated in the selection process. "I liked the type of job, however, and have been very interested in aviation ever since," she said. After an internet search, she then became aware of a job advertisement for flight data specialists and applied again. She was successful and started her training at the DFS Academy in 2012.

She was flight data specialist for five years until she applied for the flight information service training in 2017. Through her training and work

experience as a flight data specialist, she already had relevant knowledge in, among other things, aeronautics, aviation English, meteorology, navigation and radar technology. "For the selection process for zFIS, maths, reaction and memory skills were important," said Saskia. She was able to greatly shorten her training as a zFIS specialist with her prior knowledge.

Saskia still remembers her first shift of practical on-the-job training very clearly. "That was in the early shift at 6 a.m. and I could see the first VFR aircraft taking off," she said. The VFR aircraft can be recognised by the fact that they are shown in green on the radar screen. "I was extremely excited and thought, 'Someone's

going to call in and I have to answer somehow'." The first radiotelephony message was very shaky and also incomplete. "My coach then told me it was normal and after about a week or two I had more confidence." And she also remembers the first time she sat alone on duty and was able to communicate confidently with the pilots without her coach. "That was cool – talking to the pilots without them realising I was new."

She has been a trained zFIS specialist for almost four years now and really enjoys her job. "I like my colleagues and really appreciate that I don't have to worry about the job in my free time and can just switch off."

*–Sven Chamberlain–*



Saskia Maack at her workplace in the central flight information service.

### The path to becoming a zFIS specialist at DFS:

The selection process to become a zFIS specialist starts with a telephone interview. The interview focuses on motivation and English language skills.

This is followed by mental agility tests in the computer-based training (CBT) studio at the DFS Academy: This involves memory, concentration, geographical knowledge, reaction time and English.

In a specially developed work sample, the applicant slips into the role of a zFIS specialist and has to communicate information to several pilots in front of a radar screen. This is followed by another interview, which is accompanied by a zFIS supervisor and a psychologist.

**Prerequisites:** Secondary school leaving certificate with completed vocational training or a university entry qualification

- Very good, active command of the English and German language (ICAO Language Proficiency Level 4)
- Good knowledge of the use of modern communication media/data processing systems (for example, basics, hardware, office communication)
- Proof of medical fitness in accordance with applicable requirements
- Security clearance check
- Strong reasoning skills, concentration and sensory speed, retentiveness
- Very good ability to process several pieces of information at the same time

## The cool coordinator

Staying calm in stressful situations – that's something Patrick Krämer learnt as a teenager. This quality is indispensable in his job as aerodrome coordinator at DFS. It also helped him when he had first-hand experience of misfortune.



*Patrick Krämer at his workplace in the control tower at Frankfurt Airport with his colleague Sabrina Häfele.*

Patrick Krämer is on duty in the tower of Frankfurt Airport. The cockpit crew of a Condor Boeing 767 contacts him via radio. The pilots state that they cannot accept their assigned departure route. With the route over the Taunus, a low mountain range north of Frankfurt Airport, they will not reach the prescribed altitude there so soon after take-off. The aerodrome coordinator quickly remedies the situation and assigns the crew a new departure route. Then he deals with the other aircraft waiting to get his approval to start their engines.

Patrick has been aerodrome coordinator at the control tower in Frankfurt since 2016. His job is to bring order to the take-off sequence at Germany's largest airport. Air traffic is recovering much faster than expected after the pandemic and Frankfurt Airport is almost as

busy as it was in 2019. Up to 106 aircraft take off and land there every hour. The DFS aerodrome coordinators decide who is allowed to taxi to the runway and when. In doing so, they also protect the environment. "It's better to have the planes waiting at their stand instead of in a queue at the runway with their engines running," said the 31-year-old.

To ensure that processes run as smoothly as possible at such a large airport, there are systems that support Patrick and his colleagues in their work. With something known as airport collaborative decision making, air traffic control, airlines and airport operators jointly try to determine the most accurate time possible for aircraft take off. This only works when everyone receives all the information they acquire as and when they need it. The airlines have time slots that they must keep to. Another

important factor is the Network Manager at the European Organisation for the Safety of Air Navigation, EUROCONTROL. The Network Manager ensures that the airspace over Europe is not overly congested. If it gets too crowded, aircraft have to wait at the airport until there is more space in the skies again.

*"It often gets particularly stressful shortly before 11 p.m."*

"There are many factors that can upset these finely tuned processes," said Patrick. A thunderstorm sweeping over the airport, for example, or an aircraft blocking the runway due to technical problems. The aerodrome coordinators sit in the tower cab next to the air traffic controllers. They need to have an overview of everything that is happening on the apron, taxiways and runways at all times in order to be able to react as quickly as possible. If the taxiway is currently blocked, another aircraft is moved forward in the queue. If an aircraft misses its slot, the aerodrome coordinators will determine the next possible take-off time. They are in contact with the cockpit crews via radio or datalink. Excellent English is a basic requirement for this job. "It often gets particularly stressful shortly before 11 p.m.," said Patrick. Then everything will be done to get the aircraft into the air in time and, above all, safely before the night curfew. "When we can do that, it's always a good feeling and I then go home satisfied."

Patrick has many passions. Aviation is one of them. He started flying sailplanes at the age of 14. This was followed by the licence for a touring motor glider and the private pilot licence. He is a member of a flying club at Egelsbach Airport, the aerodrome closest to the DFS Headquarters, and enjoys sitting at the controls of a Piper PA 28.

Even as a teenager, it was clear to him that he wanted to work in the aviation industry. During a visit to the DFS Recruiting Day at the company's headquarters in Langen, he learnt about the profession of flight data specialist. This avenue of training is the basis both for the profession of FIS controllers and for aerodrome coordinators. Originally, the man from Lower

Franconia in the top left-hand corner of Bavaria wanted to become a FIS controller. "As a private pilot, I have to deal with the flight information service all the time," he said. But when the opportunity arose to train as an aerodrome coordinator, he jumped at the chance. "Working in an air traffic control tower is absolutely fascinating."

### **Staying cool and getting your way**

Besides flying, the rescue services are an important constant in Patrick's life. He has been with the Red Cross since his youth. He completed his training as a paramedic while still at school. "I have seen many bad accidents while working for the Red Cross," he said. "In such cases, it is important to remain calm and work through the steps you have learnt."

His experience in the rescue services helped him when he got into a life-threatening situation himself one day. Patrick was on the train that derailed near Garmisch-Partenkirchen, an Alpine ski town in southern Germany, on a Friday at the beginning of June this year. "It was pure coincidence that I got in at the front of the train," he said. It is only thanks to this coincidence that Patrick only suffered a bruise to his knee. Five people died in the middle section of the regional train and many passengers were injured, some seriously. The DFS colleague immediately started caring for the injured after the accident. He assisted the emergency doctor, who was the first to arrive at the scene. "The first paramedics were initially overwhelmed with the situation," Patrick reported. As an experienced Red Cross worker who trains paramedics himself, he supported the less experienced emergency workers and helped to bring order to the chaos. Just as he always does in his daily work in the control tower of Frankfurt Airport. Whether in the rescue services or in his job at DFS, nothing works without clear instructions. "You have to stay cool and know how to get your way," he said.

### **Part-time MBA**

He is also an instructor at DFS and has recently become an examiner of prospective aerodrome coordinators. He also spends fifty percent of his working time on projects to improve processes at the airport. He also has a lot to do with

partners from Fraport, the airport operator, and Lufthansa. His Master of Business Administration (MBA) in Aviation and Tourism Management, which he obtained part-time, is an asset in this work. "As I have a university entrance qualification from school, I always planned to study at some point. Doing the MBA was just the right thing for me." DFS supported this study programme both financially and with time off to prepare for exams.

Patrick's shift on this day is coming to an end. An Austrian Airlines crew has missed their slot and needs assistance from the aerodrome coordinator. He coordinates a new take-off time. Then, it's time to call it a day. "For us, despite all the routine, no two workdays are the same," he said. "That's also what makes the job so exciting."

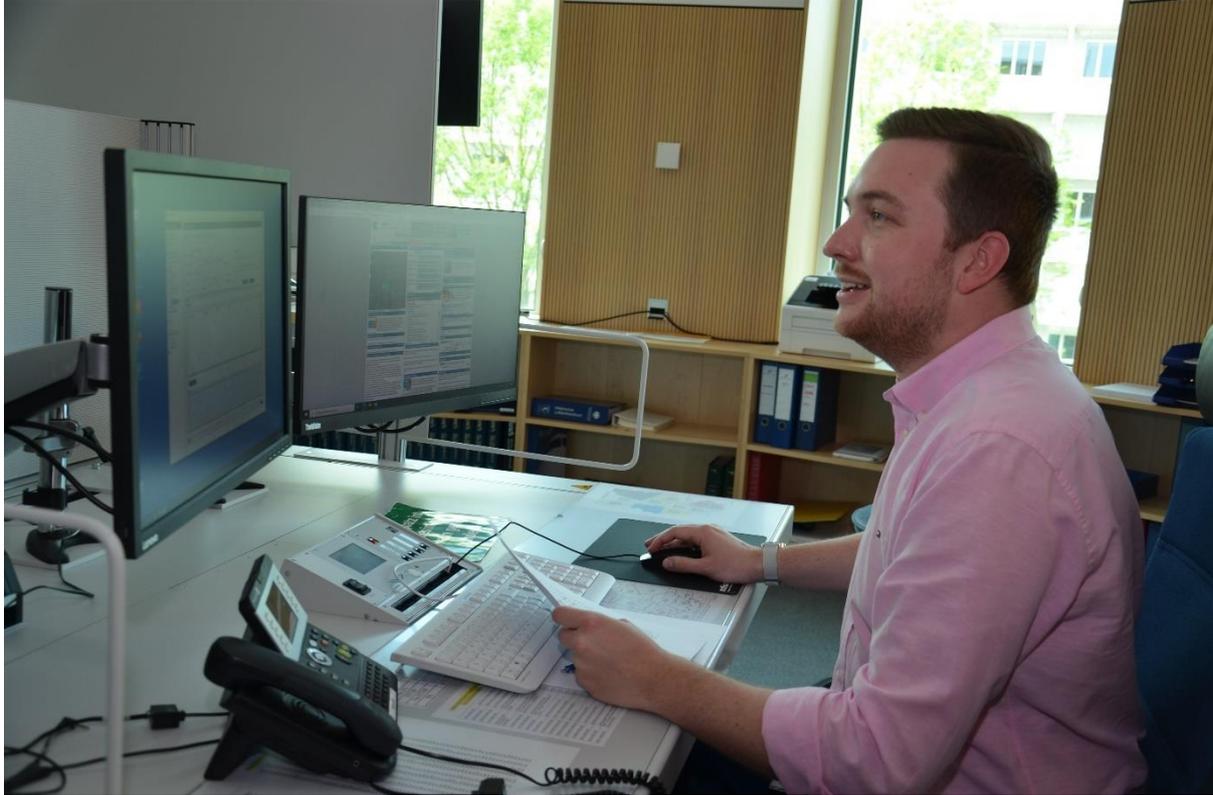
*–Sandra Ciupka–*



*Instructor Patrick Krämer (right) with his trainees Liska Horstmann and Andreas Bopp.*

## What a pilot needs

Immanuel Fach first came into contact with DFS while doing a work placement from school. More than a decade later, however, he found his way back to air traffic control as an aeronautical information service officer.



For the past four years, the AIS-C (Aeronautical Information Service – Centre) at DFS has been located in a large, bright room on the second floor of the DFS Langen control centre. AIS officer Immanuel Fach knows this room from before. Fifteen years ago, the 29-year-old worked there for two weeks on a work placement. At that time, the systems control and monitoring department was located there and its technicians and engineers monitored and, if necessary, repaired the radar, radio and navigation systems of the central branch of the company. "As a pupil on a placement, I was allowed to do a bit of programming there," Immanuel recalled. At that time, it was not (yet) in the cards that he would find his professional home in this room a decade later. As far as IT and programming were concerned, at least he knew after his placement that this was not for him.

He found the working environment interesting even then, however. Especially the work of the air traffic controllers attracted him when he was allowed to spend an afternoon looking over their shoulders – "That was really exciting." He had had direct contact with aviation since his childhood in a very literal sense. The distance from his parents' house to the fence of Frankfurt Airport was about 700 metres. Aircraft in the sky above his home were a common sight for him. "For as long as I can remember, I have leant my head back and looked at planes."

While he was still preparing for his school-leaving exam, he applied for the rigorous aptitude test in Hamburg to become an air traffic controller. But success eluded him. "After that, I shelved the topic of air traffic control for the time being."

Immanuel then did an apprenticeship to become an insurance salesman and worked in an

insurance agency. "There, I learned how to provide advice on products and break down the details so that they were understandable for potential clients." This is a skill that still stands him in good stead today in his work as an AIS officer.

The fact that he finally ended up in air traffic control is thanks to a tip from his father, who works as an HR manager at the DFS Langen control centre. Five years ago, he told him that DFS was looking for AIS officers. AIS officer? The job title did not mean much to him, but his old love of aviation made him curious to find out more. "I was also interested in the aspect of providing advice. That's why I read up on information material and applied."

The work of an AIS officer can be divided into three major areas of responsibility: aeronautical information service, flight plan management and landing site supervision. The aeronautical information service primarily involves advising pilots on their upcoming flight and providing all the information and documentation required for a flight plan.

Flight plan management comprises the receipt, processing and forwarding of flight plans and flight-plan-associated messages. "The term aeronautical information service does not quite reflect what we actually do," Immanuel said. "We do more than just that. Air traffic services reporting office is a better description."

*"We are more than just advisors."*

The third area, landing site supervision, involves monitoring the punctual landing of flights at

uncontrolled sites as well as all landings under visual flight rules (VFR) at controlled aerodromes with the exception of the 15 designated international airports in Germany. After a flight plan has been flown, it must be known what has happened to the aircraft within half an hour of reaching the landing time calculated by the system. "The pilot is obliged to have his flight plan closed," said Immanuel.

Most of the customers are private pilots who fly under visual flight rules. In addition, there are smaller airlines and private pilots flying under instrument flight rules (IFR). As soon as a flight contains a portion under IFR, the pilot must submit a flight plan. If you are flying under visual flight rules only, it depends on where you are flying to. "Most of the countries surrounding Germany expect VFR flyers to submit a flight plan," Immanuel said.

While the large commercial airlines submit their flight plans directly with EUROCONTROL's Network Manager, AIS-C customers do so by telephone, fax or via the AIS-C online portal. "Submitting a flight plan via the online portal is the most common and convenient way," said Immanuel.

Immanuel is authorised to work at two of the three working positions in the AIS-C: the aeronautical information service and flight plan management working position, and the landing site supervision working position. He still lacks the authorisation to work in the NOTAM office. What he likes about his job is the broad spectrum of tasks. "To do this, you come into contact with all kinds of people who all have a connection to aviation," he said. "That unites us, and that's a nice feeling."

*–Holger Matthies–*

## Facts and figures

In 2021, the AIS-C processed 65,000 VFR flight plans for visual flight and 46,000 IFR flight plans. In addition, 261,000 flight-plan-associated messages and 96,000 flights with landing site supervision. 612,000 pre-flight briefings were drawn up and 26,000 NOTAM published. The AIS-C has 60 operational staff.

## Always at the centre of things

**Dominik Huhn works as a flight data specialist at the DFS Langen control centre and is the most important contact person for the air traffic controllers around him. He has a solution for every thunderstorm and shields his colleagues from too much traffic.**



It doesn't always have to be the direct route that leads to your destination. This sounds like a hackneyed phrase, but in Dominik's case it is doubly true. The 35-year-old came to DFS in a roundabout way. "Actually, I wanted to become an air traffic controller like my father, but I flunked the aptitude test." Because he still wanted to work in aviation, he began studying maths, physics and meteorology at a university in Bonn, Germany, with a new career goal of working in aeronautical meteorological services. During the third semester, his father gave him the crucial tip: DFS was looking for flight data specialists. Dominik applied a second time – this time with success.

He began his training in 2010 and has been at the Langen control centre since 2011, where he is now the expert for alternative ways of reaching destinations: As a flight data specialist, he looks after aircraft that do not fly as originally planned.

### Important role

"If you want to fly through German airspace under instrument flight rules, you have to submit a flight plan," Dominik explained. This plan is also the basis for the air traffic controllers who monitor the aircraft on their way from take-off to their destinations. It is 9 p.m. and his shift starts in half an hour. Dominik already knows that it will be a busy night because a thunderstorm is rumbling outside. And that means to avoid the thunderstorm cells, many aircraft cannot fly as planned. "As a flight data specialist, I then have to work out a new route and coordinate it with the neighbouring sectors."

In the air, like on the ground, there is a fixed route network, with fixed rules. "Some airways can only be flown at specific altitudes, or only by specific types of aircraft," related Dominik. The air traffic controllers, who keep an eye on the sky and its route network, are only

responsible for part of the traffic at any one time, otherwise they would lose their awareness of the whole situation. Airspace is therefore divided into sectors, each of which is monitored by two air traffic controllers. "If there is a storm and the planes do not fly as planned, other sectors are also affected," Dominik explained. He has to enter the new flight plan into the system so that it appears for the controllers as an electronic flight progress strip. In addition, he has to inform the neighbouring sectors, which do not yet have the additional traffic on their radar screen.

Flight data specialists work in the control room. Air traffic controllers sit there at long rows of desks. They keep an eye on the air traffic on monitors and issue instructions to the pilots via their headsets. The murmur of radio messages permeates the room. The working position of a flight data specialist looks very similar to that of the controllers, except that they are not in contact with aircraft crews, but with the controllers around them. "We sit in the middle so we can listen in on the radio," he said. "Not only do we know the traffic situation on the screen, but we also know what is being said."

*"We are the first point of contact for controllers."*

It is not only during thunderstorms that flight data specialists play an important role. They always come into play when a flight plan has to be changed, for example, if an aircraft cannot land at Frankfurt Airport because of a runway closure but has to be diverted to Cologne. In the event of on-board medical emergencies, they also step in to ensure that the aircraft can land as quickly as possible. This is also the case for more trivial changes, for example, if the pilot wants to fly a shortcut or if the flight plan contains an error. "We are the first point of contact for the controllers for flight plans."

The fact that flight data specialists and air traffic controllers have a lot in common starts in the training. "The basic training is the same for both at first. I felt like I was part of a big air traffic control family. It was a very cool time," said Dominik. He particularly likes the fact that the job is a little different every day and that there is room for development and advancement. "You can specialise as an aerodrome coordinator in the tower and coordinate start-up approvals. And if you want to have more contact with the pilots, you can support pilots flying under visual flight rules in the flight information service."

He himself has opted for a third route. When he is not on duty as a flight data specialist, he works at the flow management position. "My job then is to shield controllers from an overload situation. To do that, I have to assess how complex the traffic is and how much of it they can handle." If demand exceeds capacity, the number of flights has to be reduced. Then Dominik contacts the Network Manager in Brussels, where all flight plans come together.

Similar to air traffic controllers, flight data specialists also have to take a break after some time on duty so that their concentration ability does not suffer. "That's when I like to walk around our beautiful campus. Or I do some exercise. We even have our own gym in Langen." He does not mind the fact that his working day often begins when others have long since finished. "I am a natural for shift-work," said Dominik. Apart from the night shift, he especially likes the early shift, even if it starts at a quarter to six in the morning. "On the flip side, you have free time all day, which is great," he said.

Then Dominik has time to look after his eight-month-old daughter, or just to take a nap. "Working from nine to five every day wouldn't be my thing. Besides, there is no alternative. Aircraft fly around the clock."

*–Christopher Belz–*

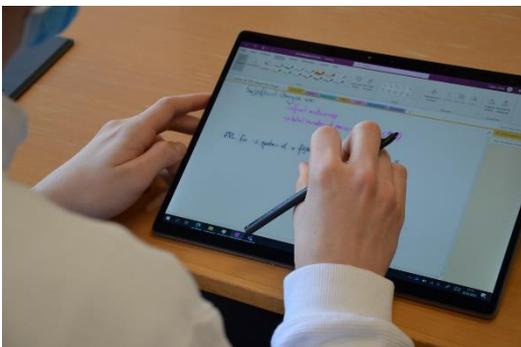
## The digital classroom

The journey to becoming an air traffic controller is still demanding, but it has become a little easier. Paperless training has begun at the DFS Air Navigation Services Academy in Langen. Instead of heavy manuals, there is now a DFS tablet for each student.

In the ATC 327 course, everything looks the same at first glance. 15 student controllers sit at the desks in the DFS Academy listening to the course manager Markus Jodlbauer as he introduces them to the world of air traffic control. What are the rules of the sky? What is to be done if a pilot deviates from their flight plan? And what is the best way for a controller to react when the pilot wants a shortcut, but you cannot offer them a direct route at that moment? You can hear the whir of the cooling fans, the click of the keyboards, a student air traffic controller is making notes on the screen with a special pen. A real pen? A real pad? Real paper? None to be seen. You will look for them in vain in this classroom.

The reason is that the DFS Academy launched paperless training at the beginning of the year. For this purpose, the current 180 or so student air traffic controllers have received a DFS tablet computer. Since then, students no longer have had to lug around heavy binders with training documents. They have access to the Academy's learning management system (LMS) via the tablets. All manuals are stored there as PDF files. "Previously, there were eleven binders," said Jodlbauer.

*"Now everyone has the same hardware and software."*



Students working with tablets.

The new world is not only a relief for the students. Those responsible for the courses are happy as well. "This makes it easier to update the documentation," said Bernd Schlebusch, Head of ATM Training at DFS. In addition, applications are installed on the tablets which allow the students to deepen their knowledge outside of the classroom. These include the ATVoice phraseology trainer and a radar operation simulator on which trainees can reinforce simulator training in private. The DFS tablets are also an advantage for the cloud application NEWSIM Web, which is used for training. "Now everyone has the same hardware and software and can work equally well with NEWSIM Web," said Schlebusch.

The next application to be installed on the tablets is already in trial operation: the electronic course file. This is planned to replace the ring binders in which the performance of the students in practical exercises has been recorded up to now. That means a double page per exercise, so by the end of the training at the Academy, a small mountain of paper has formed in the course file. In future, the coaches will enter their observations in a debriefing tool after each training run. The electronic course file is an in-house development of DFS. "We expect to introduce it this year provided we have a successful trial run," said Schlebusch.

The classroom environment has also been modernised. Four digital classrooms are already equipped with smartboards, touch-sensitive screens the size of a blackboard. Four more of these will be installed in summer 2022. "Going forward, we want to retrofit all classrooms," said Schlebusch – tablets and smartboards in, blackboards and projectors out. "Many who come to us from school are also not used to anything else."

–Christopher Belz–

## We love flying

Many DFS employees are involved in aviation in their work and are passionate about flying in their private lives. In this issue, *transmission* is portraying two staff members who love flying. Other DFS staff members have sent their best aviation photos to the *transmission* editorial team.

Andreas Schick is a supervisor and air traffic controller at the DFS Langen control centre. He looks after air traffic around Cologne and Düsseldorf airports. He also flies Learjets and retrieves sick passengers from abroad.

We fly to places where people often go on holiday," said Andreas. Besides his job as an air traffic controller, he works for a charter company that specialises in emergency medical transport and bringing sick travellers back home. "The cases are typically injuries such as broken bones, heart attacks or strokes," said Andreas. Flying with patients is not much different from normal flight procedures. "Only when we have patients with brain tumours that were recently operated or aneurysms, for example, do we have to fly a little lower to keep a low cabin pressure," he said.

Andreas has travelled all over the world for medical repatriation flights: the Canary Islands, Russia, the United States, Mallorca, Egypt. "There were also some more exotic countries in the mix, such as Pakistan, Iraq or Afghanistan," he said. "In Kabul, we picked up a police officer from Europol. We had a four-hour window and I was glad when we got out of there." The time window had been specified by the aircraft insurance, as flights to war zones were normally not permitted. The longest route was from Frankfurt to Australia, with alternating crews and stopovers in Bangkok, Bali and Jakarta, among others.

"The Learjet flies high, fast, far and is relatively inexpensive," said Andreas. "That is why it has proven itself for medical transport." It would not be suitable for other purposes, for example as a business jet, because of its small cabin and its age: "The plane was built in 1979, so it's as old as I am." However, he has also had the odd cargo on board: "For example, we once transported a tonne of US currency in sealed bags." He does not know what the money was

for. He also once had a box with radioactive material for medical equipment on board.



His flying career began at the age of 16, when he flew in a glider, or sailplane, with his cousin. "I thought to myself, I want to do that too," he related. With the support of his parents, he was then able to acquire his glider licence. At the age of 18, he acquired a licence to fly powered sailplanes.

After leaving school, flying became a profession. He had already applied for the flying

service in the German Armed Forces during his school years. "But they didn't take me because of my visual impairment," said Andreas. During his compulsory military service, he acquired his pilot's licence and subsequently applied simultaneously to Lufthansa and DFS. "After passing the test at DFS, I was able to take the Lufthansa test, but I didn't make it at the end of the selection procedure. In 1998, he started training as an air traffic controller at DFS. "In retrospect, it was all a good thing," he said. A few years later, after the terrorist attacks in the USA, there was a hiring freeze for pilots, which would probably have affected him as well. In the following years, Andreas acquired several flight licences in addition to his job as an air traffic controller and finally completed his commercial pilot's licence. Through a contact with a fellow air traffic controller in the tower of Cologne

Airport, he then got his part-time job with the charter company as first officer in the cockpit of the Learjet.

Andreas has been a part-time pilot for almost 17 years, but has hardly flown since the pandemic broke out. "As holiday travel plummeted, a lot of our jobs have also fallen away," he said.

Since then, he says, it has become increasingly difficult to find the flying hours to keep his licence. There's a large market for pilots who could do the job full time, unlike him who was available for ten to twelve days a month. Since the birth of his daughter two years ago, he likes to spend his free time with his family anyway. "My priorities have changed, but let's see what the future holds."

*–Sven Chamberlain–*

[Josef Straßer works as an air traffic controller at the control tower of Munich Airport. He has already fulfilled one of his childhood dreams. The second will follow soon. The 31-year-old is currently taking his private pilot's licence.](#)

Aircraft have inspired Josef Straßer since he was a child. He was also interested early on in what goes on behind the scenes at the airport. "I wanted to know how air traffic was organised," he said. When he was 13 years old, he set out to find a contact person at air traffic control and was allowed to visit the control centre in Munich. A year later, he made a teaser visit to the tower of Franz Josef Strauß Airport in Munich.

Although a career in air navigation services was inevitable, the Bavarian came to DFS in a roundabout way. First, he studied electrical engineering and then worked as an engineer for a year. "Because I knew how demanding the selection process for air traffic controllers was, it seemed like the safer career path at first," he said. But shortly before his 25th birthday – just before the age ceiling for applying – he tried his luck at DFS after all and was successful. Josef, who grew up near Wasserburg am Inn, has held his licence as an air traffic controller at the tower in Munich since 2019.



For some time now, he has been fulfilling another dream and is learning to fly. "When I suddenly had more free time during the COVID-19 pandemic because of the sharp drop in traffic, I seized the opportunity and started taking flying lessons." At his first job as an engineer, a colleague had taken him on a sightseeing flight over the Alps. Since then, at the latest, the wish from childhood had become more solid. "I thought to myself at the time that it would just be nice if I could master flying as well."

He trained as a private pilot at Erding Flying Club, which uses a former German Armed Forces base. The aerodrome is very close to Munich Airport. Josef is doing his training in a Piper PA-28. He is full of praise for his flight instructor, the chair of the flying club. "He's great - professional and relaxed." The student pilot finds the landings particularly challenging. "It's impressive how tiny external influences have a big impact on the Piper's behaviour in flight," he said.

The air traffic controller hopes to obtain his pilot's licence this year. But, he is not putting any time pressure on himself. "I also have the

wonderful feeling of looking at the world from above as a student pilot." He has already passed the theory test. For the next training flights, the weather and the duty roster must fit. Now that air traffic has increased again, Josef has a lot to do at the Munich tower.

He has concrete plans for the time after receiving his licence. He then wants to fly to Italy with his fiancée in any case. From the aerodrome in Erding, he can be south of the Alps in just one hour. The couple is looking forward to many trips of this kind: "With the plane, you can get from A to B so quickly. We can discover many new places."

—Sandra Ciupka—

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