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EGATS
EUROCONTROL GUILD

Printing EUROCONTROL MUAC

The EGATS board thanks the staff from the MUAC Reproduction Workshop for their assistance with this magazine!

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EDITORIAL

Dear members,

Another summer has come and kind of took us by surprise, again.
It's our yearly date with summer traffic. We all know it's coming, but somehow it always manages to surprise us. Last year we had record numbers, especially in the Brussels sector group, but not only. We promised to protect our colleagues more actively. We tried, but not always succeeded as we wished. This year we are CRUSHING last year's numbers. Is it good or bad? For now, it's not such a clear cut. As a mitigating measure, we did introduce an 'extra' swing duty in order to alleviate the daily workload, but at times this is not enough. So, my professional recommendation is: protect yourself. While people do work hard around you to provide you with the best possible environment, while tools are being designed and developed, protect yourself.
If something is not working, do speak up. Assist your colleagues by paying attention, cooperate with CSS, give your input as necessary. Work professionally, come at work rested and ready but do not accept what you shouldn't. And if you feel the need to file overload reports, do so. Everything is important for a complete review of the traffic situation in order to improve. In any case, we are all on the same boat. And we all work together towards the same objective. So, the more we cooperate, the more success we will obtain.
But while we work hard and discuss the safest way forward, we are breaking every possible traffic record. On June 27, we broke the all time record with 5278 movements, 34 more than on June 25, which is now officially the second busiest day ever. In all, this June, we have had 7 of the 10 busiest days ever in the history of MUAC!! Thirteen of the 20 busiest days ever occurred in May (1) and June (12) this year. Additionally, three more days in May/June for a total of 16 of the 38 busiest days having been recorded this summer alone. It's almost insane and it goes to show what kind of traffic we have been presented with in 2014, as in all of these sixteen days we topped the 5000 movements.

And talking about cooperation, we should all strive to do what we are supposed to in the most professional manner. In this respect, the large number of no shows experienced recently put our colleagues in a bad spot. We know now that there are some issues with the synchronization of the roster on our mobile devices, especially when it comes down to swaps. So, do yourself a favor: just check your roster on the extranet as it is always up to date. We all live in a wireless world, we can surely log in and check our duty for the following day and avoid troubles for ourselves, and our colleagues alike.

Cooperation is appreciated not only internally, but outside MUAC as well. We all know the effort we put in trying to help the other centers by sequencing traffic, or applying XMAN restrictions on top of working our daily traffic. We accommodate more traffic while others are (rightfully?) on strike or we show our flexibility when the militaries perform their large exercises.
After all, reading through the 2013 MUAC Annual Report I have found the following:

Patrick Vanheyste (MCG Chairman): During 2013, MUAC continued to deliver competitive air navigation services. Outstanding results were achieved in all key areas of capacity, cost-effectiveness, environment and safety. Most important, MUAC made substantial contribution in meeting the SES targets as set in the FABEC Performance Plan.
Jac Jansen (DIRMAS): I am pleased to report that in 2013 MUAC has continued to perform in an efficient and flexible manner, delivering another year of robust performance in the face of an unexpected traffic increase. MUAC managed over 1.6 million flights, an all-time high in regard to yearly traffic (+1.6%). Punctuality remained excellent with 99.5% of unimpeded flights, average delay was 0.07 minutes and the cost per flight-hour was down 4.3% compared to 2012 and total service provision costs were down by 5.3%.

In April 2013, for the 10th consecutive year, the ATM Cost-Effectiveness benchmarking report confirms MUAC as one of Europe's best-performing ANSPs with the HIGHEST ATCO productivity.

So, despite a considerable increase of traffic, we managed to keep delays to the bare minimum while being more cost-efficient and just as safe. That's pretty remarkable.
We should all be proud of our achievements. And possibly, we should be recognized for them as well. Instead, we are constantly and shamelessly under attack.
One question comes to mind: if we work this hard, if we accommodate more while keeping our safety record, why is it that the delays accumulated in MUAC due to the military exercises (Frisian Flag) and the French strike (both external factors we didn't contribute creating nor we have asked for) are on MUAC's account?
This is not only unfair, but downright offensive.
We work harder, we reduce the negative impact for traffic due to external circumstances and we ultimately pay the price for it in terms of delays created by others and put on our account. This is one kind of cooperation we demand from others. Give us what's fair and don't blame us for all the rest. After all, with all the cooperation we give, we have earned the right to ask for this.
And despite all, we keep moving on and we're that good at what we do.

But in this gloomy picture, there is a moment of brightness: the Agency Safety Day will be held next 23 September and the DG will be in MUAC to sign the Just Culture Policy. One step in the right direction, as EGATS has been on the forefront of this project ever since it has been launched. Put this date into your diary and be there!

Lastly, let me welcome Steve Mention and Kris Scicluna to the EGATS Executive Board. Good to have you on board.

Have a great holiday period, everyone!

Professionally yours,

Raf Vigorita

NOTE: the editorial was written at the beginning of the summer. Please refer to the back cover for a small update

Contributions by:

- **Members of the Executive EGATS Board**
- **Luc Staudt**
- **Patrik Peters**
- **Paul Hooper**

LATE Summer 2014

content

IN THIS ISSUE:

update on EGATS work and involvement.

Raf Vigorita

Since last OUTPUT was published before Christmas 2013, EGATS has been actively and heavily involved in a growing number of projects. As usual, this article will cover the essential work of the Board and its Representatives carried out over the past 6 months.

Last thing first, it has been made clearly visible by Philip Marien that the age distribution in the Ops Room is dangerously unbalanced towards an older population. His unofficial study as a member of the TUEM Board has outlined that the trend is worsening between now and 2026. TUEM and EGATS have immediately agreed to have a close cooperation in deciding how to tackle this serious issue and hopefully SC will be an integral part of this project too. We'll keep you posted on the developments on this.

Meanwhile, in mid June, the simulations for the new DECO vDFL have taken place. We were present to this too, and hopefully we'll be able to secure a smooth transition for all staff involved.
Similarly, we are part of a relief study for the Brussels Sector Group where different solutions are being taken into consideration to ease the daily heavy burden of traffic flying through this specific geographical area. Ideas include a stand-alone Olno High and/or a third layer. Things are still fairly basic, but we plan to be an active participant in this very important project.
We attended basically every simulation for the CBA Land/Central West project. Although things seemed to be in the final stage, it appears now that there is more uncertainty surrounding its implementation than we had anticipated. An update will be available after 9 July.

Our military friends sometimes pose a few problems to us too. We have identified issues with formation flights, whereas we as ATCOs are allowed/required to work them when flying GAT but we do not have procedures in place nor training available should a formation-split be required. Furthermore, we lack tools to identify them in due time and to anticipate the increased sector workload should a split be necessary. We have had a preliminary meeting identifying hazards and mitigations, and solutions are on the way.
Remaining in with the military, we would like to remind everyone that ATCOs in MUAC are NOT ALLOWED to work OAT traffic. Military traffic, in order to fly under MUAC radar control, must be filing GAT flight plans or be willing to change an OAT FPL into a GAT one before we can actually take control. If a flight is neither GAT nor willing to change into one, you are requested to refuse such flight.

In a very related topic, we are all awaiting the decision on a possible Lippe integration. We are ready to look into professional issues as soon as there is a final say on this matter. In any case, we could count on Lippe to help us out on a possible training for formation flights, as they have the know-how for this.

We are looking forward, after so many years, to integrate our colleagues from Lippe and welcome them to the team, there should be a chance. This would be a very positive development for all parties concerned but surely for safety and improved performance.

The TCAS RA downlink studies continue and we monitor the situation. Presently, neither EGATS nor TUEM would be in favor of an implementation in MUAC due to the lack of laid down responsibilities deriving by a delayed, false or unreported RA display. Without clearly defined legal responsibilities this is a no go in MUAC. And even then, it remains to be seen if we need more 'distractions' displayed on the radar screen considering the amount of nuisance RAs that occur daily. It's a topic that is both stuck on certain issues (legal) but continues to evolve in others (technical) and requires our monitoring. This issue probably deserves a deeper update, you could expect one in the winter edition of the OUTPUT.

While working within the Professional Behavior Committee, it became clear that certain rules pertaining to the Ops Room need refinement while others needs a little more reinforcement. Overall there is satisfaction on how people reacted to the mobile devices campaign, but it's still a work in progress. Also to be looked at by the PBC is the workload share between EC and CC. Time keeping seems to be a bit of an issue, according to the findings of EUROSS, as 43% of the times ATCOs arrive at the position with less than 5 minutes to spare. This is partly understood when on short breaks or moving from a different position, but a good part of it refers to people arriving from home. We can surely do better here. Also, we need to maintain a certain attention on our attire as we do represent MUAC at any time while on duty, and important visitors could show up at any time. But even so, it's primarily for ourselves, especially if we do not want to end up having more restrictive rules imposed upon us, such as a Dress Code. Don't come tell me I did not warn you!

The OJTI concept is still developing, and with the selection of the (next) pilot Ab Initio course, we will put to test the new ideas surrounding the training in MUAC. We are deeply involved in this and working towards the best possible solution.

Again, EGATS is heavily involved in IFATCA and you can read more in the Conference reports.

Lastly, the Just Culture project that was started few years back and seemed like a farfetched possibility is going to be finally ratified by the DG next September. Another big achievement for EGATS, after the milestones of INREP and the new facilities.

Again, thanks to everyone who at one stage has worked to represent EGATS and the best interests of its membership. We'll continue working for a state of the art PROFESSIONAL environment.

IFALPA
The Global Voice of Pilots

Air Traffic Services
Briefing Leaflet

"When Ready" vs "At Pilot's Discretion"

- **"When Ready":**
  Continuousclimb or descent

- **"At Pilot's Discretion":**
  Option to maintain an intermediate level

There is some confusion concerning two phrases used both in voice and data link communications – "When Ready" and "At Pilot's Discretion".

"When Ready climb/descend to FLxxx" indicates that the associated instruction to climb or descend may be executed when convenient and at any preferred rate the climb/descend will be continuous – temporarily maintaining intermediate levels is NOT permitted. If the aircraft requires to maintain an intermediate level then a clearance to do that needs to be obtained first.

"At Pilot's Discretion climb/descend to FLxxx" is used primarily in US airspace and an indication that the associated instruction to climb or descend may be executed when convenient and at any preferred rate. Temporarily maintaining intermediate levels is permitted but once the aircraft has vacated a level it may not return to that level. **It is not the same as "When Ready".**

Report Committee « A »
IFATCA Annual Conference 2014
Gran Canaria, Spain

Raf Vigorita

This year's conference in Gran Canaria surprised a bit everyone for its outstanding organization and venues. And for the quality of work presented in the different Committees.

As EGATS President, I had to attend Committe A, which is mostly dedicated to administration, finances and membership of the Federation. After 10 years following Committe B, many had warned me that Committe A would be boring. But to my surprise, it was far from it ! I had the pleasure to be integral part of very important and interesting discussions on eventual participation of representatives and associations to the world of IFATCA.

Meanwhile, Angola, Montenegro, Kazakhstan and Maldives were all accepted as new IFATCA members. It is very important for IFATCA to reach out to the largest amount of ATCOs and consequently, it is of paramount consequences that ATCO associations can count on IFATCA support and help where needed.

However, for as much good work it was put into the Federation throughout the year, FIC (Finance Committee) and CAC (Constitution and Administration Committee) came up somewhat short of their usual high quality work. This happened for various reasons and I therefore volunteered and was voted into CAC, and will work together with UK, the Netherlands and New Zealand to review and propose new policies for the Federation on Constitutional and Administrative matters.

At the same time, EGATS presence within IFATCA just grew even stronger. Patrik Peters was voted President and CEO and just started his two years mandate. You can read a note from him in this issue of the OUTPUT and the EGATS Executive Board, on behalf of the entire membership, wishes him the best of luck in his new position. At the same time, Philip Marien was appointed Web Manager for IFATCA and retained his position as Editor of the Controller Magazine, while EGATS retired member Philippe Domogala remains the Conference Executive. Furthermore, Philip received the Executive Board Award, for significant support of, and commitment to, the objectives of IFATCA. Well done ! We may be a small association but we are indeed a very proud one.

It also has to be noted that NATCA, the U.S. ATCO Association and largest one within IFATCA, has donated a great deal of financial support by allowing one or more of their members to attend ICAO Panels in Montreal on behalf of the Federation, saving IFATCA nearly 35.000US$ yearly. Our appreciation goes out to them.

Of absolute relevance was the fact that Jordan has been finally assigned to the European region following their specific request. IFATCA has different geographical regions that try to somehow follow ICAO, but this doesn't necessarily makes it always a win-win situation. In this case, Jordan used to be in the Africa-Middle East region, a region that might need some reviewing as Africa has little to no connection to the Middle East in form of traffic flows and technologies. Plus, Syria and Lebabon are not members of IFATCA, Israel is part of the European region, neighboring countries such as Cyprus and Turkey are in Europe too, while on the East side of Jordan is already the Asian region. They were effectively the only country representing the Middle East while having strong ties and work cooperation with Europe and Eurocontrol alike. Their move was only obvious.

And then, the hot topic of Committee A. Within FIC, Germany and Israel felt that there was a need to review and present a new membership concept. They found it disappointing that the retention of membership often revolves around money. They investigated current members of all categories and how much they pay to the Federation.

The project, if accepted, would allow Cat 3 MAs the option not to pay (for a maximum cost of $84 to each Cat 1 member). In return they would not be allowed to vote. Cat 2 members would not pay more than they currently pay. In order for Cat 3 members to access some IFATCA services including professional aid, or conference attendance, they may be asked to pay an amount. This would stop the termination process and would boost membership numbers. They estimate the cost to the Federation would be minimal. And could reduce Executive Vice President Finance's workload.

A new "unlimited suspension" status shall be developed and adequately documented in order to ensure full membership of "unlimited suspended" MAs in accordance with the spirit stated above.
EGATS agreed in general with giving Cat 3 members the choice to pay or not (according to their financial abilities), however financially it may not be viable as calculations show that the average Cat 3 membership is $182 and if you want then to charge Cat 3 Mas for services this would definitely cost more than their annual fee. Furthermore, EGATS opposes the idea of stripping any IFATCA member of their right to vote. If we need to help colleagues, we need to go all out and not give something to take away something else from them.

Ivory Coast mentioned that they recently received help from IFATCA but with the new idea they would feel less of a member of the Federation. IFATCA's help avoided jail sentences for some of their members and therefore they are proud to be a part of the Federation and membership is a problem that should be dealt with at a regional level. Just because they don't say anything at conference doesn't mean they do not have a contribution to make to the Federation. Much discussion during the conference is at a high level. Many minor MAs have a lot more to contribute at regional level where everyone is in similar working and technological situations. UK stated that often MAs in these regions have the money but are unable to get the money out of the country. A list of services at individual prices may not be possible if the MA is unable to pay in the first place. The Bahamas had two major concerns with the presentation. Cat 3 countries might not participate at international level, however their participation at a regional level can be substantial. He understands that $84 dollars per CAT 1 member is financially possible but he does not want the CAT 3 members to feel less of a member. How would the fact that there is no right to vote affect the quorum? There are various other options that exist already that are available to ensure attendance at conference. Czech Republic asked what would happen to the outstanding debt of the MA while Chairman, sensing the increased concerns from the floor, remarked that the concept should be rethought. Plus, if a service is requested and after assistance has been provided the bill is subsequently not paid, how would the debt be treated or registered? Nigeria's concern is if the Cat 3 MAs are to be given a blanket waiver it will create classes that do not exist within the membership at present. Perhaps there is an alternative available to assist MAs that are not able to pay. IFATCA is a democratic organization and everyone has the right to participate. Austria reiterated that IFATCA is a democratic organization and having members that are not considered equal would undermine its ethics.
Guinea Bissau welcomed a change as if every year MAs are terminated IFATCA is not as strong. Canada supported the comments by Nigeria, Ivory Coast and Guinea Bissau. Canada did not want someone to feel a stranger in his own house. The Special Circumstances Fund exists for the purpose of providing support to members with financial problems. Curaçao are proud of IFATCA as we all share the same profession. The altering of Cat 3 membership category, in their opinion, would necessarily affect Cat 2 members. Chairman then highlighted the formulation of the current fee structure, which is constructed around data from the United Nations Organization.

Uganda appreciated the identification of these issues, however you should understand that if a waiver is possible in one category, few could abuse it. Uganda can afford membership charges and they are not the most important costs. Cyprus liked the idea. The voting is not an issue for them; the ability to be at conference is of utmost importance as this can influence things back home. Malta stated that there seems to be a majority of people who like the idea but do not like the fact that there would be no possibility to vote for MAs that cannot afford the membership fee. What about the creation of a separate conference attendance fee that would allow these MAs to vote? Tunisia stressed that the categorization is in place to provide unity between associations and this will not happen if this draft recommendation is accepted.

The work paper therefore was rejected and the IFATCA Executive Board shall, in cooperation with FIC and CAC, develop and set up a "list of service" for all services, expertise etc. that can be levied / purchased by a Member Association, if this is a feasibility at all. The termination process for CAT 3 MAs shall be cancelled with immediate effect.
The above paper brought so many colleagues to the microphone to speak up their mind as probably never before. Controversy was created but at least the ball is rolling towards a more accessible IFATCA for every ATCO association that wants to be part of it. As for myself, as a member of CAC, I will be working towards an acceptable and fair solution for everyone, keeping in mind the fundamental rights of each association that cannot be sold for a fistful of dollars. Luckily, it really transpired from the comments of many representatives that this is the way IFATCA should go.

As for us, the EGATS delegation, we will be joining the 2015 IFATCA Annual Conference next spring in Sofia, where the regional meeting was held in 2006. But first, in October, our delegation will participate in the European Regional meeting in Zadar (Croatia).

The last thought is for the EGATS delegation in Gran Canaria. I was very proud of the hard work, professional attitude and comraderie that had developed this year among us and I am looking forward to replicate this year's success during the next Conference.

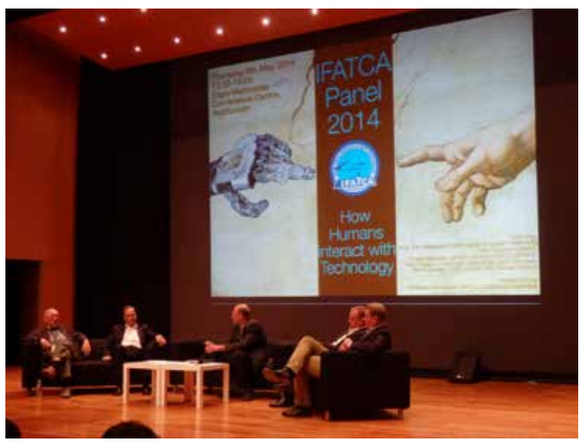
Report Committee « B »
IFATCA Annual Conference 2014
Gran Canaria, Spain

Michael Ott

I am very happy to have had the chance to represent EGATS and you, our members, at the 53rd IFATCA annual conference. I have to say, I find it very beneficial to have some experience gained form my last conferences. Like that, it is much easier to understand the discussions, how IFATCA works and understand what is going on within ATC on a global level. For the first time, and together with Adrian, I attended committee B (Technical and Procedural), which used to be Raf's expertise in the last years. A lot of interesting working papers were presented and here is my summary of the ones most applicable for MUAC.

EMERGENCY DESCENT PROCEDURES:

Current procedures concerning emergency descents are outdated and need to be updated. E.g.: It is impractical to do an emergency broadcast. As well TCAS is not considered in current procedures at all and there is quite a discussion about it in the pilot world: It is proposed to switch TCAS to TA mode as the descending aircraft may not be able to respond correctly to any generated RA and therefore the other aircraft involved will be given a more aggressive evasive manoeuvre. According to Airbus TCAS automatically switches to standby, if the aircraft is descending at 10000` per min or greater. As a consequence ICAO has added this to the work programme of the Operations Panel and at this conference it was voted, that IFATCA will work together with ICAO on an update. So for now it is just decided, that the procedures will be reviewed, but whatever comes out of this work could very much influence our procedures in house as well. We will keep you up to date about this.



ACAS-X:

Current TCAS II is based on 30 years old technology and has the potential to create an accident, because it relies on pilots performing procedures. The RA is not fine enough for high density airspace, e.g. an RA manoeuvre might lead to another RA. Therefore works on an update have been done and are now entering the flight-testing phase. ACAS-X has 4 subsystems: ACAS-XA will be a 1 to 1 replacement for TCAS II and perform active interrogations without the pilot taking action, TCAS-XP is intended for general aviation and light aircraft and will not make active interrogations, ACAS-XO is designed for situations for which ACAS-XA is unsuitable, e.g. procedures with reduced separation in parallel approaches, ACAS-XU is to be designed for unmanned aircraft systems. I find it very interesting, but as well scary to see this trend of pushing the human out of the loop and letting the system take over the control. We will see how this will continue in the future.

STUDY ON SERVICE PRIORITY:

Future demand of increasing capacity will need the introduction of new prioritisation aspects. An example of service priority is the "best-equipped, best-served" concept, which is emerging as a new tool for the benefits of airspace users. EGATS questioned if the best equipped ANSP should be incentivised and rewarded as well. After a vote it will be included in the IFATCA Technical and Professional Manual, that service priority can be accounted to airspace users provided that: Prioritisation is given in a strategic way, tactical intervention is always possible and the sector complexity does not exceed an acceptable level. Personally I find the last part of the sentence the most important since I have the feeling that complexity at our work in Maastricht is growing constantly by e.g.: Variable division FL, Flexible Use of Airspace, system complexity, etc. EGATS needs to start looking at all these changes very carefully to prevent complexity getting too high in regard to human factors.

STUDY ON SPACE BASED AUTOMATIC DEPENDANT SURVEILLANCE BROADCAST (ADSB):

Long before MH370 disappeared a very interesting project was launched by a private company (Aireon) which will use 66 satellites (Iridium Next) in low orbit to pick up ADSB signals on VHF worldwide. This would enable ATC to deliver radar-like service with reduced separation worldwide, even transatlantic. Aireon talks about an update interval of 15 seconds and proposes 15NM separation. The bigger buffer is required due to the long interval and the main tool of communication being CPDLC. The company is talking about 6-8 billion $ of fuel savings for the airlines alone in the North Atlantic region from 2018 until 2030. The system has the opportunity to provide many safety and efficiency benefits, but needs further improvements. E.g. At the moment only one single ground receiver station is planned in USA, which doesn't leave any room for failure. Because of MH370 the interest is even bigger now to bring the system online as fast as possible.

REPORT OF THE EXECUTIVE VICE PRESIDENT EUROPE (ZELJKO ORESKI) AND REGIONAL MEETING:

There are problems in multiple areas in Europe, where ATCOS are in front of a court.
E.G.: The president of the Latvian Union was suspended and dismissed after complaining to the Minister of Transport, raising issues related to social dialog problems. Currently she is suing at the EU court of human rights. IFATCA is supporting her as much as possible, even trying to find her a job in ATC outside Latvia.
In Albania 3 ATCOs were suspended, because of the assumption that they are guilty for some financial irregularities in the company.
In Macedonia there is a lawsuit because ATCOs were suspended and now have issues with the revalidation after a long absence.
In Spain about 120 of the 400 court cases that were started against ATCOs are still continuing. However it is very positive, that 280 were stopped without verdict. Still there is a lot of mistrust in AENA and the union would like to move on and build trust again after all court cases have been stopped. On top of that there are many incidents reported at smaller privatised airports, where standards for ATCO training have been lowered significantly. IFATCA informed the public via multiple press releases about these developments, however neither the state nor the company are acting on this.
In Ireland an industrial action was stopped by court.
Because it happens more and more that ATCOs are confronted with courts it is IFATCA's aim to have at least one in each Member Association, who would be able to help in courts. Soon there will be another call for candidates to train in the Prosecutor Expert Course. Should you be interested, please contact the EGATS EB asap.

There are obviously problems in the Ukraine, with unofficial providers taking over ATS services in the Simferopol FIR. ICAO and EASA have issued a safety warning to companies not to fly over this airspace. Many states are experiencing reduced traffic due to this. As well Russian soldiers came into the centre pushing ATCOS to either become Russian citizens immediately or leave. 50% of the staff stayed, the other half left and is now in one of the other centres in Ukraine.
The Kosovo airspace opened again in April of this year, controlled from Budapest.
Bosnia Herzegovina will re-open as well, which is planned for October of this year.
The European Regional Meeting 2014 has been relocated from Kiev to Zadar (Croatia) due to the situation in Ukraine. For 2015 Estonia offered to host the ERM in Tallinn.

LECTURE BY ERIK HOLLNAGEL ON SAFETY 1 AND SAFETY 2:

Another interesting presentation was given by Erik Hollnagel, Prof. at the University of Southern Denmark in Copenhagen. A short explanation:

- Safety 1 a classic incident investigation, where you try to learn from what went wrong.
- Safety 2 means looking at all the other flights, which passed through our airspace without any incident.

There is a lot to learn from those flights as well, even mistakes might have been made, but they didn't cause any incident.

Last but not least I would like to thank Eurocontrol for supporting me with AoDs to enable me to participate in the conference.

Report Committee « B »
IFATCA Annual Conference 2014
Gran Canaria, Spain

Adrian Stefan

After being a lucky observer to IFATCA's 50th Annual Conference in Jordan 2011, I always hoped of returning one day to that exciting environment of professional exchanges and social networking that this event represents. I joined the EGATS board in early 2013, and during the past year I learned how to work together with my EB colleagues, and got an idea about various projects happening in our building that we try to follow and influence. With this internal 'homework' done, I was very happy to represent EGATS to IFATCA's 53rd Annual Conference in Gran Canaria, which took place from 5th to the 9th of May. Despite my previous experience, there was a lot to learn about how the Conference works, and a lot to read as well!! I attended Committee B (Technical and Procedural) together with Michael Ott, which was great, since he's seen a lot of these events before. A big variety of subjects was presented, sometimes hard to follow, since we've only been area controllers our entire professional lives! But IFATCA is a global federation, and a very busy one at that, representing the interests of controllers truly everywhere.

We were presented by TOC (Technical and Operational Committee) the work items that were decided upon during last year's Conference in Bali. IFATCA's representatives to various international bodies also presented their reports. Even when the presentations/reports were not always directly relevant to our work here in Maastricht, they broaden your horizon a lot and make you aware of some tough issues that our fellow controllers experience.

For me, maybe the most relevant ones were 2 reports on TCAS, one that focused specifically on **TCAS RA Downlink**, and the other one on general IFATCA TCAS RA policy.

Downlinking an RA to the controller's working position is deemed now technically feasible, though not completely ready-for example latency (how long it takes for the RA to actually be displayed on the CWP) should be below 4 seconds, and at the moment a latency of 9 seconds can be achieved. The information is transmitted via Mode-S. During the very in-depth presentation some issues were highlighted...

- -lack of integrity (false alerts)
- -lack of procedures and legal protection for the controllers
- -the controller might stop issuing valid clearances during a false alert, thereby potentially diminishing safety.

Some controllers present felt it might be useful to have this information, since in high density RT areas the pilot might not be able to inform you that he is deviating from an ATC clearance as a result of an RA. The conclusion was that for the moment IFATCA opposes the introduction of the downlink due to the issues presented. IFATCA also prepared a list of minimum requirements in case the policy will change in the future.

A separate working paper aims to update IFATCA's general policy on TCAS, some of those policies being over 15 years old. TCAS has evolved from an imperfect system in the 80's to a mature, robust and stable TCAS II v7.0 and soon another upgraded version, 7.1 will be used worldwide. Despite the technical advances, new procedures and crew training, an interesting fact remains that 50% of all RA's are not followed or not followed correctly. I'd like to quote one of the conclusions reached in this topic, which is published as Guidance Material in IFATCA's Technical Manual...

'In a situation where a TCAS RA is likely to occur between aircraft being provided with an ATC-Service supported by an ATS-surveillance system, and an ATC clearance needs to be issued, controllers should consider horizontal movements (i.e. turns) to avoid contradictory instructions to an RA that may be issued.' However...'this guidance shall only be used in situations where the TCAS RA has not been officially announced to ATC (e.g. by voice). It must be absolutely clear that - once a TCAS RA is reported to ATC - air traffic controllers (ATCOs) are required by procedure to remain hands-off and so refrain from transmitting any flight path modifying instructions or clearances to the aircraft involved in this particular TCAS RA-situation.'

What is still unclear (and is being worked at ICAO and IFALPA level) is what happens when the crew reports 'Clear of Conflict'. Since TCAS aims to prevent collision, the airplanes might still be too close for standard separation standards (especially in procedural airspace, but also possible in radar controlled environments).When exactly is the controller responsible again for providing separation? IFALPA (our counterpart in the pilot world) believes that ATC has a much better overview of the situation and can re-establish standard separation more effectively following the end of an RA manoeuvre.
Until this issue is resolved, it's interesting to know that IFATCA's policy remains 'After an aircraft has departed from its ATC clearance or instruction in compliance with an RA, or a pilot has reported an RA, the controller shall not resume responsibility for providing separation, until separation has been established for all affected aircraft.'

INFORMATION PAPER ON MINIMUM FUEL

While fuel management is not the responsibility of the ATCO, it's useful to be reminded in which situations a pilot might have to declare a fuel emergency.

The final fuel reserve (for a jet a/c) is calculated to be enough for a 30min flight at holding speed at 1500 feet, and you are supposed to always land with this reserve intact. If at any point during the flight, the pilot calculates that he will land with less than this, he is required to declare an emergency by using the phrase MAYDAY, MAYDAY, MAYDAY FUEL

A pilot can elect to declare MINIMUM FUEL, which means his options are reduced to a single aerodrome (very often to a specific runway as well) and any change to his clearance (or any additional delay) can result in landing below the final fuel reserve. This does not constitute an emergency, there's no requirement to give him priority.
If you'd like to know more about this, IFALPA has published a Briefing Leaflet on this subject for the benefit of their pilot associations, and it's equally interesting for us controllers. Just check:

http://www.ifalpa.org/downloads/Level1/Briefing%20Leaflets/Air%20Traffic%20Services/13ATSBL01%20-%20ICAO%20changes%20for%20minimum%20and%20emergency%20fuel.pdf .

STUDY REMOTE TOWERS CONCEPT

Technology has created the possibility to provide aerodrome control service from a location other than the aerodrome itself. This new concept is being developed both in SESAR and NEXTGEN and is also studied in other countries such as Australia and Sweden.

This Concept has generated intense discussions, not only on the technical aspects and safety implications, but also on the social and human factors aspects, as controllers could be expected to move to Virtual or Remote Centres, and operate more than one Tower at a time...
A number of factors are combining to motivate industry to push the concept of Remote Towers, including cost reduction/rationalisation, resource centralisation, service enhancement and availability of new technologies. In many states the regulatory framework demands that every airport, no matter how few flights it receives, is provided with ATS services. Technology could also improve the level of service and arguably safety, since the cameras that would become the eyes of the controller can zoom, tilt, pan and work in infrared. How would such a system work?

A camera installation is constructed at the aerodrome. The installation includes multiple high definition cameras to provide up to 360 degree vision, Pan, Tilt, Zoom cameras for individual aircraft/object tracking, microphones and potentially infrared cameras and ADS-B receivers. The data is compressed and transmitted to the remote tower centre, where it is decompressed and converted for display to the ATCO in the virtual tower. This means a massive amount of data has to be transmitted over sometimes very large distances (a worrying factor certainly in the case of Australia).

The work study shows not only how these advanced technologies could work, but also the major differences to traditional towers. In short, a tower with a human operator is much simpler, with multiple redundancies while a Remote Tower could perform much better in conditions of low visibility and offer some extra assistance, such as automatic scanning of the runway and surrounding area. There's a lot of concerns about licensing (controllers might be expected to obtain and maintain multiple endorsements) and human factors (watching screens leads to increased eye strain and fatigue, losing local knowledge etc.).

As a result of this study, IFATCA adopted several recommendations into policy...'ATCOs shall not be expected to provide a Remote and Virtual tower service for more than one aerodrome simultaneously.' 'Separation standards and procedures for Remote and Virtual Towers shall be developed or adapted and implemented based on a robust safety case and the demonstrated capabilities of the system.'

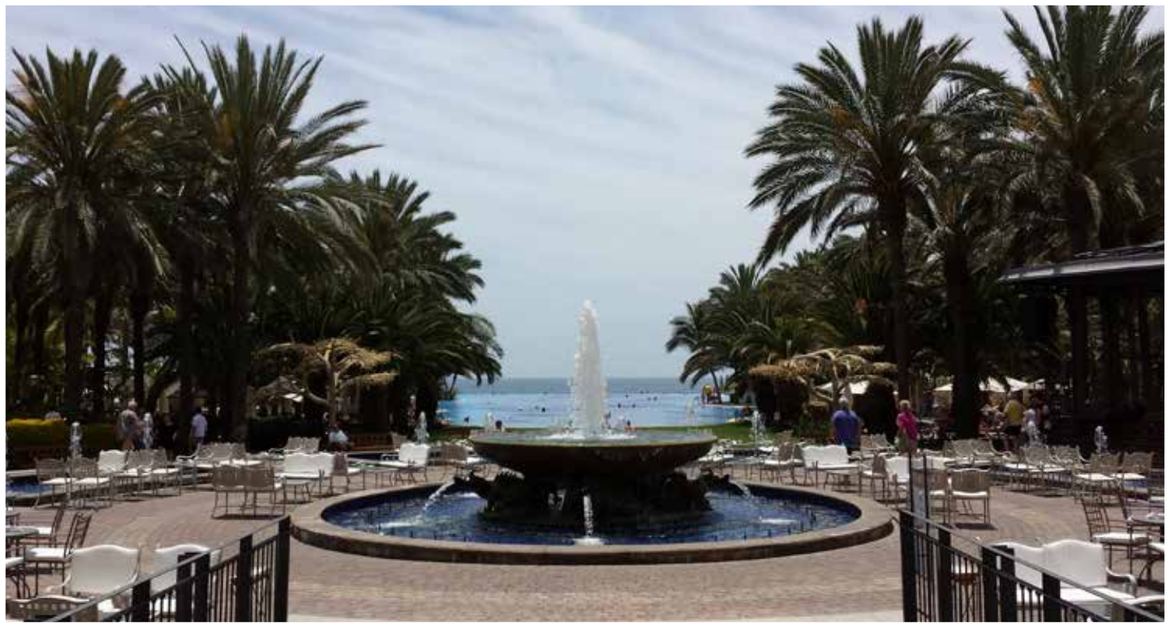
IFATCA maintains several representatives to ICAO, and in Committee B we heard one comprehensive report about their activities during the past year and another one about ICAO's 38th Triennial Assembly, which took part at the end of September 2013.

From IFATCA's representative we heard about major reorganisation efforts at ICAO level, following their 12th Air Navigation Conference, which resulted in 400 work items for the upcoming years. The Global Air Navigation Plan is the primary driver for the ICAO technical work program for the next 15 years and is available at **http://www.icao.int/publications/Documents/9750_4ed_en.pdf** The Global Aviation Safety Plan will guide the work in the safety arena, including the work of the Regional Aviation Safety Groups and is available at **http://www.icao.int/safety/SafetyManagement/Pages/GASP.aspx**

The last thing I want to mention is a lecture on a technique called Total Balance Management, presented by a Croatian professor. Its aim is to provide fast stress relief after a difficult event, but could also be used to fully develop your potential and improve relationships, professional or otherwise.

While it does sound too good to be true, I recognised some valid aspects from CISM (being a peer myself). It attempts to combine other aspects of science into this mix, such as REM (rapid eye movement technique), EQ coaching (emotional intelligence) while constantly measuring your stress level through a hypostatic test (a simple way of your body telling you via a pressure point how stressed you are).The professor claims that a few short sessions are enough to achieve good results. I have my (objective) doubts about this, but I wouldn't mind trying it out. I'm happy that the Croatian controllers have this level of support available!

I'd like to thank especially my colleagues in the EB board Raf, Freddie and Michael for their support and patience during the conference and I'm also grateful to our company for supporting EGATS in taking part in this great event!



Report Committee « C»
IFATCA Annual Conference 2014
Gran Canaria, Spain

Frederic Deleau

Dear members,
Dear friends,

This year's conference brought us to an island yet again, although much closer than the previous year in Bali and easily reachable within a couple of hours from neighboring airports.
Even though Gran Canaria was not unknown to me, I was pleasantly surprised by the quality of the conference hotel and all the facilities offered in and around the Lopesan Costa Meloneras Hotel.
(Tip: if you wish to spend some relaxing time "close by" during the winter and/or shoulder seasons, the place can be seriously considered as an option.)

This year conference brought a new schedule for the committees meetings, meaning we started earlier and finished as well earlier – before sunset - leaving us some more time to chat around and chill out after the daily discussions.
The conference hall was within walking distance from the hotel. Quiet an amazing facility!

During the opening ceremony, I had only one thought in mind: we did not forget what happened a couple years ago to our Spanish colleagues and the unacceptable measures taken against them! There are still more than 250 court cases pending against ATCOs, facing the withdrawal of their licenses and fines of 250.000€ for a so-called "illegal strike". Truth is that some courts have ruled already that **it was no strike but a unilateral closure of the airspace by AENA management!** Still... some cases are pending. The situation is far from being solved yet. The working conditions have been changed for many of our colleagues. The new access to the profession, as well as the conditions of granting of a "European ATC license" is a disgrace! Let it be in Spain but ultimately it waters down our own conditions! The question which was already brought to the attention of our authorities: "Why shall we continue to strictly apply all EASA requirements to the dot in MUAC, with the eventual professional and financial consequences linked to a loss of competency, while in Spain, anything seems possible and gives the equivalent license value?" We still do not have a clear answer...
Anyhow, there is a time when diplomacy takes over (I was requested NOT to make any comment during the plenary session) and I painfully had to listen to (hypocrite) speeches from some "V.I.P guests" praising the ATCOs and the importance of ATC, while these very same persons are directly responsible for dragging ATCOs to court and sending the army to the ops rooms not even 4 years ago!

I had serious mixed feelings about the "overall show". It was more than time to start the committee's work.

I will report on the various work items with a short summary, sometimes including conclusions and personal comments. If anyone would be interested to read any particular paper(s), please feel free to contact me or any of the EGATS Board members to get you a copy.

COMMITTEE "C":

After the usual report of Scott Shallies - IFATCA EVPP (Executive Vice President Professional) came the last report of the Jez Pigden - PLC (Professional and Legal Committee) chairman. It was Jez last conference and he will be missed not only as a great PLC chairman and professional but also as a friend.
For 2013/14, PLC was composed of the following 10 Member Associations (MAs):
Croatia – Germany - Hong Kong – Italy - New Zealand – Spain – Switzerland - The Netherlands – USA - Zimbabwe

Israel was also represented as an active corresponding member (meaning: during PLC meetings, two per year beside the Annual Conference, IFATCA does not reimburse the lodging costs)
As you might know, EGATS had been asked to join again PLC but due to financial and time pressure, we had to decline our participation.

THE WORK ITEMS THAT WOULD BE DEVELOPED OVER THE 5 DAYS CONFERENCE:

- **Elements of the FRMS model (Fatigue Risk Management)**

Following a recommendation to look at specifics of the FRMS elements model, this paper describes the progress made in the area of FRMS and the difficulties encountered in fulfilling the recommendation.
As a conclusion of this paper, it appears that work is in progress at ICAO level and that any further changes to the IFATCA policy will need to wait for the outcome of the ICAO FRMS Taskforce.

REPORT COMMITTEE « C»

- **Clarification of sector manning principles**

At the IFATCA conference in Bali in 2013, there was some confusion as to what constituted 4EP (4 eyes principles), Single person operations (SPO), or other sector manning principles. It was then decided that new and existing sector manning principles should be examined and definitions and policy produced or reviewed as appropriate.

This work item was put on the PLC work program on request of EGATS in order to study and debate about the multi-sectors planner (MSP) problem. After a lengthy description of some manning concepts (Single man, Lone person operation, 4EP,...) the following initial conclusion can be considered: Staff shortages, economic pressures, high levels of automation are some of the reasons for implementing practices other than 4EP. While less desirable, 2EP is already something "normal" and widely used, and the MSP concept is also becoming more common. There are many undesirable human aspects effects when working other than 4EP: increased fatigue, false sense of safety, inadequate error detection, over-confidence...LPO (Lone person operation) has proven to be especially perilous, and there is no safety net. **IFATCA strongly encourages the use of 4EP at all times.** This work item will be further developed for next year conference in Sofia.

- **A better understanding of the linear– versus the systemic approach to safety**

The objective of this paper was to provide clarity concerning the linear approach to safety, explain the systemic approach to safety and create a better understanding by pointing out the differences between the two. A very comprehensive but yet difficult subject to explain in a few words...

Definitions that will be added to the IFATCA manual:

- Definition Linear accident model: The linear accident model is defined by an accident model, where the relation between cause and outcome is (simplistically) defined linear. This method is best used in systems with a low complexity.
- Definition Systemic accident model: The systemic accident model is defined by an accident model, where the multiple relations and correlations are considered and mapped. This method is imperative to understand complex models with multiple factors.
- Definition Safety I approach to safety: The safety I approach means that the number of things that go wrong (accidents/incidents) is as low as possible. This approach is achieved by first finding and then eliminating or weakening the causes of adverse outcomes, resulting in norms and guidelines.
- Definition Safety II approach to safety: The safety II approach to safety is defined by a method of ensuring safety in a system, where the aim is to ensure resilience. Understanding that the system is too complex to foresee and mitigate all that might go wrong, the system need to be engineered in such a way, that the variable factor (human operators) can intervene. Safety is the ability to succeed under varying conditions. Safety II requires an understanding of everyday performance.

- **Study Service Priority**

A very interesting issue that, for sure, could be discussed and applied in MUAC airspace!

Future demand of increasing capacity will need the introduction of new prioritization aspects. An example of Service Priority is the "Best equipped – Best served" concept which is emerging as a new tool for the benefits of airspace users.
We all know the "First come – First served" principle that we apply for decades. However, IATA is also developing now a new concept: "Most capable – Best served".
"Most capable" in this sense refers to aircraft equipage, crew training, operational certification, flight planning capability and the ability to efficiently and seamlessly convey the pertinent capability to ATM. Under this concept, "Most capable" flights would be provided with more opportunity to gain full advantage of their capability in order to maximize the overall ATM system efficiency as well as of the flight itself.

This development could see some companies having to equipped properly their aircraft, avoiding for example, to run low on fuel because of thunderstorms (developing since after their take-offs...) over an airport and having to divert and ask emergency priority over other (more careful) companies...
But also, one should consider that the "Best equipped" ANSPs should be able to reflect their level of service quality and capacity in their Unit rate compared to other ANSPs not investing as much...

- **Review of policy in regards to TCAS RA downlink**

The purpose of this paper is to examine the introduction of TCAS RA downlink to CWPs and the impact in controllers' workload and separation responsibilities. It highlights safety and operational issues caused by TCAS RA downlink, and review current IFATCA policy.
As conclusion of these discussions: There is a history of aircrews following ATC clearances contrary to an ACAS RA. Controllers are not aware of a TCAS RA event unless notified by the crew; TCAS RA down liking to the CWP may provide an additional level of awareness to possibly preclude ATCOs from issuing conflicting instructions. Other issues have to be duly considered (multiple alerts, radar display congestion, etc). The legal aspect has to be clearly identified and responsibilities made certain.
This paper endorses the recommendations contained within the ANC working paper (AN-Conf/12-WP/01)

- **Written ELP (English Language Proficiency)**

This paper analyses the relationship between Data-Link applications and English Language Proficiency (ELP) in order to evaluate the need for written ELP. The ICAO Language Proficiency Requirements (LPRs) Technical Seminar, held in Montreal from the 25/03 to the 27/03/2013, advanced the possibility to establish, in the near future, new language requirements affecting ATCOs and pilots in order to manage the increasing use of Data-link and its "free text" capability.

- **Performance targets in ATM**

Performance Schemes for the Air Traffic Management industry have been developed and introduced in regions around the globe for several years. The corresponding targets have an influence on how the ATM business is conducted nowadays. This paper looks at the shift towards a performance based system.

Problems are seen in the way they are set up:

- They are set top-down, disconnected from the work.
- There is usually no reliable way of setting them, and are not necessarily meaningful.
- Focusing on targets can sub-optimize the whole system. In order to meet
- the target, an organization as a whole can be harmed, unmeasured aspects
- deteriorated.
- Gathering, measuring and monitoring is resource-intensive.
- Targets can be demotivating, or rather motivate the wrong sort of behavior.
- They always have unintended consequences and make people do the
- wrong things, e.g. if there are penalties for not meeting them.
- Targets are often not met, rendering them ineffective.

According to system thinkers there is rarely such a thing as a good target in a complex system. **Instead of improving methods people are striving to manage the numbers.**

As conclusion to this paper: The Key Performance Indicators (KPIs) which were set up by the European Commission (EC) in the first Reference Period (RP1) are already causing many problems for the ANSPs and their staff in terms of cost cutting, lowering of achieved social standards, and even layoffs. The onward program SES 2 and SES2+ intend to impose even stricter rules with anticipated serious negative effects on ANSPs and their employees.

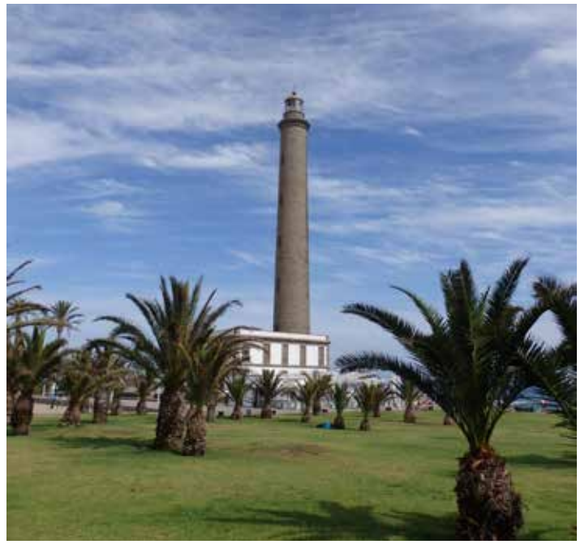
The EU, lobbied by the Airlines, tends to put unachievable targets and not consider the comments made by the Social Partners. This leads to a growing unrest across Europe and strikes are taking place, disturbing the network operations on a regular basis.
The setting of performance targets is a highly complex issue, which has to take into account many considerations. Their interdependence needs to be watched with sensitivity to avoid turning the wheel too far into a wrong direction.

Experience from other sectors shows how performance targets can miss the desired objective.
Mas are advised to monitor and constructively follow the development and adjustment of performance targets. Unrealistic targets need to be opposed.

EGATS pointed again that there is yet no KPI for Safety and that indeed the imbalance risk was very high. Purely setting target might be painful and miss the objectives while putting in place the right processes will ultimately help achieve and even over perform the objectives.

- Industrial Relations under ILO Conventions
- Extremely valuable paper and excellent presentation.

This paper gives an overview of the International Labor Organization (ILO) protection of the right to collective action as well as addressing provisions contained in the European Union Legislation and IFATCA current policy regarding Industrial relations.
The exhaustive paper explained many topics from freedom to associate to right to strike.
One point that can be highlighted: It is undisputed that no convention or recommendation promulgated by the ILO expressly grants the right to strike (it is a matter of national law) but both the tripartite Committee of Freedom of association (which examines complaints made by unions or employers against governments) and the Independent Committee of Experts (comprised of 20 top level international legal experts from around the world) have affirmed for many decades that Convention 87 do implicitly recognize the right to strike.
Some principles have been developed by the Committee of experts with regard to the right to strike, one example: it is a fundamental



right that derives from the right to freedom of association...

- **ATCOs and Professionalism**

Professionalism is a common term used in the aviation community, especially in reference to ATCOs and pilots. The term "professionalism" is even more prominent when issues such as Safety, Just Culture and Fatigue management are discussed. This paper looks at whether professionalism can be defined for ATCOs, and if there will be a benefit for having an IFATCA definition for professionalism.
In other words, "which red line should not be crossed", especially looking back at some incidents/accidents which occurred and where a certain attitude of ATCOs could be seen as a contributing factor (for i.e. in 2009, busy on the mobile phone, having a private conversation, while two VFR collided...)
Fortunately in MUAC, we have a special task force looking at some of these elements and we are already ahead of the simple thinking process.

- **Sleep Apnea and obesity**

This paper considers the relationship between Obstructive Sleep Apnea (OSA) and Obesity, regarding FAA's intentions for new policy checking overweight pilots and ATCOs for OSA.
Interesting paper and relevant information that could be of great value to some of our colleagues.
Obesity is one of the risk factors for sleep disorders, leading of course to lack of concentration during day-time, therefore having an impact of the overall work performance of ATCOs (and pilots).
The intended FAA's policy is suspended at the moment but might well come back, and in the EU, we could see the same ideas popping up.

- **ATCO Performance**

This paper has the objective of seeking to lead or make a meaningful contribution to the debate on what are the elements of ATCO performance.
As a conclusion to this paper, Measuring performance in ATM is relatively new and may be difficult to quantify correctly. Experience has shown that potential risky practices may exist within ANSPs when performance driven objectives are in place. With 11KPIs, ICAO draws a good outline of what future performance metrics should be, paving the way to what could be a globally improved ATM system.
EUROCONTROL started to analyze some KPIs and is reporting its findings. The FAA and the E.U. published a joint performance comparison, highlighting the similarities and differences between their respective ATM systems. IFATCA believes that published performance indicators should not reflect ATC performance and should only be used by and for the industry to measure its overall efficiency.
MAs and their members must be extremely careful when these results are directly related to them as they have little or no relevance to ATC performance.

TO CONCLUDE THE OVERALL WEEK IN COMMITTEE "C"

This year work program was again extremely interesting. Well balanced and developed, the quality of certain presentations made it more than a pleasure to interact as EGATS representative and share our MUAC experience with colleagues from around the IFATCA world.
I enjoyed not only the conference but surely the great team spirit within our EGATS delegation.

Once again, please receive my "thank you all EGATS members" words for helping me and allowing me to take part in such valuable event.
I also would like to express my gratitude to our MUAC management for enabling EGATS to still participate with the right amount of representatives in order to cover the important topics debated during such conference.

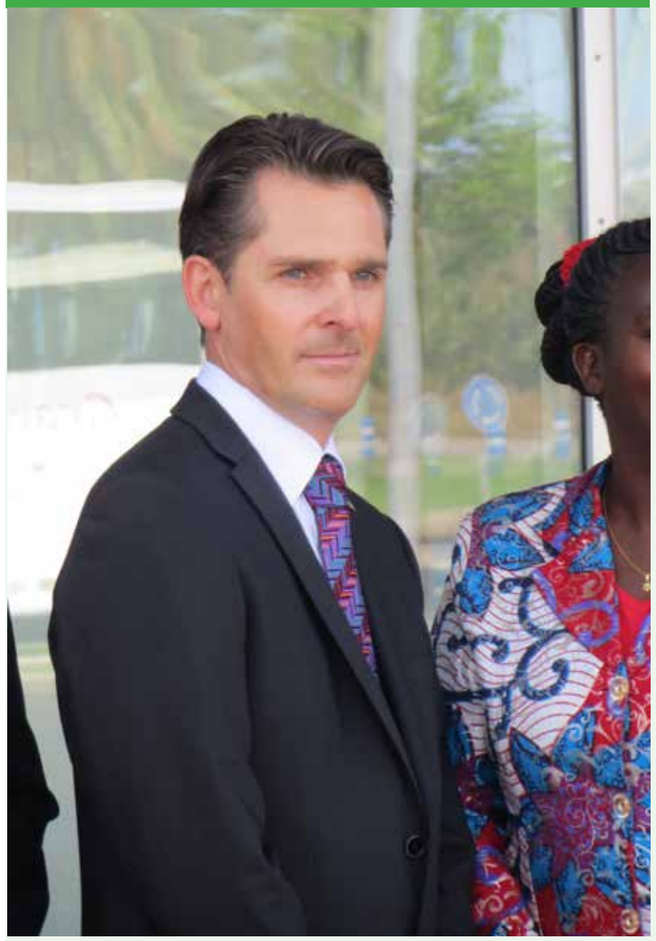
I hope I have served you well, at least I tried, and we will see what the future will bring.

Take good care until next time.

Fred

On a personal note ...

Patrik Peters, IFATCA President & Chief Executive Officer
pcx@ifatca.org



Dear colleagues, friends and members of EGATS,

When I started my 'career' as an Executive Board member of EGATS in 1995, only a year after my full qualification as air traffic controller in the Brussels sector group at MUAC, I was merely interested in becoming a little more involved in staff matters, professional representation and the evolving technology. I never thought that this would have enticed me to this extent. Today, after almost 20 years in this field, the enthusiasm to work for our community, the members at MUAC and our colleagues around the globe, is still present and driving me onwards.

This would never have been possible without the support from all of you. Many of you assisted when I wished to attend meetings, needed to be – often at short notice – taken off the work roster and/or required duties to be swapped. Many of you were curious about my involvement and expressed appreciation for the work done on our all behalf – to promote and safeguard the interest of the air traffic control community and to protect and evolve our profession.
Coordinating and communicating the requirements of our profession, being heard as front-line workers and applying our experience in a global forum is of paramount importance. IFATCA has over many years been able to gain influence through our collaboration with air navigation service providers, global ATM bodies and social partners. We have been able to maintain stability while making the incremental changes necessary to ensure our Federation thrives in a changing environment.

Talking about the environment - it is a cold wind blowing out there! Directors at conference addressed and discussed the lack of Just Culture in several countries spread around the globe – some of them only a short flight away from our homes.
We learned about the situations in Latvia, the Dominican Republic, Albania, the Former Yugoslavian Republic Of Macedonia, Kazakhstan and others, where colleagues are being sanctioned and even dismissed for speaking out about safety concerns. Fellow controllers are held responsible and punished for following official procedures!

In these instances, bonds with other international organizations assist us in our endeavors to alleviate those situations. Collaboration is of great importance to the Federation as it enlarges our audience and impact. We are very grateful for the solid cooperation with organizations, such as ICAO, IFALPA, ATCEUC, ITF and Eurocontrol. We are a strong Federation, recognized for our knowledge, expertise and openness to connect and debate about the future of aviation, but only with our partners we are able to evolve and flourish.

The constant growth of the Federation also calls for an increasing number of representatives willing and able to engage in our volunteer work. One major item in the work program the Executive Board of IFATCA has established, is education and training of those volunteers in particular and our member associations in general. Together with our standing committees we plan to develop current training material and tutorials – for example on Just Culture, incident/accident handling, media guidance etc. – to be offered on our IFATCA website. Utilizing the possibilities of the Internet will further improve the availability and timely dissemination of information material and enhance our internal communication.

More long term projects are regional flow-management – a subject of particular interest in the fast developing regions like Asia, language proficiency training – an evergreen of continued significant importance in several regions, the proliferation of the legal prosecutor course beyond Europe – a very successful undertaking of Eurocontrol and IFATCA and the Normal Operations Safety Survey (NOSS - designed to capture threats to safety that arise during everyday operations) – you will remember this method from the MUAC project.

We have furthermore indentified a number of "quick wins", such as the "Distraction at workplace" project. Feedback from conference indicated that distractions caused by for example the use of smart phones are a matter of global importance. We have recognized the importance of this subject in-house here at MUAC. Several other air navigation service providers also launched respective initiatives. We will use the experiences made to design a global IFATCA program – aiming at those member associations and service providers not having the respective resources and knowledge to launch such a project. It is essential to spread the knowledge, to educate and to learn from best practices and one another.

EGATS and IFATCA have a long-standing good relationship. For decades EGATS members have been heavily involved in IFATCA working groups, as representatives and officers - some also served on the IFATCA Executive Board. The training we received, the knowledge we gathered and certainly the internationality and openness of our staff at the Eurocontrol agency are major contributing factors.

I have been given the opportunity to assist IFATCA in achieving its goals. It fills me with pride and respect being entrusted to lead a Federation uniting 50.000 aviation professionals from around the world. I am very thankful for your individual support as well as I appreciate and welcome the commitment of the Eurocontrol agency to assist me in carrying out the tasks the office of President and CEO of IFATCA entails. As ambassador of the agency and proud air traffic controller I wish to convey my highest appreciation to each and every one of you.

Professionally yours,

Patrik

Sharpen the Saw

Luc Staudt

You probably all know the story – a lumberjack was trying to cut down a tree with and was swearing and cursing as he laboured in vain.

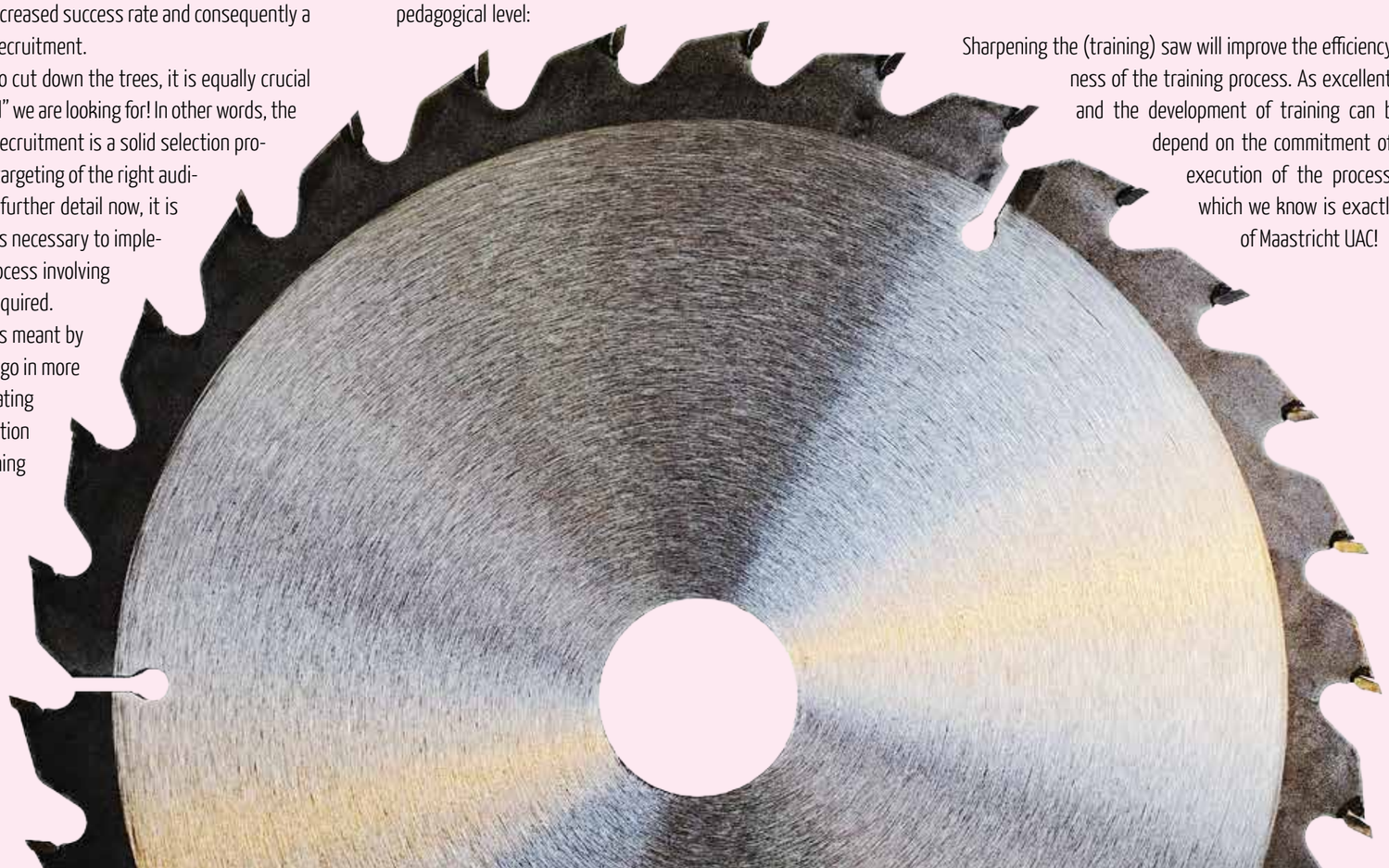
"What's the problem?", a passing man asked.
"My saw's blunt and won't cut the tree properly" the lumberjack responded. "Why don't you just sharpen it?"
"Because then I would have to stop sawing" said the lumberjack.
"But if you sharpened your saw, you could cut more efficiently and effectively than before."
"But I don't have time to stop!" answered the lumberjack.

The interruption in the ATCO recruitment offers the opportunity to review the entire ATCO training life cycle. Weaknesses in our current process need to be identified and further improvements envisaged where possible. The objective is to provide the best quality training process, resulting in an increased success rate and consequently a more cost-efficient ATCO recruitment.
Even before we starting to cut down the trees, it is equally crucial that we check "what wood" we are looking for! In other words, the first steps in successful recruitment is a solid selection process, which requires the targeting of the right audience. Without going into further detail now, it is evident that investment is necessary to implement a better tailored process involving the right competencies required.
Let's have a look at what is meant by the training life cycle and go in more detail on the Basic and Rating training, the Pre-Transition training, the Unit Training (Pre-OJT and OJT).
The initial phase of the ATCO training will be outsourced to ENAC, the French 'School for Civil Aviation' in Toulouse. The experience gained in the preparation of the initial training has been very convincing and promising in the high quality and professionalism of our new training partner. The initial training consists of three phases. The Basic (harmonised FABEC CCC training) and Rating (ACS 1 and ACS 2) are delivered entirely by ENAC. The Pre-transition Training (PT) is a newly introduced training phase of 11 weeks preparing the students better to start a very demanding Unit Training at MUAC. This PT will be a joint effort, meaning that MUAC will send a team (Course Supervisor, 4 instructors and 4 assessors) to Toulouse to be closely involved in the delivery of the training.

"If you always do what you have always done, you will always get what you have always got." Another classical management statement you will say. The delivery of our Unit Training has indeed evolved and changed with various redesigns and initiatives over the years; furthermore improvements have been continuously introduced through the lessons learned from previous courses. However, our Unit Training has not yet evolved to meet the current standards and practices of modern learning methodologies and tools required for the new generation of students. The University of Maastricht provided support in the "4 Component Instructional Design, 4C-ID" (Van Merriënboer). Academic research shows that 4C-ID is the best learning methodology in a complex learning environment. The design of the Unit Training is being reviewed to improve the pedagogical level:
better learning curve, innovative learning, 4C-ID, tools, etc.
The workload is very high on the training team to deliver all required ingredients for a 'state-of-the-art' training design and on top external expertise is required to glue it all together to ensure an optimal learning platform.

The revision of the Training/OJTI Concept is another essential part of the overall activities to improve the training process. From the feedback received from the students, there is a persistent remark that the high number of trainers has a negative impact on the training process. A better and stricter allocation of the student to a limited number of instructors is identified as one of the key issues. The 'selection' of OJTIs will be based on their skills, performance and motivation and the number will depend on the actual requirement. Becoming an OJTI will not be mandatory nor will it be a 'right'. OJTIs will be properly trained (additional special training will be foreseen) and will be assessed based on a number of performance criteria. The assignment of the coaches to the students will be strict and depending on the phase of training. The rostering of the student ATCOs shall be flexible enough to enable them to follow the designated coaches. The role of the Training Coordinators and the team of Training (OJTI) Officers will remain a leading role in the training process.

Sharpening the (training) saw will improve the efficiency and effectiveness of the training process. As excellent as the design and the development of training can be, it will also depend on the commitment of people in the execution of the process – something which we know is exactly the strength of Maastricht UAC!

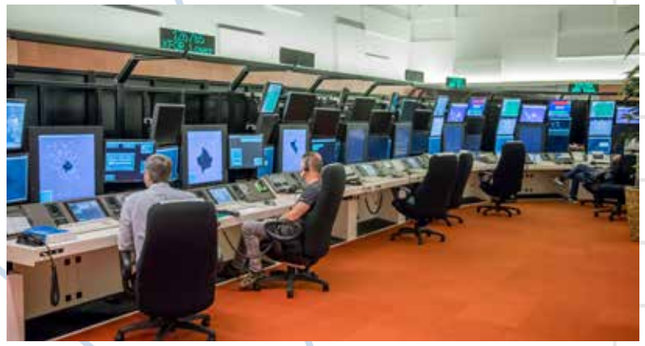


RE-OPENING KOSOVO AIRSPACE

HungaroControl remotely controls airspace 600 km away

Viktor Koren

On 3rd April 2014, the upper airspace, from FL205 up to FL660 overhead Kosovo was re-opened. Fifteen years after the Kosovo crisis, it's a significant step towards the normalisation of air traffic in the Western Balkan. Unique about this is that the traffic is controlled from the Budapest ACC, which has no direct boundaries with it and is located some 600 km away. "The Controller" joined up with EGATS magazine OUTPUT to interview the man who knows all about it: Joe Bakos, Head of ATS at HungaroControl.



The Controller/EGATS: Could you say a few words about the background of the whole idea?

Joe Bakos: The re-opening of the airspace is based on the UN Security Council Resolution 1244 and the 1999 Military Technical Agreement, which declared that the airspace remains under NATO/KFOR authority. During the past 15 years, the Kosovo airspace has been closed for civilian air traffic with the exception of the traffic in- and outbound Pristina airport. This situation changed when NATO published a call-for-tender in July 2011 looking for an ATS provider in the region. After consultation with representatives of the operations and technical departments, the Government of Hungary stepped forward and offered to act as a technical enabler through its air navigation service provider, HungaroControl Ltd.

Following NATO's Balkan Aviation Normalization Meeting on the 5th December 2012, where Hungary formally presented the project, NATO accepted HungaroControl's offer and decided to appoint Hungary to carry out the tasks associated with providing ATS in this airspace.

TC/E: What were the main difficulties HungaroControl had to face during the project?

JB: The most challenging factor was time. One of the most time-consuming parts of the work was creating an Implementing Agreement between NATO/KFOR and the government of Hungary. Following a considerable amount of preparation, this agreement was signed during the summer of 2013. Having created a legal framework for negotiations with the neighbouring ANSPs, aimed at writing new Letters of Agreement (LOAs) or enabling procurement of necessary equipment, things needed to shift into a higher gear: between signing the agreement and the planned opening early April 2014, we had 9 months to carry out all the work! This looked like a mission impossible back then, but thanks to the unprecedented co-operation and very constructive approach between HungaroControl and the neighbouring ANSPs, but also NATO and Eurocontrol, we succeeded. Knowing the recent history of the region we had expected some political difficulties during the process, but I must say we were impressed by all of the neighbouring nations and ANSPs, who contributed very constructively to the successful re-opening of the airspace over Kosovo.

TC/E: What were the main challenges from a technical point of view?

JB: Luckily we didn't have to improvise a lot during the implementation and the end result is remarkably close to the original plan. Again time was our biggest headache since we only had a very limited amount of time to purchase the necessary equipment. In addition, European AIS Database restrictions required us to publish the data of the newly available airspace 72 days before the actual opening date. This meant we had to be ready with the publication by mid-January. Since the Kosovo airspace is not adjacent with the Budapest FIR, we couldn't expand our own system, MATIAS (Magyar Automated and Integrated Air Traffic System). We – our developers together with Thales – had to create a mini-MATIAS that we called KATIAS. To achieve safe and sufficient radar coverage we had to integrate data from 5 radars: 2 Serbian, one Bulgarian, one Bosnian and one from FYR of Macedonia. Thanks to broadband telecommunications lines, getting this data is a whole lot easier than it would have been a few years ago in the region. To make sure we have safe duplicated radio communications too, we rent one radio transmitter in Serbia and one in the FYR of Macedonia.

TC/E: What are the main advantages for the airlines?

JB: It is estimated that some 180,000 flights annually will save some 370,000 nautical miles, resulting in reduced operating cost of around 18€ million, approximately 24,000 ton less fuel burned and CO_2 emissions reduced by 75,000 tons. It's a clear advantage for the airlines that operate through this geographical area.

TC/E: What were the main challenges in terms of training?

JB: Admittedly, the new Kosovo sector is not a highly complex area. That means the cross-training of 55 controllers who hold ACS licences was deemed sufficient. The main challenge was of course to estimate the expected workload. We could only use the data of Eurocontrol's Network Management as a basis. Technically, the main problem for our ACC controllers is that the new sectors are much smaller than the usual ACC sectors: the Kosovo sector has the size of a TMA. There are different separation standards between the adjacent sectors. While we get 10 NM lateral separation between succeeding aircraft transferred from Serbia we need to increase this distance to 15 NM when transferring them a few minutes later to colleagues in FYROM ATC.

We created a special KFOR Unit Training Plan and again time was our main concern. Theoretical and simulator training had to be started already in January 2014. Since none of our staff ever held a unit endorsement in the KFOR sectors, we had to face the classic "chicken-or-egg" question. We solved this problem by giving the necessary endorsement to the first OJTI-s who participated in a large simulation involving Hungarian, Serbian, FYROM and Greek controllers.

TC/E: How does the new sector affect staffing in the Budapest ACC?

JB: It's a huge challenge for us, as the number of qualified controllers remains the same in the ACC but we hope we can manage the summer roster without any extra duties.

TC/E: Obviously the KFOR sectors are operated H24 but can you combine them with other ACC sectors for example at night?

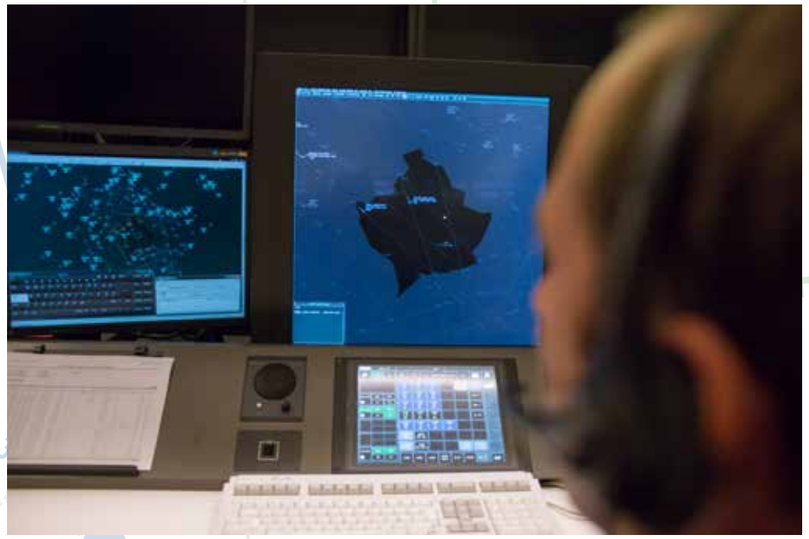
JB: Like I said, we had to create a separate system and combining sectors from the two systems is not possible. We have to man it with a separate crew all the time, also during nightshifts.

TC/E: Is the Kosovo sector a long-term project or are there plans to hand over control over the airspace to another provider?

JB: Our commitment is initially for 5 years. We would of course like to recover our investment, which is projected to happen within that timeframe. If the request comes to prolong the contract, I'm sure HungaroControl will be ready to continue after the initial 5 years as well.

TC/E: What is the opinion of the air traffic controllers after the first month of operations?

JB: The Kosovo sectors are seeing traffic is increasing faster than it was forecast. After one month, during the peak periods we operate already with the capacity we have foreseen for these sectors: 35 aircraft/ hour/sector which means 70 aircraft/KFOR airspace. Thanks to the thorough simulation training, this is not an issue for our controllers. We expect about 450-500 aircraft to fly across this tiny sector on peak days this summer. All in all we are very proud that we played a leading role in the re-opening of the Kosovo airspace. In such a short time, we've managed to set up a "European first" what is still a relatively unique "remote" sector, controlling air traffic over another country's airspace and we're all proud to be part of that!



AEA & IATA'S POSITION

Position Paper
7 April 2014

AEA & IATA's position on the Organisational Evolution of Eurocontrol

Guiding principles and performance objectives

After more than 50 years of activity, it is appropriate to review Eurocontrol's role in the context of the Single European Sky (SES) and the EU common aviation market. In particular, Eurocontrol activities must be revised to ensure a clear separation between service provision and regulation. If it is to become more cost-efficient, Eurocontrol cannot remain immune to market pressures. This requires a sound business-plan for the Eurocontrol Agency, with clear objectives and continuous measurement of achievements and of the resources needed, while operating in a customer-oriented way. AEA/IATA consider that any new Eurocontrol vision and strategy should be developed taking into consideration the need for an accelerated implementation of an effective and efficient Single European Sky (SES). Any realignment of Eurocontrol's activities should take account of the following Guiding Principles:

1) Performance

- "Pro-rata" contribution by Eurocontrol to the delivery of economic performance targets shall be avoided as this would result in an increase in the absolute cost level.
- The Performance Review Body shall be transformed into an independent economic regulator for ANS, as proposed in the SES II+ Report issued by EP Rapporteur Marinescu.
- The functions carried out by the current PRU and PRC shall be reallocated to the independent economic regulator with a corresponding reduction to the Eurocontrol budget. Any Performance support for Eurocontrol member states including those outside of the SES regulation could be contracted to the independent economic regulator.
- The functions carried out by the CRCO shall be transferred to the independent economic regulator with a corresponding reduction to the Eurocontrol budget. Any charging support for Eurocontrol member states outside of the SES regulation could be contracted to the independent economic regulator.
- An overall review of the current tasks of Eurocontrol should be undertaken to assess whether they provide added value for the European ATM system. Tasks that refer only to bilateral interest or are focused on consultancy work shall be avoided, but must be conducted in accordance with User Pays Principles (UPP).

2) International relations

- Before the geographical scope of Eurocontrol is expanded a thorough investigation, including a CBA, must be conducted in order to avoid an unexpected increase of Eurocontrol' s cost basis with limited or disproportionate benefits. For transparency purposes, the results of this CBA must be made publicly available.

- Extending the geographical scope of Eurocontrol increases the risk of diluting the European performance focus; solving the problems with the present membership and of creating more complexity, inefficiency and administration.
- The proposed role of Eurocontrol as a "think tank for ATM" is not consistent with the overall ATM framework in Europe; does not provide any added value and therefore this extension of Eurocontrol's role is not supported.

3) RESEARCH/SESAR

- Eurocontrol has no role in research considering the SESAR JU (SJU) was established to amalgamate European ATM R&D.
- Eurocontrol should continue to closely coordinate with the SJU. To ensure an efficient use of resources, Eurocontrol should not engage in isolated/independent research programmes.
- Project-specific cash investment into the extended SJU is not supported.
- Where Eurocontrol does undertake any research activities this must be covered by public funding and not the Eurocontrol budget. Any research activities should be based upon a positive CBA.
- There should be clear boundaries and no duplication with the accountabilities of the Deployment Manager.

4) Network Manager and Centralised Services

- The Network Manager shall evolve to a self-standing industrial partnership. This function may include Eurocontrol, however this would be subject to EC processes at the conclusion of the present allocated term as the NM.
- The proposed role of Eurocontrol as "European ATM infrastructure manager" needs to be further clarified. The Network Manager is considered to be better suited to take on any such role given its functions and governance.
- Centralised Services infrastructure should be owned and tendered, by the Network Manager.
- In line with the Commission's proposal on SES II+, more enforcement power should be given to the Network Manager. To this end, its scope of activities should be extended accordingly.
- The Network Manager should be empowered to define the infrastructure and operating requirements for the "network". Once defined, this should form the basis of the Determined Cost of the network and be linked directly with the Performance and Charging Schemes.
- The concept of Centralised Services is supported, as long as more transparency on funding and cost allocation is provided and it proves to be cost-efficient with no instances where users are doubled charged for local and Centralised Services on an on-going basis. These conditions are not fulfilled today.
- The nine proposed Centralised Services should be treated separately with clear CBA and business model for each service and not as a package.

5) SES and Single Pan-European Sky

- Duplication with other regulatory institutions should be avoided.
- All activities that have been transferred to EASA should no longer be dealt with by Eurocontrol. The Eurocontrol budget should be reduced correspondingly.

AEA & IATA'S POSITION

6) Civil-Military Matters

- Cooperation between civil and military service providers is crucial to the further development of SES and for the elimination of the most important capacity bottlenecks in Europe.
- Eurocontrol's engagement should be limited to civil-military coordination with the aim of improving civil ATM. It should not conduct consultancy activities in this domain.
- The User Pays Principle (UPP) should be applied to any bilateral or consultancy activities. .
- A political commitment from the Ministers of Defense to improve civil/military coordination is essential to move forward on this important issue.

7) FABs and Regional Cooperation

- Cooperation between FAB's/regional cooperation and adjacent non-EU Eurocontrol ANSPs should be dealt with by the NM.
- The idea that Eurocontrol should initiate a platform for exchange of best practices at FAB level is not supported and is considered likely to lead to an increase of costs, without providing any identified added value.

8) MUAC

- An analysis to evolve MUAC to a self-standing ANSP should be undertaken with the results, including cost-benefit analysis, to be made publicly available.
- In the event that MUAC were to become a stand-alone ANSP, the expansion of operations is an option which should be further considered to improve cost-efficiency.
- The activities of MUAC shall not be scaled down.

9) Training and transversal function

- Training should be market-based and outsourced if it cannot be provided cost-efficiently in-house.
- Transparency of the allocation of costs shall be ensured.
- The expansion of the transversal concept should be assessed against the UPP.

10) Air Navigation Charges

- The functions carried out by the CRCO shall be transferred to the independent economic regulator with a corresponding reduction to the Eurocontrol budget.
- In the interim, where Eurocontrol undertakes this activity for non-Member states it should be done on a full cost recovery basis.
- CRCO activities should not be extended unless an integration of new ECAC-Member States into the multilateral charging System occurs. No additional bilateral charging agreements should be permitted.

11) Organisational Evolution

- Eurocontrol must make an appropriate contribution to the EU-wide targets for all Performance Scheme Reference Periods and in particular develop business planning processes that deliver against the cost-efficiency targets.

- In order to reach these cost-efficiency targets, change management practices should pay particular attention to the human factor.
- Extending the scope of Eurocontrol activities (e. g., security, FAB coordinator and dialog with unions) increases the risks of diluting the European performance focus; on carrying out the tasks and on solving the problems with the present membership and of creating more complexity, inefficiency and administration. Stakeholder consultation and a full CBA must be undertaken and made publically available before any such scope extension is undertaken.
- Due to the shift in competences on European ATM according to the institutional development of the SES and of EASA, Eurocontrol resources should be reduced correspondingly.
- Eurocontrol's activities should focus on the European ATM network and a more market-based approach to allow better self-financing. This requires a full review of existing tasks.
- Eurocontrol should implement as best practice the proposals laid down in the SES II+ package regarding consultation with airspace users concerning investments.

12) Legal framework

- The need for a new Convention to reflect the organisational direction proposed above is stressed.
- Governance, roles, funding and responsibilities need to be revised and then clearly explained.
- In particular, the future financing of Eurocontrol should be modernised; cost shares at present allocated according to GDP (30%; 70% according to the national en-route cost base) is no longer adequate as GDPs are not related to air transport/ATM/ANS; it should be 100% service unit-related as applied by CRCO.

Rough Ride in a classic (simulator)

Viktor Koren

Like all pilots holding an ATPL (Airline Transport Pilot License) pilots of TNT Airways need to demonstrate that they are competent in all unusual and emergency situations on the type they are certified to fly, during a half-yearly simulator exam.

Output was invited to join what TNT Airways call OPC/LPC (Operator Proficiency Check/ Line Proficiency Check). The recurrent training of all Boeing B737 pilots takes place in the simulator facility at Frankfurt Main Airport. The actual simulator exam day is preceded by one day when pilots are able to practice the items that have been prescribed by the safety authorities BCAA (Belgian Civil Aviation Authority) and EASA. Output was invited to attend the practice day. All safety related exercises should be covered during a period of 3 years however there are items that must be covered every time a pilot goes to the simulator. A yearly theory exam has to be completed before the simulator session.

The OPC/LPC is no joke, and although it does not happen often, pilots who do occasionally fail the exam cannot fly until they receive extra training and pass the check again.
Output joined the crew of three pilots: Captain Vincent Carpentier, First Officer Frank Duroisin under the supervision of the examiner, Captain Arne Mast.

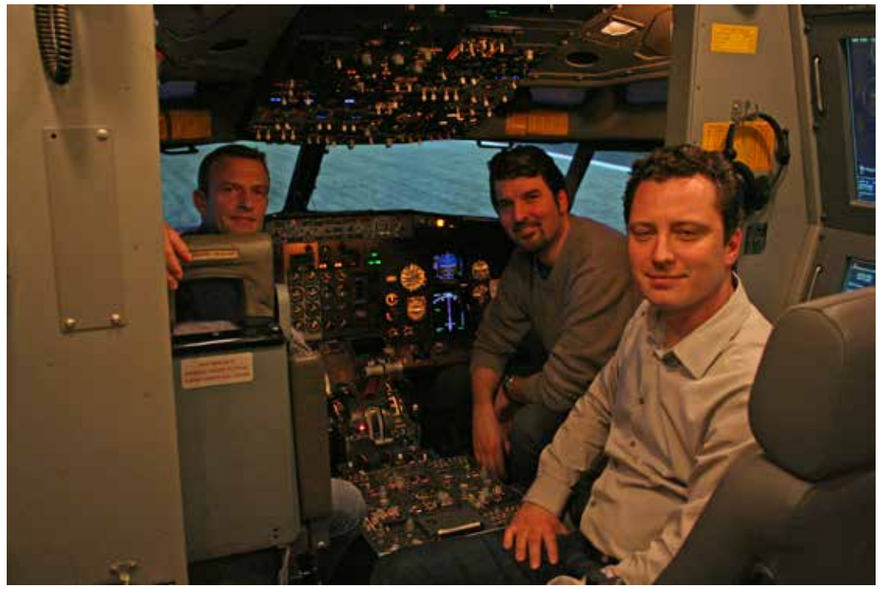
As of 2014, TNT employs some 275 pilots. Around one hundred of these pilots are type rated to fly the twelve B737 Classics that TNT Airways operate.

All TNT pilots receive a leaflet beforehand, containing the "hot topics" of the upcoming season and covering some theory. Typically, pilots start their review 2-3 weeks before the simulator session, as the material usually contains over 100 slides to be covered.

Since the general scenario (airfields, payload, weather, NOTAMS, etc...) of the simulator flights were already known, both crewmembers had done their homework and could prepare the simulated flights and they could also compare the most important data during the briefing.

In the classroom briefing Arne welcomed the crew to their Spring 2014 campaign and started the briefing with a presentation prepared by the chief pilot of the company, based on the last 6 months' Fleet Events. TNT has a Flight Data Monitoring System which records most safety related events that occur most frequently, which are called Fleet Events. Amongst several topics, this time the presentation covered procedures during landing on sanded runways, light system failures, electrical bus failures, TCAS warnings, landing at CATII/III conditions (in case of the B737 CAT IIIa conditions mean 50ft ceiling and 200m RVR – Runway Visual Range) while experiencing autothrottle (A/T) failure, fire, smoke or pilot incapacitation. Also some of the ATC procedures and correct phraseology were discussed.

Then the crew re-viewed what TNT calls LOFT (Line Oriented Flight Training). This is a short flight, during which they simulate realistic scenarios at airports where the airline normally operates. Regardless of the length and the location of the flight, one thing is guaranteed: it's never going to be an uneventful flight! This seemed to be today's case as well, when Arne introduced some of the expected types of system failures: electrical failures, one engine out procedures while practicing non-precision approaches.



Today's flight was planned from Bologna (ICAO: LIPE, IATA: BLQ) to Brescia (ICAO: LIPO, IATA: VBS) two well-known airports for TNT pilots. Just like in reality the crew proceeded by going through the usual list of items to be covered during a pre-flight briefing, starting with the weather which was particularly warm – presenting some serious limitations when calculating take-off performance of a fully loaded aircraft - and thunderstorms were reported from that part of Northern Italy. As the weather was discussed the possible alternate aerodromes had to be selected. The crew had no trouble picking a handful of suitable airports in the area: Milan Malpensa, Bergamo, Linate and Verona were pointed out.

Then the actual NOTAM-s (Notice to Airmen) had to be reviewed. The first information the crew found out was that the ILS for Runway 32 at Brescia was completely out of use depriving the crew of the possibility of an automated landing. This meant that a VOR approach had to be planned for runway 14 which is not equipped with ILS.
The aircraft status also had to be briefed. One MEL (minimum equipment list) item was pointed out: the APU generator was out of service too. Then came the performance data calculated individually by both pilots. After comparing them they agreed on the aircraft's take-off performance and fuel data. Having prepared all these, the crew moved to the simulator and started preparing the short but presumably intensive flight.

Once settled in their seats the crew summarized the weather information at their destination which included cumulonimbus type clouds and thunderstorms and also high temperatures and gusting wind that will have an effect on landing (the go-around climb gradient is affected by temperature, weight, wind, etc...) and take-off. The captain also decided to take on extra fuel for eventual holding due to the thunderstorms in the area.

The aircraft was positioned near the holding point and the crew started to brief the data of Bologna's Runway12 and the corresponding BOL6N standard instrument departure procedure (SID) according to which the aircraft will have to climb with a 7.7 degree climb grade until 2000 feet and meet certain altitude restrictions overhead Firenze (FIR) and Bologna (BOL) VOR-s. Once the briefing was completed – just like in real life – they requested an ATC clearance and engine start-up, using the callsign TAY032M, assigned to today's flight in the simulator. The instructor always plays the role of ATC during the entire session so he gave the following short clearance: TAY032M is cleared to Brescia BOL6N departure squawk 6021. Having been issued a start-up clearance engine #1 was started followed by #2 and the motion was coming on, a little humming and vibration was just perceptible adding a more realistic feeling to just reading the engine instruments. Flap 5 was set for the take-off. Having completed the "Before take-off checklist" the B737 lined up on RWY12.

"Cleared for take-off Runway One Two" sounded the clearance from the "TWR controller" and the captain who was the pilot flying on the first leg of this short 18-minute flight, pushed the thrust levers forward. The simulator produced an incredible sensation of acceleration and vertical speed. Vincent, who was flying the SID manually, followed the instructions of ATC and after passing FL80 turned the aircraft to MONTI waypoint and continued the climb to FL100.

The aircraft levelled off at FL100 and crew have just finished the after take-off checklist (Engine bleeds ON, Packs (air conditioning) in Auto, landing gear lever Up and Off, Flaps Up, Altimeters set and cross checked) when they received a TCAS (Traffic Collision Avoidance System) warning which initially started with a "Traffic Traffic" announcement then escalated to a Resolution Advisory (RA), when a synthetic voice instructed the crew to "Descend, Descend". At 9200 feet they received a "Clear of Conflict" message which was visible on the ADI (Attitude Director Indicator). They advised ATC and climb back to FL 100 also informing the air traffic control that they will have to file the necessary paperwork after the incident as this needs to be investigated later on. In the meantime the flight has been switched to Milano Radar's frequency on the 126.5 and the controller advised TAY032M to expect a RWY32 VOR approach then a circle-to-land approach onto RWY14.

A circle-to-land maneuver is an alternative to a straight-in landing. It is a maneuver used when a runway is not aligned within 30 degrees of the final approach course of the instrument approach procedure or the final approach requires 400 feet (or more) of descent per nautical mile, and therefore requires some visual maneuvering of the aircraft in the vicinity of the airport after the instrument portion of the approach is completed to align the aircraft with the runway for landing.
It is very common for a circle-to-land maneuver to be executed during a straight-in approach to a different runway, e.g., an ILS approach to one runway, followed by a low-altitude pattern flying, ending in a landing on another runway. This way, approach procedures to one runway can be used to land on any runway at the airport, as the other runways might lack instrument procedures or their approaches cannot be used for other reasons (traffic considerations, navigation aids being out of service, etc.).

Circling to land is considered more difficult and challenging than a straight-in landing, especially under instrument meteorological conditions because the aircraft is at a low altitude and must remain within a short distance from the airport in order to be assured of obstacle clearance (often within a couple of miles, even for faster aircraft). The pilot must maintain visual contact with the airport at all times; loss of visual contact requires execution of a missed approach procedure.
In the meantime the weather was quickly deteriorating, with CB-s popping up all around.

The instructor prepared the next surprise he had in store for the crew. He activated the "DC standby Power OFF" scenario. The first indication that something was wrong was the VHF COM1 (part of the communications) system failing. The F/O quickly reported the nature of the emergency to ATC and requested to hold over MONTI, maintaining 4000 feet to gain time and start looking for the exact problem. At this stage the crew had to figure out why the radio is only working partially and what other implications this error has on the systems of the aircraft. While the captain was flying the aircraft he also asked Franck to check the Voltage and Amps on the AC and DC metering panel on the overhead panel. The F/O quickly found the Standby DC Power and identified that VOR/ILS NAV1 instruments were lost but the VOR/ILS NAV2 were still available.

In this situation the crew faced an emergency where there was "no applicable checklist" available. The QRH (Quick Reference Handbook= Emergency checklist) doesn't call for a 'non-normal checklist' to be performed for this kind of problem. The F/O informed ATC that they needed about 10 minutes for troubleshooting while the turbulence was intensifying. Right now there were no warning lights, so the crew had to proceed logically by setting up a short list of what was working and what was not then both crewmembers checked the circuit breakers behind their respective seats using a flashlight (crewmembers always carry flashlights even in the simulator!). Sure enough, the F/O found the culpable circuit breaker called DC standby which was responsible for the power outage. This meant they knew the reason and the consequences (VOR/ILS NAV1, VHF COMM1, some engine indications, standby altimeter and standby airspeed instruments were not working) and they had to analyse the situation and decide how to proceed from here. There were several possibilities and they decided to go for the original destination (after all that is the aim of the flight) instead of an alternate. The captain then briefed the situation pointing out the main elements: the deteriorating weather, the degraded aircraft status, the fuel situation and the details of the VOR approach for RWY 32 circling for RWY 14 (using the Brescia approach plate) and he also invited the F/O to express his opinion and give his own input. This was crew resource management at its best. The crew needed to cover a number of items: MDA (minimum decision altitude) of 1160 feet is set, RWY length and the displaced threshold was pointed out, and the VASI lights as visual landing aid was briefed followed by the missed approach procedure.

Writing all this down already takes an effort, using my notes, you can imagine the huge amount of information to be processed by the crew while setting up and flying the degraded 737 in turbulent weather!
Reference speed (the required speed at which the aircraft is planned to cross the runway threshold) of 134 knots and the autobrake were set and approach speed was calculated (approach speed is Vref +5kts + wind correction). The captain planned for the gear to be lowered at 9 Nm from the threshold, followed by a request for 15 degree flaps at 7 NM out. The airspeed should be stabilised at 150 knots at this stage. They had to descend to the MDA not later than the missed approach point, where if they can't see the runway they have to execute the missed approach procedure. When all details of the circling approach were set the F/O advised ATC that they were ready for the approach.
"Cleared VOR approach RWY32, report when RWY 32 is in sight" came the ATC clearance. The captain left the holding pattern at MONTI while the F/O monitored altitude vs distance to threshold. The aircraft flew in IMC until passing 1500 feet when they received further ATC instruction: "Cleared for the circling approach RWY14".

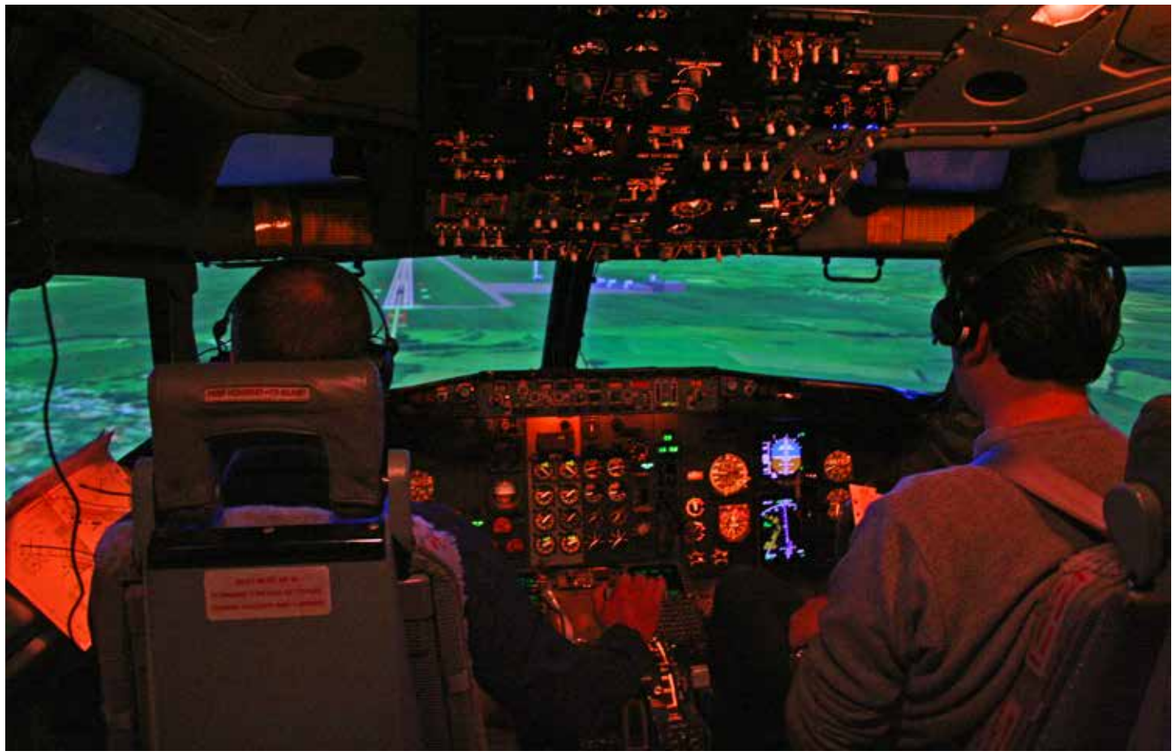
They applied the old-school method of using a stopwatch to time the outbound leg after the 45° away from the runway and then start the turn to rejoin downwind; the downwind leg was also timed as from abeam the threshold, so they knew when to start base turn.

The Captain had visual contact with RWY 14 when turning base then had to counter the gusting winds on final but successfully landed the aircraft on RWY 14. Examiner Arne was clearly happy with their performance and complimented the crew at the end of this first exercise.
The next exercise started at Runway 32 in Brescia, where the runway surface was dry in VMC conditions. The first objective of the second session was to practice terrain avoidance so they had to intentionally fly low and manoeuvre to approach the surrounding mountains and fly the aircraft close to high terrain. The crew received first "Caution terrain!" warnings followed by "Terrain! Pull up! Pull up!" instructions by the GPWS (Ground Proximity Warning System). The crew had to react immediately pitching up the nose of the aircraft, producing a climb rate of over 6000 feet/minute. The pilots had to be careful not to pull the nose too much as at 30-40 degree pitch a stall might occur. They practiced the same manoeuvre in IMC as well.

After the successful terrain avoidance exercise, the aircraft was repositioned in the air, to set it up for the next exercise and approach for ILS RWY 32 which will be flown by F/O Frank. The next surprise was already prepared by Arne but the crew knew nothing about what appeared on the control panel behind them.

This time the aircraft weighed 44 tonnes therefore too heavy for the missed approach. In case there should be one, the crew had to come up with a workaround: either select a higher Vref that meets the required missed approach climb gradient or fly a calculated EFP, Engine Failure Profile, which has a lower gradient.

As the aircraft was turning and intercepting the ILS glide path the instructor activated the "Generator drive high oil temperature" option.



The ILS instrument in the cockpit indicated that the glideslope became alive at 7.0 NM out and the aircraft received landing clearance from ATC. Three miles out the master caution on the F/O's side indicated the serious nature of a problem to the crew. "I lost everything" exclaimed Frank, as all his instruments went dark in a second. The Captain took over the controls and announced a "Go Around" immediately. Experiencing one of the most difficult emergency scenarios the crew climbed to 4000 feet altitude while maintaining the runway heading while an alarm continuously sounded in the cockpit. They quickly acknowledged that the instruments on the captain's side were working but the warnings revealed the true nature of the emergency: they lost the generators on both engines! The crew announced the emergency to ATC using the standard phraseology: "Mayday, Mayday, Mayday, TAY032M total electric failure!"

Now they had to analyse the situation again real fast. The F/O worked his way through the emergency checklist while the Captain was hand flying the aircraft which was operating now only on battery power. This could be enough power for about 30 minutes but the crew's plan was to start up the APU as quickly as they could. Once the APU was up and running the instruments came back as electric power was restored in the cockpit. While a loud alarm was still sounding in the cockpit warning the crew of an unknown gear/flaps configuration, the decision was quickly made: the aircraft had to land at the nearest suitable airport which was Brescia. A successful landing closed the LOFT part of the simulator exercises.

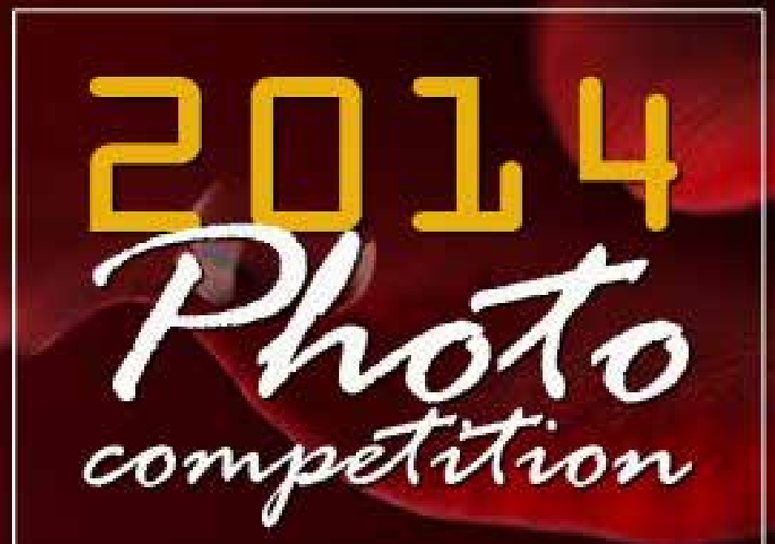
During the second part the crew had to practice a specific emergency prescribed by the refresher program, in this case engine seizure followed by engine fire and substantial damage to the engine.
This time it was Frank's turn to carry out a take-off as PF. At exactly Vrotate (the calculated speed where the aircraft will be able to get airborne) engine number 1 failed with a loud thump. Complying with the procedure, the F/O continued the take-off and climbed the aircraft countering the asymmetric power by using full rudder. Having identified the problem the emergency checklist followed and as the priority task prescribed it, the crew had to operate the fire switch on the stricken engine. Captain Vince again declared the emergency to ATC by announcing "MAYDAY". (Incidentally, squawking 7700 is not part of the emergency checklist, it's only a memory item. It is considered "good practice" to set 7700 on if time permits.)

Once again the aircraft had to hold at 4000 feet to set up the approach. This was possible while flying on one engine and once the crew performed a teardrop entry to the holding they worked their way through the "1 engine INOP approach" checklist. Fuel needed to be balanced for such approach, using the cross-feed valve switch and monitoring the fuel gauges. What followed was a non-precision approach (using LOC-DME instruments) with one engine only. This was also a particularly difficult situation: the Localiser provided the centreline data for the aircraft but no automatic descent data, the prescribed glide slope altitude data of the aircraft had to be constantly crosschecked by the crew.

And it wasn't the end of the emergency! As the aircraft was flying on the very short final, the mean instructor simulated a runway incursion: a vehicle crossed the active landing runway when the aircraft was at 300 feet high! What followed was the inevitable go-around using the remaining engine's power and they climbed again to 2000 feet and received a clearance for visual approach and landing on RWY 32. During the next exercise the captain had to do the same. In such extreme scenarios the pilots' skills are truly put to the test.
One of the last exercises was a "high-altitude stall" which had been practiced quite intensively since the accident of Air France 447 over the Atlantic in 2009. This time the simulation started by repositioning the aircraft at the cruising altitude of Flight Level 370 with the autopilot on, auto-throttle on, speed stabilised at M0.74. The crew had to deliberately stall the aircraft by switching off the auto-throttle and moving the thrust to idle. Slowly the speed was decaying down to the point when the stick shaker had been activated warning the pilots of an impending stall which in the given configuration occurred at IAS 170 knots. The crew had to put the nose down into the brown (referring to the lower half of the Attitude Indicator) then bring back the speed to IAS 240 knots then to normal speed.
Finally Frank had to perform an approach in CAT III weather which normally is to be flown by the Captain but in this scenario Vincent became incapacitated. Frank obviously received no call-outs or any other assistance from the other crewmember. Only the final approach phase was simulated and the successful landing marked the end of a very intensive day in this Classic simulator.
But the day was not finished yet. Arne invited the crew members to give their evaluation and feedback of their own performance, both individually and as a crew. They thoroughly analysed the emergencies and the applied solutions pointing out what could be improved the next day when the actual examination would take place. They discussed it with utmost professionalism down to the smallest details. After all it is in both the pilots' but also the company's interest to ensure that the crew performs flawlessly in all possible emergency scenarios and meet the highest standards.
This few hours in a B737 Classic simulator was extremely interesting, also from an ATCO's point of view and I can only recommend it to all of you. Do it if you have the chance!

Inspi RED

1. The 2014 competition is open to all Eurocontrol present and retired staff members and their direct family members.
2. The competition subject is "Red", which may be photographed in any environment and limited only by your own imagination.
3. Each entrant may submit a maximum of three photos.
4. Photos may be taken in any format but MUST be submitted in digital form.
5. Entries may be submitted in color or black & white, however, prizes will only be presented to the overall winners.
6. Photos should have been taken by the competition entrant within the twelve months preceding the competition closing date. In fairness to all entrants this rule will be strictly applied and confirmed by reference to the photo's Exif file.
7. Post exposure processing of photos will be permitted.
8. If no Exif file is attached to the photo please include as many details as possible e.g. camera/lens used, exposure details, location, date and time of day etc.
9. Photos MUST be reduced to a file size of around 1mb in order to ease handling. Free software can be found on-line for this.
10. The competition organiser reserves the right to submit entries to the competition, but will not be eligible for prizes.
11. Entries should be submitted via email to Paul Hooper at pauljay@home.nl as JPG files.
12. Entrants should advise Paul Hooper if they would prefer their photos NOT to be published or displayed after the closing date.
13. Copyright shall remain with the photographer.
14. Prizes shall take the form of gift vouchers to the value of EUR.200 (1st), EUR.125 (2nd), EUR.75 (3rd), however, should an entrant be placed in more than one winning position only the highest value prize shall be awarded.
15. Entries must be received by November 1, 2014.
16. The judges' decision will be final.
17. By submitting photos to the competition you will have indicated that you have read, and agree to abide by, these rules. Photos not meeting these requirements will be deemed ineligible and will be removed from the competition.



Paul J. Hooper,
Competition Organiser for EGATS.

EGATS
EUROCONTROL GUILD

late summer editorial update

Dear Members,

in the original editorial you have read about the delays created by the French ATC strike that were accumulated on our account at MUAC.

While EGATS' position remains the same in this regard, after DIRMAS has written a passionate article on his blog about this matter and after TUEM relentlessly negotiated with Eurocontrol's DG, EGATS is pleased with the end result that has seen all delays accumulated due to the above mentioned strike removed from our MUAC account.

But there is no time to lower our guard on this.

On Saturday 30 August, Spain's ATC system experienced a major failure whereas Spain's a/s had to be mostly closed. As a result, Spain had to put up a number of very restrictive regulations.

Once the problem was solved, Spain lifted all regulations at once, creating pandemonium throughout Europe. Airlines rushed to file in order to reduce the disruption already caused. This "rush for departure" caused France to be overloaded and implement regulations as well. As a consequence, airlines re-filed through MUAC, mainly through the Brussels Sectors, also causing a predicted flow of traffic that could not be handled. MUAC then had to implement regulations that caused more than 4000 minutes of delay, on our account again.

Now, it should NOT be that MUAC is the end recipient of delays caused by problems created by others. The French strike first, and the system failure in Spain then, should be categorized as external factors. As such, MUAC is not responsible and should not pay the price for this. Delays created from our daily business is our problem, special circumstances especially when created by others, should not create a burden to MUAC. Ever.

Also, it should be the Network Manager's (NM) responsibility to oversee a smooth transition from this kind of major a/s closures to normality. Once problems are solved, opening the flood gates does little to no good to everyone. Other parts of Europe get overloaded and overwhelmed, airlines need to re-file continuously to cater for new regulations, delays get shifted. Instead, there should be a plan in place for a more PROGRESSIVE RECOVERY from this kind of events.

A similar thing happened on Saturday 6 September, this time for Italian ATCO's strike.

As you can all see, there is still a long way to achieve a fair share of delays. And we do need the NM to tackle these problems and make it a priority. Now we have had a number of occasions whereas these problems have come up. Time to learn and act.

Otherwise, thanks to everyone for safely handling a record-high summer traffic. Hopefully lessons were learned from this as well.

Professionally yours,

Raf Vigorita

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