



IAOPA – the first 50 years

The International Council of AOPA held its 24th biennial World Assembly in Stellenbosch, South Africa, in April with 90 delegates and observers from 23 countries in attendance. The event marked the 50th anniversary of International AOPA, formed in 1962 in response to the increasingly international flavour of general aviation regulation and control. AOPA South Africa was one of the founding organisations, and one of its founders, Hendrik Pistorius, attended the Assembly as a guest of honour.

Invited speakers included Mitchell Fox, Chief of Air Traffic Management at the International Civil Aviation Authority, Zakhele Thwala, Civil Aviation Commissioner for South Africa, and Steven Brown, Senior Vice President for Operations at the National Business Aircraft Association. The burden of organisation fell on AOPA South Africa and its President Koos Marais, whose team performed flawlessly.

After three days of discussion and debate the World Assembly produced a list of resolutions which will direct IAOPA's focus for the next two years.



Right: IAOPA World Assembly delegates gather for a group picture in Stellenbosch

IAOPA's President Craig Fuller briefly reviewed the history of AOPA worldwide. "The founders of AOPA in the US came together in 1939 when the fear was that freedom to fly GA aircraft could well be lost, that regulation, taxation and restrictions on airspace might curtail it... they soon recognised that working alone in one country wouldn't suffice. To be effective in protecting GA, we needed to band together on a global basis. The issues transcend national boundaries, and today we are seventy countries strong."

Craig said he was often accused of being an optimist, but his optimism was not misplaced. Great progress was being made, particularly in the United States where a caucus of GA-friendly politicians on Capitol Hill was proving stronger than he had ever expected – 170 members in the House and one third of the Senate.



Right: IAOPA President Craig Fuller opens the Assembly with South Africa's Dr Koos Marais

Right: down to business – delegates begin the first session of the World Assembly

“The issue I worry about most is the decline of the pilot population,” he added. “I hear it around the world. Boeing has expressed grave concern – we’re not replacing professional pilots at a rapid enough rate. We need on a global basis to ensure that those who have the aspiration to fly can successfully complete the programme.” Loss of airports to GA, increases in controlled or restricted airspace, the growth of equipage requirements and rising fees were all areas of universal concern. Environmental issues required close attention, he added, with a particular focus on more friendly aviation fuel.

He added: “We also needed to enhance the understanding of GA, making sure people know how valuable this industry is. It’s worth \$150 billion annually in the USA alone, probably more.”

Over the three days of the World Assembly opinions were voiced by those who share Craig Fuller’s optimism and those who do not. At one end of the scale, IAOPA Senior Vice President Martin



Robinson cited the growing realisation in Europe that general aviation was grossly over-regulated and that the industry must be cut some slack. EASA was waking up to the provisions of ICAO Annex 6, part 2 which deals with GA and which makes it clear that the State does not have an equivalent duty of care for GA as it does for

commercial operations.

At the opposite extreme stood Swedish delegate Lars Hjelmberg, who foresees a future in which states consider that they own the air, and they sell it to middlemen who in turn sell access to aviators...

IAOPA’s avowed aim is to ensure that the optimists win the day. ■

The next 50 years...

Welcoming South Africa’s Director of Civil Aviation Zakhele Thwala and IAOPA delegates from 23 countries, Dr Koos Marais, President of AOPA South Africa, contrasted today’s world with that of 50 years ago when IAOPA was formed with South Africa among its founding members.

“In 1962 we were still aspiring to reach the moon, if you wanted to phone abroad you had to book a trunk call through an operator, and international air travel was the domain only of the very rich. Today technology had brought many things within our reach, and we fly internationally at the drop of a hat.

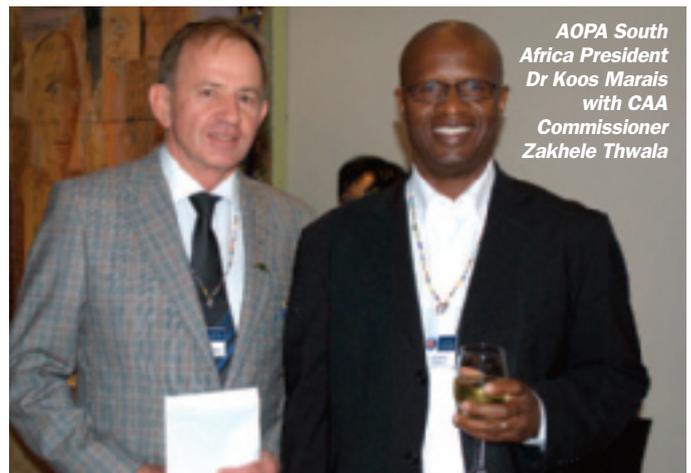
“But are we paying a dear price for the excesses of a previous age? There was a time when fuel was inexpensive – but are we paying for it now, in more ways than one? Is global warming the price of the cheap fuel of the past?”

Aviation was constrained to take responsibility for the whole world rather than sustaining its own narrow interests, he said. The conference was taking this into account in many ways large and small; the beads for delegates’ name tags had been bought from roadside vendors, and the conference had nominated a charity for the blind for delegates to support. The choice of the Spier Hotel for the conference was no accident because it was the most eco-friendly establishment in the country.

Turning to aviation itself, Dr Marais said a change of emphasis was needed there, too. “I was talking to the manufacturer of aircraft with a ballistic parachute, and they tell me their safety record is no better and no worse than aircraft without the system

“We have to look at the pilot. The airlines recognised this long time ago. Commercial aviation is safe because of cockpit resource management, not because of technology. You don’t have to look far past the Air France A330 disaster for proof of that.

“But we have embarked on an exciting new journey, and we must show we care about the less privileged, about the environment... we may have become obsessed with our passion for aviation to the exclusion of concern for others, and we want to show the world that we can make a difference.” ■



AOPA South Africa President Dr Koos Marais with CAA Commissioner Zakhele Thwala

The braai at Stellenbosch

Stellenbosch Flying Club hosted an evening ‘braai’ – a South African barbecue – for delegates in the middle of the World Assembly, and an afternoon session concluded early so the airstrip could be seen in daylight. Stellenbosch nestles between jagged mountains and is home 185 aircraft ranging from the usual Pipers and Cessnas to a Stearman, a Tiger Moth and a Bell 412.

Club member Peter Blaine told how the Club has fought off encroachment from developers who assured the buyers of a housing estate built nearby that the airfield would be “closed down within 18 months.” The flying club’s 650 members fought a hard battle to prove them wrong, and although the future is never assured, there is good reason for optimism.

Tiger Moth lands at sunset at Stellenbosch airfield



Your new friend, ICAO

The International Civil Aviation Organisation in Montreal has taken on a sharper focus for general aviation in Britain, and influencing ICAO delegates is now of fundamental importance to AOPA.

Britain no longer makes aviation regulations; that responsibility has passed to Europe. And Europe has decided that ICAO recommendations – which each nation could hitherto choose whether it wished to adopt – are mandatory for all.

This means that if ICAO does something dumb, it automatically becomes law in Britain. ICAO itself has always accepted that one law cannot fit all, and specifically states that countries should look closely at its recommendations and decide whether they are right for them. Europe has thrown that option away.

In Britain, the CAA is said to have filed some 600 differences with ICAO down the years – ‘filing a difference’ indicates they will not adopt a recommendation. While some were only temporary, they presumably thought there was good reason to demur from ICAO’s suggestions. Now they no longer have the choice.

Mitchell Fox, ICAO’s Chief of Flight Operations – who is doing temporary duty as Chief of Air Traffic Management – spent three days at the World Assembly and made several presentations on airspace and regulations. He was asked whether he felt an additional burden because Europe’s stance meant he was making hard law, rather than suggestions and recommendations. No, he said – in effect, the standards ICAO has written have always had the force of international law, but individually, states retained absolute sovereignty over their airspace under the Chicago Convention which established ICAO, and ICAO could not challenge that fact.

This raises a further confusion because states like Britain, which can’t make their own regulations, have seats at ICAO, while Europe, which is not a signatory to the Chicago Convention, makes the rules. Europe bolted down this hole over its Emissions Trading Scheme, which was alleged to be in contravention of ICAO recommendations because it represented a constraint on international air traffic. The European Court ruled that Europe was not bound by the Chicago Convention, so it could do as it pleased. Yet Europe says it considers ICAO recommendations to be mandatory!

ICAO has not always covered itself in glory when making recommendations, especially for GA. A recent example is the Language Proficiency Requirement, which effectively means pilots must speak Level 4 – conversational – English. This has not been an issue in Britain, but elsewhere it is a major drag on GA; a Greek pilot flying west across the border, for instance, must speak either conversational English or conversational Serbo-Croat. In the past, ‘ATC English’ was enough. Imagine if, in order to fly to France, a British GA pilot had to learn Russian to a conversational level. International AOPA has fought hard at ICAO for a less onerous language requirement for GA. That was a battle we lost – but through our representatives Frank Hoffman and John Sheehan, we have a voice on ICAO’s Air Navigation Commission and in every working group and task force, and the success of that representation was demonstrated by ICAO’s Secretary General, Raymond Benjamin, who gave a video presentation to the World Assembly which could have been cribbed from the IAOPA ‘wish list’ presented to the last Assembly in Tel Aviv by Frank Hoffman.

Much regulation, Benjamin said, is over-engineered for general aviation, and affordable and better-regulated light sport aircraft may be the salvation of the industry. He paid tribute to the work of Frank Hoffman and assured delegates he appreciated the contribution of GA to the advancement of civilisation around the world. “I’m aware that regulation designed for airlines places undue burdens on smaller operators and private owners,” he said. “Through IAOPA’s engagement with ICAO we were able to update Annex 2 (non-certificated aircraft) for the first time in almost 50 years and we commend IAOPA for its constructive contribution.”

Echoing a second IAOPA concern he added: “Where will the people come from to serve commercial aviation in the future? We recognise that GA provides basic training for the next generation of aviation professionals, so it is in everyone’s interests to keep your sector healthy. Light sport aircraft and the new technology that goes with them offer an affordable introduction to aviation for future pilots and engineers, and the certification of such aircraft should be internationally accepted. ICAO will work with IAOPA to make sure new standards are developed.”

ICAO is quite small, with a Secretariat which is little larger than the 36-strong ICAO Council. Among national delegates, the level of expertise is not startlingly high. States send people for three years, often as a reward for work in totally unrelated fields – there’s no requirement to have any expertise in aviation. The Council’s 36 members include 12 from states which have a very active aviation sector, 12 invited because of geographical location, and 12 chosen on the basis of Buggins’ turn. With such low levels of understanding, it’s important that

the Secretariat steer the ship in the right direction, and that IAOPA has a representative on the Air Navigation Commission to try to see things are done right.

The Air Navigation Commission is ICAO’s technical body, which has a preponderance of ATC personnel, but few pilots and no aeronautical engineers – again, the level of technical expertise is quite skimpy. It has 19 members, and they take binding decisions. Each delegate has a little pyramid of experts and advisers, often provided by concerns like British Airways, who are there all the time making recommendations to the Secretariat – recommendations which are not always in the interests of GA.

Rennie van Zyl, a South African AOPA member who spent eight years at ICAO in Montreal and 30 years with the South African CAA, urged ICAO to do more to recognise the global importance of general aviation. Even the smallest aircraft were capable of moving internationally in a way that was never envisaged when the Chicago Convention was signed, he said. “We need ICAO to recognise that GA is threatened because of economics, because of airspace restrictions, military and airline demands, loss of landing grounds, equipment mandates, and above all, over-regulation. ICAO should urge contracting states to look at support for GA, accept that there is a difference in acceptable risk between GA and the airlines, and not burden GA with excessive fees and restrictions.

“ICAO was established by wise men with foresight, and its purpose was to ensure the orderly growth of aviation. It’s important to note that it did not say commercial aviation – it makes provision for all forms of aviation. The creation of ICAO has been a major success story, and had it not been done in that way we would not be able to travel in the way we do today. But times are changing, recreational and sports aviation growth has been astronomical, regulatory systems have not kept up.” ■



ICAO’s Mitchell Fox with Air Safety Foundation President Bruce Landsberg

The shape of skies to come

IAOPA is heavily involved in both SESAR, Europe's future airspace structure, and NexGen, the American equivalent. Other states like Brazil and China are working on similar programmes with the same aim in view – to make better use of airspace, using every modern technological aid.

Delegates were given back-to-back briefings on the progress of SESAR and NexGen, and it was clear that America has an inestimable advantage in being politically homogenous, while Europe has a long way to go before states could truly work together without regard for their own interests.

Martin Robinson, standing in for Dr Michael Erb of AOPA Germany who is IAOPA's point man on SESAR but could not be present, outlined the key objectives of SESAR, which are to restructure European airspace in order to create additional capacity, increase efficiency and reduce emissions. When the European Commission looked at why the USA was able to handle so much more air traffic more efficiently they found that while Europe has 67 ATC centres, America has 20. Europe has 35 different computer languages in ATC systems, and national borders restrict traffic flow.

"The aim was to reduce the cost of air traffic management by 50 percent, cutting the charge per flight – the average for an airliner is €800 per flight, and they want to get that down to €400 – and to reduce environmental impact by 10 percent while increasing capacity. Airlines are not allowed to increase their business if they increase emissions. "Europe's Emissions Trading Scheme is causing concern across the world and is imposing additional charges on each flight. The promise from the EC was that they would sort out the airspace first, but they have not done that.

"SESAR was created to get all the big players to come forward with ideas on how to redesign airspace for maximum efficiency. Among the concepts are 'trajectory management' involving precisely timed arrivals over set points, constant climbs and descents, raising the transition level to 19,000 feet, and the reduction of national political influence on air traffic routing.

"IAOPA is inside the tent influencing the outcomes but we've had to invest about €500,000 to take part in this project. We are involved in the work packages, we have to read thousands of documents, and it is a major commitment for us."

IAOPA's involvement had ensured that GA had a place in the skies of the future, he said. There were 27 different applications of ICAO airspace classifications and SESAR had been trying to tidy them up. One of the first questions

asked by the airlines was why there should be any uncontrolled airspace at all; has IAOPA not been there to fight GA's corner, the whole project could have got off to a very bad start. "Class G is the lifeblood of our association, where most of our members fly," he said.

IAOPA had also been able to establish that if new equipment was to be required, there had to be a positive business case for all users. "Currently there is none for GA, so we have been able to talk to the EC about making some funding available to



Above: the English delegation – Geoffrey and Susie Boot, and Martin Robinson

GA. We don't know yet how that will work.

"Involvement in SESAR means lots of meetings and lots of legwork, and the team is doing a fantastic job on behalf of all of general aviation."

Across the pond

Steve Brown, Senior Vice President of the US National Business Aviation Association, is co-chairman of the Radio Technical Commission for Aeronautics (RTCA) under whose auspices the parties interested in NexGen meet and debate. He said NexGen was a collaborative effort between industry and government and involved airlines, airports, general aviation, ten government organisations, labour unions, 22 aircraft and equipment manufacturers and more. They had established four working groups – airspace and procedures, integrated capabilities, business case and performance metrics, and datacomms.

On airspace, their baseline position was that there should be no restrictions at all until there is a capacity shortfall. They had identified seven areas of ultra-high capacity airspace where specific measures were needed – Chicago, New York, Atlanta, Dallas, Philadelphia and Southern California. Better use of RNAV capability was increasing commercial air transport efficiency, and the knock-on effect was more airspace capacity for GA.

Under 'integrated capabilities' they looked at what areas they should concentrate their attention on and had identified surface delays, departure delays, under-use of satnav capabilities, and better flow management. The business case imposed a requirement for measurable improvement in factors such as accident rate, total trip time, fuel efficiency, capacity and cost efficiency. The datacomms working group looked at equipment and systems over a 30-year timeframe. It was hoped that not much of this will be applicable to GA, but the emphasis was on simplified implementation and the removal of voice congestion.

Daniel Affolter of AOPA Switzerland observed that just getting to the place where NexGen had started was a problem for Europe, with its different attitudes and national imperatives. Craig Spence of AOPA US said, however, that many of the issues facing GA were identical. Equipment costs would hit everyone. In the US, the average age of the piston-engined fleet last time they checked was 42 years, and it had increased since then. The lower the hull value, the less likely the owner was to make the investment in new equipment.

The majority of pilots use GPS and some 70,000 WAAS boxes – necessary for GPS approaches – had been sold (out of some 220,000 GA aircraft in the country). However, AOPA surveys had found that 34 percent of owners did not intend to equip with ADS-B, on which NexGen will be based. That meant that 73,000 pilots are going to remain VFR or quit flying, and it demonstrated the need for low-cost alternatives.

And while the regulators argued about equipment, the iPad had revolutionised cockpit information, without the authorities so much as lifting a finger, and would continue to be a game-changer for general aviation.

SESAR and NexGen are immensely complex and no more than the vaguest flavour of the work can be presented here, but together with Brazil's SIRIUS programme they are occupying the time and resources of AOPAs everywhere.

View from Montreal

ICAO is working on several levels to improve airspace use and has established a series of 'block system upgrades' designed to take users up to the year 2028. The Organisation's Chief of Air Traffic Management Mitchell Fox outlined the provisions of each block, stressing that every one had to create a measurable improvement and be based on a well-understood business case.

The purpose, he said, was to improve access, ensure shared use of airspace and airports, and significantly improve performance. Where there was conflict, ICAO would ensure there are alternatives →

→ for GA. Equity and transparency were key.

Block Zero, due for implementation in 2013, is what Mr Fox described as “picking the low-hanging fruit” and looks at optimising what’s already on board aircraft. “Equipage far exceeds useage, and we’re not making best use of what’s already available in the cockpit,” Mr Fox said. “We are putting forward to Air Navigation Service Providers plans on how to maximise what you’ve already got. No new boxes are needed – it’s a matter of making smarter use of what’s already on the panel.”

Many aircraft have the equipment to meet the requirements for RNP approaches – ‘required navigation

performance’ is the term for an ability to meet stringent accuracy criteria by whatever means. “Yet there are no operational approvals,” Mr Fox said.

He urged IAOPA to participate in ICAO’s 12th Air Navigation Conference in November this year, which will address the block upgrades in the hope of reaching consensus on their deployment. He also advised obtaining observer status at meetings of the regional Planning and Implementation Groups.

IAOPA Senior Vice President Martin Robinson asked whether ICAO could not work to improve matters in the UK, where its Standards and Recommended Practices on SIDs and STARS led to unnecessary

complexity. “We even have some overlapping SIDs and Stars, so we have low bases for the TMAs,” he said. “Is ICAO doing work on the standards that underpin the SIDs and STARS?”

Mitchell Fox said that while airspace design is the state’s purview, there was one ray of sunshine with the pending implementation of continuous climb departures and continuous descent arrivals, which will mean aircraft no longer have to level off at interim altitudes. “That’s part of the low-hanging fruit,” he said. “We hope to see the states starting to design airspace with that kind of approach very soon, because it addresses this and many other issues.” ■

Airfields: can we stem the tide of losses?

The debate on the loss of GA airfields showed that this is a problem in every country in the world, that there are countless reasons for it, and that there is no one-size-fits-all solution.

In most countries there is an element of state influence over airfields which makes it possible to lobby for a better deal for GA. In the UK, however, airfields are commercial enterprises run by companies who are duty-bound to maximise returns for owners or shareholders, and it’s more difficult for GA to make a case for inclusion.

Tony Rees of AOPA Botswana moderated a debate which began by accepting that the 23 states represented at the World Assembly ran the gamut from densely populated, largely urban environments to countries like his own, which has a population of two million and where land use pressures were not great. “We don’t have GA airport closures in our part of Africa,” he said. “They’re so successful that large companies are trying to buy them.” No single approach could cover all eventualities.

Frank Hofmann, IAOPA’s representative at ICAO, asked whether a national airports policy or plan would help reverse the worldwide trend. “We spend a lot of energy trying to keep airports open, but we have a finger in a leaking dyke, and we rarely win. Are we using the right tactics? Should we not think of a mechanism that is aimed at creating airports? Is it realistic to think we might reverse the trend?”

“Do people understand the value of an airport and of our industry? Airfields are green spaces, which much of the population desires and values. Can we change the argument? Who might care about the existence of an airport if governments don’t? Are the right people at the table when we fight? What alternative strategies might there be? Would a national airports policy help?”



IAOPA's representative at ICAO's Air Navigation Commission, Frank Hofmann

Airports, he said, were centres of employment, of technical training, real economic assets. “The predicted shortage of mechanics is double the shortage of pilots,” he said. “Airfields are necessary to address that issue.” IAOPA Secretary General John Sheehan picked up on this approach. “You must be able to prove the value of an airport to a community,” he said. “You can establish how much money comes into the community from the airfield, the people that work there, the people that pass through and spend money – you’d be surprised how valuable airports are from this standpoint. They’re

also used by the state, by EMS, by the police.

“But also you have to realise that money talks. If it’s high-priced real estate it’s more valuable as a shopping centre or a housing development, and you have to aim to strike a deal to find an alternate location.”

Stories of aerodromes lost or under threat were repeated from Sweden and South Africa, from Israel to Namibia to the UK – problems at Shoreham and the closure of Plymouth were cited – and there were few bright spots. One such was Switzerland, where Philippe Hauser reported that the Swiss military had agreed to open some airfields for GA. “The air force saw that they can profit from that, and both sides win,” he said. “Switzerland is a small country, and there are now close to 60 military airfields we can use.”

Martin Robinson reported on the new threat posed by Ofcom’s charges for ground-based radio. “The fees will start off as being reasonable but will soon grown to unreasonable levels,” he said. “We did all we could to stop them, but this notion of charging for use of spectrum will spread to radalt, radar, and elsewhere. It’s another opportunity for governments to get money, and at European level they’re looking at how this could be rolled out. Small airfields could be forced to give up their radios, which could have an impact on their viability.”

Jacob Pedersen of AOPA Denmark said that the second largest mixed-use airport in Denmark, Billund, was owned by the community who had imposed on management a requirement not to try to maximise profit, but to maximise traffic flow. “Profits are less important than the value of having more people coming to the region,” he said. “No private owner would say the same thing, so there is value to having a community owned airport, as long as they understand the value of the airport.” ■

What could possibly go wrong?

Delegates were given two presentations on general aviation safety, and while they were largely compatible, there were interesting differences of emphasis which skewed the picture quite radically. Take, for instance, the GA safety rate compared to that of the airlines. Are we significantly worse, about the same, or maybe a little better?

Depends who you listen to. John and Martha King have built a successful international business on flight safety and training, and in slicing and dicing the data they concluded that airline flying was 49 times safer than flying in a general aviation aeroplane.

Bruce Landsberg, however, put a different slant on things. Bruce is President of the Air Safety Foundation and has been in the safety business for more than 20 years. When you compare apples with apples, he says, GA safety doesn't smell too bad at all.

"One of the big myths is that the GA accident rate should be equated to that of the airlines," he said. "The comparison should be taken in context. Airlines have hard and fast rules, lots and lots of rules – you can't start an instrument approach unless the weather is above minimums *before* you start the approach. Good idea... but in GA they start, and miraculously the weather improves during the approach, and they land!

"You can't compare airline flying with single-pilot operations. The odds of having two idiots in one cockpit are smaller. Furthermore, they have dispatchers to say, you're not really going to do that, are you? And they've been flying for maybe 20 years – you can't compare their work with someone who's just started.

"Most of the time the airline pilot never flies the route on his own for the first time, he goes with a check pilot. The most dangerous phase of flight is take-offs and landings, and we make an order of magnitude more of them than the airlines do, many more per hour flown – and of course, flying out in the bush is very different from using 10,000 feet of tarmac.

"So comparing GA with the airlines is not a useful exercise. You cannot put general aviation – all of it – up against a homogenous type of turbine operation and say GA is failing on safety. Where we have similar operations – such as two pilot turbine operations – GA is as good as, and in many cases better than, the airlines."

So now that you're feeling good about yourself, let's prick the bubble. All parties agreed that pilots make lots of dumb decisions. "You're playing for all the marbles," Bruce continued. "Can you step back and say, does this make sense? Is it a good trade-off – my life versus making this flight happen? You might think that other pilots will second-guess you and you'll be embarrassed in front of your peers... but are you prepared to bet your life on that basis?"

Reviewing the history of aviation accidents, Bruce pointed out that in the time it had taken for the Wright Flyer to morph into the Cirrus SR22 people had not improved anywhere near as much. "Are you significantly smarter than your great grandfather? Definitely not, might be one answer. When something breaks on a plane we improve it and it gets better. Human engineering hasn't got to that state yet, and it'll take a while.

"Hardware is so much more reliable than we are. We try to get too much utility out of the plane... or we don't have enough ability, or we try to have too much fun. When we talk about human factors, what it boils down to is that you can't fix stupid. Humans are the only animal that can learn from their mistake, yet consistently refuse to do so."

Bruce suggests that we stop using the word 'mission', moderate our expectations and have a plausible back-up plan, like driving there instead. "70 to 80 percent of car drivers believe they're above average, which is obviously impossible, and pilots have even bigger egos," he said. "So how come three pilots a week run out of fuel?"

One facet of Bruce's presentation that could usefully be pondered on by our regulators is the 1980 US Supreme Court decision that laid down one hard and fast rule: 'Safety is not the equivalent of risk-free'. Risk management is the game you're in... for much more useful information on staying safe have a look at www.airsafetyinstitute.org

Pre-flighting risk

John and Martha King, who run the King flight training empire, operate as a polished double act, with one picking up where the other lays off. They pointed out that statistically, the GA per-mile fatality rate (in the US) is seven times that of cars, on a par with motorcycles, and yes, 49 times that of airlines. They suggested that we ban the use of the word 'safety' and replace it with the word 'risk'. "You can't manage safety, but you can manage risk," John said.

The phrase 'decision making' is also not good because it indicates that you get to a fork in the road and make a decision on which way to go. But that's a decision that's forced on you – risk management means making the decision long before the fork in the road.

"The way we have as an industry taught and practiced risk management is flawed," Martha said. "In the US, 85 percent of GA accidents are caused by a failure in risk management – a very small number involve a mechanical problem with the aircraft. When students become private pilots, the accident rate jumps by 50 percent, from 5.8 per 100,000 to 8.55 for low-time PPLs. We

address safety by telling stories and making up sayings which have some truth and validity, but they don't represent a system of risk management training." All that stuff about altitude above, runway behind and only having too much fuel if you're on fire is no substitute for genuine training in risk management, John added.

Instead, we should perform a 'risk surveillance' before each flight, using the mnemonic PAVE, which stands for Pilot, Aircraft, environment and External Pressures. "Look for risks and hazards, put them into these categories, sit back and say,

how do I mitigate this, or eliminate that," John said. "And if they start mounting up, maybe you say, hey, this is something I won't do today."

'Pilot': questions: Am I current, for all possible phases of flight? Night, instrument? What would happen if I got into the cloud? Use the IM SAFE mnemonic – illness, medication, stress, alcohol, fatigue/food, emotion.

'Aircraft': Is it capable, properly equipped for night, instrument, can it make the distance, carry the load, is the C of G in limits, do you really understand density altitude and its effect on aircraft?

'enVironment': terrain, mountains, desert, or airspace complications? Weather... and what about the internal environment? If your lights fail at night, can you find the switches? What about the airports and landing places – do you know everything you need to know?

'External pressures': "This is the biggie," John said. "Why do people keep going and going until it ends in tragedy? They wanted to get there... they wanted to get home, or on holiday, or to a business meeting. External pressures push on you and tend to make you ignore other risks.

"Let's change the vocabulary. Quit talking about safety – people would never think about not pre-flighting the aircraft, but they should also pre-flight the risk."

*Incidentally, the Kings have flown around the world several times in various aircraft and currently have a Falcon 10, but they are unable to fly to Europe now because EASA insists on business jets having TCAS 2, while they only have TCAS 1. Upgrading would cost them \$180,000, so Europe has lost their custom. ■



Martha and John King with Geoffrey and Susie Boot

Do they mean us?

Across the world general aviation pilots face similar problems, but many countries have problems we in Britain can scarcely conceive of. AOPA Japan made a brief presentation on the effects of last year's tsunami on GA which included harrowing video of the wave as it engulfed Sendai airport, sweeping aircraft into heaps of scrap, killing 19,131 people and destroying 130,000 homes. General aviation aircraft which survived, particularly helicopters, made a huge contribution to the relief effort. Cessna 172s and Robinson R44s had flown medical supplies and food from Oskaka into Fukushima airport, close to the stricken nuclear plant. Ari Yamagata, Vice President of AOPA Japan, thanked IAOPA for expressions of sympathy and offers of help.

For Guillermo Carey of AOPA Chile, the problems are political but almost as destructive. "There are two very different worlds," he said. "In one, there is promise for the future because there is a willingness on the part of the authorities to solve the problems. In the other, there is not even the possibility to negotiate with the authorities, where dialogue is very difficult, and the hope for progress comes from an appeal to human rights."

"ICAO has a limit to its authority, but it is part of the United Nations whose declaration of human rights include the freedom of movement. We in Chile think it would be helpful for IAOPA to take hold of this possibility. The Declaration of Human Rights allows this freedom, and countries should not restrict this right."

Yaron Efrat of AOPA Israel said his country's airspace was all the property of the Israeli Air Force and there was only one classification. Controlled VFR was allowed along established routes, but access was not guaranteed because the air force didn't want small aircraft getting in the way, they said, if there was a sudden national emergency. There was some slight relaxation at weekends.

For AOPA China, Xin Sun said they were in the same situation, except for the fact that they didn't have weekends. But they were making great strides. "Three to four years ago general aviation was almost impossible," he said. "Now we are really making progress. In one test we can fly virtually without restriction. We don't have classes A to G, we only have three airspace classifications – controlled, monitored, and recorded. Controlled is most regulated, and is above 4,000 metres. Monitored is 4,000 metres down to 1,000 metres, and recorded airspace is below that. People can call the ATM manager and ask, and you can go flying really easily in recorded airspace, compared to what was once the case. After 2010 the reporting requirements were

reduced so that instead of filing a flight plan 15 days ahead, you just have to file the previous day. AOPA China is working closely with the government to give us more allowances and less regulation. Even though the airspace belongs to you, you still have to fight for it."

For AOPA Netherlands, Peggy van Ootmarsum reported that extra taxes were imposed on GA in some parts in summer, because people wanted to sit outdoors, which mean GA noise disturbance was greater.

Rennie van Zyl of AOPA South Africa said the Rand had depreciated to the point where the average private pilot, could no longer afford to keep his licence valid, and had to downgrade to the sport aviation environment. "This is where we have seen a tremendous development," he said. "These aircraft have become more sophisticated and have become very reliable. We now have a 50-50 split in the SA register, half store-bought aircraft, half kits and homebuilts. The

Airplane Factory here produces the non-certificated Sling 2 and the Sling 4, and one of them recently flew round the world. We need to find ways to make it easier for this and all other types of GA activity to grow."

There were some successes, small and large. For AOPA Pakistan, Mohsin Syed reported that Lahore International Airport was next door to the city's general aviation facility. "They use mostly 18/36 runways,

and for two months in the monsoon season we would be closed down because their missed approach procedure cut across our circuit. It took us three years to persuade them to alter the procedure to fly straight ahead to 3,000 feet, so we could carry on flying as normal. But eventually, they did it."

The Brazilian approach to general aviation could make that country a powerhouse in the provision of pilots and aircraft worldwide in future. For AOPA Brazil, Ricardo Cosendey said GA in the country was growing at a rate of more than 20 percent a year, and in 2011 there were more than four million movements. He reported on the implementation of a network of VFR corridors around Sao Paulo which allowed GA to transit the country's busiest airspace without delay; this is in addition to a SVFR system which gives Sao Paulo the highest concentration of private helicopters in the world.

Everyone outside the English-speaking countries complained about ICAO's Language Proficiency Requirements. In some countries it costs \$800 to be tested, and you have to be tested every year! Countries have quietly finessed the ICAO requirement and made a mockery of its intent. Increasingly, the French are demanding

French language exams for those using certain GA airfields, while the Chinese are said to have given their ATPLs Level 6 – 'native speaker' – English qualifications. ICAO's Mitchell Fox said his organisation was introducing accreditation for those offering English language courses and testing, but this was thought to be a poor substitute for action to address the problems they had created. ■



The Airplane Factory in South Africa produces the non-certificated Sling 2

The price of security

Security requirements which cripple general aviation in some countries are unproductive, unhelpful and unnecessary and are designed largely to make politicians and authorities look like they're doing something, the Assembly heard.

General aviation aircraft are one of the few vehicles that are of no use to terrorists, nor have they been used by terrorists. Trucks, buses, cars, airliners, even bicycles have been used in terrorist attacks, but not GA aircraft. The 9/11 terrorists did not fly their general aviation training aircraft into the World Trade Center, despite the fact that it would have been much easier for them than hijacking airliners, because they knew they would have done minimal damage and the propaganda effect would have been zero.

Yet general aviation suffers from the most over-zealous, nitpicking security requirements all over the world. Geoffrey Boot told the Assembly he had hoped to hire an aircraft on a recent visit to Australia but had been told that background security checks would take three to four weeks, and he could not fly until they'd been completed. Philip Reiss of AOPA Australia said domestic pilots had to pay \$A160 for security checks which had to be repeated every two years. Martin Robinson pointed out that a tourist who had passed through customs and immigration checks could hire a truck without any further inconvenience and do infinitely more damage than was possible with a GA aircraft. He urged that states recognise that general aviation was a low-risk vector for terrorists and adopt security requirements more appropriate to the facts.

Old money, new pilots

If God had wanted man to fly he'd have given him more money – but that's only one obstacle faced by flight training

According to Boeing, some 460,000 extra pilots will be needed by the world's airlines over the next 15 to 20 years, over and above the number we are training at the moment. How many of them will be British? In a discussion of training costs and obstacles it became clear that Britain must now be among the most expensive countries in the world in which to become an airline pilot, and that situation is unlikely to change soon.

Other countries have advantages in terms of lower taxes, fewer fees and charges, cheaper fuel or no VAT on flight training. In some, pilots can claim back the cost of their training when they're in paid employment. British pilots pay the full measure of VAT and can't reclaim training costs against earnings. In some countries, the regulator is paid for out of general taxation, or an allocation of fuel tax income; in Britain, not only do we pay the full cost of the CAA, but they are required to make six percent profit out of us, too.

So it's little surprise that our flight training industry is staggering. The debate on how to get young people to take an interest in aviation followed closely on a discussion of costs and how they might be contained – and the two are inextricably intertwined.

Ary Stigter of AOPA Netherlands had worked on the cost of regulation in Europe and his findings were dispiriting. In Holland, the requirement to fit Mode-S at €3,000 per aircraft had taken €3.6 million out of the industry, and a similar mandate across Europe would cost the industry €150 million. The demand for fixed ELTs translated into a €250 million imposition across Europe. 8.33 radios, still under discussion, looked like another €250 million item. ADS-B was under discussion, and that would be a €500 million hit.

PPL examination fees in Holland exam come to €1,000, while the ICAO-mandated language proficiency exams had soaked up €3.6 million Europe-wide. EASA's CAMO maintenance structure added up to €4,000 per aircraft, while the hourly cost of any EASA labour the Agency required you to have was €250. Terminal ATC costs in Holland were €15 to €20 per landing, mandatory handling could add up to €150 more. Costly EASA requirements of airfields would translate into higher landing fees, and new security charges were on the way. The cost of converting licences from JAR to EASA had not yet been settled in many states, while holders of foreign licences operation in Europe would face retraining and unspecified costs whatever their level of skill and experience. Then we have to start paying for equipment that we need for our own safety, such as GPS and TCAS.

Yaron Efrat of AOPA Israel said the Israeli CAA had doubled the cost of instrument rating renewals to 1,200 shekels, with the result that half as many people renewed their IRs. So the regulator got the same amount of money but significantly reduced safety. "Additional costs mean reduced safety," he said. "Pilots fly less, they're less

experienced, less current and less able to deal with situations as they arise."

Mitchell Fox of ICAO said the organisation's surveys showed aviation has lost its sexy image, and the costs were an insurmountable burden if students were ambivalent about the whole business. One delegate suggested that allowing the pilot out of his terrorist prison at the front of the aircraft was the best possible way to start rebuilding the image of the profession.

Jannie Loutzis, owner of Loutzavia, the Pretoria-based flight school, charter operator and aircraft sales outfit, provided an in-depth look at the true cost of general aviation. "Five years ago a PPL was 45,000 rand, and now it's 75,000 rand – it's increased by a third," he said. "The factors include the fuel price, with avgas \$2 a litre, and they've put 14 percent VAT on JetA1. Landing fees have more than doubled and circuit fees can be \$50 to \$60 an hour.

"Now flight training costs about \$9800 for a PPL, \$36,000 for a CPL, \$41,000 if you want the multi. The UK is about the same, the USA is slightly less at about \$8,500, and Australia is about \$3,000 higher than the UK. In South Africa now you do ground school for seven exams and there's a 75 pass rate – the PPL is closer to the commercial level than it was a few years ago.

"It's expensive to purchase new aircraft – a Cessna 172 costs around \$300,000 – so 90 percent of flight schools use old aircraft. Insurance costs are high, the maintenance costs on old aircraft are much higher, and parts get scarce as they get older.

"The cost of certificated aircraft is very high. A Cessna 182 will cost about \$400,000 but a non-certificated South African Ravin costs less than half that, with a Lycoming engine and a Harzell prop. ■

'Self-administration' for warbirds

An AOPA-affiliated organisation that preserves and flies warbirds is benefiting from a more liberal approach to regulation by CASA, the Australian CAA. The Australian Warbirds Association Ltd (AWAL) is the only organisation allowed by CASA to self-administer; effectively, it regulates itself, although CASA keeps a very close eye on it.

Philip Reiss, President of AOPA Australia, presented the situation with AWAL as a ray of sunlight in a generally oppressive regulatory picture. Whether liberalisation of this sort could be extended to other aircraft types was moot. The warbirds group was small, elite, possessed of expertise that CASA would find difficult and expensive to match. CASA has audited AWAL three times, and found nothing untoward.

But, he said, AOPA Australia had worked hard to repair what had degenerated into a fraught relationship with CASA in the past, and there seemed to be a positive will on both sides to improve matters further.

"Australians are independent and have little respect for authority," said Philip. "That independence often has an influence on regulations, which usually come out of an accident, or a perceived need to manage a new technology. There are often knee-jerk airworthiness directives which are equally often modified later, leading to unnecessary cost and disruption.

"CASA in the past consulted but didn't change anything as a result of consultation. The regulator claim there is a safety benefit but it is illusory. The emphasis shifts from hands-on maintenance to paperwork and box-ticking."

Australia is planning to conform to EASA regulation, despite the industry's increasingly desperate requests that it adopt the FARs instead; the two neighbouring countries, New Zealand and Papua New Guinea, are adopting the FARs, which AOPA Australian believes will lead to a revitalisation of GA in those countries. ■



AOPA China delegation – Beijing is bidding to host the next IAOPA World Assembly

John Sheehan retires



IAOPA's Secretary General John Sheehan retired on May 1st after 15 years in the job, and by way of appreciation IAOPA's European Region made a token presentation to him at the World Assembly. The European Region has been the focus of most of John's work because the regulatory excesses of the JAA and EASA have hit us during his watch, and trying to instil some good sense into European rulemaking has taken up the major part of his time. In recognition of this fact, Martin Robinson called all the representatives of European AOPAs onto the stage to participate in the presentation. A resolution at the World Assembly, proposed by Russia and the UK, also commended John for his untiring efforts, his deft diplomatic skills and his sage advice during his tenure as Secretary General.

John, an ATPL with 7,700 hours, a Navy and civilian flight instructor and a charter and corporate pilot, has been succeeded by Craig Spence, who joined AOPA in 2008 as Vice President of Aviation Security from the American



Above: delegates from European AOPAs join Martin Robinson to make a presentation to John Sheehan
Left: John Sheehan (right) with Craig Spence, who takes over from him as IAOPA Secretary General

Department of Homeland Security. He became Vice President for Operational and International Affairs and has been closely involved in liaison with Europe as AOPA's NexGen expert. Craig is a commercial pilot with some 2,500 hours.

Here, John Sheehan looks back over the last 15 years at some of the highs and lows of his tenure as Secretary General.

The value of IAOPA – today and tomorrow

By John Sheehan

In April of 1997 Phil Boyer, then President of the International Council of Aircraft Owner and Pilot Association and of AOPA US, called and asked to meet me for breakfast at his hotel in Dallas, Texas, where I happened to be on a consulting job. Since I had known Phil for some time before I left the employ of AOPA US in 1990 and had stayed abreast of his activities in his first seven years at the helm of AOPA, I readily accepted.

He noted that as the long-time Secretary General of IAOPA, Steve Brown, was leaving the job to seek greener pastures,

the job was open. Since I had been involved with IAOPA activities since 1983 during my tenure at AOPA US I was apparently the only person with adequate familiarity with, and appreciation for, the organisation's activities. Phil knew that my consulting activities kept me busy yet he appealed for my help, noting that the SecGen job would only take "a few hours per week" of my time." I had always enjoyed working with the IAOPA people and representing general aviation interests at ICAO so I agreed to take the job. Now, looking back 15 years, after my retirement from the job I am pleased to say that it has been a interesting and rewarding ride, one for which I have fond memories. Has it all

been a trouble-free journey and smooth sailing? Well, no, but if it had been so easy, where would have been both the challenge and the fun?

The SecGen duties are not well-defined in the IAOPA Constitution and Byelaws. The job entails the day-to-day running of the organisation, serving affiliated AOPAs around the world (now numbering 70), ensuring that all administrative matters are completed, representing the interests of the organisation at ICAO and regional aviation bodies (such as EASA and Eurocontrol), publicising the interests of the group and keeping them informed via monthly newsletters, and generally letting the world know why general aviation is a valuable and

useful activity... in short, acting as the nexus for the affiliated AOPAs and the organisations they wish to influence.

In reality, general aviation has two principal needs: airspace and airports. Certainly, there must be aircraft, pilots, supporting organisations and infrastructure and the ever-important funds to make all of the associated activities viable. But without airports and airspace we might as well be driving simulators. Therefore, my central focus has been to keep these two critical resources at the forefront of the associations' activities, coordinating the IAOPA positions and advocacy with those of the AOPAs around the world. While this may sound easy, each State, each culture and regulatory system has a slightly different view of these vital resources, creating the need for a nuanced approach within each AOPA. The central element among States is ICAO.

ICAO is the standards-setting organisation for world civil aviation, with 190 States being parties to the Chicago Convention that provides the central focus of the organisation's work. The ICAO Council considers draft standards created by member State representatives and the ICAO Secretariat. Once approved by the Council members, States are supposed to adopt them as their own regulations. But, since there are all of those cultures, points of view, commercial interests, etc. the world's air laws are far from uniform. While the ICAO standards and recommended practices (SARPS) form a central trunk for States to follow, there are many branches attached.

An important aspect of IAOPA's work is to represent the interests of its affiliates within the hallowed halls of ICAO without having any real power or a vote; all we are allowed to do is work with the Secretariat and State representatives, attempting to influence them with our winning smiles and flawless logic. Are we successful? Sometimes yes, sometimes no. And, we compete with the other users of the airspace, particularly the airlines, air navigation service providers, employee unions and other special interests. While getting our way is always difficult in this bureaucratic, influence-wielding thicket we do have our victories. Luckily, we have had Frank Hofmann walking the halls of ICAO on an almost daily basis for the past ten years, acting as our representative in everything from security and the environment to airports and airspace.

Our major victory during my tenure has been the complete rewrite of the operational standards for general aviation airplanes, commenced in 2005 and released in 2008. ICAO Annex 6, Part II, *Operation of Aircraft – International General Aviation – Aeroplanes*, provides

SARPS for the world's general aviation operations. IAOPA and the International Business Aviation Council (IBAC) were the sole drafters of the document, handing it over to ICAO personnel and State representatives to add the final touches. These standards, should the States choose to follow them, will go a long way to emphasising the differences between commercial and private civil aviation regulatory practices, a tremendous accomplishment.

Additionally, I have had the opportunity to speak with a number of national aviation authorities, attempting to mitigate some draconian rules they had concocted for general aviation. Although my record of total success with these agencies is slight, the changes enacted as a consequence of my visits have proved valuable. Moreover, the seeds planted with the regulator frequently bear fruit in the future.

Much of my work has been to advise and provide counsel to existing and potential affiliates, helping them with



Above: John Sheehan with AOPA Denmark's Jacob Pedersen; Europe has been John's main focus

membership drives, publicity, communications, advocacy and programme development. These have all been rewarding tasks, knowing that AOPAs have been made stronger and more effective. Equally rewarding is to witness and assist affiliates that had become dormant due to loss of leadership, internal conflict or an overly-harsh government. In virtually every revival of an AOPA, a single, highly motivated and talented leader emerges as the organisational spark plug who brings a group of pilots and owners back to life as a single entity; this is one of my most pleasant tasks that of helping with and witnessing the transformation.

I have worked closely with our European region since it contains the most affiliates for any one region, is quite active and faces some of the most difficult operational and regulatory challenges of any group of AOPAs. I attended my first IAOPA Europe

regional meeting in 1998 in a private home in Paris, attended by five representatives from around Europe. From those humble beginnings the semi-annual regional meetings have grown in size (35 attendees at the last meeting) and influence.

Significantly, the European AOPAs have gone from being victims of Joint Aviation Authority (JAA) and, more recently, European Aviation Safety Agency (EASA) regulatory excesses to a respected and active participant in regulatory processes. This advocacy effectiveness transition has come in large part because of the decision to work with the regulator's overseers, the European Commission and European Parliament. Most important, these efforts are finally beginning to see significant results in the mitigation of unwarranted regulatory zeal. This transition is very a gratifying indicator of the increased maturity and clarity of vision of the IAOPA European Region – a remarkable achievement.

Whither GA? Some say that the movement is destined to become mere footnote in aviation history, having devolved to the level of not more than an ultralight and purely recreational aeronautical activity. Loss of access to airspace and airports, rampant regulations, escalating costs and the inability to attract sufficient numbers of young people to the pilot ranks are the usual reasons given for the eventual demise of the movement. Yet, even in the dark days of the current worldwide recession there are glimmers of hope: the light sport aircraft movement, efforts to revise pilot licensing regulations, impending aviation gasoline substitutes, increasingly responsive regulatory agencies, and the continuing resolve of GA activists provide patches of blue in an otherwise looming overcast.

I have learned from passionate and dedicated AOPA people the meaning of tenacity, insight and just plain hard work to carve out a place for GA in their countries and regions. It has been a humbling experience to observe their work and see them rise from minor defeats to significant victories; their work and singleness of purpose is inspiring. Truly, the people and their work have guided and illuminated my journey.

My more than half-century involvement in general aviation has proved a rewarding adventure, one that has given me great pleasure and a sense of accomplishment. As I depart active advocacy for the GA community I carry many pleasant memories and friendships. It's been an excellent journey, one that I have thoroughly enjoyed. And, I will still enjoy the flying, the thing that captured my imagination to begin with. To Phil Boyer, I thank you for the opportunity that brought us together for breakfast in Dallas. ■