



Enhance Performance and Ensure Flight Safety by Optimizing Your Workforce

Air traffic control is first and foremost about safety, making the current acute shortage of air traffic controllers a pressing challenge for Air Navigation Service Providers (ANSPs) worldwide. To maintain high safety and service levels even while facing a shortage of qualified Air Traffic Control Officers, ANSPs must focus on utilizing their current personnel in the most efficient way, on improving employee satisfaction and on reducing overtime expenditures. This makes an accurate, flexible workforce optimization solution crucial to airline safety and to your organization's financial success.

INCREASE SAFETY IN THE SKIES, PERFORMANCE IN THE TOWERS, SAVINGS ON THE GROUND

In January 2008, some of the busiest airspaces in the world, including New York and Southern California declared Air Traffic Control (ATC) staffing emergencies¹, with experts warning the worldwide staffing shortage could jeopardize airline passenger safety. The current, worsening shortage of Air Traffic Control Officers (ATCO) makes hiring and training new controllers, precise scheduling of the current workforce, and close attention to morale, all critical to flight safety and Air Navigation Service Providers' business success. To achieve these goals, an advanced workforce optimization solution is required.

Air traffic control planning is a highly complex and dynamic process due to the unique environment in which ANSPs operate. They must comply with stringent safety and security regulations regarding the specific number and type of employees needed to perform various tasks while accommodating scheduling disturbances due to unexpected changes in flight traffic and employee absences. As a result, numerous factors must be accounted for during planning and scheduling, including the varied skills and training certifications of individual controllers, employee preferences and the assignment of mentors to new trainees. Also, every country and region operates under different legislation, such as labor laws and collaborative union agreements.

A COMPLETE SOLUTION FOR ALL YOUR PLANNING AND SCHEDULING NEEDS

The Quintiq Air Traffic Control Workforce Optimization Solution is a comprehensive solution that enables you to meet the full range of ATC planning and scheduling challenges. It encompasses long term strategic planning, tactical scheduling and real-time operational control to overcome this combination of numerous, complicated

constraints and frequent last minute schedule modifications.

Incorporating strategic, tactical and operational planning in one solution, it provides a fully integrated solution for:

- Long term strategic planning – Including what-if scenarios and Real-time Key Performance Indicators (KPI) analysis
- Mid term tactical planning – Roster and shift scheduling to optimize personnel resource utilization
- Real-time event management and dispatching.

The Quintiq Air Traffic Control Workforce Optimization Solution possesses the unique capability to plan across multiple organization structures. It integrates multiple workforce sets and resources through fully featured, pro-active planning, while taking into consideration all aspects relevant to ANSPs. Moreover, the Quintiq solution provides managers with organization-wide transparency and the meaningful analytical data necessary for accurate decision making.

PERFECT-FIT PLANNING

Because every ANSP has its own specific planning preferences and requirements, having a planning and scheduling solution that perfectly fits your organization's needs is essential. All Quintiq solutions have the same advanced technological base, with a client-configurable layer – which guarantees the planning solution will match your organization's planning needs, 100 percent. The fully configurable layer allows for all ATC constraints to be entered into the system.

In addition, the Quintiq user interface makes interaction between the planner and the system direct, fast and

¹ National Air Traffic Controllers Association (NATC).



intuitive. Because each planner has specific planning requirements, the planner can define personal views and preferred Key Performance Indicators (KPIs). The visual display of constraint violations and KPIs supports planners in making informed decisions.

FLEXIBLE PLANNING IS THE KEY TO SAFETY

Airline safety depends on the right number of well-rested, motivated and experienced ATCOs working on every shift. That is why flexibility in planning is critically important. Quintiq empowers you to deal with employee illness, flight delays and any other last minute schedule disturbances that can leave you short staffed. It immediately identifies the consequences of scheduling disruptions and supports you in finding solutions, fast. With Quintiq, you can consistently achieve the most cost effective and productive match between operational requirements and available personnel resources, thus preventing unsafe understaffing and reducing overtime expenditures.

Whatever your size and whatever your operational structure, Quintiq can adapt to your needs. If your organization is spread over a wide geographic area with multiple control centers or towers required to follow varied local workforce regulations, Quintiq can help you maintain the stringent security and safety levels demanded by aviation associations, in every tower.

WITH YOU FOR THE LONG HAUL

The ANSP industry is changing with air traffic control practices evolving to reflect new international treaties and market shifts. For example, many European countries are organizing into Functional Airspace Blocks (FABs) in response to airline companies' requests for simpler communication with controllers. This fluid environment means that any ANSP looking to purchase a planning system today needs one that can adapt to the as yet unknown demands of tomorrow. Because Quintiq is fully configurable, it will support your organization today and in the future.

KEY BENEFITS

- Increased employee satisfaction and motivation
- Efficient personnel utilization
- Significant cost savings and reduced overtime expenditure
- Company wide transparency.

KEY FEATURES

- Support for the deployment planning process – Presence to absence planning, shift and roster planning, task allocation
- Real-time disturbance handling – Receive notifications of personnel shortages and find trained personnel replacements based on system recommendations
- Customizing views – Define views according to individual users' needs and preferences
- Quintiq Analysis Grid – Analyze any data in the system and generate both high and low level KPIs
- Knowledge maintenance – Maintain business rules and labor regulations easily in tables and quickly analyze their impact on schedules
- Scenario management – Create 'what if' scenarios with endless experimentation options by utilizing different knowledge bases and assumptions and making alternative decisions
- Support for planners on all levels – All legal and organization specific planning rules are displayed in the system.

ABOUT QUINTIQ

Quintiq focuses on providing advanced planning, scheduling and supply chain optimization solutions. Specializing in supporting companies that work in complex, dynamic business environments, like the aviation industry, Quintiq helps customers increase employee satisfaction, reduce costs, boost efficiency and improve bottom line results. The Quintiq Air Traffic Control Workforce Optimization Solution provides ANSPs with visibility, intelligent decision support and automatic optimization of business processes. Customers in this industry include Deutsche Flugsicherung (DFS) and NAV CANADA.