

# ascend

Taking your airline to new heights

## *JET STREAM*

A conversation with Wolfgang Prock-Schauer, the chief executive officer of Jet Airways.



### Special Section

#### FUELING UP

A look at the rising cost of fuel and its effect on the industry.



#### INSIDE

6	Turboprops make strong comeback
36	WestJet saves US\$5 million annually
78	GOL scores big in Latin America

# Burning Fuel

*Facing the industry's highest fuel prices, airlines around the world have made it a priority to identify tactics and strategies to offset the additional costs.*

■ By Phil Johnson | *Ascend Staff*

In this era of volatile crude oil prices, the squeeze is on in many if not most industries to define better ways of doing business that will produce critical fuel-cost savings.

And nowhere is the need more acute to save expenditures related to fuel than in the airline industry, where estimates of fuel-cost impact range from a low of just over 10 percent to a high of close to 30 percent of average everyday operating expenses, representing the airlines' second-highest expense category after labor.

It's interesting, in light of the potentially substantial positive effects of implementing innovative approaches, that airlines didn't routinely adopt many of the most logical fuel-saving strategies even before energy prices reached "crisis" levels.

But other factors, particularly in the area of marketing, often took precedence in airlines' decision-making processes.

For example, aircraft powered by turboprop engines generally yield better fuel efficiency on short-haul routes than do regional jets. Yet the fact that the flying public overwhelmingly favors jets continues to tip the scale toward regional jets on many shorter airline routes.

Nonetheless, airlines have invested thousands of hours of analysis to identify tactics and strategies that can help offset higher fuel prices. And, indeed, the approaches airlines are using to combat the cost of fuel can generally be separated and evaluated as either tactical or strategic.

The tactical category includes operating practices such as using a single engine to taxi to airport gates and shutting down engines during ground delays; removing equipment considered "unnecessary" (such as certain



Airline pilots are tasked with finding ways to more efficiently fly aircraft to reduce fuel costs. Many are flying steeper approach paths to decrease the fuel burn during landing, traveling at lower speeds and avoiding early arrivals that can use additional fuel while waiting for a gate to become available.

galley items) from aircraft to reduce weight; and carrying lower amounts of fuel (again, to reduce weight) or carrying extra fuel to avoid having to refuel at more-expensive locations.

Also, airlines may instruct their pilots to fly steeper approach paths to shorten the fuel burn during the landing cycle, to cruise at lower speeds to reduce fuel consumption, and avoid arriving too early and burning extra fuel while waiting for an open gate.

Additionally, some airlines are refitting aircraft with wing fins — or blended winglets — that act to aerodynamically reduce drag

and increase lift. Pilots also can seek authorization to fly at higher altitudes, thereby conserving fuel because of the lower drag factors in the higher, thinner air. And flying more-direct routes obviously reduces point-to-point mileage — sometimes saving very significant amounts of fuel.

In the more strategic area, airlines are carefully analyzing the mix of aircraft in their fleets — designating some less-efficient aircraft for an earlier retirement schedule and placing orders for new aircraft such as the Boeing 787 and Airbus A350 that empha-

Photo by istock.com



Photo by Eric Gustafson/Shutterstock.com

As a result of skyrocketing fuel prices that have held strong during the last few years, fuel has become the second-highest expense for airlines around the world. The impact ranges from more than 10 percent on the low end to just under 30 percent on the high end of an airline's daily operating expenses

size greater fuel efficiency with composite airframe materials to save weight and with engines that are also rated at greater fuel efficiencies.

But fuel conservation efforts represent only half of the potential equation. Airlines are also looking at ways to boost revenue to offset higher fuel costs. One direct way to offset higher fuel costs is to pass at least part of the increase on to consumers through fuel surcharges or fare increases. But there's only so much that can be recovered through these "pass-through" techniques before leisure flyers start to seriously curtail their flying frequency and businesses review their travel policies and cut back on flying to face-to-face meetings.

The major North American airlines are documented to have raised fares — at least incrementally — a dozen times during the past several months. Yet the average airfare today has been estimated to be 10 percent below the average fare six years ago. Obviously, that type of shortfall serves to exert considerable pressure on airlines' operating margins.

One of the practices many airlines have applied to varying degrees of success is hedging fuel buys — guaranteeing themselves

certain amounts of fuel at a fixed price over time.

Hedging is actually riskier than it might appear at first glance — purely because the "hedge" price, regardless of the daily ups and downs in the open fuel market, is locked in, so it's at least as easy to lose as it is to win. And despite the fact that Southwest Airlines, for example, was able to gamble correctly on a series of very large fuel hedges several years ago — just prior to the big jump in oil prices — such good fortune in hedging opportunities is both very rare and difficult to achieve.

All of these uncertainties have combined to prompt airlines to more intensely analyze major factors such as their fleet structures and utilization, and the *Sabre Airline Solutions*® business offers one of the foremost aircraft-allocation tools in the industry: the *Sabre AirFlite™ Fleet Manager*, which is designed to help airlines better optimize schedules, thereby lowering operational costs including fuel burn.

With the help of *Fleet Manager*, the airline planner is able to use a highly sophisticated analytical approach to answer key questions: To which destinations and between which connecting points should the airline fly? How often should the airline fly these routes

— and using which aircraft from among the airline's current fleet?

In other words, how should the airline move its current aircraft assets around the region, around the country or around the world to achieve maximum efficiencies? Would it save more fuel, for example, by serving a particular destination with one flight using a larger aircraft — or with two different scheduled flights using smaller aircraft?

Again, these are tactical questions — the answers to which can be of immense help in guiding airline planners through decisions on optimal redeployment of existing aircraft assets to lower operating costs. *Fleet Manager* can also be used to devise various future strategic scenarios with regard to which aircraft to retire and how many of what aircraft models to buy.

Other *Sabre Airline Solutions* products can be employed to optimize other operational areas for efficiency — such as the *Sabre*® Load Manager, to help distribute loads properly in any specific aircraft's cargo hold for optimum weight distribution and fuel efficiency.

Also, the *Sabre*® Dispatch Manager can help determine optimum flight-routing options to save mileage and thereby minimize fuel burn on any particular flight.

Another consideration is to try to avoid airport congestion by using the technique of block-time scheduling — especially at hub airports — so that upon arrival, aircraft are immediately accommodated at open gates, and also don't have to waste fuel dwelling in a holding pattern prior to landing.

There's really no arguing that fuel prices represent one of those knotty issues in today's air-transportation infrastructure that warrants significant analysis.

And among the key findings is that it's truly an exercise in futility to try to identify any one tactic or strategy that might in and of itself effectively stymie the negative effects of higher fuel costs.

But by addressing the strategic issues (aircraft-fleet makeup) along with the larger tactical issues (insightful scheduling and optimum deployment of existing aircraft assets through logical and analytical fleet assignment) — as well as being willing to mix in more-minute tactical approaches (aircraft loading techniques and various economizing measures to save fuel on individual flights) — airlines can actually give themselves a fighting chance to maximize efficiencies and gain worthwhile advantages in the ongoing fuel-cost battle. ■

*Phil Johnson can be contacted at [wearelistening@sabre.com](mailto:wearelistening@sabre.com).*