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NOVEMBER 2018

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THE CONTROLLER

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Cover photo: The control tower at Douala International Airport (IATA: DLA, ICAO: FKKD). The airport is located in Douala, the largest city in Cameroon. With its four terminals and an average of 1.5 million passengers and 50,000 tonnes of freight per year, it is the country's busiest airport.

IN THIS ISSUE

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VISIT THE IFATCA WEB SITES:

WWW.IFATCA.ORG AND WWW.THE-CONTROLLER.NET

IFATCA: RELEVANT, RESPECTED & SUPPORTIVE

BY PATRIK PETERS, IFATCA PRESIDENT & CEO

Dear members,

Welcome to this first edition of *The Controller* magazine edited by our "crew" in Washington, D.C. Our member association NATCA (USA) kindly offered to take on the task of editor after Philip Marien (EGATS) stood down having successfully and tirelessly published our magazine for more than eight years. Once again, a BIG THANKS to Philip and a warm welcome to the new crew under the leadership of Thom Metzger, NATCA's Director of Public Affairs. Please let us know how you like the magazine, give us feedback about what you appreciate and things you miss – never forget that your contributions are vital to shape our magazine – or better said – YOUR magazine!

We will be trying out new ways to attract your attention, though rather than a big change, it'll be more of an evolution. IFATCA is evolving: our annual conference in Accra saw a couple of changes for example, such as the informal regional meetings being held at the beginning of the week to serve our new members in getting to know one another in a more informal way and in a smaller setting. Some of those "experiments" will be retained; others were perceived as less positive and will therefore not return. At the same as trying to make conference more meaningful and the work of our Federation more accessible, we are also looking at how to 'streamline' our own operations and how we can optimally use our (limited) resources. The overall aim is to do more that ultimately benefits our members and our profession.

The foundation of all our activities is good communication and a solid financial standing.

The Federation strives to be relevant, respected and supportive! The foundation for all our activities is good communication and a solid financial standing. Upholding these principles also will enable us to live up to the goals of the Federation in the years to come. Our active participation in ICAO, the International Civil Aviation Organisation, is one of the main pillars of our day-to-day work. Not only do we monitor ICAO's agendas and activities, through our input in the various working groups, we also influence and shape ICAO's direction. We develop and train subject-matter experts who can then provide focused expertise wherever this is needed. With our international partners, we also identify common positions on mutual concerns. This allows us to further increase the weight of operational input.

The cooperation with ICAO allows us to align the work of our standing committees, specifically our Technical & Operational Committee (TOC) and the Professional & Legal Committee (PLC).

IFATCA also holds annual regional meetings. During those, we have the opportunity to identify regional issues by soliciting input from our regional support groups, representatives and members. The collaboration at regional level – both internally and externally with other regional international bodies allows us to set priorities catering to the needs of our individual member associations. Promoting our IFATCA work in the region will ultimately lead to attracting new members associations as they realize IFATCA's relevance.

As a federation of aviation safety professionals, we must be at the forefront of safety developments promoting our vision of aviation safety. Since its inception at the beginning of this year, our IFATCA "Tactical Response Team" has already been able to provide strategic and tactical assistance to a number of our member associations.

As part of the IFATCA training initiative, the safety courses are enhancing our members' understanding of safety. The English language train-the-trainer courses and our collaboration with ICAO for Competency Based Training enable our member associations to influence the local agendas.

And it doesn't stop there: we need to proactively identify, discuss and propose potential future issues of IFATCA involvement to be ready for the future. Read more about our work and challenges in this new edition of The Controller magazine! Enjoy!

patrik.peters@ifatca.org

THE CONTROLLER: HONORED TO BE AT HELM

BY THOM METZGER, THE CONTROLLER, EXECUTIVE EDITOR

The Public Affairs shop of the National Air Traffic Controllers Association (NATCA) is taking over the day-to-day management of IFATCA's *The Controller* magazine. We have been coordinating with the IFATCA leadership, and the handoff happened with this Octobter 2018 issue. Going forward, for the three issues we plan to produce each year, editing *The Controller* will be a team effort. I'd like to introduce the team from NATCA.

Me: I direct public affairs for NATCA.. I have edited a number of publications through my nearly three decade long communications career. I am honored to have this role and pledge to do my best to protect the legacy of this publication, while lookng for ways to keep it modern and relevant for the entire IFATCA membership.

Doug Church: Doug is Deputy Director of Public Affairs for NATCA. He is a great communications professional, who once worked as a news reporter for a large daily newspaper. He has been with NATCA for more than 17 years and has a profound respect for the controller profession.

Laura Roose: Laura is NATCA's Associate Director for Public Affairs for Art and Design. She will serve as the Art Director for the magazine. Laura is a great designer and her design influence will be evident in upcoming issues of *The Controller.*

Meagan Roper: Meagan is NATCA's Senior Social Media Specialist. We will be looking at ways to use social media to grow the audience for the magazine.

At NATCA, our team is always looking for ways to better inform NATCA's members, government officials, other aviation stakeholders, and the public about the work of our union and the air traffic control profession in the U.S. We want to bring that same passion to our work on *The Controller.*

We are committed to making the magazine interesting to all of IFATCA's members around the world.

With this issue, we haven't deviated greatly from the look and feel of recent issues. But evolutionary change will happen. We are committed to making the magazine interesting to all of IFATCA's members around the world. We want to include news and other content from all of IFATCA's regions. To help us achieve that goal, we ask you to send us your story ideas, articles, photos, and other information.

We have ideas for new features that you will see in issues planned for February and June of next year.

In coming months, we will launch an online reader survey to get your feedback on these changes..

Thank you for trusting us with this responsibility. We want the magazine to thrive and be an asset for the air traffic control profession.

editors@ifatca.org

Photo left to right: NATCA's Director of Public Affairs Thom Metzger, Senior Social Media Associate Meagan Roper, Associate Director of Public Affairs – Art & Design Laura Roose, and Deputy Director of Public Affairs, Doug Church

INDONESIAN AIR TRAFFIC CONTROLLER SACRIFICES HIS OWN LIFE TO HELP JET ESCAPE

BY THOM METZGER, THE CONTROLLER, EXECUTIVE EDITOR

On September 28, a 7.5 magnitude earthquake struck Indonesia. The combined effects of the earthquake and the tsunami that resulted from the quake led to the deaths of at least 2,100 people, making it the deadliest earthquake to strike the country in more than a decade.

When the quake happened, Indonesian air traffic controller Anthonius Gunawan Agung was on duty at the Mutiara SIS Al-Jufrie Airport near the city of Palu. Agung was giving clearance to a Batik Air jet to take off. His colleagues had run for their lives when the tower started to sway wildly and walls started to crack. Agung refused to leave the control tower at the airport until the Airbus 320 carrying hundreds of passengers was airborne.

After the jet took off, as he was unable to use the stairs, in a desperate attempt to escape the crumbling tower, he made a four-story jump and ended up breaking his leg and suffering serious internal injuries. He was taken to a nearby hospital where he received basic treatment, but he died before a helicopter could arrive to transport him to a better-equipped facility.

His brave decision to stay at his post cost him his life, but saved hundreds of others. Icoze Ezoci, the pilot of the Batik jet, credited Agung's actions with saving his life and the lives of the passengers on his flight. Ezoci has posted tributes to Agung online: "Thank you for keeping me and guarding me until I was safely airborne. Rest peacefully my wing man. God be with you."

Agung graduated from the Aviation Training Centre in Indonesia in 2017. He only started working at AirNav Indonesia in June 2018. He would have turned 22 later this month.

We extend our sincere condolences to his family, friends, and colleagues. We hope they find some comfort in remembering his bravery and commitment to our profession. May he rest in peace.

NATCA has joined other air traffic controllers from around the world in making a donation to Agung's family to help defray the cost of his funeral service and provide them some minimal support. IFATCA's Executive Board on behalf of all our Federation's members extend our sincere condolences to his family, friends, and colleagues. We hope they find some comfort in remembering his bravery and commitment to our profession. May he rest in peace.

Via our Indonesian member association, IFATCA has reached out to Agung's family. We've sent a wreath and have made a donation towards the costs of his funeral service. IFATCA's leadership is evaluating whether we can help in any other way.

In the meantime, IFATCA encourages everyone to consider donating to the relief efforts for Indonesia. Over the past months, different parts of the country have been hit by major earthquakes and any help is welcome. A number of non-government organisations have set up fund raisers to collect money towards the relief efforts. Please look in your country for such actions and consider donating. Every little bit helps.

Lastly, IFATCA salutes our colleagues in Palu, who in very difficult circumstances, continue to provide air traffic control services. In doing so, they're a vital link in the crucial relief efforts for the area.

editors@ifatca.org

➤ **Photos top to bottom, left to right:** Indonesian air traffic controller Anthonius Gunawan Agung, Indonesian military personnel carry Agung's remains during his funeral, the cracks from the earthquake in a runway at Mutiara SIS Al-Jufrie Airport near the city of Palu, the collapsed air traffic control tower at the airport.

ETHIOPIAN AIR TRAFFIC CONTROLLERS' DISPUTE: BACKGROUND & ANALYSIS

BY PHILIP MARIEN, IFATCA COMMUNICATIONS COORDINATOR

Air traffic currently is booming in Ethiopia. The operations of Ethiopian Airlines – the country's national carrier – at Addis Ababa Bole International Airport have expanded dramatically in recent decades. The airline flies to more destinations in Africa than any other carrier, and it is one of the fastest-growing companies in the industry.

Ethiopian Airlines currently operates to more than 120 passenger destinations, including some 20 domestic and over 40 cargo destinations. Ethiopian Airlines currently operate 108 aircraft, the large majority of which are passenger aircraft. They have another 65 on order. In March 2017, the average aircraft age only was around 5 years.

The airport near Addis Ababa was constructed in 1960 to handle newer jet aircraft. From 1997 onward, several expansion projects were necessary to accommodate the increased number of flights and passengers. They built a parallel runway and expanded the old one, added a new terminal with a large parking area, a shopping complex, and restaurants. And a new control tower completed the initial expansion. When the new terminal opened in 2003, it was one of Africa's largest airport passenger terminals, capable of handling about 3,000 passengers an hour. The total cost of the project was around US$130 million.

In 2006, a new cargo terminal and maintenance hangar were opened. In 2010, the Ethiopian Airports Enterprise announced another expansion project worth US$27.9 million at the airport. The project included the expansion of the aircraft parking capacity from 19 to 44 in order to accommodate heavier aircraft such as the Boeing 747 and Boeing 777.

While this expansion eased air traffic congestion somewhat, increasing international travel required a new expansion plan by

Photos: Alan Wilson via Flickr

2012. This project is overseen by Chinese state-owned companies and is due to be completed by early 2019. The outlay of this expansion was projected at US$250 million. A new ramp can accommodate 24 aircraft, with another under construction that will park 14 additional aircraft. At the same time, the first phase of expanding the taxiways and adding more aircraft parking was completed. Eventually, the airport should be able to handle 20 to 25 million passengers by 2025.

Plans exist to build a brand-new airport further away from the Addis Ababa city centre. The new Addis Ababa International Airport, budgeted to cost up to US$2.5 billion, foresees four runways and a capacity to handle up to 120 million passengers per year once the project is complete. An associated 'airport city' will feature hotels, shopping malls, office buildings, and apartments.

But does everyone benefit of this rapid expansion? IFATCA has learned that the working conditions of the country's air traffic controller population have not kept up with the impressive growth of the rest of the industry. Their requests for an improved remuneration and to receive proper licenses have fallen on deaf ears.

After many months of desperately trying to get their point across, controllers saw no other way out than to call a strike in August 2018. This triggered some draconian measures from the government agency overseeing the service provider, with the help of Ethiopian Airlines. Every trick in the book was used to force the controllers back to work – including attempting to recruit foreign controllers to take over ATC operations. Authorities even imprisoned nine Ethiopian colleagues accusing them of 'treason' and disruption of international air traffic. At the time of writing they were still being detained. A number of supervisors were forced to resign for not acting 'management'-like. And indications are that the country plans to simply replace a large portion of the current controller population by hiring people off the streets.

IFATCA has learned that the working conditions of the country's air traffic controller population have not kept up with the impressive growth of the rest of the industry.

Though IFATCA is not a union, and we cannot comment on the dispute itself, it is clear that industrial unrest and such a reaction creates a very tense and negative climate in an operational environment. This may well impact operations and safety in a region. We have expressed these concerns to the highest government officials in Ethiopia, asking them to intervene in the interest of safety. It should be clear that the use of mercenary controllers, with minimal training on the local systems and airspace, or compromising on the quality of training is unacceptable in all circumstances.

Ethiopia's ambition in building a successful aviation industry has been impressive and serves as an example for many others in the African region. Similarly, they have been quite diligent in ensuring this was done in a safe and sustainable way. It therefore is regrettable that the Ethiopian authorities have chosen rash and unacceptable steps in trying to ignore the plight of their air traffic controllers, who surely have played an indispensable role in accommodating the economic success and who deserve to be rewarded for their efforts.

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WHO IS RESPONSIBLE FOR THE DELAYS IN EUROPE?

Exclusive Interview with Robert Schickling, Managing Director of Operations at DFS (German Air Navigation Service Provider)

BY PHILIPPE DOMOGALA, SENIOR CORRESPONDENT, IFATCA

Robert Schickling ©DFS

THE CONTROLLER: Flight delays have increased significantly this year, with a considerable share of them being attributed to air traffic control, especially in the German media. What is the situation really like?

ROBERT SCHICKLING: It is a fact that since 2017, air traffic in Europe has experienced unexpectedly strong growth rates. The current situation with long passenger queues at security checks, increasing flight delays, or even cancelled flights shows that the aviation sector is not living up to its own promise of service quality or its image as a provider of quality.

However, the reasons for these delays are by no means only caused by air navigation service providers (ANSPs). There are several influencing factors distributed among all parties involved in the aviation value chain: airlines, air navigation service providers, and airports.

In July, a month with particularly high traffic demand, 44 percent out of a total average of 11.3 minutes of primary delay per flight was attributable to airlines, 33 percent to ANSPs, 15 percent to airports, and 8 percent to other factors, according to Eurocontrol.

THE CONTROLLER: What are the real reasons for the delays, then?

SCHICKLING: With regard to airlines, the problems they have with staff and technology are just as apparent, as are too tightly planned flight turnarounds. On the ANSPs' side, it is primarily the reserve of personnel, which is too low for the current demand and that leads to lower capacity. And at airports, they are also facing staff shortages and partly inefficient security checks.

Mutual accusations are useless, however. We must work hand in hand to find solutions. The air transport sector relies on smooth cooperation between all partners of the system – airlines, airports, security companies, and European air navigation service providers. This is particularly important in such a busy and extremely complex airspace as we have over Germany.

THE CONTROLLER: Why does your staff planning not provide for sufficient air traffic controllers?

SCHICKLING: To a large extent, the current situation can be attributed to the performance regulation of ANSPs put in place by the European Commission in 2012. This Europe-wide regulation has led to severe and undesirable consequences as regards the trade-offs between cost-efficiency and providing capacity.

The Commission calculates the regulatory cost targets on the basis of a traffic forecast for a five-year reference period. This time period is far too long for the air transport sector, whose development is subject to high volatility. The forecasts for the current reference period (2015 to 2019) were made at the beginning of 2015. Since 2017, the actual air traffic volume has been far higher than forecast. In 2018, the traffic volume in Germany will probably be 8.5 percent higher than expected almost four years ago. These are average values for the entire German airspace. Some very busy sectors have recorded even higher growth rates.

In addition, economic regulation produces cost pressure, which does not allow ANSPs to accumulate large operational reserves of personnel to enable them to react flexibly to an unexpectedly strong increase in demand.

The number of air traffic controllers that we currently employ would have matched the formal forecasts on which regulation is based, but does not meet the actual traffic figures. Although we now employ over 100 air traffic controllers more than we did a couple of years ago.

THE CONTROLLER: In your opinion, what needs to be changed urgently in those regulations?

SCHICKLING: From our perspective, the current EU performance plan is unsuitable for the requirements of air traffic in Europe and requires an immediate fundamental correction. It must be based on the specific needs of airspace users as well as on the performance and the capacity to boost performance of ANSPs.

Besides low reserve of personnel, the available airspace capacity is also an issue. There are sectors that are already operating at full capacity limits at certain times. We have quite a few

of those in Germany, especially in the upper airspace. This is due to our central location. All major traffic flows in Europe pass through German airspace. Measured against the traffic volume, our airspace is far too small.

THE CONTROLLER: What action is DFS taking to improve the situation?

SCHICKLING: Since 2017, we have been working intensively on measures to provide the required capacity as quickly as possible. We have launched an initiative, which comprises over 60 individual measures. Some of them are DFS-related, some of them are conducted across national borders.

For example, we are taking targeted measures together with our European partners to relieve the pressure on the upper airspace, which is experiencing the highest traffic volumes. This is primarily achieved by transferring flights to the lower airspace, which, so far, has not experienced such heavy traffic loads, in order to reduce delays.

Directed by the Network Manager, the upper area control centres in London, Reims, Maastricht, and Karlsruhe as well as 11 other area control centres have joined forces for this purpose.

In addition, we also have taken short-term measures, such as not requiring air traffic controllers in Karlsruhe to perform project work or give instruction at the DFS Air Navigation Services Academy. Other measures focus on the use of more digitalisation and technology. However, the highest priority is given to the recruitment and training of new air traffic controllers.

THE CONTROLLER: How do you intend to recruit more air traffic controllers?

SCHICKLING: We currently train 120 air traffic controllers per year. This is the maximum of what the training capacities and the market can offer in terms of suitable candidates. It generally takes around four years for a fully-fledged air traffic controller to be deployed at their future place of work – from recruitment to basic training at the DFS Academy and to their subsequent on-the-job training.

From 2019, DFS will also offer a dual course of studies in cooperation with the University of Applied Sciences in Worms. This will increase the number of our potential applicants.

In addition, we are looking for fully trained and experienced air traffic controllers – we call them "ready entries" – from around the world. We will be able to familiarise them within one or two years with a new working position.

THE CONTROLLER: What requirements should experienced air traffic controllers meet?

SCHICKLING: We are looking for controllers for the upper and lower airspace as well as for tower control at our international airports in Germany. Applicants for the upper airspace require at least a rating, which qualifies them to work in the upper airspace, and must have at least two years of experience and ICAO level 4 proficiency in English. For the lower airspace and tower positions, other requirements apply. For these positions, proficiency in the German language also is required by law. Generally, candidates must hold a valid medical certificate and we expect them to be willing to undergo an assessment at the DFS location in question.

THE CONTROLLER: What is your experience with these "ready entry" controllers?

SCHICKLING: The selection procedure that our Academy applies for "ready entries" has been used since 2007. At that time, we saw our first wave of external applicants; many of them now work for us successfully.

Our experience has shown that the programme works very well under certain conditions. This is why we have intensified our efforts to find suitable applicants once again as DFS is doing the utmost to reduce its share of delays as quickly as possible.

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DFS Upper Area Control Centre in Karlsruhe ©DFS

Air traffic controllers at work in Karlsruhe, UAC Germany ©DFS

IFATCA TOC MET IN TBILSI, GEORGIA

IFATCA's Technical and Operations Committee (TOC) met in Tbilisi, Georgia, in September to coordinate the work in progress and discuss the drafts of papers that will be presented at the next IFATCA Annual Conference. The TOC discussed the interoperability of automation systems, the use of parameters downloaded through Mode S radar, and the issues resulting from airport surfaces becoming larger. The members from the Georgian association were excellent hosts. Some of them joined the sessions and took the opportunity to discuss some local operational issues with their colleagues from abroad. The members of the TOC will use all the input collected during the meeting to further improve their working papers.

"There are lots of interesting topics forthcoming as a part of the next conference, including minimum separation, updates on ATFM/A-CDM, and much more," said TOC member Jaymi Steinberg (National Air Traffic Controllers Association, Washington Air Route Traffic Control Center, USA). "We discussed paper progress and heard from local controllers about concerns. We also had a fabulous tour of their facilities including tower, approach and center, as well as sims."

In July, Members of the National Air Traffic Controllers Association (NATCA) from throughout the U.S. welcomed and interacted with huge crowds of pilots and other visitors at the Experimental Aircraft Association's (EAA) annual AirVenture in Oshkosh, Wisc. The annual event – described as the World's Greatest Aviation Celebration – attracts 500,000 people from 80 countries. More than 10,000 aircraft fly in to Wittman Regional Airport in Oshkosh, making it for that week one of the busiest airports in the world. The NATCA volunteers answered questions about air traffic control and operating safely in the U.S. Airspace System.

THE ALLIANCE MET IN VANCOUVER

The Global Air Traffic Controllers Alliance -- the newly formed coalition of labour unions for aviation safety professionals, "The Alliance" for short -- recently hosted its inaugural meeting in Vancouver, British Columbia, Canada. The Alliance was founded by a coalition of labour unions representing aviation safety professionals from Australia, Canada, New Zealand, Spain, the United Kingdom, and the United States to speak with a collective voice on a range of subjects that have a common effect on the air traffic control profession and the professionals they represent. At this inaugural meeting, The Alliance set goals, worked on determining structure, governance and future membership, and elected its first leaders. Paul Winstanley, Prospect ATCO's Branch Chair and ITF ATS Chair from the United Kingdom, was elected as the Alliance's first president for a two-year term. Jeremy Thompson, International Liaison Officer and member of the Air Traffic Control Council for NZA-LPA in New Zealand, was elected as vice president, will also serve a two-year term. Recognizing that air traffic management is a global industry, the member unions of The Alliance work together to meet individual and shared challenges and raise important issues to a global audience while developing and cultivating global relationships.

The inaugural 2018 Solidarity Cup golf tournament brought members of Prospect ATCO's Branch and U.S. National Air Traffic Controllers Association (NATCA) together Sept. 30-Oct. 4 at the Celtic Manor in the beautiful Usk Valley, in Newport, Wales, United Kingdom. Each team had 12 players, playing in a modified Ryder Cup format; four-ball matches on Days 1 and 2 and singles (going off in two games per tee time) on Day 3.

ATC IN CAMEROON

BY PHILIPPE DOMOGALA, SENIOR CORRESPONDENT, IFATCA

Cameroon is a relatively-large African country, slightly larger than California. One peculiarity about its airspace is that it is divided by three FIRs: The Douala (Cameroon) FIR in the South, the N'djamena (Chad) FIR in the North, and the Brazaville (Congo) FIR in the middle. This is because Cameroon is part of ASECNA (the Agency for Aerial Navigation Safety in Africa and Madagascar), the pan African multinational ATM organisation that manages the airspace of 17 African states. The three FIRs are covered by radar, but are doing surveillance only, not vectoring. The Douala FIR recently was equipped with a new radar system that will allow full radar service including vectoring very soon. The traffic in that area is very busy, especially with an East-West route between Malabo and Bata, two airports in neighbouring country Equatorial Guinea that have to cross through Cameroon airspace.

The geography also is a bit complicated as this busy route passes close to very high mountains/volcanoes, with Mount Cameroon culminating at FL150. It is located only 35 NM from Douala airport. Another problem is the large prohibited area going up to FL250 at the southern border with Nigeria – the so-called Bakassi Zone – a leftover from the armed conflict between Nigeria and Cameroon in the 1980s.

Relations with Nigeria – their neighbour on the West – have always been complicated. Nigeria (Lagos FIR) had a radar long before Cameroon, and their controllers' methods of working were quite different and often caused frictions between the two. This was partially dealt with in recent years by arranging very successful exchange visits between the two ACCs. Unfortunately, because of budget constraints, those visits no longer are occurring regularly.

Douala ACC

There are only 23 controllers working there. That is not enough. This understaffing is causing problems. The traffic is between 115 and 170 flights a day. All work on ASECNA contracts, and the company currently is following an ambitious plan to implement radar in all of its 17 states, as part of their "Single African Sky" initiative. As of June 2018, only Benin, Togo, and Madagascar are providing full radar service, but Cameroon is next. Their radar covering Douala FIR was installed in 2017 and has been used by the controllers for surveillance only since June of that year. Radar training is currently provided to the controllers with the aim of providing full radar service including guidance/vectoring by December 2018. The equipment is very modern and standard.

Douala Tower

There are 14 TWR controllers there covering two positions for between 40 and 70 movements per day. Configuration of the airport is not ideal, with only a partial parallel taxi way resulting in a lot of runway backtracking. In addition, a very high antenna is located in the airport circuit, adding complexity for the VFR traffic. The only local airline (Camair Co.) currently operates two Boeing 737s, complemented by a Dash 8 and two Chinese MA60 turboprops used for the domestic market.

The main challenge for the controllers involves weather conditions. Douala is almost on the Equator, and there is always a CB somewhere, so lots of improvisation is required. In addition, in the dry season, mist often is an issue.

Controllers' Working Conditions

Controllers need to work 173 hours per month. Any additional hours involve overtime. They work a typical three-days-on-one-day-off shift system (morning-evening – night incl. sleep day – off). Recently, many of the professional advantages they had such as cockpit flights, English language immersion courses in South Africa or England, and exchange visits to neighbouring ACCs have been drastically reduced due to budget constraints and understaffing.

Salaries are considered to be okay, compared to the cost of living, but they are not extraordinary and definitively below the global market. There definitely is room for improvement. At the moment there apparently is no plan to raise salaries for the radar controllers after their radar validation, despite the increase in their responsibilities.

There also is a new issue with the recently recruited tower-only controllers. In order to address the staff shortage, their employer decided to recruit new staff at a higher education level than before and shorten their training to 14 months. In addition, their salaries now are higher than those of older ACC controllers with more seniority, and that is causing lots of friction and frustration among the ACC controllers at the moment.

Mandatory retirement is at 60, with the possibility to leave earlier with less money.

All the controllers I met in Cameroon were looking very professional and motivated. The aviation sector in Cameroon – and in Africa in general – is going through a rapid expansion phase, because of the increasing demand for air travel, which is understandable when you realise that the only alternative to a one-hour flight in a B737 is a 10- to 14-hour drive through difficult landscape.

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THE OLD DOUALA ACC

Until a few months ago, ATC in Cameroon was performed in this OPS room located below the Control Tower, using procedural control and very large paper strips. The Association is trying to keep the room as it is for preservation and a kind of museum.

Pictured: Yanick and Roger from the Cameroon Association CATCA trying to save the old ACC.

SAFETY SEMINAR IN DOUALA, CAMEROON

12-14 SEPTEMBER 2018

BY PHILIPPE DOMOGALA, SENIOR CORRESPONDENT, IFATCA

The Cameroon Air Traffic Controllers' Association and IFATCA co-hosted a Safety Seminar in Douala, the economic capital of Cameroon in West Africa.

The seminar was extremely well-attended by local controllers. Nearly all those who managed to be off duty during the event attended. The Director of ASECNA for Cameroon also attended the entire three days, as did a few from the management of Cameroon CAA, the Cameroon Air Force, and representatives from the controller associations from neighbouring countries, such as Burundi, Chad, Equatorial Guinea, Burkina Fasso, Mauritania, Centrafrique, and Yemen. In addition, Alain Zida, the President of the Federation of ASECNA associations also attended. ASECNA is the pan African international organisation that provides air traffic control in 17 African states.

There were 75 people attending on the first day, and around 60 the following days. The Seminar was opened by the General Director of Cameroon CAA, who flew that morning from Yaoundé, the country's capital. That brought a lot of media attention, with at least four television stations and newspapers covering the event and asking questions after the opening. The opening speech of the General Director focused on the good cooperation with controllers and the need to focus on safety.

Presentations covered two main subjects: Just Culture and Communications with the Media During a Crisis. In addition, a presentation of the history of IFATCA and what the Federations actually do was given. Philippe Domogala from IFATCA gave the Just Culture introduction and the Crisis Communications course.

There were additional local presentations, first from Mr. Narcisse Zebaze, ASECNA Safety and Quality Manager and Ms. Juliette Eyoum Kana, also from ASECNA, on the implementation of their own "positive safety culture," which is basically Just Culture tailored to African specificities. One of those is defining more clearly the border between what is considered acceptable and what is not tolerated. It clearly defines the difference between "errors" (i.e. non-intentional) and "violations" (voluntary acts), but

they go even further into defining some violations that can be tolerated under certain circumstances. They talked about "violations on request" by pilots or management, or even "routine violations," which are done by everyone. Interesting. In many places I know the tolerance lines as seen by management when dealing with Just Culture are not that clear at all. I remember one Operations Director of an Asian country – when asked about defining the Just Culture borders – replied to me: "It will depend on the circumstances!"

Head of Corporation, Regulation and Aeronautical Communication, Mr. Raymond Bisse, explained how Just Culture works in practice in Cameroon, and Mr. Richard Weresebi, ATCO Manager, explained how incidents are dealt with in reality in their country, which looked very professional.

In another presentation, Mr. Armand Nlate, former president of the association, gave some interesting advice on how to cope with and reduce stress. He also cited a recent university study from the U.S. that stated that the air traffic control profession was the most stressful profession of all studied, more so than police and fire fighters.

Finally, Commandant Francois Ngokobi from the Cameroon Air Force explained how Search and Rescue (SAR) was done in his country. His presentation included recent accidents where SAR was involved and where it took six months to find one aircraft and nine months to find another one. He also explained the limitations of the Emergency Locators beacon (ELTs) currently fitted on aircraft, which often are either dislocated at impact, left unarmed, or the antenna gets damaged by the impact. In addition, the current means given to SAR in Cameroon and in Africa in general is not really compatible with the dense jungle and African mountains Also, most African countries rely on the equipment of their military to provide SAR (helicopters and aircraft), but those can only be used when they are available and not engaged in defence missions at the time. Hardly anyone has dedicated SAR aircraft waiting 24/7 on standby used uniquely for that purpose.

Each presentation was followed by lots of questions and discussions. African people like to talk! There were very interesting debates and feedback after the event showed not only great interest, but the general will to learn and improve.

As mentioned earlier, there was a press conference after the official opening, resulting in a lengthy report on the evening news of CRT, the state television. That news broadcast included an interview with Michael Ouagni, the President of the Cameroon Controllers' Association, who explained our profession very well for the general public. Hopefully this will contribute to understanding and promoting the professionalism of the controllers in the country.

This seminar definitively raised the profile of both our Cameroon MA and IFATCA. Initiatives like these have a positive effect on the region and establish IFATCA as an expert organisation able to provide support and guidance.

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Photo above: Four television stations and newspapers covering the event.

Photo below: Participants of the Safety Seminar in Douala, Cameroon

INTERVIEWS

EXCLUSIVE INTERVIEW WITH AVOMO ASSOUMOU KOKI, DIRECTOR GENERAL OF THE CAMEROON CIVIL AVIATION AUTHORITY

THE CONTROLLER: What are the current challenges facing the Cameroon Civil Aviation today?

KOKI: Introducing a security culture, in the same way we did for safety. We worked very hard in the field of safety, especially since 2012 when we implemented the Mandatory Incident Reporting System, which works very well. My next challenge is to try to get radar coverage for the whole country. We are not there yet, but we are working on it.

THE CONTROLLER: How do you see the future of aviation in Cameroon?

KOKI: Very positively! Our country has a surface area of more than 475.000 km² so we need aviation and, fortunately, it is becoming very popular. At the CCAA we are responding to this need by developing our main domestic airports, which are progressively equipped with adequate set-ups to receive commercial jets. Currently four international airports are Instrument Flight Rules (IFR) equipped. We plan for the others to follow in the coming years.

THE CONTROLLER: What is the place of controllers in your future plans?

KOKI: Central place by all means. First, in the formal framework as we have the duty of safety oversight of air traffic services to ensure compliance with national regulations.

The CCAA's role is also to facilitate the controllers' work in airports under its responsibility, by providing adequate human and technical resources.

Outside of this official side, we very much support our controllers association in their initiatives to improve their members' knowledge and professionalism. This safety seminar is a good example of our cooperation and support.

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EXCLUSIVE INTERVIEW WITH MICHAEL OUAGNI, PRESIDENT, CAMEROON AIR TRAFFIC CONTROLLERS ASSOCIATION

THE CONTROLLER: How is your association doing?

OUAGNI: Our association functions well. We have three offices (we call them antennas) in Douala, Garoua, and Yaoundé. The association has 63 members in the three airports, both TWR /APP as well as ACC. There is also a union SYNCAC representing controllers. We have very good relation with them, in fact, same team.

THE CONTROLLER: Currently, what are the main issues facing controllers in Cameroon?

OUAGNI: Our main problem is understaffing. We do not have enough controllers to integrate the days needed for things like training, leave, or competency checks. It is our biggest challenge, especially on the ACC, where we are only 23. For instance, we do want to participate in IFATCA events, especially our AFM Regional Meeting and the Conference, but with the current staff shortage (estimated at around 20 percent), very often we cannot get the necessary time off to attend.

Another problem is the relationship between the new TWR controllers and some of our ACC colleagues. Our employer introduced new recruitment conditions recently, which included not only a much shorter training period but also higher salaries than the ACC controllers. That is causing tension. One of the goals of our association is to ensure that people work together and feel themselves part of a team, a unified group. This is very important, also when we talk to management.

THE CONTROLLER: Talking about management, how is your relationship with them?

OUAGNI: Quite okay at the moment, but something worth mentioning: we had to strike 10 years ago to request a special allowance for licence holders and to raise the education level to become a controller, so that with additional training we could get an Engineer title, similar to what the French controllers obtained in France at the time. We obtained partial satisfaction to our demands, but not everything, and that strike left serious consequences for the staff that did participate in the action at the time. Today, we still face the consequences of this strike.

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IFATCA OFFICE REFURBISHMENT

IFATCA's Headquarters in Montréal got a much-needed makeover. After attending the ICAO 13th Air Navigation Conference sessions during the day, the IFATCA's interior design committee (Deputy President Duncan Auld, EVP Technical Ignacio Baca and ICAO ANC Representative Jean-François Lepage) took to the IFATCA office in the evenings. They pulled out the old, faded carpet tiles before gluing brand new, crispy clean tiles in place. The old furniture, a remainder from the office old location, was replaced by something more practical and modern. They also took the time to rearrange the layout, making space for a small meeting table and given IFATCA Office Manager Tatiana a new vintage point of the office.

If you're ever in Montréal, make sure to pay Tatiana a visit in her refurbished office.

Photo above: The IFATCA makeover team celebrates the newly refurbished IFATCA office. Photo credit: Duncan Auld

CONTROLLING AIRCRAFT FROM A WAR ZONE

BY PHILIPPE DOMOGALA, SENIOR CORRESPONDENT, IFATCA

Two controllers from Yemen, Khaled Al Bahri and Taha Al Blily, managed to attend the seminar in Cameroon despite the war raging in their country. The airport they used to work in, Saana, was heavily bombed and is still closed to civil traffic, although it is being used by United Nations and some humanitarian flights. The ACC still works despite being relocated some 20 km away from the its previous location at the airport.

The airport was heavily bombed at the beginning of the war, up to five times a day, with the largest bomb falling less than 500m from the ACC! Today, 60 controllers still work the high sea portion of their FIR (150 overflights a day) and some Yemenia airlines flights operating from Aden and Seiyun (the two Yemeni airports still remaining open). Yemenia is the only airline of that country still managing to fly a few routes despite the war. Once a quite large airline, it manages today to operate a small fleet of two Airbus A320 aircraft from those airports. Saana airport is still being sporadically bombed, despite the fact that most of its infrastructure was damaged or destroyed in previous airstrikes.

To attend this seminar, Khaled and Taha first had to take a bus from Saana to Aden, which took 14 hours. After spending the night in Aden, they took a flight to Cairo, Egypt, a 3.5-hour flight. After spending the night in Cairo, they flew to Addis Ababa in Ethiopia (another four hours), and waited two hours in transit to finally take a flight to Douala, which took another four hours. Their journey took three days.

The return trip will be even more complicated. They expected it to take them four days, as they had to fly to Seiyun, a city in the Yemeni mountains in the middle of the country not affected by the war. Seiyun is 650 km away from Saana .The bus ride back to Saana is expected to take at least 24 hours and there are more than 30 military and police check points to cross along the way.

But rather than complaining and moaning about this, they are just happy to be able to come and listen to IFATCA presentations on safety. This is what we call motivation! This story should remind those of us who are living in other places in the world which currently enjoy peace, how lucky we are.

The Yemeni Controllers Association has been a member of IFATCA since 1992.

Photos at top, left to right: Smoking from Saana Airport after bombing. Wreck of a burning plane on the runway at Saana Airport after it was bombed.

KHALED AL BAHRI AND TAHA AL BLILY AT THE DOUALA SAFETY SEMINAR

ICAO IS THERE TO ASSIST WITH SID/STAR PHRASEOLOGY IMPLEMENTATION

BY PAUL ADAMSON, ICAO AIRSPACE MANAGEMENT AND OPTIMIZATION SECTION & JEAN-FRANÇOIS LEPAGE, IFATCA LIAISON TO ICAO

Introduction

Standard instrument departures (SIDs) and standard terminal arrival routes (STARs) have proven to be effective means of ensuring that the flow of traffic to and from an airport is as efficient as possible and that potential conflicts are procedurally and safely managed. The advantages of SIDs and STARs are greatest when they are combined with optimum airspace design in a PBN environment. Additionally, they provide a means of prescribing and representing the large amount of information associated with the lateral and vertical profiles an aircraft is required to fly. As traffic volumes increase, combined with the demand for Continuous Climb Operations (CCO) and Continuous Descent Operations (CDO), SIDs and STARs will become even more important for efficiency. This also can be seen as a step into the future as we move towards an era of trajectory-based operations (TBO).

The use of associated standard phraseology allows air traffic controllers and flight crew to communicate and understand the potentially complex clearances associated with flying SIDs and STARs. However, over time, some of the benefits of SIDS and STARS have been eroded as diverging and sometimes conflicting meanings have been attached to elements of the phraseology. In particular, there were reports of significant variances in the application of level and speed restrictions, leading to misunderstandings between flight crews and controllers, a number of incidents and a very real safety risk.

To mitigate this risk and at the request of the aviation community, in 2012 ICAO launched an activity to refresh and reinforce the existing standard phraseology associated with SIDs and STARs that had been in use since 2007. The work was undertaken by the ICAO ATM Operations Panel (ATMOPSP), with extensive consultation throughout the development process. The agreed outcome was published in a state letter (ref: AN 13/2.5-15/40) as Amendment 7-A to PANS-ATM with an applicability date of 10 November 2016.

Why the need for new phraseologies?

The ATMOPSP members took a number of essential factors into consideration as they developed the new 2016 phraseologies, such as the need for controllers to communicate their intention to the flight crew clearly and succinctly and for the flight crew to fully understand the controller's intent. Clarity of clearances for speed and level restrictions on SIDs and STARs, including the waiving of published restrictions, also were considered. Overall, the principle is that of explicit instructions, with no room for implied clearances. Care also was taken to ensure that the 2016 phraseology does not contradict existing phraseologies, that it is identical for SIDs and STARs, and that it is suitable for global implementation.

The 2016 phraseologies may appear to increase the number of words required, but experience indicates that it does not significantly add to radiotelephony workload, particularly as users gain experience and the airspace and procedures are well designed. The slight increase in the number of words is balanced through a reduction of confirmations and clarifications, as well as an increase in safety through added clarity. There may be initial issues such as additional queries from pilots who are either unfamiliar or have experienced non-standard phraseology. However, with air navigation service providers (ANSPs) who have successfully implemented SIDs and STARs, these initial issues generally have been short-lived, and they have experienced increases in safety.

As an example, SID-STAR-related incidents recorded in one Middle East state were reduced by 78 percent after the implementation of the 2016 phraseology. It should be noted that this particular deployment was preceded by an enhancement of their nationwide route structure, incorporating elements of PBN and CCO/CDO.

Implementation

The phraseologies have been applicable since November 2016, and global implementation was supposed to have been completed by that date, but the implementation goals have not been universally met. Many states have indeed successfully completed their implementation, but others have yet to start. There are also instances of states choosing to delay or defer the implementation process, providing some valuable lessons. There is also at least one state that has, to-date, retained a variant of the procedures where the different procedures might prove to be confusing or even be unknown to flight crews.

Considering the need for a globally harmonised and timely implementation, efforts have been made to identify and understand the challenges being faced. These challenges include:

- The need for ATCO training, which sometimes has been underestimated;
- A low level of awareness of the new provisions amongst pilot communities;
- Uncertainty among flight crews and the resulting additional RTF associated with consequential queries;
- Reports of an increase in ATCO workload, in particular, when RTF is associated with clearances and queries;
- In extreme cases, incorrect actions being taken by flight crews; and
- Finally, some issues relating to the adaption of local ATC systems.

Some of the issues described above, such as awareness, may diminish over time. However, others such as training, have a longer lasting impact and have been observed to jeopardize the success of some implementations.

It is also the case that some of these challenges may be amplified by the slow pace of deployment, leading to the situation where different procedures (i.e. legacy and 2016) are coexisting globally, within regions and even between neighboring states.

Despite the challenges observed above, there are many examples of a smooth implementation. Such examples have been underpinned by careful planning, training, communications and post implementation monitoring. However, even with such careful preparation, the challenges should not be underestimated, with constant monitoring of risks and mitigations required.

What needs to be done?

In recognition of the safety imperative, the harmonised and timely deployment of the 2016 SID/STAR phraseologies are a high priority for ICAO with a parallel expectation from the wider aviation community.

ICAO therefore intends to help states and ANSPs to address the known challenges by sharing experience, and best practices and the provision of technical support. An ICAO SID/STAR Implementation Support Team (ISSIST) that has been formed within ICAO's Air Navigation Bureau (ANB) will lead this effort. The team will involve not only experts from within ICAO HQ, but also the ICAO Regional Offices and designated focal points from key international organisations, including IFATCA and IFALPA.

The ISSIST has developed a project plan for its activities, which will include establishing baselines, identifying and executing needed support, developing and executing a communications plan, and acting as a focal point for implementation support.

The target for completion of all tasks associated with the project plan is the end of March 2019. Success of the actions taken by ICAO in support of the global and harmonised implementation of agreed and published SID/STAR procedures will be monitored both during and after the activities described above.

Conclusion

Through its member states and other aviation stakeholders, ICAO became aware that the variations in the phraseologies relating to SIDs and STARs posed a safety risk that could not be ignored, with action being taken via the ICAO ATMOPSP.

The consequent amendment to SID and STAR phraseologies has addressed these difficulties, most notably those relating to the applicability of published level or speed restrictions.

The worldwide understanding and harmonised implementation of the 2016 phraseologies is acknowledged as a key element in ensuring that aviation maintains its impressive safety record. Of paramount importance is ensuring that both flight crews and controllers are on the same page, with training recognised as a cornerstone. Considering this, implementation support is being put in place by ICAO.

Further information about ISSIT can be found at: SID-STAR-NOW@icao.int.

SAMPLE PHRASEOLOGIES

The core phraseologies are:

- CLIMB VIA SID TO (level)
- DESCEND VIA STAR TO (level)

These require the aircraft to:

1. Climb/descend to the cleared level in accordance with published level restrictions;
2. Follow the lateral profile of the procedure; and
3. Comply with published speed restrictions or ATC-issued speed control instructions as applicable.

Phraseologies for removal of speed or level restrictions:

- CLIMB VIA SID TO (level), CANCEL SPEED RESTRICTION(S)
- DESCEND VIA STAR TO (level), CANCEL LEVEL RESTRICTION(S) AT (point(s))

These phraseologies mean that:

1. The lateral profile of the procedure continue to apply and
2. Speed or level restrictions which have not been referred to will continue to apply.

Phraseologies for variations to lateral profile of the SID/STAR:

- PROCEED DIRECT (waypoint), or
- VECTORING

These phraseologies mean that:

Speed and level restrictions associated with the bypassed waypoints are cancelled.

Phraseology to return to SID/STAR:

- REJOIN SID/STAR

This phraseology means that:

Speed and level restrictions associated with the waypoint where the rejoin occurs, as well as those associated with all subsequent waypoints must be complied with.

DIGITATMISATION

EVERYONE IS TALKING ABOUT DIGITALISATION – WE ARE NOT!

BY MARC BAUMGARTNER, IFATCA SESAR/EASA COORDINATOR

According to the Swiss Mediadatabank, in the last 12 months, in Switzerland 20,000 news article were published containing the word "digitalisation." During the same period twenty years ago, only 100 articles included this word. Around the globe a certain form of fashion or hype about digitalisation is being observed.

Some readers might sigh and say, yet another article on the future and the possible impact digitalisation will have on society and on the future of our job, while currently the controller working environment is full of hard- and software which is old technology and based on programming language from the early 60s and 70s of the past millennium. This is understandable as some of the Aviation infrastructure and in particular ATM is indeed in an outdated state in most countries around the world.

As outlined in the article "DigitATMisation," the question is when and how and not if the digitalisation will hit ATM. Therefore, there is a need to prepare the controller community for some of the changes which will occur in the coming 5 to 10 years. Preparation through education with publications, conferences, reflection paper and more scientific input to the debate shall assist the controller community to have an informed approach to the new challenges awaiting the ATM world.

In January 2018, the first IFATCA digitatmisation conference took place in Geneva. 50 people from various organization have participated to this conference. The outcome and the presentations can be downloaded under the following link: http//www.ifatca.org/2018/03/summary-of-1st-digitisation-workshop-available/.

Participants at the conference were happy to develop more scientific insight into the modernisation of infrastructure and discuss the challenges facing the ATCO of the future. These insights have been compiled and are published under the IFATCA website and via twitter (under the heading pass your message #1). You will find some interesting thoughts regarding the discussion about digitatmisation. Professor Toni Waefler talks about the Joint Human and Technical System, Dr. Amaldi and Dr. Smoker talk about the Automation culture and power: Do we have the right balance? Corinne Bieder from ENAC makes a nice review of the Conference.

This publication is the start of a series. As Tom Laursen (EVP Europe) mentioned during the Workshop, there will be an incremental modernisation happening at the ATM level (nothing disruptive and rather a normal evolution of the automation progress) with a potential for disruption coming from the UAS/RPAS and other autonomous air vehicle or other sources that we haven't seen yet. In addition to the educational purpose, this publication is aims to spur debate and reflection on the topic of automation (or expressed in the more fashionable digitalisation) and make information accessible, which will be shared at dedicated workshops and conferences.

Furthermore, it aims at providing a platform where interested parties can expose and explain their views on digitalisation of ATM. The aim is to publish some reference work dedicated to Air traffic management, understandable not only by researchers, but as well for controllers. The first issue will cover some of the topics debated during the digitalisation conference in Geneva. Topics like Drones, virtual ATM, new concepts will follow. Some of the more advanced currently in use systems around the globe will be presented.

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Background on the workshop and of the papers presented there can be found in via the EDUCATION tab on our website or via http://www.ifatca.org/digitisation-in-air-traffic-management.

LETTER FROM EUROPE: BACK TO THE FUTURE

BY MARC BAUMGARTNER, IFATCA SESAR/EASA COORDINATOR

Europe has seen a busy Spring and Summer 2018 as traffic level rose again and have now surpassed on peak days the busiest traffic counts ever in Europe. At the political level the European commission is preparing the future with the revision of the performance and the charging regime regulation. The new Performance Review Body has published the target ranges document and has called for the first big consultation meeting with stakeholders. The new Director General of Eurocontrol has put Eurocontrol back on the institutional landscape where it belongs. The French controllers in Marseille went on strike for 3 out of 4 weekends from April to June and the overall delays in Europe have already exceeded the annual target for delays by the end of May. The users are calling for better predictability and an immediate increase of the European capacity. The ANSP having bigger penalties if they miss the cost efficiency performance target than the capacity targets under the single European sky performance scheme, have compressed the selection and training of ATCOs in the end of Reporting Period 1 (RP1), which leads logically to an understaffing if the traffic raises above the forecasted traffic growth. These cycles are well known and have been highlighted in the past as being very unpredictable. Short sighted cost reduction measures will unfold their destructive power a few years later. Interesting to note that, despite that these cycles are recurrent, is that the sector seems not to learn from history.

Single European Sky ATM Research Project: SESAR has embarked on the revision of the ATM Masterplan to adapt it to the digitalisation agenda of the European commission. IFATCA together with the other Professional Staff organisation has contributed to the new draft of the ATM Masterplan by introducing the need for research on the future Joint Human and Machine System. This will become the major work for the coming years of IFATCA in SESAR, to assist the future technological development with some applied research on how best to get the benefit from both the human capabilities and the increased technological advances becoming available. IFATCA also has contributed to the Airspace Study which will prepare the European Airspace for the future. IFATCA's contribution has been centered on the i4D trajectory as outlined in the ICAO Global ATM concept and is available in Basecamp or from EVP Europe.

European Aviation Safety Agency: EASA has seen its Basic Regulation revised and adopted, enlarging the competence for rulemaking to drones and other fields of aviation. In ATM/ANS EASA has worked together with the stakeholders on deconflicting IFR from VFR. IFATCA was able to provide professional input to this significant work to enhance safety in class of airspace E-G. IFATCA's expertise was utilised in the newly created Safety Key Performance Indicator Rule making Task, the drone integration task force and preparatory work for the implementation of EU Implementation Rule 373/2017. A slight taste of déjà vu has creeped up in the last few month as the institutional fragmentation under the single European sky is potentially slowing down the needed improvement of the overall quality of air traffic management. Therefore a newly created High Level Group will start to launch another cycle of institutional reform which might be called SES 3. A lot of uncertainties at policital level are linked to the BREXIT, where the UK is negotiating with the European Union, the withdrawal of the UK from the EU.

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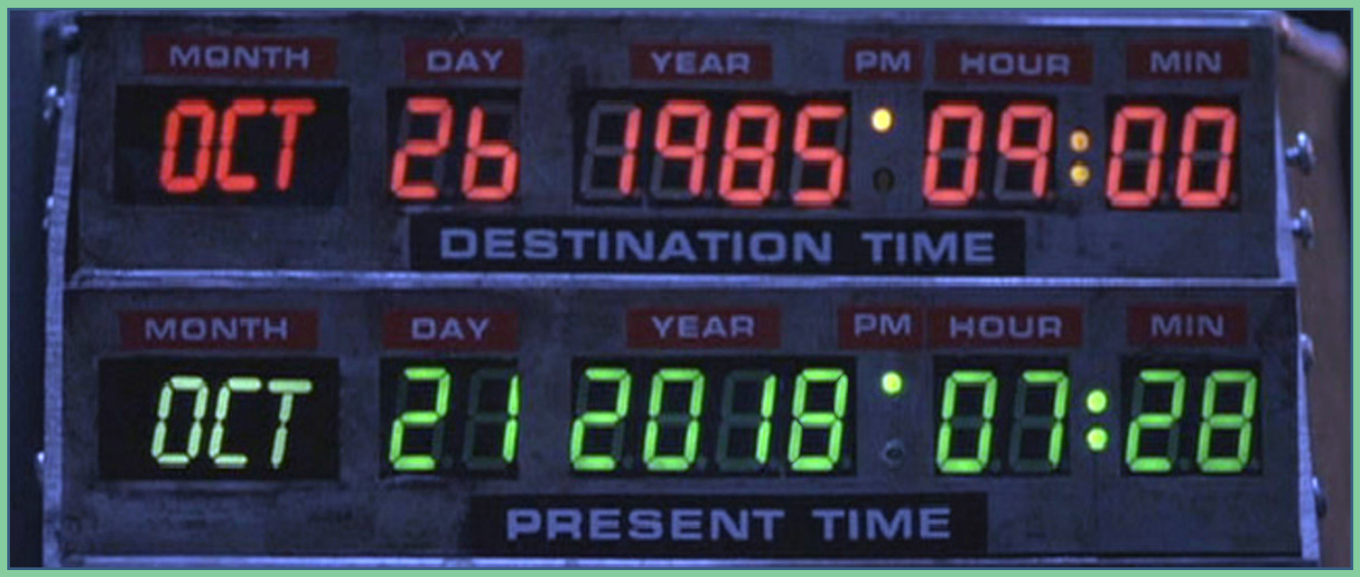

ANSPs NEED MORE CAPACITY TO DEAL WITH INCREASED LEVELS OF VOLATILITY

BY PHILIP BUTTERWORTH-HAYES, EDITOR OF UNMANNED SPACE

It has been a terrible summer for Europe's aviation sector. For Europe's airlines the core problem is the number of strikes by controllers. "2018 is shaping up to be one of the worst years ever for ATC strikes in Europe." said Thomas Reynaert, Managing Director, Airlines for Europe (A4E) in a press release. Solutions proposed by A4E include "a mandatory 72- hour individual notification period for employees wishing to strike, protection of overflights (while not at the expense of the country where the strike originates) and an improved continuity of service for passengers. In addition, investments are required in technology, processes and human resources to make Europe's overall air traffic management system capable of coping with ever-increasing traffic."

For air navigation service providers (ANSPs) the problem is a lack of spare capacity to deal with even modest rises in air traffic. "Due to pressures on costs," according to a briefing paper from functional airspace bloc alliance FABEC, "ANSPs have been legally obliged to closely match their resources to the prevailing levels of demand and after 2008 financial crises therefore reduced their reserves of capacity. When sudden, unexpected changes in demand occur there are no longer the resources available to deal with them." The biggest problem is finding the right number of controllers to manage sudden unpredictable levels of traffic, according to the alliance. A lack of sufficient staffing levels accounted for 60% of all air traffic flow management delays in 2017. But it takes up to five years to train a controller and this makes it impossible for ANSPs to react quickly to traffic fluctuations. Climate change and weather disruption is the next most common cause of delays, responsible for 23% of delays in 2017, while industrial action contributed "only" to 10% of the total delay.

And for controllers themselves, having to work longer hours and deal with heavier traffic loads than ever before, this has been one of the most stressful periods in history. "They come off shift with their shirts wet from perspiration," said one central European ANSP director general.

But there is a growing belief among many in the industry that even imposing a new wave of mandatory working conditions on controllers will not solve the problem of flight delays and cancellations. That the strikes are symptom, not a major cause, of a wider problem, and have been used by lobbyist groups to deflect attention from a much wider issue. That we are heading into a new era of volatility – of more extreme weather, trade wars, new airline business models and technologies which are disrupting long established air traffic patterns. New political uncertainties. Drones. Cyber threats. All which will require new ways of working together.

According to a recent forecast of air traffic growth to 2035 from scheduled airline trade association IATA: "The next 30 years are likely to be more turbulent, as a new wave of technological change and innovation unfurls. Some see this wave sweeping the airline industry away, citing as precedents the taxi industry before Uber arrived, the music industry before internet downloads, and the printing industry before computer design software."

The IATA forecast identified 50 drivers of change which will impact demand for air traffic services over the next two decades, from personal carbon quotas to infectious disease and pandemics. "The drivers of change judged to have high uncertainty, however, tended to be political, economic and environmental rather than social and technological, although technologies such as Internet of Things and alternative modes of transport were deemed to have highly uncertain outcomes in 2035," according to the association.

Eurocontrol's July 2018 report Challenges of Growth predicts that even with slowing annual air traffic growth rates "by 2040 there will be 1.5 million flights more in demand than can be accommodated… That is 160 million passengers unable to fly….(while) the number of flights delayed by one to two hours increases by a factor of seven, which means around 470,000 passengers each day delayed by one to two hours in 2040, compared to around 50,000 today."

The high-level figures show that even with a slowing down of annual economic growth the peaks and troughs of demand for air travel are becoming wilder than ever before (see chart on next page).

But high-level forecasts are of little relevance in planning short term staffing levels in a tower or en-route control centre. Some area control centres are experiencing 50% traffic hikes at peak periods while others are seeing traffic levels fall. Variations are most pronounced in Europe's busy core air traffic area. While the figures for high-level traffic growth forecasts are generally accurate, ANSPs can no longer rely on them for accurate resource planning, especially in areas such as staffing requirements and equipment investment

This is because the number of variables which impact near-term demand for sector or runway space are starting to become too complex to measure accurately. For example, while new automated airline flight plan systems will allow airlines to respond to an ANSP raising or lowering it charges by re-

routing flights to take advantage of – or avoid – the new charging levels, not all will respond in this way. A recent study by aviation consultants Helios found that while some selected the shortest, cheapest routes around 60% of the filings were on suboptimal routes, attributed in part to unavoidable factors such as weather, but also to a lack of information available to the dispatcher.

So, what is the solution?

All sides agree that we must build more capacity into the system – recruit new controllers not just for the peaks in demand but to provide flexibility for ANSPs to provide a buffer against sudden, unpredicted disruptions.

This means finding new ways of releasing ANSPs from the strictures of having to continuously reduce their navigation charges to airlines. This process has not worked – while, on average, these charges have dropped steadily since 2012 from over Eur60 per traffic service unit to Eur52.9 in 2017, the costs of delays to airlines as a result of reduced capacity investment in personnel and equipment has far outweighed any short-term savings they may have made from lower air navigation charges. This means somehow rebalancing the commercial and the operational priorities of all stakeholders so they are more closely aligned.

There is a recognition in some areas that a new approach, taking in all stakeholder views, is needed. In Germany, for example, the head of the country's main airline, airport and ANSP recently wrote an open letter which was published in the country's major newspapers suggesting that a common approach to finding solutions to the current air transport challenges is urgently needed.

Somehow, airlines, airports and ANSPs are going to have find new ways of working together because they are confronting a common problem – a new era of volatility which is bringing a wide range of disruptive challenges to them.

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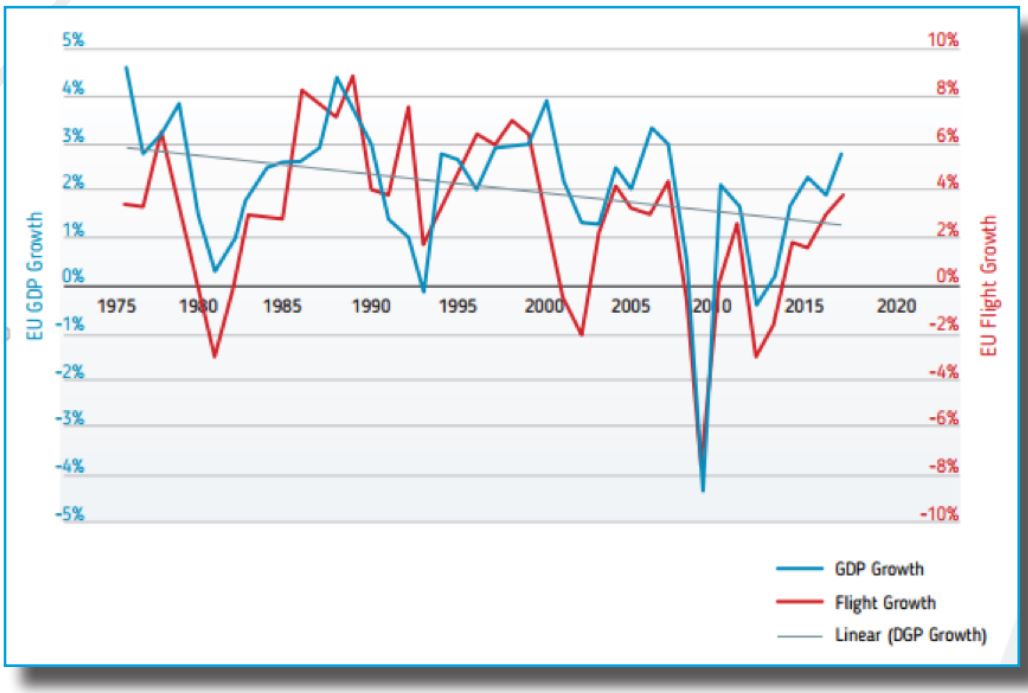

EXAMPLES OF DISRUPTION:

- **POLITICAL UNREST**: When tourists chose to holiday in the western Mediterranean instead of destinations in north Africa and the Middle East, French overflights rose 15% in one year, absorbing nearly all the new capacity put in place to meet 2021 predicted travel levels, according to FABEC. The Russian-Ukraine conflict lead to an 8% annual traffic growth in Poland, rising to 20% at peak times, compared to 1% growth forecast.
- **ECONOMIC DISRUPTIONS**: In 2017, sanctions imposed by Bahrain, Kuwait, Oman, Saudi Arabia and the United Arab Emirates on Qatari-registered aircraft resulted in major disruptions to established traffic patterns throughout the Middle East and in neighbouring areas.
- **MORE EXTREME WEATHER**: Major airlines delayed and cancelled flights out of Las Vegas and Phoenix airports in June 2017 as temperatures hit the high 40s. Poland attributed over half of terminal area delay to bad weather in 2017. Munich experienced a 'Supercell' in August 2017 when two thunderstorms converged over the airport, resulting in complete closure for over an hour for safety reasons.
- **ROUTE OPTIMISATION TOOLS**: New advanced flight planning systems can re-optimise an aircraft's route while the aircraft is in flight. The airline's operations centre has more information about weather and traffic far ahead of the aircraft, as well as the dynamic costs associated related to crew, aircraft, passenger connections, air navigation charges, so the changes to the original flight-plan can be uplinked directly to the FMC, minimising crew workload.

BARRY KRASNER: HE MADE A DIFFERENCE

BY PHILIP MARIEN, IFATCA COMMUNICATIONS COORDINATOR
& DOUG CHURCH, THE CONTROLLER, MANAGING EDITOR

BARRY KRASNER, 1952-2018

Barry Krasner, a founding member of the United States National Air Traffic Controllers Association (NATCA) and its first two-term president, passed away on July 9.

Barry began his Federal Aviation Administration career in January 1982, working as an air traffic controller at the New York Terminal Radar Approach Control (TRACON), where he spent the next 26 years before retiring in 2008. He was involved in the original organizing drive to begin a new union for controllers in the mid-1980s and was instrumental in shaping its foundation and path forward, first as a charter member when NATCA received Federal Labor Relations Authority certification in 1987, next as Eastern Regional representative from 1988-91, and then as its President from 1991-97.

"The strongest part of your foundation is the cornerstone. It is the beginning, the strength, and the support upon which everything is built. Barry is truly the cornerstone of NATCA," NATCA President Paul Rinaldi said. "He set the course for three decades and gave us the guidance and direction we needed."

Krasner left a lasting legacy on the Union. His Union career was shaped primarily during the 1990s. He then remained an integral part of NATCA's heart and soul – and labor relations and contract negotiating efforts – through his 2008 retirement from the FAA. After that, he stayed with NATCA as a staff member at its national headquarters and as executive director before retiring in 2014.

Membership in NATCA provides enormous opportunities, both personally and professionally, Krasner believed.

"But with that opportunity comes great responsibility," he said. "Both individually and organizationally, we have the obligation to leave the system and our professions in a better place than we found them. And the way to do that is to marshal our forces and to channel our energies into one cohesive voice." NATCA Executive Vice President Trish Gilbert called Krasner "a NATCA legend, visionary, leader, mentor, and beloved friend." His decades of leadership of NATCA's collective bargaining leaves a permanent legacy as his negotiated words continue to protect the Union's members. He was also instrumental in bringing NATCA into our Federation during the mid-1990s and briefly served as the chairman of the Federation's Constitutional and Administrative Committee.

Krasner was a long-time survivor of pancreatic cancer. Years ago, he beat his cancer, but later, he suffered a relapse. Pancreatic cancer remains one of the deadliest forms of cancer, with fewer than five percent of people living with the illness surviving for five or more years. Krasner beat these odds and survived after his initial diagnosis for nearly a decade, a true testimony of his fighting spirit.

He had a profound impact on NATCA, the air traffic control profession, and the USA's National Airspace System over his 32-year career. His actions and forethought helped shape his association and our Federation. On behalf of the IFATCA Executive Board and its Member Associations, we extend our sincere condolences to his wife Sallie, his children, grandchildren, friends and colleagues.

"I once asked him what he would want on his tombstone and he replied, 'Barry Krasner – He Made a Difference,'" Sallie said. "And oh what a difference he made!"

MARTYN GREGORY COOPER: DEEP PASSION FOR ATC PROFESSION

BY PHILIPPE DOMOGALA, IFATCA CORPORATE MEMBERS COORDINATOR

MARTYN GREGORY COOPER 1949-2018

IFATCA is deeply saddened by the passing of its former Executive Vice President Professional, Martyn Cooper.

Having qualified as a controller in the summer of 1973 at his home airport in Luton, UK, Martyn soon found a passion in training new colleagues. Over time, he was the logical choice to become a unit training officer and the unit's first Local Competency Examiner. Later, he joined the CAA's Director of Airspace Policy as the NATS representative in the Terminal Airspace Section and it was from here that he retired in 2009.

He joined the London branch of GATCO shortly after qualifying, showing particular interests in the professional aspects of the air traffic control profession. Consequently, he joined GATCO's Executive Board as Director Professional. Amongst his many achievements in that function, he was instrumental in the introduction of a scheme to control ATCO working hours, a system that remains in place even today.

It was during his tenure as GATCO Board Member that he also became involved in IFATCA. He chaired numerous Committee C sessions, dealing with professional and legal issues, during annual conferences and was involved in the Federation's Standing Committee IV, the precursor to the Professional & Legal Committee (PLC). His passion for professional and human factor issues made him a logical choice to become IFATCA's Executive Vice President Professional at the end of the 1990s. The IFATCA family will fondly remember Martyn for his cheerful personality, humour, knowledge, insight and good common sense. But above all, his was able to transfer his deep passion for our profession onto others On behalf of the IFATCA Executive Board, our deepest condolences go out to his wife Carolyn, two sons Christian and Matthew, his two daughters-in-law, and three grandchildren.

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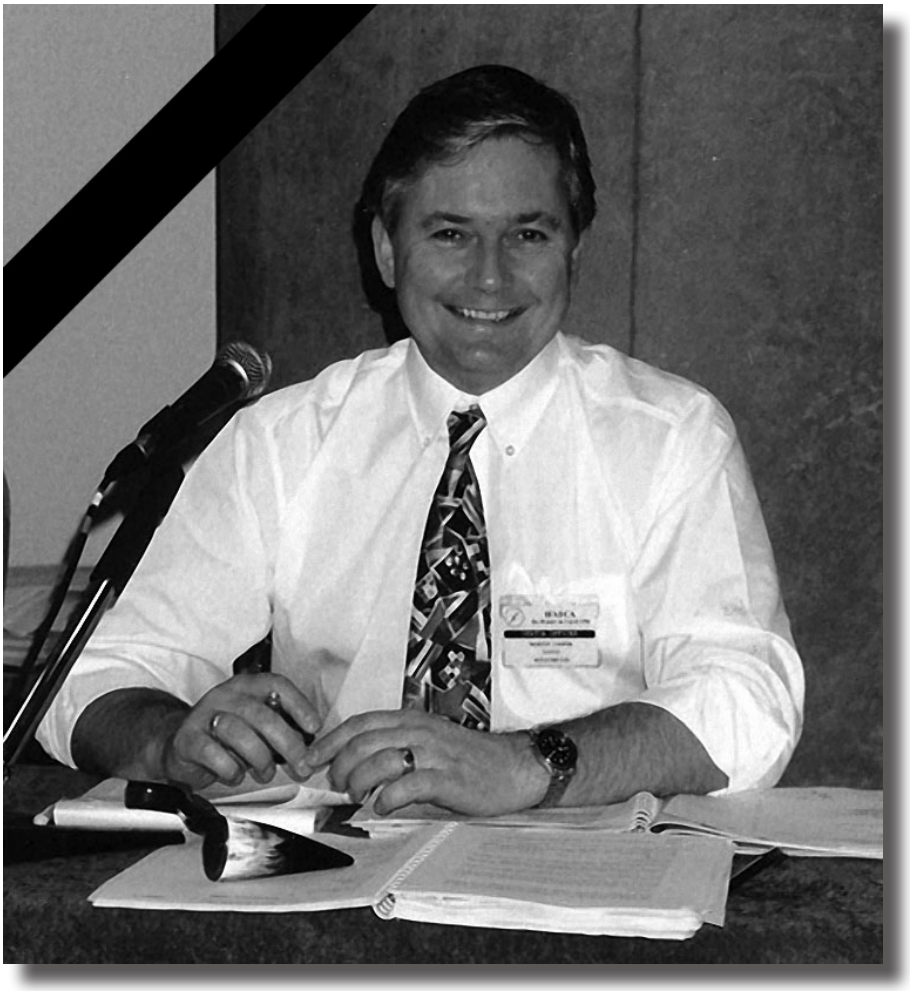

UTM ROADMAP CLEAR, BUT MAJOR QUESTIONS REMAIN

BY IGNACIO BACA, IFATCA EVP TECHNICAL

One of the most interesting events during the last Global UTM Association (GUTMA) Conference was a demonstration of the Unmanned Aircraft Systems Traffic Management (UTM) concept that showed how drone operations could develop in the future. The demonstration involved a drone operation in the vicinity of a small aerodrome. To add some additional realism, the drones for the demonstration actually were flying near an uncontrolled aerodrome (Camarenilla aerodrome, ICAO code: LERN), while a simulated control position had been set up in the conference venue. A video stream of the drone's flight was available at the venue, while its position was shown in the control display.

The demonstration involved a specifically designed mobile app that allowed drone operators to create a flight plan. Using the app, the drone pilot could complete the process on his own cell phone and get direct feedback. By using the geofencing concept, the app was programmed to automatically refuse any flight plan crossing non-flight areas. In the demonstration, the operator tried to create a flight plan overflying a town and it was rejected. When everything was OK, the system approved the flight plan automatically.

Dynamic geofencing was demonstrated by creating a new restricted area on the fly to protect the operation of a supposed medical helicopter. The drone pilot received the information immediately on his phone which was linked to the control system, making him aware of the new non-flight area.

The drones carried a system to send position information (similar to the concept of ADS-B), which can be displayed at the controller's screen. In normal conditions, the drones are filtered off but they would be shown in case they fail to comply with their rules of operation. For example: a drone that was supposed to stay below 400 ft was automatically displayed when it flew above this limit.

The demonstration continued with a simulated medical helicopter flying at 500 ft being displayed at the controller position (supposedly because it was tracked by SSR). The controller used this information to instruct the helicopter to keep away from the drone, increasing the safety of the operation.

Finally, the area was supposedly under surveillance by a non-cooperative surveillance system using PSR plus detection of sound and frequency emissions to prevent airspace infringements by other drones.

The first demonstrations of UTM look promising. There is no doubt that drones will coexist with manned aircraft in a medium or even short term, but the UTM concept is not mature enough to be implemented, even if it is quickly moving forward.

In the demonstration, the operation was performed successfully, but many questions remain unsolved. The following is a summary of the main issues that seem to be unsolved:

The concept of geofencing is often mentioned as a way to solve infringements, but the way it was implemented in the demonstration does not provide anything new. Any pilot must know that aircraft shall not be flown over the congested areas of cities, towns, or settlements or over an open-air assembly of persons, unless at such a height as will permit. In an emergency, a landing must be possible without undue hazard to persons or property on the surface. (ICAO Annex 2, paragraph 3.1.2). Annex 2 states also that the minimum altitude over such places is 1,000 ft unless necessary for take off or landing. An app reminding pilots where the towns, restricted areas or airports close to operations are located is fine, but every pilot must check such information before starting the flight no matter the type of aircraft.

Dynamic geofencing seems more promising. The possibility to almost instantly define a restricted area clear of drones in case of necessity will certainly be welcome. But who is to define such areas? The CAA? The military? The police? Any of them? These questions still are unanswered.

Providing information about restricted areas to drone operators is positive, but there still is the issue of non-professional operators flying recreational drones with little, if any, training and no flight plan at all. Geofencing as demonstrated is a good step in the direction of allowing professional operations, but the possibility to use technology to force drones to avoid restricted areas in order to prevent infringements is still not developed.

Drones are supposed to be separated from the rest of the traffic by keeping them at an altitude below 400 ft. Considering that the minimum altitude for VFR traffic is 500 ft., it is necessary to think whether 100 ft. is enough to ensure safety.

SUPPORT MAGGIE IN UGANDA UPDATE & THANK YOU

06/04/18

Dear fellow ATCOs,

Please accept my sincere gratitude for the support you gave me during the six years when my ATC license was revoked on grounds of an alleged negligence of duty that lead to an Airprox between two VFR helicopters. Without your moral and financial support, this period in life would have been so challenging to go through.

As you may all be aware by now, we took matters to court and the case ended victoriously for the ATCO community. Your support in meeting my legal fees through the IFATCA EB was so overwhelming to me that I can never have a good enough way of expressing my gratitude. All I can say is thank you very much.

Not only were my legal fees paid for by you all, I additionally received and am still receiving upkeep money from individual ATCOs and MAs to improve my life. Thank you for sharing my pain and making it possible for me to get back to my feet. Accountability for this money will be sent to the next IFATCA conference through my MA (UGATCA).

Forever grateful,

Kagendo Margret

UTM ROADMAP CLEAR, BUT MAJOR QUESTIONS REMAIN, CONTINUED

The way altitude is measured must also be considered: if a particular drone is using geometric altitude, there may be a significant difference with the barometric altitude used by all manned aircraft.

Position information is also a source of concern. In a similar way to altitude, all aircraft providing horizontal position must comply with the same rules to ensure consistency. This means that an "ADS-B like" solution is not good enough but fully compliant ADS-B must be requested, especially if an ATCO or FISO has to provide information about a tiny device flying at less than a mile from a manned helicopter as happened during the demonstration.

But even if the drone carries a fully compliant ADS-B OUT system, there is still the question of coverage. During the demonstration, the drone was supposed to fly at less than 400 ft., while the helicopter was supposed to be detected by SSR when flying at 500 ft. This would only happen with an extraordinary coverage. In reality, an aircraft flying at such a low altitude would only be detected in very specific areas like airports.

Finally, the demonstration showed a helicopter avoiding an area in which a drone was operating after the helicopter pilot got information about where the drone was operating. While successful from a safety perspective, a rescue helicopter failing to fulfill its mission because a drone is operating in the area is a failure even if a collision is averted. Drones are supposed to give way to manned aircraft and not the other way around. This is another reason to study how to force drones to avoid restricted areas.

In conclusion, there are still many open questions. The first demonstrations of UTM look promising. There is no doubt that drones will coexist with manned aircraft in a medium or even short term, but the UTM concept is not mature enough to be implemented, even if it is quickly moving forward.

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"UTM roadmap is clear but major questions remain" originally ran as an The controllers' view article in July 2018 in Unmanned Space.

THE IRONY ABOUT STRIKES

BY PHILIPPE DOMOGALA, SENIOR CORRESPONDENT, IFATCA

NOTE: The opinion expressed here is not necessarily that of IFATCA, but rather that of the author himself.

➤ **Photo above:** Europe's largest low-cost carrier has faced multiple strikes throughout Europe, since it recognised trade unions for the first time in December, with staff stepping up pressure in talks over pay and conditions.

Over the past year, a relatively new lobby organisation called Airlines for Europe, or A4E for short, has been very vocal about eradicating ATC industrial action. By far the most vocal and aggressive voice on A4E is that of Ryanair, Europe's largest low-cost airline. But larger and more traditional airlines, such as Lufthansa and British Airways are also members. The main aim of A4E, according to their website, is "revolutionize" the aviation business by lobbying for lower airport costs, delivering a reliable and efficient airspace, removing unreasonable taxes and… limiting the right to strike for air traffic controllers.

To help achieve this last point, they started a media campaign last June, entitled: Air Traffic Control (ATC) strikes are destroying air traffic and economies across Europe. They substantiated this bold statement with "facts" including:

> *"An alarming increase in Air Traffic Control (ATC) strikes across Europe has wreaked havoc on airlines, their passengers and business. 2018 is shaping up to be one of the worst years ever for ATC strikes in Europe. Year-to-date, A4E member airlines have been forced to cancel nearly 5,000 flights as a result of the strikes, directly impacting around 784,000 passengers across Europe. In addition, millions of travellers have been affected by flight delays caused by airspace diversions and residual backups."*

While this sounds plausible, it's worth having a closer look. According to the website of Europe's Network Manager: EUROCONTROL projects the total delay minutes for 2018 will be up by 53 per cent compared to 2017 as a result of strikes and capacity shortages (14.3 million in 2018 versus 9.3 million minutes in 2017).

The part "and capacity shortages" is the interesting bit: it reveals a real issue which increasingly causes flow control measures, closure of sectors and delays. The first ironic thing is that the vast majority if not all the ATC strikes this year have been to protest the direct consequences of controller shortages or in EUROCONTROL-speak: capacity shortages.

And who keeps pushing for cost reductions and minimum staffing that is causing those staff shortages? The very same airline-lobby groups, including A4E, that want cheaper airports, no taxes and enough people to work the system to cope with their increasing flights.

But the biggest irony of it all is that Ryanair, the driving airline behind A4E, is now itself subject to a series of strikes from its own staff. Actions by cabin crew and pilots have resulted in over 20.000 flight cancellations and disruptions this year. And the reasons for these strikes are remarkably similar to those of the controllers: increased pressures to keep costs down, chaos in their own operations planning and a general lack of cockpit and cabin crews! Because of these pressures and the 'creative' working conditions, their staff are seeking employment elsewhere. The resulting pressure on scheduling leads to more pressure for the remaining crews and eventually to strikes.

This means the snake is biting its own tail. Airlines are no longer run by aviation minded people but by impatient financial people. The A4E group appears to be just another lobbying group aimed at getting more financial profits for their investors. They do not have the necessary expertise or solutions to get out of the deadlock that European aviation faces.

Volker Dick, President of ATCEUC (the International body representing ATC unions in Europe) said last year in a press release:

> *"It is a pity that inside A4E, a specific low fares airline boss runs the show to destroy workers' rights. Now all the other A4E members are engaged in this aggressive and unethical employment behaviour that is jeopardising ATCOs' social rights. Day after day, A4E continues to reveal its true nature: an aggressive and dangerous lobby group only concerned with its own financial interests and without any social responsibilities'."*

While I would not go that far, it is what a lot of front-end people think about this lobby group. Aviation was and is made by people. It always has been since the Wright Brothers. Forgetting this and treating people like numbers and production tools will backfire sooner or later. The two main weapons workers have to counter this is walking away to find another job or strike. They are doing both at the moment: those fortunate enough to find work elsewhere fuel pressure on the remaining ones, leading to further strikes.

It's time to break this vicious circle and offer solutions instead of blaming each other for this mess. ➤

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CHARLIE'S COLUMN

BY CHARLIE@THE-CONTROLLER.NET

Arguments in Cockpits (1)

Iraqi Airways has suspended two of its pilots for getting into a mid-air fight over a food tray while cruising at FL370. "The conversation with the Captain became heated because he forbade an air hostess from bringing me my meal tray, under the pretext that I hadn't asked him for authorization," said the First Officer. Though they landed safely, the two continued to fight on the ground where the Captain again hit and insulted the First officer who said: "I had to defend myself." Fighting for food is not new in aviation but it used to be about who gets the chicken and who gets the fish in my day.

Arguments in Cockpits (2)

In India, two Pilots are under investigation for fighting in the cockpit of a Jet Airways Boeing 777 on a flight from London to Mumbai, India. During the flight, the male pilot allegedly slapped his female co-pilot mid-flight, causing her to exit the cockpit of the Boeing 777 for a long period. The reason for the assault was not revealed in the article (let's assume it wasn't about the food) but it sounds that the CRM training did not bring the advantages that were expected. We don't know whether this is a new trend or an old trend being now advertised. In any case, better be careful when entering a cockpit during your next familiarisation flight!

ADS-B Is Good for You

You all know ADS-B is going to become mandatory in the US and tens of thousands of General Aviation owners will have to equip their aircraft at a cost of a few thousands dollars. The FAA is giving some briefing explaining how it works and what the benefits are, but as the photo shows, they are still a long way from convincing everybody!

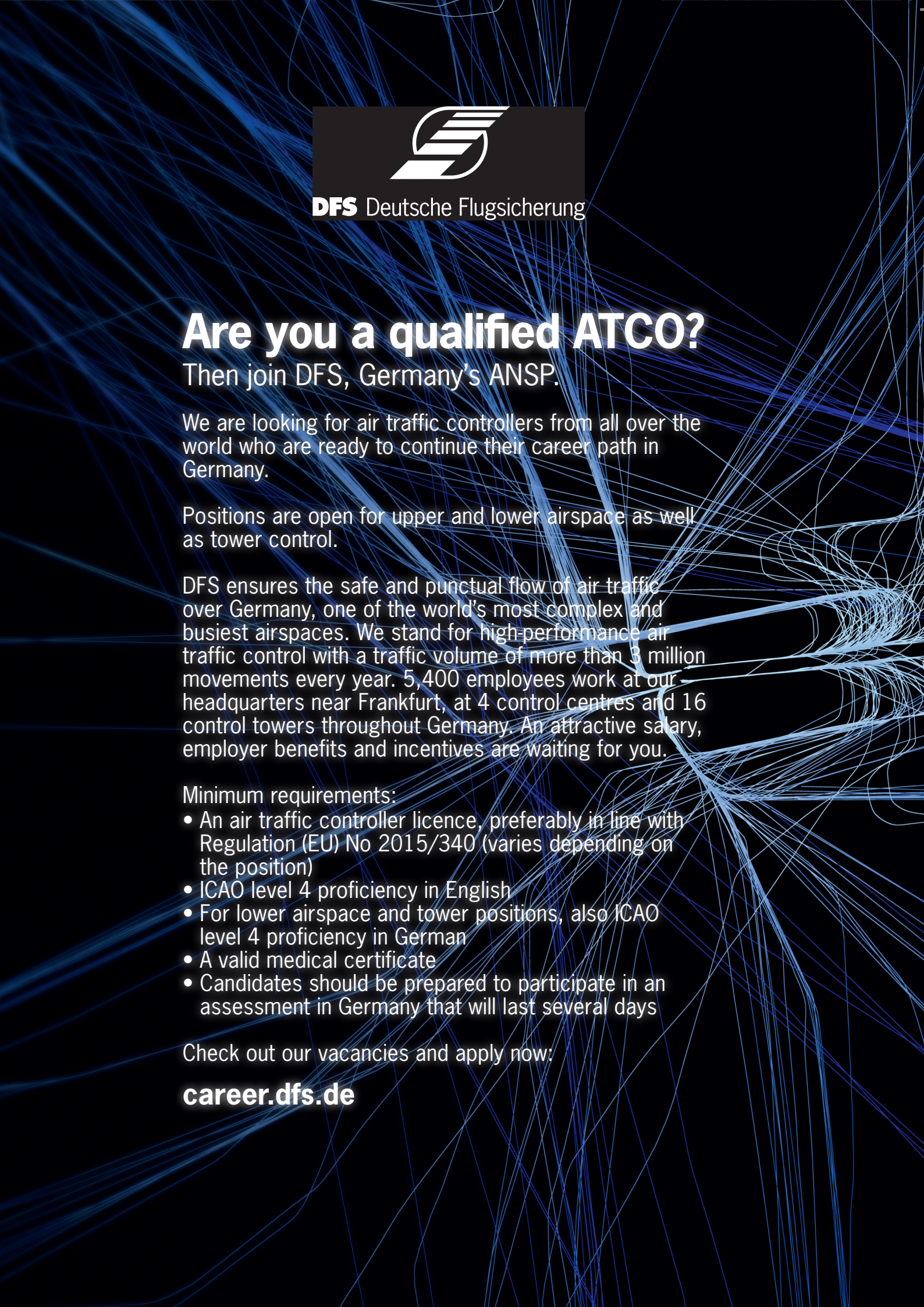
Birds & Drones

We fear that this is going to become a recurrent feature here. Some time ago, we reported here that a few companies are training birds of prey to attack drones near airports. Now it seems that others are doing the opposite: engineers at the California MIT have developed a new algorithm that enables a single drone to chase birds away from the airspace of an airport (more info here : https://goo.gl/NnZNt3). If we're not very careful, the combination of the two could soon turn airports into an airborne warzone that would put the Battle of Britain to shame... While birds and drones each present a risk to aircraft landing or taking off, imagine what it will be like if these are trying to chase each other away.

We also wonder whether the risk of hitting the drones is not higher that the birds... Al Wiener's famous law nr 29 comes to my mind: "Whenever you solve a problem, you usually create one. You can only hope that the one you created is less critical than the one you eliminated".

Overheard on Frequency in an Asian Airport

Pilot: Ground this is Cessna ABC123 parked in A request start up
Controller: 123 clear to start up report ready to taxi.
5 minutes later
Pilot: Ground, sorry we have some problems, aircraft won't start, call you back.
10 min later
Pilot: Ground this is 123 we think it is OK now, request start up.
Controller: Clear to start, report ready for taxi and good luck!
5 min later
Pilot: Ground, sorry she won't start.
Controller: OK, what is the nature of your problem?
Pilot: don't know, I think the aircraft is in a bad mood this morning!.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