

# THE CONTROLLER

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# PANSA REACHES FOR A NEW LEVEL OF WORKFORCE PLANNING

Hidden behind the fraught, frontline activities of air traffic control there lies a less glamorous but also critical layer of planning and control for Air Navigation Service Providers (ANSPs) – that of creating and managing the controllers' working schedules and daily rosters. In its simplest terms workforce planning is getting the right number of people with the right skills, experiences, and competencies in the right jobs at the right time. Adjusting the number of ATCOs to the flow of traffic and positioning controllers in the right sectors to always ensure that safety regulations are strictly adhered to.

Constantly increasing legislation, changing workforce agreements, fluctuating traffic volumes and a shortage of skilled controllers make the task time-consuming and

complex. Typically, people go about the job using spreadsheets or legacy computer systems that struggle to achieve optimum results. The time taken by traditional methods and their inflexibility have direct impact on the work/life balance for controllers, on the smooth running of ATC operations, and on fatigue risk-management. The costs can be high both in financial and human terms.

## The Polish Air Navigation Services Agency

The Polish Air Navigation Services Agency (PANSA), is about to change all that with a workforce optimization system from Quintiq. A system that incorporates strategic, tactical and operational planning within a single solution, complete with an electronic 'planning board' that will allow planners to see the implications of their decisions as they are made. A self-serve portal will also keep controllers fully informed and in touch, wherever they may be. PANSA is the only company in Poland employing air traffic controllers, with around 500 people to perform the task across around 60 different working positions in ACC, 4 APPs, 11 TWRs and a few FIS de-

partments. It has experienced a significant growth in demand, as Bartłomiej Bochenek, Head of ACC, explains: "We are still using essentially the same systems we were using in the early 1990s, but the demands are so much greater now. In the first three months of this year alone we served the same number of operations that we did in the whole of 1995. Even during winter months, we have to open all sectors for eight hours. Staff shortages and last minute changes are incredibly difficult to handle. There has to be a better way."

## A Balancing Act

Three years ago Bartłomiej began researching the issues: "It's a balancing act. We have to meet stringent safety and security regulations, while balancing numbers and types of people needed to perform specific tasks against unexpected changes in flight traffic and staff absences. This means we have to account for a whole range of factors, including the varied skills and training certifications of individual controllers, employee preferences and the assignment of mentors to new trainees. All against a backdrop of a shortage of skilled controllers".



Photos: Andrzej Karwowski (PANSA)

"It quickly became clear that better levels of automation should be able to help us make significant cost cuts, make better use of ATCOs and improve employee satisfaction. It should be possible to eliminate much of the hassle, drastically cut the time taken planning and scheduling and offer real benefits to the controllers by being able to respond better to their preferences, improving their work/life balance, and by keeping them more informed."

The potential benefits for ATCOs proved to be an interesting aspect of Bartłomiej's research. During heavy summer seasons, controllers had to work very long hours and had complained of fatigue. At times, the problem has been so acute that a number had chosen to be transferred to back-office functions. "What I learned," says Bartłomiej, "is that it's not just a matter of how long controllers are on position, it's also one of smoothing out the stress, which is more related to the traffic they are serving. It was possible for those spending the shortest time on position to be serving the lowest volumes of traffic."

### The Quintiq Solution

The Quintiq solution was chosen under the public procurement law. Acquisition was carried out by the Tender Committee. The contract was signed on 15<sup>th</sup> September 2010. Services will include: supply of equipment and installation of pre-implementation, implementation and configuration of the electronic system and training for system administrators, support system in accordance with SLA for 12 months from the date of signing the post-deployment testing protocol.

PANSA went through the full EU tendering process and after reviewing available options, they selected Quintiq's ANSP employee scheduling system. "After all," says Bartłomiej, "more than 30% of the world's airspace is managed by ANSPs using Quintiq solutions." During the evaluation, he visited a Quintiq user, Germany's Deutsche Flugsicherung (DFS), in Bremen. "It ticked all the boxes. Rather than a generic workforce planning tool, it was developed especially for the air traffic environment'. An 'out of the box' solution that is configurable to match any ANSP's particular mode of working".

"The system can also cover the full scheduling horizon, from long term strategic planning, such as 'what-if' scenarios, to mid-term tactical roster and shift scheduling, to real-time event management and task allocation. When we were reviewing the system, we could appreciate how 'what-if' scenarios could improve our long term workforce plan-

ning. Key performance indicators can also be built in. Suppose, for example, we decide to keep a sector open one hour longer, which means we need two more controllers for the shift. We can instantly see the implications in terms of the effects on hours worked, staff utilization, overtime etc. It's all about experimenting with resource allocation and making more informed decisions – optimizing staffing levels while maintaining safe and efficient operations. And, of course, the system will be able to alert planners to such things as expiry dates of aero-medical certificates, confirmation of knowledge of English, expiry of radio operator's certificate – and make suggestions to plan-around. It will also provide alerts regarding working hours and breaks, such as maximum working time between breaks."

Using the system to plan rosters means they can be published further ahead, so that ATCOs can see well in advance when they will be working and plan their own affairs accordingly. It also becomes much easier to plan other targets, such as keeping trainer and trainee on the same shift and ensuring that ATCOs are able to have days off to meet their social calendars.

Having been an ATCO himself (he still holds a license and sometimes steps into the breach), Bartłomiej can appreciate the values to ATCOs of the self-serve portal. All employees will be able to see their calendar, working days and holidays, shifts assigned, tasks planned and so on. They will be able to feed the system with their own preferences as regards time of work and breaks. Preferences include start of work earlier than a given hour, selection of specific shift types and willingness to have a break within a given hour. Swapping shifts with colleagues and requesting leave, becomes so much easier by helping managers evaluate the feasibility and implications of each request. Bartłomiej sums up: "It has been an exciting project and it has been especially good working with Quintiq's specialists. They really do know the industry at grass roots level and can make a valuable contribution in terms of best practice. Our largest unit is due to go live in the third quarter of this year, with full roll out to all units in the first quarter 2012. The jury will have to remain out until then, but I can confidently predict a very smooth transition and a real step-change in productivity – not to mention employee satisfaction." ☺

**For more information visit:**  
[www.quintiq.com/atc](http://www.quintiq.com/atc)  
 or contact David Hillis at  
[David.Hillis@quintiq.com](mailto:David.Hillis@quintiq.com)

