AIRPORTS COUNCIL INTERNATIONAL

Background briefing for airports: liberalisation of the local ATC market

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1. Introduction and background

With a 66% decline in global Revenue Passenger Kilometers (RPK), 2020 was the worst year on record for the aviation industry. Due to continued international travel restrictions and associated planning uncertainties, the sector recovery in 2021 has been slow and an airline industry wide financial loss of USD 52 Billion is expected (IATA, 2021).

Airports, as the key element of the global aviation infrastructure, have been heavily impacted, losing approximately USD 110 Billion in revenues in 2020 (ACI World, 2021) as a result of the pandemic. Airlines and airports alike are now looking for ways to increase cost-efficiency of operations.

One way for airports to potentially reduce costs and achieve more cost scalability lies within a supplier relationship that many airports may not be aware of: by renegotiation and/or adjustment to existing service level agreements with their provider of Air Navigation Services (ANSP) - or changing ANSP all together.

This guidance material has been developed for airport owners and operators and with the main objective of providing background information and guidance in the process of assessing both if and how your airport can benefit from a change in the way Air Traffic Services are provided.

1.1 Historical context

Terminal air navigation services (T-ANS) is the term used to describe the air traffic management (ATM) services with the main task of ensuring safe separation between aircraft at an airport and - depending on the traffic and airspace complexity – in the airspace that is used by aircraft arriving and departing from the airport (see Figure 1). Traditionally, T-ANS is provided by national ANSPs in a non-competitive market environment.

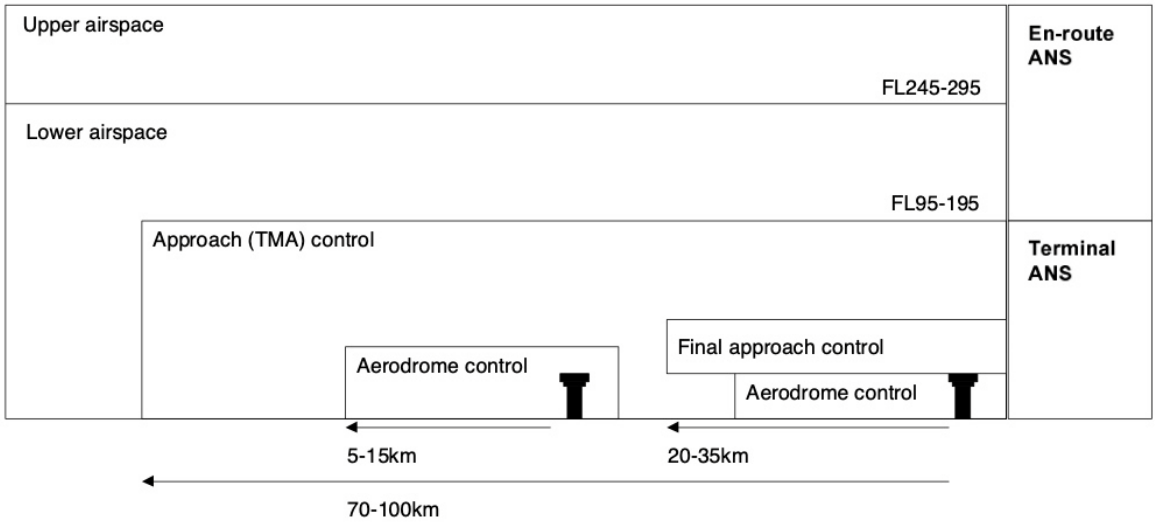


Figure 1: Terminal-ANS boundries

Based on policies stemming from the 1944 Chicago Convention, every national state ultimately holds responsibility for the airspace over its territory. In the wake of WW2 it was

common for States to establish national service providers. These governmental owned and often managed companies were given the mandate to manage and assure control and safe operation of the national airspace and the national airports, as these services were seen to be key to national air defence and connectivity.

In recent years, due to increasing concerns over industry inefficiencies and high costs, there has been growing pressure on national authorities to allow more market mechanisms in the T-ANS market segment, open selected service areas for competition and – more generally – gently liberalise designated sectors of the ANS market.

The main motivation for the liberalisation of previously monopolised industries and deregulation of public service utilities is rooted in the recognition that government owned and controlled public entities can underperform when compared with sector companies under private ownership. Performance of the private sector is often supported by contemporary governance models and easier access to capital markets, which stimulate necessary investments for infrastructure upgrades and technological transformations. Additional advantages of private sector companies are seen in less regulated and more efficient procurement protocols and – generally – in the freedom to cooperate and offer services independent of governmental policies and arrangements. More market mechanisms and free enterprise can – as has been observed in the wider aviation industry - help to achieve operational and cost efficiencies, introduce increased operational flexibility, scalability and foster innovation.

Thus the potential for liberalising Air Traffic Control (ATC) for airports is to bring the power of market forces to that part of the industry that is – especially when compared to airline and airport segment – today still mostly provided in regulated and non competitive markets.

The recent past has seen a trend, encouraged by the European Commission through the Single European Sky (SES) regulatory framework, to allow some competition in the provision of T-ANS in an increasing number of countries.

Table 1 (below) compares the reported cost savings for airports in some countries that recently introduced competition for the provision of T-ANS for regional airports.

Country	Service	Cost Savings
Spain	TANS	Above 40%
USA	TWR service at 253 VFR Airports	Approximately 70%
Sweden	TANS	30-50%
Norway	TANS	Between 30 and 35%

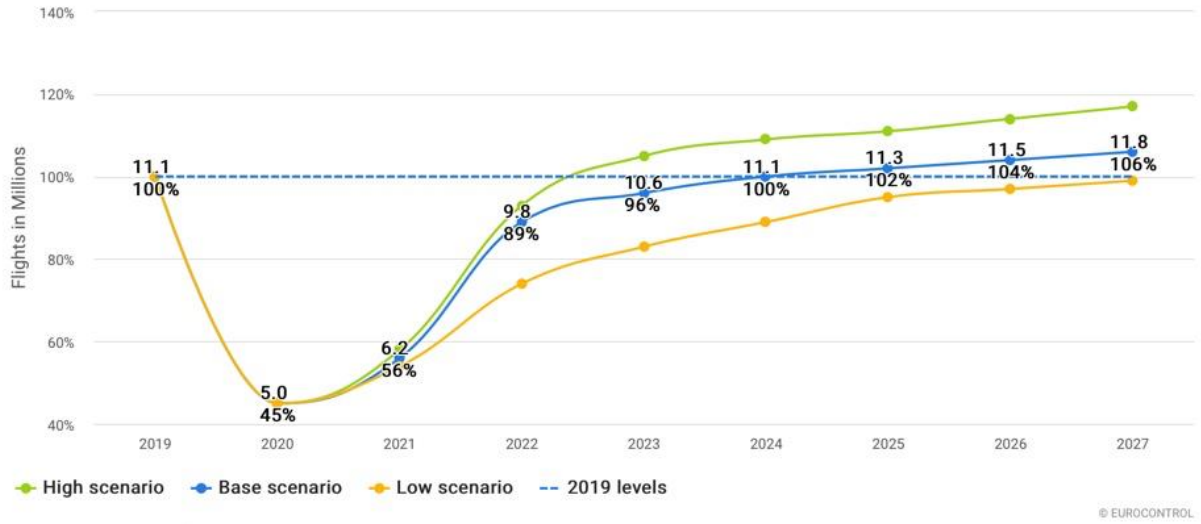
Table 1: Overview on selected markets and the T-ANS cost savings *Source: ATM Policy Institute (2018)*

1.2 Present situation

Current conditions for the entire aviation industry are characterised by the impact of the Covid-19 pandemic. This in stark contrast to previous decades, where the aviation industry was in a more or less continuous growth mode and any major concerns typically circled around missing capacity from a local, regional and network perspective, along with the attendant delay and cost increase.

The industry contraction following the Covid pandemic, combined with a fragile and somewhat unpredictable recovery, is shifting the current industry focus more towards areas where operational and organiational cost efficiencies and scalabilities can be achieved. All of which is taking place in the wider context of "building back better", and in ways that should both reduce risk exposure and increase overall industry sustainability.

Depending on the forecast model inputs, an industry recovery to pre-Covid levels can be expected within the next 5-10 years. Figure 2 (below) provides the recent Eurocontrol traffic forecast for Europe. The respective scenario likelihood is impacted by the distribution speed and effectiveness of vaccines and a possible emergence of new Covid-19 mutations.



*Europe = ECAC 44 Member States

Figure 2: Eurocontrol 7-year forecast for Europe 2021-2027

In addition to the uncertainties connected to the recovery from the pandemic, there is a strong political and societal call for more sustainability and an overall "greener" aviation industry. To acknowledge that demand to transform the industry also means that "to do as before" is no longer a viable alternative. It forces all stakeholders to review best practices and re-examine some accepted norms.

Based on these industry mega-trends, it is anticipated that there will be a stronger focus on optimising the cost efficiency of operations and discovering new ways to add value. A review and a possible renegotiation of existing service level agreements, or a shift of ANS Service Provider altogether can be a powerful tool for airports to achieve these goals.

1.3 Europe

The ANS market in Europe is characterised by a uniform regulatory landscape provided through the SES regulatory framework and an excellent safety record, but also very high costs.

Costs are driven upward, rooted in the natural fragmentation of Europe along national boundaries, a very complex and costly-to-manage institutional framework, missing technological harmonisation and an absence of competition and market mechanisms in the provision of ANS.

These cost pressures are amplified by high general labour/employment and associated pension costs and a usually strongly unionised ATC workforce. The compensation structure of the operational Air Traffic Controllers is, however, less of a cost driver than organisational inefficiencies - an observation which is also reflected in the organisational ratio between Air Traffic Controllers and support staff. According to EUROCONTROL (ACE Benchmark Report 2019), European ANSP often employ between 1.5 and 2.5 support staff per operational Air Traffic Controller, generating costly overhead structures*

Certain ANS services such as ATC training have successfully been opened up for competition, a development that yielded significant downward pressure on costs and increased the number of market participants. Other elements of the ATC provision food chain however are still regulated and are usually not offered in a commercial market environment.

1.4 Other Regions

While high costs are of primary concern within the European context, other regions such as Central Asia, Africa and the Indian subcontinent are less subject to high labour/employment and associated pension costs, but can be challenged by structural and organisational inefficiencies in the institutional framework in which they operate. In these markets, the motivation for an airport to adjust or change the way ATC is provided often originates from the desire to address existing capacity or quality issues safely.

* (average European ratio between *Air Traffic Controller cost*/hour versus *Support Cost*/hour *ca.130EUR* versus ca. *300EUR*)

2. Why an airport should assess its ATC service contract

The provision of ATC at the airport level should be seen as a service that can be tailored to match the specific airport needs and that can be negotiated and procured like any other service. Possible reasons for assessing the ATC service level at your airport can be summarised as:

- ⇒ ANS costs for airports are often high, and do not represent market value, while service levels, service quality and service costs often remain non negotiable with the legacy provider.
- ⇒ While a renegotiation of service level agreements or a change of the service provider is usually possible, the competence and experience concerning how to approach the current provider and tackle such a “high threshold” initiative is usually lacking and can be perceived to be rather complicated.
- ⇒ State providers are often not used to negotiating service level agreements/service costs and can have – in absence of commercial pressures - a tendency to show “monopolist” behaviour.
- ⇒ Internal cross- subsidisation between different ANS service areas and opaque cost allocation keys often mask the transparency of the real costs for ANS services at airports and make it very challenging for airports to compare and assess appropriate price levels for the specific ANS service.
- ⇒ In absence of pressure for cost transparency and cost reduction by airports and airlines alike, liberalisation efforts by the provider or regulatory authorities are unlikely. If you are not content with the provision of ATC at your airport, you need to come forward.

3. Legal perspective

In Europe, the SES regulatory framework[1] was introduced with the stated ambition of harmonising the regulatory landscape to enable cross-border services from providers and to create a level playing field for a more competitive, innovative and cost-efficient ANS market.

This in return was seen as a precondition for an ANS industry that would provide more capacity and less delays, reduce the system costs, yield higher safety levels and speed up the introduction of new technologies and concepts that could help to reduce the environmental footprint of aviation.

While the European Commission (EC) is actively encouraging a liberalisation of the T-ANS market and welcomes more competition in the sector, liberalisation attempts are often stalled and watered down by Member States. This has been the case in successive attempts to "complete" the Single European Sky through the SES 2 and SES 2+ proposals.

While the En-route segment and ANS services on larger hub airports are often also legally allocated to the national provider (where they are seen as care-takers of the national transport infrastructure), services at regional airports touch national sovereignity interests to a lesser degree and often have more freedom to "shop for services".

Uncertainties concerning the legal framework in connection with competition on the T-ANS market can usually be clarified by the national CAA, who can provide general guidance or refer to the specific legislation applicable.

[1] Regulations 549/2004, 550/2004, 551/2004 and 552/2004 constitute the first SES package. The SES 2 framework is provided by Regulation 1070/2009. The SES 2+ proposal is currently in the legislative process.

4. Roles and responsibilities: A stakeholder map

In a competitive and commercial T-ANS market, the roles and responsabilities of the different actors can be described in the following way:

Airports: Airports are the customers of the T-ANS service. ATC/AFIS is an airport infrastructure service that is offered to their customers (airlines, aircraft using the airport). As such, an ANSP must be seen as a supplier for an airport service comparable to ground handling or baggage handling companies. In a commercial environment, the customer should have a right and a possibility to negotiate the scope/quality/price of the procured services and to change a supplier as desired.

Air Navigation Service Providers: are the supplier of ANS services to the airports. In Europe, all ANSPs are certified according the SES regulatory requirements through the national CAA in the country of origin. The SES certification assures that all providers are compliant with the complete regulatory framework and are able to provide safe and efficient air traffic services within the the European Common Aviation Area (ECAA).
ANSPs should offer airports different service level options and provide them with a transparent cost overview for the different service categories.

Airlines: Airlines are the customers of the airport, but are the beneficiaries of ANS services and require ATC to operate in and out of an airport. The airlines have a contractual relationship to the airport, but not to the Service Provider. However, airlines must specify their ATC needs vis a vis the airport.

CAA/national regulator: The role of the national regulator is to oversee the service providers and assure compliance with the full regulatory framework.

Furthermore, in a *monopoly market* it is the responsibility of the regulator to economically regulate the monopolist in order to prevent abuse of the monopolist position and assure fair pricing for customers.

In a *competitive market*, the need for economic regulation falls away and is replaced with market forces that assure market-based pricing levels for services. In such a commercial market, the responsibility of the national CAA is transformed from being an economic regulator to more of a “referee” function that safeguards a level playing field for all market participants and prevents abuse of a monopoly position.

5. Opportunities and challenges

Opportunities for airports through a more competitive ANS market are usually found in the following areas:

⇒ Downward pressure of prices for the provision of ANS services at airports. The tendering of ATC services usually does not exceed a contractual length of 5-7 years, after that, a new bidding round can be started. This process of repeated tender processes works as an incentive for service quality and innovation. Additionally, such a tender process will yield opportunities to renegotiate service levels with the existing ANSP provider.

⇒ In addition to a significant price reduction, an increase in price transparency usually results.

⇒ The change of the view of an airport from a pure "receiver" of uncompeted services to a commercial customer is accompanied by a boost in customer focus.

⇒ Service level agreements can be reviewed, renegotiated and tailored to match the specific need of the airport more accurately and consider the changing needs such as the integration of new airspace users (manned drones, unmanned aerial systems) into the operational framework. Changing service levels depending on the seasonal demand is another area for airports to achieve increased scalability.

⇒ A change from one provider to another is usually supported by an "operational due diligence" process that examines all existing procedures, technical systems and processes in the search of improvement areas. Such a systematic assessment of existing practice results in an increase of overall safety of operations (note: the local ATC personnel operating at the airport usually changes to the new provider).

An increased liberalisation of the ANS market also poses some challenges for the airport community:

⇒ The T-ANS market is still in its infancy and there is often limited experience among national CAAs, airports and national legacy ANSP concerning how to conduct a lean, efficient and fair transformation process from one provider to another. External support can be needed to run a smooth and efficient tender process.

⇒ Some national ANSP enjoy protectionism by their states, which are hesitant to allow competition often citing safety concerns. Although this claim is not backed by evidence, it is typically stressed by stakeholders (for example: legacy ANSP, labour unions) that are opposing change in the way services are provided. In this context, it is noteworthy to highlight that the provision of ANS in Europe is strongly regulated by a mature and stringent regulatory framework defined by EASA and therefore leaves no room for unsafe practices.

⇒ Air Traffic Management is a network activity that depends on harmonised and well-managed operational- and technical interfaces (similar to other public utilities such as railroad or energy). The seamless performance of the sector also relies on a

cooperative interaction between the different actors as a pre-condition. Non-collaborative behavior by legacy providers (for example in the agreements detailing use of certain infrastructure elements) cannot be ruled out in the transformation from a non-competitive to a more competitive overall sector. In such cases, the national regulatory body needs to assure fair market conditions.

6. Examples and best practices

Competitive markets for the provision of T-ANS have successfully been established in some European countries, in the Middle East and in the US. Market mechanisms for the procurement of ATC are seen to be a viable tool in the governmental toolbox to increase the performance of the ANS sector.

Most significant cost reductions for airports have been achieved in Spain, the UK, Sweden, Germany and Norway. The range of airports that have benefitted from new service providers ranges from small airfields that provide flight information services (AFIS) to its customer base to large international hubs, such as - for example - London Gatwick.

The change of service provider at London Gatwick serves as a good example where a shift to another service provider can be done in the busiest airspace of Europe (the London TMA) without negative impacts on safety and an actual gain of airport capacity.

The UK, with more than 60 certified providers of ANS services, can be considered the most mature and liberalised ANS market, but Spain, the Scandinavian countries and recently Switzerland and Germany have created legal platforms that enable competition for the provision of ANS for their regional markets. The European Commission has, in its latest proposal for the adjustemt of the SES2+ regulatory framework, included a recommendation to all its Member States to allow more competitive markets for their regional airport segment in the overall ambition to bring down ANS system costs.

Implementation of new technologies such as Remote Tower concepts is seen as a side-effect of a more competitive environment, where new business and cooperation models between airports and ANSP and between providers can be expected. The ANS industry has been operating – in many ways – according the best practice concepts defined in the 1950s and 60s. With widespread availability of validated digitalised technology, new ways to provide these crucial airport services are on the horizon and have the capability to transform the physiognomy of the industry permanently.

7. Recommendations

If your airport is interested in finding out more about costs and service level options connected to the provision of ANS, or is not content with the costs or service and/or quality from the existing service provider, the following steps are recommended:

- Engage in a dialogue with your service provider to address the areas where you would like to seek changes, such as capacity, availability of service, service costs, service quality.
- If you aim to renegotiate ANS service levels, quality aspects or service costs, you should consider engaging external expert support to provide with a third party view that can help you to obtain a realistic independent view on your options. ACI EUROPE may be able to connect you with such expert support if desired.
- If you would like to change your ANS provider and are unsure about the legal framework for such a transaction, you should contact your national CAA. They will be able to provide you with information on the legal framework surrounding such a transaction and guidance on how such a process should be addressed.
- If you are interested in conducting a tender process, to assess if your airport could benefit from a renegotiation of service levels or a change in service provider, you might consider engaging external and independent expert support to help you to structure and conduct such a process. ACI EUROPE may be able to provide you with such expert support, whether internally or through contact with relevant third parties, where possible.

8. Contact

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This background paper was prepared in collaboration with ACR, a commercial provider of ATC and ANS services.