



Airport managers inspect Orlando fuel facilities at AAG jet fuel conference

## Airport Jet Fuel Facilities – Turning a Burden into an Asset

By: Carol Ward

Airport fuel facilities are only rarely front and center on a property manager's radar screen, but that may change as both airlines and airports come under increasing financial pressure. The idea of airports making a profit from their fuel facilities is almost unheard of in the United States. Nevertheless, similar to parking garages, concession rents and airline landing fees, some airports are looking to fuel facilities to shore up flagging revenues.

While that is happening, a more serious problem is developing with regards to ownership and

management of fuel facilities. While a few airports, such as **Tucson International Airport** and **Spokane International Airport**, own and operate the fuel facilities at their airports, those airports are an anomaly in an industry where such responsibility is generally handed off to airline consortiums.

That could change in the future as airlines face increasing financial pressure and the specter of sharply reduced demand due to the U.S.-Iraq conflict. Already, two major airlines are in bankruptcy and others are

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*Commentary...*

## The Future of Aviation - The End of the Beginning

It was in 1942 upon the Allies establishment of a beachhead in North Africa that **Winston Churchill**, Prime Minister of England said the following, "Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning." Those words seem very appropriate in describing recent events in the aviation industry that could signal the beginning of a sustainable recovery. While there is still much uncertainty there are signs that real progress is being made on a variety of fronts that will culminate in the long overdue restructuring of a chronically unprofitable airline business model.

And, not a moment too soon since everyone in the aviation industry is essentially in the airline business.

To restore profitability, airlines must address three primary issues to effect real change - high labor costs, excess capacity, and low yields. At the same time they need to manage cash reserves to weather unexpected events out of their control – oil prices, SARS type health crises, war and terrorism.

Lets take each separately to highlight some of the recent progress and comment on work that remains to be done.

**High Labor Costs:** While

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**“We gave them a deadline, then we said we’re building a facility,” Jucht says. “We gave them the opportunity to manage it, but they never could come to terms with themselves or us.”**

expected to follow in the coming months. While airlines are, for now at least, anxious to keep control of fueling facilities, they may in the future view operation and management of fuel facilities as “non-core” to their overall activities. And airports, eager to keep their facilities up-to-date, may prefer to take over such operations rather than risk mismanagement by financially strapped airlines.

“There needs to be a wake-up call to the airports that there is a problem with their customers who are providing a vital service at the airport, that the airport can’t run without,” says **Mike Patrick**, senior analyst for **AAG**, an aviation fuel consulting firm. Citing under-funded facilities, inexperienced staffs and the impetus to cut costs or delay or minimize capital improvements due to financial difficulties, Patrick says airlines’ management of fuel facilities may be short-lived. “Whether or not airports address the issue now or later, it’s going to show up on their doorstep as airline failures happen. Airlines are going to decide they don’t need to be involved in fuel farms,” thus turning the problem over to the airports.

There are already examples of this turnover. The situations at Spokane and Tucson came about not from a fierce desire on the part of the airports to retain control, but rather from apathy on the part of airlines to form any cohesive operational body.

“We gave the airlines a choice of forming a consortium but they were never able to come to an agreement,” says **Mark Jucht**, director of finance and administration at Spokane International Airport. The airport built a fuel storage facility about seven years ago, replacing an outdated system and cleaning up contamination from that system.

“We gave them a deadline, then we said we’re building a facility,” Jucht says. “We gave them the opportunity to manage it, but they never could come to terms with themselves or us. We certainly got their input on what we built, then we hired the staff to manage it and we keep it as simple as possible.”

At Spokane, airport operation was also spurred by a lack of interest from airlines. “At some point in time I can imagine a consortium being developed here, but for the interim

we’re managers of the fuel,” says one airport executive. “Airlines bring their own fuel in, we store it, quality control it and into-plane it for them. We’re like their fuel management company.”

Certainly, these airports are not representative of the majority of airports in the country, particularly larger ones, where airline consortiums are active and eager participants in the management and operations of fuel facilities. However, there is some evidence that airlines are shying away from fuel projects that require major capital outlay. At **San Jose International Airport**, property manager **Roberta Notrangelo** says airlines initially approached the airport with a consortium approach for building and managing new fuel facilities, but have more recently backed off.

“The consortium couldn’t get its act together, and with the airline financial problems they came up with a third-party solution,” which would require a third party company to build and operate the facility, Notrangelo says. The airport, under pressure to build a new fuel farm due to contamination from the current facility, which is owned and operated by **Chevron**, is eager for a solution.

Compounding the issue is the fact that the airport is moving forward on new terminal construction, and thus may want to move ahead with a state-of-the-art hydrant system. “There are just so many different ways of approaching this,” Notrangelo notes. “Now with the airlines in trouble I don’t know what is going to happen. I would seem like if we’re going to start building our new terminal we might as well design in a hydrant system and get it over with,” she says, adding that under that scenario, the airport would consider managing the system itself.

“No matter how you cut it, things have to happen, things have to be built,” notes Patrick. “The issue is who is controlling the money and who is controlling the timetable. Right now at most airports, the airlines make those decisions.”

**Raleigh Durham International** recently opted for control when it purchased the leasehold rights for the fuel storage farm and related facilities from American Airlines for

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**“Regardless of whether it’s a consortium agreement or an airport agreement, since all this stuff is on airport property, in one way or another we’re going to be held responsible.”**

approximately \$2.7 million last summer. The airport contracts with an into-plane company for operation and maintenance of the facilities and equipment, according to property officer **Karen Quinn**.

Airports facing major decisions on capital expenditures may want to look beyond what the airlines say is necessary. After all, an airline or airlines making major decisions on fuel facility requirements are not necessarily going to advocate what is best for the airport in the long run, particularly with current budget constraints.

“Because of the difficulty the airlines are in right now, they are making decisions about infrastructure that may be short-term fixes but that the airports are going to have to live with for 20 years. Or else it will require them to go back and fix the problems that should be addressed right now,” Patrick says.

**Increased Oversight a Necessity**

At many airports, however, fuel facilities are run by consortiums that have long-term leases on the land and equipment and that generally operate the facilities in a way that is satisfactory to the airports. Many airport executives say they don’t feel vulnerable to the financial pressures the airlines are under, and insist that the current contracts have safeguards in place to protect the airports.

At **Phoenix Sky Harbor International Airport**, for example, the entire fueling arena (other than the land lease) is under the jurisdiction of an airline consortium. **Paul Blue**, deputy aviation director for business and properties, says that’s not likely to change.

“Notwithstanding comments that might be made about the carriers cost-consciousness and their method of allocating resources to particular activities, in the end we’re not in that business,” Blue says. “We don’t necessarily know how to do hydrant system fuel operation better than the carriers do without a fairly long learning curve.

“The liability associated with owning and operating the hydrant system is substantially greater than the liability that (the airport) incurs by having someone else do a bad thing

with their system, or have a bad thing occur, and then potentially not being there to backstop the problem,” he adds. Blue says all improvements made to the system are financed by the airlines using their own capital sources, not airport bonds.

And at **Minneapolis-St. Paul International Airport**, the airport is looking to hand off responsibility to the airlines. **Eric Johnson**, manager of commercial management and airline affairs, says that at the fuel facility serving the airport’s main terminal is run by an airline consortium, and the airport is working to have that consortium take over a separate fuel facility serving the airport’s charter terminal. The latter facility is currently owned and overseen by the airport authority.

“The airlines as a group should have the responsibility for the fuel facility,” Johnson says, adding that contractual obligations require that, in the event of a failure of one airline, other carriers will take over the cost burden. “They are required to come up with a plan as to how to secure the debt we are carrying for the facility,” he adds.

But Johnson says the airport is becoming more proactive in monitoring the consortium activities. “The one particular change that has evolved over the years is that while we don’t want to be involved in the running of the fuel farm, we want to have more knowledge of what is going on...to make sure they are doing the things they are supposed to be doing with things like maintenance and leak detection,” he says. “Regardless of whether it’s a consortium agreement or an airport agreement, since all this stuff is on airport property, in one way or another we’re going to be held responsible.”

**Pete Gingras**, airport property officer at **Denver International Airport**, agrees that airports need to be proactive even if a consortium handles fueling operations. “If United Airlines liquidated and our (consortium) contract was eroded in terms of their participation, obviously you have a financial void that would then be reallocated to all other users in the system,” he says. “It’s that financial

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**“The major benefit the airlines get from having the consortiums operate the facility is that they get more control,” notes Larry McMahon, vice president of fuel consortiums at ASIG.**



“Low-cost carriers are very interested in acquiring landing slots and gates but haven't shown an interest in acquiring and running fuel facilities,” says Patrick.

void that might cause some issues,” because it would be layering on additional costs to already cash-strapped airlines.”

Most major airlines, of course, want to retain control of the systems, and they insist that financial safeguards are in place.

“The major benefit the airlines get from having the consortiums operate the facility is that they get more control,” notes **Larry McMahan**, vice president of fuel consortiums at **ASIG**, which manages fueling facilities for airline consortiums at **Los Angeles International Airport** and elsewhere. “They can go out and solicit competitive bids if they want to do a project, and they can determine how they want their facilities to operate. If they want to modernize their facility, if they want to build additional tankage, they can do that and they pay for it. (Without management and operation control), they're paying for it but they don't get to make the decision.”

And airlines insist there is no risk to the overall operations or to the bond holders if one or more airlines fail. “If you have a major airline cutting back or going out of business, all the agreements provide that the rest of the carriers pick up the shortfall,” notes **Bob Sturtz**, director of petroleum and purchasing at **United Airlines**. “If United goes out of business, people aren't going to stop flying to San Francisco. Another carrier will step in and fill the void.”

Sturtz adds that nearly every consortium has witnessed a significant drop in fuel volume due to the decline in air travel. That has resulted in a higher unit cost per gallon going through the system, because unit costs are figured by taking the total cost of the operation and dividing by the number of gallons moving through the system.

New airlines picking up slack from a faltering or defunct carrier have the opportunity to join the fuel consortium for a set joining fee, which differs from airport to airport. Airlines that opt not to join generally pay a premium of 25-50% over the fuel fee of the member paying the highest rate (rates vary based on the size and throughput of an airline), Sturtz says. Sturtz says that in some cases the

consortium has opted to cap the non-member rate "so the discrepancies don't get extraordinary," but he acknowledged that the premium is set by the consortium.

According to Patrick, that fact should raise a red flag with airports, because the policy is essentially allowing one group of airlines to set the fees for other carriers. “Low-cost carriers are very interested in acquiring landing slots and gates but haven't shown an interest in acquiring and running fuel facilities,” says Patrick.

"The buy-in cost to a consortium could be prohibitive, and more importantly, the throughput charges could be substantial to make up the bond debt and handle the maintenance changes that the consortium members are responsible for," says Patrick.

Needed maintenance and upgrades are also a concern. If there are fewer gallons of fuel used, the unit cost escalates for both consortium and non-consortium members. While airlines thus far have borne the increasing costs, such developments may preclude them from embarking on needed improvements.

**Airports Eye Revenue Potential?**

Aside from the control issues, fuel facilities could be viewed as a revenue source in the future. Thus far, airports in the U.S. generally haven't capitalized on fuel facilities as profit generators. At **San Francisco International Airport**, for example, an airline consortium called **SFO Fuel LLC** operates the facilities, but the airport retains oversight. “The airport made a policy decision in 1997 to allow the airlines to collectively manage the delivery of their fuel to the aircraft,” says **Dorothy Schimke**, senior property manager. “It has worked well operationally and has proved to be cost efficient.”

Schimke adds that SFO is a residual airport so any potential revenues from fueling services would be funneled back to reduce landing fees. “The only effect of trying to structure something that would provide a profit to the airport would be to redistribute the

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“They’ll just institute a new, considerably higher fee for the use of the facility by the airlines,” Sturtz says.

cost of the system from the users to the airlines in general – the same airlines but in a different way of allocation that may not be fair in regard to their use of the system.

But airports like **Seattle-Tacoma International Airport**, which is not on a residual agreement, could potentially seek to gain profit from fuel. The airport recently purchased its fuel facility and is installing a hydrant system. It will then look to enter in to long-term contract with an airline consortium for the operation of the system. **John Faulkner**, business development manager at SeaTac, says the airport will not pursue the profit angle. “Like anything else it just factors into the cost of doing business here,” he says. “You can either...put a lot of fees into your market for the airlines or you can have a few simpler fees, which are going to be higher than at some other airports, but are easier to administer.”

But with airports strapped for cash, fuel facilities could increasingly be seen as similar to concessions, parking garages and other services that airports use to make money. A recent move by the **Hong Kong Airport Authority** to purchase the fuel facilities that support **Chek Lap Kok International Airport** sent shockwaves through the airline industry. The airport authority, which reportedly will pay about HK\$3 billion (\$384 million) for the facility – about \$150 million more than the cost of the new facility in 1998 – is expected to raise fees to cover the cost, and may look for profit as well.

While Hong Kong airport executives weren’t commenting about the decision, airlines are braced for change. “The airport authority has only one place to go to recoup its investment in the facility, and that’s through the airlines,” says Bob Sturtz, director of petroleum and purchasing at United Airlines, who says the airport will likely want to garner a return on its investment. “They’ll just institute a new, considerably higher fee for the use of the facility by the airlines,” Sturtz says.

In the United States, **Port Authority of New York and New Jersey** (PANYNJ) has attempted to make a profit from its fuel facilities through various agreements at **John F. Kennedy International** (JFK), **Newark**

**Liberty International** (EWR) and **La Guardia** (LGA) Airports. Revenue potential from fuel facilities can be derived from fuel storage fees, fuel farm land rentals and into plane fueling fees. The amount of revenue is based on the number of gallons stored at a facility and the flight activity. In recent years however, the issues of fuel remediation have absorbed most revenue potential.

In most cases, the fueling operations are comprised of two components: the maintenance of the fuel farms and the into-plane fueling operations, says **Susan Bush**, manager, concessions and central agreements, PANYNJ. PANYNJ owns fuel facilities but has different arrangements for fuel storage and delivery at each of its airports. At JFK, the airport contracts with **Allied Aviation** for maintenance of fuel farms and enters into a separate agreement with Allied to also provide into plane fueling, requiring Allied to enter into individual contracts directly with the carriers. At EWR, the arrangement is the same except the airlines pay the authority a fuel fee which covers into-plane and maintenance of the fuel farm, then the airport in turn reimburses Allied for the costs incurred to provide those services. At LGA, the fuel farm is leased to an airline consortium. Bush says the arrangements are a result of airport cost recovery formulas as defined in leases, some of which have been in effect since the 1950's.

The potential for profit from fuel is there, not just for PANYNJ but for any airport that decides to take control of its fuel facilities. The result, in essence, is turning a burden into an asset for any airport struggling to find new sources of revenue. **JFR**➔

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**Editors Note:** AAG will publish a position paper for distribution to the American Association of Airport Executives (AAAE) and Airports Council International (ACI) entitled “Turning a Burden into an Asset”

If you would like to receive this paper send your request to [aag@armbrustaviation.com](mailto:aag@armbrustaviation.com) or contact Michael Patrick at 561.659.6818 extension 100 or by e-mail at [mike@armbrustaviation.com](mailto:mike@armbrustaviation.com)



# Is Safety Being Skirted on the Ramp?

Also, the equipment itself -- either trucks or hydrant carts -- is large and unwieldy, designed to move between, around or underneath larger jets, not RJs.

While potential revenue enhancement and more control are key reasons airport executives say they are taking a hard look at the fuel facilities and operations at their airport, safety is also of increasing concern. One recent red flag has been the move by several airlines to using regional jets (RJs) rather than larger aircraft. The move, one of many in the cost-saving efforts of cash-strapped airlines, could mean problems on the airfield.

The key problem is that the fueling trucks and hydrant systems in place at airports today are designed to fuel larger aircraft at higher rates of speed per gallon than RJs can safely handle. Also, the equipment itself -- either trucks or hydrant carts -- is large and unwieldy, designed to move between, around or underneath larger jets, not RJs.

Jon Currier, a partner with Argus Consulting, Inc. raised the alarm at the 5<sup>th</sup> International Jet Fuel Conference held by Armbrust Aviation Group last month in Orlando. "RJ additions and changes are coming so quickly and so frequently that airports, airlines and ground service companies are finding it difficult to manage RJ service and infrastructure needs," Currier noted. He added that the RJ population has exploded, growing from just 99 operating aircraft in 1997 to 974 operating aircraft in 2002. About 1,600 RJs are expected to be operating

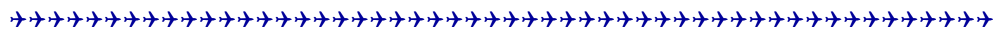
by 2006.

John Goglia, one of five board members of the National Transportation Safety Board, also sees a potential problem. He says that airports need to "pay attention," rather than rely solely on airlines and into-plane agents to identify and rectify the problems.

"There are concerns whenever you have such dramatic changes in any area of aviation," Goglia says. "Sometimes things get away from people and you don't find out about them until you have a disaster. My desire is to raise these issues with the decision makers so they don't lose site of the important things they need to take into consideration...."

Goglia says the "decision makers" should include both airline and airport executives, as well as oil companies and into-plane agents. "All of them have an integrated role to play," he says. "We don't want to have an important piece fall in between the cracks and not realize it until we have a problem."

Rather than government action, Goglia is looking to the industry itself to address the issue. "When it becomes clear that (the aviation industry) has a problem in any given area we find a way to fix it," he says. "When industry does it, it's usually the most cost-effective way to fix it." JFR➔



The Future of Aviation - The End of the Beginning (Continued from Page One)

there has been significant progress on reducing high labor costs much work remains. Together, US Airways and United Airlines have lowered there labor costs over \$3 billion annually. Both airlines sought the protection of bankruptcy courts to wrest significant savings in negotiations with employee unions. Additionally, the new agreements will give management a freer hand in utilization of aircraft, route schedules, work rules and staffing decisions that will help them compete more efficiently with low cost airlines.

American Airlines took an historic step in reaching agreements

with its labor unions to cut \$1.8 billion annually in labor costs. However at this writing the carrier may still end up in bankruptcy court. Non-discourse of generous bonuses and a bankruptcy protected pension plan for senior executives has infuriated unions resulting in the flight attendants and transport workers calling for a re-vote. Whatever the outcome, American will have much lower labor costs in or out of bankruptcy courts.

Elsewhere, Air Canada, Delta Air Lines and Northwest Airlines

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**As passenger traffic grows airlines will have to resist the urge to build capacity overnight and instead concentrate their efforts on growing yields.**

have begun negotiations with their labor unions in an attempt to duplicate the reductions of competitors, while three of Europe's largest airlines **Air France**, **British Airways** and **Lufthansa** are in the early stages of contentious negotiation with employee unions.

The reduction in labor costs is significant since it represents over 50% of an airline's total costs. However, management and unions will want to guard against recreating another boom and bust cycle that has been standard operating procedure in the airline industry since deregulation. Since 1978 the industry has experienced 5-7 year cycles of profits and losses. During profitable cycles airlines spent earnings on expensive aircraft and exorbitant salaries while accumulating debt during down periods. Major U.S. airline debt has risen from \$70 billion just three years ago to \$100 billion today.

In order for most airlines to maintain healthy balance sheets it will be necessary to emulate **Southwest Airlines**, which just reported their 48<sup>th</sup> consecutive quarterly profit.

**Capacity Cuts and Higher Yields:** The airline industry has been plagued with overcapacity for many years. Airlines continue to protect market share on some routes even though load factors warrant a reduction in frequencies. However, recent progress to reduce capacity has been made willingly while other reductions have been related to the war and SARS outbreak.

Most notably, US Airways reemerged from bankruptcy after shedding 35% of its original capacity. At the same time, the table in the left margin, highlights the sharp reduction in capacity implemented by world airlines responding to lower traffic demands due to the war in Iraq and the SARS epidemic.

In Europe, several airlines have welcomed recent **European Commission** action to renegotiate bilateral agreements since it could promote much needed industry consolidation.

As passenger traffic grows airlines will have to resist the urge to build capacity overnight and instead concentrate their efforts on growing yields. School is still out on whether

airline management will use higher load factors to raise yields. In the past, airlines have gouged walk-up and business travelers to subsidize low fare leisure travel. Not any more. Business travelers have shown that they are just as cost conscious as the most astute leisure passenger. Airlines will have to be profitable across the entire ticket spectrum.

**Industry Restructuring:** As airlines cut capacity the industry will undergo an extended period of restructuring. The current airline models - network, hub and spoke, and point-to-point will all survive in some form or another. Low cost carriers Southwest and **JetBlue** will continue to operate point-to-point while building frequencies but not necessarily cities. United and US Airways will evaluate their systems and run virtually a point-to-point airline within their networks to capture the greatest benefits from the optimum utilization of workforce and aircraft.

In North America the legacy airlines will survive with sharply lower costs and reworked schedules. But unless they make money on leisure traffic they will not be profitable longer term and will eventually fail.

In Europe most airlines see bilateral renegotiations as the starting point to wring capacity out of the system. If not the dynamic growth of low cost carriers, **EasyJet** and **Ryanair** could do the trick as flag carriers concentrate on more profitable long haul international flights leaving the low cost airlines to fight over domestic market shares.

In Latin America, only a handful of airlines may survive. **Lan Chile** and the **Taca Group** being the exceptions. However, a merger of **VARIG** and **TAM** should eventually become profitable again while other countries try to restart various failed flag carriers.

It is impossible to forecast the near term future for Asian carries due to SARS. Nevertheless, the region will once again thrive and lead the world in passenger traffic increases once it overcomes the current epidemic

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Sampling of Major World Airline Capacity Cuts		
Airline	April	May
Air Canada	-15%	-15%
Air France	-7%	
Air Jamaica	-18%	-18%
American Airlines	-7%	-7%
Austrian Airlines		-10%
British Airways	-4 to -6%	
Cathay Pacific	-40%	
China Eastern Airlines	-30%	
Continental Airlines	-2%	-2%
Delta Air Lines	-12%	-12%
Dragon Air	-25%	
Iberia	-5%	
Japan Airlines System	-8%	
KLM Royal Dutch Airlines	-7%	
Northwest Airlines	-12%	-12%
Qantas Airways	-20%	-20%
Singapore Airlines	-9%	-14%
United Airlines	-8%	-12%
US Airways	-4%	-4%
Vietnam Airlines	-15%	-20%



**In the case of Pittsburgh (PIT), it may no longer be operated as a hub by US Airways and with only 35% of traffic indigenous to the area PIT could be considered high cost and overbuilt.**

There will also be a period of restructuring for airports. As airlines shift fleets some airports will be too small while others may become underutilized. In the case of **Pittsburgh International Airport (PIT)**, it may no longer be operated as a hub by US Airways and with only 35% of traffic indigenous to the area PIT could be considered high cost and overbuilt. On the other hand, secondary airports such as **Long Beach Airport** which reported a 200% increase in traffic due to JetBlue may be hard pressed to meet growing demands with limited infrastructure.

As major airlines reconfigure their hub and spoke networks some airports may be left with facilities for hub operations without a hub carrier. In that case, airports would have little choice but to significantly increase fees for everything from landing rights to parking to jet fuel throughput in an attempt to meet debt service. That is problematic since fees may need to be prohibitively higher leading to further reductions in traffic.

Airlines and airports will have to work together to create a fee structure that supports industry growth while at the same time enabling airports to meet the expectations of bondholders.

**Iraq War and SARS:** The impact on the aviation industry due to the war in Iraq and the SARS epidemic has been nothing short of catastrophic in some locations. Airports in Southeast Asia have witnessed a 40% reduction in flights, which has had a knock-on effect to airlines, and airports in the U.S. and Europe. While the war in Iraq appears to have ended, it is impossible to state when the SARS virus will ebb.

The SARS virus proves once again the fragility of the current airline business model and reinforces the urgency for industry executives to lower debt and build cash reserves to weather the occasional catastrophic event. Whether from terrorism or viral infections, regional disasters rapidly spread in a global environment with airlines and airports usually the first financial casualties.

Currently, US airline passenger traffic is 15.8% below year ago levels, according to statistics from the **Air Transport Association**. The ATA reports the growing fears over the

SARS virus, negatively impacting Asia/Pacific routes with the biggest sector decline at 23.4%. Transatlantic routes were close behind at 23.2%, while Latin American and domestic traffic was off by 18.2% and 13.1%, respectively.

In Europe, the **Association of European Airlines** released figures showing that its member traffic was off by 7.1% during the week ended March 30 following a 12.4% decline in the prior week. The biggest sector decline came on Middle East routes where traffic was off 52.3%. Traffic within Europe was down 5.3%, North Atlantic 2.5% and Far East/Australasia 11.6%, which was surprisingly an improvement over the previous week's decline of 12.4%.

Nevertheless, with the cessation of hostilities in the Middle East pent up demand for summer travel in most of Europe and North America should bolster traffic there in the next several weeks and airlines should expect bookings to jump dramatically. However, passenger traffic in Asia Pacific is problematic until the SARS virus abates.

**Oil and Jet Fuel Prices:** With the Iraqi war coming to an end and oil production in the country mostly intact, the Bush administration is asking for a removal of the Iraq oil embargo. Even if the U.S. gets its wish it will be some time before Iraq is able to ratchet-up its production. In the meantime, OPEC is talking about production cuts concerned that a glut of oil will soon swamp world markets. Nevertheless, the war premium estimated at \$8-\$10 per barrel may soon leave the market and crude oil topples back to the lower OPEC band of \$25 per barrel. If so, airlines will be buying jet fuel in the 75-cent range nearly 50 cents per gallon below its pre-war high.

Some airlines that can afford to hedge are not taking any chances with oil market volatility. Southwest Airlines is hedged 100% in the first and second quarters at \$24 per barrel. First quarter cost per gallon was between 70 cents and 75 cents, compared with 67 cents a year ago. Fuel costs are hedged 80% for 2004 and 40% for 2005.

Delta Air Lines' second quarter

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**Whether from terrorism or viral infections, regional disasters rapidly spread in a global environment with airlines and airports usually the first financial casualties.**



