FLIGHT OPERATIONS SERVICES

Flight Operations Consulting

CAE Flight Operations Consulting: a comprehensive suite of consulting services that deliver customized solutions tailored to your flight operations.

Crew management and flight operations planning is a complex process involving pairing, rostering, day-of-operations tracking, and long-term workforce planning – all done in a dynamic operational environment that must comply with regulatory requirements for duty periods and training. Our experts can help to streamline this process, empower you with insights and identify optimization opportunities within your crew management processes to drive efficiency and cost savings (~2-10%).

Planning as a service

Let our experts manage your pairing, rostering, preferential bidding system (PBS) and workforce planning using CAE's optimizers. Crew quality-of-life, fatigue risk management, regulatory requirements, and company rules and key performance indicator (KPI) targets can be applied through a flexible rule engine. We help you achieve savings with our expertise in optimization and rules calibration to ensure your rules are not overly restrictive.

Solving your challenges and delivering value

CAE's consulting and planning services can deliver value to your operations in a short amount of time, no matter what crew management system you use. Our configurable and flexible optimization engine allows our consultants to efficiently implement and adjust your requirements to model complex business problems, generate multiple scenarios and analyses, and provide an optimal plan for your operational needs.

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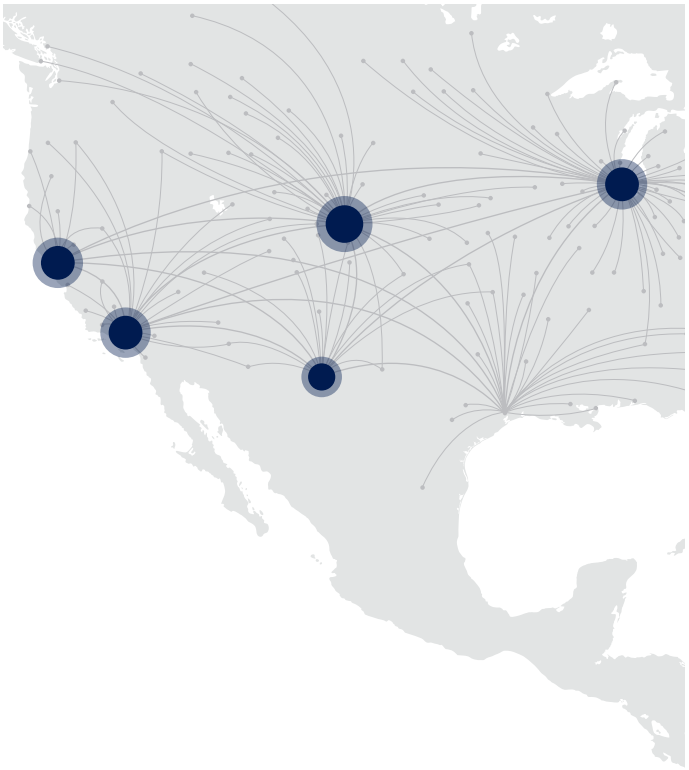
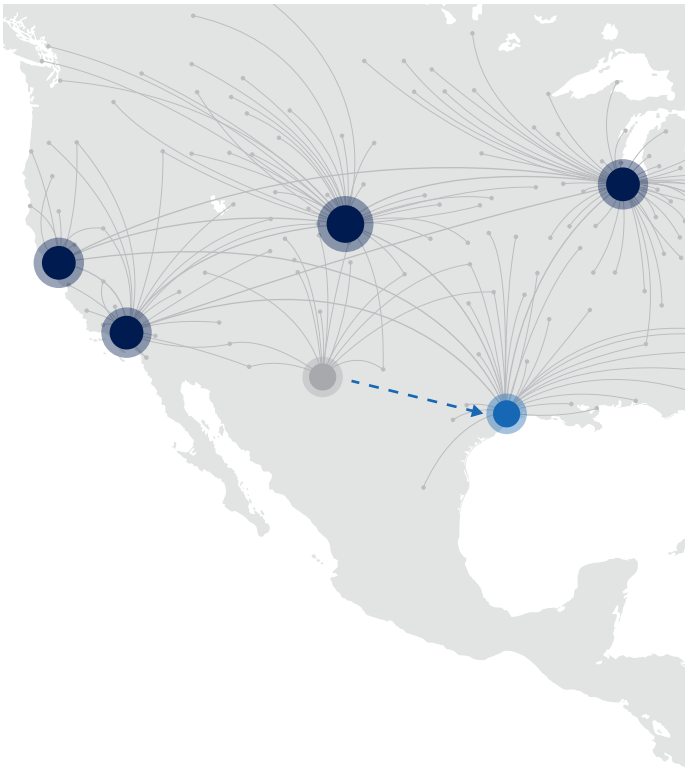
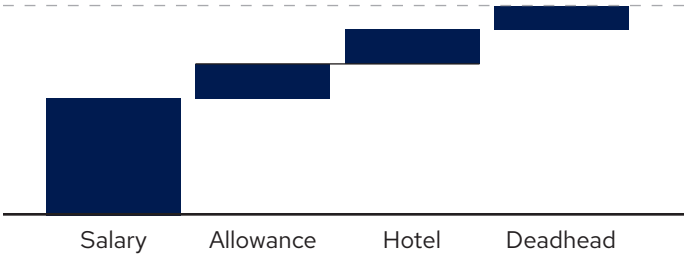
Case study: $800K potential annual savings identified for an airline partner

We conducted a base study for a 10-aircraft airline, taking its route network, schedule, and crewing into consideration. Our analysis identified potential annual savings of $800K could be achieved by replacing one of the existing small bases with another of higher throughput. Reductions in hotel costs, per diem, and headcount requirements contributed to the overall savings.

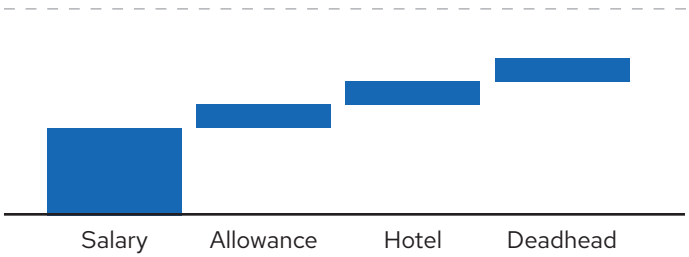




Cost Profile: Configuration A



Cost Profile: Configuration B



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Base study

Changes in your airline's schedule may require changes to your crew base structure. We use multiple schedules and rules to identify an optimal base structure for your airline's operational and strategic needs. An efficient base structure results in salary and per diem savings, and reduced administration costs through consolidation of existing bases.

Schedule analysis

Our schedule analysis uses optimization and analytics to maximize revenue, minimize cost, and adjust your schedule to customer demand. Identifying high-cost routes and having better insights to support your crew hotel contract negotiations can result in significant savings.

Union negotiation support / rule change cost analysis

Rule changes may occur for various reasons (union negotiation, regulatory requirements, etc.). We can conduct a cost-benefit analysis to guide you in turning feedback into actionable rule changes, and use optimization and analytics to examine the impact of the changes on headcount and cost. Savings can be achieved by empowering you with information for union negotiations and improving crew retention rates by actioning quality-of-life changes.

Post-publish change analysis

You may have procedures in place during planning that lead to negative consequences operationally. We can provide an audit of planning and post-publish processes to detect potential deviations between what was planned and actuals. Savings can be achieved by identifying the drivers that cause deviations and associated costs, and establishing procedures to avoid future deviations.

Buffer analysis

Our experts can help create targeted buffers to protect against operational delays. This analysis involves simulating delays and modelling their impact on planned rosters. We can then suggest targeted protections to increase robustness and mitigate delays and their knock-on effects. Savings can be achieved by avoiding regulatory penalties due to delays caused by an insufficient buffer, minimizing crew disruption costs and avoiding costs due to overly restrictive buffers.

Disruption management

In the event of major disruptions and irregular operations, the key is having a quick resolution plan to minimize disruption costs. We can support you in the calibration of CAE disruption management solutions to ensure the system stays up to date as a disruption evolves. This enables you to identify a thorough resolution plan with the fastest recovery rate to minimize disruption costs.

Rules documentation

We can support your airline in interpreting rules and translating them into unambiguous definitions to improve safety and prevent regulatory penalties due to rule violations caused by misinterpretations. Clear and concise documentation helps simplify understanding and saves time for rule testing and rule maintenance. Rules audits can also be done to ensure rules are defined as intended and no overlapping rules exist, preventing overly-restrictive settings which may increase costs.

Fatigue risk management

We can support your airline in measuring and identifying a schedule's fatigue patterns and combinations using fatigue algorithm models. A good fatigue risk management program can help improve airline safety and crew satisfaction.

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Training slot calculation

We can support your airline in creating a training schedule that best aligns with your requirements, taking flight volumes, training type, training duration, resources, and capacity into consideration. Savings can be achieved by booking simulators in advance and at volume and avoiding re-qualification training costs due to currency lapses from inefficient planning.

Standby analysis

Appropriate standby coverage is a key defence against operational delays. However, over-rostering standby can inflate cost. Standby Analysis focuses on providing insights on your standby utilization - utilization rates, activation timeframes, etc. that enable you to identify and implement more efficient processes to minimize roster changes and lower the cost of standby coverage.

Leave slot calculation

We can provide an analysis of your leave slot distribution taking into consideration flight volumes, training requirements, seasonality and overall coverage and propose an optimal calculation for your operation. Savings can be achieved by maximizing crew leave consumption, while avoiding crew-shortage on peak days and maximizing crew utilization during the off-peak season.

Delay analysis

We understand that on-time-performance is a critical KPI for your airline. Knowing where and why delays happen is key to creating a process to mitigate them. We can help you find trends, identify the causes of delays and provide the insights to help you address them.

For more information
cfssalesops@cae.com