

## Special Year End Double Issue

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## Managing Supply Disruption: The London Heathrow Experience

Recent events in the United Kingdom have shown that no airport can be 100% certain that supply will not be disrupted. London Heathrow was generally regarded as having robust logistics, with lessons having been learned from the power sub-station failure some years ago, significant investments in storage and hydrant facilities (largely associated with the new Terminal 5 development), and multi-pipeline jet fuel supply from independent sources. However, the major fire at the Buncfield storage and distribution depot on 11 December resulted in supply being reduced by up to 35%. While the oil industry is

working hard to mitigate the situation through new logistic arrangements, supply will almost certainly be below full operational demand for the rest of December, if not longer.

Clearly, airport stocks can not be permitted to be drawn down until the tanks are empty. Airport operator BAA, which owns and operates Heathrow, said "Our priority is to get passengers on planes, and get planes off the ground. Some long-haul flights may be forced to make additional refuelling stops, but passengers will agree that it's better to do this than not to take off at all."

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### The Year in Review...

## High Jet Fuel Prices, Infrastructure Problems Are Crucial Concerns

As the industry looks forward to 2006, there is at least some optimism that airlines can return to a reasonable level of profitability, that purchasing jet fuel won't require a blank check and a double shot of whisky, and that airline fuel executives can once again predict and plan for their future jet fuel needs. "The year 2005 was just a wash in terms of predicting how the market was going to go," notes one jet fuel executive. "Even if we had had the means to hedge there was no predicting how the market would go. I don't think anyone would have expected prices to rise so high."

One positive development

for the airline industry around the world is the return of growth in passenger travel. Of course, 2005 saw low-cost carriers make great strides in the US and Europe and gain a solid foothold in Asia, which has upended the pricing structures of the established Legacy and national carriers. But even that may be shifting. Passengers are expected to continue to fly in droves, and signs are they just might be willing to pay a bit more for a ticket.

With jet fuel prices now easing, airlines may be in their best position in years to turn in a few

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**Short-haul carriers such as British Midland are naturally reluctant to take all the commercial pain in order to support long-haul flights, no matter how well justified operationally.**

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Thus, an allocation and rationing procedure was introduced by **Heathrow Airport Ltd**, in collaboration with the airline and supplier community, soon after the impact of the fire was fully appreciated.

Allocations are now based on a percentage of the previous week's uplifts, using a matrix that takes account of the overall airport volume short-fall, and whether the flights are long-haul or short-haul, and operated by base or visiting carriers. BAA is collecting and distributing information among the players to enable the rules to be applied.

This new procedure had, in fact, only just been finalized in the week before the Buncfield incident, and plans were in hand to trial it when its real-life application was needed. Unfortunately, while it has proved effective operationally, with demand being contained broadly in line with supply, the commercial implications are now causing concerns among certain airlines. In particular, certain US carriers serving Heathrow consider the allocation "rules" that favor the home-based operators (chiefly **British Airways, British Midland, and Virgin Atlantic**) to be discriminatory and in breach of bi-lateral Air Service Agreements. These airlines are now triggering legal action in pursuit of their case.

### Troubled Consensus

Looking back over the history, it had long been recognized that procedures were needed to deal with supply disruption as part of prudent contingency planning management for the airport. But given the number of parties involved, and the wide range of views on the matter, agreement and/or consensus was never going to be easy!

Heathrow Airport Ltd, as the landlord, wished to ensure fuel supply was allocated across carriers in the best overall interests of all users, and that the airport would not run out of fuel completely; **Tony Astor**, head of fuel strategy for BAA, thus took the lead. However, HAL recognised that its legal powers to take action were far from clear, and that any direct

executive action could come into conflict with the commercial contractual relationships between airlines and their suppliers.

Airlines, for their part, had a wide range of views, and were without the benefit of any internationally agreed principles. Operationally it is clearly easier for short-haul airlines to reduce uplifts by "tankering", but for very long direct flights any limitation on fuel results in the requirement for expensive refuelling stops. At Heathrow this was typified by the contrasting views of **Tony Whitby** of British Midland and **Jonathan Pardoe** of Virgin Atlantic, with the mixed operation of British Airways putting them in the middle, but with the added complication of how to deal with their own bulk self-supply arrangements. However, while short-haul carriers such as British Midland are prepared to cooperate fully and play their part in helping the airport cope with the supply crisis, they are naturally reluctant to take all the commercial pain in order to support long-haul flights, no matter how well justified operationally.

Airlines also had a variety of views in relation to the responsibilities and obligations of suppliers in a disruption situation, especially in relation to the possible use of "force-majeur" clauses. And if third-party allocation rules can over-ride commercial arrangements, what value is there in awarding contracts on the basis of an individual supplier's supply logistics? Senior figures in the industry, such as **Bob Sturtz** of **United Airlines**, believe that the issue is thus best left to be resolved between airlines and their suppliers. He points out that this was how the disruption caused by the recent hurricane damage in the USA was effectively dealt with, using ATA and IATA to coordinate and communicate (*See Jet Fuel Report, 2 December 2005*).

Suppliers equally had to consider the implications of any allocation rules on the contracts and general business relationships with customers, and within the framework of their lease agreements with the airport. And, finally, the facility  
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**It is now clear that the local airline representatives on the AOC had not fully obtained their head office fuel department input and endorsements to ensure all commercial and contractual obligations were accounted for.**

operator, **Heathrow Hydrant Operating Company (HHOpCo)**, had to consider how it would actually manage and administer any supply disruption arrangements.

Against this backdrop, discussions on the procedures had taken place over many months during 2005 between BAA, the home-based airlines, the visiting airlines via the **Airport Operating Committee (AOC)**, the supplier owned fuel facility operator HHOpCo and the **Airport Contingency Planning Committee**. This produced a practical and pragmatic compromise agreement, and it had been thought that all parties had signed up to the “rules”. But it is now clear that the local airline representatives on the AOC had not fully obtained their head office fuel department input and endorsements to

ensure all commercial and contractual obligations were accounted for. IATA is now urgently attempting to open further discussion within its membership.

Despite these commercial problems, the operational procedures are working well, and fuel demand/supply at Heathrow is under control, while the oil industry works to get logistics back to normal. The legal issues will be decided in the coming months, and if nothing else may produce some clarity and direction in what is uncharted territory. Hopefully matters will be resolved quickly, and in time for the *8<sup>th</sup> Annual Jet Fuel and Airport Operations Conference* in February when the topic of “Managing Supply Disruption” will be a key item on the agenda for debate. **JFR**

## **Armbrust Aviation Group Outlines Plans For 2006**

**S**ince joining the Armbrust Aviation Group in October, **Keith Carter**, Managing Director International, has spent much of his time talking to customers – airlines, suppliers and operators – to seek their views on AAG, and discuss how the Group’s resources can best be deployed to help the jet fuel industry meet the challenges it faces in the coming year. Thanks are given to all those who spared their time to meet and/or complete the customer survey.

The input received from customers was extremely useful and constructive, and is now being used to shape AAG’s business plans for 2006, covering the main activity areas of :

- Publications
- Annual Awards
- Consultancy
- Conferences

The **AAG Daily Briefing** is considered extremely useful by all, and so no significant change is planned; it will continue to be distributed by e-mail free of charge to the widest possible audience, as part of AAG’s

commitment to providing relevant and timely information to all those involved in the jet fuel business. And to provide more in-depth coverage of the issues, the **Jet Fuel Report (JFR)** will continue to be published every two weeks, on a subscription basis. However, in response to customer comments, there will be more international coverage of stories and issues, and objective analysis aimed at helping subscribers, individually and collectively, tackle the problems they face. Consideration is also being given to changing the publication to monthly, to facilitate more detailed reporting.

Supporting the commercial jet fuel publications, **AirOps** is to be launched in early 2006 under the direction of **Ravin Appadoo**, Vice-President Technical Operations, will cover the whole range of technical and operational issues faced by the industry. **Airport Revenue News (ARN)** covers the airport revenue world. Together, AAG publications provide seamless coverage of all

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airport activities.

Wherever possible, and appropriate, news items and issues will be drawn together across the three publishing streams, with reports also supporting wider business activities within the overall AAG “brand”.

The *Annual Awards* are a unique and highly valued AAG product, providing the various players with an independent and objective assessment of their company’s performance in the marketplace. The award for “*Best Jet Fuel Marketer and Airport Operator*” has been made every year, but that for “*Best Airline Fuel Department*” will be reinstated after a gap of five years. Additionally, in recognition of the growing importance of managing price volatility, an additional and new category of “*Best Risk Management Provider*” has been introduced. Customer feedback has indicated that greater clarity should be given to the methodology, and this will be addressed this year. Surveys are currently in circulation, and the results will be announced in early 2006, to coincide with the *8<sup>th</sup> Annual Jet Fuel and Airport Operations Conference* taking place in Las Vegas in February.

It is clear from customer responses that there is relatively little

market knowledge of AAG’s *Consultancy* activities, and it is aimed to rectify this during 2006. The Group has significant expertise, experience and contacts across the whole spectrum of the jet fuel business to enable it to provide professional analysis and advice to companies requiring external input to their decision making processes. Full details are shown on the AAG website at [www.armbrustaviation.com](http://www.armbrustaviation.com), and any customer wishing to discuss possible commissions should contact any member of the AAG management team.

The *Annual Jet Fuel and Airport Operations Conference* is, and will remain, the AAG’s premier event, bringing together all participants and covering the whole range of AAG’s business activities – commercial, technical, and airport operations. Customer feedback has reinforced the need to have a strong agenda, and ensure delegates get good value for money in a high quality environment. As we approach the conference, new topics of discussion are being added further to recent developments in the industry. For instance as per our recent press release, Fuel Tank Safety, a technical/safety issue with significant

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**Conference to Host Jet Fuel Growth Market Sessions**

Airlines, suppliers and operators looking to develop their business in the key growth markets of China, India and the FSU/CIS region should attend the **8<sup>th</sup> Annual AAG International Jet Fuel Conference & Exhibition**, Caesars Palace, Las Vegas, February 19-21, 2005. **China Aviation Oil Supply Company (CAOSC) Director Gao Jingren** will be heading a strong Chinese delegation, and will be describing the changes to fuel supply arrangements being planned and implemented in 2006. The CAOSC team will also be available for detailed individual discussions with delegates, in addition to questions and answers during the agenda session. **SP Singh**, General Manager Aviation, or another senior executive from **Hindustan Petroleum Company Ltd** will be leading discussions on the jet fuel market in India, alongside other key players from this country which is experiencing huge growth in aviation and jet fuel demand. And **Sergiu Crijanovschi**, Fuel Manager of **Air Moldova**, will be following up on his recent article in Jet Fuel Report to describe and discuss the challenges faced in managing fuel supply arrangements in the FSU/CIS region. Speakers from **Lukoil-Aero** and the major Russian oil companies will also be present to support and expand on Crijanovschi’s comments. **Keith Carter**, AAG Managing Director International, will be facilitating these commercial sessions, and would welcome any advance questions or comments via e-mail to [keith@armbrustaviation.com](mailto:keith@armbrustaviation.com), or by telephone to +44.118.977.0504. For general information on the conference contact **Barb Moreno**, Conference Manager at +1.561.355.8488 ext 104 or [bmoreno@armbrustaviation.com](mailto:bmoreno@armbrustaviation.com) or visit the AAG Website at [www.armbrustaviation.com](http://www.armbrustaviation.com).

operational/economic implications for the airlines, will be another highlight of the conference. Caesars Palace in Las Vegas, a hotel and city renowned for excellent conference facilities, will thus play host to the 2006 meeting on 19-21 February; and the business

announced shortly.

All of the above represents a significant investment and commitment by **John Armbrust**, *President* of the Group, to using the resources and expertise of his company to help the industry meet the challenges it faces in

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content will be strongly international, with a focus on the important developing jet fuel markets in China, India and the FSU/CIS regions. Also, with recent events at London Heathrow hitting the headlines, there will be timely discussion amongst all parties on the best way of managing supply disruption.

However, it is recognised that the costs and location of the February conference may make it difficult for some customers, especially smaller non-US airlines, to participate in Las Vegas. Thus, consideration is being given to supporting the main annual worldwide event with a number of smaller-scale, regionally-focussed meetings around the world during 2006; more news on this will be

the year ahead. It is hoped that customers will equally respond positively to this, fully participating in and supporting the range of AAG's business activities, including attendance at the Las Vegas Conference in February. **JFR**



**John Chapman of Chapman Aviation Fuel Consulting showed some foresight back in March 2005 when he predicted much higher prices than many others were anticipating.**

profitable quarters in 2006. Around the world, airlines have spent the past four years cutting costs in an effort to become more competitive with the slew of low-cost carrier rivals that have hit the scene. Until recently away due to the spiraling jet fuel prices. But now, analysts are predicting that carriers in the US and elsewhere may be able to carve out some profitability in the coming year, even if crude oil prices remain around \$60 a barrel. And earlier this month, the **International Air Transport Association (IATA)** said it expects the global airline industry to return to profitability in 2007. The organization recently lowered its loss forecast for 2005 to \$6 billion from the previously forecast \$7.4 billion in losses. IATA is predicting \$4.2 billion in losses next year.

“Fuel prices remain a major risk but now appear to be on a slow downward trend as global economic growth and demand for oil slows,” said IATA chief economist **Brian Pearce**. “Returns to airlines are slowly improving. Substantial efficiency gains have been achieved. Airlines outside the US have been making money at the operating level since 2002 and US airlines are close to breaking even at this level.”

Right now, US carriers may be hurting the worst – with three major carriers in bankruptcy along with some smaller airlines – but the pain of the past year has been felt around the world. Record jet fuel prices, intense competition and an unwillingness by passengers to pay more for tickets all marred 2005 for the airlines. Queen Elizabeth II called 1992 an *annus horribulus*—a horrible year. That might be true for the airline industry in 2005. In contrast, oil companies are reaping the benefits of unprecedented demand and, despite some public relations challenges in the wake of devastating hurricanes and resulting high prices in the US, will start 2006 with plenty of black on their balance sheets.

**Spiraling Prices**

The airline industry started 2005 bemoaning crude oil prices that hovered in the low \$50s. Many had unwound their hedge positions in 2004

with the idea that oil surely wouldn't stay above \$50 or even \$40 for long. Unfortunately, they were shortsighted. Oil prices crept up throughout the first eight months of the year, peaking at \$70 on WTI in August before settling back down. But still, the fourth quarter of 2005 will show average crude oil prices around \$60 a barrel.

More troubling for airlines in 2005 was the blow out of crack spreads. While much was reported about spiraling crude prices, following the hurricanes crack spreads jumped for jet fuel to an equivalent price of almost \$120 per barrel. Airlines that hedged using crude oil as a marker were burned failing to capture the full physical price rise of jet fuel.

Now retired, **John Chapman of Chapman Aviation Fuel Consulting** showed some foresight back in March 2005 when he predicted much higher prices than many others were anticipating. In a March interview he said: “In the last several months we've seen many of the major investment houses upgrade their forecast for oil from the low \$30s to the low \$40s. My personal opinion is that they are still behind the curve. It's hard to say, but I think this year we'll see crude oil average in the low \$50s and I think we'll still see the very wide differentials between light crude oil and heavy crude oil.”

Because of what have turned out to be overly optimistic price projections by many major airlines, they were exposed in 2005. Very few carriers had the level of fuel hedging necessary to take the edge off the high market prices. **Southwest Airlines** and **Ryanair** are two examples of airlines that maintained strong hedge positions throughout the year, and not surprisingly their financial results benefited accordingly. This and other examples elsewhere in the world confirm that consistency and systematization in hedging pays off (*see JFR Sept. 26 issue*).

Carriers around the world softened the blow of higher fuel prices by instituting fuel surcharges that were generally charged to passengers as a separate fee. Asian carriers were particularly successful in achieving a

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level of customer acceptance of surcharges. In Europe, low-cost carriers such as Ryanair opted to absorb the higher fuel costs, making it more difficult for the larger airlines to compete on price. And in the US, it took several tries before surcharges would stick. Airlines tried to raise prices several times in the early months of the year without success, although they did manage some slight increases in the latter half of the year. The fiercely competitive nature of the industry continues to make fuel surcharge a strategy of last resort.

Beyond hedging and the application of fuel surcharges, more and more airlines turned towards operational efficiency to squeeze more flying hours from the same quantity of Jet. Airlines big and small deployed a battery of measures, which some were proud to announce, from weight saving to more efficient use of airspace to save themselves precious fuel. The small savings added up to millions of dollars on an annualized basis all going directly to the bottom line. This measure had the added benefit of reducing the emissions released in the atmosphere making aviation appear somewhat 'greener'.

And of course one can't leave demand out of the equation. While airlines struggled with the economics of flying planes full of expensive jet fuel and passengers with cheap tickets, in general they didn't have too many problems filling their seats. Demand for air travel increased all over the world in a rebound that would have been cause for celebration if jet fuel prices didn't put such a drag on airline economics.

More broadly speaking, rising demand for oil put a strain on supplies, particularly in the US and China. China is a burgeoning market commanding 20% of world oil demand with more and more crude oil production being diverted to China and the surrounding region. **The Organization of Petroleum Exporting Countries (OPEC)** responded by raising production quotas, but demand continued to creep up, and prices rose as well.

Prices were already in the stratosphere when Hurricane Katrina

slammed the US Gulf Coast in August. That event, followed by Hurricane Rita in September, took out a good portion of the oil infrastructure in the region. Oil platforms and rigs, refineries and pipelines were all impacted, and the result was a severe strain on US supplies of crude oil and petroleum product. Airlines took extraordinary measures to ensure that individual airports did not run short of supply, all while paying even higher prices for the limited supplies of jet fuel available.

**Shortages and Infrastructure Problems**

Nearing the close of the year, supply and demand have settled into a more normal relationship. But infrastructure problems have been exposed, leaving the airline industry more vulnerable to possible shortages or run-outs than ever before. Most recent was the Buncefield oil terminal fire earlier this month that left Heathrow Airport short on fuel supplies (*see related story this issue*). That situation was extraordinary due to the extent of the fire damage, but it points to the vulnerability of airlines and airports to a few supply depots.

Earlier this year, **Sydney Airport** was one location that felt the strain of inadequate infrastructure in an environment of rising demand. The airport experienced its second jet fuel shortage in a little more than two years over the summer. A load of fuel was delivered to Sydney Airport off-spec, and sources say that inadequate storage facilities and an inability to segregate the contaminated fuel contributed to the shortage.

Shortages at **Toronto** and **Montreal Airports** last spring were due to another problem. Simply put, marketers and refiners could make more money on other refined products so they focused less attention on jet. In a comment made last spring to the **International Air Transport Association (IATA)**, **Air Canada's Geoffrey Arscott** said, "Both Montreal and Toronto are short products in general maintaining extreme pressure on Jet, as long as refiners can get the type of cracks on other products. Jet

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**Trucking, which in the past was used as a stopgap measure when supplies ran tight, was a bit harder to execute this year due to insufficient availability of trucks and drivers.**







