



## Back in your box

YOUR ARTICLE "Award for black box" (*Flight Safety Australia*, March-April 2001) raises a number of questions regarding the chronology of this achievement.

I worked in several British flight test organisations from 1959 onwards, and in the '60s and early '70s the preferred data recording systems were those supplied by Hussonot-Beaudoin or SFIM in France, which owed their origins to those used by the Germans at the latter stages of the war. Later developments of these used wire as a medium, and then various tape recorders appeared.

Interestingly, the recorders used in the testing of Australian-built Mirages were made by SFIM and these reappeared briefly in the development of the Nomad. The so-called British and US Flight Recorders (black boxes) owed their development to their respective flight test environments.

By the above I do not wish to decry David Warren's achievements, but to remind readers that there is another world out there where needs create local invention.

*Bill Gottlieb  
Boeing-Aerospace Support  
Brisbane, QLD*



## More info please

ARTICLES SUCH AS "Two down, one to go" (March-April 2001), give pilots the opportunity to learn from others experiences. Further to the discussion by Maurie Lewis on the selection of runway surfaces and engine shut-down:

Why didn't the nose landing gear extend? Was this event preventable? Is it a known problem

on Trinidad aircraft? Could the pilot inspect for this defect prior to flight? Would better pilot specific type knowledge of basic system be a benefit? Did the pilot inspect the wheel well on the preflight, or, was the tyre just kicked?

All this information is just as beneficial to the the pilot as the actual cure to the problem.

*Daryl Gruar  
West Preston, VIC*

## Callsign confusion

I FIND IT amazing that people believe the only time confusion occurs with callsigns is when RPT operators use their approved company callsign and flight number (see *Flight Safety Australia* March-April 2001, page 57).

Flight numbers have been used as callsigns around the world for over 60 years. I would also suggest that Europe and the United States have significantly more RPT operations than Australia. Surely if it were considered a real safety issue then ICAO would recommend against it?

Finally, dare I suggest that by using the 'group form' when using flight number callsigns, and reading the guidance material contained in AIP and MATS, pilots and controllers would go a long way towards alleviating any perceived problems.

*Neil B. Bradley  
Henley Beach, SA*

## Errata

### Nothing in reserve

PAGE 17 of the March-April 2001 issue featured a fuel calculation table in a What Went Wrong analysis. In the first row, marked "Climb", the litres/kg column should have read 19. All totals were correct. As well, the arrows to the right of the table were aligned one row too high.

### Write a letter

Ideal length for publication is 150 words. Longer letters may be edited to save space. Include your name, address and phone number.

- Send letters to *Flight Safety Australia*, PO Box 2005, Canberra ACT 2601; faxes to (02) 6217 1950; e-mails to [fsa.magazine@casa.gov.au](mailto:fsa.magazine@casa.gov.au).

- The best letter wins a \$50 voucher from Airservices Publications Centre.

# Flight Safety

AUSTRALIA

There's one good reason aviation managers shouldn't miss our upcoming safety management breakfast briefings.

That's Professor James Reason, the key speaker in our series of one-off safety management briefings to be held in most capital cities throughout September.

James Reason, the author of the Reason model of accident causation, is considered the world's leading expert on human error and organisational safety.

His error classification and models of system breakdown are widely used by airlines, healthcare institutions, nuclear power and mining companies.

Each breakfast briefing will also feature senior aviation managers whose experience with safety management has taught them that these systems not only reduce risk but can increase profits.

As our article Risky Business on page 32 points out, responsibility for safety begins at the top management level.

History has demonstrated repeatedly that without complete commitment from the top, safety margins are seriously eroded.

For this reason, preference for places at the breakfast briefings is given to senior managers of maintenance organisations and air operator certificate holders.

To reserve your place and get more information about this exclusive event, complete the tear-out registration form on page 15.

It's food for thought – and it's free.

## Shell shock

CASA is investigating Shell Australia's admission that Avgas 100LL purchased from their Newport terminal in Melbourne between mid-February and April 2001 has a lead content slightly higher than permitted – 0.60g/L rather than the usual 0.56 g/L.

Aircraft approved to operate on both Avgas 100LL and Avgas 100/130 should have no problem. If your engine runs on Avgas 100LL only, contact the engine's manufacturer.

## Reg change



A REVIEW of CASA's approach to the process of regulatory change has delayed the issue of a guidebook outlining proposed options for change.

The guidebook was due to be distributed with this issue of *Flight Safety Australia*. The guide will now be issued with a later edition of the magazine.

The review follows problems in the introduction of Part 137 (aerial work) and Part 47 (aircraft registration).

## New Licence

CASA HAS commenced issuing a new book-style flight crew licence.

Applicants for initial issue of a licence will be given the new format automatically.

Existing licence holders may still use previous versions, but will receive the new licence when they obtain or renew a qualification.

The new licence does not replace the log book endorsement scheme. Ratings and endorsements must still be entered in the log book to have legal effect.

CASA has also produced a hard-cover wallet to house the licence. It will be issued free to new licence applicants. Existing licence holders may purchase the wallet from any CASA Area Office for \$10.



## Bean sprouts wings

IN A SITUATION reminiscent of a Mr Bean comedy skit, actor Rowan Atkinson and his family were involved in a terrifying mid-air incident while vacationing in Kenya on 25 February.

Their chartered Cessna 402 was flying at 16,000ft, enroute

to Nairobi from Mombasa, when their pilot passed out 45 minutes into the trip.

In the co-pilot's seat, Atkinson alerted his wife, Sunetra and two children, Ben and Lily. They then attempted to revive the pilot, with no effect.

The plane then began to lurch violently and started losing altitude. Even though he had not flown previously, Atkinson took control and was able to steady the aircraft before bringing its nose back up.

As unexpectedly as he passed out, the pilot suddenly came to and resumed control, unaware he had been unconscious for several minutes.

The aircraft landed safely and on time, the incident not putting the Atkinsons off flying enough to prevent them from returning home to London that day.

Although the Atkinsons had suspected the pilot experienced a heart attack at the time, it is possible the European man was dehydrated in the equatorial heat.

The pilot later stated he believed he had only passed out for a few seconds.

Atkinson's licence has been suspended pending an investigation.

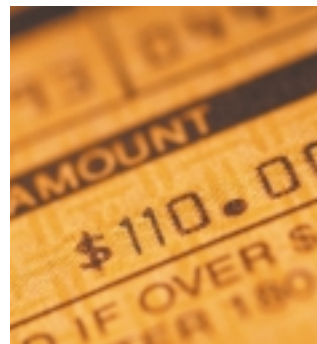
## CASA's new fines a fair way to go

THE REGULATOR is introducing a new system of administrative fines to penalise those pilots, LAMEs and operators who breach the aviation regulations.

Following extensive consultation with industry over a new direction in enforcement, the CASA board has approved the system as a quicker, cheaper and fairer alternative to prosecution, license suspension or cancellation where a major threat to safety does not exist. The new fine system comes into force from 1 July.

The fines will be administered like a speeding or parking ticket, and will be used as a first enforcement tool in situations not involving serious safety matters.

The move grants CASA greater powers to enforce regulations, while giving the regulator more time to concentrate limited



resources on investigating offences involving fare-paying passengers. The fines are not intended as means of raising revenue.

An offence carrying a penalty of 1 to 10 penalty units will incur a fine of \$110; an offence worth 11 to 25 penalty units will incur a fine of \$330; and an offence of more than 25 penalty units will cost \$550.

The new system may be used in situations where informal action

may formerly have been appropriate, but there is sufficient evidence to indicate the actions of the non-compliant operator were deliberate, or there was an attempt to conceal evidence from CASA.

The fines are not considered appropriate when an action is found to have seriously compromised safety, led to an accident, was found to be intentional, was part of a pattern of violations, or if the operator encouraged others to compromise safety. These breaches will continue to be dealt with through a combination license variations, suspensions and cancellations, culminating in prosecution if necessary.

Anyone served with a fine will have 28 days to pay, and has the option of dealing with the matter in court. If the fine goes unpaid, the offender may then be prosecuted.

# Spotlight on Ansett & Boeing 767s



UNITED STATES aviation regulator, the FAA, has followed Australia's Civil Aviation Safety Authority in mandating two Boeing service publications that played a critical role in the groundings of Ansett's fleet of 767s in December and April.

Ansett's Boeing 767s were withdrawn from service after the airline

revealed it had not completed inspections within the manufacturer's recommended time frames.

On inspection, in December, four of the jets were found to have cracks in the rear fuselage near the tailplane. Then, in April, four jets were found to have cracks in the engine mountings.

The FAA Airworthiness Directives mandate a range of safety-critical inspections at designated time-in-service thresholds for all 767-200 and 767-300 passenger aircraft and checks of wing front spar outboard pitch load fittings for the oldest 767-200s.

Ansett's 767s were grounded for up to three weeks from 12 April while CASA inspectors worked with Ansett engineers to check there were no further airworthiness faults.

CASA approved Ansett's hiring of up to six international aircraft to ease the airline's passenger seat shortage caused by the grounding of the 767s.

At the time of publication, 9 of the 10 aircraft had been cleared, with one due to be cleared after

heavy maintenance.

Ansett's failure to stow several escape slides correctly was the last in a string of incidents which led CASA to raise the prospect of issuing the airline with a show cause notice as to why it should keep its right to operate.

Ansett acted quickly to avoid the issue of a show cause, providing CASA with detailed plans for improvements across its maintenance and operational areas.

CASA accepted the safety improvement package, which binds the airline to a series of changes in management, structures and work practices.

CASA will continue to monitor the implementation of these changes.

## Free seminars on safety

CASA'S ANNUAL Flight Safety Forums are running once again, featuring a series of free seminars for pilots, maintenance personnel and management in metropolitan and regional areas until the end of October.

The seminars provide the latest expert safety advice for both commercial and general aviation. They are being conducted with assistance from nine experts drawn from Airservices Australia, the Bureau of Meteorology, the Australian Transport Safety Bureau, and various industry groups.

Seminars in Canberra and Melbourne have already received a great response.

Topics covered include "Setting

Your Own Standards", which covers methods of pre-flight planning and addresses the problems that arise when preparations are inadequate.

The seminars will introduce Australian pilots to the "Weather Wise" interactive CD ROM, designed to assist visually rated pilots in making weather-related decisions.

Pilots and LAMEs are invited to attend seminars on the regulatory requirements for maintenance certification, while maintenance managers and airline operators may discuss the latest proposed changes to maintenance regulations.

Details of the Flight Safety Forum seminars are available on the back page of this magazine, and on the internet at [www.casa.gov.au](http://www.casa.gov.au)

## CASA launches online exams

CASA's new CyberExam system, delivering flight crew exams to authorised venues via the internet, came online in April 2001.

PPLA, PPLH, PAOS and PHOS

exams are now available, with PIFR to follow shortly. Other exams will be gradually introduced until all flight crew exams are available online.



Photo: AP Image

## Thai blast link to TWA 800?

THE THAI Government, Boeing and the US National Transportation Safety Board are investigating a 737-400 centre wing tank explosion at Don Muang airport, Thailand, on 3 March.

The explosion killed one and injured seven. Investigators suspect dry operation of centre fuel tank pumps, but are also examining air conditioning units located under the tanks, a similar theory to the investigation of the destruction of TWA

Flight 800 on 17 July 1996.

Boeing has reiterated its recommendations on fuel pump operation, and CASA and the US Federal Aviation Administration have issued airworthiness directives in response.

From 10 May 2001, CASA requires the centre fuel tank pump switches in all 737 series aircraft to be turned off while on the ground unless fuel exceeds 1,000 pounds, except when defuelling or transferring. (AD/B737/152 refers.)

# Federation Outback Air Race 2001

A navigation trial over spectacular  
outback and coastal scenery

Starts 13 August in Alice Springs  
Finishes 25 August in Mt Isa

## Register your team now!

For registration forms contact race  
secretary, Sherrel O'Neill, on (08) 9414 1744  
or e-mail [outbackairrace@aopa.com.au](mailto:outbackairrace@aopa.com.au)  
for nomination forms and race guidelines.

Each team must fundraise \$1,500 per team member, which is donated  
directly to the Royal Flying Doctor Service

## AERODROME RADIO INFORMATION SERVICES

Airport	Certified A-G Operator	Unicom Operator	Beepback [AFRU]	Airport Helicopter	Certified A-G Operator	Unicom Operator	Beepback [AFRU]
<b>ACT/New South Wales/Tasman Sea</b>							
Aeropelican CTAF			✓				✓
Armidale CTAF			✓				✓
Bankstown MBZ			✓				✓
Bourke CTAF			✓				✓
Canberra MBZ			✓				✓
Cooma MBZ		✓					
Deniliquin CTAF			✓				✓
Dubbo MBZ			✓				✓
Glenbrook HLS		✓					
Goulburn CTAF			✓				✓
Grafton CTAF			✓				✓
Lord Howe Is MBZ			✓				✓
Merimbula CTAF			✓				✓
Moree CTAF		✓					
Moruya CTAF			✓				✓
Norfolk Is MBZ	✓						
Orange CTAF			✓				✓
Port Macquarie MBZ			✓				✓
Wagga Wagga MBZ			✓				✓
Tamworth MBZ			✓				✓
<b>Victoria</b>							
Bendigo CTAF			✓				✓
Horsham CTAF			✓				✓
Latrobe Valley CTAF			✓				✓
Lilydale CTAF			✓				✓
Mangalore CTAF			✓				✓
Mildura MBZ			✓				✓
Portland CTAF			✓				✓
Shepparton CTAF			✓				✓
Swan Hill CTAF			✓				✓
<b>South Australia</b>							
Cadney Homestead			✓				✓
Kingscote MBZ			✓				✓
Leigh Creek CTAF			✓				✓
Moomba CTAF		✓					
Mt Gambier MBZ			✓				✓
Olympic Dam CTAF			✓				✓
Port Augusta CTAF			✓				✓
Port Lincoln MBZ			✓				✓
<b>Northern Territory</b>							
Alice Springs MBZ			✓				✓
Ayers Rock MBZ	✓						
Gove MBZ			✓				✓
Groote Is MBZ			✓				✓
<b>Queensland</b>							
Barcaldine CTAF			✓				✓
Bedourie CTAF			✓				✓
Birdsville CTAF			✓				✓
Blackall CTAF			✓				✓
Blackwater CTAF			✓				✓
Boulia CTAF			✓				✓
<b>Tasmania/Bass Strait</b>							
Bundaberg MBZ			✓				✓
Charleville CTAF			✓				✓
Cloncurry MBZ			✓				✓
Emerald MBZ			✓				✓
Gladstone MBZ			✓				✓
Hervey Bay MBZ			✓				✓
Hughenden CTAF			✓				✓
Horn Island MBZ			✓				✓
Julia Creek CTAF			✓				✓
Karumba CTAF			✓				✓
Kowanyama CTAF			✓				✓
Longreach MBZ			✓				✓
Maroochydore MBZ			✓				✓
Mt Isa MBZ			✓				✓
Newman MBZ			✓				✓
Quilpie CTAF			✓				✓
Redcliffe CTAF			✓				✓
Richmond CTAF			✓				✓
Rockhampton MBZ			✓				✓
Roma CTAF			✓				✓
Southport MBZ			✓				✓
Thangool CTAF			✓				✓
Toowoomba MBZ			✓				✓
Townsville MBZ			✓				✓
Weipa MBZ			✓				✓
Windsor CTAF			✓				✓
Winton CTAF			✓				✓
Whitsunday MBZ			✓				✓
<b>Western Australia/Indian Ocean</b>							
Albany MBZ			✓				✓
Broome MBZ	✓						
Carnarvon MBZ			✓				✓
Christmas Is MBZ			✓				✓
Cocos Is MBZ			✓				✓
Derby MBZ			✓				✓
Forrest CTAF			✓				✓
Geraldton MBZ			✓				✓
Jandakot MBZ	✓						
Kalgoorlie MBZ			✓				✓
Karratha MBZ			✓				✓
Kununurra MBZ			✓				✓
Leinster MBZ			✓				✓
Leonora MBZ			✓				✓
Meekatharra MBZ			✓				✓
Mt Magnet CTAF			✓				✓
Newman MBZ			✓				✓
Shark Bay CTAF			✓				✓
Teller MBZ			✓				✓
Troughton Is CTAF			✓				✓
<b>Tasmania/Bass Strait</b>							
Devonport MBZ			✓				✓
Hobart MBZ			✓				✓
King Is MBZ			✓				✓
Wynyard MBZ			✓				✓

To add your aerodrome to this list, or advise any changes, contact Brian Harris ph 131757.

## GLOBEWATCH

**Snowstorm.** Eighteen people died in Colorado on 29 March when a Gulfstream III crashed performing a night instrument landing during a snowstorm at Aspen-Pitkin airport. A NOTAM prohibiting this had been issued, but while the pilot had this information, the tower did not. The NTSB is investigating.

**The impossible runway.** An Air Caraibes DHC-6 Twin Otter collided with a house on 24 March, during an approach to St. Barthelemy Island in the Carribean. All 19 passengers and crew were killed, along with one man on the ground. Pilots need a special endorsement for St Barthelemy. The runway has a 10 degree glide slope to allow for a 500ft hill, after which the plane must sink rapidly and approach low over housing. The runway slopes three per cent downhill and is only 650m long, making a go-around impossible. Mechanical failure has not been ruled out.

**Report released.** At the time of press, reports claim Thai authorities' investigation into the crash of Thai Airways Flight TG 261 has blamed bad weather and pilot error for the death of 101 people on 12 December 1998. The Airbus 310-200 crashed in a swamp during an aborted third landing attempt at Surat Thani airport, during a storm. Forty-five people survived, three

Australians among them.

**Deathly silence.** A United Airlines Boeing 767 experienced a dual engine shut-down on 4 March, 29,000ft over the Pacific Ocean enroute to Los Angeles. The pilots restarted both engines and made a precautionary landing in Hawaii. The NTSB's preliminary investigation revealed the engines lost power, one rolling back below idle, during a fuel transfer procedure.

**NASA near miss.** The space shuttle Discovery briefly fired its thrusters while docked with the international space station recently, after astronaut Jim Voss lost a tool during a space walk. The tool's orbital trajectory could have brought it close to the station, so NASA made the move as a precaution. The tool is expected to burn up on reentry.

**Shredded squirrels.** Dutch KLM Airlines has been fined 35,000 Guilders (\$27,000) by a Netherlands court over an incident at Amsterdam's Schipol airport last April, in which 440 Chinese ground squirrels bound for a Greek furriers were left stranded on the tarmac due to a bureaucratic error. The animals were kept in cramped cages without food or water for several days, before being dumped into a shredding machine.

## AMENDMENTS TO CAOs

### Single-engine RPT

CAO 82.3: Conditions on AOCs authorising regular public transport operations in other than high capacity aircraft have been altered to allow for the use of single-engine aircraft.

*Effective 26 April 2001*

### Private IFR exams

CAO 40.2.3: CFIs will soon be able to use a CASA prepared exam instead of their own Private IFR exam. An exam for the basic rating has been developed and will shortly be available to all schools. Work

will then start on an exam for the associated FPAs.

**Aeroplane flight instructor tests**  
CAO 40.1.7: Correction made to again allow flight tests for renewal of instructor ratings to be conducted within 90 days before expiry or any time after. Provision was omitted from amendment 224 dated 21 December 2000.

*Effective immediately.*

Civil Aviation Regulations and Orders can be viewed at:  
[www.casa.gov.au](http://www.casa.gov.au)

## London-Sydney or bust

PHOTO: NEWSPIX



AS PART of Australia's Centenary of Federation celebrations, the 2001 London to Sydney air race finished on 7 April with a flyover of Sydney Harbour.

Of the more than 40 who started, 34 landed at Bankstown, having come from all over the world to face the gruelling 28 days to Sydney via France, Egypt, India, Thailand and Indonesia. The race follows in the tradition of the great races of 1919, won by Australians Sir Ross and Sir Keith Smith in their Vickers Vimy, and 1934, when CW Scott and Campbell Black won in

their twin engine Comet.

This time, the aircraft included slick Aerostars, Beech Barons, many Cessnas, a Robinson R44, and a Grumman HU-16A.

The start was overshadowed by the deaths of two American women who crashed their Twin Aero Commander into the Atlantic near Iceland on 5 April, on their way to the event.

Departing London on 13 March, competitors faced fatigue, bird-strikes, mechanical failures, fuel problems, protests over technicalities in the rules, and one threat of

military action from an overzealous Egyptian ATC officer.

The race featured some spectacular flying, with Hong Kong entry "The Spirit of Kai Tak" finishing the Cannes-Corfu leg at near VNE, while diving from 25,000ft.

Competitor Maurice Kirk got a scare enroute to Karachi, when he forced his 1930s Piper Cub to climb too quickly and starved the engine of fuel, sending it into a dive before the engine restarted at 4,500ft.

The racers faced the threat of thunderstorms in South East Asia, passing over the Bay of Bengal where Charles Kingsford Smith died trying to break the London-Sydney record.

The winner in the speed racer category was the "Spirit of Kai Tak", with chief pilot Michael Miller and crew promising to put the plane on display in a Hong Kong museum.

Michael Eastwood was the winner of the precision flying category in his Partenavia PN68C.

## Halon storm

THE FEDERAL Government has passed legislation to phase out the use of halon, an aggressive ozone-depleting agent, in fire-fighting systems.

Currently, halon remains essential for fixed fire suppression systems in aircraft, but operators are encouraged to use an alternative in hand extinguishers. In large aircraft, a maximum of two hand extinguishers are still required to contain halon.

Any halon included in the systems of an aircraft from overseas is now treated as an illegal import, and an exemption must be obtained from Environment Australia.

Details can be found on Environment Australia's website, [www.ea.gov.au](http://www.ea.gov.au).

## Clearing the air

CASA is to amend Aviation Information Publications (AIP) and the Manual of Air Traffic Systems (MATS) to clarify the responsibilities of air traffic control (ATC) and pilots in controlled airspace (CTA).

ATC is responsible for providing clearances that ensure aircraft are contained in CTA, when the pilot has so planned. If there is any doubt a clearance will keep the aircraft in CTA, pilots may request an alternative from ATC.

Pilots of IFR flights remain responsible for containment in CTA.

## LAME health concerns spark study

THERE ARE CONCERNS for the health of approximately 1400 ex-RAAF fitters/technicians and civilian LAMEs formerly involved in the F-111 deseal/reseal program, due to their exposure to certain chemicals.

Since Australia's introduction of the F-111 in 1973, fuel tank maintenance has required the regular reapplication of sealant to prevent leakage. The operation is difficult, lengthy and involves wearing protective equipment against chemical vapours from fuel, solvents and sealants in cramped conditions.

Over time new products replaced the original foul-smelling SR51 sealant, but the process remains hazardous.

Potential dangers with the program have long been recognised by the RAAF, who ensured personnel were properly educated. Despite this, the program was temporarily halted in January 2000



when former workers complained of headaches, nausea, and memory loss. The program has since resumed with renewed precautions.

The RAAF launched a board of inquiry into the matter in 2000, and its findings are expected later this year.

It has requested the Department of Veteran Affairs conduct a scientific study on any adverse health effects that may have arisen from exposure to the chemicals used.

It is not known whether the

health concerns involve breaches of occupational health and safety procedures, or exposure to substances such as fuel soluble anti-icing agents, oil lubricants, or AVTUR.

Anyone who is concerned about their involvement in the deseal/reseal program, or who believe they may be experiencing an unexplained health condition is asked to contact the Department of Veteran Affairs on 1800 502 302 for more information.

## More hot air...

RECENT AUDITS of commercial balloon operators noted a number of modifications that do not meet the requirements of CAR (1998) 42U, included the installation or relocation of transponders and non hand held VHF radios, fire extinguishers, gas cylinder heating blankets, padding and hand holds.

Operators are reminded that approval must be obtained from CASA or the manufacturer before any modifications can occur.