"The needs of our customers come first"

Arndt Schoenemann has been CEO and Chairman of the DFS Executive Board since 1 April 2021. He aims to lead the company out of the pandemic crisis stronger than before. In this interview, he talks about the importance of customers, the competitive situation and how jet fuel flows through his veins.

Mr Schoenemann, you made a daring move from a free-market global player to the German air navigation service provider owned by the Federal Government...

ARNDT SCHOENEMANN: Indeed, but I have not changed industries and have remained loyal to the aviation sector. This was important to me because, after more than 30 years in this fascinating industry, you could say I have jet fuel flowing through my veins. I think that if someone had offered me a job in another industry, I would have refused.

What attracted you to the job as CEO of DFS?

SCHOENEMANN: I have gotten to know the aviation industry from several perspectives. First, I worked as a purchasing clerk and later as head of procurement for a manufacturer of aircraft cabin equipment, so very much with a focus on the passenger as customer. Then, I got to know the industry from a very political perspective through my activities at the German Aerospace Industries Association (BDLI) as well as through the extensive experience gained over more than 20 years of continuous work in Berlin and at the European level in the Aerospace & Defence Industries Association of Europe (ASD) in Brussels. Most recently, I was commercial managing director at Liebherr-Aerospace Lindenberg, a system manufacturer of flight control systems, landing gear systems, gearboxes and hydraulics, as well as vice president of the BDLI. For me, DFS rounds off my perspective of the industry and I now manage a state-owned organisation, although it is as a private company.

What observations have you made in your first few months at DFS?

ARNDT SCHOENEMANN: They have been very diverse and highly interesting. I have been learning a lot each day. DFS is a super exciting

group. I hadn't been expecting DFS to cover such a broad scope of activities. I am happy to be able to manage a company that covers such a wide spectrum.

How difficult was it to start your new job in the middle of a crisis that has struck the industry?

SCHOENEMANN: The crisis has been affecting all aviation stakeholders equally. I was aware from the outset that I was starting at DFS in a unique situation. Our objective as the Executive Board is to lead the company out of the crisis stronger than before.

What is your most important objective for DFS?

SCHOENEMANN: The most important issue for us must be to work in a customer-centric manner. The crucial question is: What does the customer need? Only when our customers are satisfied are we doing a good job. Otherwise, those customers will do everything in their power to bring about structural changes that will not be necessarily to our advantage. In the context of the current political discussions on the Single European Sky in the European Union, but also among the airlines, more and more voices are calling for more competition in individual service components of air navigation services. We have to continuously work on our competitiveness. Doing so will ensure we are not surprised by unexpected developments. If we are competitive, we do not need to worry about potential competition, regardless of the segment.

What strategy are you pursuing?

We want to be in the driver's seat, and not wait and see what happens. In the next few years, we will see a massive push towards automation and digitalisation in air transport. DFS aims to, and will be, at the forefront of these developments. This is one of the core elements of our Group Strategy 2030. It is important for us to bring the employees with us on this journey we are taking through a rapidly changing environment. Together, we can become the leading air navigation service provider in Europe.

How would you describe your leadership style?

SCHOENEMANN: It is important to me that every employee knows what duties they are responsible for in the company and has the skills and competence to do so. Staff should use the freedom given to them in their area of responsibility. I am not going to tell anyone exactly what they have to do, but I do expect them to do the right thing. After all, our staff have common sense and know for themselves when it is necessary to call in a manager. I want to give staff the confidence to work independently within an agreed framework. That is also a motivating factor. And as CEO, I am not the specialist in everything anyway – our employees are the specialists. It is important that our team works well together across the DFS Group. Only as a team can we be successful. We have to break down some of the barriers that exist between individual group companies or within the companies themselves as quickly as possible.

You come from a technology company and know technology well. What technological developments regarding air traffic control and unmanned aviation are you anticipating?

SCHOENEMANN: What I have seen so far in the company in terms of technology was not quite what I had been expecting. It is true that we operate very reliable and solid technology and are working on cloud technology and digitalisation to make the company fit for the future. Nevertheless, I had thought that the communication between aircraft, airport and air traffic control would work more smoothly and would not be partly based on processes that could already be much more digital and automated. There are definitely technology gaps here that could be eliminated relatively quickly. As a rule, it is not the air navigation service provider alone that is responsible for this. Much better coordination of all those involved in aviation is necessary – aircraft manufacturers, airlines, airports and air navigation service providers.

Do you speak from experience?

SCHOENEMANN: Coming from a company that developed and manufactured state-of-the-art fly-by-wire flight control systems, including the electronic on-board computers at the interfaces to the flight management system, I know quite well what technologies are currently being worked on intensively. As far as unmanned aviation is concerned, I think it is good that DFS

Arndt Schoenemann, born in 1965 in Dillenburg, grew up in a village near the town of Herborn, in Hesse, Germany.

After his commercial apprenticeship, compulsory military service and work as a commercial employee, he started his professional life in aviation in the purchasing department of the aircraft kitchen manufacturer Sell in Herborn. He was then manager for purchasing and materials management in the joint venture between the former Deutsche Airbus (DA) and Sell, DASELL Cabin Interior GmbH. Afterwards, Arndt Schoenemann worked for the German Aerospace Industries Association in Berlin. Before joining DFS, he was commercial director at Liebherr-Aerospace Lindenberg.

Schoenemann lives with his wife in the Allgäu, in southern Germany. The couple likes to spend their free time walking and being in their garden. He is also enthusiastic about aviation. "I have always liked getting on a plane and flying fascinates me. I regret that I never did my private pilot's licence. Unfortunately, I didn't take the time for that."

is very active in addressing this issue. In the field of autonomous flying, a lot will happen in the next few years. There are promising opportunities for air navigation services in this regard. DFS was right to actively pursue the development of traffic management systems for drones. Unmanned aviation will play an important role in the future.

The military has had a driving role in this, hasn't it?

SCHOENEMANN: Yes, in Europe, the Future Combat Air System, FCAS for short, is being developed in the military sector and is to be introduced by 2040. That sounds a long way off, but work is already underway to network aircraft with satellite systems and ground stations, as well as to ensure the interoperability of existing fleets. So, this is not just about autonomous flying. All this will have a spill-over effect on civil aviation. Air navigation services are always challenged by all these developments: After all, it is always about guiding all aircraft safely through airspace.

But, isn't there also potential for improvement for airlines as not all aircraft are adequately equipped?

Yes, that's right. Some of the technology that older types of aircraft have on board is very different from the technology that a modern passenger aircraft has. If we as an air navigation service provider are at the cutting edge of technology, the airlines' fleets should be, too, so that they can benefit from the improvements.

What other changes do you see coming for air navigation services?

SCHOENEMANN: Another important aspect is artificial intelligence, or AI for short. We will certainly see new technologies based on AI that will make the work of our air traffic controllers easier. Ultimately, AI will drive automation in aviation and thus also in air traffic control. Climate protection is another issue that will be

Arndt Schoenemann, CEO of DFS
Photo: Melanie Bauer

of great concern to us now and in the years after the pandemic. The players in our industry who develop the best concepts in environmentally friendly flying will have a competitive edge.

You have been active for many years in the German Aerospace Industries Association, for the past nine years as vice president. Did you find it difficult to say goodbye to the BDLI?

SCHOENEMANN: Yes, of course, even though I am now looking forward to my time on the board of the German Aviation Association (BDL). I was active in the BDLI for 20 years without interruption – first full-time as a member of staff, then unpaid as a company representative. To say goodbye, my BDLI colleagues organised a barbecue for me on the roof terrace of a Berlin hotel. That was a nice way to end my time there.

–Interview by Sven Chamberlain and Sandra Ciupka—

Digitalisation – that is the answer

With Friedrich-Wilhelm Menge, DFS once again has a member of the Executive Board solely responsible for technology. The graduate computer scientist wants to make the company fit for the rapid changes that the industry is facing.

Two journeys have shaped Friedrich-Wilhelm Menge's life. At the time of the first one, he was 18 years old, had just graduated from secondary school and still had three months left until his compulsory military service. His destination was a small town in Michigan, 50 kilometres from Detroit. In a small five-seater plane, he first travelled from Dortmund to Frankfurt, then on to Detroit, the historic heart of the American automotive industry, by long-haul jet with a stopover in New York. It was the first flight of his life. He still remembers the turbulence on the approach to Frankfurt Airport with a certain unease, the 52-year-old relates.

It was the first time Friedrich-Wilhelm Menge had really been away from his hometown of Fröndenberg, which is nestled between the Sauerland, the Ruhr region and Westphalia. The secondary school graduate lived in Michigan with a host family and attended high school. There, he made a friend who has accompanied him throughout his life to this day. And, as chance would have it, much later in life, he and this friend even lived in Berlin at the same time.

Germany's capital was one of the stations on the IT specialist's professional career, the last one before he took up his post at DFS on 1 March 2020. At Berlin's public transportation company, he was chief information officer (CIO) and thus responsible for the company's entire IT. In 2019, he was named CIO of the Year in the Public Sector category in Germany. The jury particularly appreciated the fact that he had simplified processes and optimised the organisation at the transport company – goals which he also wants to achieve at DFS.

Start in IT security

Friedrich-Wilhelm Menge studied in Dortmund, Germany. In his thesis, he dealt with encryption algorithms. He began his professional career at Mannesmann in Düsseldorf as an expert for IT security and data protection. This was followed by management positions in the telecommunications industry, which took him to various companies in different locations: from Düsseldorf via Frankfurt, Cologne and Munich to Darmstadt. "I started in IT security, worked briefly in sales and then realised that my heart was in technology management," said the Executive Board member.

From Dortmund, he embarked on his second formative journey as a student, which led him to the Philippines. He visited the country with a non-governmental organisation and lived in the simplest of accommodation. The poverty of the state as well as the culture and traditions of the inhabitants have been burnt into his consciousness forever, he said. "It was a journey into another world, and it shaped the way I look at my own a lot."

New technology strategy

As Chief Technology Officer, Friedrich-Wilhelm Menge wants to drive digitalisation forward. "Rapid changes will hit our industry and DFS can lead the way." Up to now, many things in air traffic control have been very specific and small-scale. That's why he wants the technology to become less complex. Simpler, faster, more robust – these are his watchwords. The basis for this is the technology strategy that his directorate has developed, and which relies on cloud technology. "As Chief Technology Officer, what else can I say but that digitalisation is the answer to these challenges?"

The strategy envisages that DFS will first set up a cloud infrastructure. This will form the basis for the various air traffic control systems, which will then have a standardised infrastructure – no more different computers, as has been the case up to now. The functional core of the previous application will then be built on top of this and a role-specific interface for the different systems will be created at the user interface, which will

be optimally adapted to the needs of the air traffic controllers. Up to now, air traffic control systems have been vertically integrated, which means that each system stands alone and has been individually designed from the computer to the user interface.

At DFS, I have met many well-trained people who are masters of their profession.

DFS already has a strategic programme that describes its future technological architecture and coordinates the implementation. The CTO can count on the expertise of the DFS staff. "At DFS, I have met many well-trained people who are masters of their profession."

As to his private life, the father of two daughters enjoys mountain biking, mountain hiking and watching his favourite series, The Big Bang Theory. It is about eccentric scientists who live together in a shared flat and are awkward in dealing with other people. A quality that is, however, alien to him. He very much appreciates personal contact. "That's why I'm looking forward to meeting our partners and customers in person again after the pandemic."

Friedrich-Wilhelm Menge *Photo: Melanie Bauer*

–Sandra Ciupka–

A global citizen with a penchant for aviation

Dr Kerstin Böcker is the first woman to serve on the DFS Executive Board. For the 57-year-old, it is another building block in a remarkable career. The DFS Chief Human Resources Officer and Labour Director has her work cut out for her. Under her leadership, the work of the Human Resources Division is to become faster and less complex, among other things.

Dr Kerstin Böcker says she sees herself as being intrinsically motivated. As such, she is self-driven and works for the inherent satisfaction that work provides. The curriculum vitae of the native of Lower Saxony in north-western Germany who grew up on the Lower Rhine, reflects this characteristic. In addition to her law degree from the University of Bayreuth and her subsequent doctorate in law (Dr. jur.), she also completed a degree in business administration. Although she had already achieved more academic qualifications than most, she went on to complete a Master of Business Administration at the Thunderbird School of Global Management in Phoenix, Arizona.

The Thunderbird School attracts students from all over the world, and Kerstin Böcker made friends there who now live scattered around the globe. Internationalism and travel have been part of the lawyer's life from the very beginning. Her father was a managing director and travelled a lot on business. He often combined his business trips with a subsequent family holiday. This is why, even as a little girl, Kerstin Böcker was often in Africa, sometimes far away from traditional tourist destinations. "For example, we visited Maasai tribes with a development aid organisation," she said.

Period in the United States

After completing her degrees, she worked in the international trainee unit at Daimler in Stuttgart, Germany, in 1993. Only one third of the trainees came from Germany, the rest from many different countries. She then moved from Stuttgart to Daimler-Benz Aerospace AG in Munich as a personnel officer. Stuttgart has remained a fixed point in her life despite all the career changes and the associated moves. That is where she still lives with her partner.

After her job in Munich, she worked in various human resources functions in the Daimler Group, including in the United States at the Mercedes-Benz Credit Corporation. Her last position at the company was as head of strategic HR projects. At that time, she was constantly on business trips, flying to either New York or Detroit every four weeks. She also spent nine months in Beijing for a project.

She was already enthusiastic about flying as a child. Since her time at Daimler-Benz Aerospace AG, she has also been professionally attached to the aviation industry. That is why her interest was quickly aroused when a head-hunter commissioned by DFS contacted her. In addition to her affinity for the industry, there was a second aspect that particularly appealed to her: "For a Chief Human Resources Officer at board level, it is of course exciting that DFS has its own training facility in the form of the Air Navigation Services Academy."

Closing the circle

Before joining DFS, Kerstin Böcker was chief human resources officer and labour director on the board of Thyssenkrupp System Engineering GmbH in Heilbronn. She joined the Thyssenkrupp Group in 2007 – after a three-year interlude at Infineon Technologies AG in Munich.

She says she does not want to turn the work of the Human Resources Division at DFS upside down. "It is important to continue the good work of the late CHRO, Dr Michael Hann." However, although many things are already working well at DFS, there is still room for improvement. She wants to take complexity out of HR work and simplify rules in order to be able to act faster. In doing so, she can count on the good working relationship with the staff representatives and social partners. The fact that she has taken the

helm of HR in a crisis only spurs her on even more. "I want to give management the professional support they need in these difficult times."

With her education and professional experience, she has the best prerequisites for this. She never had the feeling that she was disadvantaged for being a woman. Rather the opposite: "As there are fewer women in management positions, they are often supported in a targeted manner." Whenever she noticed that she was not getting ahead in a company, she simply looked for a new employer.

Her move to DFS in the Rhine Main area closes a circle for the board member. She used to live here as a little girl and spent her kindergarten years in Maintal-Bischofsheim.

Dr Kerstin Böcker Photo: Melanie Bauer

–Sandra Ciupka–

"We always have to be ready, regardless of the traffic volumes."

Air traffic volumes in Germany have sunk to a record low. Now, they are slowly reviving. In an interview, Dirk Mahns, COO on the DFS Executive Board, reveals how DFS has prepared for this rise – and when normality will return.

After more than a year with the COVID-19 pandemic, there is finally positive news. The number of infections is decreasing, the number of flights increasing. Is aviation going back to normal?

DIRK MAHNS: We are seeing the first positive effects of the ongoing vaccination campaigns. As a result of the falling number of infections and the removal of travel restrictions, the volume of traffic has increased in the first half of the year, throughout Europe and thus also here in Germany. The year 2021 started at a very low level, with traffic volumes at one third of 2019 levels. At the end of June, volumes had already reached about half as many flights as before the pandemic. For this summer, but especially in autumn, DFS expects a further increase. There will be a catch-up effect when restrictions are removed and people take the opportunity to finally fly on holiday again. Over the last few days, Germany has experienced intermittent traffic peaks in some sectors which were above 2019 levels. In autumn, DFS expects an average of 75 percent of pre-pandemic levels. There will also be more business trips again, because of the need for face-to-face contact in the business world. However, it is not yet entirely clear how strong business travel will become again.

DFS had to reduce staff to deal with traffic at 30 percent of pre-pandemic levels, now it has to ramp up to deal with 75 percent. Can this be done quickly?

MAHNS: Yes. First of all, you have to know that just because traffic drops to a third, it does not mean that only a third of our staff are needed. Under German law, DFS counts as part of the country's critical infrastructure, which means that 60 to 70 percent of air traffic controllers and 90 percent of engineering staff are required to fulfil the sovereign task entrusted to DFS. Control towers and control centres must be staffed, whether there are a handful of aircraft in the air or several hundred. Furthermore, our entire technical infrastructure – radio, navigation, radar systems – have to function. We always have to be ready, regardless of the traffic volumes. Therefore, as regards staffing, the leap from 30 to 75 percent is not as immense as it may seem at first. However, the change in workload on air traffic controllers is enormous and we have put various recovery measures in place.

What do these recovery measures involve?

MAHNS: We have developed a recovery plan to ensure an orderly ramping up of operations after a long period with low traffic volumes. It defines measures that can be implemented individually in the control towers and control centres. These include supplementary briefings, simulations with high traffic to maintain performance levels, tactical measures to avoid traffic peaks or the weekly exchange of experiences in operations. We have also greatly increased staffing hours since 1 July to be able to provide sufficient operational capacity. DFS is pursuing two goals. We want to avoid overload situations for air traffic controllers at all costs. And we want to prevent delays due to traffic peaks as much as possible. The challenges here are that the airlines are making many last-minute adjustments to their flight schedules, that there are traffic peaks and that there is an atypical distribution of traffic. That is why we do not know exactly what to expect this year, especially as regards when. Nevertheless, we have prepared as well as we can.

What kind of growth do you expect by the end of the year?

MAHNS: DFS expects an increase to 75 percent of the pre-COVID traffic volumes by the end of 2021. Of course, we have to bear in mind that 2021 started at a very low level. In the first half of the year, we had not even reached

40 percent of the 2019 traffic volumes. Cumulative traffic volumes for the entire year 2021 will therefore be below 60 percent. We must not forget that the COVID-19 pandemic was a huge setback for the aviation industry. The last time we had such a low number of flights as last year was at the time of German reunification, at the end of the 1980s. It will take time for the traffic to fully stage a comeback.

How long will it take do you think?

MAHNS: This depends on the further course of the pandemic, the progress of the vaccination programmes, but also on possible coronavirus variants that are more contagious and spread more rapidly. DFS currently assumes that we will reach the pre-crisis traffic volume in 2024 at the earliest, but probably not before 2025. This means further revenue shortfalls, so we need perseverance. But after many months of exceptional circumstances, we are slowly approaching normality again. This prospect is very motivating.

Dirk Mahns *Photo: Melanie Bauer*

–Interview by Christopher Belz–

No rest for those who do good

At DFS, a large part of the workforce has been working around the clock despite the pandemic and the decline in air traffic volumes. The same applies to its technical facilities and systems.

For anyone interested in the world of aviation the images are not easy to forget. Runways that once saw aircraft take off and land are jam-packed with aircraft grounded because of the pandemic. Such was the scene on the north-west runway of Frankfurt Airport in Germany. From March to July 2020 and later again during the winter until spring 2021, Lufthansa used this runway at Frankfurt Airport effectively as a park area for its aircraft. In spring 2020, mainly Airbus A320 medium-haul jets were parked there, and in the winter mainly Boeing B747-800 and Airbus A340-300 wide-body aircraft.

Dramatic consequences

What was an economic necessity for Germany's largest airline during the crisis is simply not feasible for an air navigation service provider. DFS must keep its entire infrastructure operational at all times – no matter how high, or low, the traffic volume may be at that moment and regardless of the costs involved. As in many countries, air traffic control is a critical element of a country's infrastructure. In Germany, this fact even has a statutory footing. Under German law, this infrastructure encompasses organisations and facilities whose failure or impairment would lead to significant disruptions to public safety, supply shortages or other dramatic consequences.

The air navigation services provided by DFS are an essential prerequisite and basis for the safety of air traffic in Germany. This also includes the operation of police and rescue helicopters, whose safety in the air must be guaranteed by DFS at all times, regardless of the current traffic situation. The same applies to airborne emergency missions by the fire brigade and the military. It is simply not an option for DFS to say we are closing airspace because there is too much, or too little traffic.

As a result, a large part of the workforce has to work even during a pandemic because they ensure air navigation services remain operational. This affects all employees who are part of air traffic control operations, air traffic flow management and airspace management as well as technical support. For them, being present at the place of work is usually a precondition – a controller in the tower in Frankfurt, Düsseldorf or Munich airports would find it well-nigh impossible to do their work from home. The same applies to the air traffic controllers in radar control centres who monitor the upper and lower airspace in Germany on their monitors.

32 radar facilities

DFS employees who are part of the country's critical infrastructure therefore received a special certificate after the outbreak of the pandemic in Germany last spring. This allowed them to travel to their place of work even in the event of tightened travel restrictions. In Germany, this certificate also facilitated getting emergency childcare, provided the spouse also worked in a critical infrastructure sector.

However, it is not only the staff of DFS but also its technology that has to be operational around the clock, regardless of any COVID-19 restrictions, so that air traffic control can be provided at all. This technology includes radar and navigation equipment, radiotelephony antennas and the instrument landing systems operated by DFS at the 15 designated international airports in Germany and at some regional German airports.

Especially with the facilities required to display the air situation, there is usually no other option.

DFS maintains 32 radar facilities throughout Germany. These radar facilities are the eyes of the air traffic controllers; without radar, the controllers would not be able to see the aircraft on their screens. The DFS specialists can control some of these facilities remotely; for others, on-site maintenance is required. "Especially with the facilities required to display the air situation, there is usually no other option," said air navigation services engineer Swen Jaeschin, who looks after the maintenance of ten radar facilities together with his colleagues.

The modern radar facilities for the ground situation display at Schönefeld and Leipzig airports, for which Jaeschin and his colleagues are responsible, consist of computer systems rather than analogue technology. That means the technicians can also carry out diagnoses and maintenance remotely via a direct connection to the control computer. This is often not possible with long-range radar facilities, which are still equipped with analogue technology. These facilities require regular repair and maintenance at varying intervals – annually, semi-annually, quarterly. The technicians can only do this directly on site.

Maintenance is important

The situation is similar with omnidirectional radio beacons, of which there are 55 across Germany. Of these, 53 are owned by DFS, the remaining two belong to the regional airports of Dortmund and Mönchengladbach. Omnidirectional radio beacons broadcast special radio signals from which a receiver in the aircraft can work out the direction to the beacon. Such navigation aids ensure that flight routes are defined by clear fixes which can be used for the orientation of pilots. Fixed maintenance intervals are also prescribed for them, as well as for radiotelephony antennas, without which there would be no radio communication between the pilots in the cockpit and the controllers on the ground.

At a larger international airport, it does not matter whether 600 aircraft are landing there per day, or 60, or only 10 – the instrument landing system must always be functional so that an aircraft can land. The specialists of DFS ensure that this is always the case, even in the middle of a pandemic.

–Holger Matthies–

Simulators as an indispensable alternative

The COVID-19 pandemic has been posing challenges of a completely new kind for DFS. There has been too little traffic for air traffic controller training in live operations.

In the summer of 2019, DFS found itself in a difficult situation. Traffic volumes had risen much more sharply than forecast and the available staffing levels were too tight. The result was there was not enough capacity and a lot of delay. The measures taken by DFS in response to this included increased investment in trainee air traffic controllers.

Currently, in stark contrast, traffic volumes have been drifting along at a low level for months due to the pandemic. One would think that this would be an opportunity for DFS to fill gaps with increased training and make provisions for the future. But it is not that simple.

Planning the training for the next generation of air traffic controllers is a tricky and complex matter. To determine how many air traffic controllers will be required in the future, DFS uses the traffic forecasts from EUROCONTROL. If the forecast turns out to be correct, all is well. If the traffic volumes develop differently, DFS can only react with a time lag. It takes about three years before a fledging air traffic controller is fully trained and can be deployed as a fully qualified staff member. Often traffic has already increased before the training can catch up. Then there is too little capacity available for customers as volumes rise. Just like in the summer of 2019.

If traffic volumes fall again, the costs will rise in turn. Trained staff cannot be reduced ad hoc and training that has begun cannot simply be discontinued. Then, there is capacity available for customers that they do not need.

In view of the decline in traffic caused by the COVID-19 pandemic, capacity problems have not really been an issue. Now, DFS is facing a different dilemma. There is simply not enough traffic to carry out training in the control room. Therefore, training capacity is currently running at only about 80 percent.

DFS tower simulator

On-the-job training

At the Langen control centre, 44 trainees are currently completing their on-the-job training (OJT). Based on the plan, there should be more. The gap is due to the coronavirus-related lockdown of the DFS Academy, the training centre for the next generation of DFS air traffic controllers. "This delays the pipeline of new staff because courses also had to be cancelled," said Martin Remer, responsible for training, proficiency and staffing in Langen.

The Bremen branch of DFS in the north of Germany is currently training 30 air traffic controllers. Two of them are to be deployed in the control tower, the rest will work in the Bremen control centre. Originally, 26 more trainees were supposed to come from the Academy this year, but because the Academy stopped basic training, the number had to be adjusted downwards. Since it is not possible to simply suspend upcoming age-related staff departures, it will be a major challenge in the coming years to close the staffing gap again.

There are currently 15 trainee air traffic controllers at the Munich branch, eight in the control centre and seven at the tower. In addition, the branch expects another seven new trainees this year.

At the Karlsruhe upper area control centre, DFS had stopped on-the-job training altogether following the slump in traffic volumes between

March and June 2020 – a serious setback for the training process. There are currently 85 trainees at the branch. Twelve of them were deployed as simulation pilots until mid-April before the on-the-job training began.

To teach the trainees the necessary tools of the trade despite the lack of traffic, the company sites in Langen, Bremen, Munich and Karlsruhe are using their own simulators for parts of the practical training. Since October 2020, every trainee in Langen has completed one shift rotation per month – that is four to five days – on the simulator. "In Bremen, we currently offer our trainees six days per month with about 18 runs on the simulator," says Jun Kurokoshi, responsible for training and proficiency. This gives the instructors the chance to evaluate issues that are now hard to assess in live operations due to the low traffic level.

Master plan for training

The simulator has also become indispensable for the maintenance of unit endorsements. The assessments must start in live operations. If there is not enough traffic, the instructors can decide to continue on the simulator.

In its master plan for training in times of crisis, DFS is coordinating the activities of the individual branches centrally to avoid a training backlog. At the moment, there are some whose training could not be completed due to the pandemic and soon the training pipeline will be filled with new candidates about to start their training. They will be needed when the crisis is over and traffic picks up again.

–Holger Matthies–

DFS simulator for centre controllers *Photos: DFS archive*