

# The November Oscar incident

*Airline pilots are haunted by a missed approach that left only one casualty - the captain.*

By Stephan Wilkinson

On November 21 1989, a British Airways 747 on an instrument approach came within a stone 's throw of crashing at London's Heathrow Airport. Flying in thick fog, the huge airplane was far enough to the right of the approach course that when the captain discontinued the approach, he was actually outside the airport fence, parralling a highway crowded with morning commuter traffic. Before the airplane began gaining altitude, it came within 75 feet of the ground. As the 747 thundered past the nearby Penta Hotel, which is 70 feet high at its tallest point, car alarms all over the parking lot began to chirp and wail, their sensors tripped by the airplane's passage.

The pilot in command of G-AWNO (the airplane is usually referred to by the last two characters in its registration 'November Oscar') was William Glen Stewart, a 53-year-old British Airways captain with 15,000 flight hours. On his second attempt he landed the airplane routinely, but even before he had parked at the gate, phones at British Airways headquarters were ringing. It would be Stewarts last landing, for he lost his job, and more. That much is known.

Beyond that bare summary, however, lie two diverging accounts of not only what caused the incident but where the blame for the botched approach lay and how that blame should be apportioned. It is a landmark case in aviation history, for William Glen Stewart was not simply censured or cashiered - the usual consequences even in fatal accidents. Instead, he was judged to be a criminal.

In the past, criminal proceedings have been brought against pilots who flew drunk, showed of by flying under bridges or committed other act of intentional stupidity. Two Korean pilots were jailed in Libya in 1990 after landing short in Tripoli, killing 72 passengers and at least five others. In 1983 a Swissair crew was convicted and fined in Greece after skidding off the end of a wet runway at Athens; 14 passengers died. Yet Stewart had landed safely; no one had been killed, injured of - aboard November Oscar at least - was even aware they were characters in a fateful drama.

Stewart's defenders portrayed him in court as doing his best to get the airline's passengers to their destination as economically as possible - playing the cards he was dealt. His accusers held that Stewart blew an instrument approach that he never should have attempted, risking the lives of 255 passengers, as well as numerous motorist and perhaps even hotel occupants.

On may 8, 1991, a jury at Her Majesty's Crown Court in Isleworth, England, hesitantly agreed. In a split verdict (10 to 2 ) they found William Glen Stewart guilty of negligently endangering his aircraft and passengers. It was the first time in the history of British aviation that an airline pilot was found to be a criminal - was, in fact even charged with being a criminal - as a result of the pursuit of his duties to what he believed to be the best of his abilities.

When I first heard of Glen Stewart and his sad fate, it seemed another bitter example of the indignities that airline pilots occasionally suffer at the hands of journalists, lawyers, and others who understand nothing of the flying profession. Stewart had already been

convicted in the press, in breathless accounts of how he's mistaken the nearby highway for the runway and had actually been trying "to crashland" on it, of how he'd come so close to the hotel that he'd set off fire sprinklers. The press particularly liked the sprinklers.

I've never flown for an airline, but my sympathies were aligned with those of a friend, a former flight instructor of mine and now a 767 captain, to whom I described the affair. "What was the guy found guilty of?" he asked in amazement.

"Endangering his passengers" I said.

"I do that every day I fly" he said with a laugh. "That's aviation."

As I delved deeper into the November Oscar incident, I would learn that things weren't so simple. How did this happen? Why did it happen? Though British Airways and the British Civil Aviation Authority (the equivalent of the Federal Aviation Administration) have either refused or ignored repeated request for interviews, both British and American wide-body pilots familiar with the November Oscar incident as well as safety experts and others contributed their insights during my research. Many pilots fear that their careers could be ruined if they were to speak candidly on a subject that obviously cuts to the core of some of the airline industry's darkest secrets. For that reason their names don't appear here.

Stewart's problems began at a Chinese restaurant in Mauritius, in the Indian Ocean off Africa. There, he and his entire flight cabin crew, plus flight engineer Brian Laversha wife Carol dined during a layover before flying on to Bahrain and then to London. Bahrain-Heathrow would be the last leg of a trip that had begun in Brisbane, Australia.

By the time the crew reached Bahrain several days later, many were doubled over by gastroenteritis. Stewart was in affected, but his co-pilot, 29-year-old Timothy Luffingham and flight engineer Laversha were poleaxed by the bug. Carol Laversha suffered worst of all, and a Mauritian doctor prescribed both a palliative and a painkiller for her, telling Brian that he too should take them if his own symptoms worsened.

The doctor was not a British Airways approved flight surgeon, but the approved doctor, who was too far away to minister to the crew, suggested the substitution physician, having been told that new man would soon be added to the airline's list. The examining doctor seemed unconcerned that the pilots were scheduled to fly in two days. British Airways would later accuse the crew on not following approved medical procedures.

"I could get pretty angry at a lot of the characters in this affair" says a former airline pilot who today flies cargo wide bodies for the Air National Guard. "Nobody ever consciously silts down and says 'Let's make it impossible for the crew to get to the right doctor, so that we later can claim company deniability when they go to the wrong one', but that's what's in effect happens.

This was apparently a doctor who didn't even understand the effects of self-medication in a pressurised aircraft on the performance of a complex task, and right there is a microcosm of everything that pressured the crew to get the job done. That doctor's vested interest is in sending flight crew out to fly. Certainly if he ever expects to work for BA again he isn't going to ground crews right and left. The company *wants* you to fly.'

For Stewart, it turned out to be a difficult flight. Unanticipated headwinds cut into November Oscar's fuel reserves. Co-pilot Luffingham was floored again by his stomach ache and had to leave the cockpit for several hours after taking some of Carol

Laversha's painkillers. The crew considered landing at Tehran but deemed it politically too chancy.

### **Approach to minimums**

The most precise instrument approach procedures available at most airports rely on a navigation aid called the instrument landing system, or ILS. An ILS provides two radio beams aligned with the runway: a left-right localizer and an up-down glide slope. The localizer is a horizontal beam aligned with the runway centreline that indicates to the pilot whether the airplane is left or right of the approach course. The glide slope provides a fan-shape vertical beam aligned along the ideal descent slope to the runway's touchdown zone and indicates to the pilot whether the airplane is above or below that path. Both components are represented in a single cockpit display, the most basic of which presents two pointers one moving left-right the other up-down, to indicate the airplane's deviation from the centre of the approach. When the airplane is on course, the pointers are crossed and centred. The flight director display aboard G-AWNO is more sophisticated, but it too presents the pilot with this basic course information.

The dimensions, navigation fixes, and approach paths for all ILS approaches in the world are published by government agencies and private companies in the form of small diagrams called approach plates, such as the one shown here for the approach Stewart was flying. Depending on how the airplane is equipped and whether the crew is qualified, increasingly stringent criteria can apply to the same instrument approach. Those criteria can determine the decision height - how low a pilot can descend in cloud to identify the landing runway visually before having to decide to abort the approach and try again or land somewhere else. The criteria also set limits as to how adverse the visual conditions along the runway can be - how far ahead the pilot can see. An approach to minimums means that airport weather exactly matches the limits for that approach and a pilot can expect to see the landing runway at the very moment he must decide whether to continue to descend or go around.

An airplane and crew approved for Category II approaches to Heathrow runway 27 right can descend to 100 feet above the ground in visibility of as little as 350 meters (roughly 1,150 feet) before going around. In general, Category I doubles the decision height, while Category 3 cuts it in half. A 747 landing in category 3 conditions is literally landing blind. When the landing gear is 50 feet above the ground the airplane should begin flaring to land, yet the cockpit - considerable higher than the wheels - is still in the clouds.

Because the task of landing in conditions requiring Category II and III approval is so demanding, the 747 Stewart flew was essentially controlled by the autopilot system while the crew monitored the instrument panel. Autopilots capture the radio beams transmitted by the ILS and fly the airplane along those beams to touchdown: even the landing flare can be performed automatically. But November Oscar's two autopilots may not have been able to capture the localizer. When the airplane turned in to start its approach, the autopilots were disconnected for a time, and the airplane was flown manually. Later, an attempt was made to re-engage the autopilots, though it seems clear from the ground track that the airplane never settled on a stable approach.

Regardless of any suspected fault in the autopilot system (none was ever identified), a professional pilot with Stewart's experience is expected to handle such occasional adversities, and in all cases, the crew is responsible for monitoring the instruments to ensure that the airplane is flying the ILS properly.

Stewart flew for over five hours, much of it in the dark, with only a 15-minute respite. The crew also became dehydrated, and Laversha would later testify to the airline's incident review board that because he had chastised a flight attendant for entering the cockpit without permission, she had retaliated by ignoring him.

Over Frankfurt, the crew got word that the weather at Heathrow was down to the ground: it would probably have to be a category III landing (see 'Approach to minimums' above). Tim Luffingham did not meet the requirements to participate in a Cat III or even a Cat II instrument approach but Stewart and Laversha did. Stewart was in fact a highly experienced instrument pilot: he had flown approximately half his airline hours as a

British European Airways short haul pilot, in what is generally agreed to be the worst winter flying weather an airline pilot can encounter. But like most airplane pilots, he had never made a Cat III approach to minimums in his entire airline career, and Luffingham, new with BA, hadn't even had the mandatory simulator training.

*British Airways captain Glen Stewart had years of experience flying in the poor weather conditions typical of Europe.*



With 255 dozing passengers dreaming they'd soon be breakfasting in London, there had to be a way around such an embarrassing hitch. There was. Stewart radioed British Airways' Frankfurt office and asked them to telephone Heathrow and obtain permission for Luffingham to help out on this one approach in order to get November Oscar home. British Airways routinely gave such dispensations, and they did it again this time. Stewart never volunteered the information that the very pilot for whom requesting a dispensation might at the moment be in the blue room, convulsed

by gastroenteritis, and nobody on the ground asked.

Luffingham would also testify that nobody asked him if he wanted a dispensation – he was back in the first class cabin trying to control his diarrhea - but admitted that even if Stewart had consulted him, he would have been hard-pressed to refuse. He later wrote in a dispensation, "I accepted, with BA's interests at heart, the dispensation to operate category III autoland conditions. I personally would not mind if we had diverted. But what would BA have said to the captain if we had diverted without asking for a dispensation? What would they have said to me if I had not accepted it?"

This is the heart of the professional pilot's eternal conflict. Into one ear the airlines lecture, "Never break regulations. Never take a chance. Never ignore written procedures. Never compromise safety." Yet into the other they whisper. "Don't cost us time. Don't waste our money. Get your passengers to their destination- don't find reasons why you can't."

Approaching London, November Oscar was given a routine hold northeast of Heathrow. Luffingham, by this time back in the right seat, was annoyed that Stewart insisted on hand-flying the racetrack-shape holding pattern. Luffingham felt the autopilot could have done a smoother job, but Stewart preferred to fly it himself. It's possible the autopilot did not have his full confidence – an opinion others shared.

November Oscar was a 747-136, an early series designed in the 1960s; British Airways refers to these older 747s as "the Classic Fleet." And the Sperry SPZ-1 autopilot on the 747 was based on an earlier design. It was, as British air safety expert David Beatty put it to me, "never designed for that aircraft. It was bolted on and had to be nursed carefully."

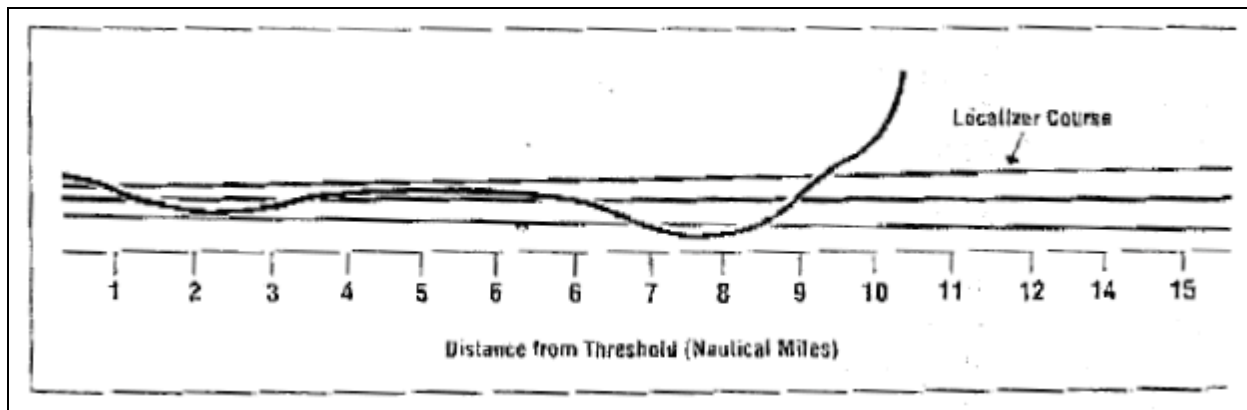
Laversha, for his part, didn't like the looks of the fuel levels. "While we were in the hold, I told him, 'Come on Glen we've got two minutes of (holding) fuel left, let's buzz off to Manchester.'" he recalls. "But he was a very determined man." Stewart had the weather reports for both Manchester and London Gatwick, and the crew discussed the options. They knew the weather was better at Manchester, and Stewart was on the verge of heading there when Heathrow called and cleared November Oscar for an approach. The Heathrow weather had improved slightly, but there was one further complication: they were to land on runway 27 Right rather than 09 left. The wind had changed.

“That was a very strange morning”, another captain said later. He had landed on the opposite runway before the switch. “We ran through a thick bank of fog on short final and in fact landed below limits,” he told me. “The runway actually disappeared in the flare.”

That captain’s admission that he broke the ceiling-and-visibility limits on an instrument approach illustrates that airline pilots frequently encounter weather conditions and visibility that instantly render their landings illegal. Do you “hold what you’ve got” and land when you’re already committed but run into rogue fog, or do you attempt a blind go-around from a few dozen feet above the runway? Most professional pilots would opt for the former.

Stewart’s approach was hurried affair, complicated by a number of factors. Any one or two might have been inconsequential, but taken as a group of sudden additions to a shorthanded, ailing crew’s workload, they turned a routine approach into a flying can of worms.

The last-minute runway switch required a reshuffling of charts, procedures, and mental pictures. A 10-knot tailwind at altitude meant November Oscar would be steaming down the approach at a faster clip. The approach controller turned Stewart onto the localizer 10 miles from the runway rather than the customary 12 or more, making the approach even more hurried. He also did it at an altitude that required the two autopilots to intercept the glide slope and the localizer almost simultaneously, which may account for why they didn’t fly the approach properly.



Ground track of November Oscar's path shows how the autopilot wandered left and right of the correct course

Then, when the 747 was halfway down the localizer, the control tower radioed that some approach lights apparently had failed, prompting Laversha to take a hasty look through a checklist to see how that affected their planned procedures. The tower controller also withheld clearance for November Oscar to land until the very last moment – actually slightly later than regulations permit – because an arriving Air France jet was still on the runway, groping for its turnoff.

What truly tightened the noose, however, was that in order to make a legal Category II or III approach, November Oscar’s autopilots had to function perfectly. On this day, however, they were trundling back and forth through the localizer beam like a clumsy bloodhound not quite able to catch the scent. And Laversha was worried about Stewart: tired, irritable after all that time in the saddle, trying to monitor autopilot status lights and navigation instruments largely solo. Co-pilot Luffingham was little more than observer. “I was not qualified to make this approach and could not make any suggestions as to what

was wrong.” he would later testify to BA’s safety investigators. Luffingham had decided his best course was to stay out of the way.

Stewart was now “illegal” and had been ever since the airplane had descended below 1,000 feet above the ground. Though there are tricky rationalizations that can be argued endlessly, both airline procedures and CAA regulations seem to specify that a Category II or III approach must be discontinued at that point unless all of the required equipment, most notably the autopilots, is functioning perfectly and tracking the Instrument Landing System.

Many highly competent professional pilots have said of November Oscar. “I’d have thrown away the approach, gone to my alternate or tried again. No question about it”. But other professionals, some of them with BA, believe what one pilot expressed: “Look, he was concerned about fuel. He had a first officer who was no help. He knew a diversion to Manchester would cost the airline a minimum of \$30,000. He realized he’d be sitting in the chief pilot’s office trying to explain how he got himself into a position that required a missed approach in the first place. He figured the autopilots would settle down. And I’ll bet he was convinced he’d break out at Cat I limits and could take over the hand-fly it the rest of the way. I can understand why he carried on.”

It might have worked. If it had, nobody would ever have heard of November Oscar, and Glen Stewart would still be a British Airways captain. With the radar altimeter indicating only 125 feet above the ground, the runway still wasn’t in sight, and Stewart made the mistake that turned a routine go-around into newspaper headlines. Always conscious of his passengers’ welfare and comfort – he took the trouble to learn how to make cabin announcements in Japanese – Stewart had already told the crew that if a go-around was needed, it would be done gently rather than with the kind of full-power flurry that has everybody white knuckling their armrests.

And it was a leisurely go. Too leisurely. November Oscar sank another 50 feet. Stewart and Laversha also caught a glimpse of the approach lights out the left window, and it’s not hard to imagine that Stewart briefly considered sliding over to the left and saving the approach. Said one U.S. jumbo jet instructor pilot familiar with the November Oscar incident. “This pilot who was critically low on fuel, which probably was one reason why he waited a second before going around. At decision height on a Category II approach, you look to see the slightest glow of approach lights, you wait ‘one-potato’, see if anything comes into sight.

“At some point, you also become complacent on a familiar approach, you’re so used to it. (Perhaps) a thousand times before, he’d watched, that same autopilot do strange things on the same approach to the same airport, and he’d break out at 200 or 500 feet and make a play for the runway. And on the crew bus everybody says, “Boy, that autopilot sucked again today.”

Stewart’s second approach, though the landing would elicit applause in the cabin, was not a happy affair. Luffingham noticed that his captain’s hands were shaking as November Oscar climbed out and then was radar vectored back for another try. Stewart was also “cursing under his breath”, said Laversha. The co-pilot even gently suggested that *he* fly the second approach, but Stewart waved him away. Stewart then announced that this would be “a no-limits attempt at 27R”, shorthand for *tires on concrete this time no matter how low we have to go*. It is a procedure not authorized in any manual or rulebook, but it is one that many a rational pilot will employ when fuel is critically low.

On the way back to the crew room after shutdown, Stewart's mind was probably racing, wondering about the consequences of his missed approach. When he found a note in his company letterbox requesting that the crew see the chief pilot, he told Brian Laversha to collect his wife and go home, that Stewart would say they'd already left.

Stewart also balked, refused to speak with a BA air safety investigator, and drove the 25 miles straight home. His wife Samantha remembers: "It was the same sort of morning as after any long trip. He was tired but we talked about Mauritius, because we'd both been there together on vacation. An hour later, he said, "I'm off to bed, but you might get a call from BA, because there was a go-around." It wasn't anything I thought important."

It was. "He got a call around eight that evening saying the crew had been suspended." Samantha Stewart says.

Three days later, Glen Stewart wrote letters to both Brian Laversha and Tim Luffingham unstintingly praising their airmanship under difficult conditions and accepting full responsibility "as both captain and the handling pilot" for the incident. British Airways investigated the affair, and finally issued a report castigating Stewart and chiding Luffingham and Laversha as well. Stewart was demoted to first officer, relegated to flying out the rest of his career in the right seat. And the CAA reduced his license to co-pilot status.

That was too much for a proud, stubborn Scotsman who had begun commanding Royal Air Force aircraft at the age of 21, who had devoted much of his adult life to British Airways, and who was being disciplined for - as he saw it - doing the best he could. On April 2, 1990, Glen Stewart resigned from BA. He spent the next three days learning how to use a word processor, then set out to appeal the CAA's license downgrading.

Others saw it differently of course. Stewart was not a star aviator. Recently, he had been receiving grades of "average" on his semi-annual simulator check rides, and instructors had noted that he did not perform well under pressure. During his final flight he made a number of minor errors that Luffingham and Laversha had had to correct - switches set wrong, faulty cross-checks some awkward flying. He was slow moving and methodical in a trade where some decisions must be made quickly.

The common assumption that the biggest airliners get the best pilots is not necessarily true. There are no merit promotions in the cockpit. Pilots move up solely on the basis of seniority in the company. The flight engineer on a weary 727 flying between Cleveland and Cincinnati might be an ex-Blue Angel with golden hands, while the captain of the same line's shiniest 747-400 Big Top en route to Bangkok might be an average Joe who started out in Cessna's and has managed to make it through 30 years without busting a regulation. That Stewart was flying one of British Airways bigger and more complex aircraft was a reflection of the airline axiom "A captain is nothing but a co-pilot whose been with the company longer."

Yet why the Stewart case ever came to trial remains the subject of speculation. There is considerable feeling that British Airways was not sorry to see it happen, that Stewart was a loose cannon who could have made things awkward for an airline that places great value on its public image. Some feel that Stewart could have revealed some controversial company procedures. If Stewart were branded a criminal, it would effectively negate whatever damage he might do.

Stewart himself maintained that he was hauled into court “because British Airways and its supervisor the CAA condoned, wished, hoped, prayed, pressurized me to keep quiet” and that when he didn’t they had no option but to publicly punish him. Others suspect empire-building within the CAA legal branch: this looked like a juicy case for an aspiring prosecutor to take public and demonstrate that even the flag carrier’s jumbo yet captains dare not take on the aviation authority casually. “Glen was the first line pilot they could go after”, Samantha Stewart opines.

One L-1011 captain, British albeit not a BA pilot, says “My personal opinion is that the fleet manager who authorized November Oscar’s approach with an unqualified crew should have been the one in court.” Six weeks after the incident, British Airways announced that it was no longer granting bad-weather dispensations.

A senior British Airways captain told a London newspaper: “The aircraft was certificated for three crew who are supposed to cross-check each others movements. The other flight-crew members are back flying again. In fact Brian Laversha had also resigned from BA. So why is it Captain Stewart is in the dock? Even if, at worst, it was a flying cock-up, how can that be construed as criminal? There but for the grace of God go a lot of pilots. Are we to be prosecuted for every little slip up?”

But was it just a slip-up? My sympathies for Stewart were being sorely tried: I was tempted to say that the approach he’d flown was one that I’d have discarded and re-flown long before things got out of hand. Many professionals privately agreed that they’d have thrown it away as well, though Samantha Stewart characterized them as “a few clever Dicks who think they’re too smart for it ever to happen to them.”

In retrospect. Stewart might have demanded of the controller a longer final approach, which would have allowed the autopilot time to settle down. At eight in the morning however with night flights from all over the world converging on Heathrow, the rules have to be flexible. Stewart believed but could not prove, that he’d been turned into the approach five miles behind the traffic he was following rather than the legal minimum of six. He was certainly forced to fly a hasty approach that may have been beyond the autopilots capabilities. But the controller who put November Oscar in the position was not in the dock.

“They showed Glen the courtroom in advance, so he know what to expect”, Samantha Stewart recalls “but he was horrified. He was a terribly moral gentleman and here was a dock where rapist had stood. They at least doing the trial let him sit with the BALPA people (British Air Line Pilots Association, the union that had organized Stewarts defence), but during the sentencing he had to sit in the dock with a policeman. It was awful for him.”

The trial took 11 days of extremely complex, technical testimony before a jury of nonpilots. Some jurors napped, not surprisingly, for the testimony entailing the sequence of checklists, button pushing, instrument indications, and warning lights that marked November Oscar’s progress down the Heathrow 27R ILS was a complex, dry recitation.

“It’s a very complicated procedure”, another 747 captain admits. “Flying that aircraft on automatic demands workload that can actually be too much, especially if you don’t have a good co-pilot.” Stewart, in defence of his actions during the British Airways inquiry, had doggedly raised issue after issue, some which danced around the question of exactly what had gone wrong and why. Accused, for example, of failing to file the necessary Mandatory Occurrence Report immediately upon landing, Stewart argued



that because he had at least initiated the go-around from decision height and he landed successfully out of the second approach, it didn't constitute an "occurrence". Few agreed.



*During the trial, Stewart was dogged by the media. Some felt the press coverage helped predetermine his conviction.*

He argued that nowhere was it officially written that a proper go-around required that the airplane nose up at three degrees per second, which the airline claimed was the proper technique. (Well it may not be written down but it *is* the way to get the job done.) Stewart had applied back yoke that rotated November Oscar at a rate of less than one degree per second. He seemed evasive.

At one point Stewart created a transcription of every oral call-out, checklist response, and radio transmission that company and CAA regulations required during the approach: by simply reading the script aloud non-stop, he

showed that the entire routine took seven minutes. The approach itself had consumed only four, thus demonstrating that the letter of the law was impossible to follow. It was an interesting point but nobody cared.

Stewart and his supporters made much of the fact that November Oscar was dispatched on its next leg, to Nairobi, before the recalcitrant autopilot could be examined for possible faults. And that four crucial pages from the airplanes maintenance log, which might have detailed repairs to that autopilot, are to this day missing. "There was a cover-up", flight engineer Laversha insist. "That was made obvious by the fact that they sent the airplane right out again, and nobody was given an opportunity to examine it." (Yes but if the autopilot is malfunctioning, isn't it the crews job to detect it and compensate for it?)

## Malice denied in pilot case

By HARVEY ELLIOTT, AIR CORRESPONDENT

THE Civil Aviation Authority acted out of spite in prosecuting Captain William Glen Stewart for alleged negligence in allowing his Boeing 747

London, that after failing to lock on to the instrument landing system at Heathrow the aircraft's auto-pilot was switched off at a height of 2,400 feet. Under manual control was that Captain Stewart had begun to see a pattern of lights that he might have mistaken for the runway. That implied that he

Much of the trial revolved around arcane legal points, and Stewart himself was never called to testify on his own behalf. His BALPA lawyers believed that he would only continue to raise irrelevant issues, and that Stewart would have been better off pleading guilty and allowing them to seek mitigation of the charges. Stewart refused.

When the first verdict was announced, Stewart's many supporters in the courtroom cheered, for he was found not guilty of endangering people on the ground. ("Even the ushers were on our side," Samantha Stewart recalls.) The second verdict, however, branded him guilty of criminal negligence for endangering his passengers.

How he could be guilty of one and not the other baffled even a member of the prosecution team, who after the trial commented that the judgement was "bizarre". It is said that when the jury told the judge they'd come to a decision on the first charge but hadn't agreed on the second, he suggested with some impatience that they get their act together and wind the thing up, which perhaps prodded them to make an overly hasty assessment.

Still, Judge George Bathurst-Norman did seem to hold a degree of sympathy for Stewart. He turned down the CAA's demand that Stewart pay £45,000 in court costs and assessed only £ 1,500, and by refusing to levy a jail sentence he seemed to be signalling that the case should not have come to trial.

Stewart appealed the decision. The Avrisk Group, British aviation law specialists, prepared the application. Arthur Mitchell of Avrisk, also a former RAF and airline pilot, raised a variety of subtle legal points, most notably that the CAA had no legal right to bring such prosecution. "In fact, the CAA it self was at fault", Mitchell later said, "for permitting a situation to exist in which the BA Flight Operations Manual contained a provision that Glen would be expected to use, by which it could authorize Glen to make the approach without a qualified co-pilot. The approach was actually illegal at the fault of British Airways, yet they were not charged.

"Had that provision not existed, Glen would have diverted to Frankfurt with cosy fuel reserves, to await better weather at London. It would not have been a long wait and would have given an opportunity to refuel, resulting in less stress on the eventual approach to London."

Stewart's appeal was summarily rejected.

"A mistake was made," says David Beaty, a former BOAC pilot and today one of the world's leading authorities on human factors in aviation, "but it was a collective mistake. Loads of other people made mistakes too, and that has not sufficiently been brought out."

In the end, I rejoined the Stewart camp, embarrassed to admit that I too would never have understood the pressures under which an airline captain operates if friends and acquaintances who do it every day had not made it obvious to me: that I too might have continued with the approach, convinced that it would be more expedient to sort it out while descending than to get myself into a box that might cost me a reprimand. A lot of lip service is paid to the myth of command residing in the cockpit, to the fantasy of the captain of the ship as ultimate decision maker. But today the commander most first consult with the accountant.

"As a small boy, Glen lived near RAF Leuchars at the end of the war, and he used to watch the coastal Command B24s take off and land. That inspired him to become a pilot", David Beaty says. "I was flying Liberators out of Leuchars at the end of

the war, and it makes me sad to think that perhaps one of those airplanes he watched was mine.”

On December 1, 1992 three years and nine days after the November Oscar incident, Stewart left home without a word to his wife. He drove some nine hours to a beach near RAF Leuchars. There he ran a hose from his car’s exhaust pipe through a nearly closed window. In a matter of minutes he was dead. He left no letter or any explanation.