

PRB Info letter

June 2019



Note from the PRB Chair

2019 marks the 75th birthday of the Chicago Convention. Since 1944, this international agreement has been the legal foundation of international civil aviation and has established the International Civil Aviation Organisation ICAO. Next to the UN Charter, no other multilateral agreement has as many Member States (193). The Chicago Convention still shapes international civil aviation, including air traffic management and has been the solid legal foundation for an unprecedented global growth of civil aviation with an impressive safety record.

In its article 1, the Chicago Convention enshrines the principle that each Member state has the “complete and exclusive sovereignty over the airspace above its territory”. Many have argued this implies that each country needs its own air navigation service provider and that it precludes countries to provide cross border services. While it is undisputed that for military purposes, states need to control their national airspace at all times, the founding fathers of the Chicago Convention (there were no female delegates at the 1944 Conference in Chicago) foresaw how important international cooperation is for air traffic management. Article 22 of the Convention obliges Member States to “facilitate and expedite navigation of aircraft between the territories of contracting states and to prevent unnecessary delays”. The Convention specifically encourages states to cooperate (article 77). In 2013, the ICAO Worldwide Air Transport Conference emphasised how important this cross border cooperation is, encouraging Member States to delegate the provision of air traffic services to another state. Such a delegation would not imply waiving any sovereign rights.



Europe would be in a unique position to become a global example of cross border cooperation in air traffic services, because in terms of air transport, Europe has created a

single market more than 20 years ago and remains the example how a liberalised market with full regulatory convergence including ensuring social rights and fair competition can work. Unfortunately, so far this cross border model for air transport has not translated into a common air traffic service structure, although the Chicago Convention would be a perfect fit to do so.

Improvement is possible: On 1 April, Member States gave a positive opinion on the Union-wide performance targets for the third reference period (RP3: 2020-2024) and on 15 April 2019, the Wise Persons Group published its recommendation to the European Commission. Both aim at the same goals: provide European consumers and the European economy with safe, environmentally sustainable and efficient air traffic management.

For the coming years, capacity remains the key priority. Many ANSPs see the biggest need to train and hire new air traffic controllers. However, on a longer perspective, this will not be enough. The [Airspace Architecture Study](#) of SESAR has shown that structural changes are necessary. It will take a new kind of cooperation and change both at EU- and at Member State-level to implement the required changes. RP3 will be a transition period during Member

States and the Commission can and should consider taking those measures suggested by the Airspace Architecture Study and the recommendations by the Wise Persons Group which do not require a modification of the regulatory framework.

The next step for defining future performance is the adoption of the national performance plans. The targets for RP3 as well as the experience of Summer 2018 and the measures Member States have accepted upon the initiative of the Network Manager will hopefully enable all stakeholder to tackle the current shortcomings of European Air Traffic Management. The new Performance and Charging Regulation allows to better take into account local circumstances if

there is evidence that the capacity situation in those areas needs targeted measures. to accommodate the capacity demand.

The PRB is looking forward to engaging with Member States and stakeholders implementing the local performance plans. A cooperative spirit will enable constructive solutions, including those implying better cross border cooperation – just as the Chicago Convention has wisely been suggesting 75 years ago.

Regula Dettling-Ott, PRB Chair

Expert's column

Growth of information technology, digitalisation and increasing automation: Steps towards data-driven safety decision-making and early warning capability in ATM

By Rosa María Arnaldo Valdés, member of the PRB

Despite the capacity issue, it is important to emphasise that the performance levels for safety – which is the core business of ATM – have been remarkable. Safety is an overriding objective of the European air traffic management system.



As highlighted by Commissioner, Violeta Bulc, digitalisation of the aviation industry is the key to modernisation.

However, as aviation systems produce huge volumes of data that - when managed effectively - can be also used to significantly improve safety.

Modern aircraft engines have more than 5,000 sensors which generate up to 10 GB of data per second. They are a prime example of the benefits that digitalisation and the Internet of Aircraft Things (IoAT) could provide. For example, the A350 is able to record 400,000 in-flight parameters. Using big data analytics, we can get an in-depth understand of the behaviour and performance of the aircraft. Additional data may also be provided using safety monitoring processes.

The SESAR Airspace Architecture Study envisages explosive growth in the use of information technology, digitalisation and increasing automation in the ATM system. All this will lead to an exponential increase in the amount of data generated.

In the air transport industry, with such high safety levels and where the margin for improvement is slight, the advent of new data could

have potentially major benefits in terms of safety.

This avalanche of data combined with cutting-edge IT and detailed operational knowledge has the potential to yield invaluable safety intelligence and actionable information.

Specifically, this information is key to implementing predictive risk management, data-driven decision making and early warning capability in ATM.

The need to pursue these objectives was recently acknowledged at the ICAO 13th Air Navigation Conference (ANC) in which Agenda Item 7.1/1 was titled “*Facilitation of data-driven decision-making in support of safety intelligence to support safety risk management*”.

The ongoing development of guidance material for the monitoring of safety indicators during the third Reference Period (RP3) will constitute a starting point to assist Member States in the use of current safety data recording systems to pave the way towards early warning capability for ATM.

This capability will look at day-to-day performance and seek suitable measures and indicators, other than occurrences, to anticipate risk. The aim will be to achieve early, reliable and proportionate detection of unsafe trends, within a timescale commensurate with their rate of progression. This will enable threats to be removed, thereby ensuring that they do not develop into serious events; without false alarms or unexpected side effects, or investing undue effort in low priority issues.

Interviews with PRB members

Antero Lahtinen, Hans Martin Niemeier and Laurent Barthelemy has been members of the PRB for the last six years. As their mandates come to an end in May 2019, we look back at their times with the PRB.

In your view what was the most important achievement of the PRB?

Antero Lahtinen:



“To summarise it in a few words, it is the achievements of the performance scheme with its four pillars: cost efficiency, capacity, safety and environment. Still far away what it might

be one day, but the direction is right.”

Hans Martin Niemeier:

“I just speak about cost efficiency and capacity. For these targets it is important to keep in mind that the PRB is just setting incentives and is not regulating or determining the outcome. For the latter, the ANSPs are responsible. The PRB has set strong incentives for cost efficiency by demanding that the inefficiency gap will be reduced by 40% at the end of RP3. As in the past ANSPs will most likely become even more efficient as they can keep the difference as profits. All this is a major achievement. Unfortunately this is not the case for the capacity target.

Laurent Barthelemy:

“In my view, one of the most important achievement of the PRB in the past years has been its active role in the establishment and progresses of the performance scheme. Even if some targets have not been reached - especially in term of capacity in the recent years -

a general dynamics is in place and globally accepted by all the Stakeholders of the Single European Sky.”

What was the biggest challenge you faced as a PRB member?

Antero Lahtinen:

“In European aviation certain sectors had to adapt to changes such as deregulation a long time ago. In an open competition, without regulatory restriction of the number of flights, the accessibility to the market, etc., the airlines were the first ones to face those changes. Today, still several other sectors remain very closed to competition or operate otherwise in national or monopolistic environment.”

Hans Martin Niemeier:

“Setting incentives for capacity. As you know delays have built up in the last couple of years. These are not caused by too tight cost efficiency targets as some ANSPs



claim. Delays are caused by incentives which hardly work at all. The penalty for delays is too low. This leaves the PRB in the awkward position to only name those very few ANSPs which exploit the regulatory system and produce the delays. But name and shame will hardly work and is not solution.”

Laurent Barthelemy:

“As an important actor of the Single European Sky, the PRB has faced the permanent challenge of proposing changes to 30 monopolies which are not subject to competition and convincing them that the expected changes are necessary, reasonably ambitious and achievable.”

How do you compare the old structure of the PRB with the 'new' PRB?

Antero Lahtinen:

“The circumstances where the old PRB was established were fundamentally different from the current one. The target setting of RP1 was understandably different and the right competencies were found from the PRC of that time. So, it worked well at that time. Since then a lot has evolved in the industry and the current set-up fulfils the expectation of the aviation sector. However, the PRB with its members can give in the future much more to DG MOVE as well as to the aviation community as a whole.”

Hans Martin Niemeier:

“Both had different, but very dedicated and competent chairmen. The same can be said about my colleagues of the old and new PRB. The big difference is that the conflict of interest with Eurocontrol has been minimised. The new structure is therefore better, but not all conflicts of interests have been resolved. The Wise Persons Group is correct in demanding an independent regulator.”

Laurent Barthelemy:

“In the actual position, the PRB is more in a “neutral” position vis-à-vis the other actors of the SES. But in fact, the content of the work and the relations with the different stakeholders have globally remained the same.”

What do you expect from RP3 and the future of ATM?

Antero Lahtinen:

“I believe the improvement in the cost-efficiency is well on its way. Slowly but to the right direction. The capacity remains a challenge for the next years and can only be solved on a more permanent basis through structural changes in ATM sector. It would require very short term actions as well as longer term changes.”

Hans Martin Niemeier:

“With 40% closing of the inefficiency gap at the end of RP3 ATM is on a good track in terms of cost efficiency. It is also clear that this gap has to be closed completely in RP4. While the outlook for cost efficiency is bright, I am very skeptical about delays given the ineffectiveness of the current penalty. We need urgently to reform the regulation along the lines of the Wise Persons Group report.”

Laurent Barthelemy:

“For the coming months and years, the most burning issue is to increase the capacity and flexibility to be able to accommodate the traffic growth without reproducing the level of delays that was experienced last year. It is a real challenge for the entire network, but especially in the congested spaces of the core area.”



But at the same time, all the actors must start immediately to prepare the next period, which must be marked by a strong implementation of the SESAR technology and a real reduction of the fragmentation.

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What is your message to the new PRB members?

Antero Lahtinen:

“We have traditionally looked the aviation performance based on as it has happened. I don't think it is alone enough anymore as such. The PRB, in addition to monitoring the performance of the RP3 should also actively

work with longer term issues and new challenges namely in the field of safety, cyber security and environment. “

Hans Martin Niemeier:

“Do not be too frustrated by the tons of acronyms. Judge ATM by the standards of common sense and you will see that ATM is far from being a normal industry.”

Laurent Barthelemy:

“The next months will be very busy with the assessment of the local Performance Plans, consistent with the European RP3 targets. But as soon as possible, you must mobilize a great part of your time and energy to prepare in advance the following period RP4 (see above).”

[What are your personal and professional plans?](#)

Antero Lahtinen:

“My professional plans are to stay involved in aviation generally, preferably with European aviation for the next 5-7 years.”

Hans Martin Niemeier:

“My focus of research has so far been airport regulation, regional development and sustainability of aviation. This will change. The reform of regulation of ATM will become a major part of my research.”

Laurent Barthelemy:

“Even if I would have continued for another session with great pleasure, I find absolutely normal to renew the members regularly to bring new sets of experiences and new ideas in the PRB.

Personally, I have no professional plan for the coming months, but a lot of personal projects: grandfather occupations, sports, travels.”

[PRB online calendar for consultation in Member States](#)

The Commission Implementing Regulation (EU) 2019/317 requires Member States to consult air navigation service providers, airspace users’ representatives, and, where relevant, airport operators and airport coordinators on the intended establishment of the determined costs included in the cost base for en route and terminal charges, new and existing investments, service unit forecasts and charging policy for the reference period concerned.

In accordance with art. 3 (n) of Regulation, the Performance Review Body (PRB) provides an online calendar for the stakeholder consultations. Member States have been invited to use the [PRB webpage](#) to access this calendar and to register their planned consultations.

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