

## US Airline Quarterly Results Show Vulnerability Due To Lack Of Hedges

The extent of airlines' exposure to high fuel costs was evident in their first quarter operating results.

### HIGHLIGHTS

- **US Airline Quarterly Results Reveal Fuel Vulnerability**  
(Page 1)
- **Fueling Safety Boosted By Use Of Lightning Detection**  
(Page 1)
- **News Briefs... World Fuel Services Notes First Quarter Profit Rise**  
(Page 7)
- **Alitalia Spins Off Ground Services Arm**  
(Page 7)
- **World Jet Fuel Prices**  
(Page 7)

In recent months, US carriers have been able to at least match their international counterparts in imposing modest fuel surcharges on fares. But as far as protecting themselves against oil prices surging even higher, most domestic carriers have seemingly little other ammunition at their disposal right now.

“Frankly, hedging is a little bit more than six months to a year or two years away, and right now many carriers are simply trying to get through tomorrow,” says **John Heimlich**, vice president and chief economist with the **Air Transport**

**Association (ATA)**. “The industry is really in survival mode right now and when you’re squirreling cash now it’s to pay workers to meet the pension requirement and pay taxes. If there’s any left over for hedging and we’re smarter than the market, then great.”

The result, says **Matthew Wood**, American refined products editor for **Argus Media**, is that, “There is some hedging going on but not as much in terms of swaps as we used to see. They may be more hedging on the future markets but that’s more directly related to crude.

*(Continued on page 2)*

## Fueling Safety Boosted By Use Of Lightning Detection Systems

As thunderstorm season approaches in much of North America, airlines and ground handling companies can expect delays in fueling and other activities during periods of lightning strikes. But many airports and their airline tenants are looking to technology to monitor and even anticipate lightning strikes. The technology takes some of the ambiguity out of what has primarily been a visual detection process in the past, and has the potential to decrease the amount of time operations shut down due to lightning activity.

Airports, and sometimes airlines, set specific parameters as to when halt ground operations,

particularly fueling, during storm activity. Since lightning and fuel are obviously a lethal mix, it’s crucial that precautions are taken when lightning is in the airport vicinity. The problem is that identifying the location and intensity of lightning is difficult without technology to guide the process.

“Airports and airlines are using this automated tool to tell people what the level of threat is and to get people off the ramp in an efficient and very safe manner,” says **Michael Dufton**, director of sales for **Arinc**, which has a partnership with lightning detection systems producer

*(Continued on page 4)*

**“Frankly, hedging is a little bit more six months to a year or two years and right now many carriers are simply trying to get through tomorrow.”**

In terms of jet fuel hedging there’s not.”

But with spot jet fuel in some markets pushing \$1.80 a gallon and crude oil threatening to go higher, should airlines be looking at protecting themselves no matter how expensive?

**Raj Mahajan**, president of **Kiodex**, says the answer may be yes. While acknowledging that many airlines are beyond the breaking point already, Mahajan says those who can sustain the current prices but can’t handle much more should consider a move. “Despite the fact that hedging at \$55 spiritually hurts, I think you really need to start considering putting a hedge program in place such that you avoid you’re worst case scenario,” he says. “Right now the market is saying there is a good probability that prices will go higher and I think its incumbent on airlines to look at that point, understand it, and say what are we doing to protect ourselves.”

To be fair, Heimlich points out that many US carriers do have some modest hedges in place in the oil futures market. “Even United, by the way, has a modest hedge position though it’s very low just over 10%,” he noted.

But when it comes to being substantially hedged, Heimlich says, “There are three carriers out who are 50% or better hedged going out **Southwest, America West** and **Alaska** and Alaska is right at 50%. You also have to consider what level there hedged at and Southwest is the winner there followed by Alaska and American West.”

Southwest has 85% of its consumption locked in at \$26 a barrel in 2005, but even the leading budget carrier is not in quite as strong a position in subsequent years. In 2006, Southwest will be 65% hedged at \$32 a barrel and for 2007 they are 45% hedged at \$31 a barrel.

Of course virtually every other carrier would love to be in that spot, but you can’t change the past. But what is debatable now is whether carriers should even be looking at hedging now with oil prices remaining stubbornly high.

In a recent speech before the Congressional Economic Leadership Institute, Heimlich pointed out that hedging is not arbitrage, it’s a gamble and potentially an expensive one at that. “Hedging now means locking in above \$50 a barrel,” he said in his remarks. “Would you take that gamble now?”

**Lacking Credit-Worthiness**

The challenge many US airlines face is that they lack the credit rating to be an active hedging participant - and that’s not likely to change soon.

“I can’t say for sure what the pros in the market would say in terms of counterpart risk but I would imagine you would need a rating somewhere around that line between investment grade and high yield, sort of in triple B and double B,” says **William Warlick**, lead airline analyst at **Fitch Ratings**. “That’s sort of where you would see significant reductions in the cost of hedging.”

Depending on whether you’re looking at Standard & Poor’s or Fitch, most US carrier have a credit rating in the triple C to B range. “By and large these carriers are all in the deep recesses of high yield bond territory with ratings of single B and below and it’s just a matter of over time rebuilding balance sheets,” Warlick says. “Obviously none of them are in a position to begin that process yet and 2005 is likely to be another year where losses will mount, very little operating cash flow will be generated and very little debt will be paid down.”

With the lack of solid credit-worthiness, swaps become difficult to execute. “Airlines that don’t have hedge programs in place, who now have to initiate hedge programs, are faced with the challenge of only being able to do it with options. That requires a lot of cash, which they don’t have,” Mahajan says.

Warlick praises the efforts by many carriers to renegotiate contracts with their unions and extract significant concessions, but notes,  
*(Continued on page 3)*

© 2005 World Jet Fuel Report

Published biweekly by:  
**Armbrust Aviation Group, Inc.**  
8895 N. Military Trail, Suite 201E  
Palm Beach Gardens, FL 33410  
Telephone: 561-355-8488  
Fax: 561-355-8188  
Website:  
www.armbrustaviation.com  
E-mail:  
info@armbrustaviation.com

**John H. Armbrust**  
*Publisher*  
**Carol Ward**  
*Managing Editor*  
**David Ward**  
*Online Director*  
**Roger Schinkler**  
*Creative Director*  
**Barbara Moreno**  
*Circulation Manager*  
**Patricia Holland**  
*Business Manager*

Subscription \$1,675 per year.  
Transmitted via electronic mail or  
downloaded from Web. License  
rates on request.

Copyright © 2005 Armbrust  
Aviation Group, Inc. All rights  
reserved. Publication or  
reproduction of **World Jet Fuel  
Report** is strictly forbidden without  
prior permission from the  
publisher.

Other AAG publications:  
**World Airport Revenue News**, a  
monthly magazine covering issues  
that concern airport managers,  
retailers, and concessionaires.



Selected US Airline Fuel Costs Per Gallon

“I would regard a turnaround in airline credit quality as extremely unlikely.”

Airline	Q 1 2005 cents per gal.	Q1 2004 cents per gal.	% Change
AirTran	147.86	107.52	+42.6%
US Airways	147.00	99.00	+48.1%
Continental	145.30	104.13	+39.5%
Delta	141.72	95.23	+48.8%
Northwest	137.91	100.16	+37.7%
American	136.60	101.00	+35.2%
JetBlue	131.00	92.00	+42.6%
Southwest	90.30	79.60	+13.4%

Source: Airline quarterly reports

“They’re not in a position where they can turned around their credit quality,” he adds. “The combined impact of really weak operating performances and losses that have been sustained in recent year plus a dramatic increase in debt levels has increased the leverage for all the big carriers and really from a cash flow perspective there all looking at real liquidity pressures.”

Warlick notes the only major exception to this situation is Southwest Airlines. “When you look at carriers who are doing extensive hedging it’s really just Southwest in terms of a systematic approach over a long period,” he says. “But they’re comfortably in the investment grade world at single A, so there’s a lot less perceived credit risk there for the counter parties.”

Heimlich is also among those who feel the odds of a dramatic drop in crude oil prices are not likely. In a same Congressional Institute speech, he speculated, “Will oil stay above \$50? I’m not the expert here, but it is my work assumption at least for the balance of 2005. More importantly, I am confident that it will remain above \$40 for the foreseeable future. So our business plans must adjust accordingly.”

Though it is hard to find good jet fuel news for carriers these days, there is some. While there was some

fears that refiners would opt to focus production capacity more on other distillates at the expense of jet fuel, Wood says that hasn’t been the case.

“When you get to this point of the year it’s all gasoline and jet fuel just has to suffer,” he notes. “But one thing we’ve seen from refiners this year is that jet fuel has been a higher priority. Particularly early in the year, you saw quite a bit of jet fuel production, mainly at the expense of some gasoline feed stocks. There are some products used to produce gasoline that you can reduce the yield on and increase the yield on jet fuel some of that we definitely saw. So especially on jet fuel, there’s no supply concerns.”

Heimlich adds that the current high jet fuel prices are compelling many carriers to make moves that ultimately benefit them in the long run. “One is that it forcing the carriers to accelerate their fuel conservation program, so you’re going to be doing about everything that you possibly can to become as fuel efficient as possible,” he said. “They’ve generally always done that but this is pushing them to go the Nth plus one degree as opposed to just the Nth degree.”

Heimlich continues, “The second thing is it puts even more

(Continued on page 4)

Heimlich is also among those who feel the odds of a dramatic drop in crude oil prices are not likely.



### Selected US Airline Quarterly Fuel Costs

Airline	Q1 2005 Fuel Costs	Q1 2004 Fuel Costs	% Change
American	\$1.097 billion	\$808 million	+35.8%
Delta	\$884 million	\$574 million	+54%
Northwest	\$630 million	\$450 million	+40%
Continental	\$470 million	\$333 million	+41.1%
Southwest	\$279 million	\$230 million	+21.3%
JetBlue	\$86.6 million	\$49 million	+75.9%
AirTran	\$85.4 million	\$51.5 million	+65.8%

Source: Airline quarterly reports

pressure on carriers to address every non fuel cost in your system and it gives you a little more leverage with creditors or vendors so you can flush out more productivity. The third silver lining is it's flushing some capacity out of the system because that extra

flight with marginal capacity is now that much more expensive to operate because of higher fuel prices which gives you a little more pricing power." JFR



#### Fueling Safety Boosted With Use Of Lightning Detection (Continued from Page One)

Vaisala for sales to the aviation community. "It's a tool that is communicating this based on data rather than an individual that is making guestimates on the current level of threat based on seeing lightning occurring in the distance, or whatever system they're using to determine when to pull people off the ramp and put them back out. It's no longer a manual process.

"They're now relying on a tool that has a lot of pertinent data and is making threat evaluations based on that data," Dufton continues. "It's a tool that has a lot of confidence from the worker perspective."

In fact, one executive at a ground handling company says his company welcomes the technology because it is based on science rather than the point of view of an individual. At airports where a comprehensive lightning detection system is installed, "everybody follows the same procedures and there is no argument," the executive says. "The airport takes

the lead and sort of acts as an overall umpire."

Several airports in North America have installed lightning detection systems in the past couple of years, and to a lesser extent, certain airlines have also purchased systems for areas of the airport under their control. **Scott Smith**, general manager for the operations control center at Toronto's **Lester B. Pearson International Airport**, says a system installed about two years ago has eliminated the uncertainty surrounding the threat of lightning activity.

Since the installation, all airlines and their ground handling partners follow a set protocol for ceasing ground operations. Before, Smith says, there were few controls in place. "It was ridiculous. One terminal would be in red alert (operations cease) and the other wouldn't," he says.

(Continued on page 5)



**“It was ridiculous. One terminal would be in red alert (operations cease) and the other wouldn’t.”**

Similarly, **Paul Strybing**, airport communications control manager at **Las Vegas McCarran International (LAS)**, says relying on visual sightings by personnel in the FAA control tower sometimes caused controversy.

“Prior to the airport acquiring our own independent lightning detection system we depended on the FAA control tower to make visual observations in reference to distances from the airport where they perceived there were lighting strikes,” Strybing says. “It was not really accurate because depth perception plays into it, especially when you have really heavy cells and a tremendous amount of downpour sometimes you can’t even see the lightning.

“Up until approximately nine months ago they were the eyes in terms of reporting to us,” Strybing continues. “That information was relayed to our airline tenants to cease fueling in the interest of safety. In some instances, depending on the airline operating spec, they would withdraw all their ground personnel to an indoor location. It wasn’t very high tech or accurate. As we move forward trying to maintain the greatest amount of efficiency we needed to be a bit more accurate.”

**David Arnold**, airport control center supervisor at LAS, adds, “Prior to us installing the system, there was a lot of ambiguity and arguments,” he says. “The tower says the lightning was within five miles (the tolerance benchmark the airport has set), some of the handlers say it wasn’t anywhere near that. This has really taken the ambiguity out of it, with accurate detections of real strikes and accurate distances and times.”

The ground handling executive welcomes the clarity. “The airport makes the call and everybody just responds,” he says. “There is no question.”

**How It Works**

Different vendors offer variations of the technology, and systems range from simple software programs to elaborate deployments with sensors around the airport. Dufton explains that Vaisala’s system uses data

from the Vaisala-operated National Lightning Detection Network. An extensive system would feature a software component running on a workstation at the airport. The screen has a visual display of the airport and surrounding area. Within 40 seconds of a lightning strike it appears on the screen, Dufton says. “You can actually get a lot of information about the individual strike and also see the general direction of how these things are clustered and where they’re moving,” he adds.

On the airport property, installed devices called electric field mills measure electrostatic charge in the air. Combined with the lightning strike data, the system can determine the immediate level of threat at the airport. The data triggers a remote alarm display, which operates similar to a traffic light. A green light means all systems are normal, yellow means some pre-defined cautionary measures should take place, and red means operations should halt. “That’s really the device everyone is focusing on from an operations perspective,” Dufton says. “Airports set a policy on how to react to the different colored lights. Everybody who is on the ground knows what steps they should take based on what the light conditions are.”

At Toronto, the airport, airlines and ground handlers are just moving into an automated mode such as Dufton described. In previous months they had a person overseeing and monitoring the system. A working group comprised of airport, airline and ground handling representatives recently decided they now have enough confidence in the accuracy of the system to move to automated warning and reaction systems.

The working group is also tinkering with defining the conditions that need to exist to prompt a red alert. ‘Red alert means nobody moves, and therefore the airlines are losing money,’ Smith says. “They want to make sure it’s warranted. Obviously it’s a balancing act – you want to have maximum safety but also maximum efficiency.”

*(Continued on page 6)*

**Combined with the lightning strike data, the electric field mills system can determine the immediate level of threat at the airport.**



**The system has a certain level of anticipatory capability, based on data of lightning activity moving into the airport vicinity.**

At LAS, the system is simpler, with a single work station receiving the data and alerting the airport operations worker monitoring the system about the threat. The operations center then alerts airlines through a single call that goes out to all airline tenants, who in turn alert ground workers, Strybing says.

At both airports, the system has a certain level of anticipatory capability, based on data of lightning activity moving into the airport vicinity. "We can actually let the airlines know that it looks like we're going to be ceasing fueling in the next five or ten minutes, so it forewarns them," says Strybing. "The tenants love the idea of having a little bit of an advance warning that never was there before. It allows them to operate more efficiently and stage accordingly."

**Funding The Technology**

Generally speaking, airports have taken on the cost of purchasing and installing lightning detection systems, although some airlines opt to purchase it for their individual use. The price can be fairly modest – LAS paid under \$40,000 for its two-piece system – or can rise to much higher levels for extensive technology.

Dufton says the latest technology is a bit more pricey than that installed at LAS. "It could be low six figures for a basic installation with some remote alarming capability and up to high six figures if you have a large airport with a lot of peripheral devices that are sending information out to the field," he says.

Airports generally don't take any liability for the information distributed from the system, Dufton says, noting that airports are sometimes hesitant because of possible liability. "The reality of it is that those airports that have chosen to deploy an airport-wide system have taken the position that this is simply a service, a benefit of being one of our tenants, you can choose to use it or not," he says.

Dufton says airports bring airlines and ground handlers together and jointly decide on a consistent policy for using the system. Airports have been the primary purchasers

Dufton says, and in some cases airlines have agreed to fund pieces of an airport-wide system. Generally speaking, airports get full participation from airlines.

"A lot of the airlines are realizing that if they are in a manual mode it's a subjective decision. They're pulling people off the ramp because lightning is moving in and then keeping them off the ramp until it looks like the lightning is gone," says Dufton. "They may be spending 20-30 minutes away from the ramp, they've got their operations basically on hold and they're losing thousands of dollars for every minute that they're not out there doing what they need to do to get the planes away from the gates.

"It's a huge financial issue for the airline and a huge safety for their workers," he continues. "They're trying to reach a happy medium where the ground workers are protected and the airline has maximum operational activity, but not at the expense of safety." **JFR**

**Airports generally don't take any liability for the information distributed from the system.**



# World Jet Fuel Prices

## Spot Cargoes

**Trend** 

Rotterdam			Mediterranean			Middle East			New York			US Gulf Coast		
5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22
537.3	556.9	554.9	531.2	549.7	547.8	68.7	69.5	68.8	149.7	152.9	154.9	149.5	147.8	152.4
Chicago			Los Angeles			Pacific NW			CIF Japan			Singapore		
5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22
152.5	154.7	154.3	167.3	175.1	175.8	167.5	175.3	176.5	70.1	72.3	71.8	68.5	70.6	69.7

## Futures/Differentials

**Trend** 

IPE Gasoil*			NY Heating Oil			WTI Crude			Brent Crude			Rott Jet/IPE Gasoil		
5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22
460.4	473.7	493.6	149.3	149.3	162.3	50.96	49.72	54.20	51.36	52.03	53.52	76.9	83.2	61.3
NY Jet/Heating Oil			Gulf Jet/NY 2 Oil			Gulf/Los Angeles Jet								
5/6	4/29	4/22	5/6	4/29	4/22	5/6	4/29	4/22						
6.65	6.05	7.38	6.43	5.12	5.04	-17.8	-27.3	-23.5						

Key: U.S. weekly averages cents per gallon, WTI Crude, Asian jet in \$/barrel, Europe, Medd \$/Ton

Sources: Opus Jetfax, JFR

## News Briefs

### World Fuel Services Notes Q1 Profit Rise

**Miami...** World Fuel Services reported first quarter net income rose nearly \$2 million to \$7.4 million on revenues of \$1.7 billion up sharply from the same period a year earlier. The Miami-based marketer and financier of aviation and marine fuel said the improved results came despite \$1.3 million in unrealized losses due to hedging and open purchase commitments.

### Alitalia Spins Off Ground Services Arm

**Italy...** Alitalia has spun off its non-core services arm beginning yesterday, a key move in the troubled carrier's goal of returning to profitability. Alitalia is still contending with significant losses and is banking on European Commission approval of a rescue plan that calls for a capital infusion of up to EUR1.2 billion (\$1.55 billion). The carrier said it has finalized the split-off of Alitalia Servizi, which

will contain activities such as ground crew and maintenance, leaving a flying operation to be called AZ Fly. Alitalia said it was in "an advanced phase of negotiations" with government holding firm Fintecna to buy into Alitalia Servizi. Alitalia has reported its net debt at the end of March had risen by EUR28 million (USD\$36 million) on the previous month to EUR1.85 billion (USD\$2.38 billion). **JFR**

