



SPECIAL REPORT



International OPERATIONS

by James Wynbrandt

Operating safely and sanely on the border of chaos

Anyone who thinks modern cockpit technology, more reliable engines and plush, supersized cabins have removed the pucker factor from business aviation operations probably hasn't traveled internationally.

Here, beyond native airspace, a world of ever-shifting regulations and operational rules, infrastructure uncertainties, communication breakdowns and on-the-ground threats can make every mission a challenge. All these issues and more were addressed at the NBAA's International Operators Conference (IOC) at the Tampa Marriott Waterside Hotel & Marina in March.

Featuring some 50 presentations from pilots, flight handlers, government officials and other experts and grouped into sessions by subject, over four days the IOC covered a full spectrum of topics related to international trip planning and execution: regulations, regional reviews, security, avionics, medical issues and more.

The wide range of pertinent subjects and the vast expertise of the presenters reinforced the point IOC chairman Steve Thorpe of Merck, Sharp & Dohme made in welcoming the some 600 attendees to the

gathering: "You can't perform, plan or execute an international trip on your own."

Safety First

The first priority for operators, of course, is safety, and the organizers devoted a day to courses dedicated to bringing aircrews and passengers home safely. The first session, coordinated by Mike Schaff of FlightSafety International, provided a high-level view of the regulatory and operational demands of international flight. Kurt Edwards, director general of the International Business Aviation Council (IBAC), explained the organization's role in representing private aviation interests before ICAO, and explained ICAO standards and rulemaking procedures that underlie regulations operators must know when flying internationally.

The opening day's second session, coordinated by Guy Gribble, general manager at International Flight Resources, covered key differences between the FAA's TERPs (Terminal Instrument Procedures) and ICAO's PAN-OPS (Procedures for Air Navigation Services); departure and arrival design and procedures; operational requirements for CDFA (Continuous

Descent Final Approach), and use of EVS (enhanced vision systems) in the international environment.

Side-by-side comparisons of TERPs and PAN-OPS procedures for the same instrument approach, holding pattern and other operations illustrated the challenge pilots accustomed to TERPs face when operating in the more confined spaces and procedural differences PAN-OPS imposes. "It adds up to lots of differences

Worst Weather Airports

Mike Wittman of AvPlan Trip Support presented a Top Ten list of domestic and foreign foul weather airports:

- San Francisco International (SFO)
- Chicago O'Hare (ORD)
- Newark Liberty International (EWR)
- Boston Logan International (BOS)
- La Guardia International (LGA)
- Courchevel Airport (LFLJ)
- Paro Bhutan Airport (VQPR)
- Don Mueang International Airport (VTBD)
- Gibraltar International Airport (LXGB)
- Cakung International (BCH)

in TERPs versus PAN-Ops,” Gribble said. Special emphasis was placed on non-precision approaches, as 60 percent of CFIT accidents occur during these procedures, Gribble noted.

John Davenport of FlightSafety invoked Helios Airways Flight 522, which crashed after hypoxia incapacitated the crew, in his presentation on high-altitude concerns and decompression sickness. His primary message was that serious decompression problems can occur in much less dramatic fashion. Davenport posed several aircraft decompression scenarios and questioned the audience about the correct response, aimed at illustrating that any decompression needs to be dealt with aggressively, and that aftercare is essential to prevent problems such as potentially fatal late-onset bends. He noted that at least nine pilots in the U-2 program have suffered permanent brain damage as a result of their operations at high altitudes.

Conducting Flights in the North Atlantic

“There’s a lot going on in the North Atlantic,” said Dave Stohr of Air Training International as he opened his session on North Atlantic mandates. Stohr noted that reduced separations of 30 nm laterally and 50 nm longitudinally, already used by the FAA on Pacific routes, are being phased

International Gotchas

An expert panel of international service providers highlighted often overlooked planning items and issues that can disrupt otherwise routine international trips.

- Crewmembers should have a second passport, and ensure that crew and passengers have the correct passport in hand.
- Know whether or not you can overfly countries against which the U.S. has sanctions.
- Make absolutely certain that everyone on board has the proper visa and travel documents for the trip you are making.
- Know all logistical issues and potential problems regarding ground transportation between the airport and your hotel.
- Be familiar with rules on how to dispose of international garbage.



Limited infrastructure in far-flung regions of the world might pose new challenges for operators, but avionics should not, and crews must familiarize with ATC procedural differences among regions.

into New York Oceanic airspace and are currently approved between eligible aircraft pairs. As the airways get more crowded, the perennial problem of failure to comply with ATC clearances represents “a major risk in oceanic airspace,” Stohr said.

In explaining how crews “fall into the trap of not complying,” he cited mode confusion, failure to copy route or reroute correctly, failure to insert the route correctly in the FMS and failure to activate a newly created route clearance as common mistakes. The trap is getting tighter. Lateral deviation classifications are changing as navigation technology improves. A gross navigational error (GNE), formerly defined as any lateral deviation of more than 25 miles, will be redefined as 10 nm to allow reduced separation between tracks over the North Atlantic. Eighty percent of GNEs occur after a reroute, he said. “As an operator, make sure you have the processes and procedures so this isn’t happening, or to measure it when it does.” Among those procedures is a prohibition on pilots assisting each other in entering routes or reroutes into flight computers. “The only way to do it correctly is to do it independently and in the prescribed sequence,” he said.

In “Bad Flight Plans, Fat Fingers and the ISO Trap,” John Harpool and Mitch Lounius of Air Training International discussed error identification and error management, and presented “error trapping tools” to find and correct them. Among the advice: use common phraseology in readbacks; use an oceanic operations checklist; observe plotting requirements; and verify positions on



tracks 10 minutes after assignment. Finally, refer to Advisory Circular 9170A, which discusses common operational errors in the North Atlantic and similar airspace.

Security

Security issues and advice on staying safe abroad provided fodder for discussion, and the FIFA World Cup, scheduled for June 12 to July 13 in Brazil, is at the top of mind for a number of attendees. The 12 host cities for the matches are separated by distances of 157 to 1,996 miles, making travel by air a necessity, but airport upgrades are behind schedule. Seven of the 12 airports in host cities now face construction delays. Infraero, Brazil’s national airport authority, has conceded some projects won’t be completed before the event.

The biggest security concerns for attendees are armed robberies, express kidnappings, carjackings and gun battles between gangs and police in which bystanders may become inadvertently involved, according to Matt Burdette, chief of intelligence at FrontierMedex. Alluding to the riots that broke out across Brazil during last year’s Confederation Cup, he expressed concern

that groups and gangs may try to use the soccer tournament as an opportunity to create similar havoc. He recommended those going pre-arrange ground transportation with security-trained drivers, and to be prepared for delays on the ground.

Charlie Leblanc, v-p of security services at FrontierMedex, addressed crowd safety concerns, including the basic elements of managing crowds at large venues, how to tell if these elements are in place, and the influences that can turn a crowd into a dangerous mob.

AT&T's Carson, during his regional review of Mexico (*see box*), also touched on security, providing advice on the type of hotel to stay at (not American branded) and what floors (lower). He advised against wearing any attire adorned with company logos or suggesting one belongs to a flight crew. "Try to blend in; take off the tie, hide the FlightSafety crew tag," he said. He also advised Mexico-bound travelers to increase their ATM card limit to an amount (about \$400) that will appease captors in the event of an "express" kidnapping—an all too common practice wherein random individuals who appear to be well off are abducted and forced to withdraw money from an ATM for the kidnappers. If the funds are insufficient, the captive may be held for return trips to the ATM.

During his portion of the regional review Mark McIntyre of Mente noted personal security and safety are paramount concerns in Africa, and having an emergency supply kit with medicine, food, lights, and in his case a satphone for the captain, is advisable. If remaining overnight, arrange secure transportation. For emergency cash, be sure the \$100 bills are 2006 vintage or newer.

Avionics

With global air traffic growing 4 to 5 percent annually, according to IATA, improved communication, navigation and surveillance (CNS) and air traffic management (ATM) services are critical. Carey Miller of Universal Avionics Systems covered foundational technology platforms of tomorrow's aviation operations: Fans, CPDLC, ADS-C and ADS-B, along with current and upcoming implementation mandates.

Global datalink, encompassing both CNS and ATM, will provide those improvements, moving from voice to datalink domestically and from HF to satcom

on oceanic routes. Navigation will transition from sensor-based, such as localizers and glideslopes, to performance-based navigation (PBN) using GNSS, RNP and Rnav; ADS-B and ADS-C will take over surveillance from radar; and ATM will shift from time-based operations, to trajectory and performance based.

Fans (Future Air Navigation System) provides a direct datalink communication between pilot and controller. (Fans-1 was developed by Boeing and Fans-A by Airbus.) ATC datalink services are available to Fans-1/A-equipped aircraft in some oceanic sectors, including the North Atlantic.



Next month's World Cup in Brazil poses plenty of challenges for operators, with some 3,000 business aircraft expected to be operating in the country during the month-long tournament. Slot applications open this month, and handlers advise operators to act now to secure their spots.

Fans-1/A was developed to improve communication in remote and oceanic areas, which currently relies on HF radios. Fans-1/A provides datalink communication with ATC via Inmarsat or Iridium satcom, or VHF. ADS-C (automatic dependent surveillance-contract) provides digital automatic position reports to ATC, while CPDLC (controller pilot datalink) provides digital communication for requests and intervention.

The higher level of performance these systems deliver should lead toward reduced separation initiatives, and the performance upgrades are scheduled to be incorporated into the U.S. NextGen system using VDL Mode 2 as early as next year.

Sixty percent of the 1,400 aircraft per day making North Atlantic crossings are already Fans-1/A equipped. With corporate traffic growing 6 percent annually, given current separation standards of 10 minutes in trail, one degree laterally (60 miles) and 1,000 feet vertically, the North Atlantic

airspace is approaching saturation.

A reduced longitudinal separation minimum (RLongSM) and reduced lateral separation minimum (RLatSM) of five minutes in trail and one-half degree (30 nm), respectively, require approval of Fans (CPDLC and ADS-C) and RNP 4, using GNSS.

Among important implementation dates: "Phase 1" Fans-1/A in the North Atlantic Track System debuted in February last year on the two center tracks between FL360 and FL390. Under the European Data-Link (Link2000+) Services Implementing Rule (DLSIR) Exemption, Fans-equipped aircraft that obtained operational approval

by this past January are henceforth exempt from the DLSIR mandate. Next year the scheduled RLatSM trails in NATS Two will have a one-half-degree track between them.

Next February "Phase 2a" with expanded Fans-1/A airspace, encompassing all NAT Organized Track System (OTS), FL350-FL390 inclusive, begins. In December 2017, "Phase 2b" expands Fans-1/A airspace to the entire NAT Region between FL350 and FL390. In January 2020, "Phase 2c" extends Fans-1/A airspace to the entire NAT Region at and above FL290. RLatSM and RLongSM for specific portions of Fans-1/A airspace remain to be determined. Some exceptions: these rules don't apply when in radar or ADS-B surveillance (the Blue Spruce routes) or if operating above 80 degrees north; the NY FIR is excluded until FAA regulations are updated. Gander and Shanwick Oceanic centers have advised that aircraft capable of flying above the OTS airspace that do

not meet the requirements to fly on the specified datalink tracks should not fly those tracks above the OTS airspace.

Many remote and oceanic regions of the world are already Fans-1/A airspace, covered by CPDLC and/or ADS-C. ADS-B implementation is in its early stage. Currently it's fully implemented only in Australia and New Zealand. The U.S., Canada and Europe have partial implementation and are committed to full implementation. Implementation is under way in Russia, China, India, Japan, Singapore and Indonesia, but South America and Africa, with the exception of South Africa, aren't expected to offer ADS-B.

By next year all new aircraft in Europe will be equipped with ADS-B, and by 2018 all aircraft must be equipped. By 2020 all aircraft in the U.S., Canada and Europe must be ADS-B OUT equipped, while in Australia, Hong Kong and Singapore the mandate will apply only to aircraft operating at FL290 and above.

Medical Issues

Medical issues present a key concern for operators traveling to far-flung regions of the globe.

Quay Snyder, M.D., M.S.P.H., Aviation Medicine Advisory Service (AMAS), addressed sleep apnea, a hot topic in light of recent FAA efforts to identify affected pilots and the condition's impact on health and medical certification. Snyder presented the real dangers sleep apnea poses to personal health and safety of flight. He invoked football player Reggie White, whose death was linked to obstructive sleep apnea, and noted sleep apnea was at the root of the incident involving the Go! Airlines flight in 2008 that overflowed its destination after the flight crew fell asleep in the cockpit. Though but one of 80 to 90 recognized sleep disorders, sleep apnea is easily treatable, and Snyder explained how, along with describing its causes.

Craig Hanlon of DuPont addressed fatigue and its impact on flight operations. Susceptibility to fatigue is particularly acute in international operations, where flight crews are crossing time zones and flying long legs.

Leigh White, president of Alertness Solutions, discussed flight risk assessment tools, biomathematical models and duty/



Passengers and crews traveling abroad can have some concerns about experiencing a minor medical issue on a flight or while far from home. Planning is key: know the specific health risks in the region and what to do in case of a medical emergency, and enlist the help of a company that offers specialized health services for travelers.

rest guidelines, all currently "hot topics" in fatigue management circles, and presented pros and cons of each approach in managing fatigue and minimizing associated risks.

In "International Flight Ops: An NTSB Perspective On Fatigue Challenges," NTSB board member Mark Rosekind, PhD, described the performance effects of fatigue: degraded decision making; visual/cognitive fixation; poor communication/coordination; and slowed reaction time. The 1993 crash of a Douglas DC-8-61 on approach to Guantanamo Bay, Cuba, was the first aviation accident the NTSB blamed on fatigue, Rosekind noted, and since then fatigue has been cited as a causative factor in more than half a dozen accidents claiming more than 350 lives. Human fatigue is also currently on the NTSB's Most Wanted list of accident causes targeted for reduction, and he reviewed NTSB fatigue management recommendations and fatigue risk management systems.

John Witzig, v-p of corporate aviation at Pfizer, represented "The Operator's Perspective" in his fatigue management presentation, using the development of Pfizer's program as a template for adopting a fatigue management policy and program. Examples of crew scheduling for recent international trips aboard company aircraft were



Knowing how to ensure food safety, and properly dispose of garbage after the flight, is essential for flight crews traveling internationally.

used as models to explain the principles behind its fatigue management program. Witzig suggested flight departments look to FSF guidance, IS-BAO standards and commercial programs for baseline strategies in developing fatigue and crew rest guidelines. Program elements should include compensatory rest, duty breaks, flight and cumulative time limits, time-zone adjustments and limits on landings. The result should be a collaborative document that can be reviewed and revised as necessary.

Capt. Jim Mangle of Delta Air Lines explained his company's approach to

balancing safety, productivity and cost through fatigue risk management systems (FRMS), a data-driven approach to continuously monitor and manage fatigue-related safety risks. An alternative to a prescriptive rule that mirrors an SMS approach, an FRMS is a tool that minimizes acute and chronic sources of fatigue. (The U.S. DOT describes an FRMS in Advisory Circular 120-103.)

Mangle presented sample duty schedules for pilots operating on a variety of international routes, which are managed to minimize the risks associated with each given flight. He concluded with a checklist for creating a fatigue risk management plan, and how to adopt it to an operator's situation.

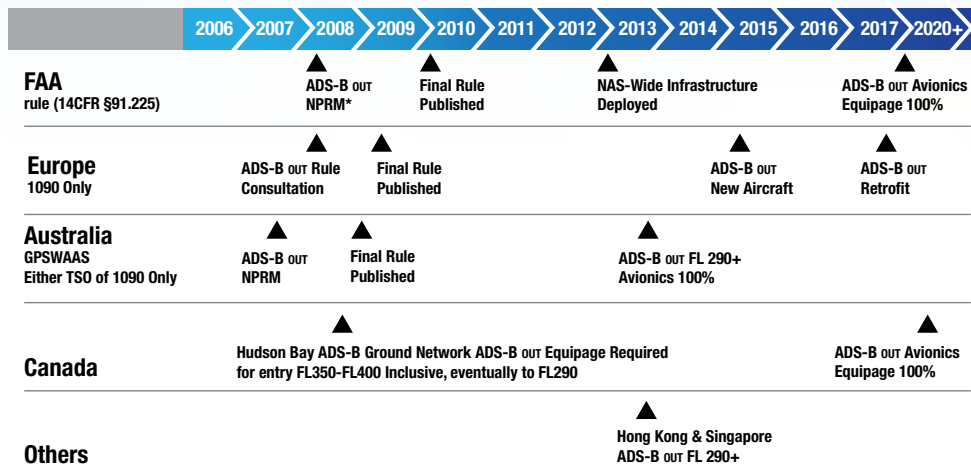
Minor medical issues can be major problems when away from home, emphasized

Michael Braid, M.D., International SOS, MedAire. Discussing the health risks inherent in remote locations, he outlined the steps crews and passengers should take before travel to ensure they are prepared for medical contingencies. Reviewing typical medical problems encountered while traveling, from GI distress to cardiovascular disorders, he used MedAire's services as a model to explain the big picture in dealing with medical problems abroad. That introduced medical evacuations, from escorted flights on airliners to air ambulance missions, and factors to consider when selecting an air ambulance service.

Paula Kraft of Aviation Catering Consultants covered procedures to keep passengers and crew safe and healthy in her presentation on international catering. She included a checklist of considerations for ordering catering abroad and tips on safe food storage and handling aboard the aircraft, while her photos of catering facilities encountered around the world illustrated the need for careful vetting of food providers. Kraft placed particular emphasis on the importance of paying close attention to ice quality and its proper handling. □

Report continues on next page ►

Worldwide ADS-B Timeline



*NPRM - Notice of proposed rulemaking.

WORLD CUP PLANNING: DON'T GET SOCCER-PUNCHED

The World Cup, the world's largest sporting event, is set to kick off next month, and more than half a million fervent soccer fans are poised to descend on host country Brazil. Of that total, 11 percent are expected to arrive on business aircraft, and estimates call for approximately 3,000 business aircraft to be operating in the country during the month-long tournament, which begins on June 12. Such numbers will place a heavy strain on Brazil's aviation services. "Many of the airports in the country are already overcrowded, so adding more general aviation aircraft to the mix will not help the situation," said a spokesman from World Fuel Services' BaseOps global flight support division. "To counter this, some military bases are being used for VIP travel."

With the matches spread out around Brazil, airports in the host cities will be subject to a slot system for the duration of the tournament. "Slots might be required at secondary airports where they are currently not required, and that will depend primarily on the number of requests the airport gets," said Christine Vamvakas, operations communications manager with Universal Weather & Aviation. "The biggest thing is to make sure that operators are submitting their requests now."

She added that some aircraft operators might not be aware of the proper documentation required to get permits processed ahead of the May 15 opening of the online slot request window. "To request your slots you have to have your landing permits, because the actual confirmation needs to be placed on the online form. Without that, you're losing the opportunity to be able to request slots immediately they become available."

With the influx of general aviation traffic, slots and aircraft parking

will be at a premium, especially in major cities such as São Paulo and Rio de Janeiro, the site of the World Cup finals. "You might not get the slots or parking you want and that might require you to either alter your schedule or park overnight at alternate airports," said Vamvakis, adding that as of the middle of last month many of her company's clients had had their requests on file for a number of weeks.

Universal noted that it is seeing a large number of requests from North American and Latin American operators interested in World Cup travel, the bulk centered around the finals. The volume of this intended travel suggests that operators should expect snags in their plans. "All of the major airports [near] where the games are being played are almost certain to have delays," noted the BaseOps spokesman. "These can especially be expected at the more heavily traveled destinations like Rio and São Paulo, where airlines will almost always get preference, so be prepared."

Another matter requiring urgent attention for those considering attending the event is finding accommodations. "Hotels are going to be at a premium," said the BaseOps spokesman. "First, there aren't as many as there need to be. Second, it will probably be a lot like the Sochi Olympics...frantically trying to build new ones, and who knows if they will be completed in time for the event." When booking their rooms, visitors will doubtless experience sticker shock on the prices, with enforced minimum stays and restrictive cancellation policies.

Likewise, given the expected demand, ground transportation could prove problematic, and Universal is urging its clients to schedule additional travel time to reach events on time to account for the congestion anticipated around the various venues.

—C.E.

Pilots and flight handlers presented reviews of particular regions, essentially providing an around-the-world journey by business jet, flight-planning the legs, avoiding the “gotchas,” knowing the conditions on the ground and stopping to take in the sights on the rare off-duty day. With extensive experience in the various regions, the presenters gave overviews of issues such as regulatory requirements, airspace, customs and immigration, permitting procedures, airport infrastructure, cultural mores and the like.

Rick Ballew of Rockwell Collins coordinated the lead-off session, covering the Caribbean and Mexico. Pilot Eric Carson, who heads overseas pilot training and aircraft security for AT&T, reviewed the differences in airspace and operations that U.S. flight crews encounter in Mexico, such as the distinction between superior (20,000 feet and above) and inferior (below 20,000 feet) airspace, and QNH/QNE settings. Seneam, the government agency that controls the airspace and provides weather and forecasts, won't allow pilots to attempt approaches when reported weather is below minimums, and higher minimums apply to nonscheduled operations. Be prepared for Customs to demand original documents, not photocopies, and to review them “with a magnifying glass.”

Ron Turpin, supervisor of flight operations at Rockwell Collins, discussed Mexico's new E-Apis requirement, effective December 31 last year, applying to Part 91, Part 135 and Part 121 operations. The noncompliance penalty is about \$5,000. He highlighted a 2012 law that gives Seneam the right to pursue outstanding invoices dating to 2002. Current or past owners may have incurred overflight or other fees for which no list or registry exists, and without forewarning operators may be denied entry to the country's airspace, either when filing a flight plan or when contacting ATC inbound, until payment is received. Also, charter operators must have a company security manual as required documentation under a new mandate. Turpin addressed Gateway Airports for flights returning to the U.S. from South and Central America and the Caribbean.

Guy Gribble, general manager of International Flight Resources and IOC regional lead for the Caribbean, focused on the Indies. Pilots should be prepared to

use ICAO phraseology in the Caribbean, as contained in Annex 10. Know when long-range navigation and HF communication is required, and recognize the difference between Class 1 and Class 2 airspace. Realize that in some airspace controllers don't permit SLOP (strategic lateral offset procedure). Gribble also advised to “practice ditching. It can happen as soon as the wheels are in the wells.” In providing practically all the answers needed to operate in the Caribbean, he'd already given the frequency pilots should use “if you're going to splash in the water.”

Europe

The Regional Review of Europe, coordinated by Keith Dixon of flight handler Colt International, examined the UK's corporate air passenger duty (APD), EU-ETS (Environmental Trading Scheme) and the taxing structures of various European states, as well as operational concerns such as charter permits, flight planning, meteorology and Eurocontrol requirements.

Andreas Becker, founder and CEO of German Aviation Service (GAS), provided a review of Germany's operational environment, including its airports and airport restrictions, taxes and fees, German air travel tax, energy tax, Air Navigation Service terminal charges and security charges among them. Most startling was a sample calculation of the total charges for a Part 135 versus a Part 91 flight from Munich (EDDM) to Teterboro (KTEB) aboard a GV, running €1,756.51 and €12,531.91, respectively, about a \$15,000 difference; all fees are virtually identical except that the Part 91 flight pays an energy tax of almost

€11,200, while the Part 135 flight is exempt.

Staying on the subject of taxes and fees, Vincent Clemente reviewed the EU-ETS, UK APD, UK Charter Update and Shannon pre-clearance. Regarding EU-ETS, Europe's scheme to cap and tax carbon emissions from aircraft, affected operators should be assigned a member state, identified in the operators list released this February. Clemente explained how to be listed; how to submit an aircraft emissions monitoring Phase III plan and a registry account; how to establish a carbon trading account and verifying account; and how to submit an AEM report for the past year's operations and surrender carbon credits.

He noted that the 38th ICAO Assembly, which meets this September, is slated to reach a decision on global market-based measures in 2016 for implementation in 2020. Meanwhile, as this issue went to press, the European Parliament and EU member states were deciding on the European Commission Proposals to EU, with amendments that would reportedly alleviate some concerns from business aircraft operators about its costs.

China, Russia and the “Stans”

In “Welcome to China,” Pat Dunn, chief pilot of Singapore-based Asia Corporate Jet, started with the invitation letter and sponsor letter required to enter the country, and covered flight permitting, arrival and departure slots, aircraft parking and operational quirks, such as the requirement to use a Chinese navigator when landing at airports with an elevation



Operating in China requires strict adherence to regulations, and handlers can be invaluable in this regard.

between 4,921 feet and 7,999 feet, and the prohibition against non-Chinese-registered aircraft landing at any airport with an elevation higher than 7,999 feet. Dunn also highlighted overflight routes, prohibited routings and closed routes, along with China's new ADIZ, and reviewed customs and immigration procedures for arrivals, and how they vary from airport to airport.

The bottom line: operating in China calls for exactly precise permitting; changes of plans are difficult, and in some cases asking may void all permissions in hand. Furthermore, such requests may be taken into account by authorities when weighing future requests to enter Chinese airspace.

In covering operations in Russia, Eric Wickfield of NetJets advised operators to manage passenger expectations (downward, though phrased more diplomatically) and to be flexible in scheduling. The good news: for aircraft carrying 19 or fewer passengers, a new rule adopted in May last year reduces flight permitting time to one day, valid for 48 hours. Route and crew must both be specified and the alternate airport within the Russian Federation. (As of December last year, Russia requires an Apis.) Wickfield also explained the Russian airspace transition level, above which altitude is referred to in Flight Levels and feet, and the transition layer, below which height is in meters from the ground, requiring resetting the altimeter from standard QNE to QNH/QFE during descent. (Russia's annexation of Crimea had not occurred at the time of the IOC, hence no discussion of its effects on air commerce.)

Russia—or at least Moscow—is enhancing its business aviation infrastructure, Wickfield reported. Moscow Vnukovo Airport (UUWW), the number-one business aviation facility with 50 to 60 operations per day, has a new hangar, and two more scheduled for completion next year, welcome additions to the hangar-short nation. Meanwhile, Sheremetyevo (UUEE), handling 25 to 30 business aviation flights per day, has four FBOs to Vnukovo's one. Domodedovo (UUDD) opened a new terminal for private aviation last year.

Additional operational notes: Russian navigators are required for domestic flights. With extremely cold winter temps, water systems in parked aircraft should be purged, and crews should have appropriate clothing for pre-flights. Never tip

Russian business aviation is growing at an annual rate of 10 to 12 percent, and the nation's capital is improving its infrastructure to keep up with demand.



government officials, and bring a tow bar.

Lukas Kadlcik, OCC manager for Euro Jet, addressed “Stan” and the Commonwealth of Independent States (CIS) countries, introduced with a quick geography lesson highlighting regional sensitivities that could be aroused by misidentifying a state or confusing it with a neighbor. He illustrated the point with a map showing the two contiguous countries of the Czech Republic and Slovakia, alongside a map depicting New York City and New Jersey. The “Stans”—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan—are all members of the CIS, which includes Russia and a few Eastern European neighbors.

Kadlcik noted the oil-and-gas and mineral industries are drawing more flights to the Stans, while Kazakhstan and Azerbaijan are popular technical stops. Entry and exit FIR points and the documents all CIS nations require were reviewed. Visa requirements in the Stans and CIS vary from country to country and are applied in each to a unique set of nationals. Landing clearances can take from 24 to 72 hours, depending on the country. (Turkmenistan requires 96 hours, granted only via diplomatic channels.)

The best business aviation airports in the region are Kazakhstan's Astana (UACC) and Almaty (UAAA), and Azerbaijan's Baku (UBBB). Fuel shortages have been reported in Tajikistan and in Uzbekistan; passengers arriving at the latter routinely spend two hours completing customs and immigration paperwork.

Africa

The African Regional Review, coordinated by Ryan Frankhouser of UAS International Trip Support, featured Mark McIntyre of Mente, a veteran of African

operations, who conveyed the continent's scale by noting the distance from Teterboro (TEB) to London, just under 3,000 nm, in comparison to the length and breadth of Africa, at more than 4,300 nm and 3,500 nm, respectively.

Risk assessment and geopolitical intelligence are essential for operating on the continent, he said. For its own operations, Mente developed a three-level threat assessment standard: level one is safe; level two is not recommended, but acceptable; and level three is “Do not land” territory. The company monitors hot spots in Africa and maintains links with U.S. State Department and diplomatic personnel. His review of en route procedures and considerations hinted at the turmoil on the ground below with routings selected to skirt war zones. Familiarity with position, diversion and equal-time point reporting protocols is also important—28 of 54 African countries have no SSR—and McIntyre presented fill-in-the-blank reporting scripts for the purpose.

As fuel supplies can be unreliable, crews are advised to tanker fuel, and to sample fuel, which McIntyre explained how to do. Make sure all the fuel release paperwork is properly handled, as well. When departing, start early and expect things to move slowly. Other helpful tips: fly high if able, and bring water, ladder, chocks, storage bins and a cooler.

India

Defying expectations, India has been business aviation's least promising market among the BRIC nations. “General aviation is not a priority and not looked at kindly,” Bobby Chadha, managing director of SRC Aviation Ltd in New Delhi, said during his regional report on the subcontinent at the IOC event. Yet as Indian companies have acquired aircraft over the past five years,

people and the government have become “more aware of GA needs,” Chadha said.

Nonetheless, India remains challenging for business aviation operators. For example, the documentation required for operations at each of the 499 airports open to general aviation varies. All foreign-registered aircraft entering and leaving the country must land or depart from one of 16 airports in India with immigration and customs services. Foreign aircraft may remain in country for 15 days; permission is required for extensions.

Permitting processes are exacting in India, and all permits must be obtained through an agent approved by Indian Civil Air. Foreign operators are also required to use Indian flight handling services, advisable in any circumstance given the complexity of navigating the regulations. Overflight permits take one business day and landing permits three business days. Chadha noted landing permits previously required seven days for processing. Permits for military airports take two to three weeks. The airport at Agra, site of the Taj Mahal, is a military field, and landing permits require three weeks for approval. When considering “working days,” keep in mind that India’s ethnic diversity includes an abundance of holidays, “all observed,” Chadha said.

As for permit alterations, “Officially, they say they won’t take more than one or two, but we can work around” that stated policy, Chadha said, painting a picture of a country retaining a staunch bureaucratic backbone. “The Civil Aviation Authority doesn’t like changes to schedules. It’s the discretion of a single person sitting in Civil Aviation,” he said. “Passengers have to be advised they have to make up their minds sometimes. It is safe to stay with the original schedule for which you have clearances.”

On the ground, increased business aviation operations are creating parking problems at many major airports. “Make sure your agent applies for parking as soon as the schedule is done,” Chadha advised. Some airports have no parking, including Goa, Port Blair and Jodhpur. All aircraft entering India must carry a tow bar onboard. “There is no FBO as we understand it,” Chadha said. Mumbai and Delhi have GA terminals, but travelers and crew must go to the main terminal for customs and immigration services.



Infrastructure remains one of the greatest challenges for business aviation growth in India, as parking is limited at many airports and often accompanied by significant charges.

Customs will seal stores and the aircraft upon arrival, and unseal them before departure. Duty is due on fuel onboard, but any items in the cabin are exempt. The duty on fuel varies from state to state. “I don’t have any answer why this custom duty changes,” Chadha said. “We’re trying to make this amount be absolutely the same all over the country, but we haven’t actually come to any successful conclusion on this.”

Meanwhile, privatization of airports in India is proceeding “full steam ahead,” Chadha said, with more than 120 airports slated to go private, likely easing flights into the most in-demand airports but raising fees, as well.

“There are problems, but we want to make sure you’re not exposed to those problems,” Chadha said, advising India-bound business aviation travelers to use an experienced ground handler, and plan well in advance.

North America

A successful international trip ends with a safe and simple return home. At least for U.S. operators, the country’s Customs and Border Protection (CBP) has been working to make that easier for N-registered aircraft, Eric Rodriguez, the agency’s program manager for general aviation, told IOC attendees during the regional report on North America. “I’m part of a working group moving in a direction I think you want us to go,” Rodriguez said.

Rodriguez said CBP has been working to make sure its agents are “more respectful, more professional, more sensitive” in dealings with general aviation aircraft, crews and passengers. As an example, he noted changes made to pre-clearance

policies at Shannon Airport in Ireland, where business jets with engines having at least eight feet ground clearance can now keep APUs running during pre-clearance procedures, ensuring the FMS and other critical systems can remain on.

All GA aircraft arriving in the U.S. undergo screening via the advanced passenger information system (APIS), and all operators are required to submit information on all passengers and crewmembers electronically to CPB for flights arriving into (and departing) the U.S. Processed within seconds, that data drives risk-based analysis decisions that have a direct impact on the scope of inspection and the processing of the aircraft and travelers.

CPB processes more than 130,000 GA arrivals from more than 80 countries annually, Rodriguez said, yet in the last 15 months has issued no penalties for violations “because there’s more emphasis on education than penalties.” Rodriguez credited a collaborative partnership forged with the business aviation community for “making it easy for us to justify why we’re not penalizing” operators and flight crews that run afoul of regulations. During a Q&A session at IOC, one attendee questioned the need for flight crews to leave the aircraft during the customs inspection. “We’re looking for things we may not be able to share with you,” Rodriguez said, but stressed that agents are intent on “not causing damage to your aircraft.” □

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