M2P CONSULTING

MOSTERT·PLOOG & PARTNERS

M2P Service Offering
Demand based Standby Planning

Improving standby planning is fundamental to maintain optimal operational cost and increase crew satisfaction

Positive impact of improved Standby Planning

- ✓ Less activated off days
- ✓ Increased standby activation rate
- ✓ Standby strategy supported by work force

Crew Satisfaction

- ✓ Less delays caused by crew
- ✓ Increased reliability and on time performance

On Time Performance

- ✓ Usage of cost optimal reserve strategy
- ✓ Operations at optimal total cost of delivery

- 35% **Standby related Crew Costs with M2P's updated Standby concept**

Standby planning is often complex and happening in a non-transparent environment

The planning and management of standby capacities represents a major challenge to many airlines. During many projects in the last years, we have experienced that within the process of standby planning there are many ways to take a wrong turn. Here are some of the most common examples:

Long-term planning → Day of operation

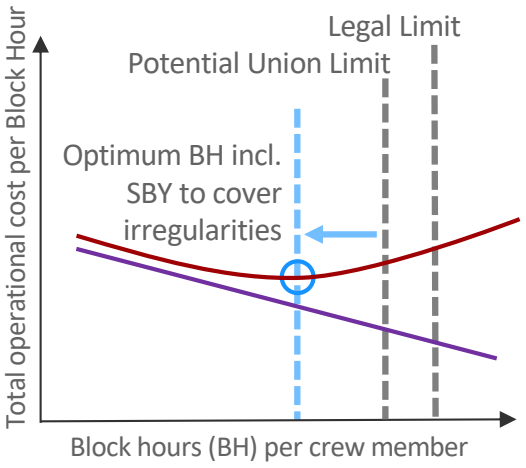
Management
No target for activation rate – no guidelines how many standbys should be used to operate at optimal cost

Management
SBY has a low priority in the manpower planning process – standbys are not planned according to demand

Crew planning
Coverage of flights more important than standby duties – no clear guidelines when to plan a standby

Flight crews
dislike standby duties – block hours are uncertain and standbys can represent unpaid working hours

Controlling
Unused standby duties represent unproductive resources decreasing productivity - **while having no transparency** about what the planned standby duties were used for



At many airlines the assumption is that crew costs decrease in line with increased block hours per crew member (planned crew cost). However, in reality, the actual crew cost per BH increases with extensive productivity since operational irregularities can often only be recovered at high cost (e.g. ad-hoc charter, passenger compensation and others). In order to ensure operations at optimal crew cost, reserve resources to cover expensive irregularities have to be planned

However, during this process crew planning has to answer several questions such as:

- Where and when do we actually need a standby?
- How to cover the demand at optimal cost?

We have developed a best practice concept enabling crew managers to identify the right amount of reserve capacities for their specific needs

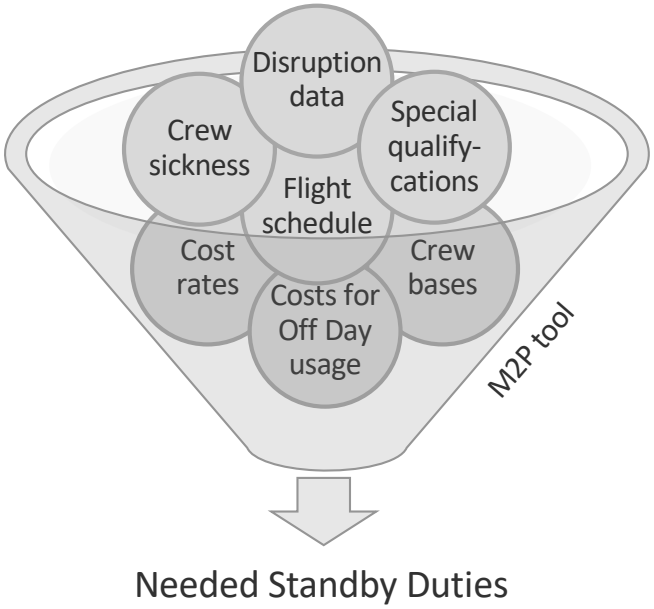
M2P's approach for standby planning is based on long-term experience and was successfully applied in multiple projects

Preconditions to ensure operations at optimal crew cost

1. Planning of reserves based on the **best possible understanding** of the **actual** demand **through Analytics**
2. Planning and managing reserve resources has to be **integrated into the crew management process**

Data Analytics and Prediction

We have developed a tool that enables us to perform strategic and demand based planning of standby duties. In order to ensure operational stability at optimal cost it is **important to take as much input factors and data into consideration as possible**.



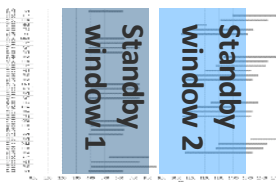
We make use of **past and present input data regarding flight plan, signees rates of crew members, delays, regulatory aspects and other requirements like licensing for special airports as well as all associated cost parameters**.

To allocate the optimal amount of standby duties, we use the mentioned input data and **assign standby duties based on the expected activation probability**. In a second step, we perform an **optimization** to derive the amount of standby duties that **guarantees optimal cost** while maintaining **operational stability**.

We use our proven tool to collect all inputs and to calculate

Calculation logic M2P Standby Tool

Demand input – **why**	Standby windows – **where and when**	Number of duties – **how many**	Cost calculation – **what is the cost optimal way**
Flight schedule based on Pairings or departures + Historical failure rate **Ø sickness** **+ Ø irregularities** **+ delays etc.**	1. Determination of **standby windows** based on the flight plan	2. Evaluation of **number of standby duties per window** based on **target activation rate**	3. Calculation of **standby and off day cost** in different scenarios and **benchmark**
Usage of **predictive analytics**	**Industry Benchmark** on standby rates and target activation rates		



Scenario	A	B	C
Planned standby	-	93	593
Activated standby	-	41	65
Activation rate	-	45%	11%
Unused standby	-	52	528
To be covered by off	65	24	-
Cost standby	-	€2.3 Mio	€14.4 Mio
Cost off days	€7.3 Mio	€1.8 Mio	-
Risk	high	balanced	low
Delay cost	€2.5 Mio	-	-
Total cost	**€9.8 Mio**	**€4.1 Mio**	**€14.4 Mio**

Automated optimization

Tangible deliverables on Ops and Management level ensure our project successes

Benefits along the planning process

Reserve capacities in manpower planning

Reserve capacities included in **pattern creation**

Tool to allocate standby duties automated

Standard reporting regarding standby usage and **Benchmark**

Long term planning — **Day of operations**

Capacity planning → **Pattern creation** → **Rostering** → **Crew controlling** → **Post planning**

Potential implementation of **requesting of standby** duties

Handbook of activation strategy

Implementation of regular **feedback processes**

Our approach enables airlines to significantly reduce standby cost while maintaining operational stability

In previous projects, we did not only **increase crew satisfaction** but also achieved a significant **reduction in standby related crew costs** (standby cost & other variable costs, such as overtime, irreg cost…). In a recent project, we have achieved a cost decrease of up to **2.5 million EUR reducing the standby related crew costs by 35%** due to significantly improved standby usage and a reduction of the number of activated off days.

M2P project approach

	2 weeks	2 weeks	2 weeks	*4-8 weeks (optional)*
	As-Is analysis (process, organization, IT, cost)	**Development of strategy**	**Preparation of implementation**	**Implementation of concept (optional)**
Goal	Analyzing standby planning process, labor agreements, current and historic standby usage incl. industry benchmarks	Increasing transparency and developing target standby planning process	Defining time horizon and developing handbooks as well as regular feedback processes	Adjusting crew management process and initiating potential negotiations
Deliverables	Issue log Quantified impact of labor agreements Quantitative reports on current standby planning and usage (how many standbys did we use, what for and more)	Target standby planning process incl. sourcing strategy (in which cases do we use standby or off days and more) Action plan to decrease cost of delivery while increasing crew satisfaction	Implementation plan Handbooks describing target standby planning process and activation strategy Stakeholder specific presentations of results	Implemented target standby planning process Demand based standby plan for a duty period Successfully completed change management process

M2P recognizes that crew management and standby strategy is clearly not "one size fits all". Based on our expertise, we can develop a customized solution tailored to your airline's specific needs.

M2P combines analytical competence with strong expertise in Operations and Crew Management

Why M2P?

By linking M2P's business and IT strategy with our implementation services as well as our unique expertise in Operations Management, we are the **leading industry experts in Crew Management**. We have developed this competency over the past years by delivering over 25 projects in Crew Management to clients worldwide.

Our Strengths

- Functional and operational experience at all airline types
- Teams consisting of strategy consultants and ops specialists with hands-on mentality
- Strong focus on the entire process—from strategy to implementation
- Successfully applied analytics tools (including crew management analytics and standby planning tools)

Our Profile

- Serving the TT&L markets from our offices in Frankfurt, London, Dubai, New York and Hong Kong
- Partner to more than 50 TT&L companies worldwide with an industry focus on airlines and airports
- More than 500 successfully delivered projects within the past 19 years
- Medium-sized, specialized services delivered by more than 100 employees

Your Benefits

- ✓ **Savings between 2% and 9% in actual crew costs**
- ✓ **Benchmarking** with **peer competitors** and **industry developments**
- ✓ **Customised standby strategy** and **standby tool** based on airline business model and needs
- ✓ **Qualitative and quantitative strategy evaluation** using all available airline specific data
- ✓ **Implementation support** after approval of strategy

Our References

Cathay Pacific, Lufthansa, SunExpress, Thomson, Thomas Cook, vueling, Eurowings, Austrian (We fly for your smile.), Croatia Airlines, FLY SMART go

If you would like to request more information regarding our demand based standby planning approach, please contact us:

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