



THROUGH  
THE  
LOOKING  
GLASS



CREATIVE CONSULTING AND EDUCATION IN AIRLINE STRATEGY  
[WWW.TTLGLEARN.COM](http://WWW.TTLGLEARN.COM)



# WHAT IS SKYCHESS?



- SKYCHESS is an airline business simulation game powered by up-to-date software.
- SKYCHESS includes a mix of operational as well as strategic decision making in a competitive airline environment.
- It is team-oriented, addictive, fun to play, but with serious learning objectives.
- It is suitable for anyone from non-specialist to C-level executive.
- SKYCHESS is a registered trade mark owned by Through The Looking Glass Ltd, a UK-based training and consultancy company.



# WHAT IS SKYCHESS?



- Participants play in teams of around 7 persons, each representing an airline.
- The game consists of up to 8 sets of decisions, each representing a quarterly period.
- Key decision areas are:
  - Marketing strategy
  - Fleet and capacity development
  - Scheduling
  - Pricing
  - Route selection



# A TYPICAL SKYCHESS SCHEDULE



- SKYCHESS can be played either as a stand-alone exercise, or integrated into a broader learning programme.
- There are three levels of the game:
  - Club Level (a one-day taster)
  - International Master Level (two days)
  - Grandmaster Level (three days)
- Customisation to an organisation's particular needs is possible.

# THE DEBRIEF



- After the simulation, the Gamemaster will review team performance, summarise the market evolution and present a series of charts that reveal the achievements – or otherwise – of the airlines.
- Team goals will be critically analysed against actual performance.
- The best performing airline will be announced.
- There is a prize for members of the winning team.



# HOW THE TEAMS WORK

## Goals



- Market share 80% by Q4/16
- Margin: 7%

- Each team, or airline, must organise themselves so that decisions can be efficient and timely. They must elect a CEO.
- Teams must set goals.
- Decisions are submitted to the Gamemaster. These cover marketing, pricing, a capacity plan and scheduling.
- Teams must be creative. This means they should manage their cash, seek out ways to reduce cost, negotiate with suppliers and anticipate actions of their competitors.



# REPORT DISTRIBUTION

- At the end of each Quarter, the following information is provided to each airline for that Quarter:
  - Traffic results by route
  - Market share
  - Load factor by flight number
  - Aircraft order status for all airlines
  - Competitor pricing and scheduling
  - Profit and Loss statement
  - Cash flow statement
- Data are transmitted to each team wirelessly and are accessible on any portable electronic device or computer.





# EXAMPLES OF NEGOTIATION

White Knight Leasing 



- If an airline needs capacity quickly they can ask a leasing company for short-term capacity. Negotiation of terms is a challenging task, as the supply of leased aircraft is deliberately limited.
- The cost of fuel varies constantly during the game, but airlines may embark on a fuel hedging strategy as a way of controlling cost. They need to negotiate favourable terms and control risk.



# WILL THERE BE A CRISIS?



- The Gamemaster may decide to introduce a crisis to test the teams' abilities to adjust their strategies.
- A crisis may involve the collapse of demand, a rise in the price of oil, or perhaps a problem with a particular route or type of aircraft.
- Teams may have difficult decisions to make, such as whether to return leased aircraft, ground capacity, or cut prices.
- Either way, if an airline does not understand their break-even point, they may be in trouble.



# COST REDUCTION



- Airlines should constantly review their costs and seek ways of implementing cost reduction.
- Teams must make their case to the Gamemaster, who must be convinced in order to allow the plan to go ahead.
- Typical strategies could involve refinancing, maintenance outsourcing, salary control, improved crew duty hours, or new ground handling contracts.



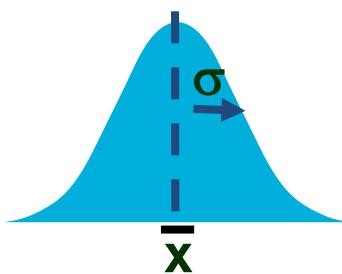
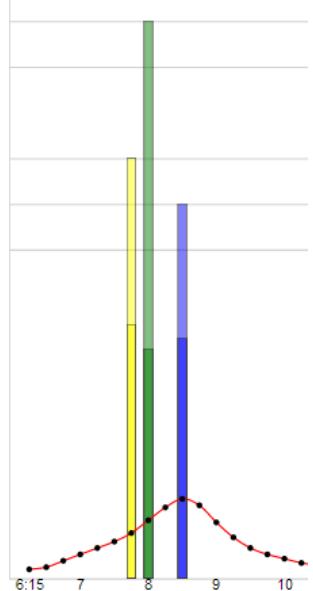
# REVENUE STIMULATION

- Airlines can invest in a variety of marketing tools, each contributing to the stimulation of demand.
- Some tools may generate ancillary revenues.
- The teams must ensure that they only invest in marketing activities that can be supported by cash flow.
- Each investment decision should be consistent with the declared business strategy. If not, the airlines may incur penalties.

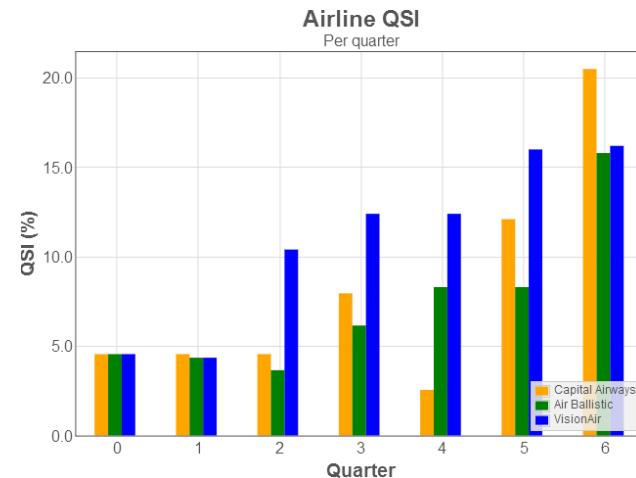
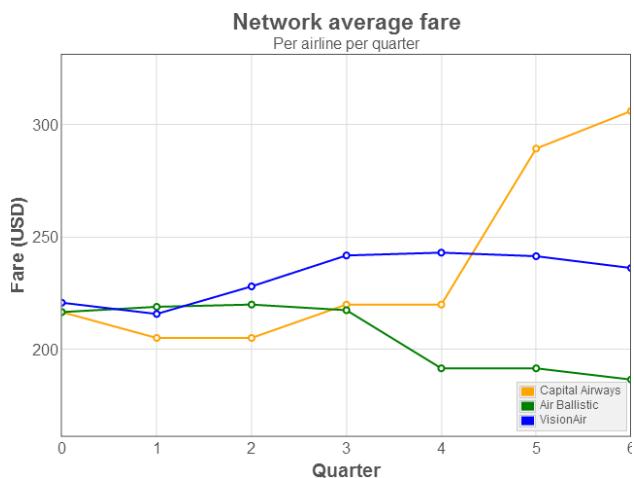
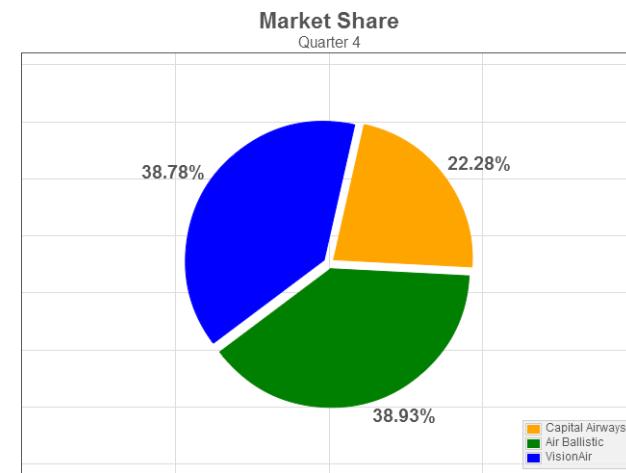
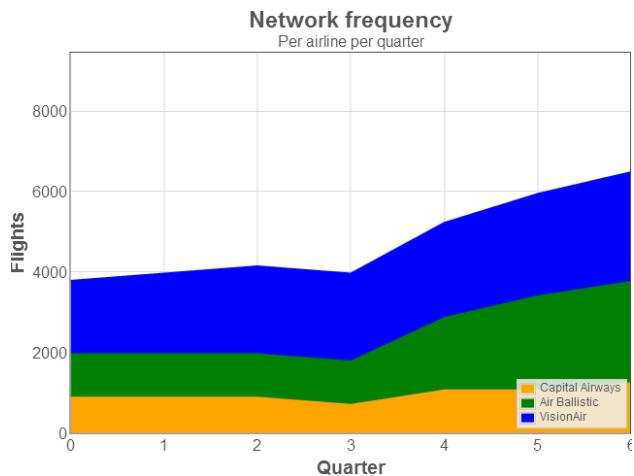
# THE ‘SOLVER’

- SKYCHESS is powered by a dedicated software called the SKYCHESS Solver. The Solver includes functionality consistent with common airline planning practice such as:

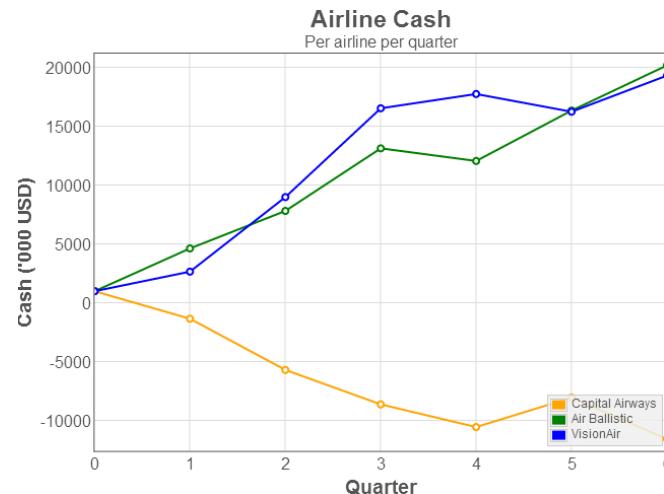
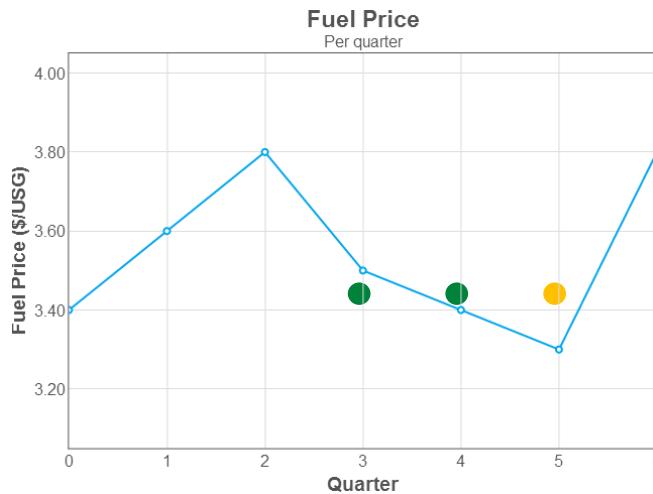
Time of day curves  
Variable demand elasticity curves  
Spill modelling  
A demand transfer model  
Quality of Service Index  
A fuel hedging model  
A schedule emulator



# SAMPLE OUTPUTS



# SAMPLE OUTPUTS



Cumulated For Game	Q1	Q2	Q3	Q4	Q5	Q6
<b>Capital Airways</b>						
Revenue	14602100	26966000	38436806	52882076	67469454	84202004
Expenses	19550400	38871400	55881300	72312600	85131700	100589500
Profit & losses before taxes	-4948330	-11905420	-17444530	-19430550	-17662270	-16387530
% of revenue	-25.31	-30.63	-31.22	-26.87	-20.75	-16.29
<b>Air Ballistic</b>						
Revenue	21579344	42693173	66301887	89944733	116989179	144198689
Expenses	20403700	40792300	61541600	81010800	104663600	129506400
Profit & losses before taxes	1175600	1900759	4760119	8933719	12325349	14692109
% of revenue	5.76	4.66	7.73	11.03	11.78	11.34
<b>VisionAir</b>						
Revenue	20056569	45608362	71880890	95725948	119384698	144848108
Expenses	20794100	42410600	63537200	85236000	108576600	132544000
Profit & losses before taxes	-737551	3197729	8343729	10489999	10808152	12304082
% of revenue	-3.55	7.54	13.13	12.31	9.95	9.28



# A LOAD FACTOR REPORT EXAMPLE

Market	Flight	Fare	Departure	Aircraft	Pax	Seats	Load Factor
Calypso	AB-369911	180.32	07:00	G180	104	180	58
Calypso	AB-369912	180.32	11:00	G180	32	180	18
Calypso	AB-369913	180.32	18:00	G180	107	180	59
Vanda	AB-369921	253.00	08:00	G180	89	180	49
Vanda	AB-369922	253.00	13:00	G180	47	180	26
Vanda	AB-369923	253.00	18:00	G180	108	180	60
Summary					486	1080	45
Aircraft Type					Average Daily Block Hours per aircraft		
G80TP					0.00		
G90					0.00		
G110					0.00		
G140					0.00		
G180					6.96		
G200					0.00		