



Airline Network, Fleet and Schedule Planning Course



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Airline Network, Fleet and Schedule Planning Course is a ten-day course for planners and commercial staff who decide where an airline flies, with which aircraft and at what times. The first week builds origin and destination forecasts and city-pair cases; the second assigns fleet, builds a schedule, works around slots and reviews network results. You leave with a completed Network Plan Workbook. The course is delivered by Mercury Training Center.

About This Course

Many carriers forecast a promising city pair well but lose money when aircraft, timings and slots do not fit together. You should already work with traffic, schedule or commercial figures. Across two weeks you build forecasts, assign aircraft, draft a timetable and defend it against cost, slot and connection constraints in group reviews.

Who It Is For

- Network and scheduling staff who decide frequencies, timings and connections.
- Fleet planners who match aircraft types and seat counts to flying patterns.
- Revenue and pricing staff who need to see how capacity choices affect yield.
- Airport development staff who prepare proposals to attract new services.
- Strategy and finance analysts who test the profit case of network changes.

This course is not for newcomers who need a first look at how carriers earn money, who are better served by an introductory industry course, or for flight operations staff seeking crew and dispatch skills, who need an operations control course.

Competencies You Will Build

- O&D forecasting: you estimate city-pair passengers from history, economics and stimulation effects.
- Fleet assignment: you match aircraft gauge and range to each flight and show the cost of a mismatch.
- Schedule construction: you build a timetable with banks, turn times and aircraft rotations.
- Slot and constraint handling: you plan around slots, curfews and terminal limits at congested airports.
- Network performance review: you read load factor, yield and RASK by flight and decide what to change.
- Case presentation: you present a network change with numbers airports and senior managers accept.

What You Will Be Able to Do

By the end of the course you will be able to:

- From traffic history and economic indicators, produce a city-pair forecast with seasonal shape.
- Given two aircraft types, calculate trip cost and break-even load factor for a proposed service.
- Using a fleet of six aircraft, build a weekly rotation that covers a set of flights.
- Given a hub bank structure, time arrivals and departures to raise connecting options.
- From flight-level results, rank flights by contribution and propose frequency or gauge changes.
- Using all exercises, complete a network change proposal with forecast, cost and schedule.

Course Content

Day 1: Carrier Models and Network Shapes

- Low-Cost, Full-Service and Regional Carrier Operating Models
- Hub-and-Spoke Versus Point-to-Point Network Design
- Alliances and Codeshare Agreements in Network Reach
- Bilateral Air Service Agreements and Traffic Rights
- Network Plan Workbook Setup for the Course Case

Day 2: Forecasting City-Pair Demand

- Booking and Schedule Data Sources for Traffic Analysis
- Historical Trend and Econometric Forecasting Methods
- Demand Stimulation From New Service and Lower Fares
- Seasonality, Holiday Peaks and Weekly Patterns
- Leisure, Business and Visiting-Friends Passenger Segments

Day 3: City-Pair Economics

- Trip Cost Build-Up: Fuel, Crew, Fees and Ownership
- Load Factor, Yield and RASK as Flight Measures
- Break-Even Load Factor Calculation
- Price Elasticity and Fare Class Mix
- Ancillary Revenue in the Flight Result

Day 4: Competitor and Opportunity Analysis

- Competitor Capacity Mapping and Overlap Analysis
- Finding Underserved City Pairs
- SWOT Review of a Planned Service
- Airport Incentives: Fee Waivers and Marketing Support
- Passenger and Cargo Mix on Shared Flights

Day 5: Building the Service Case

- Exercise: Forecast for a New Regional Service
- Exercise: Break-Even Test Under Two Fare Scenarios
- Exercise: Competitor Response Scenarios
- Sensitivity Testing on Fuel, Demand and Fares
- Week One Review and Service Case Draft

Day 6: Fleet Assignment

- Aircraft Gauge, Range and Seat Configuration Choices
- Fleet Assignment Models for Matching Capacity to Demand
- Spill and Recapture When Capacity Is Short
- Owned Versus Leased Aircraft in Fleet Plans
- Long-Term Fleet Planning With Manufacturer Outlooks

Day 7: Schedule Construction

- Bank Structures and Connection Windows at a Hub
- Aircraft Rotations, Turn Times and Utilization
- Maintenance Windows in the Weekly Pattern
- Frequency Versus Gauge Trade-Offs
- Timetable Building in Excel for a Small Fleet

Day 8: Slots and Operating Constraints

- Slot Allocation and Coordination at Congested Airports
- Curfews, Terminal and Runway Capacity Limits
- Environmental Rules Affecting Timings and Routings
- Disruption Recovery and Schedule Robustness
- Risk Review of a Network Change

Day 9: Network Performance Review

- Flight-Level Profitability Reporting
- Dashboards in Power BI or Tableau for Network Results
- Deciding Frequency Cuts, Upgauges and Exits
- Predictive Models for Bookings and Load
- Presenting Network Changes to Airports and Senior Management

Day 10: Network Planning Practice

- Exercise: Fleet Assignment for a Ten-Flight Pattern
- Exercise: Weekly Schedule With Hub Connections
- Exercise: Slot Conflict Resolution at a Busy Airport
- Exercise: Performance Review and Change Proposal Panel
- Completing the Network Plan Workbook

Case Studies and Exercises

The following are suggested activities the group may adapt to its own networks.

- Case study: a low-cost carrier adding a secondary base; you decide which city pairs to open first and with how many aircraft.
- Case study: a regional airport seeking a new daily service; you build the case it presents to carriers.
- Exercise: a full-service carrier with poor connections at its hub; you retime a bank to add connecting options.
- Exercise: a cargo-heavy long-haul service losing money; you test a gauge change and a frequency cut.

What You Take Back

You take back the Network Plan Workbook, built on the course case with your own forecasts, costs, fleet assignment and timetable. In your first month you use it to review one part of your network, test a frequency or aircraft change and present the result to your planning lead.

- City-pair forecast and break-even sheets.
- A fleet assignment and rotation template.
- A weekly timetable with connection checks.
- A flight-level performance review and change proposal.

Quick Answers FAQ

What should I know before an airline network, fleet and schedule planning course?

You should be comfortable with spreadsheets and know basic measures such as load factor and yield. Experience in commercial, scheduling or airport development work helps, since the exercises use realistic flight and cost figures.

How does network, fleet and schedule planning training differ from a short route forecasting course?

A short forecasting course stops at the case for one city pair. This ten-day course carries the case through fleet assignment, timetable building, slot constraints and performance review, so you see whether the whole network works.



How do airlines decide between more frequencies and larger aircraft?

They compare the revenue gained from extra departure times, which suits business travelers and connections, with the lower seat cost of larger aircraft. Slot limits, fleet availability and competitor schedules usually settle the choice.

What do I take back from airline network, fleet and schedule planning training?

You take back the Network Plan Workbook: forecast and break-even sheets, a fleet assignment template, a weekly timetable and a performance review, ready to apply to your own network.

For Your Manager

After this course your team member can forecast city-pair traffic, assign aircraft, build a weekly schedule within slot limits and review results flight by flight. They return with the Network Plan Workbook, first used to test a frequency or aircraft change on part of your network and to brief the planning committee.