

THE CONTROLLER

July 2014

Journal of Air Traffic Control



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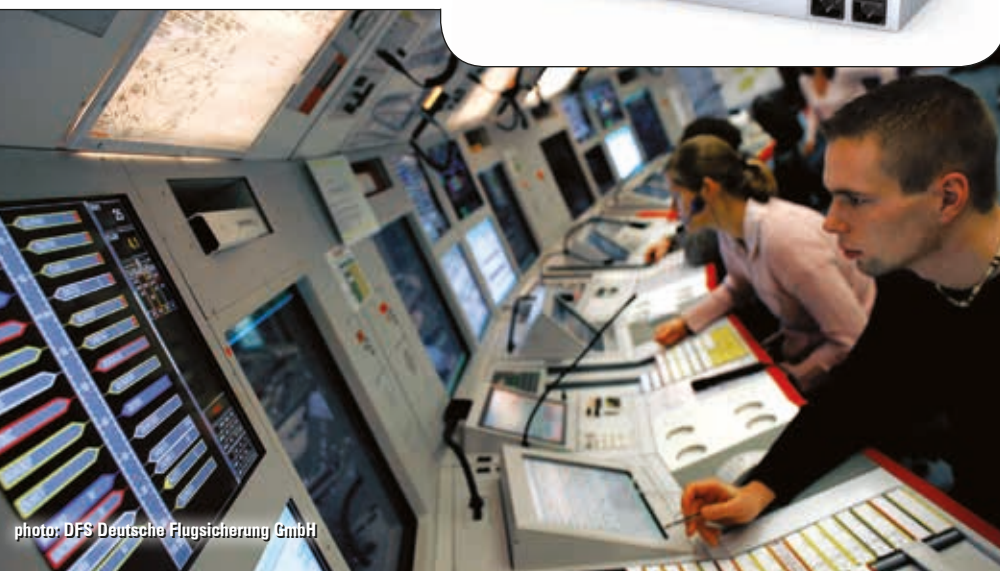


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ONE VOICE ONE SKY ONE TEAM

NEW EXECUTIVE BOARD HITS THE GROUND RUNNING

 by Patrik Peters,
IFATCA President & CEO

Welcome to this edition of "The Controller", the first since our annual conference in Gran Canaria. This issue marks quite a few changes. It is a milestone for this prestigious journal as the first "electronic only" issue. It marks IFATCA's commitment to best serve the needs of our members, to keep our costs as low as practicable, but first and foremost – to reach as many members as possible for free – as part of your membership to the Federation. This is an opportune time to especially recognize the continuing great work by the editor, Philip Marien, whose dedicated professional efforts keep our journal up at this high standard.

The Conference saw the new line up of the Executive Board, with the retirement of Alexis Brathwaite and Darrell Meachum, the addition of Eric Ridsen as Executive Vice-President Professional and the transitions of Scott Shallies to Deputy President and myself to President. As you'll be aware, the post of Executive Vice-President Finance was left vacant at conference due to the late withdrawal of the candidate for personal reasons. The board has assumed the responsibilities of EVPF during the move of our *siège social* from Geneva to Montreal and the transfer our principal banking operations from Switzerland to Canada. We are also in the transition to "Concur", the new online expense and claim management tool. I am pleased to advise that these transitions are all progressing well and that the Federation's finances are in very good shape. As soon as we have these new processes in place, we intend to fill the EVPF role in an 'acting' capacity as per the Administrative Manual procedures.

The board has come together very well as a team. The spirit, cooperation and communication is excellent. Since conference, we're holding weekly video meetings. This is a step-up from monthly teleconferences last year, and it allows us to forgo one board meeting per year, resulting in considerable savings for the Federation. And of course, we continue to rely on the services of our Office Manager Tatiana lavorskaia who holds the fort in Montréal. I am proud to lead this close-knit team who are all working hard on your behalf.

Our work continues: The Professional & Legal Committee (PLC), the Technical and Operations Committee (TOC), the Finance Committee (FIC) and the Constitution and Administration Committee (CAC) have all been very active establishing their programs (see the latest edition of the 'Circular') for the year ahead and launching straight into the work! It really does make me proud to lead such a team of willing and dedicated volunteers.

The Federation's constant growth 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) – a method designed to capture threats to safety that arise during everyday operations.

We have furthermore identified 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. Several member associations and air navigation service providers 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.

As you'll read later in this edition, we are working hard to assist our new members in Kazakhstan who are facing a delicate legal situation. At conference we learned about controllers in several other countries – for

REALITY CHECKS

MISSING IN A LOT OF PROJECTS!



by Philip Marien,
IFATCA Editor & Webmanager



example in Latvia and the Dominican Republic - being sanctioned and dismissed for speaking out about safety concerns and in the Ukraine political unrest and war activities are impairing the safe provision of Air Traffic Services.

The Executive Board actively supports our members to resolve these issues. We are available to mediate, discuss and intervene – in person or through the provision of information and expertise. International teamwork with our members and stakeholders is paramount. Cooperation is the hallmark of the Federation. This highlights to me the ‘international relevance’ and ‘global reach’ of IFATCA. We are active in all regions, helping our member associations, working closely and cooperatively with other international agencies, particularly ICAO. We truly are working towards our aim of promoting and safeguarding the interests of the air traffic community, and protecting an evolving profession. The new board and our volunteers and representatives have hit the ground running after conference, and the workload will increase from here! But I am fully confident in our capability to meet all challenges and continue to maintain the high standards we have set. I want to take this opportunity to pledge to you the Executive Boards commitment to be very active, visible and approachable to all our members and representatives. We are the global professional voice of air traffic controllers. I welcome you to the new work year and encourage you to participate in the Federation's activities. I hope to see as many of you as possible at the Regional Meetings. It's your Federation; let's work together to make it as effective as possible! ☺

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As announced, you're 'holding' the very first electronic-only copy of The Controller. After some 53 years in print, over 200 issues in total, it was time to move on. Most importantly, we believe that by making the publication freely available it will help to promote the Federation and what it stands for. I hope you agree that this is the main aim of a publication such as The Controller...

And that those ideas still need propagation is quite clear from the stories and experiences our Member Associations share during the Annual Conferences and regional meetings. It is clear that the profession of Air Traffic Controller remains very poorly understood by the general public, the press and decision makers around the world. Even in Europe, it's shocking how prejudice and envy seem to be driving a lot of decisions rather than rational and objective arguments. Slogans are more important than facts. Verifying a headline or a story seems to have become a thing of the past for many journalists, undoubtedly under pressure to come up with the next sensational scoop. Judges and lawyers, admittedly in some cases restricted by laws and constitutions, aren't always immune to the pressures of public opinion. In other cases, it seems that some will go above and beyond reason to find someone, no matter who, guilty for an accident. One such shocking story from our colleagues in Kazakhstan is presented in this issue, but there are plenty more.

In Europe, it's the decisions (or in some cases indecisions) of our dear politicians that risk breaking the air traffic management system as we know it. While it's far from perfect, decisions are being pushed based on false premises posed by powerful airline and technology lobbies. Billions are being pumped

into research, while service provider budgets are being squeezed to the limit. The solutions proposed by these bloated research projects will not bring the benefits promised by those imagining them. Yet, if something “well researched” fails, it'll often be blamed on ANSPs and/or the controllers. Imagine what ANSPs could do with these kind of budgets, if they were used for training, improving equipment and most importantly knowledgeable support staff? What would happen if some of this money is invested in getting controllers involved from the very beginning in developments, listening what their needs and problems are in handling the traffic? Imagine that this money is invested in making sure that controllers have an optimal environment in which they can concentrate on their jobs rather than on the next fabulously expensive academically-correct-but-useless-in-practice piece of technology? In that respect, I believe that NextGen in the USA, which seems much more controller-driven than SESAR in Europe, has far greater potential. But projects stand or fall with an essential component: reality checks. It seems that at least in Europe, we've lost that some time ago, probably together with another vital element: common sense!

Enough rambling. I hope you enjoy this new episode in the long history of IFATCA and The Controller. Make sure you try clicking on the links throughout this issue, especially those of our advertisers - these keep the costs of producing this magazine as low as possible for the Federation! And any other suggestions, remarks or articles (yes articles!) are more than welcome via

editor@ifatca.org

IFATCA 2014 ANNUAL CONFERENCE

BY PHILIP MARIEN, EDITOR

The 53rd Annual Conference of IFATCA was hosted by our Spanish Member Association USCA. They chose one of the Canary islands, Gran Canaria, as the location for the Conference. Delegates from nearly 80 countries attended, with over 500 delegates in total. A world-class conference centre on the south side of the island, in Maspalomas, provided the perfect setting for a very full agenda.

Opening Plenary

On the first day, IFATCA President and Chief Executive Alexis Brathwaite and his Executive Board welcomed the delegates at the Opening Plenary in the impressive auditorium of the conference centre. Following the roll call, the Directors accepted the report of the previous annual conference (Bali, Indonesia). Four new Member Associations – Maldives, Kazakhstan, Montenegro and Angola - had expressed their

intention to (re)join the Federation: their applications were referred to Committee A (Administrative) for further discussion. The President then gave his traditional 'State of the Federation' address. He stressed the excellent relations to other organisations and associations, including ICAO, IFALPA and IATA. As a federation, IFATCA and its Member Associations enjoy recognition for the expertise of their representatives. Their input is not only highly appreciated, but in a lot of cases it's actively sought after. In his last Conference as President and CEO, Mr. Brathwaite concluded that the Federation was a strong and recognised partner when it came to professional issues in ATC.

Dignitaries

The Plenary session was then adjourned for the different Committees to discuss issues affecting the Federation and, where appropriate, propose new or amended policies. Before the Committees convened however, a formal opening of the Conference was held, attended by a number of dignitaries and politicians, including Mr. Ángel Luis Arias, Director General of Civil Aviation; Mr. Paulino Rivero, President of the Canarias Government; Mr. Marco Aurelio Pérez, Mayor of the San Bartholome de Tirajana municipality; and Mrs. Ana Curson, council member of the Cabildo de Gran Canaria.

In their speeches, they stressed the importance of aviation to the Canary Islands and how air traffic control is an essential link in this. Given the remoteness of the Canary Islands and the economic dependence on tourism, reliable connections via the air are recognised as a critical part of the economy.



➔ Head table during the opening plenary



➔ Roll call



➔ The official opening of the Conference

Committee A - Administrative

The Committee was chaired by Mr Paul Robinson (New Zealand), who was assisted by Mr Julian Ogilvie (UK) as Committee Secretary and Mr. Eduardo Carrasco (Spain) as Vice-Chairman. Mr Darrell Meachum, outgoing EVP Finance and Mr Patrik Peters, Deputy President, completed the head table. Dealing with administrative issues in running the Federation, the Committee reviewed the past year using the reports of the different elected and appointed officials. Most notably, these included reports of the Deputy President and the EVP Finance, who also presented an overview of the Federation's finances. Also discussed was the budget for the upcoming fiscal year (2014-2015).

view. The issue led to some discussions, but in the end, the majority of MAs supported the move and the Executive Board was tasked to take all necessary steps. Committee A also discussed a proposal to alleviate the financial pressures of underdeveloped nations so they can remain members of the Federation. Following an interesting discussion, a special task force will formulate a proposal for next year's conference. Another interesting discussion concerned Jordan's request to become part of the Europea region rather than Africa & Middle East. Their argument was that they had more interaction and issues in common with their European colleagues. Following some debate, the Directors agreed, by which Europe once again became the region with the largest number of Member Associations (44).

CEO of IFATCA. Scott Shallies (Australia) traded his position as EVP Professional for that of Deputy President (a one year appointment). Eric Risdon (Switzerland) became the new EVP Professional. Željko Oreški was appointed for an additional 2 years as EVP Europe, while John Carr's (USA) interim post as EVP Americas was confirmed. The post of EVP Finances however could not be filled at this time. The function will be temporarily taken over by the President & CEO and Deputy President until a replacement can be found.

Finally, Committee A also confirmed the venue for the next annual conference: this will be organised from April 20th to 24th in Sofia, the capital of Bulgaria. It'll be hosted by BULATCA, our Bulgarian Member Association.

For 2016, an offer from our North American colleagues to host the Conference in Las Vegas was accepted. This will be organised just before their annual Communicating for Safety (CFS) event – see the article elsewhere in this magazine.



→ Committee A in session

Also discussed was an Executive Board decision to move this magazine (The Controller) to an electronic publication. The Editorial Team had argued that it would offer a number of benefits, including a shorter lead-time for articles to be published and less dependence on the number of pages available or needed. The issue you are reading is the first one to be published under this new approach. Most importantly probably for many Member Associations is that the publication is now free. This not only alleviates a number of MAs financially, but also reduces the liability of the Federation towards those that pay for a subscription. We hope that this will boost the visibility of the magazine and thereby the Federation...

Also discussed in Committee A was a proposal to move the Siège Social of the Federation (the place where it's officially registered) after 46 years from Geneva (Switzerland) to Montreal (Canada). With our permanent office located in Canada, it was argued that this made more sense from an administrative and legal point of

In closed session, the committee heard of issues affecting a number of MAs. If the issues affecting individual colleagues or

Committee B - Technical

The Committee was chaired by Mr Matthijs Jongeneel (Netherlands), who was assisted by Mr Alasdair Shaw (New Zealand) as Committee Secretary and Mr. Juan José de León Fernández (Spain) as Vice-Chairman. Mr Duncan Auld, IFATCA's Executive Vice President Technical completed the head table.



→ Committee B Headtable

entire Associations are any indication, IFATCA's mission as advocate of professional conditions for controllers around the world is far from over...

Elections for vacant Executive Board functions appointed Patrik Peters (Eurocontrol Guild) to move from his Deputy President position into that of President and

Following a number of reports from technical representatives, who represented IFATCA in numerous meetings around the world, the Committee discussed the work-studies carried out by the Technical and Operations Committee (TOC). As recognised throughout, these experts had once again outdone themselves in analysing a number of technical and procedural

issues affecting controllers now or in the near future. Subjects included Terrain and Obstacle Clearing Responsibilities; Terrain and Obstacle Charting; a study on Space-based Automatic Dependent Surveillance – Broadcast; Emergency Descent Procedures; a study on unmanned aircraft systems; a study on communication between ATS units; the Remote Towers concept; a study on Minimum Fuel procedures; and a review of the IFATCA Policy on TCAS. The committee further discussed the TOC work programme for 2014/2015. This includes a wide variety of items, including: flight planning accuracy and impacts on the ATM system; concept of Geohigh altitude to replace altimeter; aviation meteorology, future requirements and dissemination; impact of PBN initiatives on capacity; mandatory avoidance action for uncontrolled flights; blended airspace; weather deviations and terrain; resumption of separation following a TCAS RA; maintaining ATS during crisis events; SWIM technical and legal issues; and screen colours and display of information. The latter two will be done in cooperation with the PLC.

In addition, the chairman and composition of the Technical and Operations Committee (TOC) was voted upon.

Joined Committee B & C

As has been customary for a number of years, a joined session of committees B & C was held. Reasoning is that there are a number of issues that cross the boundaries of technical/operational and professional/legal. The joint meeting enables delegates to discuss all aspects of these items. The well-attended sessions lasted one and a half days, perhaps illustrative of the increasing complexity and overlaps of technical, professional and legal issues.

In addition to a number of reports from representatives, delegates reviewed and discussed IFATCA's policies on TCAS and TCAS RA downlink (see a separate article in this issue); service priority; and the subject of remote towers. The Directors of both Committees also agreed to update the IFATCA Manual to include definitions on different approaches to Safety, the so-called Safety-I and Safety-II approaches.

Committee C - Professional

The Committee was chaired by Mr Eric Risdon (Switzerland), who was assisted by Mrs Maša Jeraj (Slovenia) as Committee Secre-

tary and Mr Fernandez Lado Tejeira (Spain) as Vice-Chairman. Scott Shallies (Australia), IFATCA's Executive Vice President Professional completed the head table.

Following a number of reports from representatives, who represented IFATCA in numerous meetings around the world, the Committee discussed the work-studies carried out by the Professional & Legal Committee (PLC). The delegates were given an update on Just Culture; a clarification of sector manning principles; a working paper on ATCO performance was discussed.



→ Committee C Headtable

The Performance Targets in Air Traffic Management and ATCO Performance papers were linked in many ways but highlighted different aspects of this new trend in ATM.

They further discussed industrial relations under ILO conventions; sleep apnoea and obesity; and performance targets in ATM. ATCOs and Professionalism was debated in a way that shows that this subject can be controversial. It is not felt that we ATCOs need to be reminded of our professionalism. Perhaps a study on enhancing this to the outside world could be considered.

Other information papers of interest informed about the Eurocontrol/IFATCA prosecutor expert course, and staying in this line of thought, we had interesting information about the actions taken by the Italian Air Traffic Controllers' Association for the growth of the professional role of ATCOs, based on the legal point of view and carried through a cultural exchange with their national judiciary system. The EB will also task IFATCA's Global Safety Team to review the Manual and possibly add guidance material concerning Just Culture.

And as in the other committees, there was a vote on the chairman and member associations for the committee that will prepare the work studies for the next conference.

Panel, Workshop and Regional Meetings

On Thursday, the so-called IFATCA panel was held – see the separate article on the following pages. This was followed by a workshop on Total Balance Management. This technique can help alleviate stress and that can be taught relatively easily to allow it to be used by 'peers'.

On Friday, Member Associations then assembled per region for their informal regional meetings. They used this oppor-

tunity to discuss regional issues that MAS face. From these meetings, it remains clear that ATCOs around the world are under continued, and increasing pressures from their management, governments and other parties that appear to place costs and politics above common sense and, in some cases, safety.

Closing Plenary Session

On Friday afternoon, IFATCA PCX Alexis Brathwaite reconvened the plenary assembly of the Federation. This assembly formalised the decisions taken in the different committees, by accepting the reports of the Committee Chairmen.

The Directors formally accepted the four new Member Associations, while three members had to be considered for termination by Directors for not fulfilling their obligations to the Federation. The 2015 Annual Conference venue was confirmed to be Sofia, Bulgaria.

Immediate Past President Alexis Brathwaite was awarded the IFATCA Scroll of Honour, the highest award Federation can bestow on an individual. Darrell Meachum (outgoing EVP Finance) and Willem Zuidveld (Netherlands) were awarded the IFATCA Award of Merit for their outstanding service to the Fed-

eration. Jez Pigden (UK and outgoing PLC Chairman), Ignacio Baca (outgoing TOC Chairman) and Philip Marien (Editor and newly appointed web manager) received an Executive Board award.

In his closing statement, outgoing President and CEO Alexis Brathwaite stated the Federation was a strong and influential body in the international aviation

community. Together with other organisations and associations, it is excellently placed to continue to strive to improve professional, technical and legal conditions for Air Traffic Controllers worldwide.

In his closing remarks, newly appointed President & CEO Patrik Peters thanked the Member Associations and volunteers for their dedicated work for and

support of the Federation throughout the year and at this successful Conference. He thanked the Organising Committee and Spanish Member Association USCA for their outstanding organisation of a successful conference. ☺

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EVOLVING SAFETY MANAGEMENT

Prof Eric Hollnagel shared his vision at IFATCA Conference

Before the informal regional meetings on Friday, **Professor Erik Hollnagel** (University of Southern Denmark), gave a presentation entitled "Safety-I and Safety-II: The Past and Future of Safety Management". He made a convincing argument for learning from things that go well, in addition to the traditional way of looking at things that go wrong.

Building on the arguments he made during the panel discussion on Thursday (see the next pages), he explained how our analysis of accidents and incidents had changed over the years: from "Act of God" over "Technical Failure", "Human Factor", "Organizational Culture" to "Complex Systems". These all still point to a causality model: one or several points of failure conspiring to create an undesirable outcome.

The different models proposed over the years have supported this: whether linear (every effect has a cause) to composite (Swiss cheese model), they suggest that causes can be identified and fixed, thereby preventing re-occurrence. This is the basis of current-day accident and incident investigation, and of risk/safety management. Underlying is the idea that if people work as imagined, this results in success, i.e. acceptable outcome with no negative elements. Contrary, a non-compliance or error would lead to failure(s) and unacceptable outcomes. Working backwards, we can find and fix the behavior leading to the unacceptable outcome.

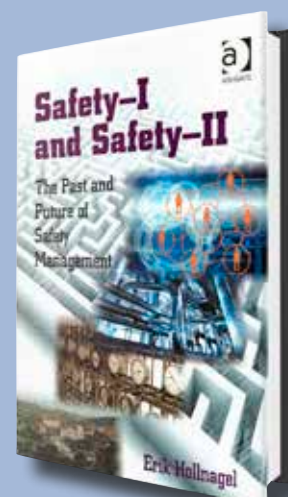
Instead of focusing on the extreme minority of cases where it goes wrong, it would be worth looking at why things go right. Safety-II is therefore looking at the ability to succeed (have a desirable outcome) under varying conditions. Compared to an adverse outcome, it uses a much broader dataset, i.e. the cases where the outcome is positive. Certainly in aviation, this is a phenomenal number of events compared to the negative outcomes.

Discovering that someone did not work as imagined is often identified as causal. But it's quite likely that they didn't work as imagined when the outcome was not negative. So why is the outcome different? People are exceptionally good at varying their behavior depending on the circumstances. If we accept that this performance variability mostly leads to acceptable outcomes, perhaps we should focus on why it creates such outcomes in most cases.



In order to understand why occasionally things go wrong, we need to understand why they go right in the vast majority of cases! Rather than asking 'Why something went wrong?', we should try and ask 'How do things go right?' In other words: something that goes right cannot go wrong at the same time. Yet we cannot make something go right simply by preventing it from going wrong.

More information on the subject can be found in the EU-ROCONTROL White Paper: From Safety-I to Safety-II and in Prof Hollnagel's new book. Clicking on the cover will take you to the website.



IFATCA PANEL 2014

HOW HUMANS INTERACT WITH TECHNOLOGY



by **Philippe Domogala, Deputy Editor & IFATCA Panel Moderator**



→ ICAO's Chris Dalton

The theme was provocative enough to generate considerable debate. The quality of the speakers we had invited and the subsequent discussion made it one of the best, if not the best IFATCA panel so far.

This was in no small part thanks to the distinguished speakers who had agreed to lend their time and expertise: one of the world authorities on human factors and safety, Prof. Eric Hollnagel of the University of South Denmark; the Director General of Eurocontrol, Mr Frank Brenner; an long-standing IFATCA friend Mr Chris Dalton from ICAO Air Navigation Bureau in Montreal; and the one that launched the idea for this year's theme, our own IFATCA safety expert, Tom Laursen.

So how do humans interact with technology?

If you ask that question to a 15-year old who's used technologies such as an iPad, iPhone and Google all his life, he will answer: "Extremely well, why do you ask?" All those new gadgets come with an intuitive logic, up to the point that large users manuals are no longer provided. Yet in ATC and in modern aircraft today, interaction between people and technology appears to be a genuine problem, as a number of recent accidents show.

Professor Eric Hollnagel started by saying that technology always comes from 'someone else'. Engineers design and build technology, and then someone in charge purchases it. But how do all those people think about how it's to be used? What do they know about the people that will use it?

It is very important that people designing the technology have an accurate understanding of the work itself and how the work is actually done. There is usually a big mismatch between what the designers think something will do and how it will do it, and the perception of the end users. The further the designer is removed from the users, the bigger the problems could be. He illustrated this by comparing "Work as Imagined" with "Work as Done" in real life

System design should be based on an understanding of the "Work as Done". If people see a difference between "imagined" and "done", then the conclusion is often that it was done wrong and it should be more like it was "imagined". But we only look at the cases where the differences are so big, that it goes really wrong. Then only those are investigated.

But in reality, if there is any difference between "imagined" and "done", then "imagined" is probably wrong. One should try to understand "done" and use that as a basis for regulations, procedures etc. Look at things that work and understand why they work rather than trying to understand why they fail!

Frank Brenner then presented EUROCONTROL's views. When the press looks at our transport system, humans are presented as a weak spot in the whole system. General public and press see technol-

ogy as the infallible component - it's the human that is often the weak link. But are people really part of the problem or part of the solution?

Does it make sense to focus on the things that go wrong (minority) but not when they go right (majority). People are unpredictable and therefore considered a hazard. Some will conclude that is better to design the people out of the system. Is this the right approach for the future?

Eurocontrol has invested significant efforts in looking into this traditional approach and believes it should change. Our old Safety-I approach does not explain why things go right. People are remarkably good at adjusting to changing conditions. Therefore we have to focus on the areas where things go right and where people work around to make things work.

Safety will need to be re-examined to ensure it meets the future needs. But it's a fundamental change!

Chief of the ICAO ATM Section in Montreal, Chris Dalton, said he does not have a lot of hope on the issue in ATM. We still seem to be making the same mistakes as 20 years ago. He said. Controllers are still told to forget the theory and use workarounds.

TCAS is such an example - very messy introduction. The CAAs did not have the expertise, and rules were made up after the introduction while users had to cope with it. ICAO is always a bit slow in introducing standards for technology. Things like cost and environmental impact are scrutinized but the human impact is generally not looked at. Controllers need to be on their toes, as regulations typically come more than three years after the introduction. When designing the 777, Boeing used the



expertise of pilots to help design the cockpit - including union pilots. It worked and the 777 is judged by all a very good and safe aircraft.

We don't tend to do this in ATM. Development of standards and procedures takes lots of time. So ICAO will be dependent on organisations like IFATCA and IFALPA for many years to come...

Last to speak was Tom Laursen, who spoke on behalf of IFATCA. He used an analogy of a blind man using a cane and said that he saw humans and technology like a system where ideally, there is no boundary between the human and the technology/artefact. It is difficult to tell where the blind man's brain starts and stops when using the cane to navigate. He said that today's way of building systems (SESAR is a good example) is driven much more by engineers than by the needs at the front line where safety and efficiency is created. To achieve a more efficient and safer system, IFATCA is of the opinion that there is a need for a change in balance between engineers and controllers when designing new systems.

Lastly, he said that we should change the way we train future controllers as well as consider developing a career path where controllers will be educated to handling

and building new systems based on technology/artefacts, and where engineers will be educated in the operations of the technology they build. We have seen too many new devices being introduced that do not work and we are involved too late in the process to be able to improve the situation.

During the discussion that followed, Philippe said that most of the problems have been known for 25 years. TCAS is one of those examples where a system is being 'live tested', poorly understood, and the crews are constantly 'blamed' for wrong reactions, rather than the system. He had a question for Professor Hollnagel: "Does he see parallels with other industries? Are our problems similar to others and how do they try to overcome them?"

Prof Hollnagel replied that indeed some industries have come across those problems earlier: the nuclear industry after the Three Mile Island incident for example. The solution was to completely automate everything so the operators could no longer make mistakes. We can automate a lot of things, but it needs to be done safely and 100% of the time. If you can control the entire environment, then 100% automation is possible. As soon as a system is not predictable, then complete automation is not possible. Manufacturers are not very modest about their claims: they oversell. That things work despite a flawed design in many cases is because people adapt to the shortcomings.

On a question on training, Tom replied that ideally controller Ab-Initio training should include how technology is developed; how Human Factors work is looked at, and use refresher training to enhance mutual understanding. Chris commented further in saying that

in ICAO, the multi-disciplinary groups are generally the most successful.

The future Eurocontrol Centralised Services will be technology based. How do they approach this? Frank replied: "SES has now a total budget of 3,6 Billion euro so the pressure to produce something is enormous. It should support industry and service providers, so it should be interesting to see what comes out. He invited IFATCA to carefully review these Centralised Services and to comment on them.

He also stressed that we all need to adjust to the new thinking of Safety-II. At the moment, in SESAR that link is not yet there and this needs to be done.

Prof Hollnagel added that Safety-II doesn't mean we have to stop looking at things that go wrong. Aviation has a fantastic safety record, certainly compared to hospitals... But why should we wait for accidents to change things?

A very interesting debate, that highlighted that in order to achieve better interaction between humans and machines, engineers and end-users need to develop things together. Controllers should be trained at an early stage to understand how systems work, instead of just operating them. Understanding the difference between how the work is planned (work as imagined) and actually done is the key to improving safety and reducing workload.

Safety-II is likely to help us get there. ➔

dp@the-controller.net



→ left to right:
Prof Hollnagel,
Frank Brenner,
Ph. Domogala,
Chris Dalton &
Tom Laursen



→ EUROCONTROL DG
Frank Brenner

Prof Hollnagel:
**"Why should we wait
for accidents to change
things?"**

EXCHANGING TECHNOLOGY

Helping Out Other Member Associations



by Philippe Domogala, Deputy Editor
and Conference Exective

During the IFATCA conference, three brand new laptops changed hands. As has become a bit of a tradition, the Danish Controller Association kindly donates 2 or 3 laptops during the conference to be handed over to less fortunate associations. Additional software, including Microsoft Office licenses, was kindly donated and installed by the UK Guild (GATCO). Three associations were chosen from the ones identified as benefitting most. Those three were Guinea Bissau, Pakistan and Zimbabwe.

Guinea Bissau was present during the conference and could start using their PC straight away. Zimbabwe and Pakistan were unfortunately unable to attend. Their

laptops were handed over to the IFATCA Executive Vice Presidents of their respective regions. EVP ASP and AFM will ensure the computers will reach these associations soon.

Since our conferences will be relying more and more on electronic documents, we'd like to launch the following idea: instead (or in addition) to donating 2 or 3 new laptops, we could create an exchange platform. People attending next year's conference and that have a serviceable but unused devices lying around could bring them to the conference. We're thinking laptops, but also wifi-capable smartphones. These could be pooled to benefit Member Associations that don't

have the financial means to purchase such devices...

If you have such a device, make sure to reset it to factory settings so that no personal data or files remain other than the operating system. The device also should have the mains adapter/charger (especially laptops) and other necessary cables. The IFATCA secretariat will collect and distribute the devices and keep track of who gets what.

Of course, associations that prefer donating new equipment such as laptops or tablets are still welcome to do so. ☺

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➔ Conference Executive Philippe Domogala presenting the laptops
Photo: BM

EXECUTIVE BOARD 2014



At the 2014 Annual Conference, Directors elected a number of new Executive Board members or elected sitting members to new positions.

From left to right:

John S. Carr saw his interim appointment as EVP Americas confirmed. He is a former president of the National Air Traffic Controllers Association (NATCA, USA). Prior to his retirement, he worked as an air traffic controller in both military and civil facilities.

Next is **Scott Shallies**, who moves from EVP Professional to the post of Deputy President. Scott currently works as a supervisor in Melbourne Centre (Australia). After serving on the IFATCA Professional and Legal Committee, he joined the IFATCA EB in 2008 as EVP Professional.

Mike O'Neil continues as EVP Asia Pacific, having been elected for a 2-year term at the 2013 Conference. He works as an Air Traffic Controller in Hong Kong.

Patrik Peters was elected as President and CEO (PCX) of the Federation. He has served on the Executive Board since 2006, when he was elected EVP Europe. After 2 terms, he became Deputy President in 2010 and now takes up the role of PCX. He is a German national working as a supervisor in the Eurocontrol Upper Area Control Centre in Maastricht, the Netherlands.

Keziah Ogutu (Kenya) was elected as EVP Africa & Middle East in 2013 for a 2-year term. She works as Chief ATM Officer in charge of Operations at Jomo Kenyatta International Airport in Kenya.

Duncan Auld (Australia) continues to serve as EVP Technical, having been elected for 2 years during the 2013 Conference. Duncan works as an Air Traffic Controller in Sydney, Australia.

Željko Oreški (Croatia) started his 3 term as EVP Europe following the elections at the 2014 Conference. He works as a radar controller in Zagreb ACC and is a former president of the Croatian Air Traffic Controllers' Association (CROATCA).

Eric Risdon succeeds Scott Shallies as EVP Professional. Until 2001, Eric worked as a controller in Canada. He then moved to Switzerland where he currently works as an en-route controller in the Geneva ACC. Having been involved in the Swiss association for a number of years, he served as their president between 2010 and 2012.

On the far right on the photo is Conference Executive **Philippe Domogala**. He acts as a liaison between the organising committee of the annual conferences and the Executive Board. He is an ex-officio (i.e. non-voting) member of the board, and was re-appointed for a two year term at this year's conference. Philippe is a French national who spent most of his career at the Eurocontrol UAC in Maastricht. ☺

AIR TRAFFIC
CONTROLLERS

THE HEART OF ATM SYSTEM



Annual Conference 2015
Sofia, Bulgaria

20 - 24 APRIL 2015



2014 IFATCA REGIONAL MEETINGS

ST LUCIA



Regional meetings are held in late autumn every year. They allow each region to focus on its own particular concerns. Each of the four region is responsible for organizing its own regional meeting.

Americas: the IFATCA Member Association from St Lucia will be hosting the regional meeting of the American MAs. The meeting is planned from 29th to 31st October 2014. More information can be obtained from the EVP Americas, Mr. John Carr

evpama@ifatca.org

LUSAKA, ZAMBIA



Africa & Middle East: the meeting will be organised by our Zambian colleagues in Lusaka, Zambia from 26th to 28th November 2014. More information is available from the EVP Africa & Middle East, Mrs. Keziah Ogutu.

evpafm@ifatca.org

BANGKOK, THAILAND



Asia & Pacific: as no MA came forward with an offer to host, the meeting will be organised by the EVP Asia/Pacific, Mr. Mike O'Neill in Bangkok, Thailand from 09th to 11th November 2014. More information via the EVP ASP.

evpasp@ifatca.org

ZADAR, CROATIA



Europe: The 31st IFATCA European Regional Meeting will be hosted by the Croatian Air Traffic Controllers' Union and Croatian Air Traffic Controllers' Association, near Zadar, Croatia, from the 10th to 12th October, 2014. For more info:

<http://www.erm2014.eu>

evpeur@ifatca.org

MIDDLE EAST RUNWAY SAFETY

Collaboration Leads to Marked Improvements



by Keziah Otogu, IFATCA EVP Africa & Middle East

The Middle East is emerging as one of the world's fastest growing regions of aviation growth. The ICAO MID region consists of 15 States with an incredible 71 international airports. Currently, only 39% of these 71 international airports are certified, implying that the remaining 61% are yet to obtain their certification. The ICAO Global Runway Safety Symposium, held in Montreal in May 2011, recommended that regions promote runway safety through Runway Safety Seminars. The Middle East States quickly acted on this and held the first MID Regional Runway Safety Seminar (RRSS/1) in Amman, Jordan in May 2012. Ever since, they have continued to forge ahead in ensuring runway safety.

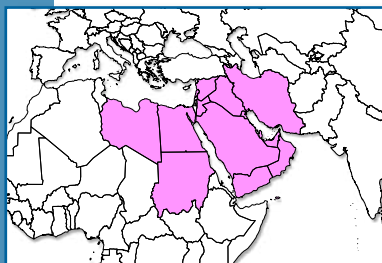
they've chosen is one of collaborative decision making, involving all the stakeholders; "Runway safety is every one's business" is the slogan that has paved the way to success.

At the beginning of June 2014, the UAE played host to the second RRSS (RRSS/2). The major players, including the General Civil Aviation Authority (GCAA); the Dubai Air Navigation Services (DANS); main airline operators like Emirates, Etihad, Fly Dubai and Air Arabia; aerodromes service providers like Dubai Airports Company, Abu Dhabi Airports, Sharjah international Airport and other stakeholders met to discuss progress and identify areas for improvement.

The MID Region States build on best practices from across the world. They assist each other to first standardize their regulatory documentation, which contributes to improving active oversight. They develop National Safety Plans that are provided to all stakeholders within any given State. They don't hesitate to introduce new technologies to improve safety: Dubai Airports are in the process of acquiring a new Foreign Objects and Debris (FOD) detection system to be installed at Dubai International Airport. This system is expected to reduce the number of active physical inspections to almost nil. It is expected to improve detection, irrespective of the size or material, to more than 98%, while providing a precise location (within one meter).

ICAO and IATA data confirms the region's significant decline in runway safety related incidents. It is testimony to the determination of all those involved in the region to tackle the main issues identified by the Runway Safety teams! ✈

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→ ICAO's MID Region

At the RRSS/1, the States developed strategies to reduce runway safety related incidents by 50% by the year 2017. They further planned to

have 50% aerodrome certification by the year 2015, and 75% by 2017. The establishment of the Regional Aviation Safety Group (RASG) and a number of Runway Safety Teams (RST) in the last two years has greatly contributed towards achieving this goal. In fact, when the region started off two years ago, it had some of the highest number of runway related incidents in the world. Today, it can boast a reduction matching global levels and is relatively safer.

Some of the initiatives that have led to this great achievement include reducing unstable approaches, improving aerodrome operations, curbing bird strikes and wildlife hazards, and encouraging air traffic controllers to report. The approach

Encouraging controllers to report all incidents has been increasingly effective over the years: while in 2005, 'only' 499 incidents were reported by ATC, this increased dramatically by 2010 to 2273 incidents. The trend continued and by last year (2013), there were 3140 reports from ATC. It has become second nature amongst controllers to report and this has shown that the number of runway related accidents fell sharply from 2010, and it's continued to steadily reduce.



→ Dubai Airport in UAE
© Nadezhda1906 | Dreamstime.com

FINDING A SCAPEGOAT

Kazakh ATCO Caught in Blame Game



by Philip Marien, Editor

On 25 December 2012, an Antonov An-72 transport plane crashed some 20 km from Shymkent Airport (CIT), Kazakhstan. Twenty seven occupants (twenty passengers and seven crew members) were killed.

The airplane was operated by the Kazakhstan Border Guards. Among those killed was the acting director of the National Security Committee's Border Guard Service, Colonel Turganbek Stambekov. With him were a number of senior ranking officers, including 6 colonels and 9 lieutenant colonels.

The airplane took off from Astana Airport late in the afternoon heading towards Shymkent Airport in the south. Later investigations revealed that though the aircraft had been checked less than 2 months earlier, it had not flown for 23 days prior to this flight. It had been left outside, exposed to the elements, including temperatures below -40°C.

Shortly after take-off, the autopilot failed and the crew decided to fly the plane manually – the captain actually left the controls to his F/O, which is normally not allowed for this type of flight... Less than three minutes after departing, the radio altimeter also failed. Throughout the rest of the flight, the barometric altimeters acted

up as well: at one point, these showed an altitude drop from 696 to -1375 metres; an upward spike was also recorded from 749 m to 2672m some minutes later.

To make matters worse, the flight encountered poor weather with heavy snowfall, icing and limited visibility. During the approach to Shymkent, the crew failed to switch the reference pressure for the barometric altimeters from the standard setting to the local barometric pressure. The altitude indication was therefore off by about 385 metres. The airplane struck the slope of a ravine, 21 km short of the runway, and broke up.

Two investigations into the accident were carried out: the first one by the Ministry of Defence and a second one involving international aviation experts. Both investigations did not find ATC as a contributing factor to the tragedy.

The Military Prosecutor's office however conducted a third investigation and came to the conclusion that the controller on duty contributed to this tragic accident. Their investigation highlighted two elements that they classified as criminal offense: the height instructions and the MSAW (Minimum Safe Altitude Warning).

The prosecutor's office argued that the controller had kept the aircraft too high, while he was checking whether it could land in the blizzard developing at the destination airport. At no point was the controller aware of any of the malfunctions on board the aircraft and he could therefore not possibly take these into account.

The prosecutor also argued that the controller did not react to the MSAW alert on his screen: the investigation shows that this was triggered 4 seconds (!) before the aircraft impacted terrain.

Based on the case brought against him, the controller on duty at the time of the accident was sentenced to 6 years in a labour camp in May 2014. In addition, after release, he would not be allowed to work as a controller for three years. The Kazakh Air Navigation Agency, employer of the controller, has indicated that they will appeal the sentence as they believe key evidence in the case was not taken into account by the court.

The Military Prosecutor's office [...] came to the conclusion that the controller on duty was a contributing factor to this tragic accident.

IFATCA has expressed its disbelief at the arguments used to hold a controller, who followed both international and local procedures, responsible for this event. It potentially jeopardizes the safety of the travelling public in the Republic of Kazakhstan as internationally accepted work practices and rules for controllers can be classed as criminal behaviour.

IFATCA has offered its assistance to the Kazakh authorities in order to ensure the correct lessons are learned from this tragedy, rather than that it is closed with finding a suitable scapegoat in the controller.✈

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The following article was compiled from sources:

<http://rupaper.com/post/26053> / <http://aviation-safety.net/database/record.php?id=20121225-1> / http://caan.asia/en/print_new-flight-control-officer-who-was-sentenced-to-six-years%E2%80%99-imprisonment-to-appeal-against-sentence.html / http://en.wikipedia.org/wiki/2012_Kazakhstan_Antonov_An-72_crash



→ The Kazakhstan Air Force Antonov An-72 involved in the accident
Photo: Russavia via wikipedia



AIRBORNE CONFLICT SAFETY FORUM

A well-established event



by **Nathalie Bossiroy, EUROCONTROL Network Management External Communications**

The Airborne Conflict Safety Forum, initiated by the Flight Safety Foundation (FSF), the European Regions Airline Association (ERAA) and EUROCONTROL took place on the 10th and 11th of June 2014 in EUROCONTROL Headquarters in Brussels. The event was held in partnership with ICAO, IFATCA, UK CAA, UK NATS, IATA, ECA and DGAC (France).

For its second edition, the Safety Forum targeted operational and safety professionals with the intention to focus on airborne conflict safety aspects. The final aim of the gathering was to collate an event report and supporting awareness material.

The Forum held in-depth discussions on a variety of subjects, including level bust risk; barometric or geometric altitude measurement; ATC system functionality and the management of airborne conflict; aircraft performance and airborne conflict; airspace design, utilisation, airspace infringement and airborne conflict; pilot – Controller interaction; weather avoidance; pilot self- and cross- monitoring issues; risks from operations without a functioning transponder; human performance;

ATC coordination; and the role of TCAS as a final safety barrier.

Keynote speaker Jon Beatty, President and CEO of the Flight Safety Foundation, opened the Forum and said "there is no nobler cause than safety" and "job of safety is never done".

In his keynote speech, Joe Sultana, Director Network Manager, highlighted "safety is the key rationale. We have no bigger interest but to make the network safe. We bring acknowledged experts in the field to identify the risks with the objective to produce findings and conclusions. It is our task to support our partners and find solutions together".

Simon McNamara, Director General ERA took the opportunity of the Forum to compare road safety in Europe to the safety record of aviation: "Last year in the European community, 12.000 road deaths were recorded. Whereas in aviation, there were none. If there would be a comparable number of deaths, this would mean the loss of two Airbus aircraft every week. No-one would get on an airplane". He

→ Nathalie flanked by IFATCA's Paul Neering and Željko Oreški

continued: "We should be proud of our safety level though there is no space for complacency. Having 300 participants at the Forum shows this event has become an established safety event".

Joseph Teixeira, Vice President for Safety & Technical Training at the Federal Aviation Administration (FAA) commented: "The Safety Forum addresses a problem that is well-known worldwide and to come over and see who is doing what and maybe take a few things from here and do them ourselves makes it an important event".

"This conference is the best forum where you get 300 aviation experts together, freely exchanging best practices, knowledge, what is going on in all kinds of



→ Nearly 300 attendees from around the world participated.

HELPING TO PREVENT MID-AIR COLLISIONS

IFATCA's Christoph Gilgen's Presentation to the Forum

IFATCA and its member associations were represented by Željko Oreski (EVP Europe) and Paul Neering (Liaison Officer EU), as well as by a number of representatives from different European MAs.

Christoph Gilgen (IFATCA/Switzerland) was invited as a speaker and presented *"Practical hints of how to reduce the risk of airborne conflicts – helping to prevent mid-air collisions"* in the Airspace built-in safety session. Some of the points he made included that Europe's airspace classification is adapted to a number of factors, but often the overriding consideration is one of cost: to provide full ATS-service (including separation service) is expensive. Since

areas", said Mike Edwards, former Head of Safety Investigation NATS.

When one of the speakers said that airborne conflict appears to be a relatively small issue, Rudy Pont – Flight Safety Officer at Thomas Cook Airlines Belgium and captain on A320 – commented that obviously it's not: it's unlikely that it results in low severity event. This makes it worthwhile to have a conference on the subject. He further stressed that "joined training with pilots and people from ATC is vitally important!"

During a number of break-out sessions, the Forum outlined a number of findings. These were summarised in a series of 37 findings to respond to 13 safety improvement strategies. They'll be compiled in a document, which is currently being finalised to help structure the response to the findings into conclusions.

These conclusions will be grouped according to their predominant relevance for a particular audience and addressed to general industry, to aircraft operators, ANSPs, aircraft manufacturers and regulatory authorities.

The final forum report will be published on SKYbrary beginning of July. Keep an eye on www.skybrary.aero ☺

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in some airspaces (e.g. class E) not all traffic is known to ATC, it is vital that pilots are not only aware of the rules applicable to the airspace class they are flying in: this also means they should look-out for conflicting traffic and attempt to follow the frequency as best as they can, the so-called party line. Awareness of both IFR and VFR pilots is often lacking: IFR pilots are often surprised by and not prepared for unexpected conflicting traffic; VFR pilots believe that by simply talking to ATC, they can fly without conflicting traffic.

VFR pilots need to know that operating too close to IFR traffic may trigger an RA, which implies ATC is briefly no longer in charge of this aircraft. In some places, this has even lead to the requirement to deactivate transponders (e.g. in a CTR) to avoid too many nuisance alerts. It's clear that deactivating a safety net is not a good idea: both ground based Short Term Conflict Alerts (STCA) and TCAS



cannot detect conflicts and/or issue alerts when the transponder is off (or on stand-by).

So it is recommended for ANSPs to eliminate TCAS hot-spots. Another thing to do is re-organize their VFR-routes, especially the ones close to the IFR flows. Intercept tracks/headings for VFR-flights in CTRs/TMAs should be deconflicted just like the position of the VFR-circuits (e.g. distance to the runways – distance to IFR-traffic)

As both ground and airborne safety nets are independent, it is possible they both trigger a warning at the same time. This means the ATCO may issue a clearance that conflicts with the TCAS resolution advisory (RA). It is vital that pilots refuse such a clearance, using the phrase 'UNABLE TCAS RA'.

Air traffic controllers on the other hand should issue clear and unambiguous instructions, in particular to VFR-flights, and avoid resorting to implicit clearances. They should also refrain from issuing local clearances and using non-official points or procedures, in particular for visiting aircraft. They shouldn't remain passive, just issuing traffic information: time and work-load permitting, try to achieve spacing/separation, even if the airspace rules allow that "legal VFR-IFR encounters" take place. ☺

→ Christoph Gilgen addressing the forum on behalf on IFATCA



CONTINUOUS DESCENT OPERATIONS

COLLABORATION IN ACTION



by Dirk De Winter, A-320 Captain,
EUROCONTROL Airport Unit

Efficiency is often the key phrase when talking about the performance of the European ATM network. Many studies and projects such as the Free Route Airspace are maturing and have already today increased the efficiency of the lateral trajectory. The efficiency of the vertical trajectory however hasn't improved at the same pace. The only techniques to increase vertical efficiency are continuous climb (CCO) and descent (CDO) operations.

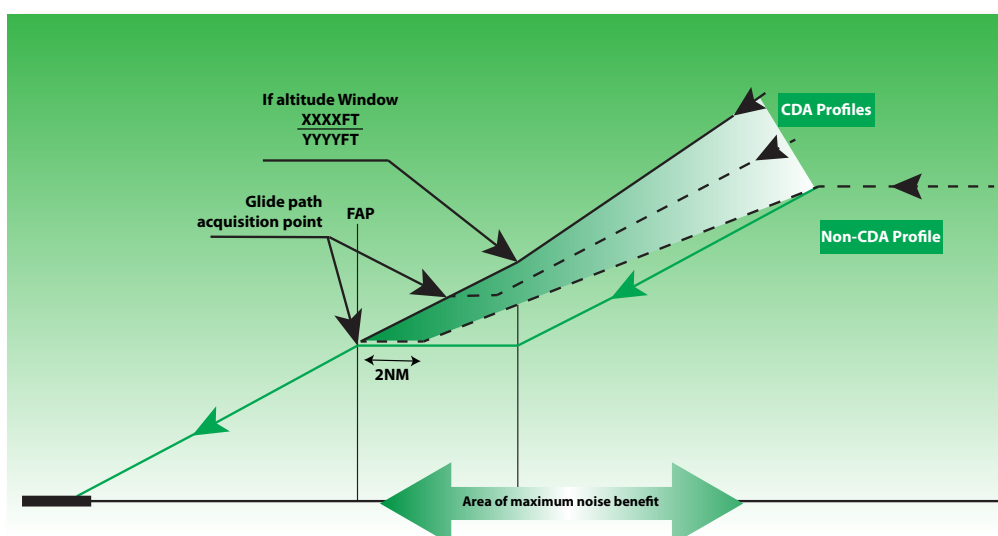
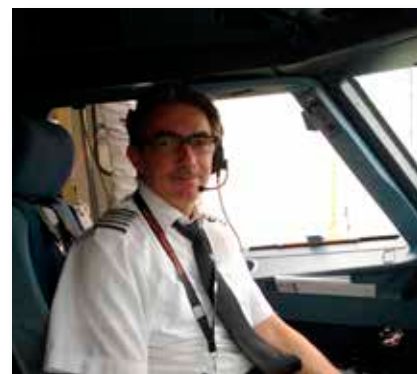
These are 'natural' flight techniques enabled by airspace and procedure design and facilitated by ATC.

Various trials and demonstration flights have been conducted proving the clear economical (fuel) and environmental benefits (reduction of emissions and noise).

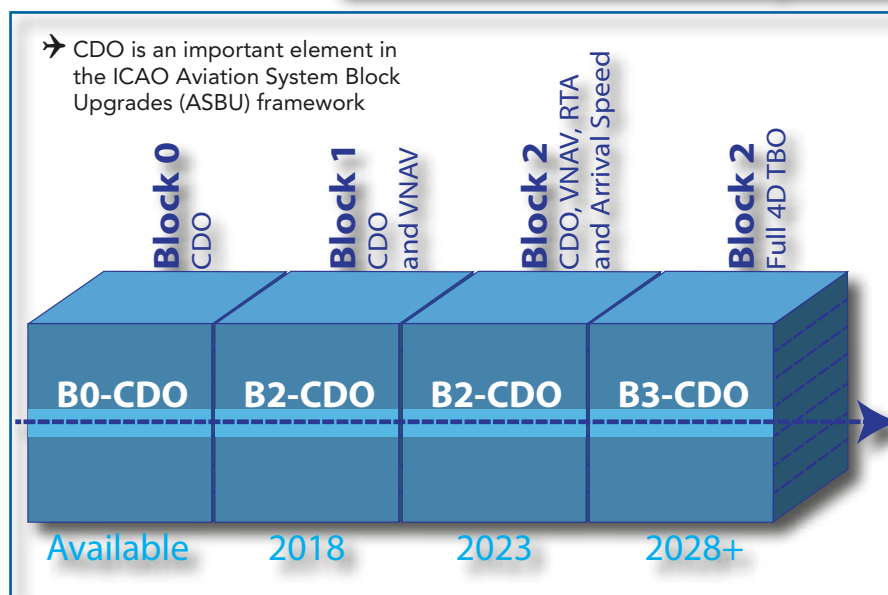
CDO technique is an active objective (ENV01) of the European Single Sky Implemen-

tation (ESSIP) Plan. Implementation of this plan will enable the achievement of the performance targets agreed within the European performance scheme framework in line with the European ATM Master Plan.

This ENV01 objective is still active as it was not achieved by more than 80% of the stakeholders. Monitoring of the implementation will continue throughout 2014.

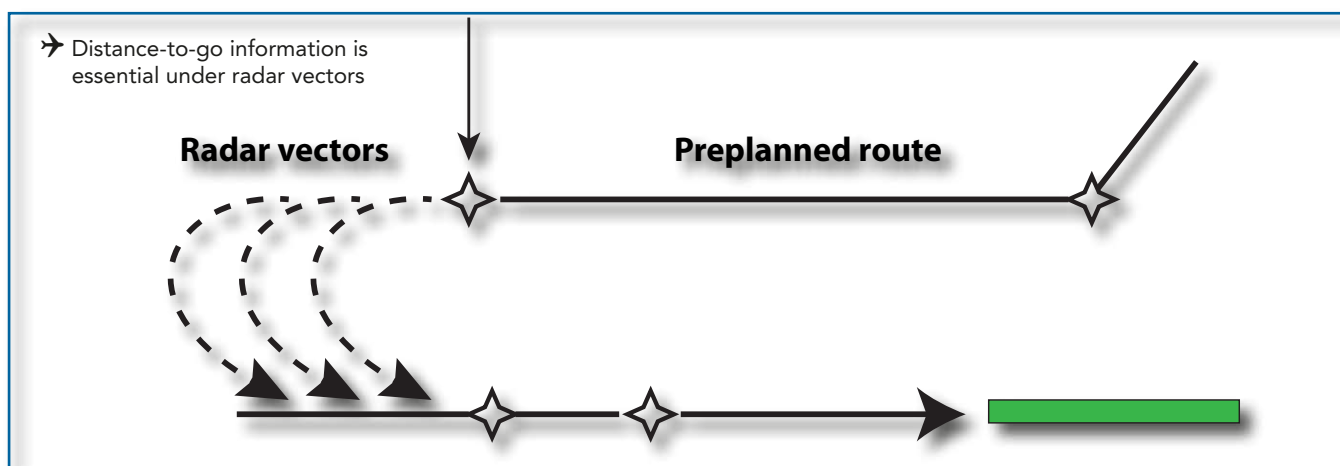


→ CDO is an important element in the ICAO Aviation System Block Upgrades (ASBU) framework



A study conducted by the EUROCONTROL Airport Unit revealed that of the 200 busiest airports of the 2013 summer season of the ECAC zone only 55 had published CDO procedures. Dedicated CDO arrivals are only published for 27 airports and are mostly available at night or traffic permitting. 28 airports are offering CDO on a tactical basis by radar vectoring combined with distance-to-go (DTG) information.

ICAO also recognises the importance of CDO in the Aviation System Block Upgrades (ASBU) framework. The CDO module is part of the Efficient Flight path Performance Improvement Area (PIA). The required technologies for Block 0



are available today and have been implemented by some States. The modules assigned to Block 1 through Block 4 represent emerging operational improvements as technology and implementation advances and therefore increasing the performance.

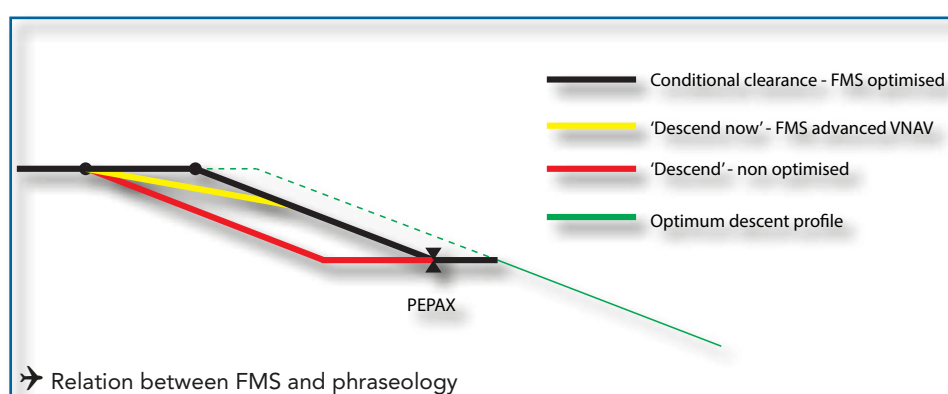
Should we sit back and relax and wait for technology to mature and deliver the performance? The answer is clearly no. Good collaboration between controller and pilot already delivers enhanced vertical efficiency. Some examples of best practices: Traffic permitting make use of the [WHEN READY DESCEND TO (level)] phraseology. This will allow the flight crew to start the descent at the optimum position often calculated by the flight management system (FMS). If you have an altitude restriction at a specific position (handover point to next sector) adding the [TO REACH (level) AT (significant point)] phraseology will allow the flight crew to use the FMS VNAV functionality and stretch the descent avoiding inefficient level flight at an intermediate altitude.

Bear in mind that handing over a flight to the next sector takes time. Allow sufficient time (e.g. 2000 ft before the restriction) for the flight crew to make the read back, check in on the next frequency and hopefully receive a lower altitude restriction avoiding level flight during the coordination process.

In the arrival phase during low traffic situations you might consider cancelling any altitude or speed restric-

tions by using [DESCEND TO (level) LEVEL RESTRICTIONS (STAR designator) AT (point) CANCELLED] or [NO ATC SPEED RESTRICTIONS] phraseology. The sooner this is communicated to the flight crew the

The approach controller providing this service has 'the bigger picture' of the traffic situation and should provide the flight crew (who have no idea of the controller's intentions) with the distance from touch-



sooner they can remove the restrictions in the FMS and an amended and optimised decent profile can be calculated.

Note that giving direct routings is efficient for Continuous Climb Operations (CCO) because of fewer track miles. In CDO this is not always efficient as it might bring the aircraft above its optimal profile and forces the flight crew to use the speed brakes.

Most airports have published arrivals (STARS) connecting with the ILS approach. However the final interception is mostly done by tactical radar vectoring.

down. This vital information will enable the flight crew to adjust their vertical profile and minimise level flight before the final approach descent. In combination with the low drag/low thrust technique this will result in the most efficient vertical approach profile.

So don't wait for technology, join the 'optimisation' culture and collaborate...⊕

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RE-OPENING KOSOVO'S

HungaroControl Remotely Controls Airspace 600 km Away



by Viktor Koren, Eurocontrol Guild (EGATS)

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.

We were impressed by all of the neighbouring nations and ANSPs, who very constructively contributed 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 need to improvise much 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 simply 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



AIRSPACE

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 euro, approximately 24,000 tons less fuel burned and CO2 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 aera control 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 longitudinal 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 what is still a unique "remote" sector, controlling air traffic over another country's airspace and we're all proud to be part of that!☺

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TCAS RA DOWNLINK

IFATCA's Opposition Explained



by Ignacio Baca, IFATCA Technical and Operations Committee member

IFATCA policies are often self-explanatory but there are exceptions. One of the most prominent relates to the downlink of TCAS RAs to the Controller Working Position (CWP). Quite often, a colleague would remark that it would be nice to see a warning on the screen when TCAS triggers, as in some cases, pilots fail to report a TCAS resolution or the report comes too late. I reply that technically, this is feasible and that it has been tested and even been implemented in some countries but that there are serious concerns about it. When I tell them that IFATCA is currently opposed to it, they react with disbelief...

The IFATCA Technical and Professional Manual is very clear: IFATCA is opposed to downlinking of any advisories generated by ACAS. If downlinking of ACAS Resolution Advisories becomes mandated, then IFATCA can only accept this provided that the following criteria are met: Clear and unambiguous controller legal responsibilities; Downlink should be without delay; ATC systems to be able to receive, process and display the down link to the appropriate control positions; compatibil-

ity with all ground based safety nets; nuisance and false alerts must be kept to an absolute minimum; and ACAS should only be considered as a 'safety net'.

Some of the provisions of this policy seem rather easy to understand. It seems completely logical, for example, to ask for a downlink with little or no delay at all. It's a simple enough statement, even if it may technically be a bit more challenging. But the rigid opposition to the system is unusually strong and requires some background.

The idea behind the TCAS RA downlink is to improve the situational awareness of controllers. It is evident that a controller not aware of an aircraft following a TCAS RA might issue clearances to the aircraft involved that interfere, or worse, contradict the TCAS RA. This potentially creates confusion on the flight deck during an already stressful and complicated manoeuvre. It has even lead to a number of serious incidents. Currently, the only way controllers become aware of a TCAS RA is through a pilot report via R/T.

launched in 2003. As part of this, two experiments were carried out in 2003 and 2006. As a continuation, the downlinking of TCAS RA to the controller working position is included in the SESAR projects 4.8.3 and 15.4.3.

According to the experiments performed under FARADS, the RA downlink is technically feasible. What's more, it tends to improve the latency, which is the delay with which a controller becomes aware of an RA. They found that on average, it takes a pilot some 30 seconds to warn the controller via the frequency, while a report downlinked via Mode-S is displayed to the controller within around 9 seconds in 95% of the cases according to the FARADS

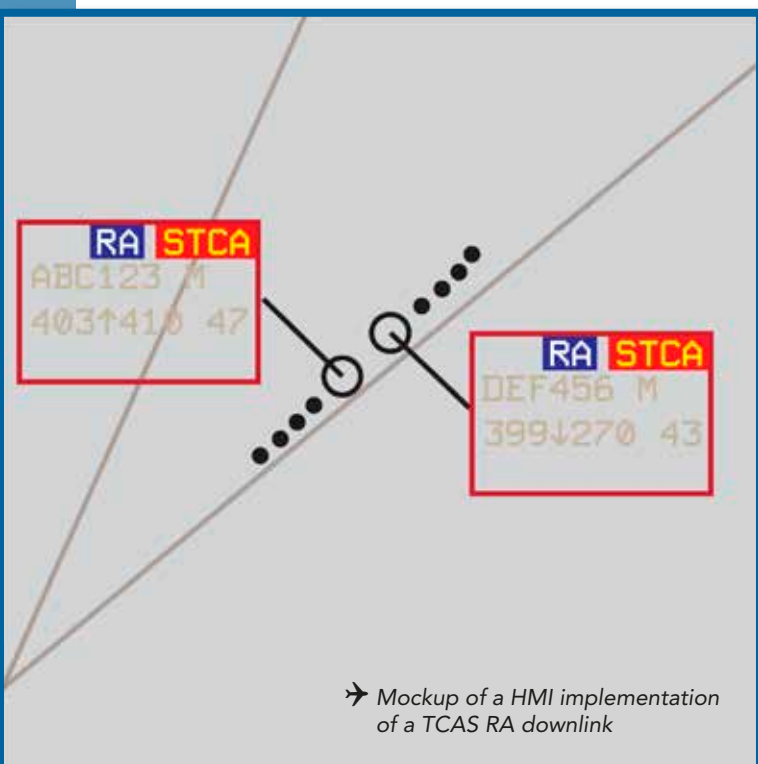
IFATCA is opposed to downlinking of any advisories generated by ACAS

trials. German studies have shown that 95% of all monitored TCAS RAs above FL100 are received within 4 seconds while 72% of all the cases are received within 2 seconds.

So the concept looks promising but the implementation has been judged to be too challenging as the current technology does not offer the stability and performance expected of such a system. More importantly, it would also require ICAO SARPS changes. A key point for example, is that at the moment a TCAS RA indication is received, the controller should cease to be responsible for separation of the aircraft pair involved. Eurocontrol stated:

The RA Downlink Safety Assessment concluded that the existing ICAO procedures are inconsistent and should be reviewed. The issue of unclear controller responsibilities before and -even more- after the potential implementation of RA Downlink was also discussed (...) Current ICAO procedures do not contain provision for op-

Triggered by a recommendation from the Ueberlingen investigation, Eurocontrol proposed the downlinking as a way to reduce the probability of the controller interfering with a TCAS RA. The operational concept put forward by Eurocontrol gave the same weight to a TCAS RA displayed on the controller working position as one reported by a crew via the frequency: from the moment a TCAS RA is displayed on the screen, ATCOs must not transmit any clearances to any of the flights involved. The system has been prototyped, as part of the FARADS project,



→ Mockup of a HMI implementation of a TCAS RA downlink



erational use of RA downlink.

Monitoring in the European core area has shown that up to 95% of all received TCAS-RAs were “ghosts” or empty TCAS RA messages. They are triggered without a real threat and are caused by self-tracking, garbling, transponder malfunction, etc. ATC systems would be expected to implement filters for such false warnings, but they nevertheless have to be considered in any safety assessment: if the filtering is flawed or too lenient, the controller may not be aware of the on-going RA or refrain from issuing instructions in the belief an RA is actually triggered.

A number of service providers are in the mean time showing TCAS RAs on controller working positions “for information only”. No clear procedures exist as what to do on receipt of these RAs indications. Others have withdrawn it after an initial implementation because of the legal pitfalls such a system creates... The UK Civil Aviation Authority explicitly states: “RA downlink data shall not be displayed to controllers on the surveillance display”. Among their reasoning for this statement we find that all RAs are downlinked without distinction between their type and nature, not just those that are required to be announced by the pilot. According to ICAO procedures RAs, which do not require a deviation from current ATC instructions or clearances (Maintain Vertical

Speed for example) are not announced by the pilot. In addition, a downlinked RA without adequate discrimination may lead the ATCO to inappropriately cease the provision of ATC instructions. They also find that there is no assurance as to the integrity of the RA downlink and absent or false downlink data could be a possibility; and that there are no procedures or legal responsibilities for the use of RA downlink.

TCAS was designed as the very final, last resort safety net. While the risk of a controller’s instruction interfering with an RA is a very real one, so is the risk of creating additional dependencies for such a system. Pilots are already supposed to refuse an ATC clearance opposite to a TCAS RA – there’s even phraseology for it: UNABLE DUE TO TCAS – but monitoring has shown that air crews only followed displayed TCAS RAs correctly in about 50% of all cases.

Displaying an alert to a controller is no guarantee that he or she will not blurt out an instruction... Robust TCAS training for pilots remains a absolute necessity to ensure notification to ATC of the RA manoeuvre as soon as practical and to refuse any ATC clearances contrary to the RA. This would achieve the same as what RA Downlink is aiming at, without introducing

new system risks.

In addition, a more promising enhancement is currently certified on the Airbus 380. Its TCAS is connected to the Flight Director and thereby the Autopilot: this allows the aircraft to automatically and correctly execute any RA faster and more reliably than the pilots can. Despite some initial fears, pilots that have experienced the system are very positive about it. It practically guarantees that TCAS RAs are correctly followed while at the same time, it reduces the stress levels for crew. It also gives them much more time to visually acquire the intruder, and even to warn ATC in a more timely manner.

With all the above in mind, IFATCA urged the last ICAO ANC (Air Navigation Conference) in 2012 to complete a comprehensive study and analysis on the impact of ACAS RAs on controller work positions, specifically human factors studies and the consequences to operational efficiency and safety including those unrelated to the aircraft involved in the RA. In addition, they requested that the responsibilities and requirements associated with communicating and correctly reacting to ACAS RA events is emphasised during pilot training. And lastly that a complete comprehensive study and analysis is made on the benefits that automated execution of ACAS RA manoeuvres provides to operational efficiency and safety.

This policy is a good few years old and the Technical and Operations Committee (TOC) revisited the subject last year together with our Professional and Legal Committee (PLC). They presented their findings to the delegates of the 2014 Annual Conference of IFATCA. All considering, TOC and PLC considered that there was no reason to change the policy in the Technical and Professional Manual and conference delegates adopted this recommendation. ☺

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NATCA's COMMUNICATING FOR SAFETY

Largest, Most Diverse CFS In Its History



by Sarah Dunn, NATCA Senior Communications and Public Affairs Associate

This year's Communicating For Safety (CFS) was the best one yet for the National Air Traffic Controllers Association (NATCA). What once started as a small conference with 40 attendees in 1999 has turned into the leading safety conference in the U.S. aviation industry.

This year NATCA saw an attendance of over 1,400, with the most diverse panels, speakers, sponsors and exhibitors the conference has ever seen. NATCA President Paul Rinaldi proudly opened the largest CFS with a celebration of the first 100 years of commercial aviation, calling it the "cornerstone of the world's economy." He challenged attendees to strive even further, saying, "We need to make the next 100 years better than the last 100 years."

The first commercial flight, on January 1, 1914, flew 21 miles in 23 minutes between St. Petersburg, Fla., and Tampa, and carried one passenger. The National Airspace System handled 77,000 passengers in 1963, will handle 743 million in 2014, and 1.5 billion passengers by 2034. Additionally, aviation now contributes \$3 trillion and 53 million jobs worldwide.

"Where we have come, from that one flight in 1914 to today, is truly remarkable," said Rinaldi to a crowd including government officials, commercial and general aviation pilots and leaders of the U.S. and the international aviation industry, including IFATCA President and CEO, Patrik Peters. Peters gave the keynote address to open the last day of the conference.

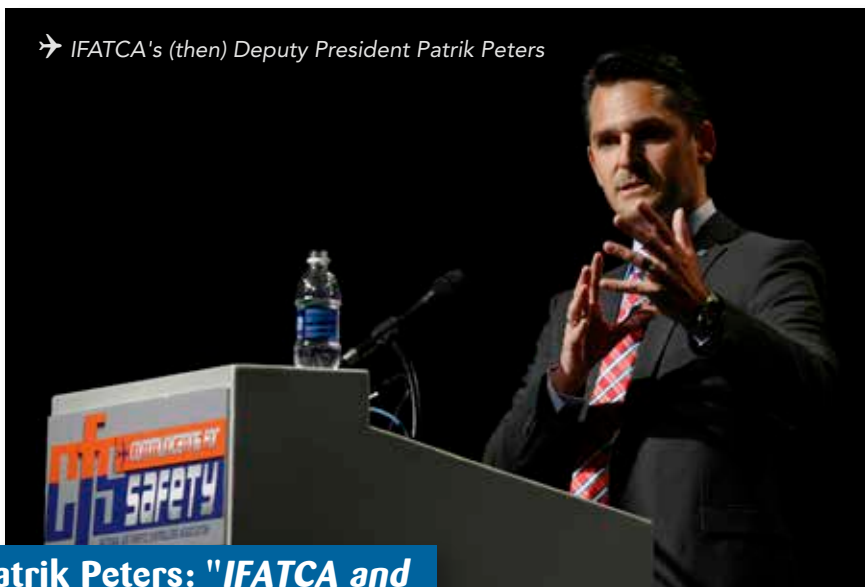
"Thank you for having me here. It means a tremendous lot to us as IFATCA to be represented at this forum," said Peters. "It's time now to sit together with our organizations, on a global level, and exchange what is perceived as on-the-ground infrastructure and operational concepts; best practices...Let's learn from one another, and not be shy to adopt the proven best functioning systems, like the miles-in-trail technique you use here in the states."

He continued, discussing how IFATCA and NATCA have a responsibility to share their knowledge, as leaders in the global aviation community.



→ NATCA President Paul Rinaldi

→ IFATCA's (then) Deputy President Patrik Peters



Patrik Peters: "IFATCA and NATCA have a responsibility to share their knowledge, as leaders in the global aviation community."

"We need to feed each other's ideas, and combine our professionalism and ideas... we need to share knowledge and experience and our special status with those not so fortunate associations around the world...thank you NATCA for allowing me to address you. It is a real privilege."

This year at CFS, the panels covered an array of aviation safety-related topics, including NextGen initiatives, pilot/controller communications, international labor/management leadership, U.S. aviation industry leadership, general aviation and weather, expanding the use of safety data and unmanned aerial system operations in the National Airspace System (NAS). There was also a presentation on professional standards and related programs, including the rollout of, "Fully Charged," a new program created to raise awareness and promote education about fatigue and its affects on the workforce. The professional standards presentation also included an update on "Turn Off, Tune In," the anti-distractions in the workplace campaign that NATCA and the Federal Aviation Administration (FAA) rolled out at last year's CFS. Since the rollout, NATCA has shared the campaign information with several international air traffic partners, including Australia. CFS this year also welcomed presentations by FAA Deputy Administrator Michael Whitaker, and professional risk management speaker Gordon Graham.

CFS this year also included a new "Build Your Own Agenda" portion during the afternoon session of the last day, allowing people to choose from various "tracks" of short presentations to attend throughout the afternoon. Topics included air traffic control training, converging runway operations, professional standards, electronic flight strips, remote towers, data communications and more. The conference also debuted interactive Twitter walls, displayed behind the main conference stage and throughout the exhibitor areas.

Both features greatly enhanced the experience and engagement of conference attendees.

The conference closed with NATCA's annual Archie League Medal of Safety Awards banquet. Named after the first air traffic controller, Archie League, the awards honor air traffic controllers who, in the previous year, performed "above and beyond" under extraordinary circumstances. Although these remarkable individuals would say they were "just doing their job," NATCA acknowledges their proficiency, competence and heroism with the prestigious Archie League Awards presented the final night of CFS.

The banquet this year was a very memorable one, with nine life-saving flight assists from throughout the United States honored. The pilots involved in three different events attended the banquet and gave speeches thanking the controllers for their life-saving actions.⊕

For more on CFS and the Archie League Medal of Safety Awards, including videos of some of the speeches, please visit the event's website at www.natcacfs.com

→ Archie League Medal of Safety Awards awaiting their recipients



LANDLOCKED LIGHTHOUSES

HOW LIGHT BEACONS GUIDED EARLY MAIL FLIGHTS



by Philip Marien, Editor



From east to west, right across the United States of America, a network of mysterious concrete arrows is scattered across the landscape. Some are easy to spot, often near main roads and highways. Others are in remote locations, with seemingly little or no discernable other features around. Sometimes, a small shack and/or a metal tower – or what is left of one – is right beside the arrow.

The shape and the direction of the arrows vary, but it is clear they were all part of the same network. Before the days of radio navigation and radar, it was these arrows, and the light beacons on the towers beside them, that guided aircraft across America.



→ With the beacons long gone, the concrete arrows are often all that remains
Photo: core77.com

During the mid-19th century, the western side of North America remained largely unexplored. There was practically no infrastructure or population for that matter. Consequently, there was no pressing need to send messages back and forth to other parts of the country. That all changed in

January 1848 when gold was discovered by James W. Marshall at Sutter's Mill in Coloma, California. The "Wild West" became the destination for tens of thousands of people seeking fortune, either in search of gold or in support of those that wanted to become rich quickly. The trip across the country was arduous, dangerous, and could take anywhere from three to six weeks.

With the mass expansion in population came the need to communicate to those that had stayed behind. Initially, this need was fulfilled by ever more efficient horse-rely: the 1860's Pony Express is by far the best-known example. Using a network of 120 riders, 184 stations and 400 horses,

they used a more northern route than competitors. As such, they could get a letter from the east to west coast, or vice-versa in about 10 days.

With the advent of the telegraph a few years later, short urgent messages could be sent back and forth in near real-time. Until that time, competition to offer the fastest service over land

had been fierce. Over the next decades, the reliability of mail delivery improved – but not its speed. It was not until the invention of the airplane that intercontinental mail delivery witnessed its next major breakthrough.

The potential of using aircraft to deliver mail was quickly realized: as early as 1911, a mere 8 years after the first powered flight by the Wright Brothers, a Fred Wiseman conducted an unofficial airmail flight carrying three letters from Petaluma to Santa Rosa, California, across a whole 25km. Within months, a first official mail flight dropped(!) a mailbag containing 640 letters and 1,280 postcards from a Blériot IX in Mineola, New York after covering a whole 5 km! While the bag split open, leaving the astonished postal officials to pick up the mail, it demonstrated the potential and convinced the Post Office Department of the potential speed gain of an aerial postal service. Things evolved quickly: in July of 1914, French pilot Maurice Guillaux carried Australian mail across 860 km from Melbourne to Sydney in Australia. And by 1918, the East Coast of the USA had a regular, although still limited airmail service.

Two year later, in August 1920 a North American transcontinental airmail route was established. But the service wasn't yet optimal: the aircraft were restricted to daytime flying, as they navigated using landmarks. In combination with being very dependent on weather conditions, what the service made up in speed, it lacked in reliability and flexibility. And even more importantly, it was an extremely dangerous undertaking. The Post Office hired around 200 pilots between 1918 and 1926. Of these, 35 died flying the mail...

Recognizing these issues, the Postal Service began developing a solution. In 1923, they proposed a system of light beacons that could guide the airmail pilots. Using the funding granted by Congress, less than one year later, these beacons stretched across more than 2,000 km, from Rock Springs, Wyoming to Cleve-



→ Cover carried on the first Transcontinental Air Mail trip (NY to SF) involving night flying, July 1, 1924
Photo: Centpacr via wikipedia

lights placed on top. On the ground were concrete foundations in the shape of giant arrows measuring between 20 and 25 m long. To increase visibility of the concrete arrows, they were painted bright yellow.

land, Ohio. The next summer, it reached all the way from San Francisco to New York. By 1927, the lit airway branched out to Salt Lake City, Los Angeles to Las Vegas, Los Angeles to San Francisco, New York to Atlanta, Chicago to Dallas, over 6,600 km. by 1933, the Transcontinental Airway System totaled 1,500 beacons across nearly 30,000 km.

The Post Office hired around 200 pilots between 1918 and 1926. Of these, 35 died flying the mail...

Each beacon was constructed roughly between 5 and 10 km apart. They were spaced closer together in mountainous terrain and further apart in flat areas. The beacons featured a 15 m tower with rotating

Initially, the lights were acetylene-gas powered. Later, the lights were replaced by electrical ones, with the shed at the base of the tower housing a generator. The rotating beacon would flash every ten seconds and in clear weather, the light was visible up to 16 km away. Below the main white beacon, a secondary set of colored lights would flash a Morse code letter to identify the beacon to pilots. Depending on the topography and circumstances, it was sometimes possible to see several beacons at the same time. To make sure they followed them in correct order, the beacon identification letter followed a pre-defined sequence: W-U-V-H-R-K-D-B-G-M. This prompted the training phrase "When Undertaking Very Hard Routes Keep Directions By Good Methods" to remember the sequence.

In addition to the beacons, a number of airports were established along the route. Every 3rd beacon (so between 40-60 km

apart) would have a lit emergency airfield. Bigger airports, where refueling stops and mail drops/pickups were scheduled, were spaced about 300-350 km apart.

Regular maintenance of the airway beacons and intermediate fields was crucial. This duty was entrusted to "airway caretakers". Daily they climbed the steel towers to check every beacon within their territory, cleaned dirty lenses, replaced burned-out bulbs, etc. Technicians could be called in for more complicated repair jobs for which equipment tools or expertise were not locally available. Caretakers at intermediate fields were on duty from 6:00 pm to 6:00 am. If a pilot "dropped" in to one of these emergency fields, caretakers were expected to provide transportation to and from the nearest town, furnish them with meals, and assist in repairing their aircraft.

The program was an immediate success and continued to expand throughout its operational life. By the end of the first year the airmail service had 18 terminal airfields, 89 emergency airfields, and more than 500 beacon lights in operation.

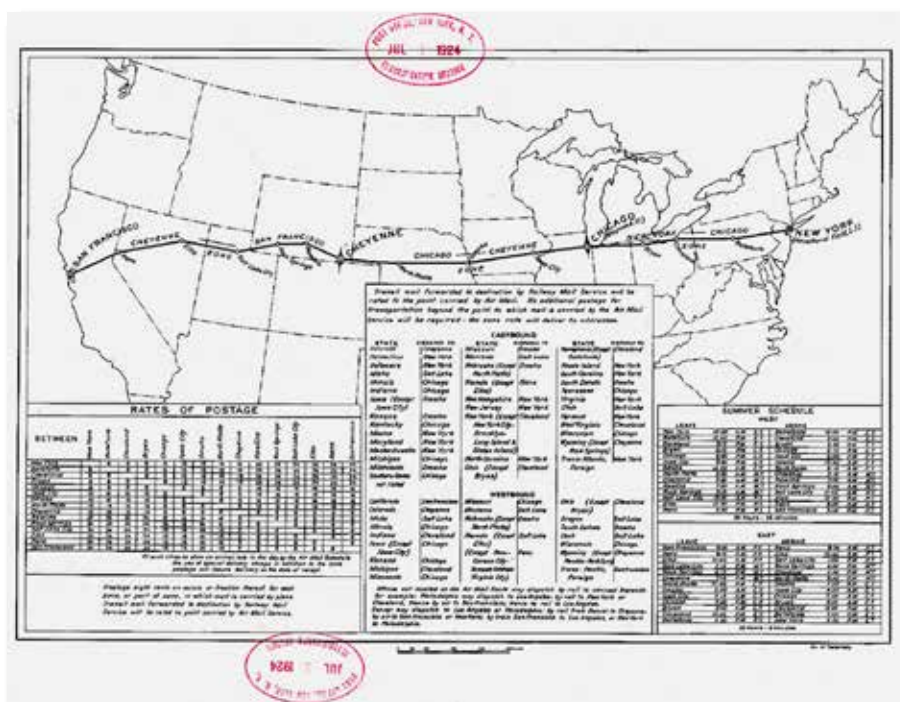
During the same period however, radio communication and navigation made steady advances. By the early 1930s, radio direction finders (RDF) and later Automatic Direction Finder (ADF) quickly became the preferred method for navigating. This meant the light beacons became obsolete within a few years of their construction. Most were torn down, while others were simply abandoned and left to the elements. Some, mostly near the airfields remained in use with the last one shutting down in the early 1970's. In most cases, the only things that's left is the weathered concrete arrow...

There's one exception however: the state of Montana, bordering Canada in the northwest of the USA, has retained a night-time lit airway beacon system. About 19 beacons, a tiny fraction of the historic network, help guide aircraft through the state's rugged western mountains.Ⓜ

editor@the-controller.net

A list of beacons, or what remains of them can be found on

<http://www.dreamsmithphotos.com/arrow/index.html>



WORLD CONTROLLERS' CUP

2014

PANAMA PLAYS HOST TO 4TH EDITION



by Loida Peral, WCC Organising Committee

The 4th edition of the World Controllers' Cup (WCC) will take place this year in Panama City, Panama from 9th – 15th November. This annual global football tournament for ATCO's and pilots gathers hundreds of colleagues from all over the world in a new location each year to compete for the ATC World Champion title.

"The objective of the WCC is to promote and develop social and professional relationships between controllers and pilots across the globe through football. We hope to bring as many colleagues together from across the globe to enjoy the

atmosphere and the camaraderie that this tournament brings." states Allan Beattie, President of the World Controllers' Cup.

To this end, the inaugural WCC 'kicked off' in 2011 in Las Vegas with a 'high level' opening party at the Stratosphere Tower - the tallest tower in Vegas. Following this, on the pitches, the Europeans faced the South Americans for the first time ever in the history of ATC football. At the end of the tournament, Team Russia became the first ever WCC champions!

Initial discussions began back in 2009 but it soon became clear that organizing the 1st global football tournament for air traffic controllers and pilots wasn't going to be easy. Our 'small world' is not so small and at the beginning we had

little idea how we were going to approach this adventure. With this in mind, a board of directors and an executive committee composed of ATCO's worked alongside Sport Training Solutions, Madrid, (STS), and finally achieved this. Our ATCO's on our board and executive committee come from Scotland, Finland, Germany, Russia, USA, Bahrain, Colombia, Mexico, Chile, Argentina, Turkey and Oman.

The WCC has received a huge amount of interest thanks to IFATCA, NATCA, Facebook and the many personal contacts made through the world of ATC and the WCC 'family' over the years. In fact, controllers and pilots from more than 160 countries have visited the WCC website.

The WCC organizing team thanks all national air traffic controller associations that every year support their teams and make this integration of ATCO's possible. "Here in Mexico we have over 1,000 controllers and there is nothing more motivating than representing your country and competing



Interview Allan Beattie

President of the World Controllers' Cup



How was this idea born and what inspired / motivated you to begin such a global event?

I was the President of the European Controllers' Cup for 12 years, from 1998-2010. In 2009, at the tournament in Castellon in Spain, I was approached by Luis Portero of STS Madrid. He asked me what I thought about a world tournament and the idea developed from there. It was discussed at length before we finally decided to try it. My whole motivation for this? To get controllers from across the globe playing football against each other. That is reward enough. I mean, where else could you ever see ATCO's from Argentina playing against ATCO's from Kazakhstan? The WCC, that's where!

What is the biggest challenge when it comes to organizing a global event of this magnitude?

The logistics of bringing the idea to fruition and to find 11-a-side football facilities across the world for a tournament of this size. It took us 2 years to organize the first WCC in Las Vegas and that was incredibly difficult trying to find the right people in other countries. Our organisers, Luis Portero and Loida Peral did amazing work in contacting the right people and over the past 3 years, we have managed to improve our personal contacts and the tournament is growing.

What are the requirements for a team or individual to join the tournament?

You need to be an ATCO, Pilot or ATC assistant or a student of one of those professions.

How do you choose the new destination of the tournament?

That is always a difficult decision. The problem we face in selecting a new location is primarily safety for the participants and that it has the facilities we need for the event. This is not easy and our organizers work extremely hard to achieve this for us and for that I am very grateful.



for the World Cup title against colleagues from other distant countries. We thank SENEAM and COCTAM -our national air traffic control representing organizations - for supporting us in such a unifying and worthwhile experience. I am so proud to be an ATCO and to be part of the WCC" states Lupita Hernandez who has been working both organizations and over 30 years as air traffic controller in MEX control tower.

To date, the following teams have defended their nations at the WCC: Colombia, Italy, Croatia, Finland, Kazakhstan, Netherlands, Russia, Argentina, Chile, Ireland, Hungary, Mexico, Lithuania and Turkey. The popular Team International has also seen ATCOs from many different countries playing together also.

Following the success of the first WCC-2011 in Las Vegas, the country of football Brazil-Bahia became the venue for the 2nd edition of the WCC in 2012 and the 3rd edition of the WCC took place in Puerto Rico last November when Russia won for the third consecutive year.

Are the Russians unbeatable? It is yet to be seen. This year we will be staying in the Hard Rock Hotel, Panama and as usual, a 5-star program has been carefully planned for the WCC participants. The welcome party will take place in the Hard Rock Hotel nightclub on the 52nd floor, the hottest night club in the country!

We look forward to welcoming friends old and new to this latest exciting edition of the WCC in Panama in November. Play Hard, Play Fair, Play Honest!

With the World Cup well underway in Brazil, we can proudly say that our controllers have established our own!

Do you want to be a part of it? Join the WCC at www.playthewcc.com



What is unique about the WCC?

Meeting and playing football against fellow ATCO's from countries that you never thought was possible. Additionally, we pride ourselves in our charity work and work with those who are less privileged than ourselves. Last year in Puerto Rico, we worked with Fundacion Golitos to organize a training evening for kids with autism successfully raising money for them.

Could you tell us any funny anecdote?

In Las Vegas in 2011 at the inaugural WCC, the organizers came up to me and said quite casually, "We have arranged for you to jump off of the Stratosphere Tower, you are not afraid of heights are you?" Well, being a big tough Scotsman I said "Of course

not!" Easy to say on the ground but not on a small windswept ledge high above the ground! I really enjoyed it though!

What are the opportunities for sponsors?

Sponsors have the potential to reach a global ATC and pilot audience. People from over 160 countries have visited our website. Facebook is also one of our main promotional areas and IFATCA and NATCA help us to promote the event also. We are very thankful to them for their assistance in this. Finally we have a very good marketing team who create professional videos and help us in the promotion of the tournament.

How do you see the future of the WCC?

When I can get ATCO's from places like Vietnam, Ecuador, India, Australia and Kenya playing football together then I will be happy. Anything is possible and we will continue to work hard to achieve this.

[COCO]NUTS!



THE RUSSIAN WAY

Here at Charlie, we're avid fans of Russian ingenuity. Unlike "western" solutions, which are often over-engineered and expensive, they come up with practical approaches to often daunting challenges. One of the space-race myths illustrates this perfectly: one of the problems astronauts would face was that their pens would not work in zero gravity. The Americans outsourced the problem to the ballpoint industry and a company called Fisher came up with the "space pen". At considerable cost, they developed a pressurized ink cartridge and special ink that can withstand extreme temperatures. These pens are still a popular item in the NASA gift shops. The Russians, faced with the same problem decided to use a simple graphite pencil, which cost a fraction of what NASA paid and which ended up being more reliable...

It seems they've used the same approach for de-icing their aircraft: at a "western airport", de-icing is costly, as it uses special equipment and expensive glycol. In Russia, they simply mount old jet engines on a truck. Not only is it relatively cheap, it also warms up the aircraft, which is nice for the passengers. And they can even be used for clearing snow and ice off the runways! ☺



MH370 & THE MEDIA

Being one of the worst aviation tragedies of the last decades, the disappearance of Malaysian 370 has raised lots of questions and theories. With little or nothing 'news' to report, the mainstream media has wasted no effort in exploring elaborate rumors and stories. When the news came that the aircraft may have flown for another 7 hours or so after contact was lost, so-called experts crawled from under rocks everywhere with their explanations of what probably happened.

Reputable 24-hour news channel CNN took the crown with a Developing Story™ that the Boeing 777 will struggle to maintain altitude once the fuel tanks are empty. After this shocking revelation, a special investigative report went on to explain that water is wet and snow is typically cold... ☺



HELPING THE SEARCH

While journalists were scraping the barrel for news and Inmarsat and the Australians deployed their latest technology to try to locate the aircraft, back in Malaysia more traditional methods were being tried to locate the aircraft. As a local newspaper reported: "A magical man, who calls himself Raja Bomoh Sedunia Nujum VIP with the title of Datuk Mahaguru, conducted rituals at the Kuala Lumpur International Airport (KLIA). He was accompanied by several assistants who helped in the rituals using "Zam-Zam" water, two coconuts, a "magical" walking stick and a carpet."

The report continues to state that an earlier attempt, using binoculars made of bamboo and a fish trap hook to try and pinpoint the location of the missing aircraft, was not successful... The guy is clearly an amateur, as everyone knows that you need at least three coconuts to find a missing wide-body airplane... ☺



GOOD ANSWERS

A friend of mine flies helicopters in the Caribbean, mostly with tourists. He's known for his dry sense of humour, especially when people are asking him silly questions.

Tourist: "I am not a fan of helicopters. Don't they crash often?"

Pilot-guy: "No, usually only once. It hasn't happened to this one yet..."

Or when a passenger wearing what can be described as a 'loud Hawaiian shirt' sitting beside him, asked: "Why do you wear a black flying suit and not a white shirt with a tie like all other pilots?", he answered: "It's because I fly across the ocean!" When the passenger asked the explain, he said: "Sharks have very bad eyesight but they're attracted to very bright colors!" ☺



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THE
CONTROLLER

WORLD

CONTROLLERS' CUP

4th edition

The Global Soccer Tournament for Air Traffic
Controllers and Pilots

REPRESENT YOUR COUNTRY
INFORMATION / REGISTRATIONS VISIT:
WWW.PLAYTHEWCC.COM

9 to 15 Nov. 2014
PANAMA CITY-PANAMA



WHO CAN PARTICIPATE?

- Exclusive for ATCs, Pilots, ATC assistants or students of those categories
- Each team is allowed to field 2 players who are not ATC or Pilot personnel but employed in the air navigation service



WHAT IS REQUIRED?

- 11-a-side-football tournament. 14 players per team
- 100 Euros team registration fee
- 7 days / 6 nights programme with one day off for sightseeing
- **Small groups/single participants:** Join the International Team (best fun!!)
- **Opened to non-players** who simply want to support their country or have fun in Panama with colleagues

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BEIJING, CHINA

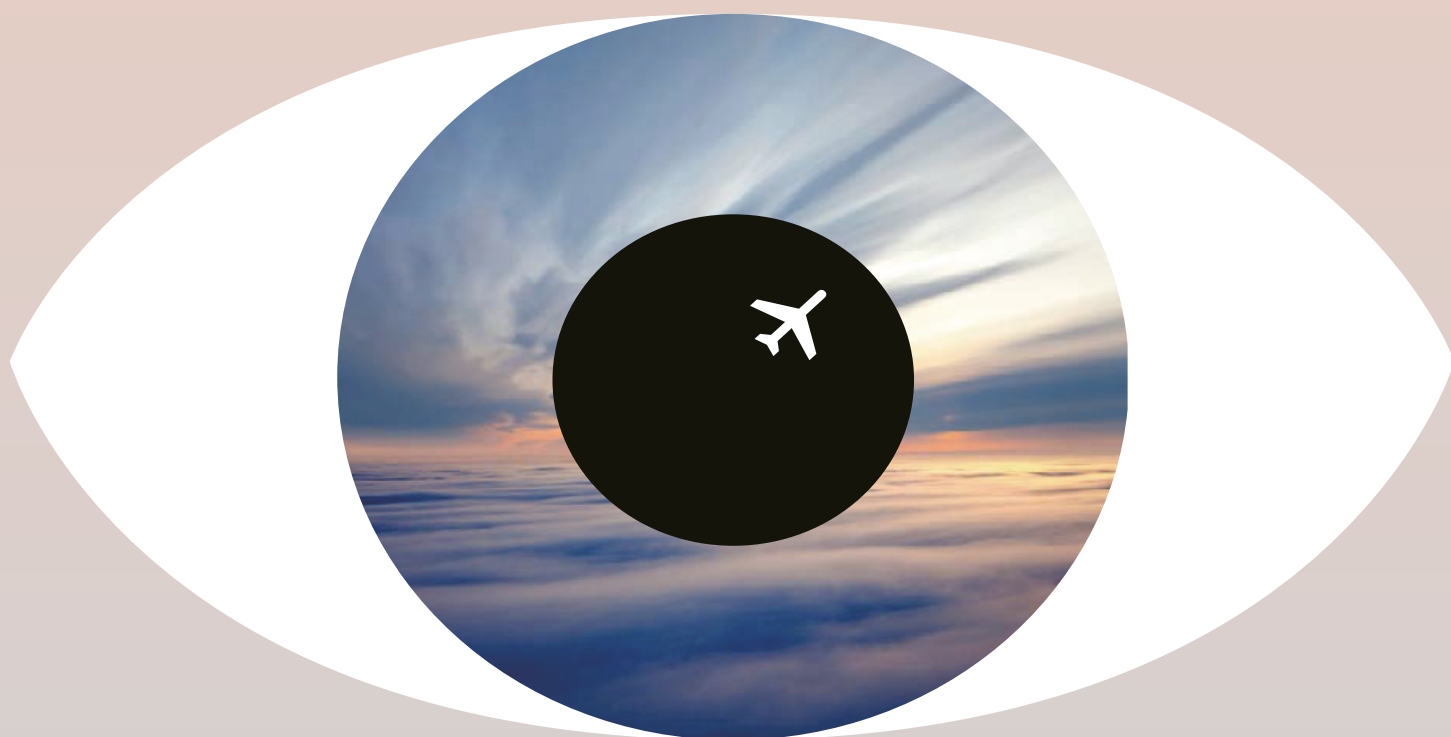
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