

Crew Agreement Analysis

- What changes to your crew agreement would improve your operation?
- What are the rules that limit your operational capacity the most?
- How much can a specific change reduce overall costs?

A change of just one per cent in crew productivity represents seven figure savings or costs for a mid-sized airline's operations. With extensive experience and unique tools Carmen can advise on how to change rules and how to rapidly make expert evaluations and simulate operational modifications. This enables you to make decisions based on facts.

Benefits

To give you an idea of how well your current crew agreement is co-ordinated with operations, Carmen can compare various agreement scenarios.

The most important result will be your understanding of the relative difference in costs based on industrial regulations compared with crew agreements. This indicates the saving or cost of changing the existing agreements. In the study we will also discuss with you what kind of agreement changes you can strive for.

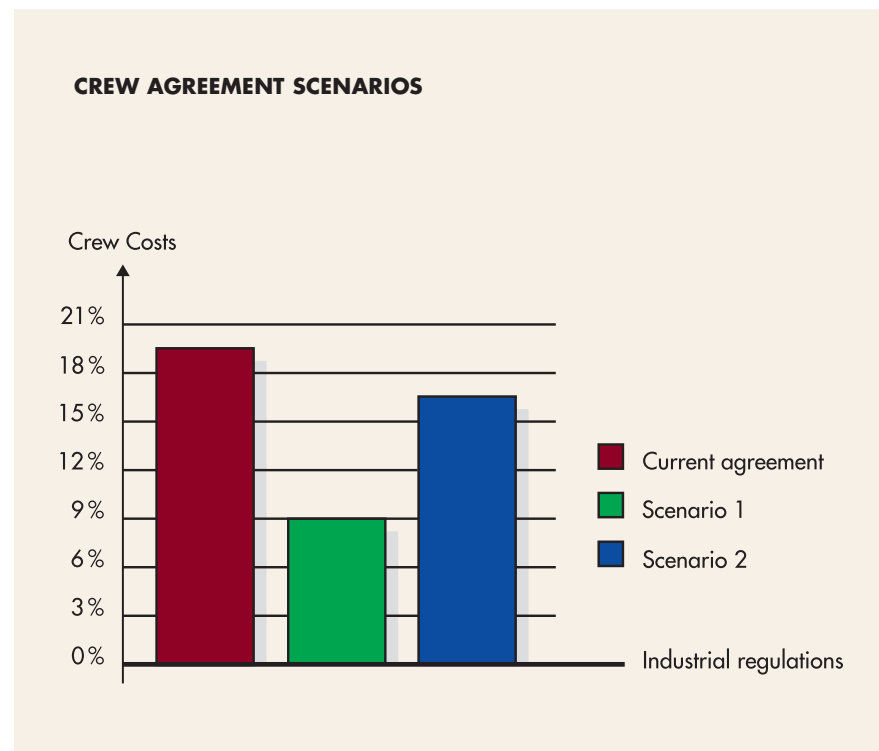
Scenarios

In the study, we plan anonymous crew using various scenarios and in different time periods. All change scenarios are compared to a base line, e.g. the existing industrial regulations or your current union agreement. This ensures that the final comparisons will be independent of the planning tools used today.

We use Carmen Crew Pairing, the same tool used by many of the world's leading transportation companies for the technical aspect of the study.

Method and Scope

We start the project with agreeing on the scope and the goals. You explain your ques-



The difference between operational costs based on current industrial regulations, two scenarios with minor agreement changes and the current crew agreements.

tions and we bring up potential problems in the current agreement structure, based on our experiences from the airline industry. Following this we set up the system and maintain close contact with your staff to perform the analysis. We plan for cockpit and/or cabin crew, using weekly schedules over three time periods. We can also investigate how crew agreements are obstacles to efficient co-planning of cabin, cockpit, fleet and/or regions. If more appropriate, daily or monthly planning can also be carried out.

The basic analysis can be expanded to cover even more. It is possible to investigate any number of regulation changes or even

entirely different agreement structures, alternative quality criteria and cost structures, timetable revisions, etc.

Results from a study

- Cost comparisons for all scenarios
- Advise on potential regulation changes
- Detailed planning scenarios
- Analysis of each scenario

What we supply

- Advice on what rules to change
- Advice on how to change the rules
- Experience based on similar projects in the airline industry
- Report on cost difference between crew base scenarios

How fast?

- Normally within 1 month from receipt of data

Extended scope

- An extended scope may affect the delivery schedule

What we need to know

- Timetables (one or two) and required time periods ¹
- Today's crew data (required distribution of crew per duty base, in duty days or block hours)
- Aircraft rotations for each timetable ²
- Industrial regulations
- Crew agreements
- Cost structure (major cost drivers such as daily crew costs, credit time, etc) ²
- Major stability criteria (minimum crew connection times, standard delay buffers, etc) ²

¹ Can also be extracted from standard OAG.

² Can be simulated, if information is unavailable.

Questions & Answers

Are we obliged to use Carmen optimization software in order to benefit from the analysis?

No. The study will relate all costs to what would be possible if only the industrial regulations were applied. This means that no matter what system you use for production planning, the estimated cost impact of changing the base structure will still be valid.

Can you help us during our union negotiations?

Yes. On several occasions we have helped airlines in union negotiations by understanding the impact and reaching an agreement before signing. We have had valuable experience in several different roles.

Can you introduce specific agreement changes into the study to help us create a business case?

Yes. We can expand our planning software to include any regulation or quality constraint. We can further introduce any changes in legal, quality or cost factors, in order to obtain an exact assessment of cost impact.

Can you investigate the trade-off between using a mini-

mum crew and minimizing direct costs such as hotels and travel allowances?

Yes. We can create scenarios where either required crew or direct costs are minimized. These two scenarios can then be compared with a third scenario where crew size and direct costs are minimized simultaneously.

What is the required level of involvement from our organization?

This depends very much on your needs. Most of the information required for this study can be extracted from public sources or approximated by us, based on our experience from working with similar studies. However the level of detail and the quality of the advice we can give you is, to some extent dependent on your ability to devote time to this project. Of course, the less exact the information put into the analysis, the less exact the results will be.

If you have any questions about Crew Agreement Analysis, please contact your Carmen account executive or consulting @carmenconsulting.com



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