The human touch in air traffic control

Air traffic controllers can be the key to succeeding in today’s demanding environment. Discover the secrets practiced by some of the world’s most successful air navigation service providers.
Air traffic controllers (ATCOs) are responsible for the safe, orderly, and expeditious flow of air traffic. Research has shown that when controllers remain ‘on position’ for more than two hours without a break, performance can deteriorate rapidly — even at low traffic levels.

Air navigation service providers (ANSPs) must deal with a host of challenges, from strict workforce agreements and ever increasing rules and regulations to fluctuating traffic volumes and shortage of skilled controllers. At the same time, they must also meet high safety standards. With so many things to think about, it is not uncommon to see planners losing focus of the real business goals, such as maximizing efficiency and retaining talent.

‘Staffing to traffic’ is the key to achieving safety and efficiency in airspace management. But it is also crucial to have a workforce that is well-trained and qualified. How can ANSPs ensure that the right person is placed at the right position at the right time? What does it take to achieve the most cost-effective use of ATCOs — while ensuring safety and ATCO satisfaction?
The solution of choice for tomorrow’s airspace

Pay close attention to the level of decision support
Not only must your schedule respect a wide range of laws and regulations, it must also be flexible enough to respond to unforeseen disruptions (such as changing weather conditions). However, manual checking of compliance is time-consuming and error-prone. An intelligent planning system that already incorporates all your unique requirements and constraints frees up planners to focus on making the best decisions for your company.

Integrate planning horizons effectively
You need to plan across several planning horizons, and your ideal solution should bring them together. Historical data can also be used as the foundation for better strategic plans. This way, you gain full visibility across all planning horizons — and full support from planning to implementation.

Understand and accommodate staff preferences
It’s challenging but necessary to accommodate staff requests — including sick days, leave applications, shift changes and other schedule disturbances. Specific employee skill sets must also be taken into account. The right planning solution can help you achieve this without compromising on safety, fairness or the quality of the schedule. The result is a higher level of productivity and lower turnover rate.

React swiftly and effectively to disruptions
The key to optimal efficiency lies in planning at the right level of detail. Sometimes, it may be necessary to plan time slots as small as 10 minutes. Given the speed at which rescheduling must occur, most planners are happy to just arrive at a viable plan. But that’s not enough. Your planners should be informed of all the consequences of a disruption, and receive suggestions on how to minimize its impact — in real time.

Re-optimize shift schedules anytime, anywhere
Your newly created plan can quickly become irrelevant. To meet fluctuating business demands with confidence, leverage on a planning solution with mobile capabilities. You’ll be able to react faster to disruptions and last-minute changes, even while on the move.
Ensure full ATCO productivity and satisfaction

The Quintiq solution supports you in running a safe and cost efficient operation by taking into account all planning levels — from long-term planning all the way to the day of operations.

Here’s why we help to manage 70% of the world’s airspace:

**Fatigue management & compliance**
Interpret and implement the latest fatigue-minimizing best practices. Equip planners with tools to actively manage ATCO fatigue risk. Schedule tasks, breaks and vacations in compliance with workforce agreements, rules and regulations.

**Cost minimization**
Increase the efficiency and productivity of your current resources. Make informed decisions about buffers, utilization and overtime to make your operations more cost effective.

**KPI-based planning**
Get real-time visibility on the impact of your business decisions towards your ATCO’s key performance indicators — and choose the plan that best meets your business goals.

**Employee satisfaction**
Create rosters and shift schedules to optimize workforce utilization while incorporating employee preferences.
Quintiq has been solving some of the most complex planning challenges in aviation.

There was no competition when it came to Quintiq getting the job. To date, Quintiq is the only solution provider with an established experience in developing a 100%-fit staff planning solution for air navigation service providers.

Lorna Herda
Head of capacity management and rostering, skyguide
Some of our customers

airservices  FINNAIR  skyguide

virgin atlantic  ATNS  Fraport

Aviation Security Service  KLM  Copenhagen Airports

KLM catering services schiphol bv  transavia
Solve your toughest supply chain planning and optimization puzzles

Getting to know us

Quintiq was founded in 1997 when five computer programmers set a mission to develop a planning and optimization software that could be configured to suit any business model.

We are now known as an industry leader in supply chain planning & optimization. Approximately 12,000 users in numerous global organizations in over 80 countries use Quintiq on a daily basis.

Being part of Dassault Systèmes (3DS) since 2014 has opened the door to collaborative solutions that provide the most comprehensive environment to model, simulate, and optimize business — from strategic goals to the end delivery of great experiences.

Dassault Systèmes (3DS), the 3DEXPERIENCE® Company, provides businesses and people with virtual universes to imagine sustainable innovations. It ranks among the world’s largest and most successful software companies.

The world is full of planning challenges. We’re here to solve yours

Quintiq’s global offices
• Dual headquarters in Netherlands and USA
• Global Development Center in Malaysia
• Professional and dedicated 24/7 support around the globe
Our 3DEXPERIENCE Platform powers our brand applications, serves 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 170,000 customers of all sizes in all industries in more than 140 countries. For more information, visit 3ds.com.