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Fuel Demand Falls With Cutbacks; Fuel-Efficient Fleet Enhancements

"There is nothing out there right now, in the next four or five months, to really provide any relief."

Fleet changes and schedule cutbacks are likely to impact overall demand of jet fuel worldwide for the remainder of the year, with many airlines shedding older, larger aircraft in favor of fuel-efficient models and regional jets. Globally, airlines continue to feel the impact of SARS, the aftermath of the war in Iraq and the general economic malaise endemic throughout much of the world.

While demand is likely to be soft in the coming months, jet fuel prices are expected to remain high and stocks low. In the second quarter of 2003, fuel costs per gallon were sharply higher for most airlines, with the actual change dependent on individual airlines hedge position. Airlines executives generally see little relief on the horizon.

"Tight inventories are driving the whole thing right now," notes **Edward Pinion** of **Hawaiian Airlines.** "Prices are a little bit high but I think the market is about right. There is nothing out there right now, in the next four or five months, to really provide any relief. It's going to have to be after Iraq is fully on line. Iraq is gradually coming back on, but they probably won't be back to their pre-war levels of 2 million

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Southwest Airlines Chooses SolArc For Fuel Management Software

Southwest Airlines recently tapped **SolArc Inc.** to supply fuel management software in an effort to streamline its jet fuel supply planning, inventory management and fuels accounting. Sol Arc is a leading provider of supply and trade management solutions for global energy companies. The move marks SolArc's first foray into providing software solutions for the airline industry.

Southwest is in the process of installing SolArc's RightAngle software and is working with the company to "make it more user-friendly from an airline perspective," according to **Robert Myrben**, vice president of fuel management for Southwest.

"The key benefit hopefully will be daily visibility to inventories, to deals that are out there, to contracts, to consumption on the aircraft side," notes Myrben. "We're tying all those together. All the software…is the engine to accumulate, display and report that type information."

Myrben says the solution will streamline what has until now been a somewhat disjointed approach to fuel management. "The driver for this decision was we were trying to automate the invoicing

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HIGHLIGHTS

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barrels a day until after the new year, and they may not get there for six to eight months."

Jonathan Pardoe, fuels contract manager at **Virgin Atlantic Airways, Ltd.,** agrees that Iraq remains the big question mark. "I see gradual increases, but with all these terrorist activities (increased production) could stop at any time," he notes. That, he says, would "put prices through the roof."

Similarly, **Arnaldo Santos**, director of fuel for **VARIG Brazilian Airlines**, says the Iraq uncertainty and low U.S. inventories will likely prop up prices. "We are working on budget with an average of $28.5 per barrel for crude WTI for the second half of the year," Santos says. "However, …probably it will reach 5-10% higher than our expectation."

Despite the fact that Iraq production is well-below pre-war levels, OPEC has shown little inclination to increase production. One airline fuel executive notes that among OPEC countries, there is little excess capacity. "There is really not much production for OPEC to increase," he notes. "It's not like it was a few years ago when they can pull on extra capacity relatively quickly. Everybody is pretty much producing what they can with the exception of Saudi Arabia and Kuwait, and it's not that easy for them to raise it that much more."

Jet fuel pricing in the coming months is also dependent on heating oil demand through the winter. In early August, heating oil inventories in the northeastern U.S., where much of its use is concentrated, stood at 37% below levels a year ago. "A prolonged cold spell will push jet fuel prices up," notes Pardoe. The U.S. Energy Information Administration reported that for the four weeks until August 8, motor gasoline demand was up 0.6%, distillate fuel demand was down 5.2% and kerosene-type jet fuel demand was off 1.2% from the same four-week period a year ago.

With airlines experiencing high jet fuel prices, leading oil companies reported sharp increases in profits. **ExxonMobil**, for example, saw profits from refining and selling petroleum products such as gasoline and jet fuel rise by $764 million to $1.15 billion, with the highest earnings coming from overseas. **Total S.A.** recorded a net income gain of 8% to 1.77 billion Euros ($2 billion) for the second quarter of 2003. The company pointed to a favorable oil market environment, with oil prices higher and European refining margins much stronger than the unusually low margins of last year.

ChevronTexaco had strong growth from both the U.S. and international markets, with profits for refining, marketing and transportation rebounding to $438 million from $18 million in the year-ago quarter. In the U.S., the company had downstream earnings of $187 million, improved from a loss of $30 million in the 2002 quarter. The primary reason for the improvement was a recovery in the industry's West Coast refined product margins. Improved profit margins, as well as lower foreign currency losses, buoyed international downstream profits as well, which came in at $251 million compared to $48 million in the second quarter of 2002.

Fleet Changes

While jet fuel prices are high, demand continued to be sluggish into the summer. To a certain extent that situation will be short-lived, particularly among international carriers who are building back up their flight schedules after the sharp cutbacks due to SARS. In the U.S. domestic arena, some major carriers have shed routes or scaled back operations, but others, particularly low-cost carriers, are adding flights.

Fleet changes are expected to have the most significant impact on fuel consumption in the coming months. Most major U.S. airlines are increasingly integrating regional jets into their fleets. At the same time, sidelined aircraft are more than likely to be DC-10s or other "gas hogs."

"Even as demand continues to pick up, most of us (carriers) are using less fuel simply because we have more fuel-efficient fleets," notes one U.S. fuel executive. "When airlines cut back, one of the first things they do is cut back their fuel-inefficient aircraft."

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Despite pockets of success, most airlines were broadsided by sluggish travel demand and the high cost of fuel.

Pinion notes that at Hawaiian, aircraft purchases in 2001 and 2002 were almost exclusively fuel-efficient 717s, and now the carrier is purchasing 767s. "They're all much more fuel efficient, so total demand is off a little bit," he notes. "We've increased flying but demand is off because we're using much more fuel efficient aircraft."

Among international carriers, demand is expected to increase sharply as the impact of SARS and the Iraq war subsides. Most Asian carriers have increased their flight schedules after the sharp cutbacks made in spring and early summer. European airlines have also been severely impacted by SARS and are beginning to readjust their schedules as demand increases.

But **Ryutaro Nambu**, deputy general manager, fuel, for **Japan Airlines**, says all is not rosy going forward. "Our international sector continues to suffer declines year-on-year, and it is unlikely to return to positive growth any time soon," he says. "What we expect is a slow recovery for the rest of the year, but we fear the recent alerts on terrorism -- such as the U.S. Homeland Security Advisory System threat level elevated to 'yellow' -- may have some negative impacts on people's confidence in air travel, resulting in a more prolonged slump than expected earlier."

There was little good news from major airlines for the second quarter of 2003. Despite pockets of success, most airlines were broadsided by sluggish travel demand and the high cost of fuel. In the U.S., low-fare carriers fared best overall.

In the U.S., some major carriers have shed routes or scaled back operations but others, particularly low-cost carriers, are adding flights.

Southwest Airlines, for example, reported net income of $246 million for the second quarter of 2003, up from $102 million in the same quarter the previous year. The carrier, like others in the U.S., benefited from security reimbursement from the U.S. government but had a strong performance nevertheless. The company recorded a relatively modest 2.6% gain in fuel and oil expenses to $194 million for the quarter.

Other low-cost carriers in the U.S. also fared well. Like all U.S. airlines, each benefited from the government's security reimbursement. **America West Airlines** reported a second quarter profit of $79.7 million. The average fuel price excluding tax was 81.7 cents per gallon, compared to 70.5 cents per gallon in the second quarter of 2002. **JetBlue** reported a profit of $37.9 million for the quarter, with per-gallon fuel prices jumping 14.6% to 79 cents and overall consumption growing 66.7% to 41 million gallons. **Frontier Airlines** recorded earnings of $10.9 million, which includes $15 million in federal reimbursements. **Alaska Air Group** recorded profits of $45.2 million for the quarter, **AirTran Airways** reported net earnings of $57.2 million, and **ATA Holdings** had net income of $40.8 million.

American Airlines, the largest airline in the world, had more difficulties. The airline's parent AMR Corp. reported a net loss of $357 million for the second quarter of 2003. Despite the loss, American's performance was better than anticipated. A reduction in flights led to an overall decline in fuel costs to $647 million, but the amount paid per gallon was up by 9.9% to 83 cents.

Bankrupt **United Airlines** reported a net loss of $623 million for the quarter despite a multi-million dollar reimbursement check for security costs. That compares to a loss of $341 million a year earlier. The extent of the loss was blamed on "special items" related to the carrier's reorganization.

Northwest Airlines reported a net profit of $227 million, after the government reimbursement, compared to a net loss of $93 million in the second quarter of 2002. The carrier reduced capacity, which tempered overall fuel costs. Fuel costs increased by 4.2% to $375 million.

Delta Air Lines reported second quarter net income of $184 million, which includes the government reimbursement and a gain from the sale of Worldspan. Excluding those unusual items, the airline experienced a net loss of $237 million. Capacity was cut but overall fuel costs increased 8.5% to $435 million.

Continental Airlines, Inc., reported net income of $162 million

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British Airways blamed its results on the combination of the weak global economy, the war in Iraq and SARS.

including government reimbursements, compared to a loss of $194 million for the same quarter in 2002. Capacity was down but fuel costs increased 18.9%, from $254 million to $302 million. The average price per gallon jumped 22.9% to 83.9 cents. Fuel consumption was down 7.2% as a result of reduced flights and more fuel-efficient aircraft.

Finally, **US Airways** reported net income of $13 million for the second quarter of 2003, which includes a $214 million cash payment for security costs. Fuel costs per gallon were 84.9 cents, up 22.5%.

International carriers had mixed but generally weak performances, with the biggest losses coming from SARS-hit Asian carriers. Hong Kong-based **Cathay Pacific** reported a first-half loss of HK$1.24 billion ($159 million). The airline saw its traffic fall from about 4.9 million passengers to just 4 million in the first six months of the year, due primarily to the SARS threat. Cathay cut its scheduled dramatically but has since returned to about 90% operation.

Singapore Airlines recorded its first-ever quarterly loss due to a sharp reduction in capacity during the height of the SARS crisis. The airline lost 312 million Singapore dollars ($178 million) for the second quarter, compared to a year-earlier profit of 479 million Singapore dollars.

Japanese carriers were also hard-hit. **Japan Airlines System Corp** posted a net loss of 77.28 billion yet ($642.7 million) for the quarter ending June 30, with international passenger numbers plunging 46%. The company said it does not expect to fully recover from the SARS crisis until at least March 2003. **All Nippon Airways**, which is far less dependent on international travel, posted a net loss of 18.32 billion yen ($152 million).

In Europe, **British Airways** reported a loss of 63 million pounds ($100.8 million) for the quarter ending June 30, compared to a 40-million-pound net profit during the same period a year ago**.** The airline blamed the poor results on the combination of the weak global economy, the war in Iraq and SARS. U.K. rival carrier **Virgin Atlantic**, which is less dependent on Asian markets, reported profit of 15.7 million pounds for the year ending April 30.

Other major European carriers expressed optimism despite their shaky quarterly performances. **KLM Royal Dutch Airlines** posted a net loss of $62 million for the quarter ending June 30, but said it is optimistic that growth is underway. **SAS Group** reported modest profits of 66 million kronor ($8.1 million) for the quarter, but said that recovery in Asian traffic and improving economies should result in strong results for the year. **JFR**

Southwest Chooses SolArc For Fuel Management Software
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side -- it will allow our folks to be more auditors and less daily input people, which is really what we want them to do," he says. The airline also had many manual functions with spreadsheets that often weren't coordinated among various departments, Myrben adds.

Dale St. Denis, vice president of solutions marketing, **SolArc, Inc.,** says the problem at Southwest and at other airlines is often one hand doesn't know what the other is doing. At Southwest, he notes, "There was work being done on separate systems to capture contracts and record contracts, but usually the settlement and payables processing was done on a separate system with separate folks who may not have access to timely and accurate information on the originating contract. So they had this disjointed way of managing fuels procurement that often would involve errors…."

Southwest initially sought to create a system in house but ultimately decided to abandon that approach in favor of SolArc. "SolArc had come a long way since we looked at them two or three years ago," Myrben says, noting that the company had created an aviation

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"You're avoiding instances where you're going into the market or making spot transactions where you're at a disadvantage in a tight supply situation."

marketing product. "The leap that we're trying to take is from the aviation marketing side…to an aviation consumption-type, verification-type model."

The Southwest contract represents a coup for SolArc in penetrating the airline industry. The company claims SolArc RightAngle is the most comprehensive product available today. The software integrates the entire transaction process, including every form of deal capture (physical and financial), storage and inventory management, scheduling, logistics and transportation management, trade accounting, position and inventory management, real time and forward-looking profit and loss reporting capabilities in one complete end-to-end solution.

St. Denis says the program offers three key capabilities to Southwest. First is contract management and administration of supply contracts for fuel. "All those contracts -- how they're priced, how they're termed, the provisions and penalties associated with those contracts -- are all captured and administered in our system," he notes. "Not only the supply contracts but also any over-the-counter trading derivatives that they'll do to hedge against their physical contracts are captured. So for the first time they'll be able to represent both physical and financial positions."

The second capability is delivery management -- recognizing the contracts that have been released, then capture the inventory positions at various terminals as well as in transit, St. Denis adds. "Having that supply plan updated and inventories properly accounted for allows (Southwest) a lot more accuracy in how they manage their inventory position and supply plan," St. Denis notes. "Not only is the cost of fuel captured in that contract, but also all the delivery costs associated with that contract, such as pipeline tariffs, terminal fees and transfer feels would also be represented in the supply plan, so they would know how to best optimize the various ways of getting fuel to terminal locations."

Finally, the software offers a payables processing application. St. Denis says the program will integrate the statements from suppliers, terminal agencies or fuel services companies with charges for

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Markets

Tight Supply, Iraq Uncertainty Prop Up Fuel Prices

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The prompt month Nymex crude oil contract is trading near the highest levels since two days before the beginning of the military action in Iraq. As of this report the market is trading around the $30/bbl level. In the last 90 days the market has rallied from $25/bbl to $30/bbl.

Following the regime change in Iraq, many market players expected prices to drop as the war premium dissipated and additional Iraqi supplies came onto the market. However, there are several fundamental and technical factors that have helped push the market to higher levels. First of all, while inventory levels are higher than last month, overall crude and distillate stocks are still at historically low levels for this time of year. Lending support to the market is the fact that OPEC has maintained their quota levels, even though prices are trading near the top of the price band. The OPEC ministers held their last meeting in Vienna on July 31st and decided to leave quotas unchanged. Their next scheduled meeting is September 24.

Underlying the strength in this market is the huge cumulative long position of the speculative funds. The

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net long position for the non-commercial speculators is at the highest level in nearly four years. According the weekly Commodity Futures Trading Commission (CFTC) report, the large non commercials nearly doubled their position from 35,106 to 60,025 contracts. This represents the highest level of net long positions since October, 1999. It would appear that the speculators have been betting on higher crude oil prices. However, this sort of length can potentially set the market up for an exaggerated sell-off if the longs start liquidating their positions.

Oil production in Iraq production has increased to approximately 1.1 million b/p/d, which is about half of the pre-war output. This production level is more than sufficient to meet domestic consumption; however, the country still faces severe shortages of gasoline and distillates. Power outages and refinery problems, as well as looting and sabotage are contributing to the supply problems. Oil exports have been curtailed due to problems with the primary export pipeline into Turkey and the oil terminal in the south both experiencing interruptions. **JFR**✍

Indicative Forward Swap Levels (indications as of 8/14/03)

Time Period	Nymex #2	U.S. Gulf Jet	WTI Crude Oil
Sept. 2003	80.65	80.00	$30.33
Q4 2003	82.05	81.40	$29.40
Q1 2004	78.75	79.20	$28.06
Calendar 2004	73.85	74.50	$26.85

Source: Barclays Capital

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News Brief

British Airways Shoots Down Purchasing Changes Reports

London… British Airway's **Mal Murphy** says reports that the airline had changed its jet fuel purchasing strategy were incorrect, and that volumes involved had been grossly overstated.

"It was not a tender exercise, it was a request for information," Murphy says, noting that the company is "testing the right method" for fuel procurement in the future. Murphy adds that the volumes reported by the press -- such as the tender for 850,000 tons of jet fuel, as reported by Reuters -- was overstated because it took into account all the various options the airline is considering.

Reuters and others had reported that BA was changing its strategy to rely less on the spot market for supply. Murphy says the request for information was issued to decide whether spot market purchases are appropriate going forward, or if other methods will provide cost savings. **JFR**✍

World Jet Fuel Prices

Spot Cargoes

Trend ?

Rotterdam			Mediterranean			Middle East			New York			US Gulf Coast		
7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1
266.5	273.0	255.4	259.8	267.3	248.5	32.2	32.5	30.8	83.40	85.17	81.24	80.85	82.64	78.34

Chicago			Los Angeles			Pacific NW			CIF Japan			Singapore		
7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1
85.44	86.60	81.76	96.70	96.10	89.35	96.20	96.50	89.75	33.9	34.1	32.9	32.9	33.3	31.6

Futures/Differentials

Trend ?

IPE Gasoil*			NY Heating Oil			WTI Crude			Brent Crude			Rott Jet/IPE Gasoil		
7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1
242.5	251.7	251.5	80.50	86.00	86.25	31.05	32.39	32.31	28.81	30.25	29.99	24.0	21.3	3.90

NY Jet/Heating Oil			Gulf Jet/NY 2 Oil			Gulf/Los Angeles Jet		
7/15	7/8	7/1	7/15	7/8	7/1	7/15	7/8	7/1
2.08	1.82	2.09	-0.46	-0.59	-0.74	-15.8	-13.4	-11.0

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

Sources: Opis Jetfax, JFR

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all the costs associated with fuel delivery. The software will allow Southwest to match those documents with its own records so they don't end up overpaying or underpaying. "We apply all the appropriate taxes so that the regulating agencies of jurisdictions that they're operating in are paid properly," he says.

St. Denis notes that SolArc has made some specific enhancements to its RightAngle solution to meet the needs of the airline industry, some of which were added prior to the Southwest contract and some of which are a direct result of meeting Southwest's needs.

"A lot of the challenges are relevant across the transportation industry," St. Denis notes, pointing to the ability to manage both physical and financial transactions on the same platform to help ensure adequacy of supply. "You're avoiding instances where you're going into the market or making spot transactions where you're at a disadvantage in a tight supply situation," he says. "That's a key benefit and economic driver for a lot of the discussions we're having with the airline industry." **JFR**