News from .aero

the domain of aviation

www.information.aero

In this issue…

Welcome

The submission of SITA's renewal proposal to ICANN for the continued sponsorship of the .aero TLD on behalf of the aviation community marked an important point in the evolution of .aero.

With an extraordinary range of Internet-based services are in the process of being introduced or developed. Complete connectivity will be the future model for the aviation community as a whole, leading to considerable opportunities for greater operational efficiency and cost reduction. To achieve this, the community needs domain management services that are attuned to their needs and expectations – and the .aero team is committed to deliver on that requirement.

We highlight in this newsletter some of the key points from the renewal submission, as well as other news that demonstrates the extension and expansion of .aero activities. These vary from the availability of airport codes in .aero to a further look at the introduction of the DNSSec protocol.

We also have details of the new .aero registry operator. Afilias support the .org domain, they are globally proficient – and they will provide a range of improved and enhanced services for .aero domain owners. 'Meet the team' is the first in a series where we introduce ourselves to you. Finally, a couple of case histories – instances where important players in the industry have re-launched or re-branded their operations and adopted .aero as a means of confirming their focus on the air transport sector.

There's a lot happening in the .aero domain – and plenty of exciting initiatives planned for the future. We hope you enjoy reading this. If you have any comments, don't forget to get in touch, at www.information.aero.

.aero team, SITA

sponsored by
SITA

SITA presents .aero renewal plans to ICANN

On 16 December 2005, SITA submitted its renewal proposal to ICANN and confirmed its commitment to act as sponsor of the .aero TLD. SITA believes that its continued sponsorship would be in the best interest of the Sponsored TLD Community. Following the conclusion of a period for public comment in early February, ICANN is expected to begin renewal negotiations with SITA.

In his covering letter to ICANN CEO Paul Twomey, SITA SC Director General Hans-Peter Kohlhammer noted, "We believe that we remain uniquely qualified to manage the .aero domain and best serve the interests of the community as a whole in a neutral and unbiased manner – taking into full account the respective interests of the various sectors of the industry."

The proposal provides a concise documentation of the initiatives taken by the .aero team in policy development through the Dot Aero Council, to provide community outreach and awareness building; to provide effective eligibility and name selection services and dispute resolution; and to contribute to the innovative use of domain names. These are all issues that have been covered in one way or another in previous .aero newsletters.

The logic of the air transport community running its own domain

The agreement originally negotiated by SITA with ICANN was always premised on the basis of a governance system that ensures the air transport community as a whole remains actively involved in the evolution of standards, the maintenance of the domain's integrity and the pioneering of new services.

The process through which this takes place is the Dot Aero Council (DAC), a forum for the effective exchange of information to ensure the future development of .aero meets the changing needs of the community as a whole.

SITA signed an agreement with ICANN in December 2001 to establish and manage .aero on behalf of – and in the interest of – the air transport community, openly and transparently.

As part of the agreement, ICANN exceptionally delegated some of its policy formulation powers to SITA, in recognition of the fact that the sponsored community is in a better position to manage the detail of the domain than ICANN:

- SITA can define and enforce policies relating to what names can be registered, by whom, and how those names can be used.
- SITA must ensure that only members of the aviation community register names and can provide "eligibility and names selection services" to the community.
- SITA can determine what .aero services will be provided.
- SITA can autonomously define pricing.
- SITA must operate .aero on a not-for-profit basis.

Are distribution channels sufficiently at the service of the community?

Whilst the proposal document does not request any specific changes in the charter or policy delegation, it does make the point that valuable lessons have been learnt over the past four years. As a result several areas have been identified where the .aero team consider a change in the agreement would be to the benefit of a sponsored community and Internet users overall.

The key recommendation is that a sponsored community should not be required to serve the needs of a distribution channel: rather, the distribution channel should serve the needs of the community. The proposal continues:

Development news continued...

"As indicated in the past – in our annual proof-of-concept reports and on numerous other occasions – we continue to believe that the current agreement has proven to lack the flexibility necessary to establish a distribution channel suitable for the needs of the sponsored community and that it is counter-productive to create a competitive environment in the context of a small community-focused TLD."

"While registrars in general are highly qualified and effective in providing generic domain registration services, the registrar community typically lacks deeper understanding of the specific needs of a sponsored community."

"In the past fours years, SITA has been forced to turn down a number of applications from companies wishing to become .aero registrants from aviation entities in the least developed countries – simply because the current distribution model is unable to accommodate the settlement mechanisms traditionally used in the air transport community."

In summary, the .aero submission to ICANN notes that what was once an appropriate means of introducing competition in an established .com market, has proven to be highly inappropriate for a start-up top level domain with a narrowly focused community. Insistence on the registrar model unreasonably increases the cost of operating a sponsored top level domain and the limitations of the registry-registrar model significantly influence development and implementation of policies.

We want to continue working with registrars and with more of them but at the same time we want to be able to use community specific channels.

While we intend to continue working with ICANN-accredited registrars, we have also asked ICANN to allow SITA to serve the community directly – and to allow SITA to involve other aviation entities that SITA considers qualified in the distribution of focused .aero services. We believe that failure to achieve improvement in this area will prevent SITA from serving the needs of the sponsored community, lead to stifled competition, and eventually to a failure of the concept of sponsorship.

Maximum freedom for innovation and evolution of communal standards

The proposal concludes that "the option of a sponsored domain for global communities run along the lines of .aero – based on the needs and aspirations of that community within the broader community, run by that community for the benefit of its members and for the broader community at large – has much to recommend it in resolving issues of governance and future development."

"We take our responsibility seriously and we are looking forward to serving the aviation community as the Sponsor of .aero for years to come."

The full proposal can be downloaded at http://www.icann.org/tlds/renewals/aero-renewal-proposal-16dec05.pdf.

SITA signed an agreement with ICANN in December 2001 to establish and manage .aero on behalf of – and in the interest of – the air transport community, openly and transparently.

Members of the DAC are drawn from relevant and respected associations that represent the various interest groups within the air transport community and act on behalf of various registrant groups. They include Airport Council International (ACI); the Civil Air Navigation Services Organization (CANSO); the Federation of Airline General Sales Agents (FAGSA); Fédération Aéronautique Internationale (FAI); International Air Transport Association (IATA); the International Civil Aviation Organization (ICAO – acting as an observer on behalf of civil aviation authorities and based on its status as a UN body); the National Business Aviation Association (NBAA); SITA itself; and ARINC.

More airport codes now available in .aero

In the last issue of this newsletter we reported that Dot Aero Council (DAC) would review the option of permitting registration of a domain name matching a three character assigned FAA location code on the same conditions as IATA-assigned three letter location codes. At a meeting of DAC at the end of 2005, this option was accepted and all codes immediately reserved. A new policy has now been published in the revised Domain Management Policy, effective from 16 February 2006.

Names are available for registration from this date. It means that any airport using three character codes assigned by IATA or the FAA can request approval to register the assigned code as a domain name from SITA (as operators of the .aero TLD it is our responsibility to ensure conformity with the policy). This request process will result in SITA assigning a domain authorization ID, which is a prerequisite for registration of a reserved domain name. With this ID in hand, the airport can register their domain name through the normal channel – via an authorized .aero registrar .

Full details can be found on the registration page at www.information.aero.

The new Domain Management Policy has this to say about the use of FAA industry codes alongside IATA and ICAO codes:

- From the section concerning airline ICAO/IATA identifiers:
  In the event of an overlap between the ICAO 3-letter designator and the IATA or FAA 3-letter location designator, the first-come first-served rule applies. However, the registrant is required to place a link on its web site leading to the web site of the airline which operates under the corresponding IATA 3-letter airline designator.

- From the section concerning location identifiers:
  Format: IATA3letterlocationdesignator.aero or FAA3characterlocationidentifier.aero (xxx.aero).

Eligibility: The Registrant must be an operator of an airport with a location code assigned to it by IATA or FAA.

Revocation: The domain name will be revoked if the registrant ceases to be the operator of the airport or the corresponding 3-letter airport designator is revoked by IATA or FAA.

Other requirements:

- In the event of an overlap between the ICAO 3-letter airline designator and the IATA or FAA 3-letter location designator, the first-come first-served rule applies. However, the registrant is required to place a link on its web site leading to the web site of the airline which operates under the corresponding ICAO 3-letter airline designator;

- The Sponsor may register this domain name to improve predictability of the name space. The domain will be transferred to the eligible Registrant when requested by the relevant Registrar.

Further information can be found at www.information.aero.

New registry operator appointed

SITA SC has signed an agreement with Afilias to provide registry services for .aero.
The agreement was signed following a rigorous selection process conducted by SITA,
and with the full involvement of the Dot Aero Council (DAC).

Under the terms of the agreement, Afilias will manage registry operations (including ensuring high availability and diverse DNS service) and will provide technical and administrative support. Through their system, SITA SC will continue to manage eligibility verification of registrants and allocation of domain names to ensure the integrity and exclusivity of the domain. .aero registrants will benefit from near real-time updates to their information, more competitive pricing, and better access to domain registration services.

"We chose Afilias because of their technical expertise, reliability, and dedication to providing quality registry services." commented Marie Zitkova, Head of .aero. "They operate world-class technology supporting some of the largest generic TLDs in the world, and have been intimately involved in the development of standards such as DNSSec and enum – standards significant to the continued development of .aero for the aviation community."

About Afilias

Afilias, a fully integrated global provider of domain name registry services, has its headquarters in Dublin, Ireland – with additional offices in London, Toronto, Philadelphia, and New Delhi. Afilias provides a full range of registry services including those in support of the .ORG gTLD (under contract to Public Interest Registry), the .INFO gTLD and several country code TLDs. More information on the company can be found at www.afilias.info.

"We chose Afilias because of their technical expertise, reliability, and dedication to providing quality registry services."

Marie Zitkova, Head of .aero.

Meet the team

The first in a series introducing readers to the close-knit members of the .aero team – those responsible for ensuring the smooth functioning of the domain on behalf of the air transport community. In this issue, we meet Elena Vladkova..

My job title is "Specialist .aero customer liaison", but as always, it doesn't easily describe what I do from day to day. I have three specific responsibilities: operate the .aero office, supervise the registry operation; and handle administrative requirements.

In other words, I deal with all customer enquiries and requests for eligibility verification; decide which customers are bona fide members of the aviation community; help them through the registration process, and follow up with registrars. I prepare weekly and monthly reports for .aero registrations, customers and domain names registered. I also update the public website (www.information.aero), as well as the .aero intranet website with new .aero policies and registration processes.

Prior to joining SITA and working with .aero, I worked in a customer relations capacity for two of the largest Bulgarian travel agencies/operators.

Please keep everyone in the loop
I've been concentrating recently on a telephone survey of some of our registrants (see page 7), endeavouring to find out why a number of domain names that had expired were not being renewed. As is so often the case, it turned out that the reasons were simple errors or omissions on the part of the registrants – but with potentially costly consequences!

Renewal notification letters had been sent by registrars to the administrative contacts provided by registrants – but in nine out of ten cases, these contacts had left their companies.

Unfortunately, the registrars misinterpreted a lack of response as being a lack of interest and did not take the matter further. When I tracked down some of these customers to find out why they had not renewed, they

were all surprised to learn that their .aero domains had expired – and at the same time relieved to find that we took the trouble to remind them personally!

I'm glad to say that, with the exception of those registrants whose businesses had closed down, all of the customers decided to renew their .aero domains! Unfortunately, however, calling each customer and tracking who is now in charge of domain names is not something we can do on a regular basis.

As a result of this experience, we've asked registrars to ensure that .aero customers are aware that updating of their contact details is the only way to guarantee continued use of the .aero domain. So we are asking all .aero registrants to PLEASE keep their contact details up-to-date! You can always check your contact details in the who-is part of the .aero website. If the data is incorrect, please visit your registrar's website and update your data as soon as possible!

What registrants are saying about .aero

Our Geneva-based team recently conducted a telephone survey of .aero domain name holders who had not renewed their registrations. As Elena Vladkova explained, the principal reason was a simple breakdown of communication between the registrar and their registrant.

We also took the opportunity of asking a number of general questions over the registrants' experience of .aero. Briefly, their responses were as follows:

- Airports and airlines gave a number of reasons as to why they were using the .aero domain. They believed in the development potential of the domain and in the promotion of an online airport/airline community. They also believed that, as public awareness of .aero grows, having a .aero domain offers a simple route to their website and enhances their Internet presence. A number also registered initially in order to avoid another organization or individual registering their name, as had happened at the start of the .com boom.
- All of those interviewed found the registration process and registry service easy and straightforward. However, one registrant explained that for them the registration, especially the verification process, was complicated and was made worse by not being able to manage their registration accounts online due to restrictions by their registrar.
- None of the registrants had experienced difficulties with their ISP when using .aero names.

- Many saw .aero as a marketing tool for increasing brand visibility online and as a common development platform for the aviation industry. However, a few did not fully understand the role of .aero.
- The role of .aero was seen mostly as a tool for business-to-business communications and a tool for promoting products and services.

We very much appreciate the feedback we received and have taken note of areas where we can improve. Based on the feedback we have received on our registration process we have recently introduced a simple two-step process that should help streamline registration.
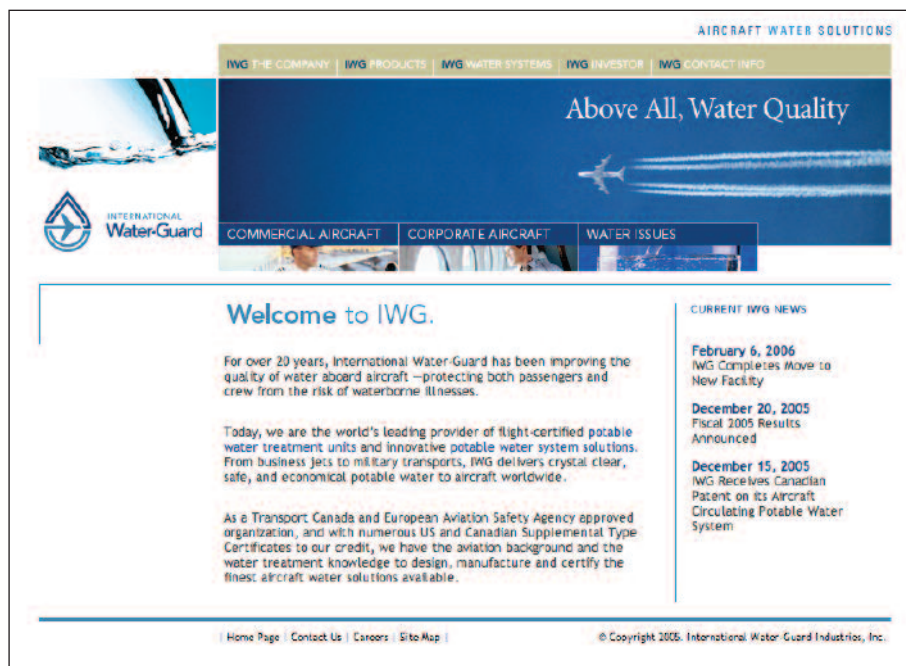
- **Obtain your .aero ID** – this unique validity process screens potential domain registrants, so ensuring the integrity and exclusivity of the .aero domain. The .aero ID is obtained directly from SITA, the sponsor of .aero.
- **Select a .aero authorized registrar** – through which to register your .aero domain name online.

We are always eager to get feedback from registrants, as well as those considering registration. If you have a point of view you would like to share with us, however forcibly, please send a note to aero.enquiries@sita.aero.

Case histories

International Water-Guard Industries

International Water-Guard Industries Inc (IWG) is a Canadian aerospace company focusing on aircraft potable water treatment and full water system solutions.

"A re-branding program like this is a major project, and one which we undertook for very specific reasons."

David Fox - IWG President and CEO

The company claims "expertise in all aspects of water treatment, with the products and know-how to provide high quality water for passengers and crew, and light weight, space saving solutions for the aircraft operator".

In October 2005, the company affirmed its new focus as an all-aerospace company by launching a corporate identity based on an immediately memorable domain name – www.water.aero. To back the change, a new logo, website and promotional material were also produced.

"A re-branding program like this is a major project, and one which we undertook for very specific reasons," said IWG President and CEO David Fox. "Chief among them was the fact that IWG had been through a dramatic renewal process. We are now solely focused on the aerospace market, we have continued to develop our highly skilled aerospace team, and we are presenting our technology to airlines, as well as corporate and VIP aviation. We worked very carefully with our designers to choose a corporate image that expressed those changes, and are confident in the results".

Case histories continued

National Air Transportation Association

When NATA decided to launch a new website, they also recognized the importance of a clearer identification with the air transport community.

The previous domain name – www.nata-online.org (nata.org was not available – it's the National Athletic Trainer's Association) was replaced by the more logical www.nata.aero.

The makeover was part of a strategic move to create a more user-friendly homepage and some sections that are password-protected and accessible only by NATA members.

The new Website includes an expanded Press Room with biographies and pictures of key NATA staff, a NATA fact sheet, statistical information on the industry and archived press releases. A Members Center includes membership application, member directory and list of NATA member services.

"There are literally thousands of business organizations based around Washington DC," commented NATA's Communications Director Dan Kidder. "We needed to ensure that both our website and our domain name were providing the clearest possible signposting for members and, in particular, for visitors such as members of Congress and the media. By adopting the air transport community's own exclusive domain, we made it absolutely clear that if you're interested in aviation, NATA is a prime stop to make."

More about NATA

The National Air Transportation Association (NATA), based close to Ronald Reagan Washington National Airport in the US, is a public policy group representing the interests of general aviation businesses before the US Congress, federal agencies and state governments. Its 2,000 members own, operate and service aircraft.

Active in all areas of aviation, among other achievements, NATA created the Business Aviation Security Task Force shortly after 9/11 and established the first set of security recommendations issued by the general aviation industry. NATA also created the Airline Services Council, expanding the Association's core base to include businesses that provide a broad range of services, including catering, terminal services, cargo services, maintenance, repair, security and aircraft cleaning.

"By adopting .aero, we made it absolutely clear that if you're interested in aviation, NATA is a prime stop to make."

Dan Kidder - NATA's Communications Director

DNSSec set to change the landscape

In 'News from .aero' issue 10, we discussed the work that was being done to provide greater security for domain access through the security protocol DNS Security Extensions – otherwise known as DNSSec. Eight months on, progress may be tentative, but the landscape is changing.

DNSSec is one of those abbreviations that insiders understand, but which all too easily causes confusion and concern for others. However, it is a subject that all those involved in domain management and Internet operations need to understand.

The protocol was born of the need to keep internet navigation safe for the transmission and communication of sensitive and critical data. For example, an airline using data received via the Internet to maintain its aircraft needs to be sure that the data is appropriate for the aircraft, modified in transit and comes from an authoritative source such as an authorized employee of the manufacturer or OEM. DNSSec can be part of the solution, helping to ensure the integrity of Internet navigation.

The need for this level of security predates the new security apparatus introduced after 9/11 – but, while the physical security of airports and aircraft has been strengthened worldwide, data security has remained all too susceptible to attack through malice or opportunism.

Bridging the gap between secure and insecure

Fortunately, this issue is being addressed from a number of directions, at strategic and policy, as well as practical, levels.

For example, the US and UK Governments have been instrumental in setting up the Transatlantic Secure Collaboration Program (TSCP) – an initiative "to provide guidelines of policies, procedures, and mechanisms for the secure sharing of sensitive electronic information among international defense companies and their governments, to meet the requirements for increasing collaboration and through life contractor logistic support in an increasingly regulated environment".

In describing its outputs the organization states that, "TSCP is an evolutionary approach to enable people to access data about things to make good decisions in an international secure collaborative environment. It is focused on establishing uniqueness in people, data and things, and auditable metrics for ensuring the data quality that underpins good decisions. Its initial focus was on collaborative security mechanisms and is now beginning to move up the stack into information management with the emphasis expanding from people, through data towards things".

TSCP's activities are driven at the commercial level through major defence contractors – such as BAE Systems, Boeing, EADS/Airbus, General Dynamics, Lockheed Martin and Rolls-Royce – and at Government level by the US Department of Defense, the UK Ministry of Defence and the Canadian department of Public Works and Government Services.

The principle tool for TSCP is a public key infrastructure (PKI), which requires a 'bridge' that acts as a guarantee of quality between all certification authorities issuing digital certificates in the aerospace and defence sectors. SITA is instrumental in providing that bridge through Certipath, a joint venture created with Exostar and ARINC.

The use of PKI has been mandated by the US Department of Defense for all contracts after June 2006. Inevitably the work undertaken by TSCP and Certipath will become adopted by the air transport sector as a whole, particularly as aircraft and airports increasingly become dynamically 'connected'. It follows that every ground system, network and communication link must be adequately secured.

In a presentation to the Air Transport Association e-Business Forum last October, Julien Holstein, the Director of Information Security at Airbus SAS, noted that every facet of airline operation will ultimately be impacted by digital security. At a human level, this includes pilots and cabin crew – but also suppliers and even cleaners. All aspects of flight operations, ground operations and maintenance will be affected. It follows that security policies must be understood and implemented by the community, with new standards and tools.

Scepticism but also first adopters

While PKI provides a powerful level of protection, DNSSec will provide additional levels of security when navigating the Internet.

To understand the importance of DNSSec, imagine what would happen if someone switched all road signs or tampered with your car navigation system while you were driving on holiday in a foreign country. You might end up driving into Paris thinking you were in Rome.

DNSSec is designed to help users avoid this happening when navigating the Internet highway. Armed with DNSSec, the holder of a domain can digitally sign the navigation data to be used by other computers to find the domain and the user, armed with DNSSec aware software and a public key, can verify that the navigation information his computer received is complete and authentic.

DNSSec still faces a level of scepticism and resistance from those most closely involved in its eventual implementation, not least because it carries a cost. However, speakers at the ICANN DNSSec Workshop in Vancouver last December envisaged adoption by e-commerce sites and software developers as more likely to accelerate its adoption than the logical route – adoption by registrars.

One speaker, Uma Murali from the Indian ISP Good Luck Domain, echoed comments from others in suggesting that a more concerted approach to promote the adoption of DNSSec should be adopted by ICANN, governments and ISPs. And many wanted to see its name changed.

"Give it a name, call it the 'anti-pharming system', then you have the attention of the business folks," said Ram Mohan, CTO of Afilias (see article on page 5). "The answer is not return on investment, but return on risk," said Mohan. "How much risk are you willing to take, how much risk do you want to mitigate?".

A number of TLD operators, including Afilias, are conducting advanced trials of the technology. However, credit for the first implementation of DNSSec to a TLD went to NIC.se – operators of the .se country level domain. Announcing their move in September last year, they freely admitted that the service was of no value unless domain holders' name servers also introduced the service. But they equally hope that their initiative as an early adopter "will make it easier for name server operators to offer DNSSec to their customers".

An important issue for air transport

As with any technology development that is concerned with security and housekeeping, rather than overt commercial benefit, the greatest difficulty is in getting the ball rolling. However, there is no doubt that the landscape is changing and that DNSSec is closer to adoption now than it was even four months ago.

Our own view is that the adoption of DNSSec (with or without a catchier name) is important for the air transport community. This is not only because of the greater incidence of pharming and phishing, nor of the wider security implications of increased data transfer within air transport operations. Looking ahead, DNSSec also provides a basis to build trust on the Internet to support high level protocols facilitating IP telephony and Web services. And with our strong interest in the opportunities provided by use of the DNS, we would welcome the widespread adoption of a protocol that provides security and offers greater scope for innovation.

Predictability is a key asset of the .aero domain

As a sponsored domain, .aero unlike most other TLDS has implemented a number of name registration restrictions designed to safeguard the integrity of the domain. One of these restrictions has been the policy to reserve a certain domain names. Full details of these restrictions are explained in detail in our Domain Management Policy found at www.information.aero.

Reserved domain names can be individual domain names reserved for registration or domain names with specific registration criteria attached such as:

- Airline codes (i.e. code. aero or code.airline.aero)
- Airport codes (i.e. code.aero or code.airport.aero)
- Special industry names

Registrations of these domain names require an .aero ID and a Domain Authorization ID, both of these IDs can be requested through the .aero registration page at www.information.aero . Only with both these IDs in hand can someone register a reserved domain name.

Please note that the request for a Domain Authorization ID is a process by which an applicant is determined as eligible to register a reserved domain name. As an example; for reserved airline and airport codes this authorization process ensures that only the airline or airport which was assigned the code by relevant authority may lay claim to the reserved name.

One step further for airline and airport codes

However we did not stop at just reserving name, all reserved airline and airport codes have been pre-registered and activated as .aero domain names. Thus creating a complete and predictable network ensuring that all future development activity carried out to develop an industry interline communication network based is based on a stable and complete structure. Pre-registered codes that have not been re-assigned to their eligible code holder remain active with a redirection to the .aero website.

For more information on how to have your industry code re-assigned visit www.information.aero.

Industry events

International Passenger Terminal Expo 2006 Conference and Exhibition.
21-23 March 2006, Paris, France
Recognised as one of the world's leading events for airport passenger terminal technology, security, design, operations and management. Passenger Terminal Expo attracts key decision makers and senior executives from the airport and airline industries.

Visit www.passengerterminal-expo.com for more information.

Aviation and Environment Summit & Exhibition,
25-26 April 2006, Geneva, Switzerland
The first Summit (March 2005) was unparalleled, since never before had over 300 global aviation industry-wide leaders come together to discuss environmental matters. The second event will far surpass this.

Visit www.environmnet.aero for more information.

European Business Aviation Convention & Exhibition (EBACE)
3-5 May 2006, Geneva, Switzerland
There's only one place in Europe where the business aviation community goes to find the products and services they need from the world's top vendors, to learn what they need to know about the latest operational issues and to meet face-to-face with the regulators and government officials who make decisions that directly affect their business aviation operations.

Visit www.ebace.aero for more information.