



### Evidence of ILS Malfunction

At the same time we were investigating for ourselves the circumstances of the crash and the proceedings of the accident inquiry. It very early began to emerge that the finding of pilot negligence and the simultaneous dismissal of any other possible causative factors had been based on only the most cursory and haphazard investigation of the events. Outstanding among the points skated over by the Board of Inquiry was the evidence that the ILS was not functioning properly. The testimony of Captains Hicks and Dew showed that the aircraft's instruments had been indicating that the glide path had been intercepted when in fact the aircraft had not reached the outer marker at Linkou by the time it crashed. This evidence was dismissed by the Inquiry Board in four lines: "Within the two hours before and after the accident, a total of six aircraft had successfully landed on instrument at Taipei International Airport. The accident was thus not due to any instrument landing system failure". No attempt was made by the Board seriously to inquire into the accuracy of the ILS.

Subsequent investigations by the defence, however, brought to light that throughout January, February and March pilots had experienced problems with the ILS; in one case the glide path indications were identical with those reported by Captain Hicks and would have led to a similar flight path had the approach not been in good visibility. Also during the same period the ILS was partially or totally out of service on a number of occasions, being shut down for maintenance on 1st April. A week later the FAA issued instructions to all US carriers that the ILS was completely unreliable and should not be used.

The more we discovered, about both the technical and the humanitarian aspects of the case, the more disturbed we became. We learned that statements had been taken from the two pilots while they were both still in hospital under sedation; that the court proceedings were conducted in Chinese and that the defendants had been obliged to stand throughout, despite the fact that they were both still suffering the effects of the accident; that the atmosphere of the proceedings was such as to suggest that conviction was imminent. The Federation made strenuous efforts to secure the presence in Taipei of a pilot observer at two subsequent court hearings on 22nd April and 8th May but, largely due to visa problems, it was not possible for this to be arranged until the hearing of 20th May, which was attended by Captain Allan Laurie, Regional Vice-President for South East Asia. Captain Ola Forsberg, Deputy President, also arrived in Taipei that day, in time to learn that the court had closed the submission of evidence, having refused the defence permission to present testimony regarding the state of the ILS, and had called for closing statements. The final verdict was due to be announced on 27th May.

Captain Forsberg during the next few days obtained interviews with the Director of Civil Aviation and other aviation officials and

with the Minister of Communications, at which he expressed IFALPA's very grave concern with the manner in which the accident inquiry had been conducted and even more with the conduct of the court proceedings.

#### Boycott Considered

It was at this point that the Principal Officers began to give serious thought to the possibility of calling a boycott of Taiwan. Captain Forsberg had mentioned to the officials he saw that such a course was under active consideration and, while the Principal Officers at their meeting in London decided that an official announcement of a boycott would possibly do more harm than good, laying IFALPA open to charges of attempting to influence the verdict, it turned out in the event that Captain Forsberg's visit to Taiwan and the fact that a boycott threat was in the wind had had considerable effect since, when the court reconvened on 27th May, the case was reopened instead of the verdict being announced.

The wheels of Chinese justice rolled slowly on. Little more was heard from Taipei between the end of May and the next hearing on 11th July, when Captain Jim Conway of the Hong Kong Association attended the reopened hearing on behalf of IFALPA, reporting that there were two new trial judges, that the atmosphere in which the proceedings were conducted had vastly improved and that the whole situation looked much more hopeful for acquittal. Evidence relating to the faulty ILS was heard and it was decided to get expert testimony from Mr. William Ruh whose company had designed and installed the equipment. Captain Conway further confirmed the opinion that it was largely IFALPA's manifest interest in the case, in particular the forceful appearance of Captain Forsberg, which had caused the change of approach.

#### A Turn for the Worse

A further lengthy delay followed, and on 30th September more disturbing news reached us: Mr. Ruh had been refused access by the CAA to the ILS installation and a number of the relevant records were missing. The next hearing had been set for 5th October and it was once more decided that the presence of an Officer was essential, and Captain Forsberg therefore attended the hearing, his presence having been suitably publicized together with indications that IFALPA was losing patience with the unwarranted delays.

Despite the obstacles which had been placed in his way, Mr. Ruh testified that, from the records he had been able to examine, it was clear that the ILS was defective, had been defective at the time of the crash and had contributed to the accident. Yet again, however, further progress was postponed.

IFALPA promptly wrote to the Taiwan authorities pressing for

further facilities for Mr. Ruh to examine the ILS installation and repeating our view that more than enough time had elapsed for a decision to have been reached, insufficient evidence having been brought by the prosecution to warrant a continuation of the case.

Memorandum to Taiwan Government

Receiving no response to this appeal, a further memorandum was addressed to the Minister of Foreign Affairs on 14th November setting forth in considerable detail the Federation's opinion that on both technical and humanitarian grounds the accident inquiry and the subsequent court proceedings were in total violation of accepted international practice. This memorandum was supported by background documentation in the form of affidavits and evidence all pointing unquestionably to malfunction of the instrument landing system.

A month passed with no news, followed by yet another disturbing development: the information that the Chinese Air Force had been requested to advise on the functioning of the ILS. Immediately IFALPA wrote requesting the presence of a qualified pilot observer (Captain Ryan of Ireland, who is an electronic engineer) to represent Captains Hicks and Dew at any such investigation. Simultaneously IFALPA members were alerted to the deterioration in the situation and asked to say whether they could implement a boycott of Taiwan if the Principal Officers felt it necessary to call for one.

On 16th January we were advised that a hearing had suddenly been called for the following day and that Captain Conway would attend. It may well be that the astonishing swiftness of the subsequent events was a response to our proposal that Captain Ryan should examine the records. The court that day heard evidence from the Air Force as follows:

"...during complete darkness of night in cloudy and raining weather in the course of true weather instrument flying, Captain Hicks possibly developed some sudden visual illusion and unknowingly misread the instrument indications, thinking that he had flown past IK (Linkou), where in fact he had not, and should descend for a landing. Because of darkness and rain, he could not clearly see conditions outside and did not discover his error until after touchdown, when it was too late for correction, and the accident ensued. According to aviation physiology and aviation psychology, it is possible for pilots to develop illusions during true weather instrument flying. It is difficult for any experienced flyer having developed such an illusion to correct his error, thus giving rise to accident. This has occurred in military and civil aviation, in China and abroad. The illusion is a sudden physiological reaction. As the illusion is developed, even if the flyer has paid all possible heed, he could not help it".

The Court judgment went on: "Hicks said time and again that

he lowered altitude on the misindication of an instrument light. This ties in with the development of visual illusion, which caused him to mistakenly think having reached the outer marker. He thus developed illusion impromptu, a sudden physiological reaction which nobody could help, and therefore cannot be held to have failed to pay such heed as he could have".

Since the verdict following this appraisal, delivered on 20th January, was "Not Guilty", and Captains Hicks and Dew were released from the charges and free to leave Taiwan, we do not feel inclined to analyse these findings which, to say the least, appear to have an air of mandarin mysticism in them. Rather, we are content with the outcome and to pay tribute to the contributions made by Captain Ola Forsberg, Deputy President; by Captains Floyd and Conway of the Hong Kong Association and by their airline for its co-operation; by Captain Allan Laurie, IFALPA Regional Vice-President; by all those who kept a watching brief throughout the case - Captain Eric Pritchard, Chairman of the IFALPA Accident Investigation Study Group; Captain Roy Campbell of ALPA; Captain Dudley Cox, IFALPA Regional Vice-President; and the Air Line Pilots Association of the Philippines; and last, but by no means least, by Mr. Phillip Bostwick of the legal firm representing the pilots, whose extremely helpful collaboration was invaluable.

#### What next?

We are of course happy at the final result, despite the peculiar "face-saving" formula quoted above. What we continue to deplore is first of all the totally inadequate Accident Inquiry Report which entirely failed to meet the high standards required by ICAO, of which Taiwan is a Contracting State. The Inquiry was conducted in a hasty and haphazard manner, by people unqualified in accident investigation procedures; vital factors were overlooked or glossed over and the finding of "pilot negligence" was quite unsubstantiated by the facts. Even the mild wording of the court judgment makes the points that "the accident report ... (is) not to be regarded as expert opinion rendered in due process of law", that the minutes of the investigation are incomplete and that the report "which is not without defect, cannot alone be accepted as evidence of criminal negligence" as the prosecution had attempted to maintain.

Secondly, we consider that to bring charges of manslaughter through negligence against the two pilots was completely unjustified and unprecedented. The trial itself, stretching as it did over a period of ten months, was conducted in a manner which we found quite unacceptable. The obstacles put in the way of the defence, the failure to ensure expert examination of all the relevant facts of the case, the intolerable delays and the extreme physical and mental strain imposed upon the defendants (Captain Hicks was not allowed to leave Taiwan to bury his wife in her native US), all demonstrate an irresponsible and inhumane attitude on the part of the authorities concerned.

Captains Hicks and Dew both had their licences revoked as a result of the Inquiry Board's report, and their appeal was rejected. Will the revocation of their licences stand? And what about that ILS? The authorities have at no time acknowledged that the equipment is faulty, although this is clearly the case. Can the Chinese CAA bring itself to admit that something must be done? And if not, can any pilot flying into Taipei feel confident in the signals he is receiving? Finally, whilst Captains Hicks and Dew may be off the hook - and it would take a lot to persuade them to fly to Taipei again - other pilots are not. There is nothing to prevent the Taiwan authorities from trying on the same tactics again should any pilot run into trouble there. Over to Amsterdam - the questions remain.

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